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A Catalog of Scolytidae and Platypodidae (Coleoptera), Supplement 3
(2000-2010), with notes on subfamily and tribal reclassifications

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(2000-2010), with notes on subfamily and tribal reclassifications

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Abstract. A third Supplement to the 1992 Catalog of the Scolytidae and Platypodidae (Coleoptera) of the World (Wood and Bright 1992) is presented. This Supplement updates the taxonomy, distribution, and biology pertaining to these families of Coleoptera from 2000 to the end of 2010. A few 2011 taxonomic references are included in order to make the nomenclature as current as possible. The format of this Supplement differs slightly from the format of the original 1992 Catalog and the two previous Supplements. Only references relating to general biology, systematics and distribution were selected to be included. Tribal arrangement follows the scheme established in the 1992 World Catalog, with additions. Each genus is listed alphabetically under the current tribe and the species are listed alphabetically under the current genus. Additional information on figures, distribution, hosts, and references relating to the above are given. The bibliography used with this Supplement lists 580 references, most published from 2000 to the end of 2010. **New synonymy proposed:** *Phloeotribus carinatus* Burgos and Equihua, 2003 (= *Phloeotribus ebeneus* Wood, 2007). **New combinations proposed:** *Phloeosinus kinabaluensis* Bright to *Hyledius*; *Phloeosinus phyllocladus* Bright to *Hyledius*.

An argument is made for the retention of the family status of the Scolytidae and Platypodidae as members of the superfamily Curculionoidea. A new subfamily and tribal arrangement is proposed: SCOLYTIDAE comprising 13 subfamilies, Hylesininae, with 12 tribes, Hyorrhynchinae, with one tribe; Scolytinae, with one tribe; Hexacolinae, with one tribe; Cylindrobrotinae, with one tribe; Scolytoplatypodinae, with one tribe; Cactopininae, with one tribe; Carphodicticinae, with one tribe; Micracidinae, with one tribe; Crypturginae, with one tribe; Ipinae, with six tribes; Cryphalinae, with one tribe and Cortyhinae, with two tribes and PLATYPODIDAE comprising three subfamilies, Coptonotinae, with three tribes; Tesserocerinae, with two tribes and Platypodinae, with one tribe.

Key words. Coleoptera, Scolytidae, Platypodidae, World Catalog, systematics, distribution, nomenclature, synonymy, new synonymy, new combinations.

Introduction

This is the third Supplement to the World Catalog of the Scolytidae and Platypodidae (Coleoptera) originally published by Wood and Bright in 1992 (hereafter referred to as the "1992 Catalog"). The information in the 1992 Catalog was complete to the end of 1989 and Supplement 1, published in 1997 by Bright and Skidmore, updated the taxonomic and biological information and references to the end of 1994. Supplement 2, published in 2002, also by Bright and Skidmore, updated the taxonomy, distribution, biology and literature pertaining to these families to the end of 1999.

It was originally intended to not prepare any additional Supplements since both authors of the previous Supplements are retired and were not in a position to continue the work. However, it seems that this work is or could be a valuable contribution to systematic and biological studies of the Scolytidae and Platypodidae. Therefore, I decided to prepare a more limited Supplement which will document changes in the systematics and nomenclature of these two families of Coleoptera, and will provide additional information of importance to the bionomics of these families. Accordingly, only references relating to general anatomy, distribution, systematics, immature stages, illustrations, and some basic biological and ecological data are included. Papers solely relating to control, pest management, damage, surveys, pheromone synthesis, chemical ecology, arthropod associates, etc. are omitted. Unfortunately, the boundary between papers dealing with pest management and those dealing with some aspect of biology is often not clear. For example, papers dealing with pheromone response often can be regarded as pest management or behavior. I have tried to exclude all papers that clearly deal with pest management in the broad sense but have also tried to be as broad in my interpretation as possible. Papers published prior to 2000 are not included unless they were missed in Bright and Skidmore (2002) and contain important information as outlined above.

The present Supplement includes references published from 2000 to 2010. A few 2011 references that contain taxonomic information or new distributional data are included in order to make the nomenclature as up-to-date and complete as possible. A total of 580 references is included in this Supplement.

An enormous number of changes in taxonomic nomenclature in the Scolytidae and Platypodidae has taken place in the decade since the publication of the second Supplement (Bright and Skidmore, 2002). It is now time for a new, comprehensive catalog to be prepared and I strongly urge one of our younger scientists to accept this challenge.

Methods

The present Supplement departs slightly from the format established in the previous Supplements. A few of the more important departures or additions from that format are noted below.

1. In the previous two Supplements, genera and species were listed by the page number on which the name first appeared in the 1992 Catalog. Because there have been many changes in the taxonomy in the years since the 1992 Catalog was published, in this Supplement I have listed the genera and species alphabetically under their respective tribes. Tribal arrangement, in general, follows the system established in the 1992 Catalog, with some changes to accommodate the different subfamily arrangement (see below).
2. Page numbers listed in the left column refer to the page position of the name in the 1992 Catalog, or for names published after the 1992 Catalog, the page number of the name in either Supplement 1 or 2.
3. The subject categories established in the 1992 Catalog are, for the most part, maintained; but because of the more restricted coverage, some subject categories are no longer used. Subject categories are listed alphabetically.
4. A great deal of information concerning biology, distribution and other aspects of bionomics can be found on the Internet. Since these sites may not be permanent, I have omitted all Internet references. This may result in the loss of some important information and therefore I encourage users to consult the Internet for additional information.

5. References under “FIGURES” include only references with original figures. Previously published figures are listed in the previous Supplements.
6. A new subfamily arrangement is proposed herein. The new subfamily names are incorporated in this Supplement.
7. Five additional tribes are recognized in this work: *Premnobiini* was recognized by Bright and Torres (2006) for the genus *Premnobius*, *Amphiscolytini* was established by Mandelshtam and Beaver (2003) for the genus *Amphiscolytus*, *Pityophthorini* is re-established for the bark beetles (as opposed to ambrosia beetles) previously in the tribe (now subfamily) *Corthylini*, *Cylindrobrotini* was established by Kirejtshuk et al. (2009) for the extinct genus *Cylindrobrotus* and *Pachycotini* is established as a new tribe to accommodate the genera *Hylurdreconus* Schedl, *Hylurgonotus* Schedl, *Pachycotes* Sharp, *Sinophloeus* Bréthes and *Xylechinomus* Schedl.
8. In 2007, S. L. Wood published a major monographic taxonomic reference work on the Scolytidae of South America. Over 1300 species are keyed and described with distribution and host plants listed and 300 new species are described. Each species in that work treated with a description or comments is listed herein. Several, evidently new, species are listed in Wood’s book only in a key, without further description or holotype designation. These are *nomina nuda* and are so listed. The species that do not occur in South America and are mentioned only in a key are not referenced herein.
9. In 1992, Huang and Yin published a list of the Scolytidae collected in the Hengduan Mountains Region, China. This list, omitted in the 1992 Catalog and the Supplements, is entirely in Chinese and I am unable to properly record the distributional information. The Hengduan Mountains mainly cross three Chinese states, Xizang, Sichuan and Yunnan. In the supplementary information following this introduction, I have listed “Hengduan Mtns.” under each of the species treated by Huang and Yin. The distributional information is also included in the Palaearctic Catalog published by M. Knízek (2011) (see #12 below).
10. A complete list of Chinese Scolytidae and Platypodidae was published by Hua in 2002. The distributional information in that list is also included in the Palaearctic Catalog published by M. Knízek (2011) (see #12 below). The information is not repeated here.
11. As in the previous Supplements, fossil taxa are proceeded by an “*”.
12. In early 2011, an important paper was published by M. Knízek in the Catalogue of Palaearctic Coleoptera. This catalog lists all the species occurring in the Palaearctic Region, along with distributional data, synonyms and references. To repeat this information again would be redundant. However, a number of nomenclatural changes were included in Knízek’s catalog and those changes are included herein.
13. A Host List is not provided in this Supplement.
14. All names given in *italics* are synonyms; all names given in ***bold and italics*** are currently valid names.
15. Under DISTRIBUTION, some localities are given in **bold**. These are new locality records and further details are given in the Appendix.
16. An index, similar to the one included in Supplement 2, is not included. However, a new checklist/index of species, containing all the changes in this Supplement is in preparation and will be published separately.
17. The Platypodidae are included in this Supplement to conform to their placement in the 1992 Catalog. Their inclusion does not infer a close relationship with the Scolytidae. Recent molecular studies place the

Platypodidae in a different phylogenetic scheme (Haran, Timmermans, and Vogler 2013).

Repositories of specimens with codens:

- AMNH — American Museum of Natural History, New York, New York, USA.
- BCUG — Biodiversity Center, University of Guyana, Georgetown, Guyana.
- CAFB — Chinese Academy of Forestry, Beijing, China.
- CASC — California Academy of Sciences, San Francisco, California, USA.
- CSCA — California State Collection of Arthropods, California Department of Food and Agriculture, Sacramento, California, USA.
- CNCI — Canadian National Collection of Insects and Arachnids, Ottawa, Ontario, Canada.
- CSUC — C. P. Gillette Museum of Arthropod Diversity, Colorado State University, Fort Collins, Colorado, USA.
- CWOB — C. W. O'Brien Collection, Green Valley, Arizona, USA.
- DEBC — D. E. Bright Collection, Fort Collins, Colorado, USA (to be deposited in CNCI).
- DEIM — Deutsche Entomologische Institute, Muchenberg, Germany.
- FSCA — Florida State Collection of Arthropods, Gainesville, Florida, USA.
- FRI — Forest Research Institute, Dehra Dun, India.
- GARS — Guam Agricultural Research Station, Mangilao, Guam, USA.
- GASC — G. A. Salsbury Collection, Kansas Department of Agriculture, Plant Protection and Weed Control, Topeka, Kansas, USA.
- GLFC — Great Lakes Forestry Centre, Sault Ste Marie, Ontario, Canada.
- IBSS — Institute of Biology and Soil Sciences, Vladivostok, Russia.
- INBio — National Institute of Biodiversity, Santo Domingo de Heredia, Costa Rica.
- IRSM — Institute Royal des Sciences Naturelles de Belgium, Brussels, Belgium.
- ISZA — Istituto Sperimentale per la Zoologia Agraria di Firenze, Firenze, Italy.
- IZAC — Institute of Zoology, Chinese Academy of Sciences, Beijing, China.
- LACM — Los Angeles County Museum, Los Angeles, California, USA.
- MCN — Museu de Ciências Naturais, Fundação Zoobotânica do Rio Grande do Sul, Porto Alegre, Brazil.
- MDAC — State of Missouri Department of Agriculture, Jefferson City, Missouri, USA.
- MNHNP — Muséum National d'Histoire Naturelle, Paris, France.
- MNHNS — Museo Nacional de Historia Naturel, Santiago, Chile.
- MLBM — Monte L. Bean Life Science Museum, Brigham Young University, Provo, Utah, USA.
- MLPC — Museo de La Plata Entomological Collection, La Plata, Argentina.
- MSUC — Department of Entomology, Michigan State University, East Lansing, Michigan, USA.
- MZUSP — Museum de Zoologie, Universidade de Sao Paulo, Sao Paulo, Brazil.
- NCHU — Entomology Department, National Chung Hsing University, Taichung, Taiwan.
- NHCB — Natural History Collections, Bergen Museum, Bergen, Norway.
- NHMB — Naturhistorisches Musuem, Budapest, Hungary.
- NHML — The Natural History Museum, London, UK.
- NHMP — Natural History Museum, Prague, Czech Republic.
- NHMW — Naturhistorisches Museum Wien, Austria.
- ODAC — Oregon Department of Agriculture, Salem, Oregon, USA.
- QMB — Queensland Museum, Brisbane, Queensland, Australia.
- RABC — Roger A. Beaver Collection, Chiangmai, Thailand.
- REWC — Robert E. Woodruff Collection, Gainesville, Florida, USA.
- SAM — South African Museum, Cape Town, South Africa.
- SIZK — Schmalhausen Institute of Zoology, National Academy of Sciences of Ukraine, Kyiv, Ukraine.
- SJSC — Steven J. Seybold Collection, U. S. Forest Service, Davis, California (to be deposited in CASC or USNM).
- SMNS — Staatliches Museum für Naturkunde, Stuttgart, Germany.
- SMUK — Snow Entomological Museum, University of Kansas, Lawrence, Kansas, USA.

TVMP	— Transvaal Museum of Natural History, Pretoria, South Africa.
USNM	— United States Museum of Natural History, Washington D. C., USA.
WIBF	— West Indies Beetle Fauna Collection, Montana State University, Bozeman, Montana, USA.
ZISP	— Zoological Institute, St. Petersburg, Russia.
ZMLU	— Zoological Museum, Lund University, Lund, Sweden.
ZMM	— Zoological Museum of Moscow State University, Moscow, Russia.

New Synonymy Proposed in this Supplement

Phloeotribus ebeneus Wood 2007: 141 (= *Phloeotribus carinatus* Burgos-Solorio and Equihua 2003: 342). Specimens of this species were sent to Wood prior to 2003 for his examination and identification. Evidently, no further correspondence occurred and in 2003, Burgos-Solorio and Equihua described and named the species. Wood (2007), obviously unaware of the previous description, described the species again as *Phloeotribus ebeneus*. The collection data for the two names are identical and Wood's name must be placed in synonymy.

New Combinations Proposed in this Supplement

Phloeosinus kinabaluensis Bright, 1989: 80 transferred to *Hyledius*.

Phloeosinus phyllocladus Bright, 1989: 81 transferred to *Hyledius*.

Note Concerning Family Status of Scolytidae and Platypodidae

The family-group name Scolitarii was established by Latreille in 1804 as a subgroup of the Curculionites (now Curculionidae). The name was raised to family rank by Kirby in 1837 with the spelling Scolytidae. This family name was used consistently until Crowson (1955) reduced the family rank to a subfamily of the Curculionidae. Crowson's classification was not generally accepted and the family rank continued to be used by taxonomists, forest entomologists, and others involved in economic issues. Kuschel (1995), following Crowson, reduced the family ranking to a subfamily level. The character gap between this group and other subfamilies of Curculionidae is so enormous that the proposal by Kuschel is untenable. The family vs. subfamily issue was renewed by Lawrence and Newton (1995). They, following the opinion of Crowson (1955) and Kuschel (1995), and ignoring the overwhelming evidence to the contrary, reduced the Scolytidae to subfamily status within the family Curculionidae, based mainly on the fact that the larvae of Scolytidae were indistinguishable from those of the Curculionidae. Wood (1973) provided abundant morphological evidence that indicated that the Scolytidae constituted a distinct evolutionary lineage and should be considered as a family within the huge superfamily Curculionoidea, on an equal par with other families, such as Anthribidae, Nemonychidae, Belidae, Anthribidae, Brentidae, Apionidae, Ithyceridae and Attelabidae. Unfortunately, Wood (1973) based much of his phylogenetic discussion on the genus *Protohylastes* Wood, which he considered the most primitive representative of the Hylesininae, and which has been placed as a synonym of *Psepholax*, a genus in the Cyptorhynchinae, tribe Psepholacini, (Curculionidae) (Zimmerman 1994). Thus, much of Wood's interpretation was untenable; however, the argument he made for retention of the Scolytidae as a family is still valuable.

Prior to 2002, there were four phylogenetic or cladistic studies of weevil phylogeny, Kuschel (1995), Marvaldi (1997), Farrell (1998) and Marvaldi and Morrone (2000). Each of these studies provided valuable insights into the higher relationships of weevils. However, no consensus was reached concerning the relationships of the Scolytidae and the Platypodidae.

Farrell et al. (2001), using DNA sequences, performed a phylogenetic analysis of bark and ambrosia beetles in order to establish the rate and direction of changes in life histories. Their data added important insights into scolytid and platypodid diversification.

Marvaldi et al. (2002) presented a detailed study designed to discover the relationships and major natural groups within the family Curculionidae, and to clarify the evolution of larval habits and host plant associations. They used both morphological data for adults and larvae and an analysis of nucle-

otide sequences on 100 worldwide species in all families and the main subfamilies of Curculionidae. Their study showed strong support for the monophyly of some distinct curculionid groups (Platypodidae and Dryophthorinae); however, the subfamily relationships in the Curculionidae were unresolved or showed weak support.

Morimoto and Kojima (2003), in a through comparative morphological study of the weevil head, concluded that the Scolytidae and Platypodidae should be considered independent families which originated from an intermediate branch between the primitive and advanced families in the Curculionoidea. Their studies showed that the internal and external structures of the head of Scolytidae and Platypodidae were distinctly different from that of the remaining families of the Curculionoidea.

The same authors (Morimoto and Kojima 2004), in their study of the phylogenetic position of the recently described *Phylloplatypus pandani* Kato (Phylloplatypodini: Curculionidae), reassessed the relationships of the families Scolytidae, Platypodidae, Dryophthoridae and Curculionidae. They show that the larvae of Scolytidae and Platypodidae differ from those of Curculionidae by the absence of cervical plates and by the head, in lateral view, being straight at the postoccipital margin. Larvae of Curculionidae have cervical plates and the head, in lateral view, is convex at the postoccipital margin. The adults of Scolytidae and Platypodidae also differed from those of Curculionidae in a number of fundamental characteristics (see Morimoto and Kojima 2004).

Legalov (2006) studied the phylogenetic relationships within the superfamily Curculionoidea. He concluded that the superfamily can be divided into three groups, 1) the primitive family Nemonychidae; 2) a second group containing nine families (Anthribidae, Belidae, Oxycorynidae, Eccoarthridae, Allocorynidae, Rhynchitidae, Attelabidae, Ithyceridae, and Brentidae); and 3) a "higher" group containing six families (Brachyceridae, Cryptolarynoidae, Dryophthoridae, Curculionidae, Scolytidae, and Platypodidae). Characteristics of the superfamily include the more or less pronounced rostrum, clubbed antennae, and partially sclerotized or completely membranous male tergite 9.

Hundsdoefer, Rheinheimer, and Wink (2009) investigated the phylogeny of the Curculionoidea using mitochondrial and nuclear ribosomal DNA sequences. Their study represents the most thorough analysis of molecular sequence data of the Curculionidae. Although they did not specifically focus on the placement of the Scolytidae or Platypodidae, they presented strong evidence for the phylogeny of various subfamilies and families of the Curculionoidea. They treat the Scolytidae and Platypodidae as distinct families but concluded that the placement of these two families is still questionable.

Two important papers, published in 2009, present a serious challenge to the current interpretation of scolytid evolution. Cognato and Grimaldi (2009) report the recent discovery of a specimen identical to or closely resembling a modern genus of Scolytidae in Burmese amber from the Cretaceous, about 100 million years BP. This body fossil, placed in the genus *Microborus* Blandford, indicates a much earlier divergence of the scolytids from other weevils and places this divergence in the Late Jurassic to Early Cretaceous, well before the appearance of "true" Curculionidae. This body fossil causes considerable problems with previous phylogenetic studies. Kirejtshuk et al. (2009) also report the discovery of another specimen from Cretaceous Lebanese amber. This unique specimen presents such an unusual combination of ancient and advanced characters that a new tribe, Cylindrobrotini, was established for it. In order to recognize the apparent monophyletic lineage, I here establish a new subfamily for this taxon. Kirejtshuk et al. (2009) comment that the presence of the Lower Cretaceous Scolytinae in Burmese and Lebanese amber, (before the appearance of true Curculionidae, my comment), supports an early origin of this group and suggests that the Scolytinae evolved as a definite and recognizable group at the basal diversification of the Curculionoidea or at least the Curculionidae.

Jordal, Sequeira and Cognato (2011) published a phylogenetic study of wood-boring weevils and presented valuable information toward a resolution of the phylogeny of the various families and subfamilies. Their phylogenetic tree (figure 2 in their paper) clearly shows three distinct groups of genera with no overlap in position. The higher two groups of genera are considered by these authors to be derived Scolytinae and Platypodinae, but they also can be considered as families within the larger Curculionoidea since they are as distinct, both morphologically and genetically, as other families such as Apionidae, Nanophyidae, Anthribidae, Attelabidae (possibly including Rhynchitidae), etc.

It appears that the Scolytidae is a distinct evolutionary lineage that evidently arose early in the evolution of the Curculionidae before some of the structural and biological features characterizing the Curculionoidea were developed and are distinguished by: two prealar sutures on the underside of the

head that branch from the median gular suture and proceed toward the bases of the mandibles (see Wood 1986); by having a small pregula present between the preregular arms; by the tibia which are usually armed on the lateral margins by unique, socketed denticles (absent in Curculionidae, and secondarily absent in a few genera of Scolytidae); and by the unmodified rostrum.

In 1993 I wrote that primitive scolytids probably arose in or near the Cretaceous Era (now insert Late Jurassic Era) from anthribid-like ancestors living in close proximity to various fungi and bacteria in decaying or dying plant tissue. Competition for resources in this temporary environment would favor features that ensure rapid detection and utilization of dead or dying plant tissue. Ethanol, produced in stressed trees and derived from fermentation of living plant tissue by some fungi and bacteria, is a primary attractant for some bark beetles. The ability of primitive scolytids to orient toward sources of this volatile substance would facilitate the discovery and utilization of decomposing host resources. In this habitat, beetles would interact with various microorganisms, including phytopathogenic fungi that would be associated with dead or dying trees.

Coevolution of beetles and fungi in this environment would be an advantage for both. At this point, the development of spore-carrying modifications (mycangia) on the beetle and the utilization of alcohols produced by fermentation or by synthesis by fungi can be visualized. At the present time, probably all scolytids have some degree of dependence on fungi or on fungal-produced compounds. It is interesting to note that very few Curculionidae have developed a mutualistic association with fungi and none, to my knowledge, have developed mycangia or other similar modifications for transporting fungi. Evidently, primitive Curculionidae did not require fungi to aid in host discovery and utilization and followed a different evolutionary pathway (Bright 1993).

Based on the morphological distinctness and the lack of any evidence of intergradation between the Curculionidae and the Scolytidae and Platypodidae, and on the information given in the above paragraphs, I prefer to recognize both Scolytidae and Platypodidae as distinct families, with the Scolytidae containing 13 subfamilies and 30 tribes and the Platypodidae containing three subfamilies and six tribes. The Scolytidae have distinct preregular sutures that extend from the combined posterior tentorial pits, located at the anterior end of the median gular suture, to or toward the anterior tentorial pits, located at or near the anterior articulation of the mandibles. Apparent preregular sutures occur in the Curculionoidea only in the primitive Belidae, Nemonychidae, and possibly in some Attlabidae. A second unique feature of the Scolytidae is, except for the three subapical tibial true spines, the denticles on the lateral margin of the tibiae are socketed and marked at their base by a suture, and were derived from enlarged, shortened setae (see Wood 1986). Socketed denticles, similar to those in Scolytidae, are found in the bark weevils Araucariini. Additionally, the Scolytidae never have corbels on the tibia, and there is no indication of hypostomal spines near the oral area, as in Curculionidae (Cossoninae).

Considering the Scolytidae and Platypodidae as separate families results in leaving the Curculionidae as paraphyletic and would require the elevation of some additional weevil subfamilies to family status (Cognato, Jordal, and Smith, personal communication). In fact, this process is already occurring. Traditional weevil subfamilies, such as Apioninae, Dryophthorinae, Raymondionyminae, Erirhininae, Brachycerinae, Baridinae and Ithyicerinae, have been variously regarded as families or subfamilies (Anderson 2002, Colonnelli 2003). The Cyclominae, “a subfamily of convenience” (Oberprieler, Marvaldi, and Anderson 2007), should possibly be elevated to family status, based on the absence of synapomorphic characters. Oberprieler (2010) modified the concept of this taxon but questions remain.

Obviously, a great deal of additional study, utilizing both morphological and molecular methods, is required before a final consensus is reached.

Subfamily Considerations

Wood (1978) presented a reclassification of the subfamilies and tribes of the Scolytidae. In that study, he placed the more than 6000 species of Scolytidae into two subfamilies and 25 tribes. This classification has been followed by all subsequent authors and has never been seriously challenged. However, this arrangement resulted in the recognition of extremely polyphyletic and/or paraphyletic taxa. The ultimate goal of phylogenetic systematics is the development and recognition of monophyletic lineages. As stated above, I herein recognize 13, supposedly monophyletic, subfamilies.

An outline of the subfamilies and their included tribe(s) is presented in the Table of Contents. A few additional comments are made below. A more complete discussion of the higher classification is being prepared and will be presented later.

HYLESININAE: This is one of the largest subfamilies and contains 12 tribes. One of these tribes, the Pachycotini, is designated as new herein.

HYORRHYNCHINI: This subfamily contains only one, very unique tribe which contains only three genera and 16 species. The group is an isolated, relict taxon that is confined to the region from India to China and Southeast Asia (Beaver and Gebhardt 2004) and is not related to any currently recognized subfamily.

SCOLYTINAE: This subfamily contains two tribes.

HEXACOLINAE: This subfamily contains one tribe. Hexacolini is a newly restored name for the Ctenophorini (Alonso-Zarazaga and Lyal 2009).

CYLINDROBROTINAE: This subfamily is newly designated herein for the extinct genus *Cylindrobrotus* Kirejtshuk et al. 2009. This genus was described for an early Cretaceous Lebanese amber specimen which displays a unique combination of archaic and advanced characters. The authors erected a new tribe and a new genus for the specimen; I have placed this taxon in a new subfamily.

SCOLYTOPLATYPODINAE: This subfamily contains only one tribe and one genus, *Scolytoplatypus* Blandford. It does not appear to be related to any present-day genus and is evidently a relict taxon of an extinct group.

CACTOPININAE: This subfamily contains only the genus *Cactopinus* Schwarz, the unique “horned bark beetle” genus. It is also only remotely related, if at all, to any known taxon.

CARPHODICTICINAE: This taxon has been moved back and forth between the Scolytidae and the Platypodidae. The latest position, by Alonso-Zarazaga and Lyal (2009), places it in the Scolytidae and that position is followed here. The subfamily contains only five species.

MICRACIDINAE: This subfamily may actually be polyphyletic, but the divisions are not clear. Wood (1986) recognizes three distinct groups of genera within this taxon. I prefer, for the present, to consider the subfamily as consisting of one tribe, containing about 16 genera. The group is only remotely related to other subfamily groups.

CRYPTURGINAE: This subfamily contains one tribe that I had originally included in the Ipinae. Further reflections have convinced me that the tribe Crypturgini is not closely related to the other tribes in the Ipinae and should be considered a monophyletic taxon that represents a distinct subfamily. The subfamily contains one tribe with six genera.

IPINAE: In number of species, this is the largest subfamily, containing six tribes and many genera and species. It appears to be a compact group of related tribes.

CRYPHALINAE: This is a large subfamily that contains 25 genera (Alonso-Zarazaga and Lyal 2009), all within a single tribe. Because of the large number of species and the evident variability, this subfamily may be polyphyletic although distinct divisions are not evident at the present time. The relationships of this subfamily are uncertain, but it does not appear to be closely related to any recognized subfamily.

CORTHYLINAE: This is another large subfamily that presently contains two tribes, each unique by their habits. The Pityophthorini are all true bark beetles, living on the phloem-cambium interface under the bark of infested plant material. The Cortylini are all ambrosia beetles, boring deep into the xylem layer of infested plant material. A few exceptions to this division are noted, but other morphological characters clearly delimit the tribes.

Molecular studies (Sequeira et al. 2000, Farrell et al. 2001, Jordal et al. 2011) have indicated that some of the above tribes (and possibly subfamilies) are not monophyletic and further modifications of the classification are to be expected in the future.

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The assistance of all the above individuals is gratefully acknowledged.

Literature Cited

- Alonso-Zarazaga, M. A., and C. H. C. Lyal. 2009.** A catalog of family and genus group names in Scolytinae and Platypodinae with nomenclatural remarks (Coleoptera: Curculionidae). Zootaxa 2258: 1-134.
- Anderson, R. S. 2002.** Family 131. Curculionidae. p. 720-805. In: R. H. Arnett, Jr., M. C. Thomas, P. E. Skelley, and J. H. Frank (eds.). American beetles, Vol. 2. CRC Press; Boca Raton, FL. 861 p.
- Beaver, R. A., and H. Gebhardt. 2004.** Notes on the tribe Hyorrhynchini (Col., Curculionidae, Scolytinae). Serangga 9: 91-102.
- Bright, D. E. 1993.** Systematics of bark beetles. p. 23-36. In: T. D. Schowalter and G. M. Filip (eds.). Beetle-pathogen interactions in conifer forests. Academic Press; London. 252 p.
- Bright, D. E., and R. E. Skidmore. 1997.** A catalog of the Scolytidae and Platypodidae (Coleoptera), Supplement 1 (1990-1994). National Research Council Press; Ottawa, Ontario. 368 p.
- Bright, D. E., and R. E. Skidmore. 2002.** A catalog of the Scolytidae and Platypodidae (Coleoptera), Supplement 2 (1995-1999). National Research Council Press; Ottawa, Ontario. 523 p.
- Bright, D. E., and J. A. Torres. 2006.** Studies on West Indian Scolytidae (Coleoptera) 4. A review of the Scolytidae of Puerto Rico, U.S.A. with descriptions of one new genus and fourteen new species and notes on new synonymy (Coleoptera: Scolytidae). Koleopterologische Rundschau 76: 389-428.
- Cognato, A. I., and D. Grimaldi. 2009.** 100 million years of morphological conservation in bark beetles (Coleoptera: Curculionidae: Scolytinae). Systematic Entomology 34: 93-100.
- Colonelli, E. 2003.** A revised checklist of Italian Curculionoidea (Coleoptera). Zootaxa 337: 1-142.
- Crowson, R. A. 1955.** The natural classification of the families of Coleoptera. Nathaniel Lloyd; London. viii + 1287 p.
- Farrell, B. D. 1998.** "Inordinate fondness" explained; Why are there so many beetles? Science 281: 555-559.
- Farrell, B. D., A. S. Sequeira, B. C. O'Meara, B. B. Normark, J. H. Chung, and B. H. Jordal. 2001.** The evolution of agriculture in beetles (Curculionidae: Scolytinae and Platypodinae). Evolution 55: 2011-2027.
- Haran, J., M. J. T. N. Timmermans, and A. P. Vogler. 2013.** Mitogenome sequences stabilize the phylogenetics of weevils (Curculionidae) and establish the monophyly of larval ectophagy. Molecular Phylogenetics and Evolution 67: 156-166.
- Hundsdoefer, A. K., J. Rheinheimer, and M. Wink. 2009.** Toward the phylogeny of the Curculionoidea (Coleoptera): reconstructions from mitochondrial and nuclear ribosomal DNA sequences. Zoologischer Anzeiger 248: 9-31.
- Jordal, B. H., A. S. Sequeira, and A. I. Cognato. 2011.** The age and phylogeny of wood-boring weevils and the origin of subsociality. Molecular Phylogenetics and Evolution 59: 708-724.

- Kirby, W. 1837.** Part 4, Insects: Coleoptera, Family Scolytidae. p. 191-195. In: J. Richardson. Fauna Boreali-Americanæ; or the zoology of the northern parts of British America: containing descriptions of the objects of natural history collected on the late Northern Land Expedition, under command of Captain Sir John Franklin. R. N. Longman's; London. 325 p.
- Kirejtshuk, A. G., D. Azar, R. A. Beaver, M. Y. Mandelshtam, and A. Nel. 2009.** The most ancient bark beetle known: a new tribe, genus and species from Lebanese amber (Coleoptera, Curculionidae, Scolytinae). Systematic Entomology 34: 101-112.
- Knízek, M. 2011.** Scolytinae and Platypodinae. p. 86-76, 201-251. In: I. Löbl and A. Smetana (eds.). Catalog of Palaearctic Coleoptera, Vol. 7. Apollo Books; Stenstrup. 373 p.
- Kuschel, G. 1995.** A phylogenetic classification of the Curculionoidea to families and subfamilies. Memoirs of the Entomological Society of Washington 14: 5-33.
- Latreille, P. A. 1804.** Tableau méthodique des Insectes. Nouveau Dictionnaire d'Histoire Naturelle, 24: Tableaux méthodiques d'Histoire Naturelle: 129-200.
- Lawrence, J. F., and A. F. Newton, Jr. 1995.** Families and subfamilies of Coleoptera (with selected genera, notes, references and data on family-group names). p. 788-1000. In: J. Pakaluk and S. A. Slipinski (eds.). Biology, phylogeny, and classification of Coleoptera. Papers celebrating the 80th birthday of Roy A. Crowson. Muzeum i Instytut Zoologii PAN; Warszawa. 1092 p.
- Legalov, A. A. 2006.** Phylogenetic reconstruction of weevil superfamily Curculionoidea (Coleoptera) using the SYNAP method. Biology Bulletin 33: 127-134.
- Marvaldi, A. E. 1997.** Higher level phylogeny of Curculionidae (Coleoptera: Curculionoidea) based mainly on larval characters, with special reference to broad-nosed weevils. Cladistics 13: 285-312.
- Marvaldi, A. E., and J. J. Morrone. 2000.** Phylogenetic systematics of weevils (Coleoptera: Curculionoidea): a reappraisal based on larval and adult morphology. Insect Systematics and Evolution 31: 43-58.
- Marvaldi, A. E., and A. S. Sequeira, C. W. O'Brien, and B. D. Farrell. 2002.** Molecular and morphological phylogenetics of weevils: do niche shifts accompany diversification? Systematic Biology 51: 761-785.
- Morimoto, K., and H. Kojima. 2003.** Morphological characters of the weevil head and phylogenetic implications (Coleoptera, Curculionoidea). Esakia 43: 133-169.
- Morimoto, K., and H. Kojima. 2004.** Systematic position of the tribe Phylloplatypodini, with remarks on the definitions of the families Scolytidae, Platypodidae, Dryophthoridae and Curculionidae (Coleoptera: Curculionoidea). Esakia 44: 153-168.
- Oberprieler, R. G. 2010.** A reclassification of the weevil subfamily Cyclominae (Coleoptera: Curculionidae). Zootaxa 2515: 1-35.
- Oberprieler, R. G., A. E. Marvaldi, and R. S. Anderson. 2007.** Weevils, weevils, weevils everywhere. Zootaxa 1668: 491-520.
- Sequeira, A. S., B. B. Normark, and B. D. Farrell. 2000.** Evolutionary assembly of the conifer fauna: distinguishing ancient from recent association in bark beetles. Proceedings of the Royal Society of London, B, 267: 2359-2366.
- Wood, S. L. 1973.** On the taxonomic status of Platypodidae and Scolytidae (Coleoptera). Great Basin Naturalist 33: 77-89.
- Wood, S. L. 1978.** A reclassification of the subfamilies and tribes of Scolytidae (Coleoptera). Annales de la Société entomologique de France, (N. S.) 14: 95-122.
- Wood, S. L. 1986.** A reclassification of the genera of Scolytidae (Coleoptera). Great Basin Naturalist Memoirs 10. 126 p.
- Wood, S. L., and D. E. Bright. 1992.** A catalog of the Scolytidae and Platypodidae (Coleoptera), Part 1: Taxonomic Index. Great Basin Naturalist Memoir 13 (A): 1-834, (B): 835-1553.
- Zimmerman, E. C. 1994.** Australian weevils (Coleoptera: Curculionoidea). Volume I – Orthoceri, Anthribidae to Attelabidae. The primitive weevils. CSIRO: Australia. 741 p.

Catalog of Scolytidae, Supplement 3

The following is a list of significant references that treat the entire family or major portions thereof. Included are references to symposium proceedings, keys, catalogs, checklists, and books in addition to references to other categories.

Page 28 **SCOLYTIDAE** Latreille. Add:

KEYS: Bright and Torres 2006: 391 (to genera in Puerto Rico); Furniss and Johnson 2002: 23 (to genera and species in Idaho, USA); Kuschel 2000: 49 (to species associated with *Araucaria araucana*); de Laclos et al. 2004 (to genera and species in Bourgogne, France); López-Buenfil et al. 2001: 353-361 (to genera in Mexico based on proventriculus); Maiti and Saha 2009: 2-5 (to subfamilies and tribes in India); Mecke and Galileo 2004 (to species in *Araucaria angustifolia*); Mifsud and Knízek 2009 (to genera in Malta); Rabaglia 2002 (to genera in North America); Salsbury 2004 (to genera and species in Kansas, USA); Wood 2007 (to tribes, genera and species in South America).

- (an) Bentz, Cognato and Raffa 2007; De Marzo 2010; Jordal, Normark and Farrell 2000; de Laclos et al. 2004; López-Buenfil et al. 2001; Maiti and Saha 2004: 1-31; Mecke 2005; Morimoto and Kojima 2003; Rabaglia 2002. (bv) Dajoz 2000; Sauvard 2004. (ds) Averensky and Yanovsky 2008 (distribution and hosts of species in Yakutia, Russia); Burgos-Solorio and Equihua 2007: 69-80; Choi et al. 2003; Coyle, Booth and Wallace; Furniss and Johnson 2002; Haack 2001; Haack 2006; Jordal, Beaver and Kirkendall 2001; Kirkendall and Faccoli 2010; de Laclos et al. 2004; Mandelshtam 2001 (species in Zorinsk protected area of Central Chernozem Nature Preserve); Mandelshtam 2008 (Scolytidae of Leningrad region); Mandelshtam and Isaev 2006 (Scolytidae of Uluanovsk Province); Mandelshtam and Petrov 2009c (Scolytidae of Kunashir Island); Mandelshtam and Selikhovkin 2003 (list of species in Sebezhskii National Park); Mifsud and Knízek 2009; Pérez-De La Cruz et al. 2009; Rabaglia 2002; Sauvard et al. 2010 (European introductions); Siitonnen 2000; Voolma 2001; Wood and Storer 2002; Wood 2007. (ec) Gandhi et al. 2007; Kenis, Wermelunger and Grégoire 2004; Kirisits 2004; Lieutier 2004; Maiti and Saha 2004: 1-31; Vlasov 2005 (list of species in Yaroslavi Province, Russia); Wegensteiner 2004. (hb) Furniss and Johnson 2002; Hulcr et al. 2007; Maiti and Saha 2004: 1-31; Rabaglia 2002; Sauvard 2004; Wood and Storer 2002. (tx) Al-Ahmadi and Salem 1999: 95; Alekseev 2005 (list of species in Kaliningrad); Alonso-Zarazaga and Lyal 2009 (catalog of family and genus-group names); Averensky and Yanovsky 2008 (list of species in Yakutia, Russia); Bright and Skidmore 2002 (catalog supplement 2); Bright and Torres 2006 (Scolytidae of Puerto Rico); Colonnelli 2003 (checklist of Italian Scolytidae); Demidko 2007 (list of species in Altai, Russia); Farrell et al. 2001; Furniss and Johnson 2002; Goto 2009: 479-485 (list of Japanese species); Hua 2002 (catalog of Chinese species); Knízek and Beaver 2004; de Laclos et al. 2004; López-Buenfil et al. 2001; Machado and Oromi 2000 (catalog of species on the Canary Islands); Maiti and Saha 2004: 1-31; Mandelshtam and Popovichev 2000 (list of species in Leningrad Province); Morimoto and Kojima 2003, 2004; Oberprieler, Marvaldi and Anderson 2007; Osella et al. 2005 (list of species in Gran Sasso, Italy); Pelletier 2004(2005) (catalog of species in France); Perez-Gelabert 2008; Podlussany and Gyorgy 2008 (list of species in Matra Museum); Rabaglia 2002, 2003: 377; Rabaglia and Valenti 2003: 318-319; Salsbury 2004; Sequeira and Farrell 2001; Sequeira, Normark and Farrell 2000; Stauffer 2004; Telnov 2004; Wood 2007. (ms) Seybold, Bohlmann and Raffa 2000 (evolution and fossil history); Mandelshtam 2009 (book review).

The following is a list of significant taxonomic and biological references arranged by subfamilies, tribes, genera and species.

SUBFAMILY HYLESININAE Erichson

TRIBE HYLASTINI

Page 29 **Hylastini** LeConte. Add:

- (tx) Alonso-Zarazaga and Lyal 2009: 61; Wood 2007: 27.

Genus ***Hylastes*** Erichson

- Page 43 ***Hylastes*** Erichson. Add:
KEYS: Furniss and Johnson 2002: 42 (to species in Idaho, USA); de Laclos et al. 2004: 133 (to ***H. ater*** and ***H. brunneus***).
(an) López-Buenfil et al. 2001: 330. (tx) Alonso-Zarazaga and Lyal 2009: 62; de Laclos et al. 2004: 133; Rabaglia 2002: 799. (ds, hb, tx) Wood 2007: 27.
- Page 44 ***angustatus*** (Herbst). Add:
FIGURE: de Laclos et al. 2004: 138 (habitus).
DISTRIBUTION: ASIA: Russia (Daghestan, Yaroslavi). EUROPE: Sicily.
HOST: *Pinus kochiana*.
(ds) Baviera 2006; Colonnelli 2003: 97; Haack 2001: 272, 275; Mandelshtam and Popovichev 2000: 889; Mandelshtam, Nikitsky and Bibin 2005a: 21; Petrov and Nikitskii 2001: 168; Petrov 2005: 218; Podlussány and György 2008: 198; Voolma et al. 2004. (ec) Kapapanida-Kantartzi et al. 2010. (hb) Petrov and Nikitskii 2001: 168. (ds, hb) de Laclos et al. 2004: 138.
- Page 45 ***ater*** Paykull. Add:
FIGURES: de Laclos et al. 2004: 133 (abdominal sternites), 135 (aedeagus): Wood 2007: PLATE 1.
DISTRIBUTION: ASIA: Russia (Altai, Daghestan, Yaroslavi).
HOSTS: *Pinus densiflora*, *P. kochiana*.
(ds) Brockerhoff, Knízek and Bain 2003: 34; Brockerhoff et al. 2006; Colonnelli 2003: 97; Haack 2001: 272, 275; Demidko 2007: 33; Inglebert 2002: 125; Lee and Lee 2000; Mandelshtam, Nikitsky and Bibin 2005a: 21; Petrov 2005: 218; Petrov and Nikitskii 2001: 168; Podlussány and György 2008: 198; Wood 2007: 27. (ec) Kapapanida-Kantartzi et al. 2010. (hb) Mausel et al. 2007; Petrov and Nikitskii 2001: 168; Reay and Walsh 2001. (tx) Wood 2007: 27; Vlasov 2005: 774. (ds, tx) de Laclos et al. 2004: 135.
- Page 49 ***attenuatus*** Erichson. Add:
FIGURE: de Laclos et al. 2004: 137 (habitus).
DISTRIBUTION: ASIA: Russia (Daghestan, Yaroslavi). ATLANTIC ISLANDS: Madeira. EUROPE: France (Corsica), Sicily.
HOST: *Pinus kochiana*.
(ds) Baviera 2006; Clayhills 2010: 318; Colonnelli 2003: 97; de Laclos 2004: 165; Haack 2001: 272; Inglebert 2002: 125; Mandelshtam, Aguin-Pombo and Nunes 2006; Mandelshtam, Nikitsky and Bibin 2005a: 21; Petrov 2005: 218; Podlussány and György 2008: 198; Voolma et al. 2004. (tx) Vlasov 2005: 774. (ds, hb) de Laclos et al. 2004: 137.
- Page 30 ***batnensis*** (Brisout). Add:
(ds) Colonnelli 2003: 97.
NOTE: Treated as a subspecies in Colonnelli (2003).
- Page 50 ***brunneus*** Erichson. Add.
DISTRIBUTION: ASIA: Russia (Altai, Yakutia, Yaroslavi).
(ds) Averensky and Yanovsky 2008: 24; Colonnelli 2003: 97; Demidko 2007: 33; Mandelshtam and Petrov 2009a: 206; Mandelshtam and Popovichev 2000: 889; Mandelshtam, Nikitsky and Bibin 2005a: 21; Petrov and Nikitskii 2001: 168; Voolma et al. 2004. (hb) Petrov and Nikitskii 2001: 168. (tx) Vlasov 2005: 764.
- Page 51 ***cunicularius*** Erichson. Add:
FIGURE: de Laclos et al. 2004: 134 (profile of head).

DISTRIBUTION: ASIA: China (Hengduan Mtns., Qinghai), Russia (Daghestan, Yaroslavl, Yakutia). EUROPE: Scotland (Isle of Raasay).

HOST: *Pinus kochiana*.

(ds) Averensky and Yanovsky 2008: 24; Colonnelli 2003: 97; Haack 2001: 272; Han et al. 2010; Huang and Yin 1992: 853; Inglebert 2002: 125; Mandelshtam and Popovichev 2000: 890; Moore 2000; Petrov 2005: 218; Petrov and Nikitskii 2001: 168; Podlussány and György 2008: 198; Voolma et al. 2004. (ec) Kapapanida-Kantartzi et al. 2010. (hb) Petrov and Nikitskii 2001: 168. (tx) Vlasov 2005: 764. (ds, tx) de Laclos et al. 2004: 134.

Page 53 ***exilis*** Chapuis. Add:

FIGURE: Schiefer 2010: 119 (elytral disc).

DISTRIBUTION: NORTH AMERICA: United States (Georgia, Oklahoma).

(ds, tx) Schiefer 2010: 110, 117.

Page 54 ***flohri*** (Eggers). Add:

FIGURE: López-Buenfil et al. 2001: 362 (proventriculus).

Page 30 ***gergeri*** Eggers. Add:

(ds) Colonnelli 2003: 97.

Page 54 ***gracilis*** LeConte. Add:

(ds, tx) Furniss and Johnson 2002: 43.

Page 55 ***linearis*** Erichson. Add:

DISTRIBUTION: EUROPE: Italy (Tuscany Islands).

(ds) Colonnelli 2003: 97; Faccoli and Cecchi 2003; Haack 2001: 272, 275; Kania and Krolik 2001: 86.

Page 56 ***longicollis*** Swaine. Add:

(ds, tx) Furniss and Johnson 2002: 43.

Page 56 ***macer*** LeConte. Add:

(ds, tx) Furniss and Johnson 2002: 44.

Page 57 ***nigrinus*** (Mannerheim). Add:

(ds) Furniss, Holsten and Schultz 2002: 87. (ds, tx) Furniss and Johnson 2002: 44.

Page 59 ***obscurus*** Chapuis. Add:

DISTRIBUTION: ASIA: Russia (Yakutia).

(ds) Averensky and Yanovsky 2008: 24; Mandelshtam and Petrov 2009a: 206. (ds, hb) Petrov and Nikitskii 2001: 168. (ds, tx) Beaver and Liu 2010: 14.

NOTE: Beaver and Liu (2010) consider ***H. obscurus*** a valid name with ***H. plumbeus*** Blandford as a synonym.

Page 57 ***opacus*** Erichson. Add:

FIGURE: de Laclos et al. 2004: 136 (frons).

DISTRIBUTION: ASIA: Russia (Altai, Yakutia, Yaroslavl), Yugoslavia (Serbia). NORTH AMERICA: Canada (**New Brunswick, Nova Scotia** [see Appendix]), United States (Michigan).

(ds) Averensky and Yanovsky 2008: 24; Cognato et al. 2009: 110; Colonnelli 2003: 97; Demidko 2007: 38; Haack 2001: 272, 275; Haack 2006: 272; Mandelshtam and Popovichev 2000: 890; Markovic and Stojanovic 2000b; Mudge et al. 2001; Petrov and Nikitskii 2001: 168; Podlussány and György 2008: 198; Rabaglia 2003: 375; Voolma et al. 2004. (hb) Petrov and Nikitskii 2001: 168. (tx) Vlasov 2005: 764. (ds, hb) de Laclos et al. 2004: 136.

- Page 59 ***parallelus*** Chapuis. Add:
DISTRIBUTION: ASIA: Russia (Yakutia).
(ds) Averensky and Yanovsky 2008: 24; Lee and Lee 2000. (tx) Beaver and Liu 2010: 15.
- Page 59 ***plumbeus*** Blandford (= ***H. obscurus*** Chapuis). Add:
(ds) Lee and Lee 2000; Mandelshtam and Popovichev 2000: 890; Mandelshtam, Lafer and Kuznetsov 2001; Voolma et al. 2004. (ds, tx) Yin 1997: 967.
NOTE: See note under ***H. obscurus***.
- Page 60 ***porculus*** Erichson. Add:
DISTRIBUTION: NORTH AMERICA: Canada (Prince Edward Island), United States (Delaware).
(ds) Majka, Anderson and McCorquodale 2007: 418; Rabaglia and Valenti 2003: 313.
- Page 61 ***ruber*** Swaine. Add:
(ds, tx) Furniss and Johnson 2002: 44.
- Page 61 ***salebrosus*** Eichhoff. Add:
DISTRIBUTION: NORTH AMERICA: United States (Delaware).
(ds) Rabaglia and Valenti 2003: 313.
- Page 62 ***techangensis*** Tsai and Huang. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Huang and Yin 1992: 853.
- Page 62 ***tenuis*** Eichhoff. Add:
FIGURE: Schiefer 2010: 119 (elytral disc).
DISTRIBUTION: NORTH AMERICA: United States (Delaware, Ohio, Oklahoma).
(ds) Gandhi et al. 2010; Lightle et al. 2007; Rabaglia and Valenti 2003: 313; Schiefer 2010: 110. (tx) Schiefer 2010: 117. (ds, tx) Furniss and Johnson 2002: 45.

Genus ***Hylurgops*** LeConte

- Page 29 ***Hylurgops*** LeConte. Add:
KEY: Furniss and Johnson 2002: 45 (to species in Idaho, USA).
(an) López-Buenfil et al. 2001: 330. (tx) Alonso-Zarazaga and Lyal 2009: 62; Rabaglia 2002: 799. (ds, tx) de Laclos et al. 2004: 131.
- Page 31 ***eusulcatus*** Tsai and Huang. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Huang and Yin 1992: 854.
- Page 31 ***glabratus*** (Zetterstedt). Add:
DISTRIBUTION: ASIA: Russia (Altai, Yakutia, Yaroslavi).
(ds) Averensky and Yanovsky 2008: 24; Colonnelli 2003: 98; Demidko 2007: 33; Haack 2001: 273; Mandelshtam, Lafer and Kuznetsov 2001; Mandelshtam and Popovichev 2000: 889; Petrov and Nikitskii 2001: 169; Voolma et al. 2004. (hb) Petrov and Nikitskii 2001: 169. (tx) Beaver and Liu 2010: 15; Knížek 2011: 87; Vlasov 2005: 763.
- Page 33 ***imitator*** (Reitter). Move to ***H. longipillus*** Reitter as a synonym. Add:
Synonymy by Knížek 2011: 86.
DISTRIBUTION: ASIA: Russia (Yakutia).
(ds, tx) Averensky and Yanovsky 2008: 24.

- Page 33 ***incomptus*** (Blandford). Add:
FIGURE: López-Buenfil et al. 2001: 362 (proventriculus).
- Page 34 ***interstitialis*** (Chapuis). Add:
DISTRIBUTION: Delete Taiwan.
(ds) Beaver and Liu 2010: 36; Lee and Lee 2000; Mandelshtam and Petrov 2009a: 206.
- Page 54 ***likiangensis*** Tsai and Huang (= ***H. longipillus*** Reitter). Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Huang and Yin 1992: 854.
- Page 54 ***longipillus*** Reitter. Add *H. imitator* (Reitter) and *H. transbaicalicus* Eggers as synonyms.
DISTRIBUTION: ASIA: Russia (Leningrad, introduction). Delete Taiwan.
(ds) Beaver and Liu 2010: 37; (ds) Mandelshtam and Petrov 2009a: 206; Mandelshtam and Popovichev 2000: 897; Mandelshtam, Lafer and Kuznetsov 2001. (tx) Knízek 2011: 86.
- Page 35 ***major*** Eggers. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Huang and Yin 1992: 853.
- Page 35 ***palliatus*** (Gyllenhal). Add:
FIGURES: Hoebeke and Acciavatti 2006: 269 (habitus); de Laclos et al. 2004: 132 (habitus).
DISTRIBUTION: NORTH AMERICA: United States (New York, Ohio, Pennsylvania, introduced). ASIA: Russia (Altai, Daghestan, Yakutia, Yaroslavi).
HOST: *Pinus kochiana*.
(ds) Averensky and Yanovsky 2008: 24; Colonnelli 2003: 98; Demidko 2007: 33; Haack 2001: 273, 275; Haack 2006: 272; Hoebeke and Acciavatti 2006; Inglebert 2002: 125; Mandelshtam and Petrov 2009a: 206; Mandelshtam and Popovichev 2000: 889; Mandelshtam, Nikitsky and Bibin 2005a: 21; Petrov 2005: 218; Petrov and Nikitskii 2001: 168; Podlussány and György 2008: 198; Voolma et al. 2004. (hb) Petrov and Nikitskii 2001: 168. (tx) Knízek 2011: 87; Vlasov 2005: 763. (ds, tx) de Laclos et al. 2004: 132.
- Page 39 ***porosus*** LeConte. Add:
(ds, tx) Furniss and Johnson 2002: 45.
- Page 40 ***reticulatus*** Wood. Add:
(ds, tx) Furniss and Johnson 2002: 46.
- Page 40 ***rugipennis pinifex*** (Fitch). Add:
DISTRIBUTION: NORTH AMERICA Canada (Prince Edward Island), United States (Delaware, Tennessee).
(ds) Furniss, Holsten and Schultz 2002: 87; Majka, Anderson and McCorquodale 2007: 418; Rabaglia and Valenti 2003: 314; Schiefer 2010: 110. (ds, hb, tx) Furniss and Johnson 2002: 46.
- Page 41 ***spessivtsevi*** Eggers. Add:
DISTRIBUTION: ASIA: Russia (Yakutia).
(ds) Averensky and Yanovsky 2008: 24; Mandelshtam and Petrov 2009a: 206. (tx) Beaver and Liu 2010: 15.
- Page 42 ***subcostulatus subcostulatus*** (Mannerheim). Add:
(ds) Furniss, Holsten and Schultz 2002: 87. (ds, hb, tx) Furniss and Johnson 2002: 47.

Page 42 *transbaicaliens* Eggers. Move to ***H. longipillus*** Reitter as a synonym. Add:
Synonymy by Averensky and Yanovsky 2008: 24 and by Knížek 2011: 86.
(ds) Mandelshtam and Petrov 2009a: 207.

Genus ***Scierus*** LeConte

- Page 29 ***Scierus*** LeConte. Add:
KEY: Furniss and Johnson 2002: 56 (to species in Idaho, USA).
(tx) Alonso-Zarazaga and Lyal 2009: 63; Rabaglia 2002: 799.
- Page 29 ***annectans*** LeConte. Add:
(ds) Furniss, Holsten and Schultz 2002: 88. **(ds, hb, tx)** Furniss and Johnson 2002: 56.
- Page 29 ***pubescens*** Swaine. Add:
(ds) Furniss, Holsten and Schultz 2002: 88. **(ds, tx)** Furniss and Johnson 2002: 57.

TRIBE HYLESININI

Page 64 ***Hylesinini*** Erichson. Add:
KEYS: Maiti and Saha 2009: 5 (to genera in India); Wood 2007: 28 (to genera in South America).
(hb, tx) Wood 2007: 69.

Genus ***Alniphagus*** Swaine

- Page 73 ***Alniphagus*** Swaine. Add:
KEY: Furniss and Johnson 2002: 29 (to species in Idaho, USA).
(tx) Alonso-Zarazaga and Lyal 2009: 64; Rabaglia 2002: 799.
- Page 73 *alni* (Niisima). Move to ***A. costatus*** (Blandford) as a synonym. Add:
Synonymy by Mandelshtam et al. 2007: 461.
- Page 73 ***aspericollis*** (LeConte). Add:
(ds) Furniss, Holsten and Schultz 2002: 86. **(ds, hb, tx)** Furniss and Johnson 2002: 29.
- Page 77 ***costatus*** (Blandford). Move from ***Hylesinus***. Add *A. alni* (Niisima) as a synonym. Add:
Synonymy and new combination by Mandelshtam et al. 2007: 461.
FIGURE: Mandelshtam et al. 2007: 460 (habitus).
(ds) Mandelshtam and Petrov 2009a: 206.
- Page 73 ***hirsutus*** Schedl. Add:
FIGURE: Furniss and Johnson 2002: 30 (adult).
(ds, hb, tx) Furniss and Johnson 2002: 30.

Genus ***Cryptocurus*** Schedl

Page 72 ***Cryptocurus*** Schedl. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 64.

Genus ***Dactylipalpus*** Chapuis

- Page 101 ***Dactylipalpus*** Chapuis. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 65; Oberprieler, Marvaldi and Anderson 2007: 508;
Maiti and Saha 2009: 12.

NOTE Considered a member of the Psepholacini: Curculionidae by Oberprieler, Marvaldi and Anderson (2007).

- Page 102 ***transversus*** Chapuis. Add:
 FIGURES: Maiti and Saha 2009: 13 (habitus, antenna).
 DISTRIBUTION: Delete Taiwan.
 (ds) Beaver and Liu 2010: 36. (ds, tx) Maiti and Saha 2009: 12.

Genus ***Ficicis*** Lea

- Page 90 ***Ficicis*** Lea. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 65; Maiti and Saha 2009: 8.
- Page 90 ***despectus*** (Walker). Add:
 FIGURES: Maiti and Saha 2009: 9 (habitus, antenna, protibia).
 (ds, tx) Maiti and Saha 2009: 9.
- Page 90 ***granulifer*** Motschulsky (= ***H. despectus*** (Walker)). Add:
 Lectotype (sex?), Ceylon, designated by Mandelshtam and Nikitsky 2010: 18.
- Page 90 ***porcatus*** (Chapuis). Remove from synonymy with ***F. despectus*** (Walker). Add:
F. koebelei Lea, *Hylesinus crassus* Beeson, *H. insularum* Beeson, *H. philippinensis* Eggers,
H. subcostatus Eggers, *H. subopacus* Eggers, and *Phloeosinus goliathoides* Murayama as
 synonyms.
 Synonymy by Beaver and Liu 2010: 16.

Genus ***Hapalogenius*** Hagedorn

- Page 96 ***Hapalogenius*** Hagedorn. Remove from synonymy with ***Rhopalopselion*** Hagedorn. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 65; Beaver 2010b: 160.
 NOTE: Alonso-Zarazaga and Lyal 2009: 65 place ***Hylesinopsis*** Eggers as a synonym. Not
 accepted herein; I follow Beaver 2010b.
- Page 96 ***acaciae*** Schedl. Move from ***Rhopalopselion***. Add:
 New combination by Beaver 2010b: 161.
- Page 92 ***africanus*** (Eggers). Move from ***Hylesinopsis***. Add: *H. lesnei* Eggers, *Metahylesinus brincki*
 Schedl and *Xylechinus uniformis* Schedl as synonyms. Add:
 New combination and new synonymy by Beaver 2010b: 161.
 DISTRIBUTION: AFRICA: Angola, Botswana, Mozambique.
 (tx) Beaver 2011a: 281. (ds, tx) Beaver 2010b: 161.
- Page 93 ***atakorae*** (Schedl). Move from ***Hylesinopsis***. Add:
 New combination by Beaver 2010b: 161.
 DISTRIBUTION: AFRICA: Ghana.
 (ds) Beaver 2010b: 167. (tx) Beaver 2010b: 161.
- Page 93 ***brincki*** (Schedl). Move from ***Hylesinopsis***. Move to ***Hapalogenius africanus*** (Eggers) as
 a synonym. Add:
 Synonymy by Beaver 2010b: 161.
- Page 96 ***congonus*** Schedl. Move from ***Rhopalopselion***. Add:
 New combination by Beaver 2010b: 161.

- Page 93 ***dimorphus*** (Schedl). Move from ***Hylesinopsis***. Add:
New combination by Beaver 2010b: 161.
- Page 94 ***fuscipennis*** (Chapuis). Add ***Hapalogenius bimaculatus*** as a synonym. Add:
Synonymy by Beaver 2010b.
DISTRIBUTION: AFRICA: Mozambique. Delete Zimbabwe.
HOST: *Millettia grandis*.
(**ds, tx**) Beaver 2010b: 162.
- Page 94 ***hispidus*** (Eggers). Move from ***Hylesinopsis***. Add:
New combination by Beaver 2010b: 161.
- Page 94 ***horridus*** (Schedl). Move from ***Hylesinopsis***. Add:
New combination by Beaver 2010b: 161.
- Page 96 ***immaturus*** Schedl. Move from ***Rhopalopselion***. Add:
New combination by Beaver 2010b: 161.
- Page 18 ***kenyae*** Wood. Move from ***Hylesinopsis***. Add:
(Suppl. 2) New combination by Beaver 2010b: 161.
- Page 97 ***lesnei*** Eggers. Move from ***Rhopalopselion***. Move to ***H. africanus*** (Eggers) as a synonym.
Add:
Synonymy by Beaver 2010b: 161.
- Page 97 ***lonchocarpae*** Schedl. Move from ***Rhopalopselion***. Add:
New combination by Beaver 2010b: 161.
- Page 97 ***maculatus*** Schedl. Move from ***Rhopalopselion***. Add:
New combination by Beaver 2010b: 161.
- Page 94 ***niger*** (Schedl). Move to ***Phrixosoma nigrum*** (Eggers) as a synonym. Add:
Synonymy by Beaver 2010b: 163.
- Page 95 ***oblongus*** (Eggers). Move from ***Hylesinopsis***. Add ***Metahylesinus striatus*** Schedl as a synonym.
Add:
New combination and new synonymy by Beaver 2010b: 161.
FIGURE: Beaver 2010b: 161 (habitus).
- Page 97 ***occidentalis*** Schedl. Move from ***Rhopalopselion***. Add:
New combination by Beaver 2010b: 161.
- Page 95 ***orientalis*** (Eggers). Move from ***Hylesinopsis***. Add:
New combination by Beaver 2010b: 161.
- Page 97 ***primus*** Schedl. Move from ***Rhopalopselion***. Add:
New combination by Beaver 2010b: 161.
- Page 97 ***pusillus*** (Gerstacker). Move from ***Rhopalopselion***. Add:
New combination by Beaver 2010b: 161.
DISTRIBUTION: AFRICA: South Africa.
HOST: *Virgilia oroboides*.
(**ds**) Beaver 2010b: 168.

- Page 95 ***quadritungulatus*** (Schedl). Move from ***Hylesinopsis***. Add:
New combination by Beaver 2010b: 161.
- Page 95 ***rhodesianus*** (Eggers). Move from ***Hylesinopsis***. Add:
New combination by Beaver 2010b: 161.
- Page 97 ***rufus*** Schedl. Move from ***Rhopalopselion***. Add:
New combination by Beaver 2010b: 161.
- Page 95 ***senegambiensis*** Schedl. Move from ***Hylesinopsis***. Add:
New combination by Beaver 2010b: 161.
- Page 95 ***seriatus*** (Eggers). Move from ***Hylesinopsis***. Add:
New combination by Beaver 2010b: 161.
- Page 95 ***squamosus*** (Eggers). Move from ***Hylesinopsis***. Add:
New combination by Beaver 2010b: 161.
- Page 95 ***striatus*** (Schedl). Move from ***Hylesinopsis***. Move to ***H. oblongus*** (Eggers) as a synonym.
Add:
Synonymy by Beaver 2010b: 163.
(tx) Beaver 2010b: 161
- Page 95 ***sulcatus*** (Eggers). Move from ***Hylesinopsis***. Add:
New combination by Beaver 2010b: 161.
DISTRIBUTION: AFRICA: Namibia, South Africa, Zimbabwe.
(ds) Beaver 2010b: 168. **(tx)** Beaver 2010b: 161.
- Page 97 ***subseriatus*** Schedl. Move from ***Rhopalopselion***. Add:
New combination by Beaver 2010b: 161.
- Page 97 ***suturalis*** Schedl. Move from ***Rhopalopselion***. Add:
New combination by Beaver 2010b: 161.
- Page 95 ***togonus*** (Eggers). Add:
DISTRIBUTION: AFRICA: Sierra Leone.
(ds) Mandelshtam and Danielsson 2004: 91.
- Page 19 ***ugandae*** Wood. Move from ***Hylesinopsis***. Add:
(Suppl. 2) New combination by Beaver 2010b: 161.
- Page 96 ***variegatus*** (Eggers). Move from ***Hylesinopsis***. Add:
New combination by Beaver 2010b: 161.

Genus ***Hylastinus*** Bedel

- Page 64 ***Hylastinus*** Bedel. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 66; de Laclos et al. 2004: 112; Rabaglia 2002: 799. **(ds,**
tx) Wood 2007: 28
- Page 64 ***fankhauseri*** Reitter. Add:
(ds) Colonnelli 2003: 98.

Page 64 ***obscurus*** (Marsham). Add:
FIGURES: Furniss and Johnson 2002: 28 (habitus); de Laclos et al. 2004: 113 (habitus);
Wood 2007: PLATE 1.
DISTRIBUTION: ASIA: Russia (Daghestan).
(ds) Colonnelli 2003: 98; Inglebert 2002: 125; de Laclos et al. 2004: 113; Petrov 2005: 218.
(hb) de Laclos et al. 2004: 113. **(ds, hb, tx)** Furniss and Johnson 2002: 28; Wood 2007: 29.

Page 67 ***tiliae*** Semenov. Add:
DISTRIBUTION: ASIA: Russia (Daghestan).
HOST: *Tilia cordata*.
(ds) Petrov 2005: 219.

Genus ***Hylesinopsis*** Eggers

Page 92 ***Hylesinopsis*** Eggers. Add:
(tx) Beaver 2010b: 164.
NOTE: Alonso-Zarazaga and Lyal 2009: 65 place this genus as a synonym of ***Hapalogenius***.
Beaver 2010b restores ***Hylesinopsis*** as a valid genus. All species transferred to
Hapalogenius by Alonso-Zarazaga and Lyal 2009 must be returned to ***Hylesinopsis***.

Page 93 ***dubia*** Eggers. Add:
FIGURE: Beaver 2010b: 164 (habitus).
DISTRIBUTION: AFRICA: Guinea.
(ds) Beaver 2010b: 168.

Page 94 ***fasciata*** (Hagedorn). Add *Kissophagus punctatus* Eggers as a synonym. Add:
Synonymy by Beaver 2010b: 166.
DISTRIBUTION: AFRICA: South Africa.
(ds) Beaver 2010b: 168. **(tx)** Beaver 2010b: 166.

Page 883 ***leprosula*** (Browne). Move from ***Cryphalus***. Add:
New combination by Beaver 2010b: 166.

Page 95 ***punctatus*** (Eggers). Move to ***H. fasciata*** (Hagedorn) as a synonym. Add:
Synonymy by Beaver 2010b: 166.

Page 95 ***saudiarabiae*** (Schedl). Add:
(tx) Al-Ahmadi and Salem 1999: 129.

Genus ***Hylesinus*** Fabricius

Page 74 ***Hylesinus*** Fabricius. Add:
KEY: Maiti and Saha 2009: 6 (to species in India).
(an) López-Buenfil et al. 2001: 330. **(tx)** Alonso-Zarazaga and Lyal 2009: 67; de Laclos et al.
2004: 103; Maiti and Saha 2009: 5; Rabaglia 2002: 799. **(ds, hb, tx)** Wood 2007: 29.

Page 74 *Lepersinus* Panzer (= ***Hylesinus*** Fabricius). Add:
KEY: de Laclos et al. 2004: 106 (to species in France).
(tx) de Laclos et al. 2004: 106.

Page 74 ***aculeatus*** Say. Add:
DISTRIBUTION: NORTH AMERICA: United States (Delaware).
(ds) Rabaglia and Valenti 2003: 314.

- Page 75 *antipodus* Schedl. Move to ***H. toraino*** (Danthione) as a synonym. Add:
Synonymy by Wood 2007: 30.
Lectotype (male), Rengo, Chile, designated by Wood 2007: 30.
- Page 75 ***atomarius*** Chapuis. Move to ***Acacicis***. Add *Acacicis abundens* Lea as a synonym. Add:
New combination and synonymy by Wood 2007: 30.
DISTRIBUTION: Remove from South American fauna.
(ds) Wood 2007: 30.
- Page 76 ***bicolor*** Philippi and Philippi. Move to ***Xylechinosomus***.
- Page 76 ***botscharnikovi*** Stark. Add:
DISTRIBUTION: ASIA: Russia (Daghestan).
(ds) Petrov 2005: 218.
- Page 76 ***californicus*** (Swaine). Add:
DISTRIBUTION: NORTH AMERICA: United States (Maryland).
(ds) Rabaglia and Williams 2002: 1058.
- Page 77 ***costatus*** Blandford. Move to ***Alniphagus***. Add *Alniphagus alni* (Niisima) as a synonym.
- Page 77 ***crenatus*** (Fabricius). Add *H. prutenskyi* Sokanovsky as a synonym. Add:
FIGURE: de Laclos et al. 2004: 105 (habitus).
DISTRIBUTION: ASIA: Russia (Daghestan).
(ds) Colonnelli 2003: 98; Gosik 2006: 185; Inglebert 2002: 124; de Laclos et al. 2004: 104;
Mandelshtam and Popovichev 2000: 890; Mandelshtam, Nikitsky and Bibin 2005a: 22;
Petrov 2005: 218; Petrov and Nikitskii 2001: 167; Podlussány and György 2008: 198; Voolma
et al. 2004. **(hb)** de Laclos et al. 2004: 104; Petrov and Nikitskii 2001: 167. **(tx)** de Laclos
et al. 2004: 104; Petrov 2002.
- Page 79 ***criddlei*** (Swaine). Add:
DISTRIBUTION: NORTH AMERICA: United States (Maryland).
(bv, ds) Rabaglia and Williams 2002: 1058.
- Page 79 ***dolus*** Schedl. Add:
(ds, tx) Maiti and Saha 2009: 6.
- Page 80 ***eos*** Spessivtsev. Add:
(ds) Mandelshtam and Petrov 2009a: 206.
- Page 96 ***fraxini*** Panzer (= ***H. varius*** (Fabricius)). Add:
FIGURE: de Laclos et al. 2004: 106 (habitus), 107 (gallery pattern).
(ds) Inglebert 2002: 124; de Laclos et al. 2004: 107; Mandelshtam, Nikitsky and Bibin 2005a:
22; Podlussány and György 2008: 198; Voolma et al. 2004. **(tx)** de Laclos et al. 2004: 107.
- Page 80 ***guatemalensis*** (Wood). Add:
FIGURE: López-Buenfil et al. 2001: 362 (proventriculus).
- Page 81 ***macmahoni*** (Stebbing). Add:
(ds, tx) Maiti and Saha 2009: 7.
- Page 82 ***nilgirinus*** Eggers. Add:
(tx) Maiti and Saha 2009: 6 (only in key).

- Page 82 ***nobilis*** Blandford. Add *H. shabliovskii* Kurenzov as a synonym. Add:
 (**ds**) Mandelshtam and Petrov 2009a: 206. (**tx**) Pertov and Mandelshtam 2002: 11.
- Page 83 ***oleiperda*** (Fabricius) (= ***H. toranio*** (Danthione)). Add:
 FIGURE: de Laclos et al. 2004: 104 (habitus).
 (**ds, tx**) Markovic 2000. (**ds, tx**) de Laclos et al. 2004: 104.
 NOTE: Recognized as valid species in de Laclos et al. 2004.
- Page 82 ***orni*** Fuchs. Add
 FIGURE: de Laclos et al. 2004: 108 (habitus).
 (**ds, tx**) Colonnelli 2003: 98; de Laclos et al. 2004: 108.
 NOTE: Treated in *Lepersinus* in Colonnelli (2003) and de Laclos et al. (2004). Treated as a subspecies in Colonnelli (2003). Treated as a subspecies of ***H. wachtli*** Reitter in Knízek 2011.
- Page 83 ***pravdini*** Stark. Add:
 (**ds**) Mandelshtam and Petrov 2009a: 206.
- Page 83 ***prutenskyi*** Sокановский. Move to ***H. crenatus*** (Fabricius) as a synonym. Add:
 Synonymy by Petrov 2002.
- Page 83 ***shabliovskii*** Kurenzov. Move to ***H. nobilis*** Blandford as a synonym. Add:
 Lectotype (sex ?), "52" (=Khoе River, Khabarovskii krai), designated by Petrov and Mandelshtam 2002: 11.
 Synonymy by Pertov and Mandelshtam 2002: 11.
- Page 81 ***striatus*** Eggers. Add:
 (**ds**) Mandelshtam and Petrov 2009a: 206.
 NOTE: Listed as synonym of ***H. laticollis*** Blandford in 1992 Catalog. Recognized as distinct in Bright and Skidmore 2002 and in Mandelshtam and Petrov 2009a.
- Page 83 ***toraino*** (Danthione). Add *H. antipodius* Schedl as a synonym. Add:
 FIGURES: Wood 2007: PLATE 1.
 DISTRIBUTION: ASIA: Russia (Daghestan). SOUTH AMERICA: Chile (introduced).
 (**ds**) Bright 2004: 159; Colonnelli 2003: 98; Haack 2001: 275; Gosik 2006: 185; Mandelshtam, Nikitsky and Bibin 2005a: 22; Petrov 2005: 218. (**ds, tx**) Wood 2007: 30.
- Page 77 ***tristis*** Blandford. Remove from synonymy with ***H. costatus*** Blandford. Add:
 Lectotype (male), Ichiuchi, Japan, designated by Mandelshtam et al. 2007: 461.
 FIGURE: Mandelshtam et al. 2007: 460 (habitus).
 (**tx**) Mandelshtam et al. 2007: 461; Beaver and Liu, 2010: 36.
- Page 85 ***varius*** (Fabricius). Add:
 FIGURES: Mifsud and Knízek 2009: 47 (habitus).
 DISTRIBUTION: ASIA: Russia (Daghestan). EUROPE: Malta.
 (**ds**) Colonnelli 2003: 98; Haack 2001: 273; Mandelshtam and Popovichev 2000: 890; Petrov 2005: 218; Petrov and Nikitskii 2001: 168; Voolma et al. 2004. (**hb**) Petrov and Nikitskii 2001: 168. (**ds, tx**) Mifsuda and Knízek 2009: 30.

ADD SPECIES:

****neli*** Petrov and Zherikhin 2004: 70. Holotype (sex?), FRANCE: Marseille Basin (Oligocene); MNHN.P. FIGURE: Petrov and Zherikhin 2004: 70 (habitus).

verae Petrov 2002: 179. Holotype (male), RUSSIA: Turkmenia, W. Kopet Dagh, 15 km SE of Nokhur Vill., Ipa Kala Canyon; ZMM.
 FIGURES: Petrov 2002 (habitus, antenna, aedeagus).
 DISTRIBUTION: ASIA: Russia (Turkmenia).
 HOST: *Fraxinus syriaca*.

Genus ***Kissophagus*** Chapuis

- Page 67 ***Kissophagus*** Chapuis. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 67; de Laclos et al. 2004: 114.
- Page 68 *hederae* (Schmidt). Move to ***K. vicinus*** (Comolli) as a synonym. Add ***K. nuesslini*** Reitter as a synonym. Add:
 Synonymy by Knízek 2011: 87.
 FIGURES: de Laclos et al. 2004: 113 (outline of pronotum); Mifsud and Knízek 2009: 47 (habitus).
 DISTRIBUTION: ASIA: Russia (Daghestan). EUROPE: Malta.
 HOST: *Hedera colchica*.
 (ds) Colonnelli 2003: 98; Gutknecht 2005: 139; Mandelshtam, Nikitsky and Bibin 2005a: 21; Petrov 2005: 219. (ds, tx) Mifsuda and Knízek 2009: 30. (ds, hb, tx) de Laclos et al. 2004: 115.
- Page 69 ***novaki*** Reitter. Add:
 FIGURES: de Laclos et al. 2004: 114 (outline of pronotum). 116 (habitus).
 DISTRIBUTION: EUROPE: France (Corsica).
 (ds) Colonnelli 2003: 98; de Laclos 2004: 165; Noblecourt 2004: 33. (ds, tx) de Laclos et al. 2004: 116.
- Page 69 ***nuesslini*** Reitter. Move to ***K. vicinus*** (Comolli) as a synonym. Add:
 NOTE: Listed in synonymy by Knízek 2011: 208.
- Page 68 ***vicinus*** (Comolli). Remove from synonymy with ***K. hederae***. Add ***K. hederae*** (Schmidt) and ***K. nuesslini*** Reitter as synonyms.
 (tx) Knízek 2011: 87.

Genus ***Longulus*** Krivolutskaya

ADD GENUS:

- Longulus*** Krivolutskaya. Move from subgenus of ***Hylesinus***. Add:
 Type species: ***Hylesinus elatus*** Niisima, original designation.
 (tx) Alonso-Zarazaga and Lyal 2009: 68; Mandelshtam et al. 2007: 460.

- Page 79 ***elatus*** (Niisima). Move from ***Hylesinus***. Add:
 New combination by Mandelshtam et al. 2007: 460.
 FIGURES: Mandelshtam et al. 2007: 460 (habitus, antenna).

Genus ***Neopteleobius*** Nobuchi

- Page 72 ***Neopteleobius*** Nobuchi. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 68.

Genus ***Phloeoborus*** Erichson

- Page 98 ***Phloeoborus*** Erichson. Add:
KEY: Wood 2007: 31 (to all known species).
(tx) Alonso-Zarazaga and Lyal 2009: 68. (**ds, hb, tx**) Wood 2007: 30.
- Page 98 ***asper*** Erichson. Add:
(ds, tx) Wood 2007: 39.
- Page 98 ***aspericollis*** Strohmeyer. Move to ***P. cristatus*** Chapuis as a synonym. Add:
Synonymy by Wood 2007: 43.
- Page 98 ***belti*** Blandford. Add:
(ds, tx) Wood 2007: 42.
- Page 98 ***bodei*** Eggers. Move to ***P. signatus*** Strohmeyer as a synonym. Add:
Synonymy by Wood 2007: 34.
- Page 98 ***cristatus*** Chapuis. Add *P. aspericollis* Strohmeyer as a synonym. Add:
(ds, tx) Wood 2007: 43.
- Page 99 ***ellipticus*** Chapuis. Add:
(ds, tx) Wood 2007: 37.
- Page 99 ***freyi*** Schedl. Add:
(ds, tx) Wood 2007: 36.
- Page 99 ***gaujonii*** Fairmaire. Add:
(tx) Wood 2007: 44.
- Page 99 ***grandis*** (Erichson). Add *P. punctatus* Schedl as a synonym. Add:
FIGURES: Wood 2007: PLATE 2.
(ds, tx) Wood 2007: 37.
- Page 99 ***granosus*** Eichhoff. Probable synonym of ***P. asper*** Erichson. Add:
(tx) Wood 2007: 44.
- Page 99 ***granulatus*** Eggers. Move to ***P. ovatus*** Chapuis as a synonym. Add:
Synonymy by Wood 2007: 39.
- Page 99 ***grossus*** Chapuis. Add:
Lectotype (female), Colombia, designated by Wood 2007: 41.
(ds, tx) Wood 2007: 41.
- Page 99 ***guayanensis*** Eggers. Move to ***P. signatus*** Strohmeyer as a synonym. Add:
Synonymy by Wood 2007: 34.
- Page 99 ***intermedius*** Eggers. Add:
(ds, tx) Wood 2007: 35.
- Page 99 ***irregularis*** Eggers. Add:
(ds, tx) Wood 2007: 40.

- Page 99 *lunulatus* Eggers. Move to ***P. scaber*** Erichson as a synonym. Add:
Synonymy by Wood 2007: 42.
NOTE: Misspelled “lunatulus” in Wood 2007.
- Page 99 ***mamillatus*** Chapuis. Add:
(ds, tx) Wood 2007: 37.
- Page 100 ***nitidicollis*** Chapuis. Remove from synonymy with ***P. punctatorugosus*** Chapuis. Add:
(ds, tx) Wood 2007: 38.
- Page 101 ***opacithorax*** Schedl. Remove from synonymy with ***P. scaber*** Erichson. Add:
Lectotype (female), Panzós, Guatemala, designated by Wood 2007: 41.
(ds, tx) Wood 2007: 41.
- Page 98 ***ovatus*** Chapuis. Remove from synonymy with ***P. asper*** Erichson. Add *P. granulatus* Eggers
as a synonym. Add:
(ds, tx) Wood 2007: 39.
- Page 99 ***procerus*** (Erichson). Add:
FIGURES: Wood 2007: PLATE 2.
(ds, tx) Wood 2007: 36.
- Page 99 ***punctatorugosus*** Chapuis. Add:
(ds, tx) Wood 2007: 38.
- Page 100 *punctatus* Schedl. Move to ***P. grandis*** (Erichson) as a synonym. Add:
Synonymy by Wood 2007: 37.
- Page 100 ***rudis*** Erichson. Add:
FIGURES: Wood 2007: PLATE 3.
(ds) Bright 2004: 159. **(ds, tx)** Wood 2007: 35.
- Page 100 ***scaber*** Erichson. Add *P. lunulatus* Eggers as a synonym. Add:
(ds, tx) Wood 2007: 42.
- Page 101 ***signatus*** Strohmeyer. Add *P. bodei* Eggers and *P. guayanensis* Eggers as synonyms. Add:
FIGURES: Wood 2007: PLATE 3.
DISTRIBUTION: NORTH AMERICA: Costa Rica.
(ds, tx) Wood 2007: 34.
- Page 101 *sulcifrons* Eichhoff. Probable synonym of ***P. asper*** Erichson. Add:
(tx) Wood 2007: 44.

ADD SPECIES:

araguensis Wood 2007: 43. Holotype (female), VENEZUELA: Rancho Grande, Aragua; USNM.

marahuaci Wood 2007: 40. Holotype (female), VENEZUELA: Benítez Camp, N. slope Mt. Marahuaca,
Amazonas; USNM.

minusculus Wood 2007: 39. Holotype (male), PANAMA: Barro Colorado Island; USNM.

niger Wood 2007: 40. Holotype (female), COSTA RICA: 3 km SE Rio Naranjo, Guanacaste; USNM

orinocensis Wood 2007: 42. Holotype (female), VENEZUELA: Campamento Rio Grande, 30 km E Palmar, Bolivar; USNM.
HOST: *Licania densifolia*.

willei Wood 2007: 35. Holotype (female), COSTA RICA: 6 km S San Vito, Puntarenas; USNM.

Genus ***Pteleobius*** Bedel

- Page 69 ***Pteleobius*** Bedel. Add:
KEY: de Laclos et al. 2004: 109 (to species in France).
(tx) Alonso-Zarazaga and Lyal 2009: 68; de Laclos et al. 2004: 109.
- Page 69 ***kraatzii*** (Eichhoff). Add:
FIGURE: de Laclos et al. 2004: 111 (habitus).
DISTRIBUTION: ASIA: Russia (Daghestan).
HOSTS: *Ulmus suberosa*, *U. laevis*, *U. foliacea*.
(ds) Colonnelli 2003: 98; Inglebert 2002: 125; Mandelshtam, Nikitsky and Bibin 2005a: 21;
Petrov 2005: 218. (ds, hb) de Laclos et al. 2004: 111.
- Page 118 ***lomatiae*** (Schedl). Move to ***Sinophloeus porteri*** Brethes as a synonym. Add:
Synonymy by Wood 2007: 57.
- Page 70 ***vittatus*** (Fabricius). Add:
FIGURE: de Laclos et al. 2004: 110 (gallery pattern).
DISTRIBUTION: ASIA: Russia (Daghestan).
HOSTS: *Ulmus suberosa*, *U. laevis*, *U. foliacea*.
(ds) Colonnelli 2003: 98; Haack 2001: 274; Inglebert 2002: 125; Mandelshtam, Nikitsky and Bibin 2005a: 21; Markovic 2000; Petrov 2005: 218; Petrov and Nikitskii 2001: 168; Podlussány and György 2008: 199. (hb) Petrov and Nikitskii 2001: 168. (ds, tx) de Laclos et al. 2004: 110

Genus ***Rhopalopselion*** Hagedorn

- Page 96 ***Rhopalopselion*** Hagedorn. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 68; Beaver 2010b: 166.
- Page 96 ***bimaculatus*** (Eggers). Move to ***Hapalogenius fuscipennis*** (Chapuis) as a synonym. Add:
Synonymy by Beaver 2010b: 162.
- Page 97 ***thompsoni*** Schedl. Add:
FIGURE: Beaver 2010b: 167 (habitus).

TRIBE PACHYCOTINI, new tribe

(Type genus, *Pachycotes* Sharp, 1877)

Genus ***Hylurdrectonus*** Schedl

- Page 186 ***Hylurdrectonus*** Schedl. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 70.

Genus ***Hylurgonotus*** Schedl

- Page 186 ***Hylurgonotus*** Schedl. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 70. (ds, tx) Wood 2007: 61.
- Page 187 ***antipodius*** (Eggers). Add:
 (ds, tx) Wood 2007: 64.
 NOTE: Transferred to ***Sinophloeus*** by Kuschel 2000. Maintained here following Wood (2007).
- Page 187 ***armaticeps*** Schedl. Add:
 (hb) Kuschel 2000. (ds, tx) Wood 2007: 63.
- Page 187 ***solidus*** (Schedl). Add:
 (hb) Kuschel 2000: 47. (ds, tx) Wood 2007: 63.
 NOTE: Tranferred to ***Sinophloeus*** in Kuschel 2000. Maintained here following Wood (2007).
- Page 187 ***tuberculatus*** (Eggers). Add:
 (ds) Bright 2004: 161. (hb) Kuschel 2000. (ds, tx) Wood 2007: 62.

Genus ***Pachycotes*** Sharp

- Page 187 ***Pachycotes*** Sharp. Add:
 KEY: Mecke 2004b: 346 (to all species).
 (tx) Alonso-Zarazaga and Lyal 2009: 71; Mecke 2004b: 343.
- Page 187 ***peregrinus*** (Chapuis). Add:
 (ds) Brockerhoff, Knízek and Bain 2003: 33.

ADD SPECIES:

engelsi Mecke 2004b: 346. Holotype (male), NEW CALEDONIA: Montagne des Sources, 22°6'S, 166°36'E, 900m; MNHNP.
 HOST: *Araucaria muelleri*.

grandis Mecke 2004b: 344. Holotype (female), NEW CALEDONIA: Mont Do, 21°45'S, 166°0'E, 1000 m; MNHNP.
 FIGURES: Mecke 2004b: 345 (habitus, antenna, tibia, metepisternum).
 HOSTS: *Araucaria laubenfelsii*, *A. muelleri*.

Genus ***Sinophloeus*** Brèthes

- Page 105 ***Sinophloeus*** Brèthes. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 71. (ds, tx) Wood 2007: 50.
 NOTE: Wood's 2007 treatment of the species in this genus is inexplicable. Either notes or entries were mixed or a printer's error is involved. See Alonso-Zarazaga and Lyal (2009) for further explanation.
- Page 105 ***destructor*** Eggers (= ***S. porteri*** Brèthes). Add:
 Synonymy by Kuschel 2000: 46.
 FIGURES: Wood 2007: PLATE 4.
 (ds, tx) Wood 2007: 51.
 NOTE: This name is treated twice as a valid name in the treatment of ***Xylechinus*** by Wood 2007.

Page 105 ***porteri*** Brèthes. Add *Xylechinus spathifer* (Schedl), *Pteleobius lomatiae* Schedl and *Sinophloeus destructor* (Eggers) as synonyms. Add:
(hb, tx) Kuschel 2000: 46. (**ds, tx**) Wood 2007: 57, 60 (second entry?).

Genus ***Xylechinosomus*** Schedl

Page 104 ***Xylechinosomus*** Schedl. Add:
 KEY: Wood 2007: 46 (to South American species).
(tx) Alonso-Zarazaga and Lyal 2009: 72. (**ds, hb, tx**) Wood 2007: 46.

Page 76 ***bicolor*** (Philippi and Philippi). Move from ***Hylesinus***. Add:
 New combination by Kuschel 2000: 47.
(hb) Kuschel 2000: 47. (**tx**) Wood 2007: 30.
 NOTE: Unknown species. Type and specimens not located by Wood 2007.

Page 105 ***brasiliensis*** (Schedl). Add:
(ds) Mecke, Galileo and Engels 2000: 168. (**ds, tx**) Wood 2007: 47.

Page 105 ***contractus*** (Chapuis). Add:
 FIGURES: Wood 2007: PLATE 4.
(ds) Mecke, Galileo and Engels 2000: 168. (**ds, tx**) Wood 2007: 48.

Page 105 ***hirsutus*** Schedl. Add:
(ds) Mecke, Galileo and Engels 2000: 168. (**ds, tx**) Wood 2007: 47.

Page 105 ***humilis*** (Blanchard). Add:
(tx) Wood 2007: 50.

Page 105 ***minimus*** Schedl. Add:
(ds) Mecke, Galileo and Engels 2000: 168. (**ds, tx**) Wood 2007: 49.

Page 24 ***paranaensis*** (Schönherr). Add:
 (Suppl. 1) (**ds**) Mecke, Galileo and Engels 2000: 168.

Page 105 ***pilosus*** Wood. Add:
(ds, tx) Wood 2007: 48.

Page 105 ***sachtlebeni*** Schedl. Add:
(ds) Mecke, Galileo and Engels 2000: 168. (**ds, tx**) Wood 2007: 50.

Page 105 ***valdivianus*** (Eggers). Add:
 FIGURES: Wood 2007: PLATE 4.
(ds, tx) Wood 2007: 48.

ADD SPECIES:

lucianae Mecke 2004a: 217. Holotype (female), BRAZIL: Pró-Mata (50°13'W, 29°29'S), S. F de Paula, RS, 900 m; MCN.
 FIGURES: Mecke 2004: 218 (habitus, elytral declivity, antenna).
 HOST: *Araucaria angustifolia*.

TRIBE TOMICINI

- Page 103 **Tomicini** Thomson. Add:
 KEYS: Wood 2007: 45 (to genera in South America); Maiti and Saha 2009: 14 (to genera in India).
 (tx) Alonso-Zarazaga and Lyal 2009: 8, 69. (**hb, tx**) Wood 2007: 45.
 NOTE: The correct name for this tribe is questionable. Alonso-Zarazaga and Lyal (2009) use Hylurgini Gistel based on their interpretation of the included type species. A proposal will be presented to the Zoological Commission by these authors but, to date, no decision has been rendered. Usage here follows the 1992 Catalog.

Genus ***Chaetoptelius*** Fuchs

- Page 103 ***Chaetoptelius*** Fuchs. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 69.

- Page 103 ***mundulus*** (Broun). Add:
 (ds) Brockerhoff, Knízek and Bain 2003: 31.

- Page 104 ***versicolor*** Wood. Add:
 (ds) Brockerhoff, Knízek and Bain 2003: 31.

- Page 104 ***vestitus*** (Mulsant and Rey). Add:
 DISTRIBUTION: ASIA: Russia (Daghestan), Saudi Arabia.
 (ds) Colonnelli 2003: 98; Noblecourt 2004: 34; Petrov 2005: 219. (**hb**) Ziaddini, Seyedoleslami and Harerni 2002 (as *Hylesinus*). (tx) Al-Ahmadi and Salem 1999: 129.

Genus ***Dendroctonus*** Erichson

- Page 136 ***Dendroctonus*** Erichson. Add:
 KEY: Furniss and Johnson 2002: 34 (to species in Idaho, USA).
 (an) López-Buenfil et al. 2001: 331; Salinas-Moreno et al. 2004; Zúñiga et al. 2002. (ds) Brunelle et al. 2008; Labandeira, LePage and Johnson 2001; Zúñiga et al. 2002. (tx) Alonso-Zarazaga and Lyal 2009: 70; Labandeira, LePage and Johnson 2001; Rabaglia 2002: 800; Wood 2007: 64; Zúñiga et al. 2002. (ms) de Laclos et al. 2004: 124.

- Page 137 ***adjunctus*** Blandford. Add:
 DISTRIBUTION: NORTH AMERICA: United States (**Nevada** [see Appendix]).
 (an) Silva Olivares et al. 2003. (ds) Burgos-Solorio and Equihua 2007: 69; CAB International 2004a. (ec) Williams et al. 2008.

- Page 138 ***approximatus*** Dietz. Add:
 (ds) Burgos-Solorio and Equihua 2007: 69. (ec) Williams et al. 2008.

- Page 138 ***armandi*** Tsai and Li. Add:
 (an) Bu and Chen 2009. (an, ec) Chen Hui and Yuan Feng 2000.

- Page 138 ***brevicomis*** LeConte. Add:
 FIGURE: Furniss and Johnson 2002: 35 (gallery pattern).
 (an) Allender et al. 2008; Silva Olivares et al. 2003. (bv) Seybold, Paine and Dreistadt 2008.
 (ds) CAB International 2002a. (ec) Williams et al. 2008. (**ds, hb, tx**) Furniss and Johnson 2002: 34.

- Page 143 ***frontalis*** Zimmermann. Add:
DISTRIBUTION: NORTH AMERICA: United States (Delaware).
(an) Allender et al. 2008; Diaz, Cisneros and Zúñiga 2000; Moser, Fitzgibbon and Klepzig 2005; Rios-Reyes et al. 2008; Schrey et al. 2007. (ds) CAB International 2002b; Burgos-Solorio and Equihua 2007: 70; Moser and Macías-Sámano 2000; Rabaglia and Valenti 2003: 314. (ec) Lombardero et al. 2000; Moser and Macías-Sámano 2000; Williams et al. 2008. (tx) Rios-Reyes et al. 2008. (bv, ds, ec, hb) Clarke and Nowak 2009.
- Page 152 ***jeffreyi*** Hopkins. Add:
(an) Kelley, Farrell and Mitton 2000. (bv) McNee, Wood and Storer 2000; Seybold, Paine and Dreistadt 2008.
- Page 153 ***mexicanus*** Hopkins. Add:
DISTRIBUTION: NORTH AMERICA: United States (Arizona).
(an) Zúñiga et al. 2006. (ds) Burgos-Solorio and Equihua 2007: 69. (an, ds) Anducho et al. 2008.
- Page 154 ***micans*** (Kugelann). Add:
FIGURE: de Laclos et al. 2004: 125 (habitus).
DISTRIBUTION: ASIA: China (Hengduan Mtns., Qinghai), Russia (Altai, Yakutia, Yaroslavi).
(an) Diaz et al. 2003; Silva Olivares et al. 2003; Zúñiga et al. 2002. (bv) Gilbert, Vouland and Gregoire 2001. (ds) Averensky and Yanovsky 2008: 25; Colonnelli 2003: 99; Demidko 2007: 34; Haack 2001: 275; Han et al. 2010; Huang and Yin 1992: 854; Mandelshtam and Popovichev 2000: 890; Pedroni 2002: 99; Petrov and Nikitskii 2001: 169; Voolma et al. 2004. (hb) Petrov and Nikitskii 2001: 169. (tx) Vlasov 2005: 765. (ds, hb) de Laclos et al. 2004: 125.
- Page 157 ***murrayanae*** Hopkins. Add:
DISTRIBUTION: NORTH AMERICA: Canada (Northwest Territories).
HOST: *Pinus albicaulis*.
(an) Furniss and Kegley 2008. (ds) Furniss and Johnson 2002: 36; Furniss and Kegley 2008.
(hb) Furniss and Johnson 2002: 36; Furniss and Kegley 2008. (tx) Furniss and Johnson 2002: 36; Furniss and Kegley 2008.
- Page 158 ***parallelocollis*** Chapuis. Add:
(ds) Burgos-Solorio and Equihua 2007: 69.
- Page 159 ***ponderosae*** Hopkins. Add:
DISTRIBUTION: NORTH AMERICA: United States (Nebraska).
(an) Diaz et al. 2003; Kelley, Farrell and Mitton 2000. (bv) Seybold, Paine and Dreistadt 2008. (ds) CAB International 2002c, 2004b; Costello and Schaupp 2011; Furniss and Johnson 2002: 36. (ec) Furniss and Johnson 2002: 36. (ec) Bentz et al. 2010; Williams et al. 2008. (hb) Bentz, Logan and Vandygriff 2001; Furniss and Johnson 2002: 36. (tx) Furniss and Johnson 2002: 36.
- Page 68 ***pseudotsugae pseudotsugae*** Hopkins. Add:
FIGURES: Furniss 2001: 24 (galleries); Furniss and Johnson 2002: 38 (habitus, gallery pattern); Ruiz et al. 2009b (taxonomic characters).
DISTRIBUTION: NORTH AMERICA: United States (Minnesota, introduced).
(an) Diaz et al. 2003; Ruiz et al. 2009, 2009b, 2010; Silva Olivares et al. 2003. (ds) Dodds, Gilmore and Seybold 2010; Ruiz et al. 2010. (ds, hb, tx) Furniss and Johnson 2002: 37.

- Page 173 ***punctatus*** LeConte. Add:
 FIGURES: Furniss and Johnson 2002: 39 (habitus, gallery pattern).
 (ds) Furniss, Holsten and Schultz 2002: 86. (ds, hb, tx) Furniss and Johnson 2002: 39.
- Page 173 ***rhizophagus*** Thomas and Bright. Add:
 (ds, hb) Sanchez and Wagner 2009.
- Page 173 ***rufipennis*** (Kirby). Add:
 DISTRIBUTION: NORTH AMERICA: Canada (Prince Edward Island).
 (an) Diaz et al. 2003; Maroja et al. 2007; Silva Olivares et al. 2003. (bv) Greenwood and Borden 2000. (ds) CAB International 2004c; Furniss, Holsten and Schultz 2002: 86; Majka, Anderson and McCorquodale 2007: 418; Maroja et al. 2007. (ec) Bentz et al. 2010. (ds, hb, tx) Furniss and Johnson 2002: 40.
- Page 180 ***simplex*** LeConte. Add:
 (ds) Furniss, Holsten and Schultz 2002: 86. (ds, ec, hb) Seybold, Albers and Katovich 2002.
- Page 181 ***terebrans*** (Oliver). Add:
 (an) Diaz et al. 2003; Silva Olivares et al. 2003. (ds, ec, hb) Staeben, Clarke and Gandhi 2010.
- Page 183 ***valens*** LeConte. Add:
 FIGURE: López-Buenfil et al. 2001: 362 (proventriculus).
 DISTRIBUTION: ASIA: China (Hebei, Henan, Shaanxi, Shanxi, Yangcheng and Xinshui, introduced and established). NORTH AMERICA: United States (Delaware, Maryland, Tennessee).
 (an) Cognato et al. 2005; Sánchez et al. 2004; Silva Olivares et al. 2003; Yao et al. 2004; Yin 2000. (bv) Gao, B. et al. 2005; Seybold, Paine and Dreistadt 2008; Yan et al. 2005. (ds) Britton and Sun 2002: 127; Burgos-Solorio and Equihua 2007: 69; Furniss and Johnson 2002: 41; Gao, B. et al. 2005; Haack 2001: 275; Rabaglia 2003: 375; Rabaglia and Valenti 2003: 314; Schiefer 2010: 110; Yan et al. 2005. (ec) Williams et al. 2008; Yan et al. 2005. (hb) Britton and Sun 2002: 127; Furniss and Johnson 2002: 41; Miao et al. 2001; Owen, Wood and Parmeter 2005; Yan et al. 2005; Yin 2000. (tx) Furniss and Johnson 2002: 41. (bv, ds, ec, hb) Owen, Smith and Seybold 2010.

ADD SUBSPECIES:

- pseudotsugae barragini*** Furniss 2001: 21. Holotype (female), MEXICO: 15 miles east of La Magdalena, Chihuahua; USNM.
 FIGURES: Furniss 2001: 23 (galleries); Ruiz et al. 2009b (taxonomic characters).
 DISTRIBUTION: NORTH AMERICA: Mexico (Durango, Coahuila, Nuevo Leon).
 (ds, tx) Ruiz et al. 2009a, 2009b.

Genus ***Dendrotrupes*** Broun

- Page 106 ***Dendrotrupes*** Broun. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 70.
- Page 106 ***costiceps*** Broun. Add:
 (ds) Brockerhoff, Knízek and Bain 2003: 32.
- Page 106 ***vestitus*** Broun (= ***D. costiceps*** Broun). Add:
 (ds) Brockerhoff, Knízek and Bain 2003: 32.

Page 106 ***zealandicus*** Wood. Add:
(ds) Brockerhoff, Knízek and Bain 2003: 32.

Genus ***Hylurgopinus*** Swaine

Page 106 ***Hylurgopinus*** Swaine. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 70; Rabaglia 2002: 800.

Page 106 ***rufipes*** (Eichhoff). Add:
(ds, hb) Anderson and Holliday 2003.

Genus ***Hylurgus*** Latreille

Page 119 ***Hylurgus*** Latreille. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 71; de Laclos et al. 2004: 126; Maiti and Saha 2009: 16;
Rabaglia 2002: 800; Wood 2007: 61.

Page 119 ***indicus*** Wood. Add:
(ds, tx) Maiti and Saha 2009: 16.

Page 119 ***ligniperda*** (Fabricius). Add:
FIGURES: de Laclos et al. 2004: 126, 127 (habitus); Liu, Flint and Seybold 2008 (sexual
features).
DISTRIBUTION: ASIA: Russia (Daghestan). NORTH AMERICA: United States (California,
New York, introduced and established). SOUTH AMERICA: Argentina.
HOST: *Pinus kochiana*.
(an) Liu, Flint and Seybold 2008; Ruiz 2003. (bv) Seybold, Paine and Dreistadt 2008. (en)
Hoebeke 2001. (ds) Brockerhoff, Knízek and Bain 2003: 34; CAB International 2010;
Colonnelli 2003: 99; Eglitis 2000b; Haack 2001: 273, 275; Haack 2006: 272; Hoebeke 2001;
Liu et al. 2007; Mandelshtam, Nikitsky and Bibin 2005a: 22; Markovic 2000; Petrov 2005:
219; Petrov and Nikitskii 2001: 169; Podlussány and György 2008: 198; Tiranti 2010:
Voolma et al. 2004; Wood 2007: 61. (ec) Hoebeke 2001. (ec) Kapapanida-Kantartzzi et al.
2010. (hb) Hoebeke 2001; Mausel et al. 2007; Petrov and Nikitskii 2001: 169; Reay and
Walsh 2001; Tiranti 2010. (tx) Wang, Chen and Zhou 2005; Wood 2007: 61; Yang and An
2002. (ds, hb, tx) de Laclos et al. 2004: 127.

Page 122 ***micklitzii*** Wachtl. Add:
FIGURES: de Laclos et al. 2004: 126 (outline of habitus); Mifsud and Knízek 2009: 47 (habi-
tus).
DISTRIBUTION: ASIA: Russia (Krasnodar). EUROPE: Malta
(ds) Colonnelli 2003: 99; Haack 2001: 273; Mandelshtam, Nikitsky and Bibin 2005a: 22;
Noblecourt 2004: 33. (ec) Kapapanida-Kantartzzi et al. 2010. (ds, tx) Mifsuda and Knízek
2009: 30.

Genus ***Pseudohylesinus*** Swaine

Page 109 ***Pseudohylesinus*** Swaine. Add:
KEY: Furniss and Johnson 2002: 53 (to species in Idaho, USA).
(an) López-Buenfil et al. 2001: 331. (tx) Alonso-Zarazaga and Lyal 2009: 71; Rabaglia 2002:
800.

Page 109 ***dispar pullatus*** Blackman. Add:
(ds, hb, tx) Furniss and Johnson 2002: 54.

- Page 110 ***granulatus*** (LeConte). Add:
 (ds) Furniss, Holsten and Schultz 2002: 87. (ds, hb, tx) Furniss and Johnson 2002: 54.
- Page 111 ***nebulosus nebulosus*** (LeConte). Add:
 FIGURE: Furniss and Johnson 2002: 55 (gallery pattern).
 (ds, hb, tx) Furniss and Johnson 2002: 55.
- Page 112 ***sericeus*** (Mannerheim). Add:
 (ds) Furniss, Holsten and Schultz 2002: 87. (ds, hb, tx) Furniss and Johnson 2002: 56.
- Page 113 ***sitchensis*** Swaine. Add:
 (ds) Furniss, Holsten and Schultz 2002: 87.
- Page 113 ***tsugae*** Swaine. Add:
 (ds) Furniss, Holsten and Schultz 2002: 88.
- Page 114 ***variegatus*** (Blandford). Add:
 FIGURE: López-Buenfil et al. 2001: 362 (proventriculus).
 (ds) Burgos-Solorio and Equihua 2007: 69.

Genus ***Pseudoxylechinus*** Wood and Huang

- Page 114 ***Pseudoxylechinus*** Wood and Huang. Add:
 KEY: Chen and Yin 2001: 337.
 (tx) Alonso-Zarazaga and Lyal 2009: 71.
- Page 236 ***setosus*** (Eggers). Move from ***Phloeoditica***. Add:
 New combination by Jordal 2010: 146.
- Page 114 ***sinensis*** Wood and Huang. Add:
 DISTRIBUTION: ASIA: China (Hengduan Mtns.).
 (ds) Huang and Yin 1992: 855.

ADD SPECIES:

piceae Chen and Yin 2001: 336. Holotype (male), P. R. CHINA: Yunnan Province at the Nanhai (113.2N, 23.1E), Guangdong; IZAC.
 FIGURES: Chen and Yin 2001: 337 (habitus, antenna, fore tibia, proventricular plate).
 HOST: *Picea asperata*.

Genus ***Tomicus*** Latreille

- Page 122 ***Tomicus*** Latreille. Add:
 KEYS: Kirkendall, Faccoli and Ye 2008: 28-32 (to all species); de Laclos et al. 2004: 128 (to species in France).
 (tx) Alonso-Zarazaga and Lyal 2009: 72; Duan et al. 2004; Kirkendall, Faccoli and Ye 2008; Kohlmayr et al. 2002; de Laclos et al. 2004: 128; Maiti and Saha 2009: 17; Rabaglia 2002: 800; Wood 2007: 64.
- Page 123 ***brevipilosus*** (Eggers). Add:
 FIGURES: Kirkendall, Faccoli and Ye 2008: 30 (elytral declivity), 31 (antenna).
 (tx) Kirkendall, Faccoli and Ye 2008: 31 (in key); Maiti and Saha 2009: 18.

- Page 123 ***destruens*** (Wollaston). Add:
 FIGURES: Kirkendall, Faccoli and Ye 2008: 30 (elytral declivity), 32 (antenna), 33 (protibia); de Laclos et al. 2004: 128 (outline of elytral declivity).
 DISTRIBUTION: AFRICA: Algeria. ASIA: Russia (Krasnodar), Ukraine. EUROPE: Italy (Tuscany Islands).
 HOSTS: *Pinus brutia*, *P. nigra*.
 (an) Faccoli 2006; Faccoli et al. 2005; Gallego and Galian 2008; Horn et al. 2006; Kerdelhué et al. 2002; Ritzerow and Stauffer 2004; Vasconcelos et al. 2006. (ds) Colonnelli 2003: 99; Faccoli and Cecchi 2003; Gallego et al. 2004; Horn et al. 2006; Khaustov and Nikulina 2008: 84; Mandelshtam, Nikitsky and Bibin 2005a: 22; Ritzerow and Stauffer 2004; Vasconcelos et al. 2006. (hb) Peverieri et al. 2008; Sabbatini et al. 2008. (tx) Gallego and Galian 2001; Kerdelhué et al. 2002; Kerdelhué, Roux-Morabito and Lieutier 2003; Faccoli et al. 2005; Faccoli 2006; Kirkendall, Faccoli and Ye 2008: 31; Kohlmayr et al. 2002. (ds, bv, ec, hb) Chakali 2008; Sarikaya and Avoi 2010.
- Page 123 ***minor*** (Hartig). Add:
 FIGURES: Kirkendall, Faccoli and Ye 2008: 29 (elytral declivity), 31 (antenna), 34 (pronotum); de Laclos et al. 2004: 130; Yin 1997: 967 (outline of elytral declivity).
 DISTRIBUTION: ASIA: China (Hengduan Mtns., Qinghai); Russia (Altai, Daghestan, Yakutia, Yaroslavi). EUROPE: France (Corsica). NORTH AMERICA: Canada (Ontario, introduced). Delete Taiwan.
 HOSTS: *Pinus densiflora*, *P. kochiana*.
 (an) Ritzerow and Stauffer 2004. (ds) Averensky and Yanovsky 2008: 25; Beaver and Liu 2010: 36; Colonnelli 2003: 99; de Laclos 2004: 165; Demidko 2007: 33; Haack et al. 2000; Gallego et al. 2004; Haack 2001: 274; Han et al. 2010; Huang and Yin 1992: 854; de Laclos et al. 2004: 130; Lee and Lee 2000; Ritzerow and Stauffer 2004; Mandelshtam and Popovichev 2000: 890; Mandelshtam, Nikitsky and Bibin 2005a: 23; Nierhaus and Forster 2000; Petrov 2005: 219; Petrov and Nikitskii 2001: 169; Voolma et al. 2004; Yin 1997: 967. (ec) Langstrom et al. 2002. (hb) Langstrom et al. 2002; Masutti, Battisti and Faccoli 2005: Nierhaus and Forster 2000; Petrov and Nikitskii 2001: 169; Ye, Lu and Lieutier 2004. (tx) Kirkendall, Faccoli and Ye 2008: 29 (in key); Kohlmayr et al. 2002; Nierhaus and Forster 2000; Yin 1997: 967; Vlasov 2005: 765.
- Page 128 ***pilifer*** (Spessivtseff). Add:
 FIGURES: Kirkendall, Faccoli and Ye 2008: 29 (elytral declivity), 31 (antenna), 34 (pronotum); Yin 1997: 967 (outline of elytral declivity).
 DISTRIBUTION: ASIA: China (Hengduan Mtns.).
 (ds) Huang and Yin 1992: 854; Mandelshtam and Petrov 2009a: 207; Yin 1997: 968. (tx) Kirkendall, Faccoli and Ye 2008: 29 (in key); Yin 1997: 968.
- Page 128 ***piniperda*** (Linnaeus). Add:
 FIGURES: Kirkendall, Faccoli and Ye 2008: 30 (elytral declivity), 32 (antenna); de Laclos et al. 2004: 128 (outline of elytral declivity), 129 (habitus).
 DISTRIBUTION: ASIA: China (Hengduan Mtns.), Russia (Altai, Daghestan, Yakutia, Yaroslavi). EUROPE: Scotland (Isle of Raasay). NORTH AMERICA: Canada (Quebec), United States (Maine, Maryland, New Hampshire, Vermont, West Virginia).
 HOSTS: *Pinus densiflora*, *P. kochiana*.
 (an) Duan et al. 2004; Faccoli 2006; Faccoli et al. 2005; Kerdelhue et al. 2002, 2003; Ritzerow and Stauffer 2004; Ritzerow, Konrad and Stauffer 2004. (bv) Averensky and Yanovsky 2008: 25; Haack, Lawrence and Heaton 2000, 2001; McNee, Wood and Storer 2000; Seybold, Ritzerow and Stauffer 2004; Siegert and McCullough 2001, 2004. (cn) Appleby 1999. (ds) Appleby 1999; Colonnelli 2003: 99; Demidko 2007: 34; Eager et al. 2004; Gallego et al. 2004; Gallego et al. 2004; Haack 2001: 274, 275; Haack 2006: 273; Haack et al. 2000; Horn et al. 2009; Huang and Yin 1992: 854; de Laclos et al. 2004: 129; Lee and Lee 2000; Mandelshtam

and Popovichev 2000: 890; Mandelshtam, Nikitsky and Bibin 2005a: 23; Moore 2000; Nierhaus and Forster 2000; Petrov and Nikitskii 2001: 169; Petrov 2005: 219; Podlussány and György 2008: 199; Rabaglia 2003: 375; Ritzerow, Konrad and Stauffer 2004; Voolma et al. 2004. (ec) Kapapanida-Kantartzzi et al. 2010. (hb) Appleby 1999; Haack, Petrice and Poland 2000; Langstrom et al. 2002; Nierhaus and Forster 2000; Petrov and Nikitskii 2001: 169; Ryall and Smith 2000a, 2000b. (tx) Beaver and Liu 2010: 16; Duan et al. 2004; Faccoli et al. 2005; Faccoli 2006; Gallego and Galian 2001; Kerdelhué, Roux-Morabito and Lieutier 2003; Kirkendall, Faccoli and Ye 2008: 30 (in key); Kohlmayr et al. 2002; Nierhaus and Forster 2000; Vlasov 2005: 765.

Page 136 ***puellus*** (Reitter). Add:

FIGURES: Kirkendall, Faccoli and Ye 2008: 29 (elytral declivity), 31 (antenna).

(tx) Kirkendall, Faccoli and Ye 2008: 28 (in key).

ADD SPECIES:

armandii Li and Zhang, *in* Li, Zhang, Wang, Wu, Cao and Zhang 2010: 60. Holotype (sex ?): CHINA: Mountain Zixishan, Chuxiong, Yunnan Province; CAFB.

FIGURES: Li and Zhang 2010: 61 (dorsal, lateral, antenna, elytral declivity).

HOST: *Pinus armandii*.

yunnanensis Kirkendall and Faccoli, *in* Kirkendall, Faccoli and Ye 2008: 32. Holotype (sex ?): CHINA: Xiundian, Yunnan Province; NHML.

FIGURES: Kirkendall, Faccoli and Ye 2008: 30 (elytral declivity), 32 (antenna), 33 (protibia), 34 (dorsal and lateral habitus).

HOST: *Pinus yunnanensis*.

Genus ***Xylechinus*** Chapuis

Page 114 ***Xylechinus*** Chapuis. Add:

KEY: Wood 2007: 52 (to species in South America).

(an) López-Buenfil et al. 2001: 331. (tx) Alonso-Zarazaga and Lyal 2009: 72; Maiti and Saha 2009: 15; Rabaglia 2002: 800. (ds, tx) Wood 2007: 51.

Page 115 ***arisanus*** Eggers. Add:

(tx) Beaver and Liu 2010: 16.

Page 115 ***bergeri*** Spessivsev. Add:

(ds) Mandelshtam and Petrov 2009a: 207.

Page 115 ***capensis*** (Schedl). Move to ***Amphiscolytus***.

Page 115 ***chiliensis*** (Nunberg). Add:

(ds, tx) Wood 2007: 54.

Page 115 ***darjeelingensis*** Schedl. Add:

(ds, tx) Maiti and Saha 2009: 15.

Page 115 ***freiburgi*** Schedl. Add:

(ds, tx) Wood 2007: 57.

Page 222 ***huapiae*** (Schedl). Move from ***Phloeotribus***. Add:

New combination by Wood 2007: 60.

(ds) Bright 2004: 160. (ds, tx) Wood 2007: 60.

- Page 116 ***imperialis*** (Schedl). Add:
(**ds**) Bright 2004: 161. (**tx**) Guadalupe del Rio, Lanteri and Suárez 2005: 6. (**ds, tx**) Wood 2007: 56.
- Page 116 ***maculatus*** Schedl. Add:
(**ds, tx**) Wood 2007: 55.
- Page 116 ***mexicanus*** Wood. Add:
FIGURE: López-Buenfil et al. 2001: 362 (proventriculus).
- Page 116 ***minor*** Eggers. Add:
(**ds, tx**) Wood 2007: 57.
- Page 116 ***montanus*** Blackman. Add:
(**ds**) Furniss, Holsten and Schultz 2002: 88. (**ds, hb, tx**) Furniss and Johnson 2002: 58.
- Page 225 ***nahueliae*** (Schedl). Move from ***Phloeotribus***. Add:
New combination by Wood 2007: 58.
(**ds**) Bright 2004: 160. (**ds, tx**) Wood 2007: 58.
- Page 116 ***nigrosetosus*** Hagedorn. Add:
(**ds, tx**) Wood 2007: 54.
- Page 117 ***padus*** Wood. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(**ds**) Huang and Yin 1992: 854.
- Page 109 ***pilosus*** (Ratzeburg). Add:
DISTRIBUTION: ASIA: Russia (Altai, Yakutia, Yaroslavi).
(**ds**) Averensky and Yanovsky 2008: 25; Colonnelli 2003: 100; Demidko 2007: 33; Haack 2001: 274; Mandelshtam and Popovichev 2000: 890; Mandelshtam, Lafer and Kuznetsov 2001; Petrov and Nikitskii 2001: 169; Voolma et al. 2004. (**hb**) Petrov and Nikitskii 2001: 169. (**tx**) Vlasov 2005: 764.
- Page 118 ***spathifer*** Schedl. Move to ***Sinophloeus porteri*** Brèthes as a synonym. Add:
Synonymy by Wood 2007: 57.
(**ds**) Bright 2004: 161.
- Page 119 ***squamiger*** Schedl. Add:
(**ds, tx**) Wood 2007: 56.
- Page 119 ***sulcatus*** Schedl. Move to ***X. chilensis*** (Nunberg) as a synonym. Add:
Synonymy by Wood 2007: 54.
- Page 119 ***uniformis*** Schedl. Move to ***Hapalogenius africanus*** (Eggers) as a synonym. Add:
Synonymy by Beaver 2011a: 281.
- Page 119 ***variegatus*** (Chapuis). Add:
(**ds, tx**) Wood 2007: 59.
- Page 119 ***vittatus*** Schedl. Add:
(**ds, tx**) Wood 2007: 58.

ADD SPECIES:

aconcaguensis Wood 2007: 58. Holotype (female), CHILE: 10 km SE Zapallar, P. Aconcagua; USNM.

araucariae Mecke 2004b: 347. Holotype (female), NEW CALEDONIA: Mount Do, 21°45'S, 166°0'E, 1000m; MNHNP.

FIGURES: Mecke 2004b: 348 (habitus, antenna, tibia, metepisternum).

HOST: *Araucaria laubenfelsii*.

declivis Wood 2007: 59. Holotype (female), CHILE: 18 km W Rungue, P. Santiago; USNM.

****mozolevskae*** Pertov and Perkovsky 2008: 407. Holotype (sex ?), Rovno amber; SIZK.

solvicensi Wood 2007: 60. Holotype (female), CHILE: La Campana, Valparaiso; USNM.

squamatilis Wood 2007: 56. Holotype (female), CHILE: Banos de Cauquenes, Rancagua; USNM.

tuberculifer Wood 2007: 55. Holotype (female), CHILE: Valparaiso, La Compana; MNHNS.

TRIBE PHRIXOSOMATINI

Page 189 ***Phrixosomatini*** Wood. Add:

(hb, tx) Wood 2007: 65. (tx) Alonso-Zarazaga and Lyal 2009: 91.

NOTE: Note corrected spelling.

Genus ***Phrixosoma*** Blandford

Page 189 ***Phrixosoma*** Blandford. Add:

(an) López-Buenfil et al. 2001: 332. (tx) Alonso-Zarazaga and Lyal 2009: 91. (ds, tx) Wood 2007: 65.

Page 189 ***brasiliense*** Schedl. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 91 (spelling change). (ds, tx) Wood 2007: 69.

Page 189 ***caraibicum*** Schedl. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 91 (spelling change).

Page 189 ***costatum*** (Schedl). Add:

(tx) Alonso-Zarazaga and Lyal 2009: 91 (spelling change).

Page 189 ***crebrum*** Wood. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 91 (spelling change). (ds, tx) Wood 2007: 69.

Page 189 ***frustratum*** Wood. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 91 (spelling change). (ds, tx) Wood 2007: 68.

Page 189 ***fuscovillosum*** (Schedl). Add:

(tx) Alonso-Zarazaga and Lyal 2009: 91 (spelling change).

Page 189 ***magnum*** Blackman. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 91 (spelling change). (ds, tx) Wood 2007: 67.

Page 189 ***majus*** (Eggers). Add:

DISTRIBUTION: AFRICA: Gabon.

- (ds) Beaver 2005b: 116. (tx) Alonso-Zarazaga and Lyal 2009: 91 (spelling change).
- Page 189 **minus** Wood. Add:
FIGURE: López-Buenfil et al. 2001: 362 (proventriculus).
(tx) Alonso-Zarazaga and Lyal 2009: 91 (spelling change). (ds, tx) Wood 2007: 67.
- Page 190 **nigrum** (Eggers). Add *Hapalogenius niger* Schedl as a synonym. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 91 (spelling change); Beaver 2010b: 163.
- Page 190 **obesum** Blackman. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 91 (spelling change). (ds, tx) Wood 2007: 68.
- Page 190 **parvum** Blackman. Add:
(ds) Vázquez, Rodriguez and Zorrilla 2003: 18. (tx) Alonso-Zarazaga and Lyal 2009: 91 (spelling change).
- Page 190 **peruvianum** Eggers. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 91 (spelling change). (ds, tx) Wood 2007: 67.
- Page 190 **quadriculatum** (Eggers). Add:
(tx) Alonso-Zarazaga and Lyal 2009: 91 (spelling change).
- Page 190 **rubrum** Wood. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 91 (spelling change).
- Page 190 **sinuosum** (Schedl). Add:
(tx) Alonso-Zarazaga and Lyal 2009: 91 (spelling change).
- Page 190 **striatum** (Eggers). Add:
(tx) Alonso-Zarazaga and Lyal 2009: 91 (spelling change); Wood 2007: 70.
- Page 190 **uniseriatum** (Eggers). Add:
(tx) Alonso-Zarazaga and Lyal 2009: 91 (spelling change).
- Page 190 **viriosum** Wood. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 91 (spelling change). (ds, tx) Wood 2007: 68.

ADD SPECIES:

barinense Wood 2007: 69. Holotype (female), VENEZUELA: 40 km SE Socopo, Barinas, 150 m; USNM.
HOST: *Rheedia madrano*.
(tx) Alonso-Zarazaga and Lyal 2009: 91 (spelling change).

rubra Wood 2007: 69. Holotype (female), VENEZUELA: 40 km SE Socopo, Barinas, 150 m; USNM.
HOST: *Rheedia madrano*.

TRIBE DIAMERINI

- Page 193 **Diamerini** Hagedorn. Add:
KEY: Maiti and Saha 2009: 29 (to genera in India).
(tx) Alonso-Zarazaga and Lyal 2009: 49.

Genus *Acacicis* Lea

- Page 193 ***Acaciscis*** Lea. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 50.
 NOTE: Note corrected spelling.

Page 193 ***atomarius*** (Chapius). Add *Hylesinus abundans* Lea as a synonym. Add:
 DISTRIBUTION: Delete New Zealand.
 (ds) Brockerhoff, Knízek and Bain 2003: 37. (ds, tx) Wood 2007: 30.

Page 193 ***malayanus*** Browne. Add:
 DISTRIBUTION: Delete Australia, New Zealand and Tasmania in Bright and Skidmore 1997: 36.
 (ds) Brockerhoff, Knízek and Bain 2003: 37.

Genus ***Bothrosternoides*** Schedl

Page 194 ***Bothrosternoides*** Schedl. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 50.

Genus ***Diamerus*** Erichson

Page 194 ***Diamerus*** Erichson. Add:
 KEY: Maiti and Saha 2009: 30 (to species in India).
 (tx) Alonso-Zarazaga and Lyal 2009: 50; Maiti and Saha 2009: 29.

Page 194 ***ater*** Hagedorn. Add:
 (ds, tx) Maiti and Saha 2009: 31.

Page 195 ***curvifer*** (Walker). Add:
 FIGURES: Maiti and Saha 2009: 32 (habitus, antenna, legs).
 (ds, tx) Maiti and Saha 2009: 32.

Page 195 ***fici*** Blandford. Add:
 (ds, tx) Maiti and Saha 2009: 34.

Page 197 ***nigrosetosus*** Eggers. Add:
 FIGURES: Maiti and Saha 2009: 36 (habitus, antenna).
 (ds, tx) Maiti and Saha 2009: 35.

Page 198 ***striatus*** Eggers. Add:
 FIGURES: Maiti and Saha 2009: 38 (habitus, antenna).
 (ds, tx) Maiti and Saha 2009: 37.

Page 198 ***variegatus*** Schedl. Add:
 (ds, tx) Maiti and Saha 2009: 39.

Genus ***Peronophorus*** Strohmeyer

Page 202 ***Peronophorus*** Strohmeyer. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 51.
 NOTE: Note corrected spelling.

Genus ***Pseudodiamerus*** Eggers

Page 194 ***Pseudodiamerus*** Eggers. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 51.

Genus ***Sphaerotrypes*** Blandford

Page 198 ***Sphaerotrypes*** Blandford. Add:
 KEY: Maiti and Saha 2009: 40 (to species in India).
 (tx) Alonso-Zarazaga and Lyal 2009: 51. (ds, tx) Maiti and Saha 2009: 40.

Page 198 ***bengalensis*** Wood. Add:
 (ds, tx) Maiti and Saha 2009: 41.

Page 199 ***coimbatorensis*** Stebbing. Add:
 FIGURE: Yin 1997: 969 (underside of head).
 DISTRIBUTION: Delete Russian Far East.
 (ds) Mandelshtam 2002: 9; Yin 1997: 969. (tx) Yin 1997: 969. (ds, tx) Maiti and Saha 2009:
 42.

Page 199 ***costatus*** Wood. Add:
 (ds, tx) Maiti and Saha 2009: 42.

Page 199 ***globulus*** Blandford. Add:
 (ds, tx) Maiti and Saha 2009: 43.

Page 200 ***imitans*** Eggers (= ***S. pila*** Blandford). Add:
 (ds) Huang and Yin 1992: 856; Mandelshtam and Petrov 2009a: 207.
 NOTE: Recognized as distinct species in Mandelshtam and Petrov 2009a.

Page 200 ***magnus*** Tsai and Yin. Add:
 DISTRIBUTION: ASIA: China (Hengduan Mtns.).
 (ds) Huang and Yin 1992: 856.

Page 200 ***pila*** Blandford. Add:
 FIGURE: Lin and Wu 2010: 209 (habitus).
 DISTRIBUTION: ASIA: China (Hengduan Mtns.).
 HOST: *Prunus mume*.
 (ds) Beaver and Liu 2010: 11; Huang and Yin 1992: 856; Huang et al. 2003; Lin and Wu 2010.
 (hb) Huang et al. 2003.

Page 201 ***querci*** Stebbing. Add:
 (ds, tx) Maiti and Saha 2009: 44.

Page 201 ***siwalikensis*** Stebbing. Add:
 FIGURES: Maiti and Saha 2009: 46 (habitus, antennae).
 (ds, tx) Maiti and Saha 2009: 45.

Page 201 ***tsugae*** Tsai and Yin. Add:
 DISTRIBUTION: ASIA: China (Hengduan Mtns.).
 (ds) Huang and Yin 1992: 856.

Genus ***Strombophorus*** Hagedorn

- Page 202 ***Strombophorus*** Hagedorn. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 51.

TRIBE BOTHROSTERNINI

- Page 205 **Bothrosternini** Blandford. Add:
 KEY: Wood 2007: 71 (to genera in South America).
 (tx) Alonso-Zarazaga and Lyal 2009: 26. (hb, tx) Wood 2007: 71.

Genus ***Akrobothrus*** Dole and Cognato

ADD GENUS:

- Akrobothrus*** Dole and Cognato 2007: 321. Type species: *Akrobothrus ecuadoriensis* Dole and Cognato, original designation.
(tx) Alonso-Zarazaga and Lyal 2009: 27.

ADD SPECIES:

- ecuadoriensis*** Dole and Cognato 2007: 321. Holotype (male), ECUADOR: Napo Prov., Res. Ethnica Waorani, 1 km S. Onkone Gare Camp, Trans. Ent., 230 m, 00°39'10"S 076°26'W, insecticidal fogging Terre Firme forest, Trans. 5, Sta. 4; USNM.
FIGURES: Dole and Cognato 2007: 321 (antenna), 322 (habitus), 323 (male and female frons).

Genus ***Bothrosternus*** Eichhoff

- Page 215 ***Bothrosternus*** Eichhoff. Add:
 KEY: Wood 2007: 102 (to species in South America).
 (an) López-Buenfil et al. 2001: 333. (tx) Alonso-Zarazaga and Lyal 2009: 27. (ds, tx) Wood 2007: 102.
- Page 215 ***affinis*** Eggers. Add:
 (ds, tx) Wood 2007: 103.
- Page 215 ***artestrigosus*** Schedl. Add:
 (ds, tx) Wood 2007: 104.
- Page 215 ***brevis*** Eggers. Add:
 (ds, tx) Wood 2007: 105.
- Page 215 ***foveatus*** (Blackman). Add:
 FIGURE: López-Buenfil et al. 2001: 362 (proventriculus).
- Page 215 ***hirsutus*** Wood. Add:
 (ds, tx) Wood 2007: 105.
- Page 216 *lacordairei* Chapuis. Move to ***Sternobothrus costatus*** (Chapuis) as a synonym. Add:
 Synonymy by Wood 2007: 112.
- Page 215 ***lucidus*** Wood. Add:
 (ds, tx) Wood 2007: 103.

Page 215 *striatus* Eggers. Move to ***B. truncatus*** Eichhoff as a synonym. Add:
Synonymy by Wood 2007: 105.

Page 215 ***subopacus*** Schedl. Add:
(**ds, tx**) Wood 2007: 104.

Page 216 ***suturalis*** (Eggers). Move to ***Sternobothrus***.

Page 215 ***truncatus*** Eichhoff. Add *B. striatus* Eggers as a synonym. Add:
(**ds, tx**) Wood 2007: 105.

ADD SPECIES:

rudis Wood 2007: 104. Holotype (male), BRAZIL: (probably Manaus or Mato Grosso ?); USNM.

Genus ***Cnesinus*** LeConte

Page 205 ***Cnesinus*** LeConte. Add:
KEY: Wood 2007: 72 (to species in South America).
(**an**) López-Buenfil et al. 2001: 332. (**tx**) Alonso-Zarazaga and Lyal 2009: 27; Rabaglia 2002:
800. (**ds, tx**) Wood 2007: 71.

Page 205 ***acuminatus*** Schedl. Add:
(**ds, tx**) Wood 2007: 83.

Page 205 ***adusticus*** Wood. Add:
(**ds, tx**) Wood 2007: 97.

Page 205 ***adustus*** Schedl. Add:
(**ds, tx**) Wood 2007: 97.

Page 205 ***advena*** Schedl. Add:
(**ds, tx**) Wood 2007: 94.

Page 205 ***alienus*** Wood. Add:
(**ds, tx**) Wood 2007: 82.

Page 205 ***ampliatus*** Schedl. Add:
Lectotype (female), Isla Martin Garcia, Buenos Aires, Argentina, designated by Wood 2007:
93.
(**ds**) Bright 2004: 156. (**tx**) Guadalupe del Rio, Lanteri and Suárez 2005: 3. (**ds, tx**) Wood
2007: 93.

Page 205 ***amplipennis*** Schedl. Add:
(**ds, tx**) Wood 2007: 81.

Page 205 ***ater*** (Schedl). Move to ***Sternobothrus***.

Page 206 ***beaveri*** Wood. Add:
(**ds, tx**) Wood 2007: 79.

Page 206 ***bicinctus*** Schedl. Add:
(**ds, tx**) Wood 2007: 81.

- Page 206 **bicolor** Eggers. Add:
(**ds, tx**) Wood 2007: 89.
- Page 206 **bicostatus** (Schedl). Move to **Sternobothrus**.
- Page 206 **bispinatus** Schedl. Add:
(**ds, tx**) Wood 2007: 87.
- Page 206 **bisulcatus** Schedl. Add:
(**ds, tx**) Wood 2007: 90.
- Page 206 **carbonarius** Schedl. Add:
(**ds, tx**) Wood 2007: 82.
- Page 206 **coffeae** Schedl. Add:
(**ds, tx**) Wood 2007: 95.
- Page 206 **colombianus** Wood. Add:
(**ds, tx**) Wood 2007: 86.
- Page 207 **costulatus** Blandford. Add:
FIGURE: López-Buenfil et al. 2001: 362 (proventriculus).
(**ds, tx**) Wood 2007: 95.
- Page 207 **cubensis** Blackman. Add:
(**ds**) Vázquez, Rodriguez and Zorrilla 2003: 18.
- Page 207 **denotatus** Wood. Add:
(**ds, tx**) Wood 2007: 96.
- Page 207 **deperditus** Wood. Add:
(**ds, tx**) Wood 2007: 87.
- Page 207 **discretus** Wood. Move to **C. nitidus** Eggers as a synonym. Add:
Synonymy by Wood 2007: 84.
- Page 207 **dividuus** Schedl. Add:
(**ds**) Bright 2004: 156. (**tx**) Guadalupe del Rio, Lanteri and Suárez 2005: 5. (**ds, tx**) Wood 2007: 84.
- Page 207 **dryographus** Schedl (= **C. dividuus** Schedl). Add:
(**ds**) Mecke, Galileo and Engels 2000: 168.
- Page 207 **electinus** Wood. Add:
(**ds**) Burgos-Solorio and Equihua 2007: 70.
- Page 207 **elegans** Blandford. Add:
(**ds, tx**) Wood 2007: 85.
- Page 208 **foratus** Wood. Add:
(**ds, tx**) Wood 2007: 87.
- Page 208 **fulgens** Wood. Add:
(**ds, tx**) Wood 2007: 90.

- Page 208 *fulgidus* Wood. Add:
(ds, tx) Wood 2007: 91.
- Page 208 *gibbus* (Chapuis. Add:
(ds, tx) Wood 2007: 86.
- Page 208 *gracilis* Blandford. Add *C. laetus* Schedl as a synonym. Add:
(ds, tx) Wood 2007: 82.
- Page 209 *hispidus* Eggers. Add:
(ds, tx) Wood 2007: 92.
- Page 209 *laetus* Schedl. Move to *C. gracilis* Blandford as a synonym. Add:
Synonymy by Wood 2007: 82.
- Page 209 *lecontei* Blandford. Add:
(hb) Kolaik and Kirkendall 2010.
- Page 209 *lucaris* Wood. Add:
(ds, tx) Wood 2007: 95.
- Page 209 *marginicollis* Eggers. Move to *Sternobothrus*.
- Page 209 *meris* Wood. Add:
(ds, tx) Wood 2007: 90.
- Page 209 *minusculus* Schedl. Add:
(ds, tx) Wood 2007: 83.
- Page 210 *nitidus* Eggers. Add *C. discretus* Wood as a synonym. Add:
(ds, tx) Wood 2007: 84.
- Page 210 *ocularis* Blandford. Add:
(ds, tx) Wood 2007: 97.
- Page 210 *paraguayensis* (Schedl). Move to *Sternobothrus*.
- Page 210 *pilosus* Eggers. Move to *Sternobothrus*.
- Page 210 *plaumannii* Schedl. Add:
(ds, tx) Wood 2007: 80.
- Page 210 *porcatus* Blandford. Add:
(ds, tx) Wood 2007: 96.
- Page 210 *prominulus* Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 70.
- Page 211 *pumilus* (Eggers). Move to *Sternobothrus*.
- Page 211 *pusillus* Schedl. Add:
(ds, tx) Wood 2007: 86.

- Page 211 *reticulatus* (Chapuis). Add:
(ds, tx) Wood 2007: 84.
- Page 211 *reticulus* Wood. Add:
(ds, tx) Wood 2007: 82.
- Page 211 *robai* Blackman. Add:
(ds, tx) Wood 2007: 94.
- Page 211 *schoenherri* Schedl. Add:
(ds, tx) Wood 2007: 88.
- Page 211 *setosus* Eggers. Add:
(ds, tx) Wood 2007: 93.
- Page 211 *setulosus* Blandford. Add:
(ds) Burgos-Solorio and Equihua 2007: 70.
- Page 212 *squamulosus* Wood. Add:
(ds, tx) Wood 2007: 96.
- Page 212 *strigicollis* LeConte. Add:
DISTRIBUTION: NORTH AMERICA: United States (Delaware).
(ds) Rabaglia and Valenti 2003: 314.
- Page 212 *sulcatus* Eggers. Add:
(ds, tx) Wood 2007: 89.
- Page 212 *teres* Blandford. Add:
Lectotype (male), probably Colonia Tovar, Aragua, Venezuela, designated by Wood 2007: 80.
(ds, tx) Wood 2007: 80.
- Page 212 *teretis* Wood. Add:
(ds, tx) Wood 2007: 79.
- Page 212 *transitus* Schedl. Move to *Sternobothrus*.
- Page 212 *triangularis* Wood. Add:
(ds, tx) Wood 2007: 91.
- Page 212 *vestitus* Eggers. Add:
(ds, tx) Wood 2007: 93.
- Page 212 *vexator* Schedl. Move to *Sternobothrus*.

ADD SPECIES:

excellens Wood 2007: 85. Holotype (female), COLOMBIA: La Rivera, Caicedonia, Valle del Cauca; USNM.

hispidulosus Wood 2007: 93. Holotype (female), BRAZIL: Itinga do Maranhao; MZUSP.

pulchellus Wood 2007: 80. Holotype (male), COLOMBOA: 24 km E Barbosa, Antioquita, 1200 m; USNM.
HOST: *Xelopia* sp.

schulzi Wood 2007: 89. Holotype (male), SURINAME: Craigthorp 1961, Jodensavanne, Kamp 5; USNM.

squamifer Wood 2007: 91. Holotype (male), ARGENTINA: San Pedro de Colalao, Tucuman; USNM.

Genus ***Eupagiocerus*** Blandford

Page 214 ***Eupagiocerus*** Blandford. Add:
(**tx**) Alonso-Zarazaga and Lyal 2009: 27.

Page 214 ***ater*** Eggers. Add:
(**ds, tx**) Wood 2007: 101.

Page 214 ***dentipes*** Blandford. Add:
(**hb**) Kolarik and Kirkendall 2010.

Genus ***Pagiocerus*** Eichhoff

Page 213 ***Pagiocerus*** Eichhoff. Add:
KEY: Wood 2007: 98 (to species in South America).
(**an**) López-Buenfil et al. 2001: 332. (**tx**) Alonso-Zarazaga and Lyal 2009: 27; Rabaglia 2002: 800. (**ds, tx**) Wood 2007: 98.

Page 213 ***cribricollis*** Eichhoff. Add:
(**ds, tx**) Wood 2007: 100.

Page 213 ***fiorii*** Eggers (= ***P. frontalis*** (Fabricius)). Add:
(**ds**) Bright 2004: 156.

Page 213 ***frontalis*** (Fabricius). Add:
FIGURE: López-Buenfil et al. 2001: 362 (proventriculus).
(**ds**) Colonnelli 2003: 98; Bright 2004: 156; Vázquez, Rodriguez and Zorrilla 2003: 18. (**ds, tx**) Wood 2007: 99.

Page 214 ***luederwaldti*** Eggers. Add ***P. major*** Schedl as a synonym. Add:
(**ds, tx**) Wood 2007: 99.

Page 214 ***major*** Schedl. Move to ***P. luederwaldti*** Eggers as a synonym. Add:
Synonymy by Wood 2007: 99.

Page 214 ***punctatus*** Eggers. Add:
(**ds**) Mecke, Galileo and Engels 2000: 168. (**ds, tx**) Wood 2007: 101.

ADD SPECIES:

eggersi Wood 2007: 100. Holotype (female), BRAZIL: Jatahy, Goyas; DEIM.

Genus ***Sternobothrus*** Eggers

Page 216 ***Sternobothrus*** Eggers. Add:
KEY: Wood 2007, p. 106 (to species in South America).
(**tx**) Alonso-Zarazaga and Lyal 2009: 27. (**ds, tx**) Wood 2007: 106.

- Page 205 **ater** (Schedl). Move from **Cnesinus**. Add:
New combination by Wood 2007: 110.
(ds, tx) Wood 2007: 110.
- Page 216 **bicaudatus** (Blandford). Add *S. tuberculatus* Eggers as a synonym. Add:
(ds, tx) Wood 2007: 112.
- Page 206 **bicostatus** (Schedl). Move from **Cnesinus**. Add:
New combination by Wood 2007: 110.
(ds, tx) Wood 2007: 110.
- Page 216 **cancellatus** (Chapuis). Add:
(ds, tx) Wood 2007: 113.
- Page 216 **carinatus** Eggers. Add:
(ds, tx) Wood 2007: 113.
- Page 216 **costatus** (Chapuis). Add *Bothrosternus lacordairei* Chapuis as a synonym. Add:
Lectotype (female ?), Brazil, designated by Wood 2007: 112.
(ds, tx) Wood 2007: 112.
- Page 209 **marginicollis** (Eggers). Move from **Cnesinus**. Add:
New combination by Wood 2007: 109.
(ds, tx) Wood 2007: 109.
- Page 216 **opaculus** Schedl. Add:
(ds, tx) Wood 2007: 113.
- Page 210 **paraguayensis** (Schedl). Move from **Cnesinus**. Add:
New combination by Wood 2007: 110.
(ds, tx) Wood 2007: 110.
- Page 210 **pilosus** (Eggers). Move from **Cnesinus**. Add:
New combination by Wood 2007: 108.
(ds, tx) Wood 2007: 108.
- Page 211 **pumilus** (Eggers). Move from **Cnesinus**. Add:
New combination by Wood 2007: 111.
(ds, tx) Wood 2007: 111.
- Page 216 **rufonitidus** Schedl. Add:
(ds, tx) Wood 2007: 108.
- Page 216 **sculpturatus** (Blandford). Add:
(ds) Bright 2004: 156. **(ds, tx)** Wood 2007: 114.
- Page 215 **suturalis** (Eggers). Move from **Bothrosternus**. Add:
New combination by Wood 2007: 111.
(ds) Bright 2004: 156. **(ds, tx)** Wood 2007: 111.
- Page 212 **transitus** (Schedl). Move from **Cnesinus**. Add:
New combination by Wood 2007: 111.
(ds, tx) Wood 2007: 111.

Page 216 *tuberculatus* Eggers. Move to *S. bicostatus* (Schedl) as a synonym. Add:
Synonymy by Wood 2007: 112.

Page 212 *vexator* (Schedl). Move from *Cnesinus*. Add:
New combination by Wood 2007: 109.
(ds, tx) Wood 2007: 109.

TRIBE PHLOEOTRIBINI

Page 217 **Phloeotribini** Chapuis. Add:
KEY: Cognato and Smith 2010: 61 (to genera).

Genus ***Aricerus*** Blandford

Page 217 ***Aricerus*** Blandford. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 90.

Genus ***Dryotomicus*** Wood

ADD GENUS:

Dryotomicus Wood. Remove from synonymy with ***Phloeotribus***. Add:
KEY: Cognato and Smith 2010: 62 (to all species).
(tx) Cognato and Smith 2010: 54.

Page 227 ***puberulus*** (Chapuis). Move from ***Phloeotribus***. Add:
New combination by Cognato and Smith 2010: 60.
FIGURE: Cognato and Smith 2010: 63 (elytral declivity).
(ds, tx) Wood 2007: 125.

Page 235 ***tuberculatus*** (Eggers). Move from ***Phloeotribus***. Add:
New combination by Cognato and Smith 2010: 60.
FIGURE: Cognato and Smith 2010: 63 (elytra).
(ds, tx) Wood 2007: 125.

ADD SPECIES:

oenophilis Cognato and Smith 2010: 54. Holotype (male), GUYANA: Iwokrama Forest, GHPN N 04.40.486' W 58.41.028; BCUG.
FIGURES: Cognato and Smith 2010: 55 (habitus), 56 (male frons and elytral declivity), 57 (aedeagus), 58 (female habitus, frons).

woodrex Cognato and Smith 2010: 58. Holotype (male), PERU: Dept. Loreto, 1.5 km N Teniente Lopez, 4°35.66'S, 76°06.92'W, SMUK.
FIGURES: Cognato and Smith 2010: 59 (habitus), 60 (male frons and elytral declivity), 61 (aedeagus).

Genus ***Phloeotribus*** Latreille

Page 217 ***Phloeotribus*** Latreille. Add:
KEYS: Burgos-Solorio et al. 2003: 345-348 (to Mexican species); Wood 2007: 115 (to South American species).
(an) López-Buenfil et al. 2001: 333. (tx) Alonso-Zarazaga and Lyal 2009: 90; de Laclos et al. 2004: 117; Rabaglia 2002: 800. (ds, tx) Wood 2007: 115.

- Page 217 *Phloeophthorus* Wollaston (= *Phloeotribus* Latreille). Add:
KEY: de Laclos et al. 2004: 119 (to species in France).
(tx) de Laclos et al. 2004: 119.
- Page 218 *amplus* Wood. Add:
FIGURES: Wood 2007: PLATE 11.
(ds, tx) Wood 2007: 130.
- Page 218 *argentiniae* Blackman. Move to *P. subovatus* Blandford as a synonym. Add:
Synonymy by Wood 2007: 139.
- Page 216 *argentinensis* (Schedl). Add:
(ds) Bright 2004: 160. (tx) Guadalupe del Rio, Lanteri and Suárez 2005: 3. (ds, tx) Wood 2007: 129.
NOTE: Syntypes in MLPC.
- Page 218 *armatus* Blandford. Move to *P. setulosus* Eichhoff as a synonym. Add:
Synonymy by Wood 2007: 144.
- Page 219 *asperulus* Eggers. Add:
Lectotype (male), Cochabamba, Bolivia, designated by Wood 2007: 141.
(ds, tx) Wood 2007: 141.
- Page 219 *biguttatus* Blandford. Add:
(ds, tx) Wood 2007: 140.
- Page 232 *boliviæ* Blackman. Move to *P. picipennis* Eggers as a synonym. Add:
Synonymy by Wood 2007: 143.
NOTE: Previously listed as a synonym of *P. schoenbachi* Kirsch.
- Page 219 *brasiliensis* (Schedl). Add:
(ds, tx) Wood 2007: 126.
- Page 219 *brevicollis* (Kolenati). Add:
DISTRIBUTION: EUROPE: "Yugoslavia".
(ds) Markovic and Stojanovic 1999.
- Page 219 *caucasicus* Reitter. Add:
DISTRIBUTION: ASIA: Russia (Daghestan).
HOST: *Juglans regia*.
(ds) Knízek 2006a: 356; Mandelshtam, Nikitsky and Bibin 2005a: 23; Petrov 2005: 219.
- Page 219 *collaris* Chapuis. Add:
FIGURES: Wood 2007: PLATE 12.
(ds, tx) Wood 2007: 127.
- Page 219 *contortus* Schedl. Add:
(ds, tx) Wood 2007: 142.
- Page 220 *contractus* Chapuis. Move to *P. rufidus* Eichhoff as a synonym. Add:
Synonymy by Wood 2007: 134.
- Page 220 *cristatus* (Fauvel). Add:
(tx) de Laclos et al. 2004: 119 (as group, in key). (ds, tx) Colonnelli 2003: 99.

NOTE: Treated as a subspecies and in genus *Phloeophthorus* in Colonelli (2003).

- Page 220 ***cylindricus*** Schedl. Add:
Lectotype (male), Nova Teutonia, Santa Catarina, Brazil, designated by Wood 2007: 136.
(ds) Bright 2004: 160. (tx) Guadalupe del Rio, Lanteri and Suárez 2005: 5. (ds, tx) Wood 2007: 136.
- Page 220 ***demessus*** Blandford. Add:
(ds) Burgos-Solorio and Equihua 2007: 70.
- Page 221 ***dentifrons*** (Blackman). Add:
DISTRIBUTION: NORTH AMERICA: United States (Maryland).
(ds) Rabaglia 2003: 375.
- Page 221 ***despectus*** Schedl. Move to ***P. collaris*** Chapuis as a synonym. Add:
Synonymy by 2007: 127.
- Page 221 ***erinaceus*** Schedl. Add:
(ds, tx) Wood 2007: 132.
- Page 221 ***erosus*** Schedl. Add:
Lectotype (male), Nova Teutonia, Santa Catarina, Brazil, designated by Wood 2007: 135.
(ds, tx) Wood 2007: 135.
- Page 221 ***fici*** Wood. Add:
(ds, tx) Wood 2007: 134.
- Page 221 ***frontalis*** (Olivier). Add:
DISTRIBUTION: NORTH AMERICA: United States (**Colorado** [see Appendix]).
- Page 222 ***geminus*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 70.
- Page 222 ***harringtoni*** Blackman. Add:
(ds, tx) Wood 2007: 133.
- Page 222 ***hebes*** Schedl. Add:
FIGURES: Wood 2007: PLATE 12
(ds, tx) Wood 2007: 128.
- Page 222 ***hirtellus*** Schedl. Add:
(ds, tx) Wood 2007: 124.
- Page 222 ***hirtus*** Wood. Add:
(ds, tx) Wood 2007: 133.
- Page 222 ***hispidulus*** Eggers. Add:
(ds, tx) Wood 2007: 126.
- Page 222 ***hylurgulus*** Schedl. Add:
(ds, tx) Wood 2007: 123.
- Page 223 ***ingae*** Wood. Add:
(ds, tx) Wood 2007: 128.

- Page 223 ***jujuya*** Blackman. Add:
(ds) Bright 2004: 160. (ds, tx) Wood 2007: 133.
- Page 223 ***lecontei*** Schedl. Add:
FIGURE: Furniss and Johnson 2002: 52 (gallery pattern).
DISTRIBUTION: NORTH AMERICA: United States (Alaska, **Wyoming** [see Appendix]).
(ds) Furniss, Holsten and Schultz 2002: 87. (ds, hb, tx) Furniss and Johnson 2002: 51.
- Page 223 ***levis*** Wood. Move to ***P. nitidicollis*** (Eggers) as a synonym.
Synonymy by Wood 2007: 132.
- Page 223 ***liminaris*** (Harris). Add:
DISTRIBUTION: EUROPE: Italy (introduced and established). NORTH AMERICA: Canada
(Nova Scotia, **Saskatchewan** [see Appendix]), United States (Alabama, **California** [see
Appendix], Delaware, **Tennessee** [see Appendix]).
(ds) Pennacchio et al. 2004; Majka, Anderson and McCorquodale 2007: 418; Rabaglia and
Valenti 2003: 314; Schiefer 2010: 110.
- Page 224 ***lineatus*** Eggers. Move to ***P. rufus*** Eichhoff as a synonym. Add:
Synonymy by Wood 2007: 134.
- Page 224 ***marginatus*** Eggers. Move to ***P. transversus*** Chapuis as a synonym. Add:
Synonymy by Wood 2007: 144.
- Page 225 ***minor*** Wood. Add:
(ds, tx) Wood 2007: 142.
- Page 225 ***nanus*** Wood. Add:
(ds, tx) Wood 2007: 124.
- Page 225 ***nebulosus*** Wood. Move to ***P. nitidicollis*** (Eggers) as a synonym.
Synonymy by Wood 2007: 132.
- Page 225 ***neglectus*** Schedl. Move to ***P. nitidicollis*** (Eggers) as a synonym.
Synonymy by Wood 2007: 132.
- Page 225 ***nitidicollis*** (Eggers). Add *P. levis* Wood, *P. nebulosus* Wood and *P. neglectus* Schedl as syn-
onyms. Add:
(ds, tx) Wood 2007: 132.
- Page 225 ***novateutonicus*** (Schedl). Add:
Lectotype (male), Nova Teutonia, Santa Catarina, Brazil, designated by Wood 2007: 130.
(ds, tx) Wood 2007: 130.
- Page 225 ***opacicollis*** Eggers. Add:
(ds, tx) Wood 2007: 136.
- Page 225 ***ovatus*** (Eggers). Add:
(ds, tx) Wood 2007: 125.
- Page 225 ***pacificus*** Bright. Add:
(ds) Kirkendall and Jordal 2006: 731.

- Page 225 ***perfoliatus*** (Wollaston). Add:
(**ds**) Colonnelli 2003: 99. (**tx**) de Laclos et al. 2004: 119 (in key).
NOTE: Treated in genus *Phloeophthorus* in Colonnelli (2003).
- Page 226 ***peruensis*** Schedl. Move to ***P. rufidus*** Eichhoff as a synonym. Add:
Synonymy by Wood 2007: 134.
- Page 226 ***piceae*** Swaine. Add:
DISTRIBUTION: NORTH AMERICA: Canada (**Nova Scotia** [see Appendix]), United States (Michigan).
(**ds**) Cognato et al. 2009: 115; Furniss, Holsten and Schultz 2002: 87.
- Page 226 ***picipennis*** Eggers. Add *P. boliviae* Blackman as a synonym. Add:
(**ds, tx**) Wood 2007: 143.
- Page 226 ***pilula*** (Erichson). Add:
(**ds, tx**) Wood 2007: 138.
- Page 227 ***profanus*** Schedl. Add:
(**ds, tx**) Wood 2007: 131.
- Page 227 ***pruni*** Wood. Add:
(**ds**) Burgos-Solorio and Equihua 2007: 70.
- Page 227 ***puberulus*** (Chapuis). Move to ***Dryotomicus***.
- Page 227 ***pubifrons*** (Guillebeau). Add:
FIGURE: de Laclos et al. 2004: 120 (antennae).
(**ds**) Colonnelli 2003: 99. (**tx**) de Laclos et al. 2004: 119 (in key).
NOTE: Treated as a subspecies in genus *Phloeophthorus* in Colonnelli (2003).
- Page 228 ***remorsus*** Wood. Add:
FIGURES: Wood 2007: PLATE 14.
(**ds, tx**) Wood 2007: 143.
- Page 228 ***rhododactylus*** (Marsham). Add:
FIGURE: de Laclos et al. 2004: 120 (antennae, gallery pattern).
(**ds**) Colonnelli 2003: 99; Konwerski and Mleczak 2001: 88; Podlussány and György 2008: 199. (**ds, hb, tx**) de Laclos et al. 2004: 120.
NOTE: Treated in genus *Phloeophthorus* in Colonnelli (2003).
- Page 232 ***rufidus*** Eichhoff. Remove from synonymy with ***P. setulosus***. Add *P. contractus* Chapuis, *P. peruensis* Schedl, *P. striatus* Eggers, and *P. lineatus* Eggers as synonyms. Add:
(**ds, tx**) Wood 2007: 134.
- Page 230 ***rugulosus*** Eggers. Add:
Lectotype (male), Corundo, Mato Grosso, Brazil, designated by Wood 2007: 137.
(**ds, tx**) Wood 2007: 137.
- Page 230 ***scabricollis*** (Hopkins). Add:
DISTRIBUTION: NORTH AMERICA: United States (Michigan).
(**ds**) Cognato et al. 2009: 115.

- Page 230 ***scarabaeoides*** (Bernard). Add:
FIGURES: De Marzo 2009: 30 (spermatheca); de Laclos et al. 2004: 118 (habitus); Mifsud and Knízek 2009: 47 (habitus).
DISTRIBUTION: EUROPE: France (Corsica), Malta.
(ds) Colonnelli 2003: 99; de Laclos 2004: 165; Haack 2001: 273; Mifsud and Knízek 2009: 32.
(ds, tx) de Laclos et al. 2004: 118.
NOTE: de Laclos et al. 2004: 117 recognize 2 subspecies: *scarabaeoides* and *occidentalis* (Bedel). Not mentioned in Knízek 2011.
- Page 232 ***schoenbachi*** Kirsch. Add:
(ds, tx) Wood 2007: 140.
- Page 232 ***serratus*** Eggers. Add:
(ds, tx) Wood 2007: 144.
- Page 232 ***setulosus*** Eichhoff. Add *P. armatus* Blandford as a synonym. Add:
FIGURES: López-Buenfil et al. 2001: 362 (proventriculus); Wood 2007: PLATE 15.
(ds) Burgos-Solorio and Equihua 2007: 70; Vázquez, Rodriguez and Zorrilla 2003: 18. (ds, tx) Wood 2007: 144.
- Page 233 ***simplicidens*** Wood. Add:
(ds, tx) Wood 2007: 129.
- Page 233 ***spinulosus*** (Rey). Add:
DISTRIBUTION: ASIA: Russia (Yakutia, Yaroslavi).
(ds) Averensky and Yanovsky 2008: 25; Colonnelli 2003: 99; Mandelshtam and Popovichev 2000: 891; Petrov and Nikitskii 2001: 169; Voolma et al. 2004. (hb) Petrov and Nikitskii 2001: 169. (tx) Vlasov 2005: 765.
NOTE: Treated in genus *Phthorophloeus* in Colonnelli (2003).
- Page 234 ***squamiger*** Wood. Add:
FIGURES: Wood 2007: PLATE 15.
(ds, tx) Wood 2007: 128.
- Page 234 ***striatus*** Eggers. Move to ***P. rufidus*** Eichhoff as a synonym. Add:
Synonymy by Wood 2007: 134.
- Page 234 ***subovatus*** Blandford. Add *P. argentinae* as a synonym. Add:
FIGURES: Wood 2007: PLATE 16.
(ds, tx) Wood 2007: 139.
- Page 234 ***sulcifrons*** Chapuis. Add:
(ds, tx) Wood 2007: 135.
- Page 234 ***suturalis*** Eggers. Add:
(ds, tx) Wood 2007: 138.
- Page 235 ***tetricus*** Wood. Add:
(ds, tx) Wood 2007: 139.
- Page 235 ***texanus*** Schaeffer. Add:
DISTRIBUTION: NORTH AMERICA: United States (Alabama).
(ds) Schaeffer 2010: 110.

Page 235 ***transversus*** Chapuis. Add *P. marginatus* Eggers as a synonym. Add:
FIGURES: Wood 2007: PLATE 16.
(**ds, tx**) Wood 2007: 144.

Page 235 ***tuberculatus*** (Eggers). Move to ***Dryotomicus***.

Page 235 ***uniseriatus*** Eggers. Add:
(**ds, tx**) Wood 2007: 138.

Page 235 ***venezuelensis*** (Schedl). Add:
FIGURES: Wood 2007: PLATE 17.
(**ds, tx**) Wood 2007: 127.

Page 235 ***vesculus*** Wood. Add:
(**ds, tx**) Wood 2007: 131.

Page 235 ***vestitus*** Eggers. Add:
(**ds, tx**) Wood 2007: 137.

Page 235 ***willei*** Schedl. Add:
(**ds, tx**) Wood 2007: 142.

ADD SPECIES:

carinatus Burgos-Solorio and Equihua 2003: 342. Holotype (male), MEXICO: Cañón de Lobos, Yautepec, Morelos; Laboratorio de Parasitología and Laboratorio de Entomología, Universidad Autónoma del Estado de Morelos, Cuernavaca, Mexico. Add *P. ebeneus* Wood as a synonym.
FIGURES: Burgos-Solorio and Equihua 2003: 343, 344 (habitus).
HOST: *Celtis* sp.

ebeneus Wood 2007: 141. Holotype (male), MEXICO: Canyon de Lobos, Yautepec, Morelos; USNM.
NOTE: New synonym of ***P. carinatus*** Burgos-Solorio and Equihua.

hirticulus Wood 2007: 123. Holotype (male), VENEZUELA: La Carbonera Experimental Forest, 50 km NW Merida; USNM.
FIGURES: Wood 2007: PLATE 13.

incanus Wood 2007: 137. Holotype (male), PERU: Chanchamyo in Junin; DEIM.
FIGURES: Wood 2007: PLATE 13.

pilifer Wood 2007: 123. Holotype (male), PERU: Andes Highlands lakes, Shishma, Huanuco, 3600-4000m; USNM.

schedli Wood 2007: 124. Holotype (female), BRAZIL: Nova Teutonia, Santa Catarina; NHMW.

truncatus Wood 2007: 129. Holotype (male), COLOMBIA: Quindo; NHML.
FIGURES: Wood 2007: PLATE 17.

woytkowskii Wood 2007: 126. Holotype (female), PERU: Cuachapayas (or Chachapoyas ?), Dep. Amazonas, Andes; USNM.

TRIBE PHLOEOSININI

Page 236 **Phloeosinini** Nüsslin. Add:

KEYS: Jordal 2010: 154 (to world genera except **Cortisinus** Wood); Maiti and Saha 2009: 48 (to genera in India); Wood 2007: 146 (to genera in South America).

(tx) Alonso-Zarazaga and Lyal 2009: 85. (hb, tx) Wood 2007: 146.

Genus **Asiophilus** Jordal

ADD GENUS:

Asiophilus Jordal 2010: 147. Type species: *Phloeoditica phloeosinoides* Browne, original designation.

Page 236 **phloeosinoides** (Browne). Move from **Phloeoditica**. Add:

New combination by Jordal 2010: 148.

FIGURE: Jordal 2010: 150 (habitus).

ADD SPECIES:

macropunctatus Jordal 2010: 149. Holotype (sex ?), VIETNAM: Lao Cai, ca. 12 km along road from Sapa to Lai Chau, 1950 m, 22°20'58"N 103°46'15"E; depository not mentioned.

FIGURE: Jordal 2010: 150 (habitus).

Genus **Carphotoreus** Wood

Page 237 **Caphotoreus** Wood. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 86.

Genus **Catenophorus** Nunberg

Page 237 **Catenophorus** Nunberg. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 86.

Genus **Chramesus** LeConte

Page 262 **Chramesus** LeConte. Add:

KEY: Wood 2007: 157 (to species in South America).

(an) López-Buenfil et al. 2001: 334. (tx) Alonso-Zarazaga and Lyal 2009: 86; Rabaglia 2002: 800. (ds, tx) Wood 2007: 156.

Page 263 **aberrans** Schedl. Add:

Lectotype (male), Nova Teutonia, Santa Catarina, Brazil, designated by Wood 2007: 166.

FIGURES: Wood 2007: PLATE 20.

(ds, tx) Wood 2007: 166.

Page 263 **acacicola** Wood. Add:

(ds, tx) Wood 2007: 164.

Page 263 **advena** Schedl. Add:

Lectotype (female), Cachoeirinha-Una, Bahia, Peru, designated by Wood 2007: 171.

(ds, tx) Wood 2007: 171.

Page 263 **argentinensis** Schedl. Add:

Lectotype (female), Isla Martin, Buenos Aires, Argentina, designated by Wood 2007: 163.

- (ds) Bright 2004: 159. (tx) Guadalupe del Rio, Lanteri and Suárez 2005: 3. (ds, tx) Wood 2007: 163.
- Page 263 **aspericollis** Schedl. Add:
Lectotype (female), Loreto Missiones, Argentina, designated by Wood 2007: 167.
FIGURES: Wood 2007: PLATE 21.
(ds) Bright 2004: 159. (tx) Guadalupe del Rio, Lanteri and Suárez 2005: 4. (ds, tx) Wood 2007: 167.
- Page 263 **asperulus** Schedl. Add:
(ds, tx) Wood 2007: 166.
- Page 264 **badius** Schedl. Add:
(ds, tx) Wood 2007: 176.
- Page 264 **bispinus** Wood. Add:
(ds, tx) Wood 2007: 178.
- Page 264 **boliviensis** Schedl. Add:
Lectotype (male), Valle de Rio Abalo, La Paz, Bolivia, designated by Wood 2007: 175.
(ds, tx) Wood 2007: 175.
- Page 264 **brasiliensis** Nunberg. Add:
(ds, tx) Wood 2007: 174.
- Page 264 **chapuisi** LeConte. Add:
DISTRIBUTION: NORTH AMERICA: United States (**Indiana** [see Appendix]).
- Page 264 **corumbensis** Eggers. Add:
(ds, tx) Wood 2007: 163.
- Page 269 **cristatus** Schedl (= **C. spinosus** Brèthes). Add:
Lectotype (female), Nova Teutonia, Santa Catarina, Brazil, designated by Wood 2007: 180.
- Page 264 **cylindricus** Schedl. Add:
(tx) Guadalupe del Rio, Lanteri and Suárez 2005: 5. (ds, tx) Wood 2007: 176.
- Page 265 **denticulatus** Wood. Add:
(ds, tx) Wood 2007: 165.
- Page 265 **dentipes** Schedl. Move to **C. spinosus** Brèthes as a synonym. Add:
Synonymy by Wood 2007: 180.
- Page 265 **erinaceus** Schedl. Add:
(ds, tx) Wood 2007: 179.
- Page 265 **eurypterus** Schedl. Move to **C. globosus** Hagedorn as a synonym. Add:
Synonymy by Wood 2007: 173.
- Page 265 **exilis** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 70.
- Page 265 **exul** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 70.

- Page 265 ***globosus*** Hagedorn. Add *C. eurypterus* Schedl as a synonym. Add:
 (ds) Bright 2004: 159. (tx) Guadalupe del Rio, Lanteri and Suárez 2005: 6. (ds, tx) Wood
 2007: 174.
- Page 265 ***granulatus*** (Eggers). Add:
 (ds, tx) Wood 2007: 172.
- Page 266 ***granulipennis*** Schedl. Add:
 FIGURES: Petrov and Mandelshtam 2011: 270 (habitus, male frons).
 DISTRIBUTION: SOUTH AMERICA: Peru (Huánuco).
 (ds, tx) Petrov and Mandelshtam 2011: 269; Wood 2007: 170.
- Page 266 ***hicorniae*** LeConte. Add:
 DISTRIBUTION: NORTH AMERICA: United States (Arkansas, Michigan).
 (ds) Cognato et al. 2009: 113; Schiefer 2010: 111.
- Page 266 ***hylurgoides*** Schedl. Add:
 Lectotype (female), Nova Teutonia, Santa Catarina, Brazil, designation by Wood 2007: 177.
 (ds, tx) Wood 2007: 177.
- Page 266 ***impolitus*** Wood. Add:
 FIGURES: Wood 2007: PLATE 22.
 (ds, tx) Wood 2007: 169.
- Page 266 ***imporcatus*** Wood. Add:
 (ds, tx) Wood 2007: 170.
- Page 267 ***macrocornis*** Wood. Add:
 FIGURES: Wood 2007: PLATE 23.
 (ds, tx) Wood 2007: 177.
- Page 267 ***minor*** Eggers. Add:
 (ds, tx) Wood 2007: 165.
- Page 267 ***neglectus*** Schedl. Add:
 (ds, tx) Wood 2007: 164.
- Page 267 ***opacicollis*** Eggers. Add:
 (ds) Vázquez, Rodriguez and Zorrilla 2003: 18.
- Page 267 ***orinocensis*** Wood. Add.
 (ds, tx) Wood 2007: 169.
- Page 267 ***ovalis*** Schedl. Add:
 Lectotype (female), Loreto, Missiones, Argentina, designated by Wood 2007: 167.
 (ds, tx) Wood 2007: 167.
- Page 267 ***parcus*** Wood. Add:
 DISTRIBUTION: SOUTH AMERICA: **Trinidad** [see Appendix].
 (ds, tx) Wood 2007: 176.
- Page 267 ***peniculus*** Wood. Add:
 (ds, tx) Wood 2007: 175.

- Page 267 ***peruanus*** Schedl. Add:
FIGURE: Petrov and Mandelshtam 2011: 270 (habitus).
HOST: *Senna birostis*.
(ds, tx) Petrov and Mandelshtam 2011: 272; Wood 2007: 171.
- Page 267 ***phloeosinites*** Schedl. Add:
(ds, tx) Wood 2007: 180.
- Page 268 ***phloeotriboides*** Schedl. Add:
(ds, tx) Wood 2007: 172.
- Page 268 ***priscus*** Wood. Add:
(ds, tx) Wood 2007: 168.
- Page 268 ***pumilus*** (Chapuis). Add:
(ds) Burgos-Solorio and Equihua 2007: 70. (ds, tx) Wood 2007: 166.
- Page 268 ***robustus*** Schedl. Add:
(ds) Vázquez, Rodriguez and Zorrilla 2003: 18.
- Page 268 ***rotundatus*** (Chapuis). Add:
DISTRIBUTION: NORTH AMERICA: Puerto Rico.
(ds) Bright and Torres 2006: 395.
- Page 268 ***securus*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 71.
- Page 262 ***semibrunneus*** Eggers. Move to ***Pseudochramesus acuteclavatus*** (Hagedorn) as a synonym.
Synonymy by Wood 2007: 54.
- Page 269 ***setiger*** Schedl. Add:
Lectotype (female), Nova Teutonia, Santa Catarina, Brazil, designated by Wood 2007: 168.
(ds, tx) Wood 2007: 168.
- Page 269 ***simplicis*** Wood. Add:
FIGURES: Wood 2007: PLATE 23.
(ds, tx) Wood 2007: 164.
- Page 269 ***solicitatiatus*** Wood. Add:
FIGURES: Wood 2007: PLATE 24.
(ds, tx) Wood 2007: 175.
- Page 269 ***spinosus*** Brèthes. Add *C. dentipes* Schedl as a synonym. Add:
(ds) Bright 2004: 159. (ds, tx) Wood 2007: 180.
- Page 269 ***striatus*** Eggers. Add:
(ds, tx) Wood 2007: 170.
- Page 269 ***strigilis*** Wood. Add:
(ds, tx) Wood 2007: 173.

- Page 269 ***subopacus*** Schaeffer. Add:
 FIGURE: López-Buenfil et al. 2001: 363 (proventriculus).
 (**ds**) Burgos-Solorio and Equihua 2007: 70.
- Page 269 ***subtuberculatus*** Eggers. Add:
 (**ds, tx**) Wood 2007: 179.
- Page 270 ***tuberculatus*** (Chapuis). Add:
 Lectotype (male), Colombia [Nouvelle Grenada], designated by Wood 2007: 179.
 (**ds, tx**) Wood 2007: 179.
- Page 270 ***unicornis*** Wood. Add:
 (**ds**) Burgos-Solorio and Equihua 2007: 71.
- Page 270 ***variegatus*** Eggers. Add:
 (**ds, tx**) Wood 2007: 162.
- Page 270 ***vinealis*** Wood. Add:
 (**ds, tx**) Wood 2007: 169.
- Page 270 ***vitiosus*** Wood. Add:
 (**ds**) Burgos-Solorio and Equihua 2007: 71.

ADD SPECIES:

argentinae Wood 2007: 173. Holotype (male), ARGENTINA: Tafi del Valle; USNM.

atlanticus Bright and Torres 2006: 395. Holotype (male), PUERTO RICO: Guaynabo; DEBC/USNM.
 FIGURE: Bright and Torres 2006: 425 (antenna).

dentellus Wood 2007: 178. Holotype (male), ECUADOR: 10 km NW of Banos; USNM.
 FIGURES: Wood 2007: PLATE 22.

flechtmanni Petrov and Mandelshtam 2011: 273. Holotype (male), PERU: Junin Province, 15 km southwest from Satipo, Rio Venado, 1050 m, S 11°11.982', W 74°40.277': ZMM.
 FIGURES: Petrov and Mandelshtam 2011: 270 (habitus, male frons)

luteus Wood 2007: 172. Holotype (male), COLOMBIA; USNM.

schoenmanni Petrov and Mandelshtam 2011: 274. Holotype (male), PERU: Loreto Province, Itaya River, left bank of Amazon River, 62 km SSW from Iquitos to Nauta, 120 m, S 4°15.568', W 73°28.032': ZMM.
 FIGURES: Petrov and Mandelshtam 2011: 270 (habitus, male and female frons).

Genus ***Cladoctonus*** Strohmeyer

- Page 237 ***Cladoctonus*** Strohmeyer. Add:
 KEY: Wood 2007: 150 (to species in South America).
 (**an**) López-Buenfil et al. 2001: 334. (**tx**) Alonso-Zarazaga and Lyal 2009: 86. (**ds, tx**) Wood 2007: 149.

americanus Wood 2007: 150.

NOTE: Listed only in Wood 2007: 150 (key to species). A *nomem nudum*. No description found in Wood 2007 or any previous publication.

- Page 238 ***atrocis*** Wood. Add:
(**ds, tx**) Wood 2007: 151.
- Page 238 ***brevisetosus*** Bright. Add:
DISTRIBUTION: NORTH AMERICA: Puerto Rico.
(**ds**) Bright and Torres 2006: 394.
- Page 238 ***corumbensis*** (Eggers). Add:
FIGURES: Wood 2007: PLATE 19.
(**ds, tx**) Wood 2007: 150.
- Page 238 ***cubensis*** (Wood). Add:
FIGURE: López-Buenfil et al. 2001: 363 (proventriculus).
(**ds**) Vázquez, Rodriguez and Zorrilla 2003: 18.
- Page 239 ***interruptus*** (Eggers). Add:
FIGURES: Wood 2007: PLATE 19.
(**ds, tx**) Wood 2007: 151.
- Page 239 ***tuberculatus*** Schedl. Add:
(**ds, tx**) Wood 2007: 151.

Genus ***Cortisinus*** Wood

ADD GENUS:

- Cortisinus*** Wood 2007: 149. Type species: *Sternobothrus lobatus* Eggers, monotypic and original designation. Add:
(**tx**) Alonso-Zarazaga and Lyal 2009: 87.

- Page 216 ***lobatus*** (Eggers). Move from ***Sternobothrus***. Add:
New combination by Wood 2007: 149.
(**ds, tx**) Wood 2007: 149.

Genus ***Dendrosinus*** Chapuis

- Page 236 ***Dendrosinus*** Chapuis. Add:
KEY: Wood 2007: 147 (to species in South America).
(**an**) López-Buenfil et al. 2001: 333. (**tx**) Alonso-Zarazaga and Lyal 2009: 87; Rabaglia 2002: 800. (**ds, tx**) Wood 2007: 146.
- Page 236 ***ater*** Eggers. Add *D. paraguayensis* as a synonym. Add:
(**ds, tx**) Wood 2007: 147.

- Page 236 ***bourrerieae*** Schwarz. Add:
(**ds**) Bright and Torres 2006: 394; Vázquez, Rodriguez and Zorrilla 2003: 18.

- Page 237 ***globosus*** (Eichhoff). Add:
(**ds, tx**) Wood 2007: 148.

- Page 236 ***hirsutus*** Schedl (= ***D. ater*** Eggers). Add:
Lectotype (female), Santa Fe, Dep. Garay, Argentina, designated by Wood 2007: 147.
(**tx**) Guadalupe del Rio, Lanteri and Suárez 2005: 6.

- Page 237 ***mexicanus*** Wood. Add:
FIGURE: López-Buenfil et al. 2001: 362 (proventriculus).
(ds) Burgos-Solorio and Equihua 2007: 70.
- Page 237 ***paraguayensis*** Eggers. Move to ***D. ater*** Eggers as a synonym. Add:
Synonymy by Wood 2007: 147.
- Page 237 ***puncticollis*** Blandford. Add:
(tx) Wood 2007: 148.
- Page 237 ***vittifrons*** Blandford. Add:
(ds, tx) Wood 2007: 148.
- Genus ***Hyledius*** Sampson
- Page 259 ***Hyledius*** Sampson. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 87. **(ds, tx)** Maiti and Saha 2009: 55.
- Page 259 ***borneensis*** (Schedl). Move to ***H. vilis*** (Blandford) as a synonym. Add:
Synonymy by Beaver 2011a: 282.
- Page 261 ***cribratus*** (Blandford). Add *Phloeosinus australis* Schedl and *H. tuberculosus* (Browne) as
synonyms. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Huang and Yin 1992: 855. **(tx)** Beaver 2011: 282.
NOTE: Treated under ***Phloeosinus*** in Huang and Yin 1992.
- Page 260 ***hylurgulus*** (Eggers). Move to ***H. vilis*** (Blandford) as a synonym. Add:
Synonymy by Beaver 2011a: 282.
- Page 260 ***jiri*** (Wood). Add:
(ds, tx) Maiti and Saha 2009: 56.
- Page 249 ***kinabaluensis*** (Bright). Move from ***Phloeosinus* (New Combination)**.
- Page 261 ***malayensis*** Schedl (= ***H. cribratus*** (Blandford)). Add:
(ds) Huang and Yin 1992: 855.
- Page 260 ***nitidicollis*** (Motschulsky). Add:
Lectotype (sex?), Ceylon, designated by Mandelshtam and Nikitsky 2010: 14.
- Page 259 ***nudifrons*** Motschulsky (= ***concinnulus*** (Walker)). Add:
Lectotype (sex?), Ceylon, designated by Mandelshtam and Nikitsky 2010: 15.
- Page 250 ***phyllocladus*** (Bright). Move from ***Phloeosinus* (New Combination)**.
- Page 261 ***tuberculatus*** (Browne). Move to ***H. cribratus*** (Blandford) as a synonym. Add:
Synonymy by Beaver 2011a: 282.
- Page 261 ***vilis*** (Blandford). Add *H. borneensis* (Schedl) and *H. hylurgulus* (Eggers) as synonyms. Add:
(tx) Beaver 2011a: 282.

Genus ***Hyleops*** Schedl

Page 237 ***Hyleops*** Schedl. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 88.

Genus ***Microditica*** Jordal

ADD GENUS:

Microditica Jordal 2010: 151. Type species: ***Microditica uniseriata*** Jordal, monotypic.

ADD SPECIES:

uniseriata Jordal 2010: 153. Holotype (sex ?), THAILAND: Railay Beach - Krabi, 8.014N 98.840E; NHCB.
FIGURE: Jordal 2010: 151 (habitus).

Genus ****Paleosinus*** Bright and Poinar

Page 57 ****Paleosinus*** Bright and Poinar. Add:
(Suppl. 2) (tx) Alonso-Zarazaga and Lyal 2009: 88.

Genus ***Phloeocranus*** Schedl

Page 236 ***Phloeocranus*** Schedl. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 88. (ds, tx) Maiti and Saha 2009: 49.

Page 236 ***bruchoides*** Schedl. Add:
FIGURES: Maiti and Saha 2009: 51 (habitus, antenna).
(ds, tx) Maiti and Saha 2009: 50.

Genus ***Phloeoditica*** Schedl

Page 236 ***Phloeoditica*** Schedl. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 88; Jordal 2010: 147. (ds, tx) Maiti and Saha 2009: 48.

Page 236 ***curta*** (Eggers). Add:
Lectotype (sex ?), Burma, designated by Jordal 2010: 143.
FIGURE: Jordal 2010: 144 (habitus).
DISTRIBUTION: ASIA: Bangladesh, Vietnam.
HOST: *Pongamia pinnata*.
(ds, tx) Jordal 2010: 143; Maiti and Saha 2009: 48.

Page 236 ***elegans*** Schedl. Add:
FIGURE: Jordal 2010: 144 (habitus).
(tx) Jordal 2010: 145.

Page 236 ***setosa*** (Eggers). Move to ***Pseudoxylechinus***.

Genus ***Phloeosinopsioides*** Schedl

Page 239 ***Phloeosinopsioides*** Schedl. Add:
KEY: Beaver 2011b: 61(to all species).
(tx) Alonso-Zarazaga and Lyal 2009: 88. (hb, tx) Beaver 2011b: 60.

Page 239 ***formosanus*** (Schedl). Add *P. triseriatus* Schedl as a synonym. Add:
 FIGURES: Beaver 2011b: 62 (habitus); Lin and Wu 2010: 208 (habitus).
 DISTRIBUTION: ASIA: Indonesia (Sulawesi Utara), Malaysia (Sabah).
 (ds) Lin and Wu 2010. (ds, tx) Beaver 2011b: 61; Beaver and Liu 2010: 17.

Page 239 ***leai*** (Schedl). Add:
 FIGURE: Beaver 2011b: 62 (habitus).
 (tx) Beaver 2011b: 61.

Page 239 ***pumilus*** Wood. Add:
 FIGURE: Beaver 2011b: 62 (habitus).
 DISTRIBUTION: AUSTRALIA: Northern Territory, Queensland.
 (ds, tx) Beaver 2011b: 63.

Page 239 ***triseriatus*** Schedl. Move to ***P. formosanus*** (Schedl) as a synonym. Add:
 Synonymy by Beaver 2011b: 61.

Genus ***Phloeosinus*** Chapuis

Page 239 ***Phloeosinus*** Chapuis. Add:
 KEYS: Furniss and Johnson 2002: 48 (to species in Idaho, USA); de Laclos et al. 2004: 121
 (to species in France); Maiti and Saha 2009: 52 (to species in India).
 (an) López-Buenfil et al. 2001: 334. (tx) Alonso-Zarazaga and Lyal 2009: 89; de Laclos et al.
 2004: 121; Rabaglia 2002: 800. (ds, tx) Maiti and Saha 2009: 52.

Page 240 ***abietis*** Tsai and Yin. Add:
 DISTRIBUTION: ASIA: China (Hengduan Mtns.).
 (ds) Huang and Yin 1992: 855.

Page 240 ***arisanus*** Niisima. Add:
 (tx) Beaver and Liu 2010: 17.

Page 240 ***armatus*** Reitter. Add:
 (ds) Colonnelli 2003: 99; Haack 2001: 275; Haack 2006: 273.

Page 241 ***aubei*** (Perris). Add:
 FIGURE: de Laclos et al. 2004: 123 (habitus).
 DISTRIBUTION: ASIA: China (Qinghai), Russia (Daghestan). EUROPE: Italy (Tuscany Islands).
 (ds) Colonnelli 2003: 99; Faccoli and Cecchi 2003; Han et al. 2010; Mandelshtam, Nikitsky and Bibin 2005a: 23; Markovic 2000; Petrov 2005: 219; Renner 2009: 47; Weigel 2008. (ds, hb) de Laclos et al. 2004: 123.
 NOTE: Treated as a distinct species in Colonnelli (2003) and Knížek (2011).

Page 241 ***australis*** Schedl. Move to ***Hyledius cibratus*** (Blandford) as a synonym. Add:
 Synonymy by Beaver 2011a: 282.

Page 241 ***bicolor*** Brullé. Add:
 DISTRIBUTION: ASIA: **Saudi Arabia** [see Appendix]. EUROPE: Netherlands.
 (ds) Inglebert 2002: 125; Moraal 2010.

Page 244 ***cedri*** Brisout. Add:
 HOST: *Cedrus libani atlantica*.
 (ds) Benhalima et al. 2005.

- Page 245 ***cupressi*** Hopkins. Add:
(**ds**) Brockerhoff, Knízek and Bain 2003: 35; Furniss, Holsten and Schultz 2002: 87; Haack 2001: 275.
- Page 245 ***deleoni*** Blackman. Add:
FIGURE: López-Buenfil et al. 2001: 363 (proventriculus).
(**ds**) Burgos-Solorio and Equihua 2007: 70.
- Page 246 ***dentatus*** (Say). Add:
DISTRIBUTION: NORTH AMERICA: United States (Delaware, Michigan).
(**ds**) Cognato et al. 2009: 115; Rabaglia and Valenti 2003: 314.
- Page 247 ***henschii*** Reitter. Add:
DISTRIBUTION: EUROPE: Bulgaria.
(**ds**) Doychev and Ovcharov 2006.
- Page 248 ***hoferi*** Blackman. Add:
(**ds, tx**) Furniss and Johnson 2002: 48.
- Page 249 ***jubatus*** Sampson. Add:
(**ds, tx**) Maiti and Saha 2009: 52.
- Page 249 ***keeni*** Blackman. Add:
(**ds, tx**) Furniss and Johnson 2002: 48.
- Page 249 ***kinabaluensis*** Bright. Move to ***Hyledius***.
NOTE: Holotype examined.
- Page 249 ***lewisi*** Chapuis. Add:
(**tx**) Beaver and Liu 2010: 18.
- Page 241 ***machilus*** (Schedl). Add:
(**ds, tx**) Maiti and Saha 2009: 53.
- Page 250 ***phyllocladus*** Bright. Move to ***Hyledius***.
NOTE: Holotype examined.
- Page 250 ***perlatus*** Chapuis. Add:
(**tx**) Beaver and Liu 2010: 18. (**ds, tx**) Yin 1997: 968.
- Page 250 ***pertuberculatus*** Eggers. Add:
FIGURE: Lin and Wu 2010: 208 (habitus).
(**ds**) Lin and Wu 2010. (**tx**) Beaver and Liu 2010: 18.
- Page 250 ***pini*** Swaine. Add:
(**ds**) Furniss, Holsten and Schultz 2002: 87. (**ds, hb, tx**) Furniss and Johnson 2002: 48.
- Page 251 ***punctatus*** LeConte. Add:
FIGURE: Furniss and Johnson 2002: 50 (gallery pattern).
(**ds**) Furniss, Holsten and Schultz 2002: 87. (**ds, hb, tx**) Furniss and Johnson 2002: 50.
- Page 252 ***rudis*** Blandford. Add:
DISTRIBUTION: EUROPE: Netherlands (introduced).

(**ds**) Colonnelli 2003: 99; Haack 2001: 273, 275; Moraal 2010a, 2010b. (**hb**) Moraal 2010a, 2010b.

NOTE: A subspecies, *hexiensis* Yin and Huang, is recorded from Qinghai, China in Han et al. 2010. The original validation of this species group name has not been found. *Nomem nudum*?

Page 253 ***scopulorum neomexicanus*** Blackman. Add:
 FIGURE: Furniss and Johnson 2002: 50 (gallery pattern).
 (**ds, hb, tx**) Furniss and Johnson 2002: 50.

Page 253 ***sequoiae*** Hopkins. Add:
 (**bv**) McNeil, Wood and Storer 2000.

Page 254 ***serratus*** (LeConte). Add:
 (**ds, tx**) Furniss and Johnson 2002: 51.

Page 255 ***sinensis*** Schedl. Add:
 (**ds, tx**) Yin 1997: 968.

Page 255 ***squamulatus*** Chapuis. Add:
 (**ds, tx**) Maiti and Saha 2009: 54.

Page 256 ***thujae*** (Perris). Add:
 FIGURES: Mifsud and Knízek 2009: 47 (habitus).
 DISTRIBUTION: EUROPE: France (Corsica), Malta, Netherlands.
 (**ds**) Colonnelli 2003: 99; de Laclos 2004: 165; Mifsud and Knízek 2009: 32; Moraal 2010;
 Podlussány and György 2008: 199. (**ds, hb**) de Laclos et al. 2004: 122.
 NOTE: Treated as a subspecies in Colonnelli (2003).

*Genus ***Protosinus*** Bright and Poinar

Page 57 ****Protosinus*** Bright and Poinar. Add:
 (Suppl.1) (**tx**) Alonso-Zarazaga and Lyal 2009: 89.

Genus ***Pseudochramesus*** Blackman

Page 261 ***Pseudochramesus*** Blackman. Add:
 KEY: Wood 2007: 152 (to species in South America).
 (**an**) López-Buenfil et al. 2001: 334. (**tx**) Alonso-Zarazaga and Lyal 2009: 89. (**ds, tx**) Wood 2007: 152.

Page 261 ***abbreviatus*** Schedl. Move to ***P. setifer*** Schedl as a synonym. Add:
 Lectotype (male), Nova Teutonia, Santa Catarina, Brazil, designated by Wood 2007: 155.
 Synonymy by Wood 2007: 155.

Page 262 ***acuteclavatus*** (Hagedorn). Add *Chramesus semibrunneus* Eggers as a synonym. Add:
 FIGURES: Wood 2007: PLATE 20.
 (**ds, tx**) Wood 2007: 154.

Page 262 ***brasiliensis*** Schedl. Add:
 (**ds, tx**) Wood 2007: 155.

Page 262 ***costulatus*** Blackman. Add:
 (**ds, tx**) Wood 2007: 153.

- Page 262 ***duplosquamosus*** Schedl. Add:
(**ds, tx**) Wood 2007: 154.
- Page 262 ***harringtoni*** Blackman. Add:
(**ds, tx**) Wood 2007: 154.
- Page 262 ***jaliscoensis*** Wood. Add:
FIGURE: López-Buenfil et al. 2001: 363 (proventriculus).
(**ds**) Burgos-Solorio and Equihua 2007: 70.
- Page 262 ***manni*** Blackman. Add:
(**ds, tx**) Wood 2007: 156.
- Page 262 ***opacus*** Schedl. Add:
(**ds, tx**) Wood 2007: 156.
- Page 262 ***setifer*** Schedl. Add *P. abbreviatus* Schedl as a synonym. Add:
(**ds, tx**) Wood 2007: 155.
- Page 262 ***vianai*** Schedl. Add:
(**ds**) Bright 2004: 159. (**tx**) Guadalupe del Rio, Lanteri and Suárez 2005: 9. (**ds, tx**) Wood 2007: 155.

ADD SPECIES:

golbachi Wood 2007: 155. Holotype (female), PARAGUAY: Dept. San Pedro, Carumbe; USNM.

TRIBE HYPOBORINI

- Page 271 ***Hypoborini*** Nüsslin. Add:
KEY: Wood 2007: 181 (to genera in South America).
(**tx**) Alonso-Zarazaga and Lyal 2009: 74. (**hb, tx**) Wood 2007: 181.
- Genus ***Chaetophloeus*** LeConte
- Page 271 ***Chaetophloeus*** LeConte. Add:
KEY: Wood 2007: 182 (to species in South America).
(**an**) López-Buenfil et al. 2001: 335. (**tx**) Alonso-Zarazaga and Lyal 2009: 74; Rabaglia 2002: 800. (**ds, hb, tx**) Wood 2007: 181.
- Page 271 ***andinus*** Wood. Add:
(**ds, tx**) Wood 2007: 182.
- Page 271 ***brasiliensis*** (Blackman). Add:
(**ds, tx**) Wood 2007: 182.
- Page 272 ***cubensis*** Bright. Add:
(**ds**) Vázquez, Rodriguez and Zorrilla 2003: 18.
- Page 272 ***heterodoxus*** (Casey). Add:
FIGURE: Furniss and Johnson 2002: 33 (gallery pattern).
(**ds, hb, tx**) Furniss and Johnson 2002: 32.

Page 273 *insularis* (Blackman). Add:
DISTRIBUTION: NORTH AMERICA: Puerto Rico.
(ds) Bright and Torres 2006: 394; Vázquez, Rodriguez and Zorrilla 2003: 18.

Page 273 *mexicanus* (Blackman). Add:
(ds) Burgos-Solorio and Equihua 2007: 71.

Page 273 *minimus* Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 71.

Page 274 *struthanthi* Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 71.

Page 274 *sulcatus* (Wood). Add:
FIGURE: López-Buenfil et al. 2001: 363 (proventriculatus).

Genus ***Cryphyophthorus*** Schedl

Page 274 ***Cryphyophthorus*** Schedl. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 75.

Genus ***Dacryostactus*** Schaufuss

Page 281 ***Dacryostactus*** Schaufuss. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 75.

Page 282 ***kolbei*** Schaufuss. Add:
(ds) Mandelshtam and Danielsson 2004: 90.

Genus ***Glochiphorus*** Strohmeyer

Page 271 ***Glochiphorus*** Strohmeyer. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 75.

Genus ***Hypoborus*** Erichson

Page 279 ***Hypoborus*** Erichson. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 75.

Page 280 ***ficus*** Erichson. Add:
FIGURES: Mifsud and Knízek 2009: 48 (habitus).
DISTRIBUTION: ASIA: Russia (Daghestan). EUROPE: France (Corsica), Italy (Tuscany Islands), Malta.
(ds) Aksit, Cakmak and Ozsemerci 2005; Colonnelli 2003: 98; de Laclos 2004: 166; Faccoli and Cecchi 2003; Haack 2001: 273; Mifsud and Knízek 2009: 34; Mandelshtam, Nikitsky and Bibin 2005a: 23; Petrov 2005: 219.

Genus ***Liparthrum*** Wollaston

Page 274 ***Liparthrum*** Wollaston. Add:
KEYS: Maiti and Saha 2009: 57 (to species in India); Wood 2007: 183 (to species in South America).
(an) Jordal, Kirkendall and Harkestad 2004; López-Buenfil et al. 2001: 335. (tx) Alonso-Zarazaga and Lyal 2009: 75; Jordal, Kirkendall and Harkestad 2004; Rabaglia 2002: 800.

(**ds, tx**) Jordal, Kirkendall and Harkestad 2004; Maiti and Saha 2009: 48. (**ds, hb, tx**) Wood 2007: 183.

Page 275 ***arnoldi*** Semenov. Add:
DISTRIBUTION: ASIA: Russia (Daghestan).
(**ds**) Mandelshtam, Nikitsky and Bibin 2005a: 23; Petrov 2005: 219.

Page 275 ***artocarpus*** Wood. Add:
(**ds, tx**) Maiti and Saha 2009: 58.

Page 275 ***bartschti*** Muhl. Add:
DISTRIBUTION: ASIA: Russia (Daghestan).
(**ds**) Petrov 2005: 219; Podlussány and György 2008: 198.

Page 276 ***bicaudatum*** Wollaston. Add:
(**ds**) Jordal 2006.

Page 276 ***carapae*** Wood. Add:
FIGURES: Wood 2007: PLATE 25.
(**ds, tx**) Wood 2007: 183.

Page 277 ***genistae*** (Aubé). Add:
(**ds**) Colonnelli 2003: 98; Noblecourt 2004: 35.
NOTE: Treated as a subspecies in Colonnelli (2003) and Noblecourt (2004).

Page 277 ***inarmatum*** Wollaston. Add:
(**ds**) Jordal 2006.

Page 278 ***longifolia*** (Stebbing). Add:
(**ds, tx**) Maiti and Saha 2009: 58.

Page 278 ***loweanum*** Wollaston. Add:
(**ds**) Jordal 2006.

Page 278 ***lowei*** Wollaston. Add:
(**ds**) Jordal 2006.

Page 278 ***meridensis*** Wood. Add:
FIGURES: Wood 2007: PLATE 26.
(**ds, tx**) Wood 2007: 184.

Page 278 ***mexicanum*** Wood. Add:
FIGURE: López-Buenfil et al. 2001: 363 (proventriculatus).
(**ds**) Burgos-Solorio and Equihua 2007: 71.

Page 278 ***mori*** (Aubé). Add:
FIGURES: Mifsud and Knízek 2009: 47 (habitus).
DISTRIBUTION: EUROPE: Malta.
(**ds**) Colonnelli 2003: 98; Mifsud and Knízek 2009: 33.

Page 279 ***squamosum*** (Blackman). Add:
DISTRIBUTION: NORTH AMERICA: United States (**Missouri** [see Appendix]).

Genus ***Styracoptinus*** Wood

Page 281 ***Styracoptinus*** Wood. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 76.

Genus ***Trypanophellos*** Bright

Page 274 ***Trypanophellos*** Bright. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 76.
 NOTE: Erroneously treated as synonym of ***Liparthrum***.

Page 279 ***neocopinus*** Bright. Add:
 (ds) Vázquez, Rodriguez and Zorrilla 2003: 18.

Genus ***Zygophloeus*** Schedl

Page 271 ***Zygophloeus*** Schedl. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 76.

TRIBE POLYGRAPHINI

Page 283 **Polygraphini** Chapuis. Add:
 KEY: Maiti and Saha 2009: 59 (to genera in India).
 (tx) Alonso-Zarazaga and Lyal 2009: 92; Maiti and Saha 2009: 59.

Genus ***Bothinodroctonus*** Schedl

Page 310 ***Bothinodroctonus*** Schedl. Add:
 KEY: Maiti and Saha 2009: 72 (to species in India).
 (tx) Alonso-Zarazaga and Lyal 2009: 92; Maiti and Saha 2009: 72.

Page 310 ***indicus*** Wood. Add:
 (ds, tx) Maiti and Saha 2009: 72.

Page 310 ***setosus*** Wood. Add:
 (ds, tx) Maiti and Saha 2009: 72.

Genus ***Cardroctonus*** Schedl

Page 283 ***Cardroctonus*** Schedl. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 92

Genus ***Caphobius*** Blackman

Page 311 ***Caphobius*** Blackman. Add:
 (an) López-Buenfil et al. 2001: 336. (tx) Alonso-Zarazaga and Lyal 2009: 923; Rabaglia 2002: 801.

Page 311 ***pilifer*** Wood. Add:
 FIGURE: López-Buenfil et al. 2001: 363 (proventriculus).

Genus ***Caphoborus*** Eichhoff

Page 302 ***Caphoborus*** Eichhoff. Add:

- KEYS: Furniss and Johnson 2002: 31 (to species in Idaho, USA); Maiti and Saha 2009: 69 (to species in India).
(an) López-Buenfil et al. 2001: 336. (tx) Alonso-Zarazaga and Lyal 2009: 93; Maiti and Saha 2009: 69; Rabaglia 2002: 801.
- Page 302 ***andersoni*** Swaine. Add:
 (ds) Furniss, Holsten and Schultz 2002: 86.
- Page 302 ***bicornis*** Wood. Add:
 DISTRIBUTION: NORTH AMERICA: United States (Maryland).
 (ds) Rabaglia 2003: 375.
- Page 302 ***bifurcus*** Eichhoff. Add:
 DISTRIBUTION: NORTH AMERICA: United States (Delaware).
 (ds) Rabaglia and Valenti 2003: 314.
- Page 304 ***boswelliae*** (Stebbing). Add:
 (ds, tx) Maiti and Saha 2009: 69.
- Page 304 ***carri*** Swaine. Add:
 (ds) Furniss, Holsten and Schultz 2002: 86. (ds, hb, tx) Furniss and Johnson 2002: 31.
- Page 304 ***cholodkovskyi*** Spessivtseff. Add:
 DISTRIBUTION: ASIA: Russia (Yakutia, Yaroslavi). EUROPE: Finland.
 (ds) Averensky and Yanovsky 2008: 25; Hyvarinen and Mattila 2003; Mandelshtam and Popovichev 2000: 891; Voolma et al. 2004. (tx) Vlasov 2005: 766.
- Page 304 ***convexifrons*** Wood. Add:
 FIGURE: López-Buenfil et al. 2001: 363 (proventriculus).
- Page 305 ***costatus*** Wichmann. Add:
 (ds, tx) Maiti and Saha 2009: 70.
- Page 305 ***intermedius*** Wood. Add:
 (ds) Furniss, Holsten and Schultz 2002: 86.
- Page 305 ***jurinskii*** Eggers. Add:
 DISTRIBUTION: ASIA: Russia (Yakutia).
 (ds) Averensky and Yanovsky 2008: 26.
- Page 305 ***latus*** Wood. Add:
 (ds, tx) Maiti and Saha 2009: 71.
- Page 305 ***marani*** Pfeffer. Add:
 DISTRIBUTION: ASIA: Russia (Daghestan).
 Host: *Pinus eldarica*.
 (ds) Petrov 2005: 219. (ec) Kapapanida-Kantartzi et al. 2010.
- Page 305 ***minimus*** (Fabricius). Add:
 DISTRIBUTION: ASIA: Russia (Daghestan).
 HOST: *Pinus kochiana*.
 (ds) Colonnelli 2003: 99; Haack 2001: 272; Mandelshtam and Popovichev 2000: 891; Petrov 2005: 219; Petrov and Nikitskii 2001: 169; Voolma et al. 2004. (hb) Petrov and Nikitskii 2001: 169.

- Page 307 ***perplexus*** Wood. Add:
DISTRIBUTION: NORTH AMERICA: United States (**Colorado** [see Appendix]).
- Page 307 ***perrisi*** (Chapuis). Add:
FIGURE: de Laclos 2004: 166 (gallery pattern).
DISTRIBUTION: ASIA: Russia (Daghestan). EUROPE: France (Corsica), Italy (Tuscany Islands).
HOSTS: *Acer* sp., *Pistacia mutica*.
(ds) Colonnelli 2003: 99; de Laclos 2004: 166; Faccoli and Cecchi 2003; Noblecourt 2004: 34;
Petrov 2005: 219.
- Page 308 ***pini*** Eichhoff. Add:
DISTRIBUTION: EUROPE: France (Corsica), Italy (Tuscany Islands).
(ds) Colonnelli 2003: 99; de Laclos 2004: 166; Faccoli and Cecchi 2003; Haack 2001: 272;
Noblecourt 2004: 34.
- Page 308 ***pinicolens*** Wood. Add:
DISTRIBUTION: NORTH AMERICA: United States (**Texas**, see Appendix).
(ds, hb, tx) Furniss and Johnson 2002: 32.
- Page 308 ***ponderosae*** Swaine. Add:
(ds, hb, tx) Furniss and Johnson 2002: 32.
- Page 309 ***rossicus*** Semenov. Add:
DISTRIBUTION: ASIA: Russia (Leningrad, Russian Far East).
(ds) Haack 2001: 272, Mandelshtam and Popovichev 2000: 891; Mandelshtam, Lafer and Kuznetsov 2001; Petrov and Nikitskii 2001: 169; Voolma et al. 2004. (hb) Petrov and Nikitskii 2001: 169.
- Page 309 ***sansonii*** Swaine. Add:
(ds, hb, tx) Furniss and Johnson 2002: 32.
- Page 309 ***simplex*** LeConte. Add:
DISTRIBUTION: NORTH AMERICA: United States (Oregon).
(ds) Westcott et al. 2006: 26.
- Page 310 ***teplouchovi*** Spessivtseff. Add:
DISTRIBUTION: ASIA: Russia (Yakutia).
(ds) Averensky and Yanovsky 2008: 26; Voolma et al. 2004.

Genus ***Chortastus*** Schaufuss

- Page 311 ***Chortastus*** Schaufuss. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 93.

Genus ***Dolurgocleptes*** Schedl

- Page 540 ***Dolurgocleptes*** Schedl. Move from Dryocoetini. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 93; Jordal 2009.

- Page 540 ***malgassicus*** Schedl. Add:
FIGURE: Jordal 2009: 43 (habitus).
(tx) Jordal 2009: 43.

ADD SPECIES:

punctifer Jordal 2009: 44. Holotype (sex ?), MADAGASCAR: Antsiranana, Parc National de Marojejy, Antranohofa, 26.6 km 31° NNE Andapa, 10.7 km 318° NW Manantenina; CASC.
FIGURES: Jordal 2009: 43, 45, 46, 47 (various morphology features).

Genus **Halystus** Schedl

Page 283 **Halystus** Schedl. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 923.

Genus **Polygraphus** Erichson

Page 283 **Polygraphus** Erichson. Add:
KEYS: Chilahsaeva 2010 (to species in Moscow region); Maiti and Saha 2009: 59 (to species in India).
(an) Chilahsaeva 2010; López-Buenfil et al. 2001: 335. (tx) Alonso-Zarazaga and Lyal 2009: 94; Chilahsaeva 2010; de Laclos et al. 2004: 139; Maiti and Saha 2009: 59; Rabaglia 2002: 800.

Page 285 **angustus** Tsai and Yin. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Huang and Yin 1992: 856.

Page 285 **anorgeissi** Wood. Add:
(ds, tx) Maiti and Saha 2009: 61.

Page 285 **aterrimus** Strohmeyer. Add:
(ds, tx) Maiti and Saha 2009: 62.

Page 286 **convexifrons** Wood. Add:
DISTRIBUTION: NORTH AMERICA: United States (**Wyoming** [see Appendix]).
(ds) Furniss, Holsten and Schultz 2002: 87.

Page 286 **coronatus** (Eggers). Add:
DISTRIBUTION: AFRICA: Gabon.
(ds) Beaver 2005b: 116.

Page 286 **difficilis** Wood. Add:
(ds, tx) Maiti and Saha 2009: 63.

Page 69 **formosanus** Nobuchi. Add:
(Suppl. 1)
(tx) Beaver and Liu 2010: 18.

Page 286 **grandiclava** (Thomson). Add:
(an) Avtzis et al. 2008. (ds) Colonnelli 2003: 99.

Page 288 **horyurensis** Murayama. Add:
DISTRIBUTION: ASIA: Russia (Primorskii, Petrov Island).
HOST: *Pinus koraiensis*.
(ds) Mandelshtam 2002: 7.

- Page 289 ***junnanicus*** Sokanovskii. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Huang and Yin 1992: 856.
- Page 289 ***longifolia*** Stebbing. Add:
(ds, tx) Maiti and Saha 2009: 64.
- Page 289 ***major*** Stebbing. Add:
(ds, tx) Maiti and Saha 2009: 65.
- Page 291 ***pini*** Stebbong. Add:
(ds, tx) Maiti and Saha 2009: 66.
- Page 291 ***poligraphus*** (Linneaus). Add:
FIGURES: Chilahsaeva 2010: 48,49 (aedeagus, frons); de Laclos et al. 2004: 140 (habitus).
DISTRIBUTION: ASIA: China (Qinghai), Russia (Altai, Yakutia).
(ds) Averensky and Yanovsky 2008: 25; Colonnelli 2003: 99; Demidko 2007: 34; Haack 2001: 274, 275; Han et al. 2010; Mandelshtam and Popovichev 2000: 891; Mandelshtam, Lafer and Kuznetsov 2001; Petrov and Nikitskii 2001: 170; Voolma et al. 2004. (hb) Petrov and Nikitskii 2001: 170. (tx) Vlasov 2005: 766. (ds, hb) de Laclos et al. 2004: 140.
- Page 296 ***primus*** Wichmann. Add:
(ds) Mandelshtam and Danielsson 2004: 90.
- Page 296 ***proximus*** Blandford. Add:
FIGURES: Chilahsaeva 2010: 48,49 (aedeagus, frons).
DISTRIBUTION: ASIA: Russia (Leningrad).
HOST: *Abies nephrolepis*.
(ds) Baranchikov, Akulov and Astapenko 2010; Mandelshtam 2002: 7; Mandelshtam and Petrov 2009a: 207; Mandelshtam and Popovichev 2000: 898; Mandelshtam, Lafer and Kuznetsov 2001.
- Page 295 ***punctifrons*** Thomson. Remove from synonymy with ***P. poligraphus*** (Linnaeus). Add ***P. seriatus*** Reitter as a synonym. Add:
FIGURES: Chilahsaeva 2010: 49 (aedeagus).
DISTRIBUTION: ASIA: Russia (Yakutia, Yaroslavi).
(ds) Averensky and Yanovsky 2008: 25; Mandelshtam and Popovichev 2000: 891; Petrov and Nikitskii 2001: 170; Voolma et al. 2004. (hb) Petrov and Nikitskii 2001: 170. (tx) Mandelshtam 2002: 7; Vlasov 2005: 766.
- Page 297 ***rudis*** Eggers. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Huang and Yin 1992: 856.
- Page 297 ***rufipennis*** (Kirby). Add:
FIGURES: Furniss and Johnson 2002: 53 (gallery pattern); López-Buenfil et al. 2001: 363 (proventriculus).
DISTRIBUTION: NORTH AMERICA: United States (Maryland).
(ds) Furniss and Johnson 2002: 52; Furniss, Holsten and Schultz 2002: 87; Haack 2001: 275; Rabaglia 2003: 375. (tx) Furniss and Johnson 2002: 52.
- Page 299 ***seriatus*** Reitter. Move to ***P. punctifrons*** Thomson as a synonym. Add:
Lectotype (sex?), Ussinsk, Sajan, Sib(eria) or(ientale), designation by Mandelshtam 2002: 7. Synonymy by Mandelshtam 2002: 7.

- Page 299 ***setosus*** Schedl. Add:
(**ds, tx**) Maiti and Saha 2009: 67.
- Page 299 ***sinensis*** Eggers. Add:
(**ds, tx**) Yin 1997: 969.
- Page 299 ***squamatus*** Yin and Huang. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(**ds**) Huang and Yin 1992: 856.
- Page 300 ***subopacus*** Thomson. Add:
FIGURES: Chilahsaeva 2010: 48,49 (aedeagus, frons).
DISTRIBUTION: ASIA: Russia (Yakutia, Yaroslavi).
(**ds**) Averensky and Yanovsky 2008: 25; Haack 2001: 274; Mandelshtam and Popovichev 2000: 891; Mandelshtam, Lafer and Kuznetsov 2001; Petrov and Nikitskii 2001: 170; Voolma et al. 2004. (**hb**) Petrov and Nikitskii 2001: 170. (**tx**) Vlasov 2005: 766.
- Page 301 ***szemaoensis*** Tsai and Yin. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(**ds**) Huang and Yin 1992: 856.
- Page 301 ***taiwanensis*** Schedl. Add:
(**tx**) Beaver and Liu 2010: 18.
- Page 301 ***trenchi*** Stebbing. Add:
(**ds, tx**) Maiti and Saha 2009: 68.
- Page 301 ***verrucifrons*** Tsai and Yin. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(**ds**) Huang and Yin 1992: 856.

Genus ***Serrastus*** Nunberg

- Page 263 ***Serrastus*** Nunberg. Add:
(**tx**) Alonso-Zarazaga and Lyal 2009: 94.

TRIBE AMPHISCOLYTINI

ADD TRIBE:

- Amphiscolytini** Mandelshtam and Beaver. Add:
(**tx**) Alonso-Zarazaga and Lyal 2009: 26; Mandelshtam and Beaver 2003: 2.

Genus ***Amphiscolytus*** Mandelshtam and Beaver

ADD GENUS:

- Amphiscolytus*** Mandelshtam and Beaver 2003: 2. Type species: ***Dacryophthorus capensis*** Schedl, by original designation. Add:
(**tx**) Alonso-Zarazaga and Lyal 2009: 26.

- Page 115 ***capensis*** (Schedl). Move from ***Xylechinus***. Add:
New combination by Mandelshtam and Beaver 2003: 2.
(**ds**) Mandelshtam and Danielsson 2004: 91.

SUBFAMILY HYORRHYNCHINAE Hopkins**TRIBE HYORRHYNCHINI**

Page 191 **Hyorrhynchini** Hopkins. Add:
KEYS: Beaver and Gebhardt (to genera); Maiti and Saha 2009: 19 (to genera in India).
(tx) Alonso-Zarazaga and Lyal 2009: 73.

Genus ***Hyorrhynchus*** Blandford

Page 191 ***Hyorrhynchus*** Blandford. Add:
KEY: Maiti and Saha 2009: 20 (to species in India).
(tx) Alonso-Zarazaga and Lyal 2009: 74; Maiti and Saha 2009: 19. (an, hb, tx) Beaver and Gebhardt 2005: 92.

Page 191 ***birmanus*** Eggers. Add:
DISTRIBUTION: ASIA: Thailand.
(ds) Beaver and Gebhardt 2005: 97.

Page 191 ***blandfordi*** Sampson. Move to ***Pseudohyorrhynchus***.

Page 192 ***drescheri*** Eggers. Remove from synonymy with ***H. lewisi*** Blandford, move to ***H. granulatus*** Eggers as a synonym. Add:
Synonymy by Beaver and Liu 2010: 16.

Page 191 ***ebianensis*** Huang and Yin. Add:
(tx) Beaver and Gebhardt 2005: 95.

Page 192 ***flavopannus*** Huang and Yin. Move to ***Pseudohyorrhynchus***.

Page 192 ***granulatus*** Eggers. Remove from synonymy with ***H. lewisi*** Blandford. Add ***H. drescheri*** Eggers as a synonym. Add:
(tx) Beaver and Liu 2010: 16.

Page 192 ***kalimpongensis*** Maiti and Saha. Add:
FIGURES: Maiti and Saha 2009: 21 (habitus, head, antenna).
(ds, tx) Maiti and Saha 2009: 22.

Page 192 ***lewisi*** Blandford. Add:
DISTRIBUTION: ASIA: Brunei.
(ds) Beaver and Gebhardt 2005: 97. (tx) Beaver and Liu 2010: 16.

Page 192 ***obesus*** Browne. Move to ***Sueus***.

Page 192 ***sensarmai*** Maiti and Saha. Add:
FIGURES: Maiti and Saha 2009: 23 (habitus, head, antenna).
(ds, tx) Maiti and Saha 2009: 23.

Page 192 ***shiva*** Maiti and Saha. Add:
FIGURES: Maiti and Saha 2009: 25 (habitus, head, antenna).
(ds, tx) Maiti and Saha 2009: 24.

- Page 192 ***unicornis*** Nobuchi. Add:
 DISTRIBUTION: ASIA: Taiwan.
 (ds) Beaver and Gebhardt 2005: 97. (tx) Beaver and Liu 2010: 16.

Genus ***Pseudohyorrhynchus*** Murayama

- Page 192 ***Pseudohyorrhynchus*** Murayama. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 74. (an, hb, tx) Beaver and Gebhardt 2005: 93.

- Page 191 ***blandfordi*** (Sampson). Move from ***Hyorrhynchus***. Add:
 New combination by Beaver and Gedhardt 2005: 95.

- Page 192 ***flavopanus*** (Huang and Yin). Move from ***Hyorrhynchus***. Add:
 New combination by Beaver and Gebhardt 2005: 96.

- Page 192 ***wadai*** murayama. Add:
 FIGURE: Lin and Wu 2010: 208 (habitus).
 DISTRIBUTION: ASIA: Taiwan.
 (ds) Beaver and Gebhardt 2005: 98; Lin and Wu 2010. (tx) Beaver and Liu 2010: 16.

Genus ***Sueus*** Murayama

- Page 191 ***Sueus*** Murayama. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 74; Maiti and Saha 2009: 26. (an, hb, tx) Beaver and Gebhardt 2005: 94.

- Page 36 ***borneensis*** Bright. Add:
 (Suppl. 1) DISTRIBUTION: ASIA: Indonesia (Sulawesi).
 (ds) Beaver and Gebhardt 2005: 98.

- Page 191 ***niisimai*** (Eggers). Add:
 FIGURES: Lin and Wu 2010: 209 (habitus); Maiti and Saha 2009: 27 (habitus, antenna).
 DISTRIBUTION: ASIA: Taiwan. AUSTRALIA (North Queensland).
 (ds) Beaver and Gebhardt 2005: 98; Lin and Wu 2010. (tx) Beaver and Liu 2010: 17. (ds, tx)
 Maiti and Saha 2009: 27.

- Page 192 ***obesus*** (Browne). Move from ***Hyorrhynchus***. Add:
 New combination by Beaver and Gebhardt 2005: 96.

SUBFAMILY SCOLYTINAE Latreille

TRIBE SCOLYTINI

- Page 313 ***Scolytini*** Latreille. Add:
 KEY: Wood 2007: 185 (to genera in South America).
 (tx) Alonso-Zarazaga and Lyal 2009: 22. (ds, hb, tx) Wood 2007: 185.

Genus ***Camptocerus*** Dejean

- Page 318 ***Camptocerus*** Dejean. Add:
 KEYS: Smith and Cognato 2010a: 16 (to all species); Wood 2007: 200 (to species in South America).
 FIGURES: Smith and Cognato 2010a (various morphological features).

- (an) López-Buenfil et al. 2001: 337; Smith and Cognato 2010a. (tx) Alonso-Zarazaga and Lyal 2009: 24. (ds, hb, tx) Smith and Cognato 2010a; Wood 2007: 199.
- Page 318 ***aeneipennis*** (Fabricius). Add:
FIGURES: Smith and Cognato 2010a: 62 (habitus, head), 85 (aedeagus); Wood 2007: PLATE 29.
DISTRIBUTION: SOUTH AMERICA: Bolivia.
(hb) Huler and Cognato 2010b. (ds, hb, tx) Smith and Cognato 2010a: 62; Wood 2007: 202.
- Page 318 ***angustior*** Eggers. Add:
FIGURES: Smith and Cognato 2010a: 65 (habitus, head), 85 (aedeagus); Wood 2007: PLATE 30.
(ds, tx) Smith and Cognato 2010a: 64; Wood 2007: 204.
- Page 318 ***aterrimus*** Eggers. Add:
FIGURES: Smith and Cognato 2010a: 66 (habitus, head), 85 (aedeagus); Wood 2007: PLATE 30.
DISTRIBUTION: SOUTH AMERICA: Ecuador, Peru.
(ds, tx) Smith and Cognato 2010a: 66; Wood 2007: 204.
- Page 319 ***auricomus*** Blandford. Add *C. striatulus* Hagedorn as a synonym. Add:
FIGURES: López-Buenfil et al. 2001: 363 (proventriculus); Smith and Cognato 2010a: 32 (habitus, head), 85 (aedeagus); Wood 2007: PLATE 31.
DISTRIBUTION: NORTH AMERICA: Guatemala, Mexico (Veracruz). SOUTH AMERICA: Trinidad.
(ds, tx) Smith and Cognato 2010a: 32; Wood 2007: 207.
- Page 319 ***costatus*** Chapuis. Add *C. seriatus* Eggers as a synonym. Add:
FIGURES: Smith and Cognato 2010a: 55,56 (habitus [see note below], head), 85 (aedeagus); Wood 2007: PLATE 31.
DISTRIBUTION: SOUTH AMERICA: Ecuador, French Guyana, Peru.
(hb) Smith and Cognato 2010a: 54. (ds, tx) Smith and Cognato 2010a: 54; Wood 2007: 205.
NOTE: Lateral and dorsal habitus figures of this species were omitted in Smith's manuscript. Habitus figures listed above are actually of ***C. satyrus*** Smith and Cognato (Smith, personal communication)
- Page 319 ***charpentierae*** Schedl. Remove from synonymy with ***C. cinctus*** Chapuis. Add:
FIGURES: Smith and Cognato 2010a: 42 (habitus, head), 85 (aedeagus).
DISTRIBUTION: SOUTH AMERICA: Brazil, Ecuador.
(ds, tx) Smith and Cognato 2010a: 42.
NOTE: Wood (2007) places this species in synonymy under ***C. cinctus*** Chapuis.
- Page 320 ***cinctus*** Chapuis. Move to ***C. suturalis*** (Fabricius) as a synonym. Add:
Synonymy by Smith and Cognato 2010a: 78.
(ds, tx) Wood 2007: 203.
- Page 320 ***fasciatus*** (Fabricius) (= ***C. suturalis*** (Fabricius)). Add:
Lectotype (male), Guyana, Essequibo River, designated by Smith and Cognato 2010a: 78.
- Page 318 ***gibbus*** (Fabricius) (= ***C. aeneipennis*** (Fabricius)). Add:
Lectotype (female), Guyana, Essequibo River, designated by Smith and Cognato 2010a: 62.
- Page 320 ***hirtipennis*** Schedl. Remove from synonymy with ***C. suturalis*** (Fabricius). Add:
FIGURES: Smith and Cognato 2010a: 70 (habitus, head), 85 (aedeagus).

- DISTRIBUTION: SOUTH AMERICA: Brazil, Ecuador.
(**ds, tx**) Smith and Cognato 2010a: 69.
- Page 319 *infidelis* Wood. Move to ***C. opacicollis*** (Eggers) as a synonym. Add:
Synonymy by Smith and Cognato 2010a: 29.
(**ds, tx**) Wood 2007: 209.
- Page 319 ***inoblitus*** (Schedl). Add *C. morio* (Schedl) as a synonym. Add:
FIGURES: Smith and Cognato 2010a: 27 (habitus, head), 85 (aedeagus).
DISTRIBUTION: SOUTH AMERICA: Argentina.
HOST: *Myrocarpus frondosus*.
(**ds**) Bright 2004: 160. (**ds, tx**) Smith and Cognato 2010a: 26; Wood 2007: 208.
- Page 319 ***latipilis*** Schedl. Add:
FIGURES: Smith and Cognato 2010a: 49 (habitus, head), 85 (aedeagus).
DISTRIBUTION: SOUTH AMERICA: Ecuador.
(**ds, tx**) Smith and Cognato 2010a: 48; Wood 2007: 208.
- Page 319 ***major*** (Eggers). Add:
FIGURES: Smith and Cognato 2010a: 28 (habitus, head).
(**ds, tx**) Smith and Cognato 2010a: 28; Wood 2007: 210.
- Page 319 *morio* (Schedl). Move to ***C. inoblitus*** (Schedl) as a synonym. Add:
Synonymy by Smith and Cognato 2010a: 26.
(**ds, tx**) Wood 2007: 209.
- Page 319 ***niger*** (Fabricius). Add *C. tectus* Eggers as a synonym. Add:
FIGURES: Smith and Cognato 2010a: 35 (habitus, head), 85 (aedeagus); Wood 2007: PLATE 32.
DISTRIBUTION: SOUTH AMERICA: Bolivia, Ecuador, Peru, Venezuela.
(**ds, tx**) Smith and Cognato 2010a: 34; Wood 2007: 206.
- Page 319 ***occidentalis*** Eggers. Add:
FIGURES: Smith and Cognato 2010a: 37 (habitus, head), 85 (aedeagus).
DISTRIBUTION: SOUTH AMERICA: Peru.
(**ds, tx**) Smith and Cognato 2010a: 37; Wood 2007: 208.
- Page 319 ***opacicollis*** (Eggers). Add *C. infidelis* Wood and *C. uniseriatus* Schedl as synonyms. Add:
FIGURES: Smith and Cognato 2010a: 29 (habitus, head), 85 (aedeagus); Wood 2007: PLATE 32.
DISTRIBUTION: NORTH AMERICA: Costa Rica. SOUTH AMERICA: Ecuador, Peru.
(**ds, tx**) Smith and Cognato 2010a: 29; Wood 2007: 209.
- Page 320 ***orientalis*** Eggers. Add:
FIGURES: Smith and Cognato 2010a: 39 (habitus, head), 85 (aedeagus).
DISTRIBUTION: SOUTH AMERICA: Bolivia.
(**ds, tx**) Smith and Cognato 2010a: 38; Wood 2007: 207.
- Page 320 ***quadridentis*** Blackman. Add:
FIGURES: Smith and Cognato 2010a: 58, 59 (habitus, head), 85 (aedeagus); Wood 2007: PLATE 33.
(**ds, tx**) Smith and Cognato 2010a: 58; Wood 2007: 205.

- Page 320 ***rectus*** Wood. Add:
 FIGURES: Smith and Cognato 2010a: 40 (habitus, head), 85 (aedeagus).
 DISTRIBUTION: SOUTH AMERICA: Ecuador.
 (ds, tx) Smith and Cognato 2010a: 40; Wood 2007: 207.
- Page 320 ***seriatus*** Eggers. Move to ***C. costatus*** Chapuis as a synonym. Add:
 Synonymy by Wood 2007: 205.
- Page 319 ***squamiger*** Chapuis (= ***C. niger*** (Fabricius)) Add:
 Lectotype (male), French Guiana [Cayenne], designated by Smith and Cognato 2010a: 34.
- Page 319 ***striatulus*** Hagedorn. Remove from synonymy with ***C. niger*** (Fabricius), move to ***C. auricomus*** Blandford as a synonym. Add:
 Synonymy by Smith and Cognato 2010a: 32.
- Page 320 ***suturalis*** (Fabricius). Add ***C. cinctus*** Chapuis as a synonym. Add:
 Lectotype (male), Guyana, Essequibo River, designated by Smith and Cognato 2010a: 78.
 FIGURES: Hulcr and Cognato 2010b: 3209 (adults and gallery); Smith and Cognato 2010a: 79 (habitus, head), 85 (aedeagus); Wood 2007: PLATE 33 (specimen figured is ***C. hirtipennis*** Schedl (Smith, personal communication)).
 DISTRIBUTION: SOUTH AMERICA: French Guiana, Peru, Suriname, Venezuela.
 HOST: *Ocotea oblonga*, *Protium* sp.
 (hb) Hulcr and Cognato 2010b: 3209. (ds, tx) Wood 2007: 204. (ds, hb, tx) Smith and Cognato 2010a: 78.
- Page 320 ***tectus*** Eggers. Remove from synonymy with ***C. orientalis***, move to ***C. niger*** (Fabricius) as a synonym. Add:
 Synonymy by Smith and Cognato 2010a: 34.
 (ds, tx) Smith and Cognato 2010a: 34; Wood 2007: 206.
- Page 319 ***uniseriatus*** Schedl. Remove from synonymy with ***C. major*** (Eggers), move to ***C. opacicollis*** (Eggers) as a synonym. Add:
 Synonymy by Smith and Cognato 2010a: 29.

ADD SPECIES:

annectans Wood 2007: 210. Holotype (female), BRAZIL: Serra de Baturite, Ceara; DEIM.
 FIGURES: Smith and Cognato 2010a: 26 (habitus, head).
 (tx) Smith and Cognato 2010a: 25.

coccoformus Smith and Cognato 2010a: 43. Holotype (male), BRAZIL: Amazonas, Hwy. ZF 2, km. 20.7, ca 60 km N of Manaus; USNM.
 FIGURES: Smith and Cognato 2010a: 44 (habitus, head), 85 (aedeagus).
 DISTRIBUTION: SOUTH AMERICA: Brazil, Ecuador.

distinctus Smith and Cognato 2010a: 68. Holotype (male), ECUADOR: Napo, Reserva Ethnica Waorani, 1 km S Onkone Gare Camp, 0.652778, 76.433333, 220 m; USNM.
 FIGURES: Smith and Cognato 2010a: 68 (habitus, head), 85 (aedeagus).

doleae Smith and Cognato 2010a: 45. Holotype (male), ECUADOR: Napo, Tiputini Biodiversity Station, 0.631944, 76.144167, 220-250 m; USNM.
 FIGURES: Smith and Cognato 2010a: 46 (habitus, head), 85 (aedeagus).

igniculus Smith and Cognato 2010a: 47. Holotype (male), BRAZIL: Amazonas, Hwy. ZF 2, km. 20.7, ca 60 km N of Manaus; USNM.

FIGURES: Smith and Cognato 2010a: 47 (habitus, head), 85 (aedeagus).

mallopterus Smith and Cognato 2010a: 50. Holotype (male), ECUADOR: Napo, Tiputini Biodiversity Station, 0.631944, 76.144167, 220-250 m; USNM.

FIGURES: Smith and Cognato 2010a: 51 (habitus, head), 85 (aedeagus).

mandelshtami Petrov 2007: 101. Holotype (male), PERU: Loreto Province, 68 km SW in Iquitos to Nauta, Itaya river, 4°11'S 73°26'W; ZMM.

FIGURES: Petrov 2007: 102 (habitus, antenna); Smith and Cognato 2010a: 72 (habitus, head), 85 (aedeagus).

DISTRIBUTION: SOUTH AMERICA: Ecuador, French Guiana.

HOST: *Protium* sp.

(**ds, tx**) Smith and Cognato 2010a: 71.

noel Smith and Cognato 2010a: 73. Holotype (male), PERU: Loreto, 1.5 km N Teniente Lopez, 2°35.66'S 76°6.92'W, 210-240 m; SMUK.

FIGURES: Smith and Cognato 2010a: 74 (habitus, head), 85 (aedeagus).

DISTRIBUTION: SOUTH AMERICA: Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, Venezuela.

HOSTS: *Ocotea oblonga*, *Protium amazonicum*.

petrovi Smith and Cognato 2010a: 52. Holotype (male), ECUADOR: Napo, Tiputini Biodiversity Station, 0.631944, 76.144167, 220-250 m; USNM.

FIGURES: Smith and Cognato 2010a: 51 (habitus, head), 85 (aedeagus).

pilifrons Smith and Cognato 2010a: 56. Holotype (male), ECUADOR: Napo, Reserva Ethnica Waorani, 1 km S Onkone Gare Camp, 0.652778, 76.433333, 220 m; USNM.

FIGURES: Smith and Cognato 2010a: 57 (habitus, head), 85 (aedeagus).

pseudoangustior Smith and Cognato 2010a: 76. Holotype (male), ECUADOR: Pastaza, Cononaco; USNM.

FIGURES: Smith and Cognato 2010a: 76 (habitus, head), 85 (aedeagus).

DISTRIBUTION: SOUTH AMERICA: Brazil, Ecuador, Peru.

(**hb**) Smith and Cognato 2010a: 76.

satyrus Smith and Cognato 2010a: 53. Holotype (male), BRAZIL: Rondônia, 62 km SW Ariquemes, nr. Fzda, Rancho Grande; FSCA.

FIGURES: Smith and Cognato 2010a: 55 (figures mislabeled as “*C. costatus*”), 85 (aedeagus).

unicornis Smith and Cognato 2010a: 31. Holotype (male), BRAZIL: Amazonas; USNM.

FIGURES: Smith and Cognato 2010a: 31 (habitus, head).

zucca Smith and Cognato 2010a: 60. Holotype (male), ECUADOR: Napo, Huahua Sumaco, km 44 on Hollin-Loreto Road; CSCA.

FIGURES: Smith and Cognato 2010a: 60 (habitus, head).

Genus ***Cnemonyx*** Eichhoff

Page 313 ***Cnemonyx*** Eichhoff. Add:

KEY: Wood 2007: 186 (to all species in Central and South America).

(**an**) López-Buenfil et al. 2001: 336. (**tx**) Alonso-Zarazaga and Lyal 2009: 24; Rabaglia 2002: 801. (**ds, tx**) Wood 2007: 186.

- Page 313 ***acuminatus*** Schedl. Add:
(**ds, tx**) Wood 2007: 198.
- Page 313 ***amazonicus*** (Eggers). Add:
(**ds, tx**) Wood 2007: 192.
- Page 314 ***barbatus*** Eggers. Move to ***C. galeritus*** Eichhoff as a synonym. Add:
Synonymy by Wood 2007: 199.
- Page 314 ***boliviae*** (Blackman). Add:
ds, tx Wood 2007: 194.
- Page 314 ***brevisetosus*** Schedl. Add:
Lectotype (female), Isla Martin Garcia, Buenos Aires, Argentina, designated by Wood 2007:
198.
(**ds**) Bright 2004: 160. (**tx**) Guadalupe del Rio, Lanteri and Suárez 2005: 4. (**ds, tx**) Wood
2007: 198.
- Page 314 ***creber*** Schedl. Add:
(**ds, tx**) Wood 2007: 197.
- Page 314 ***diformis*** (Schedl). Add:
(**ds, tx**) Wood 2007: 196.
- Page 314 ***equihuai*** Wood. Add:
(**ds**) Burgos-Solorio and Equihua 2007: 71.
- Page 314 ***errans*** (Blandford). Add:
(**ds**) Bright 2004: 160. (**ds, tx**) Wood 2007: 197.
- Page 315 ***ficus*** (Schwarz). Add:
(**ds**) Vázquez, Rodriguez and Zorrilla 2003: 18.
- Page 315 ***flavicornis*** (Chapuis). Add:
(**ds**) Bright 2004: 160. (**ds, tx**) Wood 2007: 190.
- Page 315 ***furvescens*** Wood. Add:
(**ds, tx**) Wood 2007: 195.
- Page 315 ***galeritus*** Eichhoff. Add ***Minulus barbatus*** Eggers as a synonym. Add:
(**ds, tx**) Wood 2007: 199.
- Page 316 ***glaber*** (Eggers). Add:
(**ds, tx**) Wood 2007: 190.
- Page 316 ***glabratu*s** (Schedl). Add:
FIGURE: López-Buenfil et al. 2001: 363 (proventriculus).
- Page 316 ***hylurgooides*** (Schedl). Add:
(**ds, tx**) Wood 2007: 192.
- Page 316 ***insidiosus*** (Schedl). Add:
(**tx**) Guadalupe del Rio, Lanteri and Suárez 2005: 6. (**ds, tx**) Wood 2007: 199.

- Page 316 ***insignis*** Wood. Add:
FIGURES: Wood 2007: PLATE 26.
(**ds, tx**) Wood 2007: 194.
- Page 316 ***jucundus*** Chapuis. Add:
(**ds, tx**) Wood 2007: 193.
- Page 316 ***longicollis*** (Blandford). Add:
(**ds, tx**) Wood 2007: 198.
- Page 316 ***maculicornis*** (Blandford). Add:
FIGURES: Wood 2007: PLATE 27.
(**ds, tx**) Wood 2007: 193.
- Page 316 ***minor*** Schedl. Add:
(**ds, tx**) Wood 2007: 196.
- Page 317 ***niger*** (Eggers). Add:
(**ds, tx**) Wood 2007: 194.
- Page 317 ***panamensis*** (Blandford). Add *Loganius setulosus* Eggers and *L. similis* Eggers as synonyms. Add:
FIGURES: Wood 2007: PLATE 27.
(**ds, hb, tx**) Wood 2007: 191.
- Page 317 ***protivorus*** Wood. Add:
(**ds, tx**) Wood 2007: 192.
- Page 317 ***rugulosus*** (Eggers). Add:
FIGURES: Wood 2007: PLATE 28.
(**ds, tx**) Wood 2007: 195.
- Page 317 ***setulosus*** Eggers. Move to ***C. panamensis*** (Blandford) as a synonym. Add:
Synonymy by Wood 2007: 191.
- Page 317 ***similis*** Eggers. Move to ***C. panamensis*** (Blandford) as a synonym. Add:
Synonymy by Wood 2007: 191.
- Page 318 ***splendens*** (Wood). Add:
(**ds**) Burgos-Solorio and Equihua 2007: 71.
- Page 318 ***vagabundus*** (Wood). Add:
(**ds**) Bright and Torres 2006: 394.
- Page 318 ***vestitus*** (Eggers). Add:
FIGURES: Wood 2007: PLATE 28.
(**ds, tx**) Wood 2007: 190.
- Page 315 ***vianai*** Schedl (= ***C. flavigornis*** (Chapuis)). Add:
(**tx**) Guadalupe del Rio, Lanteri and Suárez 2005: 8.
- Page 318 ***vismiacolens*** Wood. Add:
FIGURES: Wood 2007: PLATE 29.
(**ds, tx**) Wood 2007: 196.

Genus *Scolytopsis* Blandford

- Page 320 ***Scolytopsis*** Blandford. Add:
 KEY: Wood 2007: 211 (to all species).
 (an) López-Buenfil et al. 2001: 337. (tx) Alonso-Zarazaga and Lyal 2009: 24. (ds, hb, tx)
 Wood 2007: 210.
- Page 321 *argentinensis* Eggers. Move to ***S. toba*** Wichmann as a synonym. Add:
 Synonymy by Wood 2007: 213.
 (ds) Bright 2004: 160.
- Page 320 ***brasiliensis*** Eggers. Add:
 (ds, tx) Wood 2007: 212.
- Page 321 *bruchi* Schedl. Move to ***S. toba*** Wichmann as a synonym. Add:
 Synonymy by Wood 2007: 213.
 (tx) Guadalupe del Rio, Lanteri and Suárez 2005: 5.
- Page 321 *cubensis* Wood (= ***S. puncticollis*** Blandford). Add:
 (ds) Vázquez, Rodriguez and Zorrilla 2003: 18.
- Page 320 ***laticollis*** Wood. Add:
 (ds, tx) Wood 2007: 212.
- Page 320 ***orinocanus*** Wood. Add:
 FIGURES: Wood 2007: PLATE 34.
 (ds, tx) Wood 2007: 213.
- Page 320 ***peruanus*** Eggers. Add:
 FIGURES: Wood 2007: PLATE 35.
 (ds, tx) Wood 2007: 211.
- Page 321 ***puncticollis*** Blandford. Add:
 FIGURE: López-Buenfil et al. 2001: 363 (proventriculus).
 (ds) Burgos-Solorio and Equihua 2007: 71. (ds, tx) Wood 2007: 213.
- Page 321 ***toba*** Wichmann. Remove from synonymy with ***S. puncticollis*** Blandford. Add *S. argentinensis* Eggers and *S. bruchi* Schedl as synonyms. Add:
 (ds, tx) Wood 2007: 213.

Genus *Scolytus* Geoffroy

- Page 321 ***Scolytus*** Geoffroy. Add:
 KEYS: Furniss and Johnson 2002: 89 (to species in Idaho, USA); Mifsud and Knízek 2009:
 35 (to species in Malta); LaBonte 2010: 209 (to some species in North America); de Laclos
 et al. 2004: 141-144 (to species in France); Mandelshtam and Petrov 2010a: 175 (to species
 in India); Petrov and Mandelshtam 2010: 99 (to species in Peru); Smith and Cognato 2010:
 40 (to species in eastern North America); Wood 2007: 215 (to species in South America).
 (an) López-Buenfil et al. 2001: 336. (tx) Alonso-Zarazaga and Lyal 2009: 24; Rabaglia 2002:
 801. (ds, tx) Maiti and Saha 2009: 74. (hb) Faccoli 2000b. (tx, hb) Wood 2007: 214.
- Page 322 ***abaensis*** Tsai and Yin. Add:
 DISTRIBUTION: ASIA: China (Hengduan Mtns.).
 (ds) Huang and Yin 1992: 853.

- Page 355 ***abietis*** Blackman. Remove from synonymy with ***S. opacus***. Add:
FIGURES: Equihua and Furniss 2009: 598 (pars stridens), 599 (abdominal sternites 2-5),
601 (gallery pattern).
(tx) Equihua-Martinez and Furniss 2009.
- Page 322 ***amazonicus*** Schedl. Add:
FIGURES: Petrov and Mandelshtam 2010: 68 (male habitus), 69 (second sternite).
(tx) Petrov and Mandelshtam 2010: 67; Wood 2007: 226.
NOTE: In Wood 2007, descriptions of male and female are incorrect (Petrov and Mandelshtam 2010).
- Page 322 ***amygdali*** Guérin. Add:
FIGURES: Mifsud and Knízek 2009: 48 (habitus).
DISTRIBUTION: ASIA: Russia (Daghestan). EUROPE: Malta.
HOST: *Prunus divaricata*.
(ds) Bolu and Legalov 2008: 83; Colonnelli 2003: 97; Haack 2001: 274; Mifsud and Knízek 2009: 37; Petrov 2005: 219. (tx) Mandelshtam and Petrov 2010a: 175.
- Page 324 ***angustatus*** Browne. Add ***S. facialis*** Schedl as a synonym. Add:
FIGURES: Petrov and Mandelshtam 2010: 70 (male frons), 71 (female frons).
(tx) Petrov and Mandelshtam 2010: 69; Wood 2007: 227.
- Page 324 ***antennatus*** Schedl. Add:
FIGURES: Petrov and Mandelshtam 2010: 72 (habitus); Wood 2007: PLATES 35, 36.
DISTRIBUTION: SOUTH AMERICA: Peru.
(ds, tx) Petrov and Mandelshtam 2010: 71; Wood 2007: 224.
- Page 324 ***atratus*** Chapuis. Move to ***S. carinatus*** Chapuis as a synonym. Add:
Synonymy by Wood 2007: 234.
- Page 325 ***barbatus*** Schedl. Add:
(tx) Wood 2007: 226.
- Page 325 ***barinensis*** Wood. Add:
FIGURES: Wood 2007: PLATE 36.
(hb, tx) Wood 2007: 233.
- Page 325 ***belokanicus*** Stark. Move to ***S. koenigi*** Schevyrew as a synonym. Add:
Synonymy by Petrov 2005: 220.
- Page 325 ***bicinctus*** Schedl. Add:
FIGURE: Petrov and Mandelshtam 2010: 74 (habitus).
DISTRIBUTION: SOUTH AMERICA: Peru.
(ds, tx) Petrov and Mandelshtam 2010: 73; Wood 2007: 226.
- Page 325 ***bicolor*** Eggers. Add:
(tx) Wood 2007: 223.
- Page 325 ***binodus*** Wood. Add:
(tx) Wood 2007: 225.
- Page 325 ***boliviianus*** Schedl. Add:
(tx) Wood 2007: 224.

- Page 325 ***butovitschi*** Stark. Add:
(**ds**) Mandelshtam and Petrov 2009a: 208.
- Page 325 ***carinatus*** Chapuis. Add *S. atratus* Chapuis as a synonym. Add:
Lectotype (male), Cartagene, Bolivar, Colombia, designated by Wood 2007: 234.
(**tx**) Wood 2007: 234.
- Page 325 ***carpini*** (Ratzeburg). Add:
FIGURE: de Laclos et al. 2004: 154 (gallery pattern).
DISTRIBUTION: ASIA: Russia (Daghestan). EUROPE: Denmark.
(**en**) Bocquillon 2002. (**ds**) Colonnelli 2003: 97; Mandelshtam, Nikitsky and Bibin 2005a: 23;
Noblecourt 2004: 33; Pedersen Runge and Jonsén 2008; Petrov 2005: 219; Voolma et al.
2004. (**ds, hb**) de Laclos et al. 2004: 154.
- Page 327 ***caudatus*** Eggers. Add *S. conidens* Browne as a synonym. Add:
FIGURES: Wood 2007: PLATE 37.
(**ds, tx**) Wood 2007: 230.
- Page 327 ***chelogaster*** Schedl. Add:
(**tx**) Mandelshtam and Petrov 2010a: 177. (**ds, tx**) Maiti and Saha 2009: 76.
- Page 327 ***chikisanii*** Niisima. Add:
(**ds**) Mandelshtam and Petrov 2009a: 208.
- Page 335 ***confusus*** (Eggers). Add:
NOTE: Considered a valid species by Beaver and Liu 2010: 19, not synonym of *S. japonicus*
Chapuis, original synonymy by Krivolutskaya, 1985 [see Wood and Bright Catalog, 1992].
- Page 338 ***conidens*** Browne. Move to *S. caudatus* Eggers as a synonym. Add:
Synonymy by Wood 2007: 230.
- Page 328 ***convexus*** Schedl. Add:
(**tx**) Wood 2007: 224.
- Page 328 ***costellatus*** Chapuis. Add *S. pseudocostellatus* Schedl and *S. strigipennis* Schedl as syn-
onyms. Add:
FIGURES: Petrov and Mandelshtam 2010: 81 (male habitus); Wood 2007: PLATES 37, 38.
(**tx**) Petrov and Mandelshtam 2010: 78. (**hb, tx**) Wood 2007: 227.
- Page 328 ***cristatus*** Wood. Add:
FIGURES: Wood 2007: PLATE 38.
(**ds**) Burgos-Solorio and Equihua 2007: 71. (**tx**) Petrov and Mandelshtam 2010: 80. (**ds, hb,**
tx) Wood 2007: 230.
- Page 328 ***dahuricus*** Chapuis. Add:
FIGURES: Mandelshtam and Petrov 2010a: 173 (habitus), 174 (abdominal apex).
(**ds**) Mandelshtam and Petrov 2009a: 208.
- Page 329 ***dimidiatus*** Chapuis. Add:
FIGURES: Wood 2007: PLATE 39.
(**ds**) Vázquez, Rodriguez and Zorrilla 2003: 18. (**ds, hb, tx**) Wood 2007: 235.

- Page 329 **ecksteini** Butovitsch. Add:
DISTRIBUTION: ASIA: Russia (Daghestan).
(ds) Petrov 2005: 219.
- Page 329 **elongatus** Schedl. Add:
(tx) Wood 2007: 223.
- Page 329 **ensifer** Eichhoff. Add:
FIGURE: de Laclos et al. 2004: 146 (habitus).
DISTRIBUTION: ASIA: Russia (Daghestan). EUROPE: Maltese Islands.
(ds) Colonnelli 2003: 97; Mifsud and Colonnelli 2010; Noblecourt 2004: 33; Petrov 2005: 219;
Podlussány and György 2008: 199. (ds, hb) de Laclos et al. 2004: 146; Petrov and Nikitskii
2001: 171.
- Page 331 **facialis** Schedl. Move to **S. angustatus** Browne as a synonym. Add:
Synonymy by Petrov and Mandelshtam 2010: 69.
(tx) Wood 2007: 222.
- Page 330 **fagi** Walsh. Add:
Neotype designated by Smith and Cognato 2010b: 37 “Galesburg, Illinois” (MCZ).
FIGURES: Smith and Cognato 2010b: 38 (male and female habitus, male and female frons,
aedeagus); 39 (second sternite).
DISTRIBUTION: NORTH AMERICA: United States (Kansas, Ohio, Pennsylvania).
(ds, tx) Smith and Cognato 2010b: 35.
- Page 331 **frontalis** Blandford. Add:
(tx) Beaver and Liu 2010: 18.
- Page 331 **golbachi** Schedl. Add:
(ds, tx) Wood 2007: 229.
- Page 331 **intricatus** (Ratzeburg). Add:
DISTRIBUTION: ASIA: Russia (Daghestan, Leningrad, Yaroslavi). EUROPE: France
(Corsica).
(bv) Vrkocova et al. 2000. (ds) Colonnelli 2003: 97; de Laclos 2004: 166; Faccoli 2002: 100;
Haack 2001: 274; Inglebert 2002: 124; Mandelshtam and Popovichev 2000: 891;
Mandelshtam, Nikitsky and Bibin 2005a: 23; Petrov 2005: 219; Petrov and Nikitskii 2001:
171; Podlussány and György 2008: 199; Voolma et al. 2004. (hb) Petrov and Nikitskii 2001:
171. (tx) Vlasov 2005: 766. (ds, hb) de Laclos et al. 2004: 152.
- Page 334 **jacobsoni** (Spessivtsev). Add:
(ds) Mandelshtam and Petrov 2009a: 208.
- Page 335 **japonicus** Chapuis. Add:
(ds) Mandelshtam and Petrov 2009a: 208. (tx) Beaver and Liu 2010: 19.
- Page 335 **jaroschevskyi** Schevyrew. Add:
DISTRIBUTION: ASIA: Russia (Daghestan).
(ds) Petrov 2005: 220.
- Page 336 **kashmirensis** Schedl. Add:
(tx) Mandelshtam and Petrov 2010a: 177. (ds, tx) Maiti and Saha 2009: 77.

- Page 336 ***kirschi*** Skalitzky. Add:
 FIGURES: Six et al. 2005: 230 (damage, galleries, habitus, diagnostic characters).
 DISTRIBUTION: AFRICA: South Africa (introduced). ASIA: Russia (Daghestan). EUROPE: France (Corsica), Switzerland. SOUTH AMERICA: Argentina, Brazil, introduced?.
 HOSTS: *Ulmus suberosa*, *U. laevis*, *U. foliacea*.
 (ds) Colonnelli 2003: 97; de Laclos 2004: 166; Germann 2010; Markovic 2000; Petrov 2005: 220. (ds, tx) Wood 2007: 221. (ds, ec, hb) Six et al. 2005.
 NOTE: Treated as a subspecies in Colonnelli (2003) and Germann (2010).
- Page 337 ***fasciatus*** Reitter (= ***S. kirschi*** Skalitzky). Add:
 (ds, tx) Colonnelli 2003: 97;
 NOTE: Treated as a subspecies of ***S. kirschi*** Skalitzky in Colonnelli (2003);
- Page 337 ***koenigi*** Schevyrew. Add *S. belokanicus* Stark as a synonym. Add:
 DISTRIBUTION: ASIA: Russia (Daghestan).
 (ds) Colonnelli 2003: 97; Noblecourt 2004: 33. (ds, tx) Petrov 2005: 220.
- Page 338 ***koltsei*** Reitter. Add:
 (ds) Mandelshtam and Petrov 2009a: 208.
- Page 339 ***laetus*** Wood. Add:
 (tx) Wood 2007: 232.
- Page 339 ***laevis*** Chapuis. Add:
 FIGURE: de Laclos et al. 2004: 147 (ventral habitus).
 DISTRIBUTION: ASIA: Russia (Daghestan, Leningrad).
 HOSTS: *Ulmus laevis*, *U. suberosa*.
 (ds) Colonnelli 2003: 97; Mandelshtam and Popovichev 2000: 892; Mandelshtam, Nikitsky and Bibin 2005a: 24; Petrov 2005: 220; Petrov and Nikitskii 2001: 171; Voolma et al. 2004. (hb) Petrov and Nikitskii 2001: 171. (ds, hb) de Laclos et al. 2004: 147.
- Page 340 ***laricis*** Blackman. Add:
 (ds, hb, tx) Furniss and Johnson 2002: 90.
- Page 340 ***major*** Stebbing. Add:
 (tx) Mandelshtam and Petrov 2010a: 175. (ds, tx) Maiti and Saha 2009: 78.
- Page 341 ***mali*** (Bechstein). Add:
 FIGURES: de Laclos et al. 2004: 151 (habitus); Mifsud and Knízek 2009: 48 (habitus).
 DISTRIBUTION: ASIA: Russia (Daghestan, Yaroslavi). NORTH AMERICA: United States (Michigan).
 HOSTS: *Cerasus* sp., *Cedrus oblonga*, *Prunus armeniaca*, *P. divaricata*, *Mespilus germanica*.
 (ds) Cognato et al. 2009: 110; Colonnelli 2003: 97; Haack 2001: 275; Mandelshtam, Nikitsky and Bibin 2005a: 24; Mifsud and Knízek 2009: 36; Petrov 2005: 220; Petrov and Nikitskii 2001: 171; Voolma et al. 2004. (hb) Petrov and Nikitskii 2001: 171. (tx) Vlasov 2005: 767.
- Page 344 ***marginatus*** Chapuis. Add:
 (tx) Wood 2007: 232.
- Page 345 ***monticolae*** Swaine. Add:
 (ds, hb, tx) Furniss and Johnson 2002: 90.
- Page 345 ***morawitzi*** Semenov. Add:
 DISTRIBUTION: ASIA: Russia (Yakutia).

(**ds**) Anonymous 2005a; Averensky and Yanovsky 2008: 26; CAB International 2007c; Faccoli 2002: 100; Vanhanen, Veteli and Niemelae 2008; Voolma et al. 2004.

- Page 345 ***multistriatus*** (Marsham). Add:
FIGURES: LaBonte 2010: 209 (various morphological features); de Laclos et al. 2004: 145 (gallery pattern); Lee et al. 2006 (habitus); López-Buenfil et al. 2001: 364 (proventriculus).
DISTRIBUTION: ASIA: Russia (Daghestan, Leningrad, Yaroslavi). NORTH AMERICA: Canada (Nova Scotia). SOUTH AMERICA: Argentina, Chile ? (introduced, see note below).
(**bv**) McNee, Wood and Storer 2000; Seybold, Paine and Dreistadt 2008. (**ds**) Brockerhoff, Knízek and Bain 2003: 35; Colonnelli 2003: 97; Furniss and Johnson 2002: 91; Haack 2001: 275; Inglebert 2002: 124; Lee et al. 2009; Majka, Anderson and McCorquodale 2007: 418; Mandelshtam and Popovichev 2000: 892; Petrov 2005: 220; Petrov and Nikitskii 2001: 170; Voolma et al. 2004; Wood 2007: 222. (**hb**) Furniss and Johnson 2002: 91; Lee and Seybold 2010; Lee et al. 2010; Petrov and Nikitskii 2001: 170. (**tx**) Furniss and Johnson 2002: 91; Johnson et al. 2008; LaBonte 2010: 209; Vlasov 2005: 767; Wood 2007: 222. (**bv, ec**) Lee and Seybold 2010. (**ds, hb**) de Laclos et al. 2004: 145.
NOTE: Reports of introduction into South America are not confirmed. Species should not be included in South American fauna (Wood 2007). Treated as a subspecies in Colonnelli (2003).
- Page 354 ***mundus*** Wood. Add:
FIGURE: López-Buenfil et al. 2001: 364 (proventriculus).
- Page 354 ***muticus*** Say. Add:
DISTRIBUTION: NORTH AMERICA: United States (Arkansas).
(**ds**) Schiefer 2010: 111.
- Page 354 ***nakanei*** Nobuchi. Add:
(**tx**) Beaver and Liu 2010: 19.
- Page 354 ***neofacialis*** Schedl. Add:
FIGURES: Petrov and Mandelshtam 2010: 89 (habitus); 90 (frons).
(**tx**) Petrov and Mandelshtam 2010: 87; Wood 2007: 225.
NOTE: Holotype is a male.
- Page 354 ***nitidus*** Schedl. Add:
(**tx**) Mandelshtam and Petrov 2010a: 176. (**ds, ec, hb**) Buhroo and Ramamurthy 2008. (**hb**) Buhroo and Lakatos 2007; Buhroo, Chishti and Masoodi 2004.
- Page 354 ***nodatus*** Wood. Add:
(**hb, tx**) Wood 2007: 228.
- Page 355 ***nodulus*** (Wichmann). Add:
(**tx**) Wood 2007: 235.
- Page 355 ***novateutonicus*** Schedl. Add:
FIGURES: Wood 2007: PLATE 40.
(**ds, tx**) Wood 2007: 234.
- Page 355 ***numidicus*** Brisout. Add:
HOST: *Cedrus libani atlantica*.
(**ds**) Benhalima et al. 2005.

- Page 355 ***opacus*** Blackman. Add:
FIGURES: Equihua and Furniss 2009: 598 (pars stridens), 599 (abdominal sternites 2-5).
(tx) Equihua-Martinez and Furniss 2009. (ds, hb, tx) Furniss and Johnson 2002: 92.
- Page 353 ***orientalis*** Eggers (= ***S. multistriatus*** (Marsham). Add:
DISTRIBUTION: ASIA: Russia (Daghestan).
(ds) Petrov 2005: 220; Mandelshtam, Nikitsky and Bibin 2005a: 24.
NOTE: Treated as a valid name by Knízek (2011).
- Page 356 ***peruensis*** Schedl. Add:
(tx) Petrov and Mandelshtam 2010: 88; Wood 2007: 233.
- Page 356 ***piceae*** (Swaine). Add:
FIGURES: LaBonte 2010: 210 (to various morphological features), 211 (to various features).
DISTRIBUTION: NORTH AMERICA: Canada (Nova Scotia)
(ds) Furniss, Holsten and Schultz 2002: 90; Majka, Anderson and McCorquodale 2007: 419.
(tx) LaBonte 2010: 211. (ds, hb, tx) Furniss and Johnson 2002: 92.
- Page 356 ***pilosus*** Yin and Huang. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Huang and Yin 1992: 852.
- Page 356 ***pinnatus*** Eggers. Add:
FIGURE: Petrov and Mandelshtam 2010: 91 (female habitus).
(tx) Wood 2007: 228.
- Page 357 ***pomi*** Yin and Huang. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Huang and Yin 1992: 853.
- Page 357 ***praeceps*** LeConte. Add:
DISTRIBUTION: NORTH AMERICA: United States (**Wyoming** [see Appendix]).
(ds, hb, tx) Furniss and Johnson 2002: 93.
- Page 357 ***propinquus*** Blandford. Add:
(ds) Burgos-Solorio and Equihua 2007: 71. (ds, hb, tx) Wood 2007: 231.
- Page 357 ***proximus*** Chapuis. Add:
FIGURES: Petrov and Mandelshtam 2010: 92, 93 (male habitus); Wood 2007: PLATE 41.
DISTRIBUTION: SOUTH AMERICA: Peru.
(ds, tx) Petrov and Mandelshtam 2010: 90. (ds, hb, tx) Wood 2007: 232.
- Page 357 ***pseudocostellatus*** Schedl. Move to ***S. costellatus*** Chapuis as a synonym. Add:
Synonymy by Petrov and Mandelshtam 2010: 79.
(tx) Wood 2007: 227; Petrov and Mandelshtam 2010: 78.
- Page 358 ***pygmaeus*** (Fabricius). Add:
FIGURE: de Laclos et al. 2004: 148 (habitus).
DISTRIBUTION: ASIA: Russia (Daghestan, Yaroslavi). EUROPE: Great Britain.
(ds) Colonnelli 2003: 97; Heal 2003a; Inglebert 2002: 124; Mandelshtam, Nikitsky and Bibin 2005a: 24; Markovic 2000; Petrov 2005: 220; Petrov and Nikitskii 2001: 170; Podlussány and György 2008: 199. (ec) Moser et al. 2005. (hb) Petrov and Nikitskii 2001: 170. (tx) Vlasov 2005: 767. (ds, hb) de Laclos et al. 2004: 148.

- Page 361 ***querci*** Yin and Huang. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Huang and Yin 1992: 853.
- Page 361 ***ratzeburgi*** Janson. Add:
DISTRIBUTION: ASIA: Russia (Altai, Daghestan, Yakutia, Yaroslavi).
HOSTS: *Betula pendula*, *B. litwinowii*.
(ds) Averensky and Yanovsky 2008: 26; Colonnelli 2003: 97; Demidko 2007: 34; Demidko 2007: 34; Haack 2001: 274; Mandelshtam and Petrov 2009a: 208; Mandelshtam and Popovichev 2000: 892; Mandelshtam, Nikitsky and Bibin 2005a: 24; Petrov 2005: 220; Petrov and Nikitskii 2001: 171; Voolma et al. 2004. (hb) Petrov and Nikitskii 2001: 171. (tx) Vlasov 2005: 767. (ds, hb) de Laclos et al. 2004: 149.
- Page 364 ***rugulosus*** (Müller). Add:
FIGURES: de Laclos et al. 2004: 153 (habitus); Mifsud and Knízek 2009: 48 (habitus).
DISTRIBUTION: ASIA: Russia (Daghestan, Yaroslavi). EUROPE: Malta. NORTH AMERICA: Canada (Prince Edward Island).
HOSTS: *Acer undulatum*.
(ds) Ayberk and Cebeci 2010; Bolu and Legalov 2008: 83; Bright 2004: 160; Colonnelli 2003: 97; Foster 2011; Furniss and Johnson 2002: 93; Haack 2001: 275; Majka, Anderson and McCorquodale 2007: 419; Mandelshtam and Popovichev 2000: 892; Mandelshtam, Nikitsky and Bibin 2005a: 24; Mifsud and Knízek 2009: 37; Petrov 2005: 220; Petrov and Nikitskii 2001: 171; Podlussány and György 2008: 199; Voolma et al. 2004. (hb) Furniss and Johnson 2002: 93; Petrov and Nikitskii 2001: 171; Wood 2007: 221. (tx) Furniss and Johnson 2002: 93; Mandelshtam and Petrov 2010a: 175; Vlasov 2005: 767; Wood 2007: 221.
- Page 369 ***mediterraneus*** Eggers (= ***S. rugulosus*** (Müller). Add
(ds) Al-Ahmadi and Salem 1999: 129.
- Page 370 ***schevyrewi*** Semenov. Add:
FIGURES: LaBonte 2010: 210, 212 (to various morphological features), 213 (lateral habitus); Lee et al. 2006 (habitus, gallery pattern, damage); Negrón et al. 2005: 84 (habitus), 88 (gallery pattern), 89 (damage).
DISTRIBUTION: ASIA: China (Hengduan Mtns.); Russia (Daghestan). NORTH AMERICA: Canada (Alberta, Manitoba, Ontario, Saskatchewan); United States (all western states), plus Connecticut, Minnesota, Missouri, Illinois, Indiana, Kansas, Maryland, Michigan, Nebraska, New Jersey, Ohio, Pennsylvania and Virginia [introduced].
(bv) Lee and Seybold 2010; Seybold, Paine and Dreistadt 2008. (ds) CAB International 2009b; Cognato et al. 2009: 110; Haack 2006: 273; Lee et al. 2009; Mandelshtam and Petrov 2009a: 208; Petrov 2005: 220. (ec) Lee and Seybold 2010. (hb) Lee and Seybold 2010; Lee et al. 2010. (tx) Johnson et al. 2008; LaBonte 2010: 212. (ds, ec, hb) Lee et al. 2006, 2009, 2010; Negrón et al. 2005.
- Page 371 ***scolytus*** (Fabricius). Add:
FIGURE: de Laclos et al. 2004: 150 (epistomal margin).
DISTRIBUTION: ASIA: Russia (Daghestan).
(ds) Colonnelli 2003: 97; Faccoli 2004b; Haack 2001: 274; Inglebert 2002: 124; Mandelshtam, Nikitsky and Bibin 2005a: 24; Petrov 2005: 220; Podlussány and György 2008: 199; Voolma et al. 2004. (ec) Faccoli 2004b; Petrov and Nikitskii 2001: 170. (hb) Faccoli 2004b; Petrov and Nikitskii 2001: 170. (ds, hb) de Laclos et al. 2004: 150.
- Page 376 ***semenovi*** (Spessivtsev). Add:
(ds) Mandelshtam and Petrov 2009a: 209.

- Page 371 *seulensis* Murayama (= *S. schevyrewi* Semenov). Add:
(**ds**) Huang and Yin 1992: 852.
- Page 376 *sinopiceus* Tsai. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns., Qinghai).
(**ds**) Han et al. 2010; Huang and Yin 1992: 852.
- Page 377 *spinidens* Schedl. Add:
(**tx**) Wood 2007: 223.
- Page 377 *strigipennis* Schedl. Move to *S. costellatus* Schedl as a synonym. Add:
Synonymy by Petrov and Mandelshtam 2010: 79; Wood 2007: 227.
- Page 377 *submarginatus* Schedl. Add:
FIGURES: Wood 2007: PLATE 42.
(**ds, tx**) Wood 2007: 234.
- Page 377 *subscaber* LeConte. Add:
(**ds, hb, tx**) Furniss and Johnson 2002: 93.
- Page 377 *sulcifrons* Rey. Add:
FIGURES: Mifsud and Knízek 2009: 48.
DISTRIBUTION: ASIA: Russia (Daghestan). EUROPE: Malta.
(**ds**) Colonnelli 2003: 97; Mifsud and Knízek 2009: 35; Petrov 2005: 220. (**ds, hb**) Petrov and Nikitskii 2001: 170.
- Page 378 *thoracicus* Chapuis. Add:
Lectotype (male), Brazil, designated by Wood 2007: 236.
FIGURES: Wood 2007: PLATE 43.
(**ds**) Bright 2004: 161. (**tx**) Petrov and Mandelshtam 2010: 92; Wood 2007: 236.
- Page 378 *torulus* Wood. Add:
(**tx**) Wood 2007: 232.
- Page 355 *triarmatus* Eggers. Add:
(**ds**) Colonnelli 2003: 97; Süda 2006; Voolma et al. 2004.
NOTE: Treated as a valid name in Colonnelli (2003) and Knízek (2011).
- Page 378 *trispinosus* Strohmeyer. Add:
(**ds**) Mandelshtam and Petrov 2009a: 209.
- Page 378 *tsugae* (Swaine). Add:
(**ds, hb, tx**) Furniss and Johnson 2002: 95.
- Page 379 *unispinosus* LeConte. Add:
FIGURES: LaBonte 2010: 210 (abdominal sternites).
(**ds, hb, tx**) Furniss and Johnson 2002: 95.
- Page 390 *ventralis* LeConte. Add:
(**bv**) Seybold, Paine and Dreistadt 2008. (**ec**) Macias-Sámano and Borden 2000. (**ds, hb, tx**) Furniss and Johnson 2002: 95.

ADD SPECIES:

bispinatus Wood 2007: 225. Holotype (male ?), BRAZIL: Armalus, Amazonas Timber S. A.; MZUSP.

canellae Wood 2007: 230. Holotype (male), BRAZIL: intercepted at New York; USNM.

FIGURE: Petrov and Mandelshtam 2010: 75 (male habitus).

DISTRIBUTION: SOUTH AMERICA: Peru.

HOSTS: Barbasco root (*Canella* sp.), cube root.

(tx) Petrov and Mandelshtam 2010: 74.

carveli Petrov and Mandelshtam 2010: 76. Holotype (male), PERU: Loreto Province, Itaya river, left bank of Amazon river, 58 km SSW from Iquitos to Nauta, S 04.15.510, W 073.28.032; ZMM.

FIGURES: Petrov and Mandelshtam 2010: 77 (male and female habitus), 78 (male lateral habitus), 79 (male abdominal sternites), 80 (female abdominal sternites).

****duplicatus*** Petrov and Zherikin 2000: S344. Holotype (sex ?), FRANCE: Ardeche, Montagne d'Andance; Upper Miocene, Lower Turolian: MNHMP

FIGURES: Petrov and Zherikin 2000: S345.

excavatus Wood 2007: 229. Holotype (male), BOLIVIA: Warones, near Santa Cruz de la Sierra; USNM.

FIGURES: Wood 2007: PLATE 39.

DISTRIBUTION: SOUTH AMERICA: Peru.

HOST: "Cuqui"; *Pterocarpus rohrii*.

(ds, hb, tx) Petrov and Mandelshtam 2010: 83.

NOTE: Holotype is a female (Petrov and Mandelshtam 2010: 83).

lindemani Petrov and Mandelshtam 2010: 81. Holotype (female), PERU: Loreto Province, Itaya river, left bank of Amazon river, 58 km SSW from Iquitos to Nauta; ZMM.

FIGURES: Petrov and Mandelshtam 2010: 82 (female habitus), 83 (female abdominal sternites).

mozolevskae Petrov and Mandelshtam 2010: 85. Holotype (male). PERU: Loreto Province, Itaya river, left bank of Amazon river, 58 km SSW from Iquitos to Nauta, 4°11'S, 73°26'W; ZMM.

FIGURES: Petrov and Mandelshtam 2010: 86, 87 (male habitus), 88 (abdominal sternites).

HOST: Liana.

obscuriceps Wood 2007: 235. Holotype (male), BRAZIL: Rio Caraguata, 24°48'B, 52°27'L; DEIM.

FIGURES: Wood 2007: PLATE 40.

HOST: *Eucalyptus* sp.

plaumannii Wood 2007: 229. Holotype (male), BRAZIL: Nova Teutonia, Santa Catarina; USNM.

FIGURES: Wood 2007: PLATE 40.

stepheni Mandelshtam and Petrov 2010a: 172. Holotype (male), INDIA: Pahlgam, Lidar valley, 7000 ft., Kashmir; NHMW.

FIGURES: Mandelshtam and Petrov 2010a: 173 (habitus), 174 (abdominal apex).

HOST: *Ulmus wallichiana*.

****tshernjaki*** Petrov and Zherikin 2000: S344. Holotype (sex ?), FRANCE: Montagne d'Andance; Upper Miocene, Lower Turolian: MNHMP

FIGURES: Petrov and Zherikin 2000: S345.

vagabundus Petrov and Mandelshtam 2010: 94. Holotype (female), PERU: Loreto Province, left bank of Amazon river, 70 km SSW from Iquitos to Nauta; ZMM.

FIGURES: Petrov and Mandelshtam 2010: 95 (female habitus), 96 (female abdominal sternites).

venezuelensis Wood 2007: 231. Holotype (male), VENEZUELA: Union Orinoco-Ugueto TFA (Alta Orinoco); USNM.

woodi Petrov and Mandelshtam 2010: 95. Holotype (male), PERU: Loreto Province, right bank of Amazon river, 30 km S from Iquitos, Panquana camp; ZMM.

FIGURES: Petrov and Mandelshtam 2010: 96, 97 (male habitus), 97 (male frons), 98 (male and female second sternite).

SUBFAMILY HEXACOLINAE Eichhoff

TRIBE HEXACOLINI

Page 383 Ctenophorini. Add ***Hexacolini*** Eichhoff as a new name for Ctenophorini. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 58.
 KEY: Wood 2007: 237 (to South American genera).
 (hb, tx) Wood 2007: 237.

Genus ***Gymnochilus*** Eichhoff

Page 386 ***Gymnochilus*** Eichhoff. Add:
 KEY: Wood 2007: 247 (to all species).
 (an) López-Buenfil et al. 2001: 338. (tx) Alonso-Zarazaga and Lyal 2009: 59. (ds, hb, tx)
 Wood 2007: 246.

Page 386 ***consocius*** (Blandford). Add:
 (ds, hb, tx) Wood 2007: 248.

Page 387 ***pilosulus*** (Eggers). Move to ***Scolytodes***.

Page 387 ***reitteri*** Eichhoff. Add:
 FIGURE: López-Buenfil et al. 2001: 364 (proventriculus).
 (ds) Burgos-Solorio and Equihua 2007: 72.

Page 400 ***vestitus*** (Eggers). Move from ***Scolytodes***. Add:
 New combination by Wood 2007: 248.
 (ds, tx) Wood 2007: 248.

Page 387 ***zonatus*** Eichhoff. Add:
 (ds, tx) Wood 2007: 248.

Genus ***Microborus*** Blandford

Page 383 ***Microborus*** Blandford. Add:
 KEY: Wood 2007: 238 (to South American species).
 (an) López-Buenfil et al. 2001: 338. (tx) Alonso-Zarazaga and Lyal 2009: 59. (ds, hb, tx)
 Wood 2007: 238.

Page 383 ***aberrans*** Wichmann. Add:
 FIGURES: Wood 2007: PLATE 44.
 (tx) Wood 2007: 239.

Page 383 ***bicolor*** Eggers. Add:
 (tx) Wood 2007: 238.

Page 383 ***boops*** Blandford. Add:
(**ds**) Mandelshtam and Danielsson 2004: 90. (**tx**) Wood 2007: 239.

Page 383 ***lautus*** Wood. Add:
(**ds**) Bright and Torres 2006: 396.

Page 384 ***lectus*** Wood. Add:
FIGURES: Wood 2007: PLATE 44.
(**hb, tx**) Wood 2007: 239.

Page 384 ***mexicanus*** Wood. Add:
FIGURES: López-Buenfil et al. 2001: 364 (proventriculus).

ADD SPECIES:

****inertus*** Cognato and Grimaldi 2009: 95. Holotype (sex?), mid-Cretaceous (Upper Albian-Cenomanian-aged) amber, Kachin Province, Tanai Village (on Ledo Road, 105 km NW Myitkyna), northern Myanmar; AMNH.
FIGURE: Cognato and Grimaldi 2009: 95 (habitus).

Genus ***Pycnarthrum*** Eichhoff

Page 384 ***Pycnarthrum*** Eichhoff. Add:
KEY: Wood 2007: 240 (to South American species).
(**an**) López-Buenfil et al. 2001: 338. (**tx**) Alonso-Zarazaga and Lyal 2009: 59; Rabaglia 2002: 801. (**ds, hb, tx**) Wood 2007: 240.

Page 384 ***amersum*** Wood. Add:
(**ds**) Burgos-Solorio and Equihua 2007: 71.

Page 384 ***brosimi*** Wood. Add:
FIGURES: Wood 2007: PLATE 45.
DISTRIBUTION: NORTH AMERICA: Costa Rica (Isla del Coco).
(**ds**) Kirkendall and Jordal 2006: 731. (**ds, hb, tx**) Wood 2007: 243.

Page 384 ***carinatum*** Wood. Add:
(**ds, tx**) Wood 2007: 246.

Page 384 ***fulgidum*** Wood. Add:
(**hb, tx**) Wood 2007: 242.

Page 384 ***furnerium*** Wood. Add:
(**ds**) Burgos-Solorio and Equihua 2007: 71.

Page 384 Page 384 ***hispidum*** (Ferrari). Add:
FIGURES: López-Buenfil et al. 2001: 364 (proventriculus); Wood 2007: PLATE 45.
(**ds**) Bright and Torres 2006: 396; Burgos-Solorio and Equihua 2007: 71. (**hb, tx**) Wood 2007: 242.

Page 385 ***insulare*** Blair. Add:
DISTRIBUTION: Delete Isla del Coco in Costa Rica.
(**ds**) Kirkendall and Jordal 2006. (**tx**) Wood 2007: 243.

- Page 385 ***kleinei*** Eggers. Add:
(**ds, hb, tx**) Wood 2007: 245.
- Page 385 ***pallidum*** (Chapuis). Add *P. reticulatum* Schedl as a synonym. Add:
FIGURES: Wood 2007: PLATE 46.
DISTRIBUTION: SOUTH AMERICA: **Trinidad** [see Appendix]).
(**ds, hb, tx**) Wood 2007: 244.
- Page 385 ***reticulatum*** Schedl. Move to ***P. pallidum*** (Chapuis) as a synonym.
Synonymy by Wood 2007: 244.
(**ds**) Burgos-Solorio and Equihua 2007: 71.
- Page 386 ***setulosum*** Waterhouse. Add:
Lectotype (male), Fernando [de] Noranha Island, Brazil, designated by Wood 2007: 244.
(**tx**) Wood 2007: 244.

- Page 386 ***subcarinatum*** Wood. Add:
FIGURES: Wood 2007: PLATE 46.
(**tx**) Wood 2007: 246.

- Page 386 ***uniseratum*** Schedl. Add:
FIGURES: Wood 2007: PLATE 47.
(**tx**) Wood 2007: 245.

ADD SPECIES:

bahiae Wood 2007: 245. Holotype (male), BRAZIL: Cepec, Bahia; USNM.

pseudoinsulare Kirkendall and Jordal 2006: 731. Holotype (female ?), COSTA RICA: Puntarenas, Isla del Coco, Wafer Bay; LACM.
FIGURES: Kirkendall and Jordal 2006: 731 (habitus and frons).

tuberculiferum Wood 2007: 243. Holotype (male), ECUADOR: Pichincha, Puerto Quito; USNM.
NOTE: Misspelled as *tuberculifer* in key to species (Wood 2007: 241).

Genus ***Scolytodes*** Ferrari

- Page 387 ***Scolytodes*** Ferrari. Add:
KEYS: Bright and Torres 2006: 396 (to species in Puerto Rico); Wood 2007: 250 (to all species).
(**an**) López-Buenfil et al. 2001: 339. (**tx**) Alonso-Zarazaga and Lyal 2009: 60; Rabaglia 2002: 801. (**ds, hb, tx**) Wood 2007: 250.
NOTE: Wood (2007) treats this genus in the feminine gender and has changed some species names to reflect this gender. This action is contrary to the International Code of Zoological Nomenclature and is not adopted here.

- Page 388 ***adustus*** (Eggers). Add:
(**tx**) Wood 2007: 293.

- Page 388 ***amoenus*** Wood. Add:
(**ds**) Burgos-Solorio and Equihua 2007: 72.

- Page 388 ***anceps*** Wood. Add:
(**ds, tx**) Wood 2007: 284.

- Page 388 ***argentinensis*** (Eggers). Add:
(tx) Wood 2007: 299.
- Page 388 ***ater*** (Eggers). Add *S. elongatissimus* Wood as a synonym. Add:
(tx) Wood 2007: 294.
- Page 388 ***aterrimus*** Wood. Add:
(tx) Wood 2007: 285.
- Page 388 ***atratus*** (Blandford). Add:
FIGURE: López-Buenfil et al. 2001: 364 (proventriculus).
(ds, hb, tx) Wood 2007: 268.
- Page 389 ***atrotibialis*** (Eggers). Add:
(tx) Wood 2007: 296.
- Page 389 ***banosus*** (Hagedorn). Add:
(tx) Wood 2007: 285.
- Page 389 ***bicolor*** (Eggers). Add:
(tx) Wood 2007: 282.
- Page 389 ***boliviae*** (Schedl). Add:
(tx) Wood 2007: 279.
- Page 389 ***bolivianus*** Eggers. Add:
(tx) Wood 2007: 275.
- Page 389 ***boliviensis*** Wood (replacement name for *S. bolivianus* (Eggers)). Move to ***S. similis*** (Eggers)
as a synonym. Add:
Synonymy by Wood 2007: 299.
- Page 389 ***brasiliensis*** (Eggers). Add:
FIGURES: Wood 2007: PLATE 49.
(tx) Wood 2007: 269.
- Page 386 ***brevis*** (Eggers). Move from ***Problechilus***. Add:
New combination by Wood 2007: 297.
FIGURES: Wood 2007: PLATE 48.
(hb, tx) Wood 2007: 297.
- Page 389 ***bruchi*** (Hagedorn). Add:
Lectotype (female), Argentina, designated by Wood 2007: 280.
(ds) Bright 2004: 158. (tx) Guadalupe del Rio, Lanteri and Suárez 2005: 4; Wood 2007: 280.
- Page 389 ***canaliculus*** Wood. Add:
FIGURES: Wood 2007: PLATE 49.
(ds, hb, tx) Wood 2007: 275.
- Page 390 ***chapuisi*** Wood. Add:
(ds, hb, tx) Wood 2007: 281.

- Page 390 ***clusiacolens*** Wood. Add:
(**ds**) Burgos-Solorio and Equihua 2007: 72.
- Page 390 ***columbianus*** (Schedl). Add:
NOTE: Not seen by Wood 2007.
- Page 390 ***comitabilis*** Wood. Add:
(**hb, tx**) Wood 2007: 290.
- Page 390 ***confusus*** (Eggers). Add:
(**tx**) Wood 2007: 293.
- Page 391 ***constrictus*** Wood. Add:
(**hb, tx**) Wood 2007: 295.
- Page 391 ***contractus*** Wood. Add:
(**hb, tx**) Wood 2007: 295.
- Page 391 ***crinalis*** Wood. Add:
(**tx**) Wood 2007: 278.
- Page 391 ***crinitus*** Wood. Add:
(**hb, tx**) Wood 2007: 292.
- Page 391 ***cylindricus*** Schedl. Move to ***S. unipunctatus*** (Blandford) as a synonym. Add:
Synonymy by Wood 2007: 276.
- Page 391 ***declivistriatus*** Schedl. Add:
(**tx**) Wood 2007: 280.
- Page 391 ***decorus*** Wood. Add:
(**ds, tx**) Wood 2007: 286.
- Page 391 ***dissimilis*** Schedl. Add:
(**tx**) Wood 2007: 277.
- Page 391 ***dubiosus*** Schedl. Move to ***S. vicinus*** (Eggers) as a synonym. Add:
Synonymy by Wood 2007: 298.
- Page 391 ***eggensi*** (Schedl). Add:
(**tx**) Wood 2007: 283.
NOTE: Holotype lost (Wood 2007).
- Page 391 ***elongatissimus*** Wood. Move to ***S. ater*** (Eggers) as a synonym. Add:
Synonymy by Wood 2007: 294.
- Page 392 ***festus*** Wood. Add:
(**tx**) Wood 2007: 268.
- Page 392 ***ficicolaens*** Wood. Add:
(**ds, tx**) Wood 2007: 289.
- Page 392 ***frontoglabratus*** (Schedl). Add:
(**tx**) Wood 2007: 279.

- Page 392 ***fulmineus*** Wood. Add:
(ds, tx) Wood 2007: 284.
- Page 392 ***genialis*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 72.
- Page 392 ***gennaeus*** Wood. Add:
(hb, tx) Wood 2007: 294.
- Page 393 ***glabratus*** (Schedl). Add:
Lectotype (female), Nova Teutonia, Santa Catarina, Brazil, designated by Wood 2007: 289.
(ds, tx) Wood 2007: 289.
- Page 393 ***glabrellus*** (Schedl). Add:
(tx) Wood 2007: 287.
- Page 392 ***glabrescens*** Wood. Add:
FIGURES: Wood 2007: PLATE 51.
(ds, hb, tx) Wood 2007: 268.
NOTE: Misspelled as *glaberescens* by Wood 2007: 267.
- Page 393 ***gracilis*** Schedl. Add *S. laevigatus* Wood (replacement name for *Hexacolus laevigatus* Schedl)
as a synonym. Add:
(ds, tx) Wood 2007: 271.
- Page 393 ***grandis*** (Schedl). Add:
(tx) Wood 2007: 249, 279.
- Page 393 ***guyanaensis*** Schedl. Add *Hexacolus nardus* Schedl as a synonym. Add:
(ds, hb, tx) Wood 2007: 271.
- Page 393 ***habilis*** Wood. Add:
(ds, tx) Wood 2007: 286.
- Page 393 ***hagedorni*** (Schedl). Add:
(ds, hb, tx) Wood 2007: 291.
- Page 393 ***imitans*** (Eggers). Add:
(ds, hb, tx) Wood 2007: 269.
- Page 393 ***ingae*** (Blackman). Move to ***S. maurus*** (Blandford) as a synonym. Add:
Synonymy by Wood 2007: 270.
- Page 393 ***interpunctatus*** (Eggers). Add:
NOTE: Not seen by Wood 2007.
- Page 394 ***jucundus*** Wood. Add:
(hb, tx) Wood 2007: 245.
- Page 386 ***laevicollis*** (Eggers). Move from ***Problechilus***. Add:
New combination by Wood 2007: 297.
FIGURES: Wood 2007: PLATE 53.
(tx) Wood 2007: 297.

- Page 394 ***laevicorpus*** Wood. Add:
NOTE: Not seen by Wood 2007.
- Page 394 ***laevigatulus*** Wood. Move to ***S. gracilis*** Schedl as a synonym. Add:
Synonymy by Wood 2007: 271.
- Page 394 ***laevigiatus*** Ferrari. Add:
(ds, tx) Wood 2007: 273.
- Page 394 ***lepidus*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 72.
- Page 394 ***libidus*** Wood. Add:
(tx) Wood 2007: 294.
- Page 394 ***limbatus*** (Eggers). Add:
(hb, tx) Wood 2007: 29371.
- Page 394 ***major*** (Eggers). Add:
(tx) Wood 2007: 299.
- Page 394 ***majulus*** Wood. Add:
NOTE: This is an unnecessary replacement name for ***S. majus*** Wood and is therefore unavailable. ***Scolytodes majus*** is a valid replacement name for *S. major* Eggers 1943, not Eggers 1928.
(tx) Wood 2007: 273.
- Page 394 ***maurus*** (Blandford). Add *Prinonsceles medius* Eggers and *P. ingae* Blackman as synonyms.
Add:
FIGURES: Wood 2007: PLATE 54.
(ds) Burgos-Solorio and Equihua 2007: 72. **(ds, hb, tx)** Wood 2007: 270.
- Page 395 ***medius*** Eggers. Move to ***S. maurus*** (Blandford) as a synonym. Add:
Synonymy by Wood 2007: 270.
- Page 395 ***minor*** (Eggers). Add:
(tx) Wood 2007: 271.
- Page 395 ***minutus*** Wood. Add:
(tx) Wood 2007: 290.
- Page 395 ***morulus*** (Schedl). Add:
(tx) Wood 2007: 290.
- Page 395 ***naevius*** Wood. Add:
(ds, tx) Wood 2007: 288.
- Page 395 ***nardus*** (Schedl). Move to ***S. guyanaensis*** (Schedl) as a synonym. Add:
Synonymy by Wood 2007: 271.
- Page 395 ***nitellus*** (Schedl). Add:
Lectotype (female), Rondon, Parana, Brazil, designated by Wood 2007: 280.
(tx) Wood 2007: 280.

- Page 396 ***nitens*** (Schedl). Add:
Lectotype (male), Rondon, Parana, Brazil, designated by Wood 2007: 281.
(tx) Wood 2007: 281.
- Page 396 ***nitidus*** (Eggers). Add:
(tx) Wood 2007: 278.
- Page 396 ***notatus*** (Eggers). Add:
(ds) Bright and Torres 2006: 397.
- Page 396 ***ommateus*** Wood. Add:
FIGURES: Wood 2007: PLATE 54.
(ds, hb, tx) Wood 2007: 272.
- Page 396 ***opacicollis*** (Eggers). Add:
(tx) Wood 2007: 276.
- Page 396 ***opacus*** Wood. Add *S. optimus* Wood as a synonym. Add:
FIGURES: Wood 2007: PLATE 55.
(ds, hb, tx) Wood 2007: 298.
- Page 396 ***optimus*** Wood. Move to ***S. opacus*** Wood as a synonym. Add:
Synonymy by Wood 2007: 298.
- Page 396 ***ovalis*** (Eggers). Add:
(ds, hb, tx) Wood 2007: 276.
- Page 60 ***pacificus*** Jordal. Add:
(Suppl.2) **(ds)** Kirkendall and Jordal 2006: 732.
- panamensis*** Wood. Add:
(tx) Wood 2007: 257.
NOTE: *Nomen nudum*, name only in key, no description found.
- Page 397 ***parallelus*** (Schedl). Add:
(tx) Wood 2007: 272.
- Page 397 ***parvus*** (Eggers). Add:
(tx) Wood 2007: 292.
- Page 397 ***perditus*** Wood. Add:
(tx) Wood 2007: 283.
- Page 397 ***permagnus*** (Eggers). Add:
(hb, tx) Wood 2007: 268.
- Page 397 ***perplexus*** Schedl. Add:
(tx) Wood 2007: 277.
- Page 397 ***perpusillus*** Wood. Add:
(hb, tx) Wood 2007: 292.

- Page 397 ***pilifrons*** (Schedl). Add:
(**ds, hb, tx**) Wood 2007: 288.
HOST: Fallen *Cecropia* leaf petioles.
- Page 387 ***pilosulus*** (Eggers). Move from ***Gymnochilus***. Add:
New combination by Wood 2007: 296.
FIGURES: Wood 2007: PLATE 57.
(**tx**) Wood 2007: 296.
- Page 397 ***plumeriae*** Wood. Add:
(**ds**) Burgos-Solorio and Equihua 2007: 72.
- Page 397 ***plumericola*** Wood. Add:
(**ds**) Burgos-Solorio and Equihua 2007: 72.
- Page 397 ***praeceps*** Wood. Add *S. tardus* as a synonym. Add:
(**tx**) Wood 2007: 277.
- Page 398 ***pseudoacuminatus*** (Schedl). Add:
(**tx**) Wood 2007: 284.
- Page 398 ***puer*** (Schedl). Add:
(**tx**) Wood 2007: 279.
- Page 398 ***punctatus*** (Eggers). Add:
(**ds, tx**) Wood 2007: 286.
- Page 398 ***pusillimus*** Wood. Add:
(**hb, tx**) Wood 2007: 291.
- Page 398 ***pusillus*** (Eggers). Add:
(**tx**) Wood 2007: 287.
- Page 399 ***rugulosus*** Eggers. Add:
(**tx**) Wood 2007: 275.
- Page 399 ***schwarzi*** (Hopkins). Add:
DISTRIBUTION: NORTH AMERICA: Puerto Rico.
(**ds**) Bright and Torres 2006: 399; Burgos-Solorio and Equihua 2007: 72.
- Page 399 ***semipunctatus*** Wood. Add:
(**ds, tx**) Wood 2007: 285.
- Page 399 ***serenus*** Wood. Add:
(**ds, tx**) Wood 2007: 282.
- Page 399 ***similis*** (Eggers). Add *S. boliviensis* Wood and *S. bolivianus* (Eggers) as synonyms. Add:
(**tx**) Wood 2007: 299.
- Page 399 ***subcribrosus*** (Eggers). Add:
(**ds, tx**) Wood 2007: 289.
- Page 399 ***suturalis*** Wood. Add:
(**hb, tx**) Wood 2007: 269.

- Page 399 *tardus* Wood. Move to *S. praeceps* Wood as a synonym. Add:
Synonymy by Wood 2007: 277.
- Page 399 *tenuis* Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 72.
- Page 400 *tolimanus* (Schedl). Add:
(tx) Wood 2007: 295.
- Page 400 *trispinosus* Eggers. Add:
(tx) Wood 2007: 274.
- Page 400 *unipunctatus* (Blandford). Add *S. cylindricus* Schedl as a synonym. Add:
(bv) Huler, Kolarik and Kirkendall 2007. (tx) Wood 2007: 276.
- Page 400 *varius* Wood. Add:
FIGURES: Wood 2007: PLATE 58.
(hb, tx) Wood 2007: 296.
- Page 400 *vesculus* Wood. Add:
(ds, tx) Wood 2007: 287.
- Page 400 *vicinus* (Eggers). Add *S. dubiosus* Schedl as a synonym.
(tx) Wood 2007: 298.

ADD SPECIES:

ageratinae Wood 2007: 273. Holotype (female), COSTA RICA: Cerro de la Muerte, Cartago; USNM.
HOST: *Ageratina* cf. *ixiocladi* (Asteraceae).

atlanticus Bright and Torres 2006: 396. Holotype (female), PUERTO RICO: Guaynabo; DEBC/USNM.
FIGURES: Bright and Torres 2006: 425 (antenna, frons).

callegarii Petrov and Mandelshtam 2007: 451. Holotype (male), PERU: Junin province, left bank of
Perene river, 5 km NE Puerto Ocopa, Sta. Cruz; type depository not given.
FIGURES: Petrov and Mandelshtam 2007: 452 (habitus, antenna, aedeagus).
HOST: Leafstalks of *Cecropia* sp.
NOTE: This species is a possible synonym of *S. permagnus* (Eggers).

gunnerae Wood 2007: 282. Holotype (female), COSTA RICA: 6 km ENE Vara Blanca, Heredia; USNM.
HOST: Leaf petioles of *Gunnera insignis*.

nayaritensis Wood 2007: 291. Holotype (male), MEXICO: Laguna Santa Maria, Nayarit; USNM.
HOST: *Ficus* sp.

peruana Wood 2007: 274. Holotype (female), PERU, Chachapoyas, Dept. Amazonas; USNM.

puertoricensis Bright and Torres 2006: 398. Holotype (female), PUERTO RICO: El Yunque, ex light
trap; DEBC/USNM.
FIGURES: Bright and Torres 2006: 425 (antenna, frons).

sparsepilosus Wood 2007: 287. Holotype (female), ARGENTINA: 21 km W Tucuman; USNM.

tucumani Wood 2007: 274. Holotype (female), ARGENTINA: 21 km W Tucuman, Tucuman Province; USNM.

ADD NEW NAME:

schoenmanni Wood. New name for *Problechilus glaber* Schedl, not Eichhoff. Add:
FIGURES: Wood 2007: PLATE 58.
(tx) Wood 2007: 297.

*SUBFAMILY CYLINDROBOTINAE Kirejtshuk et al.

*TRIBE CYLINDROBROTINI

ADD TRIBE:

***Cylindrobrotini** Kirejtshuk, Azar, Beaver, Mandelshtam and Nel 2009: 102.
Type genus: *Cylindrobrotus* Kirejtshuk, Azar, Beaver, Mandelshtam and Nel.
(tx) Alonso-Zarazaga and Lyal 2009: 49.

ADD GENUS:

***Cylindrobrotus** Kirejtshuk, Azar, Beaver, Mandelshtam and Nel 2009: 105. Type species: *Cylindrobrotus pectinatus* Kirejtshuk, Azar, Beaver, Mandelshtam and Nel. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 49.

ADD SPECIES:

***pectinatus** Kirejtshuk, Azar, Beaver, Mandelshtam and Nel 2009: 105. Add:
FIGURES: Kirejtshuk, Azar, Beaver, Mandelshtam and Nel 2009: 105.
DISTRIBUTION: Early Cretaceous Lebanese amber.

SUBFAMILY SCOLYTOPLATYPODINAE Blandford

TRIBE SCOLYTOPLATYPODINI

Page 401 **Scolytoplatypodini** Blandford. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 95.

Genus ***Scolytoplatypus*** Schaufuss

Page 401 ***Scolytoplatypus*** Schaufuss. Add:
KEYS: Beaver and Gebhardt 2006: 159 (to Oriental species); Maiti and Saha 2009: 80.
FIGURES: Beaver and Gebhardt 2006: 157-158 (prosternum).
(an) Beaver and Gebhardt 2006: 156-158. (hb) Beaver and Gebhardt 2006: 158. (tx) Alonso-Zarazaga and Lyal 2009: 96; Beaver and Gebhardt 2006. (ds, tx) Maiti and Saha 2009: 79.

Page 405 *benguetus* Blackman. Move to ***S. luzonicus*** Eggers as a synonym. Add:
Synonymy by Beaver and Gebhardt 2006: 170.

Page 403 ***bombycinus*** Browne. Remove from synonymy with ***S. eutomoides***. Add:
DISTRIBUTION: ASIA: Malaysia (Sabah).
(ds, tx) Beaver and Gebhardt 2006: 167.

- Page 403 ***brahma*** Blandford. Remove from synonymy with ***S. eutomoides***. Add ***S. paucegranulatus*** Eggers as a synonym. Add:
DISTRIBUTION: ASIA: Indonesia (Sumatra), Malaysia (Sabah), Thailand.
(ds, tx) Beaver and Gebhardt 2006: 167.
- Page 92 ***carinatus*** Bright. Add:
(Suppl. 1) **(tx)** Beaver and Gebhardt 2006: 168.
- Page 402 ***daimio*** Blandford. Add ***S. kunala*** Strohmeyer as a synonym. Add:
(tx) Beaver and Gebhardt 2006: 168.
- Page 402 ***darjeelingi*** Stebbing. Add:
FIGURES: Maiti and Saha 2009: 83 (habitus, antenna).
DISTRIBUTION: ASIA: China (Hengduan Mtns.), India (Himachal Pradesh), Nepal, Thailand.
(ds, tx) Beaver and Gebhardt 2006: 169; Huang and Yin 1992: 862; Maiti and Saha 2009: 82.
- Page 402 ***eutomoides*** Blandford. Remove ***S. brahma*** Blandford, ***S. javanus*** Eggers, ***S. luzonicus*** Eggers, ***S. macgregori*** Blackman and ***S. bombycinus*** Browne as synonyms. Add:
FIGURE: Maiti and Saha 2009: 86 (habitus).
DISTRIBUTION: ASIA: Indonesia (Irian Jaya, Sulawesi), Papua New Guinea.
HOSTS: *Castanopsis* sp., *Myristica* sp.
(ds, tx) Beaver and Gebhardt 2006: 170; Maiti and Saha 2009: 85.
- Page 493 ***fasciatus*** Hagedorn. Add:
(ds) Mandelshtam and Danielsson 2004: 91.
- Page 403 ***glaber*** Eggers. Add:
(tx) Beaver and Gebhardt 2006: 170.
- Page 403 ***javanus*** Eggers. Add:
(hb) Hulcr and Cognato 2010b . **(tx)** Beaver and Gebhardt 2006: 170.
- Page 406 ***kunala*** Strohmeyer. Remove from synonymy with ***S. siomio***. Add:
FIGURES: Mandelshtam and Petrov 2010b: 183-187 (various features).
DISTRIBUTION: ASIA: Afghanistan.
(ds, tx) Mandelshtam and Petrov 2010b: 182.
NOTE: Placed in synonymy by Beaver and Gebhardt 2006: 168.
- Page 405 ***luzonicus*** Eggers. Remove from synonymy with ***S. papuanus***. Add ***S. benguetus*** Blackman as a synonym. Add:
(tx) Beaver and Gebhardt 2006: 170.
- Page 405 ***macgregori*** Blackman. Remove from synonymy with ***S. papuanus***. Add:
(tx) Beaver and Gebhardt 2006: 171.
- Page 404 ***mikado*** Blandford. Add:
FIGURE: Yin 1997: 962 (outline of elytral declivity).
DISTRIBUTION: ASIA: Taiwan.
(ds) Beaver and Gebhardt 2006: 171; Yin 1997: 972. **(tx)** Beaver and Gebhardt 2006: 171; Yin 1997: 972. **(ds, tx)** Beaver and Liu 2010: 19.

- Page 404 ***minimus*** Hagedorn. Add:
FIGURES: Maiti and Saha 2009: 92 (habitus).
DISTRIBUTION: ASIA: Taiwan.
(ds, tx) Beaver and Gebhardt 2006: 172; Maiti and Saha 2009: 92.
- Page 404 ***nanus*** Schedl. Add:
DISTRIBUTION: ASIA: Malaysia (Sabah).
(ds, tx) Beaver and Gebhardt 2006: 172.
- Page 405 ***nitidicollis*** Eggers. Add:
FIGURES: Maiti and Saha 2009: 94 (habitus).
(ds, tx) Beaver and Gebhardt 2006: 172; Maiti and Saha 2009: 93.
- Page 405 ***nitidus*** Eggers. Add:
(ds, tx) Beaver and Gebhardt 2006: 172.
- Page 405 ***parvus*** Sampson. Remove from synonymy with ***S. ruficauda*** Eggers. Add:
DISTRIBUTION: ASIA: Brunei, Malaysia (Sabah). Delete Burma and India in distribution.
(ds, tx) Beaver and Gebhardt 2006: 172; Maiti and Saha 2009: 95.
- Page 405 ***paucegranulatus*** Eggers. Move to ***S. brahma*** Blandford as a synonym. Add:
Synonymy by Beaver and Gebhardt 2006: 167.
- Page 406 ***pubescens*** Hagedorn. Add *S. pubescens kabakovi* Axentj'ev as a synonym. Add:
Synonymy by Beaver and Gebhardt 2006: 173.
FIGURES: Lin and Wu 2010: 208 (habitus); Maiti and Saha 2009: 97 (habitus, antenna).
DISTRIBUTION: ASIA: Nepal.
(ds) Lin and Wu 2010. (ds, tx) Beaver and Gebhardt 2006: 173; Beaver and Liu 2010: 19;
Maiti and Saha 2009: 96
- Page 406 ***pusillus*** Eggers. Add:
(ds, tx) Beaver and Gebhardt 2006: 173.
- Page 406 ***raja*** Blandford. Add:
FIGURES: Lin and Wu 2010: 208 (habitus); Maiti and Saha 2009: 99 (habitus).
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Huang and Yin 1992: 862; Lin and Wu 2010. (tx) Beaver and Gebhardt 2006: 173. (ds,
tx) Beaver and Liu 2010: 20; Maiti and Saha 2009: 98.
- Page 92 ***reticulatus*** Bright. Add:
(Suppl. 1) (tx) Beaver and Gebhardt 2006: 174.
- Page 405 ***ruficauda*** Eggers. Remove from synonym with ***S. parvus*** Sampson. Add:
DISTRIBUTION: ASIA: Nepal.
(ds, tx) Beaver and Gebhardt 2006: 174.
- Page 406 ***shogun*** Blandford. Add:
(ds) Beaver and Liu, 2010: 36. (tx) Beaver and Gebhardt 2006: 175.
- Page 406 ***siomio*** Blandford. Add:
(ds, tx) Maiti and Saha 2009: 103.
- Page 407 ***superciliosus*** Tsai and Huang. Add:
(tx) Beaver and Gebhardt 2006: 175.

Page 407 ***tycon*** Blandford. Add:

(ds) Mandelshtam and Petrov 2009a: 208. (tx) Beaver and Gebhardt 2006: 176. (ds, tx)
Beaver and Liu 2010: 20.

ADD SPECIES:

blandfordi Gebhardt, *in* Beaver and Gebhardt 2006: 162. Holotype (male), TAIWAN: Distr. Chia Yi, Alishan, 2000 m; SMNS.

FIGURES: Beaver and Gebhardt 2006: 158B (prosternum), 162 (mycangium, fungus).

DISTRIBUTION: ASIA: Nepal, Thailand.

HOST: *Cyclobalanopsis morii* (Fagaceae).

(ds, tx) Beaver and Liu 2010: 19.

calvus Beaver and Liu 2007b: 227. Holotype (male), TAIWAN: Chia Yi Co., cut log; NCHU.

FIGURES: Beaver and Liu 2007b: 229 (habitus).

(tx) Beaver and Liu 2010: 19.

cirratus Gebhardt, *in* Beaver and Gebhardt 2006: 165. Holotype (male), INDONESIA: Sulawesi, Malino, Gn. Lompobatang, 1800 m; SMNS.

FIGURES: Beaver and Gebhardt 2006: 158I (prosternum).

curvociliosus Gebhardt, *in* Beaver and Gebhardt 2006, 165. Holotype (male), PHILIPPINE ISLANDS: Mindanao, Misamis Occ., DonVictariano, 1700 m; SMNS.

FIGURES: Beaver and Gebhardt 2006: 158K (prosternum).

exiguus Beaver, *in* Beaver and Gebhardt 2006: 166. Holotype (male), INDONESIA: Sulawesi Utara, Dumoga-Bone N. P., Tumpah transect, site 5, 300 m; NHML.

gardneri Maiti and Saha 2009: 87. Holotype (male), INDIA: Lepchajagat, Darjiling Dist., West Bengal; FRI.

FIGURES: Maiti and Saha 2009: 88 (habitus, antenna).

HOST: *Symplocos theaefolia*.

lopchuensis Maiti and Saha 2009: 90. Holotype (male), INDIA: Lopchu, Darjiling Dist., West Bengal; FRI.

FIGURES: Maiti and Saha 2009: 90 (habitus, tibiae, antenna).

HOSTS: *Litsaea elongate*, *Symplocos theaefolia*, *Evodina fraxinifolia*.

pubescens kabakovi Axent'ev 1992: 192. Original publication not seen. Omitted from 1992 Catalog and 1997 and 2002 Supplements. Move to ***S. pubescens*** Hagedorn as a synonym (see above).

samsinghensis Maiti and Saha 2009: 101. Holotype (male), INDIA: Samsingh, Darjiling Dist., West Bengal; FRI.

FIGURES: Maiti and Saha 2009: 101 (habitus, antenna).

HOST: *Amoora wallichii*, *Engelhardtia spicata*.

zahradniki Knízek 2008: 120. Holotype (male), CHINA: Shaanxi Pr., QinLing Mtns., N33°50'933, E108°48'760, Jiwozi; IZAC.

FIGURES: Knízek 2008: 121 (male and female habitus, frons, prosternum).

HOST: Unknown deciduous plant.

SUBFAMILY CACTOPININAE Chamberlin**TRIBE CACTOPININI**

Page 435 **Cactopinini** Chamberlin. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 27.

Genus ***Cactopinus*** Schwarz

Page 435 ***Cactopinus*** Schwarz. Add:
KEY: Atkinson 2010: 26 (to males of all species).
(an) López-Buenfil et al. 2001: 341. (hb) Atkinson 2010. (tx) Alonso-Zarazaga and Lyal 2009: 28; Atkinson 2010; Rabaglia 2002: 802.

Page 435 ***atkinsoni*** Wood. Add:
FIGURES: Atkinson 2010: 22 (habitus).
(ds) Burgos-Solorio and Equihua 2007: 74.

Page 435 ***burjosii*** Wood. Add:
FIGURES: Atkinson 2010: 23 (habitus).

Page 435 ***cactophthorus*** Wood. Add:
FIGURES: Atkinson 2010: 23 (habitus).

Page 435 ***carinatus*** Wood. Add:
FIGURES: Atkinson 2010: 24 (habitus).
DISTRIBUTION: NORTH AMERICA: Mexico (San Luís Potosí, Tamaulipas).
HOST: Branches of *Myrtillocactus geometrizans*.
(ds, hb) Atkinson 2010: 29.

Page 435 ***depressus*** Bright. Add:
FIGURES: Atkinson 2010: 32 (habitus).
DISTRIBUTION: NORTH AMERICA: Mexico (Nuevo León).
(ds) Atkinson 2010: 31.

Page 435 ***desertus*** Bright. Add:
FIGURES: Atkinson 2010: 30, 31 (habitus).
DISTRIBUTION: NORTH AMERICA: United States (**Arizona** [see Appendix]).
(ds) Atkinson 2010: 30.

Page 435 ***granulatus*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 74.

Page 435 ***granulifer*** Wood. Add:
FIGURE: López-Buenfil et al. 2001: 365 (proventriculus).

Page 435 ***hubbardi*** Schwarz. Add:
FIGURES: Atkinson 2010: 30 (habitus).

Page 435 ***koebelei*** Blackman. Add:
DISTRIBUTION: NORTH AMERICA: United States (**Colorado** [see Appendix]).

Page 436 ***mexicanus*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 74.

Page 436 **niger** Wood. Add:
DISTRIBUTION: NORTH AMERICA: Mexico (Querétaro).
HOST: *Stenocereus queretaroensis*.
(ds) Atkinson 2010: 29.

Page 436 **rhois** Blackman. Add:
(ds) Atkinson 2010: 31.

Page 436 **setosus** Wood. Add:
FIGURES: Atkinson 2010: 24 (habitus).
(ds) Burgos-Solorio and Equihua 2007: 74.

Page 436 **spinatus** Wood. Add:
FIGURES: Atkinson 2010: 31 (habitus).
HOSTS: *Cyrtocarpa procera* (Anacardiaceae).
(ds) Atkinson 2010: 30; Burgos-Solorio and Equihua 2007: 74.

ADD SPECIES:

agavensis Atkinson 2010: 24. Holotype (male), MEXICO: Mexico, Teotitlán; USNM.
FIGURES: Atkinson 2010: 25 (habitus).
DISTRIBUTION: NORTH AMERICA: Mexico (Guanajuato, Mexico).
HOST: *Agave atrovirens*.
(hb) Atkinson 2010: 24.

sulcifrons Atkinson 2010: 21. Holotype (male), MEXICO: Sonora, Isla Tiburón; USNM.
FIGURES: Atkinson 2010: 21 (habitus).
HOST: *Stenocereus thurberi*.

woodi Atkinson 2010: 20. Holotype (male), MEXICO: Baja California, Isla San Esteban; USNM.
FIGURES: Atkinson 2010: 21 (habitus).
DISTRIBUTION: NORTH AMERICA: Mexico (Sonora). United States (Arizona).
HOST: *Stenocereus gummosus*, *S. thurberi*.
(hb) Atkinson 2010: 20.

SUBFAMILY CARPHODICTINAE Wood

TRIBE CARPHODICTICINI

Page 65 **Carphodicticini** Wood. Add:
(Suppl. 2) KEY: Wood 2007: 332 (to genera in South America).
(tx) Alonso-Zarazaga and Lyal 2009: 28; Wood 2007: 332.
NOTE: Alonso-Zarazaga and Lyal (2009) return this tribe to the Scolytidae.

Genus **Carphodicticus** Wood

Page 437 **Carphodicticus** Wood. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 28; Wood 2007: 333.

Page 437 **cristatus** Wood. Add:
FIGURES: Wood 2007: PLATE 66.
(tx, hb) Wood 2007: 333.

Genus ***Craniodictious*** Blandford

Page 437 ***Craniodicticus*** Blandford. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 28.

Page 437 ***mucronatus*** Blandford. Add:
 (ds) Beaver and Liu 2010: 35.

Genus ***Dendrodicticus*** Schedl

Page 437 ***Dendrodicticus*** Schedl. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 28; Wood 2007: 333.

Page 437 ***argentinae*** Schedl. Add:
 (tx) Wood 2007: 333.

SUBFAMILY MICRACIDINAE LeConte

TRIBE MICRACIDINI

Page 408 ***Micracidini*** LeConte. Add:
 KEY: Wood 2007: 301 (to genera in South America).
 (tx) Alonso-Zarazaga and Lyal 2009: 81; Wood 2007: 301.
 NOTE: Spelling change.

Genus ***Afromicracis*** Schedl

Page 410 ***Afromicracis*** Schedl. Remove from synonymy with *Miocryphalus* Schedl. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 82.

Page 410 ***agnata*** (Schedl). Move from *Miocryphalus*. Add:
 New combination by Alonso-Zarazaga and Lyal 2009: 82.

Page 410 ***attenuata*** (Eggers). Move from *Miocryphalus*. Add:
 New combination by Alonso-Zarazaga and Lyal 2009: 82.

Page 410 ***ciliatipennis*** (Schedl). Move from *Miocryphalus*. Add:
 New combination by Alonso-Zarazaga and Lyal 2009: 82.

Page 410 ***congoria*** (Schedl). Move from *Miocryphalus*. Add:
 New combination by Alonso-Zarazaga and Lyal 2009: 82.

Page 410 ***dubia*** (Schedl). Move from *Miocryphalus*. Add:
 New combination by Alonso-Zarazaga and Lyal 2009: 82.

Page 411 ***elongata*** (Schedl). Move from *Miocryphalus*. Add:
 New combination by Alonso-Zarazaga and Lyal 2009: 82.

Page 411 ***grobleri*** (Schedl). Move from *Miocryphalus*. Add:
 New combination by Alonso-Zarazaga and Lyal 2009: 82.

Page 411 ***klainedoxae*** (Schedl). Move from *Miocryphalus*. Add:
 New combination by Alonso-Zarazaga and Lyal 2009: 82.

- Page 411 ***longa*** (Nunberg). Move from *Miocryphalus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 82.
- Page 411 ***natalensis*** (Eggers). Move from *Miocryphalus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 82.
- Page 411 ***nigrina*** (Schedl). Move from *Miocryphalus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 82.
- Page 411 ***nitida*** (Schedl). Move from *Miocryphalus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 82.
- Page 411 ***pennata*** (Schedl). Move from *Miocryphalus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 82.
- Page 411 ***punctipennis*** (Schedl). Move from *Miocryphalus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 82.

Genus ***Hylocurus*** Eichhoff

- Page 422 ***Hylocurus*** Eichhoff. Add:
KEY: Wood 2007: 308 (to species in South America).
(an) López-Buenfil et al. 2001: 341. (tx) Alonso-Zarazaga and Lyal 2009: 82; Rabaglia 2002: 801. (hb, tx) Wood 2007: 308.
- Page 422 ***acutedentatus*** Schedl. Add:
(tx) Wood 2007: 322.
- Page 422 ***alternatus*** Eggers. Add:
(tx) Wood 2007: 321.
- Page 422 ***bidentatus*** Schedl. Move to ***H. discifer*** Eichhoff as a synonym. Add:
Lectotype (male), Nova Teutonia, Santa Catarina, Brazil, designated by Wood 2007: 320.
Synonymy by Wood 2007: 320.
- Page 423 ***brasiliensis*** Nunberg. Add:
(tx) Wood 2007: 315.
- Page 423 ***crotonis*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 73.
- Page 423 ***denticollis*** Schedl. Move to ***H. errans*** Blandford as a synonym. Add:
Synonymy by Wood 2007: 313.
- Page 423 ***dilutus*** Wood. Add:
FIGURE: López-Buenfil et al. 2001: 364 (proventriculus).
(ds) Burgos-Solorio and Equihua 2007: 73.
- Page 424 ***dimorphus*** (Schedl). Add:
FIGURES: Wood 2007: PLATE 59.
(tx) Wood 2007: 327.
- Page 424 ***discifer*** Eichhoff. Add *H. bidentatus* Schedl as a synonym. Add:
(tx) Wood 2007: 320.

- Page 424 ***dissimilis*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 74.
- Page 424 ***dubius*** Schedl. Move to ***H. retusipennis*** Blandford as a synonym. Add:
Lectotype (male), Rondon, Parana, Brazil, designated by Wood 2007: 325.
Synonymy by Wood 2007: 325.
- Page 424 ***elegans*** Eichhoff. Add:
FIGURES: Wood 2007: PLATE 60.
(ds) Burgos-Solorio and Equihua 2007: 74. (tx) Wood 2007: 325.
- Page 424 ***errans*** Blandford. Add *H. denticollis* Schedl as a synonym. Add:
(tx) Wood 2007: 313.
- Page 425 ***flagellatus*** Wood. Add:
FIGURES: Wood 2007: PLATE 61.
(tx) Wood 2007: 327.
- Page 425 ***flaglerensis*** Blackman. Add:
DISTRIBUTION: NORTH AMERICA: United States (Maryland).
(ds) Rabaglia 2003: 375.
- Page 425 ***giganteus*** (Schedl). Add *H. interruptus* Schedl and *H. pseudoimpar* Schedl as synonyms.
Add:
FIGURES: Wood 2007: PLATE 62.
(tx) Wood 2007: 317.
- Page 425 ***impar*** Schedl. Add:
FIGURES: Wood 2007: PLATE 62.
(tx) Wood 2007: 318.
- Page 425 ***inaequalis*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 74.
- Page 425 ***incomptus*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 73.
- Page 426 ***intermedius*** Schedl. Move to ***H. vianai*** Schedl as a synonym. Add:
Lectotype (female), Pilar, Argentina, designated by Wood 2007: 314.
Synonymy by Wood 2007: 314.
(ds) Bright 2004: 159. (tx) Guadalupe del Rio, Lanteri and Suárez 2005: 7; Wood 2007: 314.
- Page 426 ***interpositus*** Schedl. Add:
(tx) Wood 2007: 318.
- Page 426 ***interruptus*** Schedl. Move to ***H. giganteus*** Schedl as a synonym. Add:
Synonymy by Wood 2007: 317.
- Page 433 ***longulus*** (Nunberg). Move from ***Micracis***. Add:
New combination by Wood 2007: 315.
(tx) Wood 2007: 315.
- Page 426 ***micaceus*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 73.

- Page 426 ***nodulus*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 74.
- Page 426 ***obtusipennis*** Schedl. Add:
(tx) Wood 2007: 317.
- Page 426 ***pilosus*** Schedl. Add:
(ds) Bright 2004: 159. (tx) Wood 2007: 319.
- Page 427 ***pseudoimpar*** Schedl. Move to ***H. giganteus*** Schedl as a synonym. Add:
Lectotype (female), Nova Teutonia, Santa Catarina, Brazil, designated by Wood 2007: 317.
Synonymy by Wood 2007: 317.
- Page 427 ***retusipennis*** Blandford. Add *H. dubius* Schedl as a synonym. Add:
(tx) Wood 2007: 325.
- Page 427 ***robustus*** Schedl. Add:
Lectotype (male), Nova Teutonia, Santa Catarina, Brazil, designated by Wood 2007: 319.
(ds) Bright 2004: 159. (tx) Guadalupe del Rio, Lanteri and Suárez 2005: 8; Wood 2007: 319.
- Page 427 ***rudis*** (LeConte). Add:
DISTRIBUTION: NORTH AMERICA: Canada (**Ontario, Quebec** [see Appendix]), United States (Delaware).
(ds) Rabaglia and Valenti 2003: 314.
- Page 428 ***scitulus*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 74.
- Page 428 ***secus*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 73.
- Page 423 ***simplex*** Schedl (= ***H. brasiliensis*** Nunberg). Add:
Lectotype (male), Rio Caraguata, Mato Grosso, Brazil, designated by Wood 2007: 315.
- Page 428 ***spinifex*** Blandford. Add:
(tx) Wood 2007: 324.
- Page 428 ***subgranulatus*** Schedl. Add:
Lectotype (female), Rio Caraguata, Mato Grosso, Brazil, designated by Wood 2007: 316.
- Page 428 ***torosus*** Wood. Add:
DISTRIBUTION: NORTH AMERICA: United States (Mississippi).
(ds) Schiefer 2010: 111.
- Page 428 ***trispinatus*** Schedl. Add:
(tx) Wood 2007: 322.
- Page 428 ***vagabundus*** Blandford. Add:
(tx) Wood 2007: 314.
- Page 428 ***verrucosus*** Wood. Add:
(tx) Wood 2007: 319.

- Page 428 ***vianai*** Schedl. Add *H. intermedius* Schedl as a synonym. Add:
 Lectotype (male), Tigre, Buenos Aires, Argentina, designated by Wood 2007: 314.
 (ds) Bright 2004: 159. (tx) Guadalupe del Rio, Lanteri and Suárez 2005: 8; Wood 2007: 314.

ADD SPECIES:

aequalis Wood 2007: 327. Holotype (male), BRAZIL: Recanto Champagnai, Itaara, Rio Grande do Sul; MZUSP.

colombianus Wood 2007: 321. Holotype (male), COLOMBIA: Honduras, Rio Negro, Santander Sur; USNM.

declivis Wood 2007: 326. Holotype (male), VENEZUELA: Colonia Tovar, Aragua; USNM.

flechtmanni Wood 2007: 316. Holotype (male), BRAZIL: Agudos, Duraflora, Sao Paulo; MZUSP.

inaequidens Wood 2007: 326. Holotype (male), BRAZIL: Telemaco Borda, Panama; MZUSP.

nodifer Wood 2007: 323. Holotype (male), COLOMBIA: Cundinamarca, Finca Bella Vista near Sasaima; USNM.

plaumannii Wood 2007: 320. Holotype (male), BRAZIL: Rondon, Parana; USNM.

woytkowski Wood 2007: 324. Holotype (male), PERU: Almirante, Dep. San Martin; USNM.

Genus ***Lanurgus*** Eggers

- Page 408 ***Lanurgus*** Eggers. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 82.

- Page 408 ***bicolor*** Schedl. Move to ***L. podocarpi*** Schedl as a synonym. Add:
 Synonymy by Beaver 2011a: 281.

- Page 409 ***oleaeformis*** Schedl. Move to ***L. xylographus*** Schedl as a synonym. Add:
 Synonymy by Beaver 2011a: 292.

- Page 409 ***podocarpi*** Schedl. Add ***L. bicolor*** Schedl and ***Traglostus brevisetosus*** Schedl as synonyms.
 Add:
 (tx) Beaver 2011a: 281.

- Page 409 ***rhusi*** Schedl. Add ***Traglostus spathulatus*** Schedl as a synonym. Add:
 (tx) Beaver 2011a: 281.

- Page 409 ***widdringtoniae*** Schedl. Add ***Glostatus perplexus*** Schedl as a synonym. Add:
 (tx) Beaver 2011a: 282.

- Page 409 ***xylographus*** Schedl. Add ***L. oleaeformis*** Schedl as a synonym. Add:
 (tx) Beaver 2011a: 282.

Genus ***Micracis*** LeConte

- Page 431 ***Micracis*** LeConte. Add:
 KEY: Wood 2007: 329 (to species in South America).

(an) López-Buenfil et al. 2001: 341. (tx) Alonso-Zarazaga and Lyal 2009: 83; Rabaglia 2002: 802. (ds, hb, tx) Wood 2007: 329.

Page 432 ***detentus*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 73.

Page 432 ***exilis*** Wood. Add:
(ds, hb, tx) Wood 2007: 330.

Page 432 ***lignator*** Blackman. Add:
(ds) Burgos-Solorio and Equihua 2007: 73.

Page 433 ***longula*** Nunberg. Move to *Hylocurus*.

Page 433 ***ovatus*** Wood. Add:
FIGURE: López-Buenfil et al. 2001: 365 (proventriculus).

Page 433 ***sentus*** Wood. Add:
FIGURES: Wood 2007: PLATE 65.
(ds, tx) Wood 2007: 330.

Page 433 ***suturalis*** LeConte. Add:
DISTRIBUTION: NORTH AMERICA: United States (Alabama).
(ds) Schiefer 2010: 112.

Page 433 ***swainei*** Blackman. Add:
DISTRIBUTION: NORTH AMERICA: United States (Michigan).
(ds) Burgos-Solorio and Equihua 2007: 73; Cognato et al. 2009: 114.

Page 434 ***torus*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 73.

ADD SPECIES:

minimus Wood 2007: 331. Holotype (female), BRAZIL: Telemaco Borba, Parana; MZUSP.

tropicus Wood 2007: 331. Holotype (female), COLOMBIA: Manilla, La Palma, Cundin; USNM.

Genus ***Micracisella*** Blackman

Page 429 ***Micracisella*** Blackman. Add:
(an) López-Buenfil et al. 2001: 341. (tx) Alonso-Zarazaga and Lyal 2009: 83; Rabaglia 2002: 801; Wood 2007: 328.

Page 429 ***divaricata*** Wood. Add:
FIGURE: López-Buenfil et al. 2001: 364 (proventriculus).

Page 430 ***nanula*** (LeConte). Add:
DISTRIBUTION: NORTH AMERICA: United States (Alabama).
(ds) Schaefer 2010: 111.

Page 430 ***nigra*** Wood. Add:
(hb, tx) Wood 2007: 328.

- Page 430 ***opacicillus*** (LeConte). Add:
DISTRIBUTION: NORTH AMERICA: United States (Delaware, Maryland).
(ds) Rabaglia 2003: 375; Rabaglia and Valenti 2003: 314.

Genus ***Micracites** Bright and Poinar

- Page 98 ***Micracites** Bright and Poinar. Add:
(Suppl. 1) **(tx)** Alonso-Zarazaga and Lyal 2009: 84.

Genus **Miocryphalus** Schedl

- Page 410 *Miocryphalus* Schedl. Move to ***Afromicracis*** Schedl as a synonym. Add:
Synonymy by Alonso-Zarazaga and Lyal 2009: 82.

Genus **Phloeocleptus** Wood

- Page 421 ***Phloeocleptus*** Wood. Add:
(an) López-Buenfil et al. 2001: 340. **(tx)** Alonso-Zarazaga and Lyal 2009: 84.

- Page 421 ***cristatus*** Wood. Add:
FIGURE: López-Buenfil et al. 2001: 364 (proventriculus).

Genus **Phloeocurus** Wood

- Page 429 ***Phloeocurus*** Wood. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 84.

- Page 429 ***africanus*** (Schedl). Add:
(ds) Mandelshtam and Danielsson 2004: 90.

Genus **Pseudomicracis** Eggers

- Page 429 ***Pseudomicracis*** Eggers. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 84.

Genus **Pseudothysanoes** Blackman

- Page 411 ***Pseudothysanoes*** Blackman. Add:
KEY: Wood 2007: 302 (to species in South America).
(an) López-Buenfil et al. 2001: 339. **(tx)** Alonso-Zarazaga and Lyal 2009: 84; Rabaglia 2002: 801. **(hb, tx)** Wood 2007: 301.

- Page 411 ***abbreviatus*** (Schedl). Add *P. squamosus* (Schedl) as a synonym. Add:
(tx) Wood 2007: 308.

- Page 412 ***acares*** (Wood). Add:
(ds) Burgos-Solorio and Equihua 2007: 72.

- Page 412 ***argentiniae*** (Schedl). Add:
(tx) Guadalupe del Rio, Lanteri and Suárez 2005: 4. **(tx)** Wood 2007: 305.

- Page 412 ***atomus*** Wood. Add:
(hb, tx) Wood 2007: 303.

- Page 412 ***bellus*** (Schedl). Add:
(tx) Wood 2007: 304.
- Page 412 ***colombianus*** (Blackman). Add:
(tx) Wood 2007: 305.
- Page 413 ***coracinus*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 72.
- Page 413 ***dimorphus*** (Schedl). Add:
(tx) Wood 2007: 307.
- Page 413 ***dislocatus*** (Blackman). Add:
DISTRIBUTION: NORTH AMERICA: United States (Alabama, Arkansas).
(ds) Schiefer 2010: 111.
- Page 413 ***fimbriatus*** Wood. Add:
FIGURE: López-Buenfil et al. 2001: 364 (proventriculus).
- Page 414 ***funereus*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 72.
- Page 414 ***furvatus*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 72.
- Page 414 ***guevinae*** (Schedl). Add:
(tx) Wood 2007: 305.
- Page 415 ***mandibularis*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 72.
- Page 415 ***mendicus*** (Wood). Add:
(ds) Burgos-Solorio and Equihua 2007: 72.
- Page 935 ***modestus*** (Murayama). Move from ***Hypothenemus***. Add *P. mongolica* (Sokanovsky) as a synonym.
New combination by Mandelshtam et al. 2007: 462.
Lectotype (sex ?), Seiryu, Jehol, Manchoukuo, designated by Mandelshtam et al. 2007: 462.
FIGURES: Mandelshtam et al. 2007: 462 (habitus, antenna, frons).
(tx) Mandelshtam et al. 2007: 462.
- Page 415 ***mongolica*** (Sokanovsky). Move to ***P. modestus*** (Murayama) as a synonym. Add:
Lectotype (female?), Mongolia, Selenga (river), designated by Mandelshtam et al. 2007: 462.
Synonymy by Mandelstam et al. 2007: 462.
- Page 415 ***murilloi*** (Blackman). Add:
(tx) Wood 2007: 306.
- Page 416 ***plaumannii*** (Schedl). Add:
(tx) Wood 2007: 306.
- Page 416 ***pumilus*** (Wood). Add:
(ds) Burgos-Solorio and Equihua 2007: 73.

Page 416 ***rigidus*** (LeConte). Add:
DISTRIBUTION: NORTH AMERICA: United States (**Minnesota** [see Appendix]).

Page 417 ***securigerus*** (Blackman). Add:
(**ds**) Bright and Torres 2006: 400.

Page 417 ***simplex*** Wood. Add:
(**ds**) Burgos-Solorio and Equihua 2007: 72.

Page 417 ***spinatus*** (Schedl). Add:
(**tx**) Wood 2007: 304.

Page 417 ***squamatus*** Wood. Add:
(**ds**) Burgos-Solorio and Equihua 2007: 73.

Page 417 ***squamulosus*** (Schedl). Move to ***P. abbreviatus*** (Schedl) as a synonym. Add:
Synonymy by Wood 2007: 308.

Page 418 ***thomasi*** Wood. Add:
(**ds**) Burgos-Solorio and Equihua 2007: 73.

Page 418 ***truncatus*** Wood. Add:
(**ds**) Burgos-Solorio and Equihua 2007: 73.

Page 418 ***unimodus*** (Schedl). Add:
(**tx**) Wood 2007: 306.

Page 418 ***vallatus*** Wood. Add:
(**ds**) Burgos-Solorio and Equihua 2007: 73.

Page 418 ***vesculus*** Wood. Add:
(**ds**) Burgos-Solorio and Equihua 2007: 73.

ADD SPECIES:

magnispinatus Bright and Torres 2006: 399. Holotype (female), VIRGIN ISLANDS: Duck Island Reef National Monument, ex. flight intercept trap; DEBC/WIBF.
FIGURE: Bright and Torres 2006: 425 (elytral declivity).

multispinosus Wood 2007: 307. Holotype (male), BRAZIL: UNESP Farm, Selviria, Mato Grosso do Sul;
MZUSP.
HOST: *Anadenanthera peregrina*.

Genus ***Saurotocis*** Wood

Page 419 ***Saurotocis*** Wood. Add:
(**tx**) Alonso-Zarazaga and Lyal 2009: 85.

Genus ***Stenocleptus*** Blackman

Page 419 ***Stenocleptus*** Blackman. Add:
(**an**) López-Buenfil et al. 2001: 340. (**tx**) Alonso-Zarazaga and Lyal 2009: 85; Rabaglia 2002: 801.

Page 419 ***ruficollis*** Wood. Add:
FIGURE: López-Buenfil et al. 2001: 364 (proventriculus).

Genus ***Stevewoodia*** Bright

ADD GENUS:

Stevewoodia Bright 2010: 46. Type species: *Stevewoodia minutum* Bright, monotypic.

ADD SPECIES:

minutum Bright 2010: 46. Holotype (male), West Indies: St. Lucia, Mon Repos, 6.5 km N Fox Grove Inn; CNCI.
FIGURE: Bright 2010: 47 (habitus).

Genus ***Thysanoes*** LeConte

Page 419 ***Thysanoes*** LeConte. Add:
(an) López-Buenfil et al. 2001: 340. (tx) Alonso-Zarazaga and Lyal 2009: 85; Rabaglia 2002: 801.

Page 420 ***epicaris*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 73.

Page 420 ***fimbricornis*** LeConte. Add:
FIGURE: López-Buenfil et al. 2001: 364 (proventriculus).
DISTRIBUTION: NORTH AMERICA: United States (Alabama, Delaware).
(ds) Rabaglia and Valenti 2003: 315; Schiefer 2010: 111.

Page 420 ***inornatus*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 73.

Page 421 ***texanus*** Blackman. Add:
(ds) Burgos-Solorio and Equihua 2007: 73.

Genus ***Traglostus*** Schedl

Page 410 ***Traglostus*** Schedl. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 85.

Page 410 ***brevisetosus*** Schedl. Move to ***Lanurgus podocarpi*** Schedl as a synonym. Add:
Synonymy by Beaver 2011a: 281.

Page 410 ***spatulatus*** Schedl. Move to ***Lanurgus rhusi*** Schedl as a synonym. Add:
Synonymy by Beaver 2011a: 281.

SUBFAMILY CRYPTURGINAE LeConte

TRIBE CRYPTURGINI

Page 615 **Crypturgini** LeConte. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 48.

Genus ***Aphanarthrum*** Wollaston

- Page 616 ***Aphanarthrum*** Wollaston. Add *Coleobothrus* Enderlein as a synonym. Add:
KEY: Maiti and Saha 2009: 164 (to species in India).
(ds, tx) Maiti and Saha 2009: 164. (tx) Alonso-Zarazaga and Lyal 2009: 48; Jordal 2009a;
Jordal and Hewitt 2004.
- Page 616 ***aeonii*** Lindberg. Add:
(ds) Jordal 2006. (tx) Jordal and Hewitt 2004.
- Page 616 ***affine*** Wollaston. Add:
(ds) Jordal 2006. (tx) Jordal and Hewitt 2004.
- Page 616 ***armatum*** Wollaston. Add *A. monodi* Paulin and Villers as synonym. Add:
(ds) Jordal 2006. (tx) Jordal and Hewitt 2004.
- Page 616 ***bicinctum*** Wollaston. Add:
(ds) Jordal 2006. (tx) Jordal and Hewitt 2004.
- Page 617 ***bicinctum obsitum*** Wollaston. Add:
(tx) Jordal and Hewitt 2004.
- Page 617 ***bicinctum vestitum*** Wollaston. Add:
(tx) Jordal and Hewitt 2004.
- Page 617 ***bicolor*** Wollaston. Add:
(ds) Jordal 2006. (tx) Jordal and Hewitt 2004.
- Page 617 ***canariense*** Wollaston. Add:
(ds) Jordal 2006. (tx) Jordal and Hewitt 2004.
- Page 617 ***canescens*** Wollaston. Add:
DISTRIBUTION: AFRICA: Canary Islands (Fuerteventura).
(ds) Jordal 2006. (tx) Jordal and Hewitt 2004.
- Page 617 ***canescens polypiniger*** Israelson. Add:
(tx) Jordal and Hewitt 2004.
- Page 618 ***duongi*** Villers. Move to ***A. mairei*** Peyerimhoff as a synonym. Add:
Synonymy by Jordal and Hewitt 2004: 712.
- Page 618 ***euphorbiae*** Wollaston. Add:
(ds) Jordal 2006. (tx) Jordal and Hewitt 2004.
- Page 618 ***glabrum*** Wollaston. Add:
(ds) Jordal 2006.
- Page 618 ***hesperidum*** Wollaston. Add:
(ds) Jordal 2006. (tx) Jordal and Hewitt 2004.
- Page 618 ***indicum*** Wood. Add:
(ds, tx) Maiti and Saha 2009: 164.

- Page 618 ***jubae jubae*** Wollaston. Add:
DISTRIBUTION: AFRICA: Canary Islands (La Palma).
HOST: *Euphorbia balsamifera*.
(ds) Jordal 2006. (tx) Jordal and Hewitt 2004.
- Page 618 ***jubae tuberculatum*** Wollaston. Add:
(tx) Jordal and Hewitt 2004.
- Page 619 ***mairei*** Peyerimhoff. Add *A. saturatum* Peyerimhoff and *A. duongi* Villers as synonyms. Add:
FIGURES: Jordal 2009a: 59 (habitus, aedeagus).
(ds) Jordal 2006. (tx) Jordal and Hewitt 2004.
- Page 619 ***monodi*** Paulin and Villers. Move to ***A. armatum*** Wollaston as a synonym. Add:
Synonymy by Jordal and Hewitt 2004: 712.
- Page 619 ***neglectum*** Schedl (as subspecies of *canariensae*). Add:
(tx) Jordal and Hewitt 2004.
- Page 619 ***orientale*** Schedl. Add:
FIGURES: Jordal 2009a: 59 (habitus, aedeagus).
(tx) Jordal and Hewitt 2004.
- Page 619 ***piscatorium*** Wollaston. Add:
DISTRIBUTION: AFRICA: Canary Islands (Fuerteventura).
HOST: *Euphoribae regis-jubae*.
(ds) Jordal 2006. (tx) Jordal and Hewitt 2004.
- Page 619 ***pygmaeum*** Wollaston. Add:
(ds) Jordal 2006. (tx) Jordal and Hewitt 2004.
- Page 619 ***reticulatum*** Wood. Add:
(ds, tx) Maiti and Saha 2009: 165.
- Page 619 ***royaleanum*** Wood. Add:
(ds, tx) Maiti and Saha 2009: 168.
- Page 619 ***saturatum*** Peyerimhoff. Move to ***A. mairei*** Peyerimhoff as a synonym. Add:
Synonymy by Jordal and Hewitt 2004: 712.
- Page 620 ***subglabrum*** Israelson. Add:
(ds) Jordal 2006. (tx) Jordal and Hewitt 2004.
- Page 621 ***wollastoni*** Israelson. Add:
(ds) Jordal 2006. (tx) Jordal and Hewitt 2004.

ADD SPECIES:

capense Jordal 2009a: 55. Holotype (sex ?), SOUTH AFRICA: Eastern Cape Province, Ecca Pass, N. Grahamstown; SAM.
FIGURES: Jordal 2009a: 58 (habitus, aedeagus).
HOST: Dead branches of *Euphorbia triangularis*.
(hb) Jordal 2009a: 57.

maculatum Jordal 2009a: 58. Holotype (male), South Africa: Eastern Cape Province, Ecca Pass, N. Grahamstown; SAM.
 FIGURES: Jordal 2009a: 58 (habitus, aedeagus).
 HOST: *Euphorbia triangularis*.

Genus ***Cisurgus*** Reitter

- Page 630 ***Cisurgus*** Reitter. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 48.
- Page 630 ***occidentalis*** Peyerimhoff. Add:
 (ds) Jordal 2006. (tx) Jordal and Hewitt 2004.
- Page 630 ***pusillus*** Wollaston. Remove from synonymy with ***C. wollastoni***. Add:
 (tx) Knízek 2011: 86.
- Page 630 ***rugusae*** Reitter. Add:
 (ds) Colonnelli 2003: 101.
- Page 630 ***wollastoni*** (Eichhoff). Add:
 (ds) Jordal 2006. (tx) Jordal and Hewitt 2004.

Genus ***Coleobothrus*** Enderlein

- Page 615 ***Coleobothrus*** Enderlein. Add:
 Placed in ***Aphanarthrum*** as a synonym by Alonso-Zarazaga and Lyal 2009: 48. Removed from synonymy by Knízek 2011: 86.
- Page 615 ***alluaudi*** (Peyerimhoff). Add:
 (ds) Jordal 2006. (tx) Jordal and Hewitt 2004.
- Page 616 ***germeauxi*** (Menier). Add:
 DISTRIBUTION: AFRICA: Kenya.
 FIGURES: Jordal 2009a: 59 (habitus, aedeagus).
 (ds) Mandelshtam and Danielsson 2004: 90. (tx) Jordal and Hewitt 2004.
- Page 616 ***luridus*** (Wollaston). Add:
 DISTRIBUTION: AFRICA: Canary Islands (La Palma).
 (ds) Jordal 2006. (tx) Jordal and Hewitt 2004.

Genus ***Crypturgus*** Erichson

- Page 620 ***Crypturgus*** Erichson. Add:
 KEYS: Jordal and Knízek 2007: 49 (to Fennoscandian species); Mifsud and Knízek 2009: 41 (to species in Malta).
 (an) Jordal and Knízek 2007. (tx) Alonso-Zarazaga and Lyal 2009: 48; Jordal and Knízek 2007; de Laclos et al. 2004: 155; Rabaglia 2002: 802. (ds, tx) Maiti and Saha 2009: 162.
- Page 620 ***borealis*** Swaine. Add:
 FIGURE: Jordal and Knízek 2007: 47 (female elytral declivity).
 DISTRIBUTION: NORTH AMERICA: Canada (Prince Edward Island), United States (**Minnesota** [see Appendix]).
 (ds) Furniss, Holsten and Schultz 2002: 88; Majka, Anderson and McCorquodale 2007: 420;. (tx) Jordal and Hewitt 2004. (ds, hb, tx) Furniss and Johnson 2002: 60.

- Page 621 ***cinereus*** (Herbst). Add:
Lectotype (female), "48479" (locality ?), designated by Jordal and Knízek 2007: 48.
FIGURES: Jordal and Knízek 2007: 42 (habitus), 47 (female elytral declivity); de Laclos et al. 2004: 155 (pronotum), 157 (habitus).
DISTRIBUTION: ASIA: China (Qinghai), Russia (Dagestan, Yakutia, Yaroslavi).
HOSTS: *Pinus kochiana*.
(ds) Averensky and Yanovsky 2008: 28; Colonnelli 2003: 101; Haack 2001: 272; Han et al. 2010; Mandelshtam and Popovichev 2000: 895; Mandelshtam, Lafer and Kuznetsov 2001; Mandelshtam, Nikitsky and Bibin 2005a: 27; Markovic 2000; Petrov 2005: 220; Petrov and Nikitskii 2001: 173; Podlussány and György 2008: 198; Voolma et al. 2004. **(ec)** Kapapanida-Kantartzi et al. 2010. **(hb)** Masuti, Battisti and Faccoli 2005; Petrov and Nikitskii 2001: 173. **(tx)** Jordal and Knízek 2007; Vlasov 2005: 770. **(ds, hb)** de Laclos et al. 2004: 157.
- Page 629 ***cribrellus*** Reitter. Add:
DISTRIBUTION: EUROPE: France (Corsica).
(ds) de Laclos 2004: 167; Markovic 2000; Noblecourt 2004: 34.
- Page 629 ***cylindricollis*** Eggers (= ***C. pusillus*** (Gyllenhal)). Add:
FIGURES: Mifsud and Knízek 2009: 49 (habitus).
DISTRIBUTION: EUROPE: Malta.
(ds) Mifsud and Knízek 2009: 41.
NOTE: Treated as a distinct species in Mifsud and Knízek (2009).
- Page 624 ***hispidulus*** Thomson. Add:
DISTRIBUTION: ASIA: Russia (Yakutia, Yaroslavi).
(ds) Averensky and Yanovsky 2008: 28; Colonnelli 2003: 101; Mandelshtam and Petrov 2009a: 207; Mandelshtam and Popovichev 2000: 895; Petrov and Nikitskii 2001: 173; Podlussány and György 2008: 198; Voolma et al. 2004. **(ec)** Kapapanida-Kantartzi et al. 2010. **(hb)** Petrov and Nikitskii 2001: 173. **(tx)** Jordal and Hewitt 2004; Vlasov 2005: 770.
- Page 624 ***mediterraneus*** Eichhoff. Add:
FIGURE: Jordal and Knízek 2007: 47 (female elytral declivity).
DISTRIBUTION: ASIA: Russia (Krasnodar). EUROPE: France (Corsica).
(ds) Colonnelli 2003: 101; de Laclos 2004: 166; Haack 2001: 272; Mandelshtam, Nikitsky and Bibin 2005a: 27. **(ds, ec, hb)** Fernández 1999: 26.
- Page 625 ***numidicus*** Ferrari. Add:
FIGURES: Mifsud and Knízek 2009: 50 (habitus).
DISTRIBUTION: ASIA: Russia (Daghestan). EUROPE: Malta.
HOST: *Pinus kochiana*.
(ds) Colonnelli 2003: 101; Haack 2001: 272; Mandelshtam, Nikitsky and Bibin 2005a: 27; Mifsud and Knízek 2009: 41; Petrov 2005: 220.
- Page 625 ***pusillus*** (Gyllenhal). Add:
FIGURE: de Laclos et al. 2004: 155 (pronotum).
DISTRIBUTION: ASIA: China (Hengduan Mtns.), Russia (Yakutia, Yaroslavi). NORTH AMERICA: United States (Michigan). Delete Taiwan.
(ds) Averensky and Yanovsky 2008: 28; Beaver and Liu 2010: 36; Cognato et al. 2009: 109; Colonnelli 2003: 101; Haack 2001: 275; Huang and Yin 1992: 860; Mandelshtam and Petrov 2009a: 207; Mandelshtam and Popovichev 2000: 895; Mandelshtam, Nikitsky and Bibin 2005a: 28; Markovic 2000; Petrov and Nikitskii 2001: 173; Podlussány and György 2008: 198; Voolma et al. 2004. **(hb)** Masutti, Battista and Faccoli 2005; Petrov and Nikitskii 2001: 173. **(tx)** Vlasov 2005: 770. **(ds, tx)** Maiti and Saha 2009: 162. **(ds, hb)** de Laclos et al. 2004: 158.

Page 621 ***subcribrosus*** Eggers. Move from synonymy with ***C. cinereus***. Add:
FIGURES: Jordal and Knízek 2007: 42 (habitus), 47 (female elytral declivity).
(ds) Voolma et al. 2004. **(tx)** Jordal and Knízek 2007.

Page 629 ***tuberosus*** Niisima. Add:
(ds) Beaver and Liu 2010: 11.

Genus ***Deropria*** Enderlein

Page 620 ***Deropria*** Enderlein. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 49.

Pg 620 ***elongatum*** (Eggers). Add:
(tx) Jordal and Hewitt 2004.

Genus ***Dolurgus*** Eichhoff

Page 615 ***Dolurgus*** Eichhoff. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 49; Rabaglia 2002: 802.

Page 615 ***pumilus*** (Mannerheim). Add:
(ds) Furniss, Holsten and Schultz 2002: 88. **(tx)** Jordal and Hewitt 2004.

SUBFAMILY IPINAE Bedel

TRIBE IPINI

Page 438 ***Ipini*** Bedel. Add:
KEYS: Maiti and Saha 2009: 104 (to genera in India); Wood 2007: 334 (to genera in South America).
(tx) Alonso-Zarazaga and Lyal 2009: 76; Wood 2007: 334.

Genus ***Acanthotomicus*** Blandford

Page 478 ***Acanthotomicus*** Blandford. Add:
KEY: Wood 2007: 335 (to species in South America).
(an) López-Buenfil et al. 2001: 343. **(tx)** Alonso-Zarazaga and Lyal 2009: 78. **(ds, hb, tx)** Wood 2007: 335.

Page 478 ***analogus*** (Wood). Add:
FIGURES: Wood 2007: PLATE 67.
(tx) Wood 2007: 337.

Page 479 ***bidentis*** Wood. Add:
FIGURES: Wood 2007: PLATE 68.
(hb, tx) Wood 2007: 339.

Page 479 ***boliviianus*** (Eggers). Add:
(tx) Wood 2007: 339.

Page 480 ***duplicatus*** (Schedl). Add:
(tx) Wood 2007: 337.

- Page 481 *granulatus* (Ferrari). Add:
 FIGURES: Wood 2007: PLATE 68.
 (**hb, tx**) Wood 2007: 339.
- Page 481 *inclinans* (Schedl). Move to *A. insularis* (Eggers) as a synonym. Add:
 Synonymy by Beaver 2011a: 281.
- Page 481 *insularis* (Eggers). Add *A. inclinans* (Schedl) and *A. kepongi* (Schedl) as synonyms. Add:
 (**tx**) Beaver 2011a: 281.
- Page 481 *kepongi* (Schedl). Move to *A. insularis* (Eggers) as a synonym. Add:
 Synonymy by Beaver 2011a: 281
- Page 482 *mimicus* (Schedl). Add:
 FIGURES: López-Buenfil et al. 2001: 365 (proventriculus); Wood 2007: PLATE 69.
 DISTRIBUTION: NORTH AMERICA: Mexico (Tabasco).
 (**ds**) Pérez-De La Cruz et al. 2009: 605. (**hb, tx**) Wood 2007: 338.
- Page 482 *ocularis* (Wood). Add:
 FIGURES: Wood 2007: PLATE 69.
 (**hb, tx**) Wood 2007: 338.
- Page 482 *pilosellus* (Browne). Add:
 DISTRIBUTION: AFRICA: Sierra Leone.
 (**ds**) Mandelshtam and Danielsson 2004: 91.
- Page 483 *spinosus* Blandford. Add:
 DISTRIBUTION: ASIA: China (Hengduan Mtns., Yunnan).
 (**ds**) Huang and Yin 1992: 860. (**tx**) Beaver and Liu 2010: 17.

ADD SPECIES:

flechtmanni Wood 2007: 337. Holotype (male), BRAZIL: Itiquira River, Mato Grosso, MT; MZUSP.

Genus **Dendrochilus** Schedl

- Page 438 **Dendrochilus** Schedl. Add:
 (**tx**) Alonso-Zarazaga and Lyal 2009: 78.

Genus **Ips** DeGeer

- Page 484 **Ips** DeGeer. Add:
 KEYS: Furniss and Johnson 2002: 64 (to species in Idaho, USA); Faccoli 2004a: 105 (to European species); Maiti and Saha 2009: 104 (to species in India).
 (**an**) López-Buenfil et al. 2001: 342. (**hb**) Wood 2007: 341. (**tx**) Alonso-Zarazaga and Lyal 2009: 79; Cognato and Sperling 2000; Cognato and Sun 2007; Cognato and Vogler 2001; Furniss and Johnson 2002: 64; de Laclos et al. 2004: 182; Maiti and Saha 2009: 104; Rabaglia 2002: 802; Wood 2007: 341.
- Page 485 **acuminatus** (Gyllenhal). Add:
 FIGURES: Faccoli 2004a: 107-108 (declivities), 111 (eighth female sternite), 112 (outline of adult); de Laclos et al. 2004: 183 (habitus).
 DISTRIBUTION: ASIA: China (Hengduan Mtns., Qinghai), Russia (Altai, Daghestan, Yakutia, Yaroslavl).

- HOSTS: *Pinus densiflora*, *P. kochiana*.
(bv) Meirmans et al. 2006. (**ds**) Averensky and Yanovsky 2008: 27; Colonnelli 2003: 101; Demidko 2007: 35; Faccoli 2004a: 112; Haack 2001: 273; Han et al. 2010; Huang and Yin 1992: 859; Lee and Lee 2000; Mandelshtam and Petrov 2009a: 208; Mandelshtam and Popovichev 2000: 893; Mandelshtam, Nikitsky and Bibin 2005a: 26; Meirmans et al. 2006; Nierhaus and Forster 2000; Petrov 2005: 221; Petrov and Nikitskii 2001: 173; Podlussány and György 2008: 198; Voolma et al. 2004. (**ec**) Meirmans et al. 2006. (**hb**) Faccoli 2004a: 112; Nierhaus and Forster 2000; Petrov and Nikitskii 2001: 173. (**tx**) Faccoli 2004a: 112; Nierhaus and Forster 2000; Vlasov 2005: 769. (**ds, hb**) de Laclos et al. 2004: 183.
- Page 489 ***amitinus*** (Eichhoff). Add:
FIGURES: Faccoli 2004a: 110 (elytral declivity, antennal club), 111 (eighth female sternite), 112 (outline of adult).
DISTRIBUTION: ASIA: Russia (Leningrad).
(**ds**) Colonnelli 2003: 101; Faccoli 2004a: 114; Haack 2001: 273; Mandelshtam and Popovichev 2000: 893; Voolma et al. 2004. (**hb**) Faccoli 2004a: 114. (**tx**) Faccoli 2004a: 114.
- Page 491 ***apache*** Lanier. Add:
DISTRIBUTION: NORTH AMERICA: Panama.
(**ds**) Smith and Cognato 2009.
- Page 491 ***avulsus*** (Eichhoff). Add:
DISTRIBUTION: NORTH AMERICA: United States (Maryland).
(**ds**) Rabaglia 2003: 375.
- Page 492 ***bonansea*** (Hopkins). Add:
(**ds**) Burgos-Solorio and Equihua 2007: 74.
- Page 493 ***borealis*** Swaine. Add:
DISTRIBUTION: NORTH AMERICA: Canada (Prince Edward Island).
(**ds**) Majka, Anderson and McCorquodale 2007: 419.
NOTE: No subspecies indicated.
- Page 493 ***borealis borealis*** Swaine. Add:
(**ds**) Furniss, Holsten and Schultz 2002: 89.
- Page 494 ***calligraphus*** (Germar). Add:
(**ds**) Burgos-Solorio and Equihua 2007: 74; CAB International 2009a; Haack 2001: 275; Majka, Anderson and McCorquodale 2007: 422 (remove Canada: Nova Scotia?). (**ec**) Williams et al. 2008.
NOTE: Williams et al. 2008 regard the Arizona population as the subspecies *ponderosae* Swaine. Subspecies not recognized herein.
- Page 497 ***cembrae*** (Herr). Add:
FIGURES: Faccoli 2004a: 110 (elytral declivity, antennal club), 111 (eighth female sternite), 112 (outline of adult).
DISTRIBUTION: ASIA: Russia (Leningrad, Yakutia). Delete Taiwan.
HOST: *Larix kaempferi*.
(**ds**) Anonymous 2005b; Averensky and Yanovsky 2008: 27; Beaver and Liu 2010: 36; CAB International 2007b; Colonnelli 2003: 101; Faccoli 2004a: 115; Haack 2001: 273; Mandelshtam and Popovichev 2000: 893; Mandelshtam, Lafer and Kuznetsov 2001; Petrov and Nikitskii 2001: 174; Schott 2001b; Voolma et al. 2004. (**hb**) Faccoli 2004a: 115; Grodzki and Kosibowicz 2009. (**tx**) Faccoli 2004a: 115; Stauffer et al. 2001.

- Page 500 ***confusus*** (LeConte). Add:
(an) Cognato, Harlin and Fisher 2003. (**ds, hb, tx**) Furniss and Johnson 2002: 64.
- Page 507 ***cribricollis*** Eichhoff. Remove from synonymy with ***I. grandicollis*** (Eichhoff). Add:
(tx) Cognato and Vogler 2001: 775.
- Page 502 ***duplicatus*** (Sahlberg). Add:
FIGURES: Faccoli 2004a: 108,109 (declivities), 111 (eighth female sternite), 112 (outline of adult).
DISTRIBUTION: ASIA: Russia (Altai, Yakutia, Yaroslavi).
(an) Lakatos et al. 2007. (**ds**) Averensky and Yanovsky 2008: 27; Demidko 2007: 35; Faccoli 2004a: 113; Holuša and Grodzki 2008; Holuša, Lubojacký and Knízek 2010; Mandelshtam and Petrov 2009a: 208; Mandelshtam and Popovichev 2000: 893; Mandelshtam, Lafer and Kuznetsov 2001; Petrov and Nikitskii 2001: 174; Piel, Grégoire and Knízek 2006; Voolma et al. 2004. (ec) Holusa et al. 2003. (**hb**) Faccoli 2004a: 113; Petrov and Nikitskii 2001: 174.
(tx) Faccoli 2004a: 113; Vlasov 2005: 769.
- Page 503 ***emarginatus*** (LeConte). Add:
FIGURE: López-Buenfil et al. 2001: 365 (proventriculus).
(ds, hb, tx) Furniss and Johnson 2002: 65.
- Page 506 ***grandicollis*** (Eichhoff). Add:
DISTRIBUTION: NORTH AMERICA: Canada (Nova Scotia). United States (Delaware).
HOST: *Larix laricina*.
(bv) Latty, Magrath and Symonds 2009. (**ds**) Burgos-Solorio and Equihua 2007: 74; CAB International 2007a; Gandhi and Seybold 2002; Haack 2001: 275; Majka, Anderson and McCorquodale 2007: 419; Rabaglia and Valenti 2003: 315. (ec) Lombardero et al. 2000. (tx) Cognato and Volger 2001: 775.
- Page 509 ***hauseri*** Reitter. Add ***I. ussuriensis*** Reitter as a synonym. Add:
(ds) Anonymous 2005c; Vanhanen, Veteli and Niemelae 2008. (**tx**) Mandelshtam 2002: 6.
- Page 509 ***hunteri*** Swaine. Add:
(ds, tx) Furniss and Johnson 2002: 66.
- Page 509 ***integer*** (Eichhoff). Add:
(ds) Burgos-Solorio and Equihua 2007: 74. (**ds, hb, tx**) Furniss and Johnson 2002: 66.
- Page 510 ***knausi*** Swaine. Add:
(ec) Williams et al. 2008.
- Page 510 ***latidens*** LeConte. Move to ***Orthotomicus***.
- Page 511 ***lecontei*** Swaine. Add:
(ds) Burgos-Solorio and Equihua 2007: 74. (ec) Williams et al. 2008.
- Page 511 ***longifolia*** (Stebbing). Add:
(tx) Buhroo and Lakatos 2011. (**ds, tx**) Maiti and Saha 2009: 104.
- Page 512 ***mannsfeldi*** (Watchl). Move to ***Orthotomicus***.
- Page 513 ***montanus*** (Eichhoff). Add:
(ds, hb, tx) Furniss and Johnson 2002: 68.

- Page 514 ***nitidus*** Eggers. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns., Qinghai).
(ds) Han et al. 2010; Huang and Yin 1992: 859.
- Page 514 ***nobilis*** (Wollaston). Move to *Orthotomicus*.
- Page 514 ***paraconfusus*** Lanier. Add:
(bv) Mcnee, Wood and Storer 2000. (ec) Storer, Wood and Gordon 2002.
- Page 515 ***perroti*** Swaine. Add:
(ec) Lombardero et al. 2000.
- Page 515 ***perturbatus*** (Eichhoff). Add:
(ds) Furniss, Holsten and Schultz 2002: 89. (ec, hb) Graves et al. 2008; Robertson 2000.
- Page 517 ***pilifrons utahensis*** Wood. Add:
(ds, tx) Furniss and Johnson 2002: 68.
- Page 517 ***pini*** (Say). Add:
DISTRIBUTION: NORTH AMERICA: United States (Delaware).
HOST: *Larix laricina*.
(an) Allender et al. 2008. (bv) Wallin, Rutledge and Raffa 2002. (ds) CAB International 2003a; Furniss, Holsten and Schultz 2002: 89; Gandhi and Seybold 2002; Rabaglia and Valenti 2003: 315. (ec) Lombardero et al. 2000; Williams et al. 2008. (ds, hb, tx) Furniss and Johnson 2002: 69.
- Page 521 ***plastographus plastographus*** (LeConte). Add:
(ds, hb, tx) Furniss and Johnson 2002: 70.
- Page 527 ***schnutzenhoferi*** Holzschuh. Remove from synonymy with ***I. stebbingi*** Strohmeyer. Add:
(tx) Cognato and Volger 2001: 775; Buhroo and Lakatos 2011.
- Page 522 ***sexdentatus*** (Börner). Add:
FIGURES: Faccoli 2004a: 108 (declivities), 111(eighth female sternite), 112 (outline of adult); de Laclos et al. 2004: 184 (gallery pattern).
DISTRIBUTION: ASIA: China (Hengduan Mtns.), Russia (Altai, Daghestan, Yakutia, Yaroslavi). EUROPE: France (Corsica).
(ds) Averensky and Yanovsky 2008: 27; CAB International 2003b; Colonnelli 2003: 101; de Laclos 2004: 168; Demidko 2007: 35; Faccoli 2004a: 113; Fernández 1999: 29; Haack 2001: 273; Huang and Yin 1992: 860; Mandelshtam and Petrov 2009a: 208; Mandelshtam and Popovichev 2000: 893; Mandelshtam, Nikitsky and Bibin 2005a: 26; Nierhaus and Forster 2000; Pedersen, Hanses and Vagholm-Jensen 2010; Perny 2003; Petrov 2005: 221; Petrov and Nikitskii 2001: 174; Podlussány and György 2008: 198; Voolma et al. 2004. (ec) Fernández 1999: 29. (hb) Fernández 1999: 29; Faccoli 2004a: 113; Masutti, Battista and Faccoli 2005; Nierhaus and Forster 2000; Perny 2003; Petrov and Nikitskii 2001: 174. (tx) Faccoli 2004a: 113; Nierhaus and Forster 2000; Vlasov 2005: 769. (ds, hb) de Laclos et al. 2004: 184.
- Page 526 ***spinifer*** (Eichhoff). Move to *Orthotomicus*.
- Page 526 ***stebbingi*** Strohmeyer. Add:
(tx) Buhroo and Lakatos 2011; Cognato and Volger 2001. (ds, tx) Maiti and Saha 2009: 106.

- Page 499 ***subelongatus*** (Motschulsky). Remove from synonymy with ***I. cembrae*** (Heer). Add:
 (ds) Anonymous 2005b; Vanhanen, Veteli and Niemelae 2008; Voolma et al. 2004. (tx) Stauffer et al. 2001. (ec, hb) Gao et al. 2000.
- Page 528 ***tridens engelmanni*** Swaine. Add:
 (ds, hb, tx) Furniss and Johnson 2002: 71.
- Page 527 ***tridens tridens*** (Mannerheim). Add:
 (ds) Furniss, Holsten and Schultz 2002: 89.
- Page 528 ***typographus*** (Linnaeus). Add:
 FIGURES: Faccoli 2004a: 109, 110 (declivity, heads of adults), 111 (eighth female sternite), 112 (outline of adult); de Laclos et al. 2004: 185 (habitus).
 DISTRIBUTION: ASIA: Russia (Altai, Yakutia, Yaroslavl).
 HOST: *Picea orientalis*.
 (cn) Faccoli 2000a; Humphreys and Allen 1999. (ds) Averensky and Yanovsky 2008: 27; Colonnelli 2003: 101; Demidko 2007: 35; Faccoli 2004a: 114; Haack 2001: 273; Humphreys and Allen 1999; Mandelshtam and Petrov 2009a: 208; Mandelshtam and Popovichev 2000: 893; Mandelshtam, Lafer and Kuznetsov 2001; Mandelshtam, Nikitsky and Bibin 2005a: 26; Petrov and Nikitskii 2001: 173; Podlussány and György 2008: 198; Sallé et al. 2007; Voolma et al. 2004. (ec) Faccoli 2000. (ec) Gugerli et al. 2008. (hb) Faccoli 2000, 2004: 114; Humphreys and Allen 1999; Petrov and Nikitskii 2001: 173. (tx) Faccoli 2004a: 114; Vlasov 2005: 769. (ds, hb) de Laclos et al. 2004: 185.
- Page 538 ***ussuriensis*** Reitter. Move to ***I. hauseri*** Reitter as a synonym. Add:
 Lectotype (male), Ussinsk, designated by Mandelshtam 2002: 6.
 Synonymy by Mandelshtam 2002: 6.
- Page 538 ***woodi*** Thatcher. Add:
 DISTRIBUTION: NORTH AMERICA: United States (**Colorado** [see Appendix]).

ADD SPECIES

- shangrila*** Cognato and Sun 2007: 546. Holotype (sex ?), CHINA: Sichuan, hwy. 213, near Zhangia; IZAC.
 FIGURES: Cognato and Sun 2007: 548 (habitus, aedeagus, antenna).
 HOST: *Picea purpurea*.
 DISTRIBUTION: ASIA: China (Qinghai).
 (ds) Han et al. 2010.

ADD SUBGENERA:

- Emarips*** Cognato, in Cognato and Vogler, 2001, p. 779. Type species: *Tomicus emarginatus* LeConte.
 Move to ***Ips*** as a synonym. Add:
 Synonymy by Knízek 2011: 86.
 (tx) Alonso-Zarazaga and Lyal 2009: 80 (as synonym of subgenus *Cumatotomicus* Ferrari).

- Bonips*** Cognato, in Cognato and Vogler, 2001, p. 779. Type species: *Tomicus bonanseai* Hopkins. Move to ***Ips*** as a synonym. Add:
 Synonymy by Alonso-Zarazaga and Lyal 2009: 80.
 (tx) Knízek 2011: 86.

Granips Cognato, in Cognato and Vogler, 2001, p. 780. Type species: *Tomicus grandicollis* Eichhoff. Move to *Ips* as a synonym. Add:
 Synonymy by Alonso-Zarazaga and Lyal 2009: 80.
 (tx) Knízek 2011: 86.

Genus ***Orthotomicus*** Ferrari

Page 467 ***Orthotomicus*** Ferrari. Add:
 KEYS: de Laclos et al. 2004: 186 (to species in France); Schott 2002a: 4-6 (to species in France); Wood 2007: 340 (to species in South America).
 (tx) Alonso-Zarazaga and Lyal 2009: 80; de Laclos et al. 2004: 186-187; Rabaglia 2002: 802; Wood 2007: 340.

Pseudips Cognato. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 81; Rabaglia 2002: 802.
 NOTE: Wood 2007: 340 placed this genus as a synonym of ***Orthotomicus***. I do not accept this synonymy and will continue to recognize ***Pseudips*** as a distinct genus.

Page 467 ***angulatus*** (Eichhoff). Add:
 (tx) Beaver and Liu 2010: 17.

Page 467 ***caelatus*** (Eichhoff). Add:
 DISTRIBUTION: NORTH AMERICA: Canada (Prince Edward Island), United States (Delaware, Tennessee).
 (ds) Furniss, Holsten and Schultz 2002: 89; Haack 2001: 275; Majka, Anderson and McCorquodale 2007: 419; Rabaglia and Valenti 2003: 315; Schiefer 2010: 112. (ds, hb, tx) Furniss and Johnson 2002: 72.

Page 504 ***erosus*** (Wollaston). Move from ***Ips***. Add:
 New combination by Cognato and Volger 2001: 776.
 FIGURES: de Laclos et al. 2004: 188 (gallery pattern); Mifsud and Knízek 2009: 49 (habitus); Schott 2002a: 5 (elytral declivity).
 DISTRIBUTION: ASIA: China (Hengduan Mtns.), Russia (Daghestan). EUROPE: France (Corsica), Italy (Tuscany Islands), Malta. NORTH AMERICA: United States (California, introduced).
 (bv) Seybold, Paine and Dreistadt 2008. (ds) Colonnelli 2003: 101; de Laclos 2004: 168; Eglitis 2000a; Faccoli and Cecchi 2003; Fernández 1999: 27; Haack 2001: 273, 275; Haack 2004; Haack 2006: 273; Huang and Yin 1992: 860; Lee, Flint and Seybold 2010; Lee, Smith and Seybold 2005; Schott 2002b: 51; Mandelshtam and Danielsson 2004: 91; Mandelshtam, Nikitsky and Bibin 2005a: 25; Petrov 2005: 221; Yin 1997: 971. (ec) Fernández 1999: 27; Kapapanida-Kantartzzi et al. 2010. (hb) Fernández 1999: 27; Masutti, Battista and Faccoli 2005. (tx) Wood 2007: 340, 341; Yin 1997: 971. (ds, hb) de Laclos et al. 2004: 188.

Page 469 ***golovjanikoi*** Pjatnitskii. Add:
 (ds) Mandelshtam and Petrov 2009a: 208; Mandelshtam, Lafer and Kuznetsov 2001.

Page 469 ***kuniyoshii*** (Nobuchi). Add:
 DISTRIBUTION: ASIA: Taiwan.
 (ds) Beaver and Liu 2010: 16.

Page 469 ***laricis*** (Fabricius). Add:
 FIGURES: de Laclos et al. 2004: 190 (elytral declivity); Schott 2002a: 5 (elytral declivity).
 DISTRIBUTION: ASIA: Russia (Altai, Daghestan, Yakutia, Yaroslavi). EUROPE: France (Corsica). SOUTH AMERICA: Argentina.

(**ds**) Averensky and Yanovsky 2008: 26; Colonnelli 2003: 101; de Laclos 2004: 168; Demidko 2007: 35; Haack 2001: 273, 275; Mandelshtam and Popovichev 2000: 893; Mandelshtam, Lafer and Kuznetsov 2001; Mandelshtam, Nikitsky and Bibin 2005a: 25; Petrov 2005: 221; Petrov and Nikitskii 2001: 174; Podlussány and György 2008: 199; Tiranti 2010; Voolma et al. 2004. (**hb**) Petrov and Nikitskii 2001: 174; Tiranti 2010. (**tx**) Vlasov 2005: 768; Wood 2007: 341. (**ds, hb**) de Laclos et al. 2004: 190.

- Page 510 ***latidens*** (LeConte). Move from ***Ips***. Add:
 New combination by Cognato and Volger 2001: 776.
 FIGURE: López-Buenfil et al. 2001: 365 (proventriculus).
 DISTRIBUTION: NORTH AMERICA: United States (Michigan).
 (**ds**) Cognato et al. 2009: 115. (**ec**) Williams et al. 2008. (**tx**) Wood 2007: 340. (**ds, hb, tx**) Furniss and Johnson 2002: 66.
- Page 472 ***longicollis*** (Gyllenhal). Add:
 DISTRIBUTION: ASIA: Serbia. EUROPE: France (Corsica), Hungary.
 (**ds**) Colonnelli 2003: 102; de Laclos 2004: 168; Fernández 1999: 27; Gyorgy and Podlussany 2005; Mandelshtam and Popovichev 2000: 893; Mandelshtam, Nikitsky and Bibin 2005a: 25; Markovic and Stojanovic 2000b; Noblecourt 2004: 36; Petrov and Nikitskii 2001: 174; Voolma et al. 2004. (**ec**) Fernández 1999: 27. (**hb**) Fernández 1999: 27; Masutti, Battista and Faccoli 2005; Petrov and Nikitskii 2001: 174.
- Page 512 ***mannsfeldi*** (Watchl). Move from ***Ips***. Add:
 New combination by Cognato and Volger 2001: 776. Add:
 FIGURES: Faccoli 2004a: 108 (elytral declivity), 111 (eighth female sternite), 112 (outline of adult).
 DISTRIBUTION: ASIA: China (Hengduan Mtns.).
 (**ds**) Colonnelli 2003: 101; Faccoli 2004a: 113; Haack 2001: 273; Huang and Yin 1992: 859; Masutti, Battista and Faccoli 2005. (**tx**) Cognato and Volger 2001: 776; Faccoli 2004a: 113.
- Page 514 ***nobilis*** (Wollaston). Move from ***Ips***. Add:
 New combination by Cognato and Volger 2001: 776.
- Page 473 ***proximus*** (Eichhoff). Add:
 FIGURE: Schott 2002a: 5 (elytral declivity).
 DISTRIBUTION: ASIA: Russia (Altai, Daghestan, Yakutia, Yaroslavi).
 HOSTS: *Pinus kochiana*, *P. eldarica*.
 (**ds**) Averensky and Yanovsky 2008: 27; Colonnelli 2003: 102; Demidko 2007: 35; Haack 2001: 273, 275; Mandelshtam and Popovichev 2000: 893; Petrov 2005: 221; Petrov and Nikitskii 2001: 174; Podlussány and György 2008: 199; Voolma et al. 2004. (**hb**) Petrov and Nikitskii 2001: 174. (**tx**) Vlasov 2005: 768.
- Page 522 ***robustus*** (Knotek). Move from ***Ips***. Add:
 New combination by Wood 2007: 340.
 (**ds**) Podlussány and György 2008: 199.
- Page 526 ***spinifer*** (Eichhoff). Move from ***Ips***. Add:
 New combination by Cognato and Volger 2001: 776.
 (**tx**) Wood 2007: 340.
- Page 475 ***starki*** Spessivtseff. Add:
 DISTRIBUTION: ASIA: China (Hengduan Mtns.).
 (**ds**) Huang and Yin 1992: 860; Mandelshtam and Popovichev 2000: 893; Petrov and Nikitskii 2001: 174; Voolma et al. 2004. (**hb**) Petrov and Nikitskii 2001: 174.

Page 476 ***suturalis*** (Gyllenhal). Add:
 FIGURES: de Laclos et al. 2004: 189 (elytral declivity); Schott 2002a: 5 (elytral declivity).
 DISTRIBUTION: ASIA: Russia (Altai, Yakutia, Yaroslavi).
 HOST: *Pinus densiflora*.
 (ds) Averensky and Yanovsky 2008: 27; Colonnelli 2003: 102; Demidko 2007: 35; Fernández 1999: 29; Haack 2001: 273; Lee and Lee 2000; Mandelshtam and Popovichev 2000: 893; Mandelshtam, Lafer and Kuznetsov 2001; Mandelshtam, Nikitsky and Bibin 2005a: 26; Markovic 2000; Petrov and Nikitskii 2001: 174; Voolma et al. 2004. (ec) Fernández 1999: 29. (hb) Fernández 1999: 29; Masutti, Battista and Faccoli 2005; Petrov and Nikitskii 2001: 174. (tx) Vlasov 2005: 768. (ds, hb) de Laclos et al. 2004: 189.

Page 522 ***tridentatus*** Eggers. Add;
 (ds, hb) Avc and Sarkaya 2009. (tx) Knízek 2011: 235.

ADD SPECIES:

chaokhao Cognato 2008: 496. Holotype (male), Thailand: Chang Mai Pr., Doi Inthanon, Mae Klang Waterfall, 420 m, N 18.500°, E 98.668°; MSUC.
 FIGURES: Cognato 2008: 497 (elytral declivity), 498 (habitus, frons, antenna, aedeagus)
 HOST: *Pinus merkusii*.

Genus ***Pityogenes*** Bedel

Page 438 ***Pityogenes*** Bedard. Add:
 KEYS: Furniss and Johnson 2002: 73 (to species in Idaho, USA); de Laclos et al. 2004: 172 (to species in France); Maiti and Saha 2009: 108 (to species in India).
 (an) López-Buenfil et al. 2001: 342. (tx) Alonso-Zarazaga and Lyal 2009: 80; de Laclos et al. 2004: 172; Maiti and Saha 2009: 107; Rabaglia 2002: 802; Wood 2007: 335.

Page 439 ***bidentatus*** (Herbst). Add:
 FIGURE: de Laclos et al. 2004: 174 (elytral profile), 177 (gallery pattern).
 DISTRIBUTION: ASIA: Russia (Daghestan, Yakutia, Yaroslavi). EUROPE: France (Corsica).
 HOST: *Pinus kochiana*.
 (ds) Averensky and Yanovsky 2008: 26; Colonnelli 2003: 102; de Laclos 2004: 167; Fernández 1999: 26; Haack 2001: 273, 275; Haack 2006: 273; Mandelshtam and Popovichev 2000: 892; Petrov 2005: 221; Petrov and Nikitskii 2001: 173; Podlussány and György 2008: 199; Voolma et al. 2004. (ec) Fernández 1999: 26. (hb) Fernández 1999: 26; Masutti, Battista and Faccoli 2005; Petrov and Nikitskii 2001: 173. (tx) Vlasov 2005: 767. (ds, hb) de Laclos et al. 2004: 177.

Page 442 ***bistridentatus*** (Eichhoff). Add:
 FIGURE: de Laclos et al. 2004: 174 (elytral profile).
 DISTRIBUTION: EUROPE: France (Corsica).
 (ds) Colonnelli 2003: 102; de Laclos 2004: 167; Haack 2001: 273.

Page 444 ***calcaratus*** (Eichhoff). Add:
 FIGURES: de Laclos et al. 2004: 174 (elytral profile); Mifsud and Knízek 2009: 48, 49 (habitus).
 DISTRIBUTION: ASIA: Russia (Krasnodar). EUROPE: Italy (Tuscany Islands), Malta.
 (ds) Colonnelli 2003: 102; Faccoli and Cecchi 2003; Haack 2001: 273; Mandelshtam, Nikitsky and Bibin 2005a: 24; Mifsud and Knízek 2009: 38; Noblecourt 2004: 34. (ec) Kapapanida-Kantartzzi et al. 2010.

- Page 445 ***carinulatus*** (LeConte). Add:
(**ds, hb, tx**) Furniss and Johnson 2002: 73.
- Page 445 ***chalcographus*** (Linnaeus). Add:
FIGURES: de Laclos et al. 2004: 174 (elytral profile); 175 (gallery pattern).
DISTRIBUTION: ASIA: China (Hengduan Mtns., Qinghai), Russia (Altai, Yukatia, Yaroslavi).
HOST: *Pinus densiflora*.
(**an**) Avtzis, Arthofer and Stauffer 2006, 2008. (**ds**) Averensky and Yanovsky 2008: 26; Avtzis et al. 2010; Colonnelli 2003: 102; Demidko 2007: 34; Haack 2001: 273, 275; Han et al. 2010; Huang and Yin 1992: 859; Lee and Lee 2000; Mandelshtam and Petrov 2009a: 208; Mandelshtam and Popovichev 2000: 892; Mandelshtam, Lafer and Kuznetsov 2001; Mandelshtam, Nikitsky and Bibin 2005a: 25; Petrov and Nikitskii 2001: 173; Podlussány and György 2008: 199; Voolma et al. 2004. (**hb**) Petrov and Nikitskii 2001: 173. (**tx**) Arthofer, Avtzis and Stauffer 2007; Arthofer et al. 2010; Avtzis, Arthofer and Stauffer 2006; Vlasov 2005: 768. (**ds, hb**) de Laclos et al. 2004: 175.
NOTE: Intercepted, but not established, in Jamaica.
- Page 459 ***elongatus*** Løvendal (*Tomicus*) (= ***P. trepanatus*** (Nördlinger)). Add:
Lectotype, Denmark (Geel Skov.); designated by Hansen 2001: 110.
(**tx**) Hansen 2001: 110.
- Page 451 ***conunctus*** Reitter. Add:
FIGURE: de Laclos et al. 2004: 174 (elytral profile).
DISTRIBUTION: ASIA: Russia (Altai).
(**ds**) Colonnelli 2003: 102; Demidko 2007: 34.
- Page 451 ***fossifrons*** (LeConte). Add:
(**ds, hb, tx**) Furniss and Johnson 2002: 73.
- Page 451 ***foveolatus*** Eggers. Add:
(**ds**) Mandelshtam and Petrov 2009a: 208.
- Page 452 ***hopkinsi*** Swaine. Add:
DISTRIBUTION: NORTH AMERICA: United States (Delaware).
(**ds**) Rabaglia and Valenti 2003: 315.
- Page 452 ***irkutensis*** Eggers. Add:
DISTRIBUTION: ASIA: Russia (Yakutia, Yaroslavi).
(**ds**) Averensky and Yanovsky 2008: 26; Petrov and Nikitskii 2001: 173; Voolma et al. 2004.
(**tx**) Vlasov 2005: 768.
- Page 453 ***japonicus*** Nobuchi. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
FIGURE: Yin 1997: 971 (outline of elytral declivity).
(**ds**) Huang and Yin 1992: 859. (**ds, tx**) Yin 1997: 970.
- Page 453 ***knechteli*** (Swaine). Add:
(**ds, hb, tx**) Furniss and Johnson 2002: 75.
- Page 454 ***meridianus*** Blackman. Add:
DISTRIBUTION: NORTH AMERICA: United States (**Missouri** [see Appendix]).
- Page 454 ***mexicanus*** Wood. Add:
FIGURE: López-Buenfil et al. 2001: 365 (proventriculus).

- Page 455 ***quadridentis*** (Hartig). Add:
 FIGURE: de Laclos et al. 2004: 174 (elytral profile).
 DISTRIBUTION: ASIA: Russia (Altai, Daghestan, Yakutia).
 HOST: *Pinus kochiana*.
 (ds) Averensky and Yanovsky 2008: 26; Colonnelli 2003: 102; Demidko 2007: 34; Haack 2001: 273; Mandelshtam and Popovichev 2000: 892; Mandelshtam, Nikitsky and Bibin 2005a: 25; Petrov and Nikitskii 2001: 173; Voolma et al. 2004. (hb) Petrov and Nikitskii 2001: 173.
- Page 457 ***rudnevi*** Sokanovskii. Add:
 DISTRIBUTION: ASIA: Russia (Khabarovskii Krai).
 (ds) Mandelshtam, Lafer and Kuznetsov 2001.
- Page 457 ***saalasi*** Eggers. Add:
 DISTRIBUTION: ASIA: China (Qinghai), Russia (Altai, Yakutia).
 (ds) Averensky and Yanovsky 2008: 26; Demidko 2007: 34; Han et al. 2010; Voolma et al. 2004.
- Page 457 ***scitus*** Blandford. Add:
 (ds, tx) Maiti and Saha 2009: 108.
- Page 458 ***seirindensis*** Murayama. Add:
 DISTRIBUTION: ASIA: China (Hengduan Mtns.).
 (ds) Huang and Yin 1992: 859.
- Page 458 ***spessivtsevi*** Lebedev. Add:
 (ds, tx) Maiti and Saha 2009: 109.
- Page 458 ***trepanatus*** (Nördlinger). Add:
 FIGURES: de Laclos et al. 2004: 174 (elytral profile), 176 (habitus).
 DISTRIBUTION: ASIA: Russia (Krasnodar, Leningrad).
 (ds) Colonnelli 2003: 102; Haack 2001: 274; Mandelshtam and Popovichev 2000: 892; Mandelshtam, Nikitsky and Bibin 2005a: 25; Podlussány and György 2008: 199; Voolma et al. 2004. (ec) Kapapanida-Kantartzzi et al. 2010. (ds, hb) de Laclos et al. 2004: 176; Masutti, Battista and Faccoli 2005.
- Genus ***Pityokteines*** Fuchs
- Page 459 ***Pityokteines*** Fuchs. Add:
 KEYS: Furniss and Johnson 2002: 75 (to species in Idaho, USA); Pennacchio, Gatti and Roversi 2002: 234-236 (to species in Italy).
 (an) López-Buenfil et al. 2001: 343; de Laclos et al. 2004: 178; Pennacchio, Gatti and Roversi 2002: 233; Urban 2002. (tx) Alonso-Zarazaga and Lyal 2009: 81; Rabaglia 2002: 802; Urban 2002.
- Page 460 ***curvidens*** (Germar). Add:
 FIGURES: de Laclos et al. 2004: 178 (elytral profile), 181 (habitus); Pennacchio, Gatti and Roversi 2002: 235 (male declivity), 237 (habitus, elytral declivity), 240 (gallery pattern), 242 (antenna, head and pronotum).
 DISTRIBUTION: ASIA: Russia (Yakutia).
 (an) Pernek et al. 2008; Urban 2002. (ds) Averensky and Yanovsky 2008: 26; Colonnelli 2003: 102; Faccoli 2000d; Haack 2001: 274, 275; Mandelshtam and Popovichev 2000: 892; Mandelshtam, Nikitsky and Bibin 2005a: 25; Pennacchio, Gatti and Roversi 2002: 231.

(**hb**) Faccoli 2000d; Pennacchio, Gatti and Roversi 2002: 236. (**ds, hb**) de Laclos et al. 2004: 181.

Page 462 ***elegans*** Swaine. Add:

(**ds**) Pennacchio, Gatti and Roversi 2002: 231. (**ec**) Macias-Sámano and Borden 2000. (**ds, hb, tx**) Furniss and Johnson 2002: 75.

Page 463 ***lasiocarpi*** (Swaine). Add:

DISTRIBUTION: NORTH AMERICA: United States (**Colorado** [see Appendix]).

(**ds, tx**) Pennacchio, Gatti and Roversi 2002: 231. (**ds, hb, tx**) Furniss and Johnson 2002: 76.

Page 463 ***minutus*** (Swaine). Add:

(**ds**) Pennacchio, Gatti and Roversi 2002: 231. (**ds, hb, tx**) Furniss and Johnson 2002: 77.

Page 463 ***mystacinus*** Wood. Add:

(**ds**) Pennacchio, Gatti and Roversi 2002: 231.

Page 463 ***ornatus*** (Swaine). Add:

FIGURE: López-Buenfil et al. 2001: 365 (proventriculus).

(**ds**) Pennacchio, Gatti and Roversi 2002: 231. (**ds, hb, tx**) Furniss and Johnson 2002: 77.

Page 464 ***sparsus*** (LeConte). Add:

(**ds**) Pennacchio, Gatti and Roversi 2002: 231.

Page 465 ***spinidens*** (Reitter). Add:

FIGURES: de Laclos et al. 2004: 178 (elytral profile), 179 (head and pronotum); Pennacchio, Gatti and Roversi 2002: 235 (male declivity), 248 (habitus, elytral declivity); 249 (habitus), 251 (gallery pattern).

DISTRIBUTION: ASIA: Russia (Leningrad).

(**an**) Faccoli 2000d; Pernek et al. 2008; Urban 2002. (**ds**) Faccoli 2000d; Haack 2001: 274; Mandelshtam and Popovichev 2000: 893; Mandelshtam, Nikitsky and Bibin 2005a: 25; Pennacchio, Gatti and Roversi 2002: 231. (**ec**) Faccoli 2000d. (**hb**) Faccoli 2000d; Pennacchio, Gatti and Roversi 2002: 247. (**tx**) Faccoli 2000d; Pennacchio, Gatti and Roversi 2002: 247. (**ds, hb**) de Laclos et al. 2004: 179.

Page 466 ***vorontzowi*** (Jacobson). Add:

FIGURES: de Laclos et al. 2004: 178 (elytral profile), 180 (habitus); Pennacchio, Gatti and Roversi 2002: 235 (male declivity), 242 (antenna, head and pronotum), 243 (habitus, elytral declivity), 246 (gallery pattern).

(**an**) Pernek et al. 2008; Urban 2002. (**ds**) Colonnelli 2003: 102; Mandelshtam, Nikitsky and Bibin 2005a: 25; Pennacchio, Gatti and Roversi 2002: 231. (**hb**) Pennacchio, Gatti and Roversi 2002: 242. (**tx**) Pennacchio, Gatti and Roversi 2002: 242. (**ds, hb**) de Laclos et al. 2004: 180.

Genus ***Pseudips*** Cognato

Page 83 ***Pseudips*** Cognato. Add:

(Suppl. 2) NOTE: See remarks under ***Orthotomicus***.

Page 500 ***concinnus*** (Mannerheim). Add:

(**ds**) Furniss, Holsten and Schultz 2002: 89.

Page 512 ***mexicanus*** (Hopkins). Add:
 FIGURE: López-Buenfil et al. 2001: 365 (proventriculus).
 (ds) Furniss, Holsten and Schultz 2002: 90. (hb) Smith, Carroll and Lindgren 2009. (ds, hb,
 tx) Furniss and Johnson 2002: 67.

Page 514 ***orientalis*** (Wood and Yin). Add:
 DISTRIBUTION: ASIA: China (Hengduan Mtns., Qinghai).
 (ds) Han et al. 2010; Huang and Yin 1992: 860.

TRIBE DRYOCOETINI

Page 539 **Dryocoetini** Lindemann. Add:
 KEYS: Maiti and Saha 2009: 110 (to genera in India); Wood 2007: 343 (to genera in South America).
 (an) Jordal 2002; Jordal, Normark and Farrell 2000. (hb) Wood 2007: 342. (tx) Alonso-Zarazaga and Lyal 2009: 51; Maiti and Saha 2009: 110; Wood 2007: 342.

Genus ***Chilocyton*** Schedl

Page 587 ***Chilocyton*** Schedl. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 52; Wood 2007: 356.

Page 587 ***rufulum*** Schedl. Add:
 (tx) Wood 2007: 356.
 NOTE: Species name change.

Genus ***Coccotrypes*** Eichhoff

Page 591 ***Coccotrypes*** Eichhoff. Add:
 KEYS: Bright and Torres 2006: 410 (to species in Puerto Rico); Maiti and Saha 2009: 112 (to species in India); Wood 2007: 357 (to species in South America).
 (an) Jordal, Normark and Farrell 2000; Jordal et al. 2002; López-Buenfil et al. 2001: 344.
 (tx) Alonso-Zarazaga and Lyal 2009: 52; Jordal et al. 2002; Maiti and Saha 2009: 111; Rabaglia 2002: 802. (hb, tx) Wood 2007: 356.

Page 591 ***aciculatus*** Schedl. Add:
 FIGURES: Wood 2007: PLATE 73.
 (an) Jordal et al. 2002. (hb, tx) Wood 2007: 360.

Page 592 ***advena*** Blandford. Add:
 FIGURES: Maiti and Saha 2009: 114 (habitus); Wood 2007: PLATE 74.
 DISTRIBUTION: NORTH AMERICA: Puerto Rico. OCEANIA: Mariana Islands (**Guam** [see Appendix]).
 HOSTS: *Pinus caribae* log, *Sloanea berteroana* log, *Calyphyllum calaba* seeds, *Syzygium jambos* seeds, *Pouteria multiflora* seeds, *Persea americana* seeds, *Dillenia indica* fruits.
 (an) Jordal et al. 2002. (ds) Bright and Torres 2006: 411. (ds, tx) Maiti and Saha 2009: 114.
 (hb, tx) Wood 2007: 358.

Page 593 ***aspericollis*** (Beeson). Add:
 (ds, tx) Maiti and Saha 2009: 117.

Page 593 ***barbatus*** (Schedl). Add:
 (ds, tx) Maiti and Saha 2009: 118.

- Page 594 ***cardamomi*** Schaufuss. Add:
(an) Jordal et al. 2002. (ds) Beaver and Liu 2010: 12. (ds, tx) Maiti and Saha 2009: 119.
- Page 594 ***carpopaghus*** (Horning). Add:
FIGURES: Maiti and Saha 2009: 121 (habitus); Lin and Wu 2010: 206 (habitus); Wood 2007: PLATE 74.
HOSTS: *Persea americana* seeds, *Prestoea montana* seeds, *Dillenia indica* fruits.
(an) Jordal et al. 2002. (ds) Beaver and Liu 2010: 12; Bright and Torres 2006: 411; Haack 2001: 272. (ds) Lin and Wu 2010. (ds, tx) Maiti and Saha 2009: 120. (hb, tx) Wood 2007: 362.
- Page 597 ***confusus*** (Eggers). Move to ***C. sierraleonensis*** Eggers as a synonym. Add:
Synonymy by Mandelshtam and Danielsson 2004: 91.
- Page 598 ***cyperi*** (Beeson). Add:
FIGURES: Maiti and Saha 2009: 124 (habitus, antenna); Lin and Wu 2010: 206 (habitus); Wood 2007: PLATE 75.
DISTRIBUTION: ASIA: Taiwan. NORTH AMERICA: Costa Rica (Isla del Coco). Mexico (Tabasco).
HOSTS: *Calophyllum calaba* log, *Ceiba pentandra* log, *Sloanea berteriana* log, *Mammea americana* seeds, *Pouteria multiflora* seeds, *Mangifera indica* seeds.
(an) Jordal et al. 2002. (ds) Beaver and Liu 2010: 12; Bright and Torres 2006: 411; Kirkendall and Jordal 2006: 732; Lin and Wu 2010; Pérez-De La Cruz et al. 2009: 604. (ds, tx) Maiti and Saha 2009: 124. (hb, tx) Wood 2007: 359.
- Page 599 ***dactyliperda*** (Fabricius). Add:
FIGURES: López-Buenfil et al. 2001: 365 (proventriculus); Maiti and Saha 2009: 126; Mifsud and Knízek 2009: 49 (habitus); Wood 2007: PLATE 75.
DISTRIBUTION: ASIA: Saudi Arabia. EUROPE: Hungary, Malta. NEW ZEALAND (introduced and established).
(an) Jordal et al. 2002. (bv) Holzman et al. 2009; Gottlieb et al. 2009. (ds) Al-Ahmadi and Salem 1999: 129; Brockerhoff, Knízek and Bain 2003: 34; Brockerhoff et al. 2006; Bright 2004: 158; Bright and Torres 2006: 411; Colonnelli 2003: 101; Gyorgy and Podlussany 2005; Mifsud and Knízek 2009: 40; Noblecourt 2004: 34. (tx) Vlasov 2005: 774. (ds, tx) Maiti and Saha 2009: 126. (hb, tx) Wood 2007: 362.
- Page 602 ***distinctus*** (Motschulsky). Add:
Lectotype (sex?), Ceylon, designated by Mandelshtam and Nikitsky 2010: 16.
FIGURES: Wood 2007: PLATE 76.
DISTRIBUTION: NORTH AMERICA: Mexico (Tabasc), United States (Alabama, Mississippi). SOUTH AMERICA: **Trinidad** [see Appendix].
HOST: *Annona muricata* seeds.
(ds) Bright and Torres 2006: 412; Schiefer 2010: 112. (hb, tx) Wood 2007: 360.
- Page 602 ***elongatulus*** (Schedl). Add:
(ds, tx) Maiti and Saha 2009: 128.
- Page 603 ***fallax*** (Eggers). Add:
FIGURE: Maiti and Saha 2009: 129 (habitus).
(an) Jordal et al. 2002. (ds, tx) Maiti and Saha 2009: 129.
- Page 603 ***gedeanus*** (Eggers). Add:
(an) Jordal et al. 2002.

- Page 604 ***graniceps*** (Eichhoff). Add:
(an) Jordal et al. 2002. (ds) Beaver and Liu 2010: 12.
- Page 604 ***impressus*** Eggers. Add:
(an) Jordal et al. 2002.
- Page 604 ***laevicollis*** (Schedl). Add:
(ds) Beaver and Liu 2010: 37.
- Page 605 ***litoralis*** (Beeson). Add:
FIGURE: Maiti and Saha 2009: 131 (habitus).
(an) Jordal et al. 2002. (ds, tx) Maiti and Saha 2009: 131.
- Page 605 ***longior*** (Eggers). Add *C. naidaijinensis* (Murayama) as a synonym. Add:
FIGURES: Lin and Wu 2010: 206 (habitus); Maiti and Saha 2009: 133.
DISTRIBUTION: ASIA: China (Hengduan Mtns.), Taiwan.
(an) Jordal et al. 2002. (ds) Beaver and Liu 2010: 12; Huang and Yin 1992: 861; Lin and Wu 2010. (tx) Beaver, Kajimura and Goto 2008: 232. (ds, tx) Maiti and Saha 2009: 133.
NOTE: *C. apicalis* Beeson in Huang and Yin 1992: 861 is a *nomen nudum* and refers to this species.
- Page 606 ***marginatus*** (Browne). Add:
(an) Jordal et al. 2002.
- Page 606 ***medius*** (Eggers). Add:
(an) Jordal et al. 2002.
- Page 606 ***monoceros*** (Beeson). Add:
(ds, tx) Maiti and Saha 2009: 135.
- Page 607 ***naidaijinensis*** (Murayama). Move to ***C. longior*** (Schedl) as a synonym. Add:
Synonymy by Beaver, Kajimura and Goto 2008: 232.
- Page 607 ***nigronitens*** (Schedl). Add:
(ds, tx) Maiti and Saha 2009: 136.
- Page 607 ***nubilus*** (Blandford). Add:
FIGURES: Maiti and Saha 2009: 138 (habitus, antenna).
DISTRIBUTION: Delete Taiwan.
(ds) Beaver and Liu 2010: 36. (ds, tx) Maiti and Saha 2009: 137.
- Page 608 ***palmarum*** Eggers. Add:
(tx) Wood 2007: 361.
- Page 608 ***papuanus*** (Eggers). Add:
FIGURES: Lin and Wu 2010: 206 (habitus); Maiti and Saha 2009: 140 (habitus).
(ds) Beaver and Liu 2010: 123; Lin and Wu 2010. (ds, tx) Maiti and Saha 2009: 139.
- Page 609 ***petioli*** (Browne). Add:
(an) Jordal et al. 2002.
- Page 609 ***rhizophorae*** (Hopkins). Add:
FIGURES: Wood 2007: PLATE 76.

- DISTRIBUTION: SOUTH AMERICA: **Ecuador** [see Appendix].
(**hb**, **tx**) Wood 2007: 359.
- Page 610 **robustus** Eichhoff. Add:
HOST: *Prestoea montana* log.
(**ds**) Bright and Torres 2006: 412.
- Page 611 **rutschuruensis** Eggers. Add:
(**hb**, **tx**) Wood 2007: 361.
- Page 611 **salakensis** (Schedl). Add:
FIGURE: Maiti and Saha 2009: 143 (habitus).
(**ds**, **tx**) Maiti and Saha 2009: 143.
- Page 611 **sannio** (Schaufuss). Add:
(**ds**) Mandelshtam and Danielsson 2004: 90.
- Page 597 **sierraleonensis** (Eggers). Reinstate as a valid name, not a synonym of **C. confusus** Eggers.
Add *C. confusus* (Eggers) as a synonym. Add:
(**ds**) Beaver and Liu 2010: 37; Mandelshtam and Danielsson 2004: 91. (**tx**) Mandelshtam and Danielsson 2004: 91.
- Page 613 **surinamensis** Schedl. Add:
(**tx**) Wood 2007: 361.
NOTE: Possible synonym of **C. rutschuruensis** Eggers.
- Page 613 **tahitensis** Beeson. Add:
(**ds**) Beaver and Liu 2010: 37.
- Page 614 **variabilis** (Beeson). Add:
(**an**) Jordal et al. 2002. (**ds**) Beaver and Liu 2010: 37. (**ds**, **tx**) Maiti and Saha 2009: 147.
- Page 614 **vateriae** (Beeson). Add:
(**ds**, **tx**) Maiti and Saha 2009: 144.
- Page 614 **vulgaris** (Eggers). Add:
FIGURES: Lin and Wu 2010: 206 (habitus); Maiti and Saha 2009: 146 (habitus, antenna).
DISTRIBUTION: ASIA: Taiwan.
(**ds**) Beaver and Liu 2010: 123; Lin and Wu 2010. (**ds**, **tx**) Maiti and Saha 2009: 145.
- Genus **Cynanchophagus** Axentj'ev
- Page 1082 **Cynanchophagus** Axentj'ev. Add:
(**tx**) Alonso-Zarazaga and Lyal 2009: 53; Mandelshtam et al. 2006: 215.
- Page 1083 **cornutus** Axentj'ev. Add:
FIGURES: Mandelshtam et al. 2006: 216, 217 (habitus, antenna, aedeagus, sexual structures).
(**tx**) Mandelshtam et al. 2006: 215.
- Genus **Cyrtogenius** Strohmeyer
- Page 562 **Cyrtogenius** Strohmeyer. Add *Dendrographus* as a synonym. Add:
(**tx**) Alonso-Zarazaga and Lyal 2009: 53; Beaver 2011a: 279; Maiti and Saha 2009: 148.

- Page 563 ***africanus*** Wood. Add:
 (ds) Mandelshtam and Danielsson 2004: 90.
- Page 563 ***brevior*** (Eggers). Add:
 (ds, tx) Maiti and Saha 2009: 149.
- Page 565 ***formosanus*** (Schedl). Move to ***C. luteus*** (Blandford) as a synonym. Add:
 Synonymy by Beaver and Liu 2010: 13.
- Page 566 ***kumatoensis*** (Niisima). Add *Lymantor kabei* Murayama as a synonym. Add:
 (tx) Knízek 2011: 86.
- Page 566 ***longipennis*** Browne, remove from synonymy with *C. elongatissimus* Wood. Add *C. elongatissimus* Wood as a synonym. Add:
 (tx) Beaver 2011a: 280.
- Page 566 ***luteus*** (Blandford). Add *C. formosanus* (Schedl) as a synonym. Add:
 (ds, tx) Beaver and Liu 2010: 13.

Page 561 ***pygmaeus*** (Eggers). Move from *Dendrographus*.

ADD NEW NAMES:

borneanus Beaver 2011a: 289, new name for ***Cyrtogenius borneensis*** (Browne), not ***C. borneensis*** Schedl.

gracilior Beaver 2011a: 289, new name for ***Cyrtogenius gracilis*** (Browne), not ***C. gracilis*** Schedl.
 NOTE: Unneeded replacement name. Browne's name replaced by ***C. gracillimus*** Wood 1988.
 See 1992 Catalog, p. 565.

Genus ***Dactylotrypes*** Eggers

- Page 554 ***Dactylotrypes*** Eggers. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 54.
- Page 554 ***longicollis*** (Wollaston). Add:
 FIGURE: De Marzo 2009: 68 (spermatheca).
 DISTRIBUTION: EUROPE: Maltese Islands, Slovak Republic (introduced).
 (an) De Marzo 2006. (ds) Colonnelli 2003: 101; Haack 2001: 272; Mifsud and Colonnelli 2010; Noblecourt 2004: 34; Whitehead et al. 2000.

Genus ***Dendrocranulus*** Schedl

- Page 550 ***Dendrocranulus*** Schedl. Add:
 KEY: Wood 2007: 343 (to all species).
 (an) López-Buenfil et al. 2001: 343. (tx) Alonso-Zarazaga and Lyal 2009: 54; Rabaglia 2002: 802. (hb, tx) Wood 2007: 343.
- Page 550 ***acutus*** Wood. Add:
 FIGURES: Wood 2007: PLATE 70.
 (hb, tx) Wood 2007: 354.
- Page 550 ***barbatus*** Schedl. Add:
 (ds) Bright 2004: 158. (tx) Guadalupe del Rio, Lanteri and Suárez 2005: 4; Wood 2007: 351.

- Page 550 ***brasiliensis*** (Schedl). Add:
(**tx**) Wood 2007: 349.
- Page 550 ***carbonarius*** (Ferrari). Add:
DISTRIBUTION: NORTH AMERICA: Puerto Rico.
HOST: *Sechium edule* vine.
(**ds**) Bright and Torres 2006: 412.
- Page 550 ***columbianus*** Schedl. Add *D. limatus* Wood as a synonym. Add:
(**hb, tx**) Wood 2007: 349.
- Page 550 ***conditus*** Wood. Add:
(**tx**) Wood 2007: 350.
- Page 551 ***costalimai*** Schedl. Add *D. sechii* Nunberg as a synonym. Add:
FIGURES: Wood 2007: PLATE 71.
(**tx**) Wood 2007: 350.
- Page 551 ***cucurbitae*** (LeConte). Add:
FIGURE: López-Buenfil et al. 2001: 365 (proventriculus).
DISTRIBUTION: NORTH AMERICA: United States (Oregon).
(**ds**) Westcott et al. 2006: 26.
- Page 552 ***limatus*** Wood. Move to ***D. columbianus*** Schedl as a synonym. Add:
Synonymy by Wood 2007: 349.
- Page 552 ***limbellus*** Wood. Add:
(**hb, tx**) Wood 2007: 353
- Page 552 ***limitaris*** Wood. Add:
FIGURES: Wood 2007: PLATE 72.
(**hb, tx**) Wood 2007: 352.
- Page 552 ***major*** Schedl. Add:
(**tx**) Wood 2007: 352.
- Page 584 ***melaenus*** (Eichhoff). Move from ***Dryocoetes***. Add:
New combination by Wood 2007: 353.
(**tx**) Wood 2007: 353.
- Page 553 ***modus*** Wood. Add:
(**hb, tx**) Wood 2007: 350.
- Page 553 ***pinguis*** Wood. Add:
FIGURES: Wood 2007: PLATE 72.
(**hb, tx**) Wood 2007: 351.
- Page 553 ***reditus*** Wood. Add:
FIGURES: Wood 2007: PLATE 73.
(**hb, tx**) Wood 2007: 351.
- Page 553 ***sechii*** Nunberg. Move to ***D. costalimai*** Schedl as a synonym. Add:
Synonymy by Wood 2007: 350.

Page 553 ***tayuyaensis*** Schedl. Add:
(**ds**) Bright 2004: 158. (**tx**) Guadalupe del Rio, Lanteri and Suárez 2005: 8; Wood 2007: 354.

Page 554 ***vinealis*** Wood. Add:
DISTRIBUTION: NORTH AMERICA: Mexico (Tabasco).
(**ds**) Pérez-De La Cruz et al. 2009: 604.

Genus ***Dolurgocleptes*** Schedl

Page 540 ***Dolurgocleptes*** Schedl. Move to tribe Polygraphini.
(**tx**) Jordal 2009.

Genus ***Dendrographus*** Schedl

Page 561 ***Dendrographus*** Schedl. Move to ***Cyrtogenius*** as a synonym. Add:
Synonymy by Beaver 2011a: 279.
(**tx**) Alonso-Zarazaga and Lyal 2009: 54.

Genus ***Dryocoetes*** Eichhoff

Page 569 ***Dryocoetes*** Eichhoff. Add:
KEY: Furniss and Johnson 2002: 61 (to species in Idaho, USA).
(**an**) López-Buenfil et al. 2001: 344. (**tx**) Alonso-Zarazaga and Lyal 2009: 54; de Laclos et al. 2004: 161; Rabaglia 2002: 802. (**ds, tx**) Maiti and Saha 2009: 150. (**hb, tx**) Wood 2007: 355.

Page 570 ***affaber*** (Mannerheim). Add:
DISTRIBUTION: NORTH AMERICA: Canada (Prince Edward Island), United States (Maryland).
(**an**) Jordal et al. 2002. (**ds**) Furniss, Holsten and Schultz 2002: 88; Majka, Anderson and McCorquodale 2007: 420; Rabaglia 2003: 365. (**ds, tx**) Furniss and Johnson 2002: 61.

Page 571 ***alni*** (Georg). Add:
FIGURE: de Laclos et al. 2004: 164 (habitus).
DISTRIBUTION: ASIA: Russia (Altai, Daghestan, Yaroslavi).
(**ds**) Colonnelli 2003: 101; Demidko 2007: 35; Mandelshtam and Popovichev 2000: 895; Petrov 2005: 220; Petrov and Nikitskii 2001: 172; Voolma et al. 2004. (**hb**) Petrov and Nikitskii 2001: 172. (**tx**) Vlasov 2005: 770. (**ds, hb**) de Laclos et al. 2004: 164.

Page 572 ***autographus*** (Ratzeburg). Add:
FIGURES: de Laclos et al. 2004: 162 (frons); López-Buenfil et al. 2001: 365 (proventriculus).
DISTRIBUTION: ASIA: Russia (Altai, Daghestan, Yaroslavi). EUROPE: United Kingdom (Surrey). NORTH AMERICA: Canada (Prince Edward Island), United States (Ohio). SOUTH AMERICA: Brazil (introduced).
(**an**) Jordal et al. 2002. (**ds**) Allen and Owen 2000; Beaver and Liu 2010: 13; Colonnelli 2003: 101; Demidko 2007: 35; Furniss, Holsten and Schultz 2002: 88; Gandhi et al. 2010; Haack 2001: 272, 275; Lightle et al. 2007; Majka, Anderson and McCorquodale 2007: 420; Mandelshtam and Popovichev 2000: 895; Nash 2003; Petrov 2005: 220; Petrov and Nikitskii 2001: 172; Podlussány and György 2008: 198; Rabaglia 2003: 376; Rabaglia and Valenti 2003: 315; Voolma et al. 2004. (**hb**) Petrov and Nikitskii 2001: 172. (**tx**) Vlasov 2005: 770. (**hb, tx**) Wood 2007: 355. (**ds, hb**) de Laclos et al. 2004: 158. (**ds, hb, tx**) Furniss and Johnson 2002: 61.

- Page 579 ***baikalicus*** (Reitter). Add:
DISTRIBUTION: ASIA: Russia (Yakutia).
(ds) Averensky and Yanovsky 2008: 28; Voolma et al. 2004.
- Page 579 ***betulae*** Hopkins. Add:
DISTRIBUTION: NORTH AMERICA: United States (Alabama).
(ds) Schiefer 2010: 112. (hb) Furniss and Kegley 2006. (ds, hb, tx) Furniss and Johnson 2002: 62.
- Page 580 ***carpini*** "Eggers". Move to ***Taphrorychus***. Note change of author.
- Page 580 ***caryi*** Hopkins. Add:
DISTRIBUTION: NORTH AMERICA: United States (Colorado).
(ds) Furniss, Holsten and Schultz 2002: 88; Schiefer 2010: 112.
NOTE: *Dryocoetes schelti* Swaine is almost certainly a synonym of this species.
- Page 580 ***confusus*** Swaine. Add:
(bv, hb, tx) Furniss and Johnson 2002: 63.
- Page 729 ***cornivorus*** (Murayama). Move from ***Xyleborus***. Add:
New combination by Knízek 2011: 86.
- Page 582 ***formosanus*** Nobuchi. Move to ***D. hectographus*** Reitter as a synonym. Add:
Synonymy by Beaver and Liu 2010: 14.
- Page 582 ***granicollis*** (LeConte). Add:
DISTRIBUTION: NORTH AMERICA: United States (Delaware, Maryland, Michigan, Mississippi, Tennessee).
(ds) Cognato et al. 2009: 114; Grant et al. 2003; Majka et al. 2007: 389 remove from Canada: New Brunswick?); Rabaglia 2003: 376; Rabaglia and Valenti 2003: 315; Schiefer 2010: 112.
- Page 582 ***hectographus*** Reitter. Add *Ozopemon ater* Eggers and *D. formosanus* Nobuchi as synonyms.
Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.), Russia (Altai, Yakutia, Yaroslavi).
(ds) Averensky and Yanovsky 2008: 28; Colonnelli 2003: 101; Demidko 2007: 36; Huang and Yin 1992: 861; Mandelshtam and Petrov 2009a: 207; Mandelshtam and Popovichev 2000: 895; Mandelshtam, Lafer and Kuznetsov 2001; Petrov and Nikitskii 2001: 172; Schott 2001c; Voolma et al. 2004. (hb) Petrov and Nikitskii 2001: 172. (tx) Beaver and Liu 2010: 14; Vlasov 2005: 770.
- Page 583 ***himalayensis*** Strohmeyer. Add:
DISTRIBUTION: EUROPE: France, Switzerland (introduced and established).
(ds) Kirkendall and Faccoli 2010: 232. (ds, tx) Maiti and Saha 2009: 151.
- Page 583 ***indicus*** Strohmeyer. Add:
(ds, tx) Maiti and Saha 2009: 152.
- Page 583 ***italus*** Eggers. Add:
(ds) Colonnelli 2003: 101.
- Page 584 ***melaenus*** Eichhoff. Move to ***Dendroceranulus***.
- Page 584 ***padi*** Stark. Add:
(ds) Mandelshtam and Petrov 2009a: 208.

- Page 584 *picipennis* Eggers. Move to ***Taphrorychus***.
- Page 584 *pusillus* Eggers. Move to ***Taphrorychus ramicola*** (Reitter) as a synonym. Add:
Synonymy by Mandelshtam, Nikitsky and Bibin 2005a: 26.
- Page 585 *ramicola* Reitter. Move to ***Taphrorychus***.
- Page 585 *schelti* Swaine. Add:
(**ds**, **hb**, **tx**) Furniss and Johnson 2002: 63.
NOTE: This species is almost certainly a synonym of *D. caryi* Hopkins.
- Page 585 *striatus* Eggers. Add:
(**ds**) Brockerhoff, Knízek and Bain 2003: 37; Mandelshtam and Petrov 2009a: 208;
Mandelshtam, Lafer and Kuznetsov 2001.
- Page 586 *villosus* (Fabricius). Add:
FIGURE: de Laclos et al. 2004: 161 (pronotum), 163 (habitus).
DISTRIBUTION: ASIA: Russia (Daghestan).
HOST: *Fagus orientalis*.
(**ds**) Faccoli 2002: 100; Haack 2001: 272; Mandelshtam, Nikitsky and Bibin 2005a: 27. (**ds**,
hb) de Laclos et al. 2004: 163.
- Page 586 *villosus minor* Eggers. Add:
(**ds**) Colonnelli 2003: 101.

ADD SPECIES:

browni Mandelshtam and Petrov 2010b: 180. Holotype (male), INDIA: Kashmir, Gulmarg; NHML.
FIGURE: Mandelshtam and Petrov 2010b: 182 (habitus).
DISTRIBUTION: ASIA: Afghanistan.
(**ds**) Mandelshtam and Petrov 2010b: 180.

Genus ***Dryocoetiops*** Schedl

- Page 587 ***Dryocoetiops*** Schedl. Add:
(**tx**) Alonso-Zarazaga and Lyal 2009: 55; Maiti and Saha 2009: 152.
- Page 587 *coffeae* (Eggers). Add:
FIGURES: Lin and Wu 2010: 207 (habitus); Maiti and Saha 2009: 153 (habitus, antenna,
tibia).
(**an**) Jordan et al. 2002. (**ds**) Beaver and Liu 2010: 14; Lin and Wu 2010. (**ds, tx**) Maiti and
Saha 2009: 153.
- Page 559 ***dinodereroides*** Blandford. Move from ***Taphrorychus***. add:
New combination by Knízek 2011: 86.
- Page 588 ***kepongi*** (Schedl). Add *Taphrorychus taradakensis* (Murayama) as a synonym. Add:
FIGURE: Lin and Wu 2010: 207 (habitus).
DISTRIBUTION: ASIA: Taiwan.
(**ds**) Beaver and Liu 2010: 14; Lin and Wu 2010. (**tx**) Beaver 2011a: 280.
- Page 560 ***moestus*** (Blandford). Move from ***Taphrorychus***. Add:
New combination by Knízek 2011: 86.

Genus ***Dryomites** Bright and Poinar

Page 133 ***Dryomites** Bright and Poinar. Add:
(Suppl. 1) (tx) Alonso-Zarazaga and Lyal 2009: 55.

Genus **Dryoxylon** Bright and Rabaglia

Page 95 **Dryoxylon** Bright and Rabaglia. Add:
(Suppl. 2) (tx) Alonso-Zarazaga and Lyal 2009: 100; Rabaglia 2002: 802.

Page 95 **onoharaensis** (Murayama). Add:
(Suppl. 2) DISTRIBUTION: NORTH AMERICA: United States (Alabama, Ohio, South Carolina, **Virginia** [see Appendix]).
 (tx) Alonso-Zarazaga and Lyal 2009: 100. (ds) Coyle, Booth and Wallace 2005; Lightle et al. 2007; Oliver and Mannion 2001; Schiefer 2010: 112. (hb) Oliver and Mannion 2001.
 NOTE: Placed in Xyleborini by Alonso-Zarazaga and Lyal 2009: 100. Returned here to Dryocoetini.

Genus **Lymantor** L vendal

Page 554 **Lymantor** L vendal. Add:
KEY: de Laclos et al. 2004: 165 (to species in France).
(tx) Alonso-Zarazaga and Lyal 2009: 55; de Laclos et al. 2004: 165; Rabaglia 2002: 802.

Page 554 **aceris** (Lindemann). Add:
DISTRIBUTION: ASIA: Russia (Daghestan).
(ds) Mandelshtam, Nikitsky and Bibin 2005a: 26; Petrov 2005: 220. (tx) de Laclos et al. 2004: 165 (in key).

Page 555 **alaskanus** Wood. Add:
(ds) Furniss, Holsten and Schultz 2002: 89.

Page 555 **coryli** (Perris). Add:
FIGURE: de Laclos et al. 2004: 165 (habitus).
DISTRIBUTION: ASIA: Russia (Daghestan, Yakutia, Yaroslavi).
HOST: Kiwi fruit.
(ds) Ak, Guclu and Tuncer 2010; Averensky and Yanovsky 2008: 28; Heal 2003b; Mandelshtam and Popovichev 2000: 894; Mandelshtam, Nikitsky and Bibin 2005a: 26; Petrov 2005: 220; Petrov and Nikitskii 2001: 172; Voolma et al. 2004. (hb) Ak, Guclu and Tuncer 2010; Ak, Uysai and Tuncer 2005; Petrov and Nikitskii 2001: 172. (tx) Ak, Guclu and Tuncer 2010; Vlasov 2005: 769. (ds, hb) de Laclos et al. 2004: 166.
NOTE: Treated in *Triotemnus* in Heal 2003b.

Page 556 **decipiens** (LeConte). Add:
DISTRIBUTION: NORTH AMERICA: Canada (Nova Scotia), United States (Delaware, Maryland).
(ds) Rabaglia 2003: 375; Rabaglia and Valenti 2003: 315.

Page 556 *kabei* Murayama. Move to **Cyrtogenius kumamotoensis** Niisima as a synonym. Add:
Synonymy by Knížek 2011: 86.

Page 556 **sepicola** L vendal (= **L. coryli** (Perris)). Add:
Lectotype, Denmark (Falster, Benzons Klaekkehus); designated by Hansen 2001: 110.
(tx) Hansen 2001: 110.

Genus ***Ozopemon*** Hagedorn

- Page 588 ***Ozopemon*** Hagedorn. Add:
 (an) Jordal, Normark and Farrell 2000; Jordal et al. 2002. (tx) Alonso-Zarazaga and Lyal 2009: 55; Maiti and Saha 2009: 155.
- Page 589 ***ater*** Eggers. Move to ***Dryocoetes hectographus*** Reitter as a synonym. Add:
 Synonymy by Beaver and Liu 2010: 14.
- Page 589 ***brownei*** Schedl. Add:
 (an) Beaver and Jordal 2002; Jordal et al. 2002.
- Page 589 ***major*** Strohmeyer. Move to ***Fortibus posticepilosus*** (Schedl) as a synonym. Add:
 Synonymy by Beaver 2011a: 285.
- Page 589 ***obanus*** Hagedorn. Add:
 FIGURES: Maiti and Saha 2009: 156 (habitus, antenna, tibia).
 (ds, tx) Maiti and Saha 2009: 155.
- Page 590 ***tuberculatus*** Strohmeyer. Move to ***Ambrosiodmus lewisi*** (Blandford) as a synonym. Add;
 Synonymy by Beaver and Liu 2010: 20.
- Page 590 ***uniseriatus*** Eggers. Add:
 FIGURES: Beaver and Jordal 2002: 8 (male head and thorax), 9 (male and female habitus).
 (an) Beaver and Jordal 2002; Jordal et al. 2002.

Genus ***Peridryocoetes*** Wood

- Page 561 ***Peridryocoetes*** Wood. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 56.

Genus ***Pseudothamnurgus*** Eggers

- Page 539 ***Pseudothamnurgus*** Eggers. Remove from synonymy with ***Tiarophorus*** Schreiner. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 56; Knízek 2011: 232.
- Page 540 ***mediterraneus*** (Eggers). Move from ***Tiarophorus***.
 (ds) Colonnelli 2003: 102. (tx) Knízek 2011: 232.
- Page 540 ***nitidicollis*** (Reitter). Move from ***Tiarophorus***.
 (tx) Knízek 2011: 232.
- Page 540 ***normandi*** (Eggers). Move from ***Tiarophorus***.
 (tx) Knízek 2011: 232.
- Page 545 ***orientalis*** (Schedl). Move from ***Thamnurgus***.
 New combination by Mandelshtam, Petrov and Korotyaev 2011.
- Page 540 ***scrutator*** (Pandellé). Move from ***Tiarophorus***.
 (tx) Knízek 2011: 232.

Genus ****Taphramites*** Schedl

Page 1082 ***Taphramites** Schedl. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 56; Petrov and Perkovsky 2008: 407.

ADD SPECIES:

***rovnoensis** Petrov and Perkovsky 2008: 407. Holotype (sex ?), Rovno amber (no exact locality); SIZK.

Genus **Taphronurgus** Reitter

Page 546 **Taphronurgus** Reitter. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 56.

Page 546 **exul** (Reitter). Add:

FIGURE: Mandelshtam, Petrov and Korotyaev 2011: 598 (aedeagus).

Genus **Taphrorychus** Eichhoff

Page 556 **Taphrorychus** Eichhoff. Add:

KEY: de Laclos et al. 2004: 169 (to species in France).

(tx) Alonso-Zarazaga and Lyal 2009: 57; de Laclos et al. 2004: 169; Maiti and Saha 2009: 158.

Page 557 **alni** Pfeffer. Add:

(ds) Noblecourt 2004: 34.

Page 557 **bicolor** (Herbst). Add:

FIGURE: de Laclos et al. 2004: 170 (gallery pattern).

DISTRIBUTION: EUROPE: France (Corsica), Norway.

HOST: *Alnus glutinosa*.

(ds) Colonnelli 2003: 102; de Laclos 2004: 167; Haack 2001: 274; Henin, Huart and Rondeux 2003; Inglebert 2002: 126; Ødegaard and Ligaard 2000: 15; Podlussány and György 2008: 199; Schumacher and Pohris 2000. (ds, hb) de Laclos et al. 2004: 170.

Page 580 **carpini** (Kurenzov). Move from **Dryocoetes**. Add:

New combination by Mandelshtam 2002: 9.

(ds) Mandelshtam and Petrov 2009a: 209.

NOTE: Author of this species is Kurenzov, not Eggers (Mandelshtam 2002).

Page 559 **dinoderoides** (Blandford). Move to **Dryocoetiops**.

Page 559 **hewetti** (Stebbing). Add:

(ds, tx) Maiti and Saha 2009: 158.

Page 559 **hirtellus** Eichhoff. Add:

DISTRIBUTION: EUROPE: Czech Republic.

(ds) Knízek 2009b; Podlussány and György 2008: 199.

Page 559 **lenkoranus** (Reitter). Add:

DISTRIBUTION: ASIA: Russia (Daghestan).

(ds) Petrov 2005: 221.

Page 560 **minor** Eggers. Add:

(ds) Colonnelli 2003: 102.

NOTE: Treated in genus *Taphrocoetes* in Colonnelli (2003).

- Page 560 ***moestus*** (Blandford). Move to ***Dryocoetiops***.
- Page 584 ***picipennis*** (Eggers). Move from ***Dryocoetes***. Add:
New combination by Mandelshtam 2002: 9.
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Huang and Yin 1992: 861.
- Page 585 ***ramicola*** (Reitter). Move from ***Dryocoetes***: Add *Dryocoetes pusillus* as a synonym. Add:
New combination by Mandelshtam, Nikitsky and Bibin 2005a: 26.
- Page 560 ***taradakensis*** (Murayama). Move to ***Dryocoetiops kepongi*** (Schedl) as a synonym. Add:
Synonymy by Beaver 2011a: 280.
- Page 558 ***siculus*** Eggers. Add:
(ds) Colonnelli 2003: 102.
- Page 560 ***villifrons*** (Dufour). Add:
FIGURE: de Laclos et al. 2004: 171 (frons).
DISTRIBUTION: ASIA: Russia (Daghestan, Leningrad).
(ds) Colonnelli 2003: 102; Gebhardt 2003; Haack 2001: 274; Heal 2006; Mandelshtam and Popovichev 2000: 894; Mandelshtam, Nikitsky and Bibin 2005a: 27; Petrov 2005: 221; Petrov and Nikitskii 2001: 173; Podlussány and György 2008: 199. (hb) Petrov and Nikitskii 2001: 173. (ds, hb) de Laclos et al. 2004: 171.

Genus ***Thamnurgus*** Eichhoff

- Page 541 ***Thamnurgus*** Eichhoff. Add:
KEY: Mandelshtam, Petrov and Korotyaev 2011: 601 (to subgenera), 602 (to Palaearctic species in ***Thamnurgus*** s. str.).
(hb) de Laclos et al. 2004: 158. (tx) Alonso-Zarazaga and Lyal 2009: 57; Mandelshtam, Petrov and Korotyaev 2011
- Page 542 ***armeniacus*** Reitter. Add:
Lectotype (male), Caucasus, Araxesthal, designated by Mandelshtam, Petrov and Korotyaev 2011: 614.
FIGURES: Mandelshtam, Petrov and Korotyaev 2011: 596 (habitus), 600 (aedeagus).
(ds, tx) Mandelshtam, Petrov and Korotyaev 2011: 614.
NOTE: In subgenus ***Parathamnurgus***.
- Page 542 ***brylinskyi*** Reitter. Add:
Lectotype (sex?), Caucasus, Araxesthal, designated by Mandelshtam, Petrov and Korotyaev 2011: 613.
FIGURE: Mandelshtam, Petrov and Korotyaev 2011: 600 (aedeagus).
(ds, tx) Mandelshtam, Petrov and Korotyaev 2011: 613.
NOTE: In subgenus ***Parathamnurgus***.
- Page 542 ***caucasicus*** Reitter. Add:
FIGURES: Mandelshtam, Petrov and Korotyaev 2011: 597 (habitus), 598 (declivity), 600 (aedeagus).
DISTRIBUTION: ASIA: Russia (Daghestan).
HOSTS: *Carduus* sp., *Euphorbia* sp.
(ds) Petrov 2005: 221. (ds, tx) Mandelshtam, Petrov and Korotyaev 2011: 611.
NOTE: In subgenus ***Parathamnurgus***.

- Page 542 ***characiae*** Rosenhauer. Add:
Lectotype (sex?), Hispania, designated by Mandelshtam, Petrov and Korotyaev 2011: 604.
FIGURES: Mifsud and Knízek 2009: 49 (habitus); Mandelshtam, Petrov and Korotyaev 2011: 598 (aedeagus).
DISTRIBUTION: EUROPE: Malta.
(ds) Colonnelli 2003: 102; Mifsud and Knízek 2009: 39. (ds, tx) Mandelshtam, Petrov and Korotyaev 2011: 604.
- Page 544 ***declivis*** Reitter (= ***T. kaltenbachii*** (Bach)). Add:
Lectotype (sex?), Morav[ia], designated by Mandelshtam, Petrov and Korotyaev 2011: 616.
- Page 542 ***delphinii*** (Rosenhauer). Add:
Lectotype (sex?), Hispinia, designated by Mandelshtam, Petrov and Korotyaev 2011: 605.
FIGURES: Mandelshtam, Petrov and Korotyaev 2011: 597 (habitus), 599 (aedeagus).
(ds) Colonnelli 2003: 102. (ds, tx) Mandelshtam, Petrov and Korotyaev 2011: 605.
NOTE: In subgenus ***Macrothamnurgus***.
- Page 543 ***euphorbiae*** (Küster). Add:
FIGURE: Mandelshtam, Petrov and Korotyaev 2011: 598 (aedeagus).
(bv) Cristofaro et al. 2000. (ds) Colonnelli 2003: 102. (ds, hb) Campobasso et al. 2004a,b.
(ds, tx) Mandelshtam, Petrov and Korotyaev 2011: 602.
- Page 544 ***jemeniae*** Schedl. Move to ***Xylocleptes***.
- Page 544 ***kaltenbachi*** (Bach). Add:
FIGURE: Mandelshtam, Petrov and Korotyaev 2011: 600 (aedeagus).
(ds) Colonnelli 2003: 102. (ds, hb) de Laclos et al. 2004: 160. (ds, tx) Mandelshtam, Petrov and Korotyaev 2011: 616.
NOTE: In subgenus ***Parathamnurgus***.
- Page 545 ***orientalis*** Schedl. Move to ***Pseudothamnurgus***.
- Page 545 ***pegani*** Eggers. Add:
Lectotype (male?), designated by Mandelshtam, Petrov and Korotyaev 2011: 614.
FIGURE: Güclü and Özbek 2007 (habitus); Mandelshtam, Petrov and Korotyaev 2011: 600 (aedeagus).
DISTRIBUTION: EUROPE: Turkey.
HOST: *Peganum harmala*.
(ds, hb) Güclü and Özbek 2007. (ds, tx) Mandelshtam, Petrov and Korotyaev 2011: 614.
NOTE: In subgenus ***Parathamnurgus***.
- Page 545 ***petzi*** Reitter. Add:
Lectotype (sex?), Gr. Dirn., Austr. sup. Mont. Petx., designated by Mandelshtam, Petrov and Korotyaev 2011: 607.
FIGURE: Mandelshtam, Petrov and Korotyaev 2011: 599 (aedeagus).
(ds, tx) Mandelshtam, Petrov and Korotyaev 2011: 607.
NOTE: In subgenus ***Macrothamnurgus***.
- rossicus*** Alexeev. Add:
FIGURES: Mandelshtam, Petrov and Korotyaev 2011: 597 (habitus), 599 (aedeagus).
(ds) Mandelshtam 2001. (ds, tx) Mandelshtam, Petrov and Korotyaev 2011: 608.
NOTE: Omitted in 1992 Catalog. In subgenus ***Macrothamnurgus***.

- Page 545 ***semirufus*** Reitter. Move to ***Thamnurgus (Macrothamnurgus) delphinii*** (Rosenhauer) as a variety. Add:
 DISTRIBUTION: ASIA: Russia (Daghestan).
 (ds) Petrov 2005: 221. (ds, tx) Mandelshtam, Petrov and Korotyaev 2011: 606.
- Page 546 ***ugandensis*** Nunberg (= ***T. senecionis*** Schedl). Add:
 FIGURE: Mandelshtam, Petrov and Korotyaev 2011: 599 (aedeagus).
- Page 546 ***varipes*** Eichhoff. Add:
 FIGURE: de Laclos et al. 2004: 158 (habitus); Mandelshtam, Petrov and Korotyaev 2011: 598 (aedeagus).
 (ds) Colonnelli 2003: 102. (ds) Markovic 2000; Schott 2001a. (ds, hb) de Laclos et al. 2004: 159. (ds, tx) Mandelshtam, Petrov and Korotyaev 2011: 603.

ADD SUBGENUS

Macrothamnurgus Mandelshtam, Petrov and Korotyaev 2011: 604. Type species: ***Thamnurgus delphinii*** Rosenhauer, original designation. Add:
 KEY: Mandelshtam, Petrov and Korotyaev 2011: 605 (to Palaearctic species).

Parathamnurgus Mandelshtam, Petrov and Korotyaev 2011: 609. Type species: ***Thamnurgus caucasicus*** Reitter, original designation. Add:
 KEY: Mandelshtam, Petrov and Korotyaev 2011: 609 (to Palaearctic species).

Genus ***Tiarophorus*** Schreiner

- Page 539 ***Tiarophorus*** Schreiner. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 57.

Genus ***Toxophthorus** Wood

- Page 1082 ***Toxophthorus** Wood. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 57.

Genus ***Triotemnus*** Wollaston

- Page 540 ***Triotemnus*** Wollaston. Add:
 KEYS: Gatti and Pennacchio 2004: 107 (to species); Maiti and Saha 2009: 160 (to species in India).
 (tx) Alonso-Zarazaga and Lyal 2009: 58; Knízek 2010: 193; Maiti and Saha 2009: 159.

- Page 541 ***scrofa*** (Schedl). Add:
 (ds, tx) Maiti and Saha 2009: 160.

- Page 541 ***subretusus*** Wollaston. Add:
 (ds) Jordal 2006.

ADD SPECIES:

batelkai Knízek 2010: 197. Holotype (male), MOROCCO: Tizi-n-Tichka Pass, 2260-2350 m, 31°24'58" N, 7°23'34" W; NHMP.
 FIGURE: Knízek 2010: 195 (habitus).
 HOST: *Bupleurum spinosum* (Apiaceae).

kabateki Knízek 2010: 201. Holotype (male), YEMEN: Soqotra Is., Lahas, 69 m, N12°13'46", E54°05'26"; NHMP.

FIGURE: Knízek 2010: 195 (habitus).

HOST: *Euphorbia arbuscula* (Euphorbiaceae).

pseudolepineyi Knízek 2010: 194. Holotype (male), MOROCCO: High Atlas, Toubkai massif, 31°5'35" N, 7°54'22" W; NHMP.

FIGURE: Knízek 2010: 195 (habitus).

HOST: *Bupleurum spinosum* (Apiaceae).

socotraensis Knízek 2010: 199. Holotype (male), YEMEN: Soqotra Is., 10 km W Hadiboh, 12°39'N, 53°57'E; NHMP.

FIGURES: Knízek 2010: 195, 196 (habitus).

HOST: *Euphorbia arbuscula* (Euphorbiaceae), *Acacia pennivenia* (Fabaceae).

ulianai Gatti and Pennacchio 2004: 104. Holotype (male), ITALY: Rosara di Codevigo (Padova, Italia); ISZA, Firenze.

FIGURES: Gatti and Pennacchio 2004: 104 (habitus), 105 (frons of both sexes), 106 (antenna, elytral declivity).

HOST: *Platanus hybrida*.

yemenensis Knízek 2010: 203. Holotype (male), SW YEMEN: Wadi Zabid E, N14°09', E43°31'; NHMP.

FIGURE: Knízek 2010: 195 (habitus).

HOST: *Euphorbia* sp. (Euphorbiaceae).

Genus ***Xylocleptes*** Ferrari

Page 547 ***Xylocleptes*** Ferrari. Add:

(tx) de Laclos et al. 2004: 167; Maiti and Saha 2009: 160.

Page 547 ***bispinus*** (Duftschmid). Add:

FIGURE: de Laclos et al. 2004: 168 (habitus); Mandelshtam, Petrov and Korotyaev 2011: 600 (aedeagus).

DISTRIBUTION: ASIA: Russia (Daghestan).

HOST: *Clematis orientalis*.

(ds) Colonnelli 2003: 101; Mandelshtam, Nikitsky and Bibin 2005a: 26; Petrov 2005: 221; Podlussány and György 2008: 200; (ds, hb) de Laclos et al. 2004: 168.

Page 549 ***biuncus*** Reitter. Add:

(ds) Colonnelli 2003: 101; Noblecourt 2004: 34.

Page 549 ***indicus*** (Schedl). Add:

(ds, tx) Maiti and Saha 2009: 161.

Page 544 ***jemeniae*** (Schedl). Move from ***Thamnurgus***.

New combination by Mandelshtam, Petrov and Korotyaev 2011.

Page 549 ***meruensis*** Nunberg (= ***X. murginatus*** (Hagedorn)). Add:

(ds) Mandelshtam and Danielsson 2004: 90.

TRIBE XYLOTERINI

Page 632 ***Xyloterini*** LeConte. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 106.

Genus ***Indocryphalus*** Eggers

Page 648 ***Indocryphalus*** Eggers. Add:
 (ds, tx) Maiti and Saha 2009: 167. (tx) Alonso-Zarazaga and Lyal 2009: 106.

Page 648 ***intermedius*** (Sampson). Add:
 FIGURES: Maiti and Saha 2009: 168 (habitus, antenna, tibia).
 DISTRIBUTION: ASIA: China (Hengduan Mtns.).
 (ds) Huang and Yin 1992: 862. (ds, tx) Maiti and Saha 2009: 167.

Page 648 ***pubipennis*** (Blandford). Add:
 FIGURE: Lin and Wu 2010: 208 (habitus).
 (ds) Beaver and Liu 2010: 35; Lin and Wu 2010.

Genus ***Trypodendron*** Stephens

Page 632 ***Trypodendron*** Stephens. Add:
 KEY: Furniss and Johnson 2002: 101 (to species in Idaho, USA).
 (tx) Alonso-Zarazaga and Lyal 2009: 107; Rabaglia 2002: 803.

Page 632 ***Xyloterus*** Erichson (= ***Trypodendron***). Add:
 (tx) de Laclos et al. 2004: 209.

Page 632 ***betulae*** Swaine. Add:
 DISTRIBUTION: NORTH AMERICA: United States (Alaska, Maryland, Michigan).
 (ds) Cognato et al. 2009: 115; Furniss, Holsten and Schultz 2002: 90; Rabaglia 2003: 376.
 (ds, hb, tx) Furniss and Johnson 2002: 103.

Page 633 ***domesticum*** (Linnaeus). Add:
 FIGURE: de Laclos et al. 2004: 210 (gallery pattern).
 DISTRIBUTION: ASIA: Russia (Daghestan, Yaroslavi).
 (ds) Bocquillon 2001; Colonnelli 2003: 103; Faccoli 2002: 100; Haack 2001: 274; Haack 2003;
 Haack 2006: 272; Henin, Huart and Rondeux 2003; Mandelshtam and Popovichev 2000:
 895; Mandelshtam, Nikitsky and Bibin 2005a: 28; Petrov 2005: 221; Petrov and Nikitskii
 2001: 174; Voolma et al. 2004. (hb) Petercord 2006; Petrov and Nikitskii 2001: 174. (tx)
 Vlasov 2005: 771. (ds, hb) de Laclos et al. 2004: 210.

Page 635 ***laeve*** Eggers. Add:
 DISTRIBUTION: ASIA: Russia (Leningrad, Yaroslavi).
 (ds) Mandelshtam and Popovichev 2000: 895; Petrov and Nikitskii 2001: 175; Voolma et al.
 2004. (hb) Petrov and Nikitskii 2001: 175. (tx) Vlasov 2005: 771.

Page 638 ***lineatum*** (Olivier). Add:
 FIGURE: de Laclos et al. 2004: 211 (habitus).
 DISTRIBUTION: ASIA: China (Qinghai), Russia (Altai, Daghestan, Yakutia, Yaroslavi).
 NORTH AMERICA: United States (Maryland).
 HOST: *Pinus kochiana*.
 (ds) Averensky and Yanovsky 2008: 28; Colonnelli 2003: 103; Demidko 2007: 36; Fernández
 1999: 31; Furniss and Johnson 2002: 103; Furniss, Holsten and Schultz 2002: 90; Han et
 al. 2010; Mandelshtam and Popovichev 2000: 896; Mandelshtam, Lafer and Kuznetsov
 2001; Mandelshtam, Nikitsky and Bibin 2005a: 28; Petrov 2005: 221; Petrov and Nikitskii
 2001: 174; Rabaglia 2003: 376; Voolma et al. 2004. (ec) Fernández 1999: 31; Kapapanida-
 Kantartzzi et al. 2010. (hb) Fernández 1999: 31; Furniss and Johnson 2002: 103; Petrov and

Nikitskii 2001: 174. (**tx**) Furniss and Johnson 2002: 103; Vlasov 2005: 771. (**ds, hb**) de Laclos et al. 2004: 211. (**cn, ds, hb**) Daterman and Overhulser 2002.

- Page 643 *granulatus* Eggers (= *T. lineatum* (Olivier)). Add:
 DISTRIBUTION: ASIA: Russia (Yakutia).
 (**ds**) Averensky and Yanovsky 2008: 28.
- Page 644 *niponicum* Blandford. Add:
 (**ds**) Beaver and Liu 2010: 37 (delete Taiwan); Mandelshtam and Petrov 2009a: 209.
- Page 644 *proximum* (Niisima). Add:
 DISTRIBUTION: ASIA: China (Hengduan Mtns.).
 (**ds**) Huang and Yin 1992: 862; Mandelshtam and Petrov 2009a: 209. (**ec**) Martikainen 2000.
 (**ds, tx**) Mandelshtam and Popovichev 2000: 895
- Page 644 *retusum* (LeConte). Add:
 DISTRIBUTION: NORTH AMERICA: Canada (Nova Scotia); United States (Maryland).
 (**ds**) Furniss, Holsten and Schultz 2002: 90; Huang and Yin 1992: 862; Majka, Anderson and McCorquodale 2007: 420; Rabaglia 2003: 376. (**ds, hb, tx**) Furniss and Johnson 2002: 104.
- Page 645 *rufitarsus* (Kirby). Add:
 DISTRIBUTION: NORTH AMERICA: United States (Michigan).
 (**ds**) Cognato et al. 2009: 116; Furniss, Holsten and Schultz 2002: 90. (**ds, tx**) Furniss and Johnson 2002: 105.
- Page 645 *scabricollis* (LeConte). Add:
 DISTRIBUTION: NORTH AMERICA: United States (Maryland, Michigan, Tennessee).
 (**ds**) Cognato et al. 2009: 116; Rabaglia 2003: 376; Schiefer 2010: 113.
- Page 646 *signatum* (Fabricius). Add:
 FIGURE: de Laclos et al. 2004: 212 (gallery pattern).
 DISTRIBUTION: ASIA: China (Hengduan Mtns.), Russia (Altai, Daghestan, Yakutia, Yaroslavi).
 (**ds**) Averensky and Yanovsky 2008: 28; Colonnelli 2003: 103; Demidko 2007: 36; Haack 2001: 274; Henin, Huart and Rondeux 2003; Mandelshtam and Popovichev 2000: 896; Mandelshtam, Nikitsky and Bibin 2005a: 28; Petrov 2005: 221; Petrov and Nikitskii 2001: 174; Voolma et al. 2004. (**hb**) Petrov and Nikitskii 2001: 174. (**tx**) Vlasov 2005: 771. (**ds, hb**) de Laclos et al. 2004: 212.

Genus *Xyloterinus* Swaine

- Page 649 *Xyloterinus* Swaine. Add:
 (**tx**) Alonso-Zarazaga and Lyal 2009: 107; Rabaglia 2002: 803.
- Page 649 *politus* (Say). Add:
 DISTRIBUTION: NORTH AMERICA: Canada (Prince Edward Island, British Columbia [introduction]; United States (Delaware).
 (**ds**) Majka, Anderson and McCorquodale 2007: 420; Mudge et al. 2001; Rabaglia and Valenti 2003: 315. (**hb**) Oliver and Mannion 2001.

TRIBE PREMNOBIINI

ADD TRIBE:

Premnobiini Browne. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 94; Bright and Torres 2006: 412.

Genus **Premnobius** Eichhoff

Page 651 **Premnobius** Eichhoff. Add:

KEY: Wood 2007: 367 (to species in South America).

(an) López-Buenfil et al. 2001: 345. (hb) Wood 2007: 366. (tx) Alonso-Zarazaga and Lyal 2009: 95; Rabaglia 2002: 803; Rabaglia, Dole and Cognato 2006: 1042; Wood 2007: 366.

Page 651 **ambitosus** (Schaufuss).Add:

FIGURES: Wood 2007: PLATE 77.

(ds) Zanuncio et al. 2005: 513. (tx) Wood 2007: 368.

Page 651 **cavipennis** Eichhoff. Add:

FIGURES: López-Buenfil et al. 2001: 366 (proventriculus); Rabaglia, Dole and Cognato 2006: 1036 (antennal club); Wood 2007: PLATE 77.

DISTRIBUTION: NORTH AMERICA: Mexico (Tabasco). SOUTH AMERICA: **Trinidad** [see Appendix].

HOSTS: *Eucalyptus robusta* log, *Calophyllum calaba* log, *Terminalia catappa* log, *Manikara bidentata* log.

(ds) Bright and Torres 2006: 412; Rabaglia, Dole and Cognato 2006: 1042; Pérez-De La Cruz et al. 2009: 604; Zanuncio et al. 2005: 513. (ec) Morales et al. 2000. (hb) Abreu et al. 2001.

(tx) Wood 2007: 367.

Page 654 **orientalis** Eggers. Add:

DISTRIBUTION: AFRICA: Gabon.

(ds) Beaver 2005b: 116.

Page 655 **sexnotatus** (Schedl). Add:

FIGURES: Wood 2007: PLATE 78.

(tx) Wood 2007: 367.

TRIBE XYLEBORINI

Page 651 **Xyleborini** LeConte. Add:

KEYS: Atkinson, Rabaglia and Cognato 2010: 65 (to genera in North America north of Mexico); Faccoli 20008 (to genera and species in Europe); Faccoli et al. 2009: 59 (to genera in Europe); Maiti and Saha 2004: 32 (to genera in India); Rabaglia, Dole and Cognato 2006: 1037 (to genera in North America north of Mexico); Wood 2007: 364 (to genera in North and South America).

(an) Jordal 2002; Jordal, Normark and Farrell 2000. (ds) Maiti and Saha 2004. (hb) Wood 2007: 364. (tx) Alonso-Zarazaga and Lyal 2009: 96; Hulcr et al. 2007; Maiti and Saha 2004; Rabaglia, Dole and Cognato 2006: 1037; Wood 2007: 364.

Genus **Amasa** Lea

Page 681 **Amasa** Lea. Add:

KEY: Maiti and Saha 2004: 36 (to species in India).

(tx) Alonso-Zarazaga and Lyal 2009: 97; Maiti and Saha 2004: 34.

Page 682 **bicostatus** (Sampson). Add:

FIGURE: Dole and Cognato 2010: 489 (female habitus).

- Page 682 ***concitatus*** (Schedl). Add:
(**tx**) Beaver and Liu 2010: 20.
- Page 793 ***cylindrotomicus*** (Schedl). Move from ***Xylosandrus***. Add:
New combination by Dole and Cognato 2010: 525.
FIGURE: Dole and Cognato 2010: 489 (female habitus).
(**ds, tx**) Dole and Cognato 2010: 525.
- Page 683 ***eugeniae*** (Eggers). Add:
FIGURES: Maiti and Saha 2004: 37 (male and female habitus, antenna).
HOSTS: *Eugenia formosa*, *Elaeocarpus* sp.
(**ds, tx**) Maiti and Saha 2004: 36.
- Page 683 ***neotruncatus*** (Schedl). Move to ***Xyleborus***.
- Page 799 ***omissus*** (Schedl). Move from ***Xylosandrus***. Add:
New combination by Dole and Cognato 2010: 525.
- Page 799 ***oralis*** (Schedl). Move from ***Xylosandrus***. Add:
New combination by Dole and Cognato 2010: 526.
- Page 684 ***resecans*** (Eggers). Add:
FIGURES: Maiti and Saha 2004: 39 (female habitus, antenna).
(**tx**) Maiti and Saha 2004: 38.
- Page 684 ***resectus*** (Eggers). Add:
(**hb**) Hulcr and Cognato 2010b.
- Page 684 ***schlichii*** (Stebbing). Add:
FIGURE: Maiti and Saha 2004: 41 (female habitus).
(**tx**) Maiti and Saha 2004: 40.
- Page 685 ***truncatus*** (Erichson). Add:
FIGURES: Flechtmann and Cognato 2011 (female habitus, elytral declivity)
DISTRIBUTION: SOUTH AMERICA: Brazil (São Paulo, introduced).
(**ds**) Brockerhoff, Knízek and Bain 2003: 33; Brockerhoff et al. 2006; Flechtmann and Cognato 2011.
- Page 685 ***versicolor*** (Sampson). Add:
(**ds, tx**) Maiti and Saha 2004: 42.
- Genus ***Ambrosiodmus*** Hopkins
- Page 670 ***Ambrosiodmus*** Hopkins. Add:
KEYS: Bright and Torres 2006: 413 (to species in Puerto Rico); Maiti and Saha 2004: 45 (to species in India); Rabaglia, Dole and Cognato 2006: 1039 (to species in North America north of Mexico); Wood 2007: 401 (to all New World species).
(**an**) López-Buenfil et al. 2001: 345. (**tx**) Alonso-Zarazaga and Lyal 2009: 97; Maiti and Saha 2004: 43; Rabaglia 2002: 803; Rabaglia, Dole and Cognato 2006: 1038; Wood 2007: 401.
- Page 670 ***apicalis*** (Blandford). Move to ***Anisandrus***.
- Page 671 ***asperatus*** (Blandford). Add:
FIGURES: Maiti and Saha 2004: 50 (male and female habitus, antenna, tibia).

- DISTRIBUTION: ASIA: Japan (Ryukyu Islands); Taiwan.
(ds) Beaver and Liu 2010: 20; Beaver, Kajimura and Goto 2008: 235. (ds, tx) Maiti and Saha 2004: 48.
- Page 672 ***catharinensis*** (Eggers). Move to ***Xyleborus***.
- Page 672 ***compressus*** (Lea). Add:
DISTRIBUTION: New Zealand (introduced and established).
(ds) Brockerhoff et al. 2006; Haack 2001: 272.
- Page 672 ***consimilis*** (Eggers). Add:
(ds, tx) Maiti and Saha 2004: 51.
- Page 673 ***devexulus*** (Wood). Add:
(ds) Bright and Torres 2006: 413; Rabaglia, Dole and Cognato 2006: 1040.
- Page 673 ***dihingensis*** (Eggers). Add:
FIGURES: Maiti and Saha 2004: 53 (female habitus, antenna).
HOSTS: *Artocarpus lakoocha*, *Pterocarpus marsupium*.
(ds, tx) Maiti and Saha 2004: 52.
- Page 674 ***funebris*** (Schedl). Add:
(ds, hb, tx) Wood 2007: 406.
- Page 674 ***funereus*** (Lea). Move to ***Euwallacea***.
- Page 674 ***hagedorni*** (Iglesias). Add:
(ds) Flechtmann, Ottati and Berisford 2001.
- Page 678 ***illepidus*** Schedl (= ***A. obliquus*** (LeConte)). Add:
(ds) Mandelshtam and Danielsson 2004: 91.
- Page 675 ***inferior*** Schedl. Add:
(ds, tx) Wood 2007: 427.
- Page 675 ***inopinatus*** (Schedl). Move to ***Xyleborus***.
- Page 675 ***lantanae*** (Eggers). Add:
FIGURE: Maiti and Saha 2004: 57 (male and female habitus).
HOSTS: *Albizzia lebbek*, *Anthocephalus cadamba*, *Anogeissus acuminata*, *Gmelina arboreo*,
Magnifera indica, *Michelia champaca*, *Lantana* sp.
(ds, tx) Maiti and Saha 2004: 56.
- Page 675 ***lecontei*** Hopkins. Add:
FIGURE: Rabaglia, Dole and Cognato 2006: 1040 (female elytral declivity).
HOSTS: *Inga* sp. logs, *Delonix regia* branch.
(ds) Bright and Torres 2006: 413; Rabaglia, Dole and Cognato 2006: 1041.
- Page 675 ***lewisi*** (Blandford). Add *Ozopemon tuberculatus* Strohmeyer as a synonym. Add:
FIGURES: Lin and Wu 2010: 206 (female habitus); Maiti and Saha 2004: 59 (female habitus).
DISTRIBUTION: ASIA: China (Guangxi, Guizhou), India (Assam, Tamil Nadu, West Bengal). NORTH AMERICA: United States (Pennsylvania, introduced).
HOSTS: *Acrocarpus fraxinifolius*, *Amooro wallichii*, *Castanea mollissima*, *Cinnamomum obtusifolius*, *Machilus* sp., *Phoebe lanceolata*, *Pinus yunnanensis*, *Terminalia myriocarpa*.

(**ds**) Haack 2006: 272; Huang et al. 2003; Lin and Wu 2010; Maiti and Saha 2004: 58; Rabaglia, Dole and Cognato 2006: 1041. (**hb**) Huang et al. 2003. (**tx**) Beaver and Liu 2010: 20; Maiti and Saha 2004: 58.

- Page 676 **minor** (Stebbing). Add:
FIGURE: Maiti and Saha 2004: 62 (male and female habitus).
DISTRIBUTION: ASIA: India (Assam, Madhya Pradesh, Uttar Pradesh, West Bengal), Taiwan.
HOSTS: *Albizzia procera*, *Mallotus philippinensis*, *Odina wodier*, *Pterospermum acerifolium*, *Terminalia tomentosa*.
(**ds, tx**) Beaver and Liu 2010: 21; Maiti and Saha 2004: 61.

- Page 677 **obliquecauda** (Motschulsky). Add:
Lectotype (female), India oriental, designated by Mandelshtam and Nikitsky 2010: 17.
(**ds**) Beaver and Liu 2010: 37.

- Page 677 **obliquus** (LeConte). Add:
FIGURES: Rabaglia, Dole and Cognato 2006: 1038 (antennal club), 1040 (female elytral declivity); Wood 2007: PLATE 93.
DISTRIBUTION: NORTH AMERICA: United States (Alabama, Washington D. C., Delaware, Florida, Georgia, Louisiana, Maryland, Mississippi, North Carolina, Tennessee, Texas, Virginia).
(**ds**) Bright and Torres 2006: 413; Flechtmann, Ottati and Berisford 2001; Grant et al. 2003; Rabaglia 2003: 376; Rabaglia and Valenti 2003: 315; Rabaglia, Dole and Cognato 2006: 1040. (**ds, hb, tx**) Wood 2007: 404.

- Page 678 **ocellatus** (Wood). Add:
(**ds, hb, tx**) Wood 2007: 405.

- Page 678 **opimus** (Wood). Add:
FIGURES: Wood 2007: PLATE 94.
(**ds**) Rabaglia, Dole and Cognato 2006: 1041. (**ds, hb, tx**) Wood 2007: 407.

- Page 758 **pardous** (Eggers). Move from **Xyleborus**. Add:
New combination by Wood 2007: 406.
(**ds, hb, tx**) Wood 2007: 406.

- Page 678 **paucus** Wood. Add:
(**ms**) Kirkendall and Jordal 2006: 732.

- Page 679 **restrictus** (Schedl). Move to **Ambrosiophilus**.

- Page 679 **rubricollis** (Eichhoff). Add:
FIGURES: Faccoli et al. 2009: 58 (female habitus, pronotum, antenna, protibia, pronotum); Lin and Wu 2010: 206 (female habitus); López-Buenfil et al. 2001: 366 (proventriculus); Rabaglia, Dole and Cognato 2006: 1039 (pronotum), 1040 (elytral declivity); Wood 2007: PLATE 94.
DISTRIBUTION: ASIA: China (Heilongjiang, Guizhou, Yunnan). EUROPE: Italy (introduced). NORTH AMERICA: United States (Alabama, Connecticut, Delaware, Florida, Louisiana, Maryland, Michigan, Mississippi, **Missouri** [see Appendix], North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia).
HOSTS: *Aesculus hippocastanum*.
(**ds**) Beaver and Liu 2010: 21; Cognato et al. 2009: 109; Faccoli et al. 2009; Gandhi et al. 2010; Lightle et al. 2007; Lin and Wu 2010; Rabaglia and Valenti 2003: 315; Rabaglia, Dole

and Cognato 2006: 1041; Schiefer 2010: 113. (ec) Gandhi et al. 2010. (hb) Oliver and Mannion 2001. (tx) Beaver and Liu 2010: 21; Faccoli et al. 2009. (ds, hb, tx) Wood 2007: 405.

- Page 680 ***scalaris*** (Schedl). Add:
FIGURES: Wood 2007: PLATE 95.
(tx) Wood 2007: 404.
- Page 680 ***semicarinatus*** (Schedl). Move to ***Ambrosiophilus***.
- Page 680 ***sexdentatus*** (Eggers). Move to ***Ambrosiophilus***.
- Page 778 ***sundaensis*** (Eggers). Move from ***Xyleborus***. Add:
New combination by Maiti and Saha 2004: 63.
FIGURE: Maiti and Saha 2004: 64 (female habitus).
DISTRIBUTION: ASIA: India (Nicobar Islands).
(ds, tx) Maiti and Saha 2004: 63.
- Page 680 ***subnepotulus*** (Eggers). Move to ***Ambrosiophilus***.
- Page 680 ***tachygraphus*** (Zimmermann). Add:
FIGURE: Rabaglia, Dole and Cognato 2006: 1041 (female elytral declivity).
DISTRIBUTION: NORTH AMERICA: United States (Delaware, Tennessee).
(ds) Grant et al. 2003; Oliver and Mannion 2001; Rabaglia and Valenti 2003: 316. (hb) Oliver and Mannion 2001.

ADD SPECIES:

alexae Wood 2007: 406. Holotype (female), VENEZUELA: Campamento Rio Grande, 30 km. E. of Bolivar; USNM.
HOST: *Alexa imperatrica*.

Genus ***Ambrosiophilus*** Hulcr and Cognato

ADD GENUS:

Ambrosiophilus Hulcr and Cognato 2009: 21. Type species: *Xyleborus restrictus* (Schedl), by original designation.

ADD SPECIES:

- Page 713 ***atratus*** (Eichhoff). Move from ***Xyleborus***. Add:
New combination by Hulcr and Cognato 2009: 22.
FIGURE: Faccoli 2008 (female habitus).
DISTRIBUTION: EUROPE: Italy. NORTH AMERICA: United States (Delaware, Florida, Georgia, Kansas, Maryland, Michigan, Ohio, South Carolina, Texas, Virginia, West Virginia).
HOSTS: *Acer* sp., *Carya* sp., *Fagus grandifolia*.
(ds) Beaver and Liu 2010: 21; Cognato et al. 2009: 109; Coyle, Booth and Wallace 2005; Faccoli 2008; Grant et al. 2003; Haack 2006: 273; Rabaglia and Valenti 2003: 316; Rabaglia, Dole and Cognato 2006: 1049. (hb) Oliver and Mannion 2001. (ds, hb, tx) Hulcr and Cognato 2009: 22.

- Page 743 *hunanensis* (Browne). Move from *Xyleborus*. Move to *A. metanepotulus* (Eggers) as a synonym. Add:
New combination by Beaver and Liu 2010: 21. Synonymy by Beaver 2011a: 283.
DISTRIBUTION: ASIA: China (Guizhou, Yunnan), Sri Lanka, Taiwan.
HOSTS: *Prunus persica*, *Pyrus*, *Quercus*, *Populus*.
(ds, tx) Beaver and Liu 2010: 21.
- Page 692 *metanepotulus* (Eggers). Move from *Euwallacea*. Add *Xyleborus hunanensis* Browne as a synonym. Add:
New combination by Beaver and Liu 2010: 21.
(tx) Beaver 2011a: 283.
- Page 679 *restrictus* (Schedl). Move from *Ambrosiodmus*. Add:
New combination by Hulcr and Cognato 2009: 23.
FIGURE: Hulcr and Cognato 2009: 23 (female habitus).
DISTRIBUTION: ASIA: Papua New Guinea.
(ds, hb, tx) Hulcr and Cognato 2009: 23.
- Page 769 *satoi* (Schedl). Move from *Xyleborus*.
New combination by Beaver and Liu 2010: 22.
(ds) Beaver and Liu 2010: 22.
- Page 680 *semicarinatus* (Schedl). Move from *Xyleborus*. Add:
New combination by Hulcr and Cognato 2009: 24.
(hb, tx) Hulcr and Cognato 2009: 24.
- Page 680 *sexdentatus* (Eggers). Move from *Xyleborus*. Add:
New combination by Hulcr and Cognato 2009: 24.
DISTRIBUTION: ASIA: Papua New Guinea.
(ds, hb, tx) Hulcr and Cognato 2009: 24.
NOTE: This species was moved to *Streptocranus* by Hulcr et al. 2007: 583, then to the present assignment.
- Page 680 *subnepotulus* (Eggers). Move from *Ambrosiodmus*. Add:
New combination by Beaver and Liu 2010: 22.
FIGURE: Lin and Wu 2010: 206 (female habitus).
(ds) Lin and Wu 2010.
- Genus *Anisandrus* Ferrari
- Page 704 *Anisandrus* Ferrari. Remove from synonymy with *Xyleborus*. Add:
KEY: Rabaglia, Vandenberg and Acciavatti 2009: 25 (to species in North America).
(tx) Alonso-Zarazaga and Lyal 2009: 98; Hulcr et al. 2007: 577.
- Page 670 *apicalis* (Blandford). Move from *Ambrosiodmus*. Add:
New combination by Hulcr et al. 2007: 578.
FIGURE: Maiti and Saha 2004: 47 (female habitus).
DISTRIBUTION: ASIA: China (Hengduan Mtns.), Russia (Southern Kurils).
(ds) Haack 2001: 272; Huang and Yin 1992: 861; Maiti and Saha 2004: 46; Mandelshtam 2001a: 203; Mandelshtam and Petrov 2009a: 207. (tx) Hulcr et al. 2007: 578; Maiti and Saha 2004: 46.
- Page 788 *butamali* (Beeson). Move from *Xylosandrus*. Add:
New combination by Dole and Cognato 2010: 526.

- FIGURE: Maiti and Saha 2004: 230 (female habitus).
 (ds, tx) Dole and Cognato 2010: 526; Maiti and Saha 2004: 229.
- Page 672 ***coffeiceus*** (Schedl). Move from ***Ambrosiodmus***. Add:
 New combination by Wood 2007: 408.
 FIGURES: Wood 2007: PLATE 92.
 (ds, hb, tx) Wood 2007: 408.
- Page 720 ***cornutus*** (Schaufuss). Move from ***Xyleborus***. Add:
 New combination by Hulcr et al. 2007: 578.
- Page 725 ***dispar*** (Fabricius). Move from ***Xyleborus***. Add *Xyleborus aequalis* (Reitter) and *X. khinganensis* Murayama as synonyms. Add:
 New combination by Hulcr et al. 2007: 578.
 FIGURE: Hulcr et al. 2007: 579 (female habitus).
 DISTRIBUTION: ASIA: China (Shaanxi), Russia (Daghestan, Yakutia, Yaroslavi). NORTH AMERICA: United States (California).
 (ds) Averensky and Yanovsky 2008: 28; Colonelli 2003: 103; Faccoli 2002: 100; Fernández 1999: 30; Furniss and Johnson 2002: 107; Henin, Huart and Rondeux 2003; Maiti and Saha 2004: 198; Mandelshtam and Popovichev 2000: 896; Mandelshtam, Nikitsky and Bibin 2005b: 21; Petrov 2005: 221; Petrov and Nikitskii 2001: 175; Podlussány and György 2008: 199; Rabaglia, Dole and Cognato 2006: 1048; Voolma et al. 2004. (ec) Faccoli and Rukalski 2004; Fernández 1999: 30. (hb) Fernández 1999: 30; Furniss and Johnson 2002: 107; Petrov and Nikitskii 2001: 175. (tx) Furniss and Johnson 2002: 107; Hulcr et al. 2007: 578; Knízek 2011: 86; Maiti and Saha 2004: 198; Vlasov 2005: 772.
- Page 732 ***eggersi*** (Beeson). Move from ***Xyleborus***. Add:
 New combination by Hulcr et al. 2007: 578.
- Page 764 ***hagedorni*** (Iglesias). Move from ***Ambrosiodmus***. Add:
 New combination by Wood 2007: 407.
 FIGURES: Wood 2007: PLATE 92.
 (ds, hb, tx) Wood 2007: 407.
- Page 700 ***hirtus*** (Hagedorn). Move from ***Cyclorhipidion***. Add *Xyleborus taiwanensis* Browne as a synonym. Add:
 New combination by Hulcr et al. 2007: 578.
 FIGURES: Lin and Wu 2010: 209 (female habitus); Maiti and Saha 2004: 109 (female habitus, antenna).
 (ds) Lin and Wu 2010. (ds, tx) Maiti and Saha 2004: 107. (tx) Beaver and Liu 2010: 22.
- Page 744 ***improbus*** (Sampson). Move from ***Xyleborus***. Add:
 New combination by Hulcr et al. 2007: 578.
- Page 748 ***longidens*** (Eggers). Move from ***Xyleborus***. Add:
 New combination by Hulcr et al. 2007: 578.
- Page 749 ***maiche*** Stark. Move from ***Xyleborus***. Add:
 New combination by Hulcr et al. 2007: 578.
 FIGURES: Rabaglia, Vandenberg and Acciavatti 2009: 26 (details of elytral disc, elytral declivity, female habitus).
 DISTRIBUTION: United States (Ohio, Pennsylvania, West Virginia [introduced]).
 (ds) Nikulina, Martynov and Mandelshtam 2007b. (ds, tx) Rabaglia, Vandenberg and Acciavatti 2009.

- Page 756 ***obesus*** (LeConte). Move from ***Xyleborus***. Add:
New combination by Hulcr et al. 2007: 578.
FIGURE: Rabaglia, Dole and Cognato 2006: 1045 (female elytral declivity).
DISTRIBUTION: NORTH AMERICA: Canada (Nova Scotia); United States (Michigan, Ohio, West Virginia).
(ds) Cognato et al. 2009: 113; Majka, Anderson and McCorquodale 2007: 420; Rabaglia, Dole and Cognato 2006: 1048.
- Page 760 ***sayi*** Hopkins. Move from ***Xyleborus***. Add:
New combination by Hulcr et al. 2007: 578.
FIGURES: Dole and Cognato 2010: 489 (female habitus); Rabaglia, Dole and Cognato 2006: 1037 (antenna, scutellum), 1038 (antenna), 1045 (pronotum).
DISTRIBUTION: NORTH AMERICA: Canada (Nova Scotia); United States (Delaware).
(ds) Majka, Anderson and McCorquodale 2007: 420; Oliver and Mannion 2001; Rabaglia and Valenti 2003: 316; Rabaglia, Dole and Cognato 2006: 1048. **(hb)** Oliver and Mannion 2001.
- Page 801 ***ursa*** (Eggers). Move from ***Xylosandrus***. Add:
New combination by Dole and Cognato 2010: 526.
(hb) Hulcr and Cognato 2010b.
- Page 801 ***ursinus*** (Hagedorn). Move from ***Xylosandrus***. Add:
New combination by Dole and Cognato 2010: 527.
FIGURE: Saha, Maiti and Chakraborti 1992: 25 (female habitus).
(ds, tx) Saha, Maiti and Chakraborti 1992: 24.
- Page 801 ***ursulus*** (Eggers). Move from ***Xylosandrus***. Add:
New combination by Dole and Cognato 2010: 527.
FIGURE: Dole and Cognato 2010: 489 (female habitus); Maiti and Saha 2004: 253 (female habitus).
HOSTS: *Strculia colorata*, *Casearia glomerata*, and *Castanopsis* sp.
(ds, tx) Maiti and Saha 2004: 252.
- Genus ***Arixyleborus*** Hopkins
- Page 665 ***Arixyleborus*** Hopkins. Add:
KEY: Maiti and Saha 2004: 66 (to species in India).
(tx) Alonso-Zarazaga and Lyal 2009: 98; Maiti and Saha 2004: 64.
- Page 665 ***camphorae*** (Eggers). Move to ***A. rugosipes*** Hopkins as a synonym. Add:
Synonymy by Beaver and Liu 2010: 22.
- Page 666 ***dipterocarpi*** Browne. Move to ***A. imitator*** (Eggers) as a synonym. Add:
Synonymy by Beaver 2011a: 283.
- Page 667. ***hirtipennis*** (Eggers). Move to ***Arixyleborus puberulus*** (Blandford) as a synonym. Add:
Synonymy by Hulcr 2010: 106.
- Page 667 ***imitator*** (Eggers). Add *A. dipterocarpi* Browne as a synonym. Add:
(tx) Beaver 2011a: 283.
- Page 667 ***malayensis*** (Schedl). Add *A. yakushimanus* (Murayama) as a synonym. Add:
FIGURES: Maiti and Saha 2004: 68 (female habitus, antenna).
(ds, tx) Maiti and Saha 2004: 67. **(tx)** Beaver, Kajimura and Goto 2008: 232.

- Page 667 ***mediosectus*** (Eggers). Add:
FIGURES: Maiti and Saha 2004: 70 (female habitus, antenna).
(ds, tx) Maiti and Saha 2004: 69.
- Page 668 ***medius*** (Eggers). Move to ***A. rugosipes*** Hopkins as a synonym. Add:
Synonymy by Beaver and Liu 2010: 22.
FIGURES: Maiti and Saha 2004: 72 (female habitus, antenna).
(tx) Beaver and Liu 2010: 22. **(ds, tx)** Maiti and Saha 2004: 71.
- Page 668 ***moestus*** (Eggers). Add:
FIGURES: Maiti and Saha 2004: 74 (female habitus, antenna).
(ds, tx) Maiti and Saha 2004: 73.
- Page 668 ***puberulus*** (Blandford). Add ***A. hirtipennis*** (Eggers) as a synonym.
(tx) Hulcr 2010: 106.
- Page 668 ***rugosipes*** Hopkins. Add ***A. medius*** (Eggers) and ***A. camphorae*** (Eggers) as synonyms. Add:
FIGURE: Lin and Wu 2010: 206 (female habitus).
DISTRIBUTION: ASIA: Taiwan.
(ds) Lin and Wu 2010. **(ds, tx)** Beaver and Liu 2010: 22.
- Page 669 ***sus*** (Schedl). Move to ***Cyclorhipidion***.
- Page 669 ***yakushimanus*** Murayama. Move to ***A. malayensis*** (Schedl) as a synonym. Add:
Synonymy by Beaver, Kajimura and Goto 2008: 232.
- Genus ***Beaverium*** Hulcr and Cognato
- ADD GENUS:
- Beaverium*** Hulcr and Cognato 2009: 25. Type species: ***Xyleborus insulindicus*** Eggers, by original designation.
- ADD SPECIES:
- Page 718 ***chujoii*** (Schedl). Move from ***Xyleborus***. Add:
New combination by Beaver and Liu 2010: 23.
- Page 744 ***insulindicus*** (Eggers). Move from ***Xyleborus***. Add:
New combination by Hulcr and Cognato 2009: 26.
FIGURE: Hulcr and Cognato 2009: 23 (female habitus).
(hb) Hulcr and Cognato 2010b.
- Page 747 ***latus*** (Eggers). Move from ***Xyleborus***. Add:
New combination by Hulcr and Cognato 2009: 26.
(hb) Hulcr and Cognato 2010b.
- Page 762 ***perplexus*** (Schedl). Move from ***Xyleborus***. Add:
New combination by Hulcr and Cognato 2009: 26
DISTRIBUTION: ASIA: Papua New Guinea.
(ds) Hulcr and Cognato 2009: 26. **(hb)** Hulcr and Cognato 2010b.
NOTE: Lectotype designation by Hulcr and Cognato 2009 invalid (holotype designated in original description).

- Page 778 **sundaensis** (Eggers). Move from **Xyleborus**. Add:
New combination by Hulcr and Cognato 2009: 27.
DISTRIBUTION: ASIA: Papua New Guinea.
(**ds**) Hulcr and Cognato 2009: 27. (**hb**) Hulcr and Cognato 2010b.
- Page 780 **venustulus** (Schedl). Move from **Xyleborus**. Add:
New combination by Hulcr and Cognato 2009: 27.
- Genus **Cnestus** Sampson
- Page 801 **Cnestus** Sampson. Add:
KEY: Maiti and Saha 2004: 76 (to species in India).
(**tx**) Alonso-Zarazaga and Lyal 2009: 98; Hulcr et al. 2007: 577; Maiti and Saha 2004: 74.
- Page 787 **ater** (Eggers). Move from **Xylosandrus**. Add:
New combination by Dole and Cognato 2010: 528.
(**hb**) Hulcr and Cognato 2010b.
- Page 802 **cruralis** (Schedl). Add:
FIGURE: Maiti and Saha 2004: 77 (female habitus).
(**ds, tx**) Maiti and Saha 2004: 76.
- Page 795 **fijianus** (Schedl). Move from **Xylosandrus**. Add:
New combination by Dole and Cognato 2010: 528.
- Page 796 **gravidus** (Blandford). Move from **Xylosandrus**. Add:
New combination by Dole and Cognato 2010: 529.
FIGURES: Maiti and Saha 2004: 239 (female habitus); Saha, Maiti and Chakraborti 1992: 20.
(**ds, tx**) Maiti and Saha 2004: 238; Saha, Maiti and Chakraborti 1992: 19.
- Page 121 **improcerus** (Sampson). Move from **Xylosandrus**. Add:
(Suppl.2) New combination by Dole and Cognato 2010: 529.
FIGURE: Dole and Cognato 2010: 489 (female habitus).
- ADD SPECIES:
- laticeps** (Wood). Move from **Xylosandrus**. Add:
(This suppl.) New combination by Dole and Cognato 2010: 529.
FIGURES: Wood 2007: PLATE 130.
(**ds, hb, tx**) Wood 2007: 469.
- Page 802 **maculatus** Browne. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(**ds**) Huang and Yin 1992: 861.
- Page 802 **murayamai** Schedl. Add:
FIGURE: Lin and Wu 2010: 207 (female habitus).
(**ds**) Lin and Wu 2010. (**tx**) Beaver and Liu 2010: 23.
- Page 799 **multilatus** (Blandford). Move from **Xylosandrus**. Add:
New combination by Dole and Cognato 2010: 530.
FIGURES: Rabaglia, Dole and Cognato 2006: 1053 (female elytral declivity); Yin 1997: 971 (female habitus).

DISTRIBUTION: NORTH AMERICA: United States: (Alabama, Florida, Georgia, Mississippi, Texas, introduced).

HOSTS: *Acer rubrum*, *A. saccharum*, *A. palmatum*, *Carya* sp., *Cornus florida*, *Fagus grandifolia*, *Liquidamber styracifera*, *Liriodendron tulipifera*, *Melia azedarach*, *Ostrya virginiana*, *Pinus taeda*, *Prunus serotina*, *P americana*, *Ulmus alata*, *Vitus rotundifolia*.

(an) Stone et al. 2007. (en) Tang 2000. (ds) Cognato, Bográn and Rabaglia 2006; Gandhi et al. 2009; Haack 2006: 274; Maiti and Saha 2004: 248; Rabaglia, Dole and Cognato 2006: 1054; Schiefer and Bright 2004; Stone and Nebeker 2007; Stone, Nebeker and Gerard 2007; Yin 1997: 971. (hb) Schiefer and Bright 2004; Stone and Nebeker 2007; Tang 2000. (tx) Beaver and Liu 2010: 23; Maiti and Saha 2004: 248; Yin 1997: 971.

Page 803 ***nitidipennis*** (Schedl). Add:

FIGURE: Lin and Wu 2010: 207 (female habitus).

DISTRIBUTION: ASIA: India (Sikkim), Taiwan.

(ds) Lin and Wu 2010. (ds, tx) Beaver and Liu 2010: 24.

Page 800 ***orbiculatus*** (Schedl). Move from ***Xylosandrus***. Add:

New combination by Dole and Cognato 2010: 531.

ADD SPECIES:

peruanus (Wood). Move from ***Xylosandrus***. Add:

(This suppl.) New combination by Dole and Cognato 2010: 531.

Page 803 ***protensus*** (Eggers). Add:

(tx) Maiti and Saha 2004: 78.

Page 800 ***pseudosolidus*** (Scheddl). Move from ***Xylosandrus***. Add:

New combination by Dole and Beaver 2008: 489.

(ds) Brockerhoff, Knízek and Bain 2003: 35; Brockerhoff et al. 2006.

Page 803 ***pseudosuturalis*** Schedl. Add:

FIGURE: Dole and Cognato 2010: 489 (female habitus).

ADD SPECIES:

retifer (Wood). Move from ***Xylosandrus***. Add:

(This suppl.) New combination by Dole and Cognato 2010: 531.

Page 800 ***retusus*** (Eichhoff). Move from ***Xylosandrus***. Add:

New combination by Dole and Cognato 2010: 532.

FIGURES: Wood 2007: PLATE 131.

(ds) Bright 2004: 161; Flechtmann, Ottati and Berisford 2001. (ec) Morales et al. 2000. (ds,

tx) Wood 2007: 469.

Page 800 ***solidus*** (Scheddl). Move from ***Xylosandrus***. Add:

New combination by Dole and Beaver 2008: 490.

DISTRIBUTION: Remove New Zealand.

(ds) Brockerhoff, Knízek and Bain 2003: 35.

Page 803 ***suturalis*** (Eggers). Add:

FIGURE: Maiti and Saha 2004: 80 (female habitus).

(ds, tx) Maiti and Saha 2004: 79.

Page 801 ***testudo*** (Eggers). Move from ***Xylosandrus***. Add:
New combination by Dole and Cognato 2010: 532.
(tx) Beaver and Liu 2010: 24.

Genus ***Coptoborus*** Hopkins

- Page 662 ***Coptoborus*** Hopkins. Add:
KEYS: Atkinson, Rabaglia and Cognato 2010: 65 (to genera in North America); Wood 2007: 391 (to all species).
(tx) Alonso-Zarazaga and Lyal 2009: 98; Hulcr et al. 2007: 583. (**ds, hb, tx**) Wood 2007: 391.
- Page 662 ***assiduus*** (Schedl). Move to ***Gnathotrupes***.
- Page 622 ***bicolor*** (Browne). Move to ***Streptocranus***.
- Page 662 ***bicuspis*** (Eggers). Move to ***Streptocranus***.
- Page 663 ***capucinulus*** (Schedl). Move to ***Streptocranus***.
- Page 663 ***catulus*** (Blandford). Add:
FIGURES: Wood 2007: PLATE 89.
(tx) Wood 2007: 397.
- Page 663 ***cuneatus*** (Eichhoff). Add:
(ds, tx) Wood 2007: 396.
- Page 664 ***exilis*** (Schedl). Add:
(ds, tx) Wood 2007: 395.
- Page 663 ***forficatus*** (Schedl). Move to ***Streptocranus***.
- Page 663 ***fragilis*** (Browne). Move to ***Streptocranus***.
- Page 663 ***gentilis*** (Schedl). Add:
(tx) Wood 2007: 398.
- Page 663 ***longicauda*** (Browne). Move to ***Streptocranus***.
- Page 663 ***longispinis*** Browne. Move to ***Streptocranus***.
- Page 663 ***mirabilis*** (Schedl). Move to ***Streptocranus***.
- Page 663 ***neoadjunctus*** (Schedl). Move to ***Gnathotrupes***.
- Page 663 ***neosphenos*** (Schedl). Add:
(tx) Wood 2007: 397.
- Page 664 ***palmeri*** Hopkins. Move to ***Debus emarginatus*** (Eichhoff) as a synonym. Add:
Synonymy by Hulcr 2010: 111.
- Pqge 664 ***pseudotenuis*** (Schedl). Add:
FIGURES: Atkinson, Rabaglia and Cognato 2010: 64 (female habitus, head, elytral declivity); Wood 2007: PLATE 89.

DISTRIBUTION: SOUTH AMERICA: **Trinidad** [see Appendix]. NORTH AMERICA: United States (Florida).

HOST: *Delonix regia* “with fungus”.

(ds, tx) Atkinson, Rabaglia and Cognato 2010: 63; Wood 2007: 396.

“puertoricensis Bright”. Add:

(tx) Wood 2007: 398.

NOTE: This species was described in **Theoborus** by Bright and Torres 2005. Entry in Wood 2007: 398 is in wrong genus, wrong authors, wrong type locality and wrong type depository (see *Theoborus puertoricensis* Bright and Torres herein).

Page 658 **solitariformis** (Schedl). Move from **Xyleborus**. Add:
New combination by Wood 2007: 396.

Page 777 **subtilis** (Schedl). Move from **Xyleborus**. Add:
New combination in Wood 2007: 395.
(ds, tx) Wood 2007: 395.

Page 664 *terminaliae* Hopkins. Move to **Debus emarginatus** (Eichhoff) as a synonym. Add:
Synonymy by Huler 2010: 110.

Page 664 **tolimanus** (Eggers). Add:
FIGURES: Wood 2007: PLATE 90.
DISTRIBUTION: NORTH AMERICA: Mexico (Tabasco).
(ds) Pérez-De La Cruz et al. 2009: 604. (ds, tx) Wood 2007: 399.

Page 644 **usagaricus** (Eggers). Move to **Streptocranus**.

Page 665 **vespatorius** (Schedl). Add:
FIGURES: Wood 2007: PLATE 91.
(ds, tx) Wood 2007: 393.

ADD SPECIES:

attenuatus Wood 2007: 400. Holotype (female), BRAZIL: Mato Grosso, 12°31'S, 51°46'W; NHML.

bellus Bright and Torres 2006: 415. Holotype (female), PUERTO RICO: 12 mi. E. Mayaguez; CWOB.
FIGURE: Bright and Torres 2006: 426 (female elytral apex).
(tx) Wood 2007: 398.
NOTE: Entry in Wood 2007: 398 has wrong authors and wrong type depository.

carumbensis Wood 2007: 399. Holotype (female), PARAGUAY: Carumbe, San Pedro; USNM.

cracens Wood 2007: 400. Holotype (female), BRAZIL: Aracruz, Espirito Santo; USNM.

gracilens Wood 2007: 401. Holotype (female), BRAZIL: Aracruz, Espirito Santo; MZUSP.

inornatus Wood 2007: 399. Holotype (female), BRAZIL: Sao Nicolau farm, Cotriguacu, Mato Grosso;
MZUSP.

nudulus Wood 2007: 394. Holotype (female), BRAZIL: Sao Nicolau farm, Cotriguacu, Mato Grosso;
MZUSP.

schulzi Wood 2007: 394. Holotype (female), SURINAME: Joden savanne, Camp 8; USNM.

spicatus Wood 2007: 394. Holotype (female), SURINAME: Doesbury; USNM.

FIGURES: Wood 2007: PLATE 90.

Genus ***Coptodryas*** Hopkins

- Page 822 ***Coptodryas*** Hopkins. Add:
KEY: Maiti and Saha 2004: 83 (to species in India).
(tx) Alonso-Zarazaga and Lyal 2009: 99; Hulcr et al. 2007: 579; Maiti and Saha 2004: 81.
- Page 823 ***alpha*** (Sampson). Add:
FIGURE: Maiti and Saha 2004: 85 (female habitus).
(ds, tx) Maiti and Saha 2004: 84.
- Page 823 ***atava*** (Schedl). Move to ***Microporus diversicolor*** (Eggers) as a synonym. Add:
Synonymy by Hulcr and Cognato 2010a: 19.
- Page 823 ***chrysophylli*** (Eggers). Add:
FIGURES: Maiti and Saha 2004: 87 (female habitus, antenna).
(ds, tx) Maiti and Saha 2004: 86.
- Page 824 ***concinnus*** Beeson (= ***C. elegans*** (Sampson)). Add:
FIGURES: Maiti and Saha 2004: 89 (female habitus, antenna).
(ds, tx) Maiti and Saha 2004: 88.
- Page 824 ***cylindrica*** (Eggers). Move to ***Debus pumilus*** (Eggers) as a synonym. Add:
Synonymy by Hulcr and Cognato 2010a: 15
- Page 824 ***diversicolor*** (Eggers). Move to ***Microporus***.
- Page 824 ***elegans*** (Sampson). Add:
FIGURES: Maiti and Saha 2004: 91 (female habitus).
(ds, tx) Maiti and Saha 2004: 90.
- Page 824 ***eucalyptica*** (Schedl). Move to ***Microporus***.
- Page 824 ***huangi*** (Browne). Move to ***Microporus kadoyamaensis*** (Murayama) as a synonym.
New combination by Hulcr et al. 2007: 579. New synonymy by Beaver 2011a: 285.
- Page 825 ***intermedius*** (Eggers). Move to ***Microporus***.
- Page 825 ***judenkoi*** (Schedl). Move to ***Xyleborus***.
- Page 825 ***kirishimanus*** (Murayama). Move to ***Microporus***.
- Page 825 ***libra*** (Eggers). Move to ***Microporus parvus*** (Lea) as a synonym. Add:
Synonymy by Hulcr and Cognato 2010a: 20.
- Page 825 ***mus*** (Eggers). Add:
FIGURES: Maiti and Saha 2004: 93 (female habitus, antenna).
(ds, tx) Maiti and Saha 2004: 92.
- Page 825 ***myristicae*** (Schedl). Move to ***Microporus diversicolor*** (Eggers) as a synonym. Add:
Synonymy by Hulcr and Cognato 2010a: 19.

- Page 826 *parva* (Lea). Move to ***Microporus***.
- Page 123 *pometianus* (Schedl). Move to ***Microporus***.
(Suppl. 2)
- Page 826 *perparvus* (Sampson). Add:
FIGURE: Maiti and Saha 2004: 95 (female habitus).
(ds, tx) Maiti and Saha 2004: 94.
- Page 819 *pubifer* (Schedl). Move from ***Hadrodemius***. Add:
New combination by Beaver 2010a: 55.
DISTRIBUTION: ASIA: Brunei.
(ds, hb) Beaver 2010a: 55.
- Page 826 *pubipennis* (Schedl). Move to ***Microporus parvus*** (Lea) as a synonym. Add:
Synonymy by Hulcr and Cognato 2010a: 20.
- Page 827 *recidens* (Sampson). Add:
(ds, tx) Maiti and Saha 2004: 96.
- Page 827 *undulatus* (Sampson). Add:
FIGURE: Maiti and Saha 2004: 98 (female habitus).
(ds, tx) Maiti and Saha 2004: 97.
- Genus ***Cryptoxyleborus*** Wood and Bright
- Page 828 ***Cryptoxyleborus*** Wood and Bright. Add:
KEY: Beaver and Hulcr 2008: 136 (to females to all species).
(ds, hb, tx) Beaver and Hulcr 2008. (tx) Alonso-Zarazaga and Lyal 2009: 99; Maiti and Saha 2004: 99.
NOTE: Change of authors (see Alonso-Zaraxaga and Lyal 2009).
- Page 829 *acutus* (Schedl). Move from ***Webbia***. Add:
New combination by Beaver and Hulcr 2008: 141.
- Page 828 *barbieri* Schedl. Add:
DISTRIBUTION: ASIA: Brunei.
(ds) Beaver and Hulcr 2008: 142.
- Page 828 *confusus* Browne. Add:
DISTRIBUTION: ASIA: Brunei; Indonesia (N. Sumatra), Malaysia (Sabah).
(ds, tx) Beaver and Hulcr 2008: 142.
- Page 828 *eggersi* Schedl. Add:
DISTRIBUTION: ASIA: Brunei.
HOSTS: *Dipterocarpus beccarii*.
(ds, tx) Beaver and Hulcr 2008: 142.
- Page 828 *major* Browne. Add:
(tx) Beaver and Hulcr 2008: 143.
- Page 831 *micrographus* (Schedl). Move from ***Webbia***. Add:
New combination by Beaver and Hulcr 2008: 143.
DISTRIBUTION: ASIA: Malaysia (Sabah).

- (ds) Beaver and Hulcr 2008: 143.
- Page 828 ***naevus*** Schedl. Add:
DISTRIBUTION: ASIA: Brunei, Malaysia (Sabah).
(ds, tx) Beaver and Hulcr 2008: 144.
- Page 828 ***nanus*** Browne. Move to ***Microporus***.
- Page 828 ***opacicaudulus*** Schedl. Add:
DISTRIBUTION: ASIA: Malaysia (Sabah, Sarawak).
(ds, tx) Beaver and Hulcr 2008: 144.
- Page 829 ***oxyurus*** Schedl. Add *C. shoreae* Browne as a synonym. Add:
DISTRIBUTION: ASIA: Indonesia (Sumatra), Malaysia (Sabah).
(ds, tx) Beaver and Hulcr 2008: 144.
- Page 809 ***percuneolus*** (Schedl). Move from ***Xyleborinus***. Add:
New combination by Beaver and Hulcr 2008: 145.
Lectotype, (female), Java, designated by Beaver and Hulcr 2008: 145.
FIGURES: Beaver and Hulcr 2008: 146 (male habitus).
DISTRIBUTION: ASIA: Malaysia (Sabah).
(ds) Beaver and Hulcr 2008: 145.
- Page 829 ***quadriporus*** Beaver. Add:
(tx) Beaver and Hulcr 2008: 147.
- Page 829 ***shoreae*** Browne. Move to ***C. oxyurus*** as a synonym. Add:
Synonymy by Beaver and Hulcr 2008: 144.
- Page 833 ***simplex*** Browne. Move from ***Webbia***. Add:
New combination by Beaver and Hulcr 2008: 148.
DISTRIBUTION: ASIA: Brunei, Indonesia (Sumatra), Malaysia (Sabah), Thailand.
(ds) Beaver and Hulcr 2008: 148.
- Page 829 ***stenographus*** (Schedl). Add:
DISTRIBUTION: ASIA: Thailand.
(ds, tx) Beaver and Hulcr 2008: 149.
- Page 829 ***subnaevus*** Schedl. Add:
DISTRIBUTION: ASIA: Brunei, Malaysia (Sabah). AUSTRALIA (Queensland, introduced,
not established?).
(ds, tx) Beaver and Hulcr 2008: 149.
- Page 829 ***turbineus*** (Sampson). Add:
FIGURES: Maiti and Saha 2004: 100 (male habitus, antenna).
(ds, tx) Beaver and Hulcr 2008: 148; Maiti and Saha 2004: 99.
- Page 829 ***vestigator*** (Schedl). Add ***Platypus goilalae*** Schedl as a synonym. Add:
DISTRIBUTION: ASIA: Indonesia (Sulawesi).
(ds, tx) Beaver and Hulcr 2008: 150.

ADD SPECIES:

cuneatus Beaver and Hulcr 2008: 138. Holotype (female), BRUNEI: Temburong, N 4°26', E 115°15'; NHML.

FIGURES: Beaver and Hulcr 2008: 139 (female habitus).

DISTRIBUTION: ASIA: Malaysia (**Sabah** [see Appendix]).

mawdsleyi Beaver and Hulcr 2008: 140. Holotype (female), BRUNEI: Kuala Belalong, N 4°34', E 115°7', dipterocarp forest; NHML.

FIGURES: Beaver and Hulcr 2008: 140 (female habitus).

HOST: *Dryobalanops beccarii*.

Genus **Cyclorhipidion** Hagedorn

Page 697 **Cyclorhipidion** Hagedorn. Add:

KEY: Maiti and Saha 2004: 103 (to species in India).

(tx) Alonso-Zarazaga and Lyal 2009: 99; Maiti and Saha 2004: 101.

Page 697 **agnatum** (Eggers). Move to **Truncaudum**.

Page 716 **bodoanum** (Reitter). Move from **Xyleborus**. Add *Xyleborus californicus* Wood as a synonym. Add:

DISTRIBUTION: EUROPE: Denmark, Germany.

(ds) Bussler and Immier 2007; Mandelshtam and Petrov 2009a: 207; Pedersen, Hanses and Vagtholm-Jenses 2010; Weigel 2008. (tx) Bussler 2006: 29; Knízek 2011: 243.

Page 716 **californicus** Wood. Move from **Xyleborus**. Move to **C. bodoanum** (Reitter) as a synonym. Add:

Synonymy by Knízek 2011: 86.

(tx) Hulcr and Cognato 2010a: 12.

Page 698 **callousum** (Schedl). Add:

DISTRIBUTION: AFRICA: Gabon.

(ds) Beaver 2005b: 116.

Page 698 **circumcisum** (Sampson). Add *C. subobtusum* (Schedl) as a synonym. Add:

(tx) Beaver 2011a: 283.

Page 699 **delicatum** (Schedl). Move to **Truncaudum agnatum** (Eggers) as a synonym. Add:

Synonymy by Hulcr and Cognato 2010a: 25.

Page 730 **distinguendus** (Eggers). Move from **Xyleborus**. Add:

New combination by Maiti and Saha 2004: 105.

(ds) Maiti and Saha 2004: 105.

Page 732 **eggersi** (Beeson). Move from **Xyleborus**. Add:

New combination by Maiti and Saha 2004: 105.

FIGURE: Maiti and Saha 2004: 106 (female habitus).

(ds) Maiti and Saha 2004: 105.

Page 740 **formosanum** (Browne). Move from **Xyleborus**. Add *Xyleborus formosae* Wood as an unnecessary new name. Add:

New combination by Beaver and Liu 2010: 24.

(ds) Beaver and Liu 2010: 24.

- Page 740 *fukiensis* (Eggers). Move from *Xyleborus*. Add *Xyleborus ganshoensis* Murayama and C. *tenuigraphus* Schedl as synonyms. Add:
New combination by Beaver and Liu 2010: 24.
(tx) Beaver 2011a: 284. (ds) Beaver and Liu 2010: 24.
- Page 700 *hirtum* (Hagedorn). Move to *Anisandrus*.
- Page 744 *improbus* (Sampson). Move from *Xyleborus*. Add:
New combination by Maiti and Saha 2004: 110.
FIGURE: Maiti and Saha 2004: 111 (female habitus).
(ds) Maiti and Saha 2004: 110.
- Page 744 *inarmatus* (Eggers). Move from *Xyleborus*. Add:
New combination by Maiti and Saha 2004: 112.
FIGURE: Maiti and Saha 2004: 113 (female habitus).
(ds) Maiti and Saha 2004: 112.
- Page 700 *indigens* (Schedl). Move to *Fortiborus*.
- Page 748 *lineatus* (Eggers). Move from *Xyleborus*. Add:
New combination by Maiti and Saha 2004: 114.
FIGURE: Maiti and Saha 2004: 115 (female habitus).
(ds) Maiti and Saha 2004: 114.
- Page 748 *longidens* (Eggers). Move from *Xyleborus*. Add:
New combination by Maiti and Saha 2004: 116.
(ds) Maiti and Saha 2004: 116.
- Page 754 *mussooriensis* (Eggers). Move from *Xyleborus*. Add:
New combination by Maiti and Saha 2004: 116.
FIGURE: Maiti and Saha 2004: 117 (female habitus).
(ds) Maiti and Saha 2004: 116.
- Page 757 *ohnoi* (Browne). Move from *Xyleborus*. Add:
New combination by Beaver and Liu 2010: 24.
(ds) Beaver and Liu 2010: 24.
- Page 758 *pelliculosum* (Eichhoff). Move from *Xyleborus*. Add *Xyleborus quercus* Kurentsov and X. *starki* Nunberg as synonyms.
New combination by Hulcr and Cognato 2010a: 12 and Knízek 2011: 86.
FIGURE: Rabaglia, Dole and Cognato 2006: 1044 (antenna).
DISTRIBUTION: ASIA: Japan (Hokkaido). NORTH AMERICA: United States (Delaware, Maine, Ohio, Rhode Island, Tennessee, introduced).
(ds) Gandhi et al. 2010; Grant et al. 2003; Haack 2006: 273; Lightle et al. 2007; Mandelshtam 2001a: 203; Oliver and Mannion 2001; Rabaglia and Valenti 2003: 316; Rabaglia, Dole and Cognato 2006: 1052. (hb) Oliver and Mannion 2001. (tx) Hulcr and Cognato 2010a: 12.
- Page 701 *perlaetum* (Schedl). Remove from synonymy and move from *Xyleborus*.
New combination by Hulcr and Cognato 2010a: 12.
- Page 701 *polyodon* (Eggers). Move to *Truncaudum agnatum* (Eggers) as a synonym. Add:
Synonymy by Hulcr 2010: 114.

- Page 770 ***seiryorense*** (Murayama). Add:
New combination by Knížek 2011: 86.
- Page 800 ***squamulatum*** (Beaver). Move from ***Xylosandrus***. Add:
New combination by Dole and Cognato 2010: 533.
- Page 703 ***subagnatum*** Wood. Move to ***Truncaudum agnatum*** (Eggers) as a synonym. Add:
Synonymy by Hulcr and Cognato 2010a: 25.
- Page 703 ***subobtusum*** (Schedl). Move to ***C. circumcicum*** (Schedl) as a synonym. Add:
Synonymy by Beaver 2011a: 283.
- Page 680 ***sulcatus*** (Eggers). Move from ***Ambrosiodmus***. Add:
New combination by Maiti and Saha 2004: 118.
(ds) Maiti and Saha 2004: 118.
- Page 703 ***sulcinoides*** (Schedl). Move to ***Fortiborus***.
- Page 669 ***sus*** (Schedl). Move from ***Arixyleborus***. Add:
New combination by Hulcr and Cognato 2010a: 12.
- Page 703 ***tenuigraphum*** (Schedl). Move to ***C. fukiensis*** (Eggers) as a synonym. Add:
Synonymy by Beaver and Liu 2010: 24.
- Page 785 ***xyloteroides*** (Eggers). Move from ***Xyleborus***. Add:
New combination by Beaver and Liu 2010: 25.
(ds) Beaver and Liu 2010: 25.

ADD SPECIES:

nodosum Beaver 2005b: 113. Holotype (female), GABON: Foret des Abeilles, La Makande, 11.54E, 00.40S, Miss. Radeau des Cimes; NHML.
FIGURES: Beaver 2005b:114 (pronotum, elytra).

Genus ***Debus*** Hulcr and Cognato

ADD GENUS:

Debus Hulcr and Cognato 2010a: 13. Type species: ***Xyleborus emarginatus*** Eichhoff, by original designation.

ADD SPECIES:

- Page 706 ***adusticollis*** (Motschulsky). Move from ***Xyleborus***. Add:
Lectotype (female), Ceylon, designated by Mandelshtam and Nikitsky 2010: 17.
New combination by Hulcr and Cognato 2010a: 14.
- Page 711 ***amphicranoides*** (Hagedorn). Move from ***Xyleborus***. Add:
New combination by Hulcr 2010: 107.
- Page 716 ***birmanus*** (Eggers). Move from ***Xyleborus***. Add:
New combination by Hulcr 2010: 108.

- Page 717 **cavulus** (Browne). Move from **Xyleborus**. Add *Xyleborus cavuloides* Browne as a synonym.
Add:
New combination by Beaver 2011a: 284.
(tx) Beaver 2011a: 284.
- Page 724 **detritus** (Eggers). Move from **Xyleborus**. Add *Xyleborus maniensis* Browne as a synonym.
Add:
New combination by Beaver 2011a: 284.
(tx) Beaver 2011a: 284.
- Page 730 **dolosus** (Blandford). Move from **Xyleborus**. Add:
New combination by Hulcr 2010: 108.
- Page 733 **emarginatus** (Eichhoff). Move from **Xyleborus**. Add *Xyleborus terminaliae* Hopkins, *X. palmeri* Hopkins and *X. exesus* Blandford as synonyms. Add:
New combination and new synonymy by Hulcr 2010: 110.
FIGURES: Hulcr and Cognato 2010a: 14 (female habitus); Maiti and Saha 2004: 201 (female habitus, antenna).
(tx) Hulcr and Cognato 2010a: 14. (ds, tx) Maiti and Saha 2004: 200.
- Page 734 **eximius** (Schedl). Move from **Xyleborus**. Add:
New combination by Hulcr 2010: 108.
- Page 735 **fallax** (Eichhoff). Move from **Xyleborus**. Add *Xyleborus shoreae* Stebbing and *Xyleborus fastigatus* Schedl as synonyms. Add:
New combination and new synonymy by Hulcr 2010: 109.
(tx) Hulcr and Cognato 2010a: 15. (ds, tx) Maiti and Saha 2004: 202.
- Page 744 **interponens** (Schedl). Move from **Xyleborus**. Add:
New combination by Hulcr 2010: 110.
- Page 766 **pseudocylindricus** (Eggers). Move from **Xyleborus**. Add:
New combination by Hulcr and Cognato 2010: 15.
- Page 767 **pumilus** (Eggers). Move from **Xyleborus**. Add *Xyleborus ipidia* Schedl, *Coptodryas cylindricus* (Eggers) and *Xyleborus neocylindricus* Schedl as synonyms. Add:
New combinations and new synonymy by Hulcr and Cognato 2010a: 15 and Beaver 2011a: 284.
FIGURES: Maiti and Saha 2004: 216 (female habitus, antenna, tibia).
(ds, tx) Maiti and Saha 2004: 214.
- Page 768 **robustipennis** (Schedl). Move from **Xyleborus**. Add:
New combination by Hulcr 2010: 110.
- Page 775 **spinatus** (Eggers). Move from **Xyleborus**. Add:
New combination by Hulcr 2010: 110.
- Page 775 **spinicornis** (Schedl). Move from **Xyleborus**. Add:
New combination by Hulcr and Cognato 2010a: 16.

Genus **Diuncus** Hulcr and Cognato

ADD GENUS: **Diuncus** Hulcr and Cognato 2009: 28. Type species: *Xyleborus papatiae* Schedl, by original designation.

ADD SPECIES

- Page 705 ***adossuarius*** (Schedl). Move from ***Xyleborus***. Add:
New combination by Hulcr and Cognato 2009: 29.
DISTRIBUTION: ASIA: Papua New Guinea.
(**ds, tx**) Hulcr and Cognato 2009: 29.
- Page 718 ***ciliatoformis*** (Schedl). Move from ***Xyleborus***. Add:
New combination by Beaver and Liu 2010: 25.
DISTRIBUTION: ASIA: Taiwan.
(**ds, tx**) Beaver and Liu 2010: 25.
NOTE: Hulcr and Cognato 2009: 32 consider this species a synonym of ***D. justus*** (Eggers). Considered distinct by Beaver and Liu 2010.
- Page 718 ***clerodendronae*** (Schedl). Move from ***Xyleborus***. Add:
New combination by Hulcr and Cognato 2009: 29.
- Page 720 ***conidens*** (Eggers). Move from ***Xyleborus***. Add:
New combination by Hulcr and Cognato 2009: 30.
DISTRIBUTION: ASIA: Malaysia (Sabah), Papua New Guinea.
(**ds, tx**) Hulcr and Cognato 2009: 30.
- Page 720 ***corpulentus*** (Eggers). Move from ***Xyleborus***. Add:
New combination by Hulcr and Cognato 2009: 30.
FIGURES: Lin and Wu 2010: 209 (female habitus); Maiti and Saha 2004: 197 (female habitus).
DISTRIBUTION: ASIA: Taiwan, Thailand.
(**ds**) Beaver and Liu 2010: 25; Lin and Wu 2010. (**ds, tx**) Maiti and Saha 2004: 196. (**ds, hb, tx**) Hulcr and Cognato 2009: 30.
- Page 730 ***dossuarius*** (Eggers). Move from ***Xyleborus***. Add:
New combination by Hulcr and Cognato 2009: 30.
DISTRIBUTION: ASIA: Brunei.
(**tx**) Hulcr and Cognato 2009: 30.
- Page 732 ***duodecimspinatus*** (Schedl). Move from ***Xyleborus***. Add:
New combination by Hulcr and Cognato 2009: 31.
(**hb, tx**) Hulcr and Cognato 2009: 31.
- Page 741 ***gorggae*** (Schedl). Move from ***Xyleborus***. Add:
New combination by Hulcr and Cognato 2009: 31.
(**tx**) Hulcr and Cognato 2009: 31.
- Page 741 ***haberkorni*** (Eggers). Move from ***Xyleborus***. Add ***Xyleborus taichuensis*** Schedl as a synonym. Add:
New combination by Hulcr and Cognato 2009: 31.
FIGURES: Lin and Wu 2010 209 (female habitus); Maiti and Saha 2004: 206 (female habitus, antenna).
DISTRIBUTION: ASIA: Japan (Ryukyu Islands), Papua New Guinea, Thailand.
(**ds**) Beaver, Kajimura and Goto 2008: 236; Lin and Wu 2010. (**tx**) Beaver and Liu 2010: 26.
(**ds, tx**) Maiti and Saha 2004: 205. (**ds, hb, tx**) Hulcr and Cognato 2009: 31.
- Page 742 ***haddeni*** (Schedl). Move from ***Xyleborus***. Add:
New combination by Hulcr and Cognato 2009: 32.

- DISTRIBUTION: ASIA: Papua New Guinea.
(**ds, tx**) Hulcr and Cognato 2009: 32.
- Page 746 **javanus** (Eggers). Move from *Xyleborus*. Add:
New combination by Hulcr and Cognato 2009: 32.
(**tx**) Hulcr and Cognato 2009: 32.
- Page 746 **justus** (Schedl). Move from *Xyleborus*. Add *Xyleborus marginicollis* Schedl as a synonym.
Add:
New combination and new synonymy by Hulcr and Cognato 2009: 32.
DISTRIBUTION: ASIA: Papua New Guinea.
(**ds, hb, tx**) Hulcr and Cognato 2009: 32. (**tx**) Hulcr 2010: 107.
- Page 750 **mesoleiulus** (Schedl). Move from *Xyleborus*. Add:
New combination by Hulcr and Cognato 2009: 33.
(**tx**) Hulcr and Cognato 2009: 33.
- Page 753 **mucronatulus** (Eggers). Move from *Xyleborus*. Add:
New combination by Hulcr and Cognato 2009: 33.
FIGURE: Maiti and Saha 2004: 210 (female habitus).
(**ds, tx**) Maiti and Saha 2004: 209. (**hb, tx**) Hulcr and Cognato 2009: 33.
- Page 753 **mucronatus** (Eggers). Move from *Xyleborus*. Add:
New combination by Hulcr and Cognato 2009: 34.
DISTRIBUTION: ASIA: Papua New Guinea, Philippine Islands (Luzon).
(**ds, tx**) Hulcr and Cognato 2009: 34.
- Page 758 **papatrae** (Schedl). Move from *Xyleborus*. Add:
New combination by Hulcr and Cognato 2009: 34.
FIGURE: Hulcr and Cognato 2009: 23 (female habitus).
(**hb, tx**) Hulcr and Cognato 2009: 34.
- Page 768 **quadrispinosulus** (Eggers). Move from *Xyleborus*. Add:
New combination by Hulcr and Cognato 2009: 34.
DISTRIBUTION: ASIA: Malaysia (Sabah, Selangor), Papua New Guinea.
(**ds, hb, tx**) Hulcr and Cognato 2009: 34.
- Page 778 **taichuensis** (Schedl). Move to **D. haberkorni** (Eggers) as a synonym. Add:
Synonymy by Beaver and Liu 2010: 26.
- Genus **Dryocoetoides** Hopkins
- Page 656 **Dryocoetoides** Hopkins. Add:
KEY: Wood 2007: 375 (to species in South America).
(**an**) López-Buenfil et al. 2001: 344. (**tx**) Alonso-Zarazaga and Lyal 2009: 100. (**hb, tx**) Wood 2007: 374.
- Page 656 **alter** (Eggers). Add:
(**ds, tx**) Wood 2007: 385.
- Page 656 **asperulus** (Eggers). Add:
(**ds, tx**) Wood 2007: 386.

- Page 656 ***capucinus*** (Eichhoff). Add *D. caracicolai* Hopkins as a synonym. Add:
FIGURES: López-Buenfil et al. 2001: 365 (proventriculus); Wood 2007: PLATE 81.
DISTRIBUTION: NORTH AMERICA: Mexico (Tabasco).
(ds) Burgos-Solorio and Equihua 2007: 74; Pérez-De La Cruz et al. 2009: 604. (ds, hb, tx)
Wood 2007: 378.
- Page 657 ***caracicolai*** Hopkins. Move to ***D. capucinus*** (Eichhoff) as a synonym. Add:
Synonymy by Bright and Torres 2006: 413.
- Page 657 ***caracicolai*** Hopkins. Move to ***D. cristatus*** (Fabricius) as a synonym. Add:
Synonymy by Wood 2007: 384.
NOTE: Two entries.
- Page 657 ***cristatus*** (Fabricius). Add *D. caracicolai* Hopkins as a synonym. Add:
FIGURES: Wood 2007: PLATE 81.
DISTRIBUTION: AFRICA: Sierra Leone. NORTH AMERICA: United States (Puerto Rico).
HOSTS: *Eucalyptus* sp.
(ds) Bright and Torres 2006: 413; Mandelshtam and Danielsson 2004: 91; Zanuncio et al.
2005: 513. (hb, tx) Wood 2007: 384.
- Page 657 ***flavus*** (Fabricius). Add:
FIGURES: Wood 2007: PLATE 82.
(ds, tx) Wood 2007: 381.
- Page 657 ***granulicauda*** (Eggers). Add:
(ds, tx) Wood 2007: 378.
- Page 658 ***inaffectatus*** (Schedl). Add:
(ds, tx) Wood 2007: 379.
- Page 658 ***indolatus*** Wood. Add:
FIGURES: Wood 2007: PLATE 83.
(ds, tx) Wood 2007: 385.
- Page 658 ***insculptus*** Wood. Add:
FIGURES: Wood 2007: PLATE 83.
(hb, tx) Wood 2007: 385.
- Page 658 ***maronicus*** (Eggers). Move to ***Xyleborus***.
- Page 658 ***monachus*** (Blandford). Add:
FIGURES: Wood 2007: PLATE 83.
(ds, tx) Wood 2007: 377.
- Page 658 ***obtusitruncatus*** (Schedl). Add:
FIGURES: Wood 2007: PLATE 84.
(ds, tx) Wood 2007: 384.
- Page 658 ***paradoxus*** (Schedl). Add:
(ds, tx) Wood 2007: 381.
- Page 658 ***pileatus*** Wood. Add:
FIGURES: Wood 2007: PLATE 84.
(ds, tx) Wood 2007: 379.

- Page 658 ***pseudosolitarius*** (Eggers). Add:
FIGURES: Wood 2007: PLATE 85.
(ds, hb, tx) Wood 2007: 383.
- Page 658 ***rusticus*** Wood. Add *Xyleborus haesitus* Schedl as a synonym. Add:
FIGURES: Wood 2007: PLATE 85.
(ds, tx) Wood 2007: 380.
- Page 658 ***semicostatus*** (Schedl). Add:
(ds, tx) Wood 2007: 382.
- Page 658 ***severus*** Wood. Add:
(ds, tx) Wood 2007: 380.
- Page 658 ***solitariformis*** Schedl. Move to ***Coptoborus***.
- Page 658 ***solitarinus*** (Schedl). Add:
(ds, tx) Wood 2007: 381.
- Page 658 ***truncatellus*** (Schedl). Add:
Lectotype (female), Nova Teutonia, Santa Catarina, Brazil, designated by Wood 2007: 380.
(ds, tx) Wood 2007: 380.
- Page 659 ***velutinus*** Wood. Add:
FIGURES: Wood 2007: PLATE 84.
DISTRIBUTION: SOUTH AMERICA: **Suriname** [see Appendix].
(ds, tx) Wood 2007: 385.
- Page 659 ***verrucosus*** Wood. Add:
(ds, hb, tx) Wood 2007: 383.
- Page 659 ***vexans*** (Schedl). Add:
FIGURES: Wood 2007: PLATE 86.
(ds, tx) Wood 2007: 383.

ADD SPECIES:

reticulatus Atkinson 2009: 66. Holotype (female), UNITED STATES: Florida, Monroe Co., Big Torch Key; USNM.
FIGURES: Atkinson 2009: 67 (female habitus), 68 (elytral declivity, female frons).

versutus Wood 2007: 379. Holotype (female), ECUADOR: Napo Mirahualli, near Tena; USNM.

Genus ***Eccoptopterus*** Motschulsky

- Page 819 ***Eccoptopterus*** Motschulsky. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 100; Maiti and Saha 2004: 119.
- Page 821 ***sexspinosus*** Motschulsky (= ***E. spinosus*** (Olivier). Add:
Lectotype (female), India oriental, Birma, designated by Mandelshtam and Nikitsky 2010:
14.

- Page 820 ***spinosus*** (Olivier). Add:
FIGURES: Lin and Wu 2010: 207 (female habitus); Maiti and Saha 2004: 122 (female habitus, antenna, tibia).
DISTRIBUTION: AFRICA: Gabon.
(ds) Beaver 2005b: 116; Beaver and Liu 2010: 26; Lin and Wu 2010; Maiti and Saha 2004: 120. (hb) Huler and Cognato 2010b. (tx) Maiti and Saha 2004: 120.
- Genus ***Euwallacea*** Hopkins
- Page 685 ***Euwallacea*** Hopkins. Add:
KEYS: Maiti and Saha 2004: 125 (to species in India); Rabaglia, Dole and Cognato 2006: 1039 (to species in North America north of Mexico); Wood 2007: 409 (to species in South America).
(tx) Alonso-Zarazaga and Lyal 2009: 100; Hulcr and Cognato 2010a: 16; Maiti and Saha 2004: 123; Rabaglia 2002: 803; Wood 2007: 408.
- Page 685 ***andamanensis*** (Blandford). Add:
FIGURE: Maiti and Saha 2004: 128 (female habitus).
(ds, tx) Maiti and Saha 2004: 126.
- Page 686 ***artelaevis*** (Schedl). Move to ***Planiculus bicolor*** (Blandford) as a synonym. Add.
Synonymy by Hulcr 2010: 112.
- Page 686 ***barbatomorphus*** (Schedl). Add:
(ds) Beaver and Liu 2010: 26.
- Page 687 ***bicolor*** (Blandford). Move to ***Planiculus*** Hulcr and Cognato. Add:
FIGURE: Maiti and Saha 2004: 131 (female habitus).
(ds, tx) Maiti and Saha 2004: 129.
- Page 687 ***destruens*** (Blandford). Add:
FIGURE: Lin and Wu 2010: 207 (female habitus).
(ds) Beaver and Liu 2010: 26; Lin and Wu 2010. (ds, tx) Maiti and Saha 2004: 132.
- Page 688 ***filiformis*** (Schedl). Move to ***Planiculus bicolor*** (Blandford) as a synonym. Add.
Synonymy by Hulcr and Cognato 2010a: 22.
- Page 688 ***fornicatus*** (Eichhoff). Add:
FIGURES: Maiti and Saha 2004: 134 (female habitus); Wood 2007: PLATE 95.
DISTRIBUTION: ASIA: Japan (Ryukyu Islands). NORTH AMERICA: Costa Rica, Panama, United States (California, Florida, both introduced).
HOSTS: *Delonix regia*, *Protium panamense*, *Cedrela odorata*, black locust.
(ds) Beaver and Liu 2010: 27; Beaver, Kajimura and Goto 2008: 235; Haack 2006: 272; Huang et al. 2003; Kirkendall and Ødegaard 2007; Maiti and Saha 2004: 133; Rabaglia, Dole and Cognato 2006: 1036,1042. (hb) Huang et al. 2003. (tx) Maiti and Saha 2004: 133; Rabaglia, Dole and Cognato 2006: 1036,1042. (ds, hb, tx) Wood 2007: 409.
- Page 674 ***funereus*** (Lea). Move from ***Ambrosiodmus***. Add:
New combination by Hulcr and Cognato 2010a: 16.
FIGURE: Maiti and Saha 2004: 55 (female habitus).
HOSTS: *Ficus infectoria*, *Sterculia alata*.
(ds, tx) Maiti and Saha 2004: 54.

- Page 690 ***interjectus*** (Blandford). Add:
FIGURES: Lin and Wu 2010: 207 (female habitus); Maiti and Saha 2004: 137 (female habitus); Yin 1997: 972 (outline of female elytral declivity).
(ds) Beaver and Liu 2010: 27; Huang et al. 2003; Lin and Wu 2010. (hb) Huang et al. 2003.
(ds, tx) Maiti and Saha 2004: 136; Yin 1997: 972.
- Page 691 ***laevis*** (Eggers). Move to ***Planiculus bicolor*** (Blandford) as a synonym. Add:
Synonymy by Hulcr and Cognato 2010a: 22.
- Page 692 ***malloti*** (Eggers). Add:
FIGURE: Maiti and Saha 2004: 139 (female habitus).
(ds, tx) Maiti and Saha 2004: 138.
- Page 692 ***metanepotulus*** (Eggers). Move to ***Ambrosiophilus***.
- Page 692 ***piceus*** (Motschulsky). Move to ***Wallacellus***. Add:
Lectotype (female), Ceylon, designated by Mandelshtam and Nikitsky 2010: 16.
- Page 693 ***sibsagaricus*** (Eggers). Add:
FIGURE: Maiti and Saha 2004: 143 (female habitus).
(ds, tx) Maiti and Saha 2004: 142.
- Page 118 (Suppl. 2) ***subemarginatus*** (Eggers). Move to ***Planiculus limatus*** (Schedl) as a synonym. Add:
Synonymy by Hulcr and Cognato 2010a: 23.
- Page 694 ***subparallelus*** (Eggers). Move to ***Planiculus limatus*** (Schedl) as a synonym. Add:
Synonymy by Hulcr and Cognato 2010a: 23.
- Page 694 ***tristis*** (Eggers). Add:
FIGURE: Maiti and Saha 2004: 145 (female habitus).
(ds, tx) Maiti and Saha 2004: 144.
- Page 694 ***tumidus*** (Schedl). Move to ***Planiculus bicolor*** (Blandford) as a synonym. Add:
Synonymy by Hulcr and Cognato 2010a: 22.
- Page 694 ***validus*** (Eichhoff). Add:
FIGURES: Rabaglia, Dole and Cognato 2006: 1039 (female pronotum); Wood 2007: PLATE 96.
DISTRIBUTION: ASIA: China (Hengduan Mtns.). NORTH AMERICA: United States (Michigan, Mississippi, Ohio, South Carolina).
HOSTS: *Pinus densiflora*, *Fagus* sp.
(ds) Beaver and Liu 2010: 27; Cognato et al. 2009: 110; Coyle, Booth and Wallace 2005; Gandhi et al. 2010; Haack 2001: 272; Huang and Yin 1992: 861; Lee and Lee 2000; Lightle et al. 2007; Rabaglia and Valenti 2003: 316; Rabaglia, Dole and Cognato 2006: 1042; Schiefer 2010: 113. (ds, hb, tx) Wood 2007: 409.
- Page 694 ***velatus*** (Sampson). Add:
FIGURE: Maiti and Saha 2004: 147 (female habitus).
(ds, tx) Maiti and Saha 2004: 146.
- Page 695 ***wallacei*** (Blandford). Add:
FIGURE: Maiti and Saha 2004: 150 (female habitus).
(ds, tx) Maiti and Saha 2004: 149.

- Page 695 ***xanthopodus*** (Eichhoff). Add:
 FIGURE: Maiti and Saha 2004: 152 (female habitus).
 (ds, tx) Maiti and Saha 2004: 151.

Genus ***Fortiborus*** Hulcr and Cognato

ADD GENUS:

Fortiborus Hulcr and Cognato 2010a: 17. Type species: *Xyleborus major* Stebbing, by original designation.

ADD SPECIES:

- Page 711 ***anisopterae*** (Browne). Move from ***Xyleborus***. Add:
 New combination by Hulcr and Cognato 2010a: 18.
 FIGURE: Hulcr and Cognato 2010a: 17 (lateral female habitus).
- Page 700 ***indigens*** (Schedl). Move from ***Cyclorhipidion***. Add:
 New combination by Hulcr and Cognato 2010a: 18.
- Page 749 ***major*** (Stebbing). Move from ***Xyleborus***. Add *Xyleborus siclus* Schedl as a synonym. Add:
 New combination and new synonymy by Hulcr and Cognato 2010a: 18. Add:
 FIGURE: Maiti and Saha 2004: 209 (female habitus).
 (ds, tx) Maiti and Saha 2004: 207.
- Page 763 ***pilifer*** (Eggers). Move from ***Xyleborus***. Add *Xyleborus pseudopilifer* Schedl as a synonym.
 Add:
 New combination and new synonymy by Hulcr and Cognato 2010a: 18
- Page 764 ***posticepilosus*** (Schedl). Move from ***Xyleborus***. Add *Ozopemon major* Strohmeyer as a synonym. Add:
 New combination and new synonymy by Beaver 2011a: 285.
- Page 703 ***sulcinoides*** (Schedl). Move from ***Cyclorhipidon***. Add:
 New combination by Hulcr and Cognato 2010a: 18.

Genus ***Hadrodemius*** Wood

- Page 818 ***Hadrodemius*** Wood. Add:
 KEYS: Beaver 2010a: 52 (to all species); Maiti and Saha 2004: 154 (to species in India).
 (tx) Alonso-Zarazaga and Lyal 2009: 101; Beaver 2010a; Maiti and Saha 2004: 153.
- Page 818 ***amorphus*** Eggers. Move to ***H. comans*** (Sampson) as a synonym. Add:
 Synonymy by Beaver 2010a: 54.
- Page 818 ***artecomans*** Schedl. Move to ***H. pseudocomans*** (Eggers) as a synonym. Add:
 Synonymy by Beaver 2010: 55.
- Page 819 ***comans*** (Sampson). Add *Xyleborus amorphus* Eggers and *X. metacomans* Eggers as synonyms. Add:
 FIGURES: Beaver 2010a: 53 (male and female habitus); Lin and Wu 2010: 207 (female habitus).
 DISTRIBUTION: ASIA: Brunei, Laos, Thailand, Vietnam.
 (ds) Beaver and Liu 2010: 27; Lin and Wu 2010. (ds, hb, tx) Beaver 2010a: 54.

- Page 819 ***globus*** (Blandford). Add *Xyleborus tomentosus* Eggers as a synonym. Add:
 FIGURE: Beaver 2010a: 53 (female habitus).
 DISTRIBUTION: ASIA: Vietnam.
 (ds) Beaver and Liu 2010: 28. (hb) Hulcr and Cognato 2010b. (ds, tx) Maiti and Saha 2004: 154. (ds, hb, tx) Beaver 2010a: 54.
- Page 818 *melli* Schedl. Remove from synonymy with ***H. amorphus*** (Eggers). Move to ***Xylosandrus amputatus*** (Blandford) as a synonym. Add:
 Synonymy by Beaver 2010: 55.
- Page 819 *metacomans* (Eggers). Move to ***H. comans*** (Sampson) as a synonym. Add:
 Synonymy by Maiti and Saha 2004: 155.
 FIGURES: Maiti and Saha 2004: 156 (female habitus, antenna).
 (ds, tx) Maiti and Saha 2004: 155.
- Page 819 ***pseudocomans*** (Eggers). Add *Xyleborus artecomans* Schedl as a synonym. Add:
 FIGURES: Beaver 2010a: 53 (female habitus); Maiti and Saha 2004: 158 (female habitus).
 (ds, hb, tx) Beaver 2010a: 55. (ds, tx) Maiti and Saha 2004: 157.
- Page 819 *tomentosus* Eggers. Move to ***H. globus*** (Blandford) as a synonym. Add:
 Synonymy by Beaver 2010: 55.

Genus ***Leptoxyleborus*** Wood

- Page 659 ***Leptoxyleborus*** Wood. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 101; Maiti and Saha 2004: 158.
- Page 660 *attenuatus* Motschulsky (= ***sordicauda*** (Motschulsky)). Add
 Lectotype (female), India oriental, designated by Mandelshtam and Nikitsky 2010: 18.
- Page 659 ***concisus*** (Blandford). Add:
 FIGURES: Maiti and Saha 2004: 160.
 (ds, tx) Maiti and Saha 2004: 159.
- Page 660 ***sordicauda*** (Motschulsky). Add:
 Lectotype (female), India oriental, designated by Mandelshtam and Nikitsky 2010: 18.

Genus ***Microporus*** Wood

- Page 822 ***Microporus*** Wood. Remove from synonymy with ***Coptodryas***.
 (tx) Alonso-Zarazaga and Lyal 2009: 101; Hulcr and Cognato 2010a: 19; Hulcr et al. 2007: 579.

ADD SPECIES:

- Page 823 ***alpha*** (Beeson). Move from ***Coptodryas***. Add:
 New combination by Hulcr 2010: 11.
 DISTRIBUTION: ASIA: Taiwan.
 (ds) Beaver and Liu 2010: 28.
- Page 823 ***corporaali*** (Eggers). Move from ***Coptodryas***. Add *Xyleborus fulvulus* Schedl as a synonym.
 Add:
 New combination and synonymy by Hulcr 2010: 111.

- Page 824 ***diversicolor*** (Eggers). Move from ***Coptodryas***. Add *Coptodryas atava* (Schedl) and *C. myristicae* (Schedl) as synonyms. Add:
New combination and synonymy by Hulcr and Cognato 2010a: 19.
- Page 624 ***eucalypticus*** (Schedl). Move from ***Coptodryas***. Add:
New combination by Hulcr 2007: 579.
DISTRIBUTION: NEW ZEALAND (introduced and established).
(ds) Brockerhoff, Knízek and Bain 2003: 34; Brockerhoff et al. 2006. (tx) Hulcr 2010: 112.
- Page 824 ***huangi*** (Browne). Move from ***Coptodryas***. Move to ***Microporus kadoyamaensis*** (Murayama) as a synonym. Add:
New combination by Hulcr et al. 2007: 579. synonymy by Beaver 2011: 285
- Page 625 ***intermedius*** (Eggers). Move from ***Coptodryas***. Add *Xyleborus nitellus* Browne as a synonym. Add:
New combination by Hulcr et al. 2007: 579, synonymy by Hulcr and Cognato 2010a: 20.
(tx) Hulcr and Cognato 2010a: 20.
- Page 746 ***kadoyamaensis*** (Murayama). Move from ***Xyleborus***. Add *Xyleborus huangi* Browne as a synonym. Add:
New combination by Hulcr et al. 2007: 579. Synonymy by Beaver 2011a: 285.
(ds) Beaver and Liu 2010: 28.
- Page 825 ***kirishimanus*** (Murayama). Move from ***Coptodryas***. Add:
New combination by Beaver and Liu 2010: 28.
FIGURE: Lin and Wu 2010: 206 (female habitus).
DISTRIBUTION: ASIA: Taiwan.
(ds) Lin and Wu 2010. (ds, tx) Beaver and Liu 2010: 28.
- Page 825 ***myristicae*** (Schedl). Move from ***Coptodryas***. Move to ***Microporus diversicolor*** (Eggers) as a synonym. Add:
New combination by Hulcr et al. 2007: 579. Synonymy by Hulcr and Cognato 2010a: 19
FIGURE: Hulcr et al. 2007: 580 (female habitus).
- Page 828 ***nanus*** (Browne). Move from ***Cryptoxyleborus***. Add:
New combination by Beaver and Liu 2008: 151.
DISTRIBUTION: ASIA: Brunei, Malaysia (Sabah).
(ds, hb, tx) Beaver and Liu 2008: 151.
- Page 826 ***nugax*** (Schedl). Move from ***Coptodryas***. Add:
New combination by Hulcr 2010: 112.
- Page 826 ***parvus*** (Lea). Move from ***Coptodryas***. Add *Coptoborus libra* (Eggers) and *C. pubipennis* (Schedl). Add:
New combination and new synonymy by Hulcr and Cognato 2010a: 20.
NOTE: Lectotype designation by Hulcr and Cognato 2010a: 20 invalid. Species described from 1 specimen, not syntopic series.
- Page 826 ***perparvus*** (Sampson). Move from ***Coptodryas***. Add *Xyleborus tsukubanus* Murayama as a synonym. Add:
New combination and new synonymy by Beaver, Kajimura and Goto 2008: 233.
DISTRIBUTION: ASIA: Taiwan.
(ds) Beaver and Liu 2010: 28. (ds, tx) Beaver, Kajimura and Goto 2008: 233.

- Page 125 **pometianus** (Schedl). Move from *Coptodryas*. Add:
(Suppl.2) New combination by Hulcr and Cognato 2010a: 21.

Genus **Planiculus** Hulcr and Cognato

ADD GENUS:

Planiculus Hulcr and Cognato 2010a: 21. Type species: *Xyleborus bicolor* Blandford, by original designation.

ADD SPECIES:

- Page 713 **aries** (Schedl). Move from *Xyleborus*. Add:
New combination by Hulcr and Cognato 2010a: 22.

- Page 687 **bicolor** (Blandford). Move from *Euwallacea*. Add *Xyleborus artelaevis* Schedl, *Euwallacea filiformis* (Schedl), *E. laevis* (Eggers), *E. tumidus* (Schedl) and *Xyleborus glabratulus* Browne as synonyms. Add:
New combination and synonymy by Hulcr 2010: 112 and Hulcr and Cognato 2010a: 22.
FIGURE: Hulcr and Cognato 2010a: 22 (female habitus).

- Page 743 **immersus** (Schedl). Move from *Xyleborus*. Add *Xyleborus hashimotoi* Brown as a synonym.
Add:
New combination and synonymy by Hulce and Cognato 2010: 23.

- Page 691 **laevis** (Eggers). Move from *Euwallacea*. Move to **P. bicolor** (Blandford). Add:
Synonymy by Hulcr and Cognato 2010a: 22.
(ds, tx) Beaver and Liu 2010: 29.

- Page 691 **limatus** (Schedl). Move from *Euwallacea*. Add *Euwallacea subemarginatus* (Eggers) and *E. subparallelus* (Eggers) as synonyms. Add:
New combination and synonymy by Hulce and Cognato 2010: 23.

- Page 750 **minutus** (Blandford). Move from *Xyleborus*. Add:
New combination by Beaver and Liu 2010: 29.
DISTRIBUTION: ASIA: Taiwan.
(ds) Beaver and Liu 2010: 29.

Genus **Pseudowebbia** Browne

- Page 829 **Pseudowebbia** Browne. Remove from synonymy with *Webbia*. Add *Taphrodasus* Wood as a synonym. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 101; Hulcr et al. 2007: 580. Hulcr 2010: 113,114.

- Page 829 **armifer** (Schedl). Move from *Webbia*. Add:
New combination by Hulcr et al. 2007: 581.

- Page 722 **curvata** (Browne). Move from *Xyleborus*. Add:
New combination by Hulcr et al. 2007: 581.

- Page 828 **percorthylus** (Schedl). Move from *Taphrodasus*. Add:
New combination by Hulcr 2010: 113.

- Page 831 ***seriata*** Brown. Add:
(tx) Hulcr et al. 2007: 581.
- Page 833 ***squamatilis*** (Schedl). Move from ***Webbia***. Add:
New combination by Hulcr et al. 2007: 581.
- Page 833 ***trepanicauda*** (Eggers). Move from ***Webbia***. Add:
New combination by Hulcr et al. 2007: 581.
FIGURE: Hulcr et al. 2007: 582 (female habitus).
- Genus ***Sampsonius*** Eggers
- Page 655 ***Sampsonius*** Eggers. Add:
KEY: Wood 2007: 369 (to species in South America).
(hb) Petrov and Mandelshtam 2009: 318. (tx) Alonso-Zarazaga and Lyal 2009: 101. (hb, tx)
Wood 2007: 369.
- Page 655 ***alvarengai*** Bright. Add:
FIGURE: Petrov and Mandelshtam 2009: 317 (female habitus).
DISTRIBUTION: SOUTH AMERICA: Peru.
(ds) Petrov and Mandelshtam 2009: 314. (tx) Wood 2007: 370.
- Page 655 ***buculus*** Schedl. Add;
FIGURES: Petrov and Mandelshtam 2009: 317 (female habitus), 318 (elytral process); Wood
2007: PLATE 78.
(tx) Wood 2007: 373.
- Page 655 ***conifer*** (Hagedorn). Add:
(tx) Wood 2007: 371.
- Page 655 ***dampfi*** Schedl. Add:
FIGURES: Petrov and Mandelshtam 2009: 317 (female habitus), 318 (elytral process); Wood
2007: PLATE 79.
DISTRIBUTION: NORTH AMERICA: Mexico (Tabasco). SOUTH AMERICA: Peru.
(ds) Flechtmann, Ottati and Berisford 2001; Pérez-De La Cruz et al. 2009: 604; Petrov and
Mandelshtam 2009: 314. (ec) Morales et al. 2000. (ds, hb, tx) Wood 2007: 372.
- Page 655 ***detractus*** Wood. Add:
(tx) Wood 2007: 373.
- Page 656 ***expulsus*** Wood. Add:
FIGURES: Wood 2007: PLATE 79.
(tx) Wood 2007: 371.
- Page 656 ***obtusicornis*** Schedl. Add:
FIGURES: Petrov and Mandelshtam 2009: 317 (female habitus); Wood 2007: PLATE 80.
DISTRIBUTION: SOUTH AMERICA: Peru.
(ds) Petrov and Mandelshtam 2009: 314. (tx) Wood 2007: 374.
- Page 656 ***pennatus*** Schedl. Add:
FIGURES: Wood 2007: PLATE 80.
(tx) Wood 2007: 371.

Page 141 ***prolongatus*** Schönherr. Add:
(Suppl. 1) FIGURE: Petrov and Mandelshtam 2009: 317 (female habitus).
DISTRIBUTION: SOUTH AMERICA: Peru.
(ds) Petrov and Mandelshtam 2009: 314. (tx) Wood 2007: 372.

Page 656 ***quadrispinosus*** Eggers. Add:
FIGURE: Petrov and Mandelshtam 2009: 317 (female habitus).
DISTRIBUTION: SOUTH AMERICA: Peru.
(ds) Petrov and Mandelshtam 2009: 315.

Page 656 ***sexdentatus*** Eggers. Add:
(tx) Wood 2007: 371.

Page 656 ***sulcatus*** Bright. Add:
(tx) Wood 2007: 374.

Page 656 ***usurpatus*** Wood. Add:
(tx) Wood 2007: 372.

ADD SPECIES:

ensifer Wood 2007: 373. Holotype (female), FRENCH GUAYANA: Petit-Saut; USNM. Add:
FIGURE: Petrov and Mandelshtam 2009: 317 (female habitus).
DISTRIBUTION: SOUTH AMERICA: Peru.
(ds) Petrov and Mandelshtam 2009: 314.

knaizi Petrov and Mandelshtam 2009: 315. Holotype (female), PERU, Loreto Province, left bank of Amazon River, Itaya River, 58 km SSW in Iquitos to Nauta, 73°26'W 4°11'S; ZMM.
FIGURES: Petrov and Mandelshtam 2009: 317 (female habitus), 318 (female elytral process).

sagittarius Petrov and Mandelshtam 2009: 316. Holotype (female), PERU, Loreto Province, left bank of Amazon River, Itaya River, 58 km SSW in Iquitos to Nauta, 73°26'W 4°11'S; ZMM.
FIGURES: Petrov and Mandelshtam 2009: 317 (female habitus), 318 (female elytral process).

Genus ***Schedlia*** Browne

Page 822 ***Schedlia*** Browne. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 102.

Genus ***Streptocranus*** Schedl

Page 662 ***Streptocranus*** Schedl. Remove from synonymy with ***Coptoborus***. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 102; Hulcr et al. 2007: 582.

Page 662 ***bicolor*** Browne. Move from ***Coptoborus***. Add:
New combination by Hulcr et al. 2007: 582.

Page 662 ***bicuspis*** (Eggers). Move from ***Coptoborus***. Add:
New combination by Hulcr et al. 2007: 582.

Page 663 ***capucinulus*** Schedl. Move from ***Coptoborus***. Add:
New combination by Hulcr et al. 2007: 582.

- Page 663 ***forficatus*** (Schedl). Move from ***Coptoborus***. Add:
New combination by Huler et al. 2007: 582.
- Page 663 ***fragilis*** Browne. Move from ***Coptoborus***. Add:
New combination by Huler et al. 2007: 582.
- Page 663 ***longicauda*** Browne. Move from ***Coptoborus***. Add:
New combination by Huler et al. 2007: 582.
- Page 663 ***longispinis*** Browne. Move from ***Coptoborus***. Add:
New combination by Huler et al. 2007: 582.
FIGURE: Huler et al. 2007: 582 (female habitus).
- Page 663 ***mirabilis*** Schedl. Move from ***Coptoborus***. Add:
New combination by Huler et al. 2007: 583.
- Page 680 ***sexdentatus*** (Eggers). Move from ***Ambrosiodmus***. Add:
New combination by Huler et al. 2007: 583.
- Page 664 ***superbus*** (Schedl). Move from ***Coptoborus***. Add:
New combination by Huler et al. 2007: 583.
- Page 664 ***usagaricus*** (Eggers). Move from ***Coptoborus***. Add:
New combination by Huler et al. 2007: 583.
DISTRIBUTION: AFRICA: Gabon.
(ds) Beaver 2005b: 116.

Genus *Taphrodasus* Wood

- Page 827 *Taphrodasus* Wood. Move to ***Pseudowebbia*** as a synonym. Add:
Synonymy by Huler 2010: 114.
(tx) Alonso-Zarazaga and Lyal 2009: 102.
NOTE: *Taphrodasus* is a valid, available name, not invalid, as stated by Huler 2010.

Genus *Taurodemus* Wood

- Page 785 ***Taurodemus*** Wood. Add:
KEY: Wood 2007: 459 (to all species).
(tx) Alonso-Zarazaga and Lyal 2009: 102; Wood 2007: 459.
- Page 785 ***bicornutus*** (Wood). Add:
FIGURES: Wood 2007: PLATE 125.
(ds, tx) Wood 2007: 464.
- Page 785 ***ebenus*** (Wood). Add:
FIGURES: Wood 2007: PLATE 125.
(ds, hb, tx) Wood 2007: 463.
- Page 785 ***flavipes*** (Fabricius). Add *T. perebeae* (Ferrari) as a synonym. Add:
FIGURES: Wood 2007: PLATE 126.
(ds, hb, tx) Wood 2007: 461.
- Page 785 ***perebeae*** (Farrari). Move to ***T. flavipes*** (Fabricius) as a synonym. Add:
Synonymy by Wood 2007: 461.

Page 786 ***splendidus*** (Schaufuss). Add:
FIGURES: Wood 2007: PLATES 126,127.
(ds, hb, tx) Wood 2007: 462.

Page 787 ***varians*** (Fabricius). Add:
FIGURES: Wood 2007: PLATES 127,128.
(ds, tx) Wood 2007: 461.

Page 787 ***varulus*** (Wood). Add:
FIGURES: Wood 2007: PLATE 128.
(ds, hb, tx) Wood 2007: 462.

ADD SPECIES:

columbianus Wood 2007: 463. Holotype (female), COLOMBIA: Palmira (Valle de Caucal); USNM.

Genus ***Theoborus*** Hopkins

Page 660 ***Theoborus*** Hopkins. Add:
KEY: Wood 2007: 387 (to all species).
(an) López-Buenfil et al. 2001: 345. **(tx)** Alonso-Zarazaga and Lyal 2009: 102; Wood 2007: 386.

Page 661 ***coartatus*** (Sampson). Add:
FIGURES: Wood 2007: PLATE 86.
(ds, tx) Wood 2007: 390.

Page 721 ***crinitulus*** (Wood). Move from ***Xyleborus***. Add:
New combination by Wood 2007: 389.
FIGURES: Wood 2007: PLATE 87.
(ds, tx) Wood 2007: 389.

Page 661 ***ricini*** (Eggers). Add:
FIGURES: Rabaglia, Dole and Cognato 2006: 1038 (antennal club); Wood 2007: PLATE 87.
HOST: *Delonix regia*.
(ds) Rabaglia, Dole and Cognato 2006: 1042. **(ds, tx)** Wood 2007: 389.

Page 661 ***solitariceps*** Schedl (= ***T. ricini*** (Eggers)). Add:
FIGURE: López-Buenfil et al. 2001: 366 (proventriculus).

Page 661 ***theobromae*** Hopkins. Add:
FIGURES: Wood 2007: PLATE 83.
(ds, tx) Wood 2007: 388.

Page 661 ***villosulus*** (Blandford). Add:
FIGURES: Wood 2007: PLATE 83.
(ds) Bright 2004: 161. **(ds, tx)** Wood 2007: 389.

ADD SPECIES:

paurus Wood 2007: 388. Holotype (female), COSTA RICA: Est. Biol. La Selva, Heredia; USNM.
HOST: *Protium panamensis*.

puertoricensis Bright and Torres 2006: 414. Holotype (female), PUERTO RICO: Guaynabo; DEBC/USNM.

FIGURE: Bright and Torres 2006: 426 (female elytral apex).

NOTE: This species is erroneously treated in ***Coptoborus*** in Wood 2007: 398.

Genus ***Truncaudum*** Hulcr and Cognato

ADD GENUS:

Truncaudum Hulcr and Cognato 2010a: 24. Type species: *Xyleborus impexus* Schedl, by original designation.

ADD SPECIES:

Page 697 ***agnatum*** (Eggers). Move from ***Cyclorhipidion***. Add *Xyleborus polyodon* Eggers, *Cyclorhipidion delicatum* (Schedl), *C. subagnatum* Wood and *X. gratiosus* Schedl as synonyms. Add:

New combination and new synonymy by Hulcr 2010: 114 and Hulcr and Cognato 2010a: 25.
Add:

FIGURE: Hulcr and Cognato 2010a: 24 (female habitus).

Page 652 ***circumeinctus*** (Schedl). Move from ***Premnobius***. Add:
New combination by Hulcr 2010: 114.

Page 743 ***impexum*** (Schedl). Move from ***Xyleborus***. Add *X. dentatulus* Browne, *X. circumspinosis* Schedl, *X. falcarius* Schedl, *X. subdentatus* Browne, *X. vernaculus* Schedl and *X. putputensis* Browne as synonyms. Add:
New combination and new synonymy by Hulcr and Cognato 2010a: 26.

Page 700 ***longior*** (Eggers). Move from ***Cyclorhipidion***. Add *Xyleborus canarivorus* Browne, *X. protii* Browne and *X. viaticus* Schedl as synonyms. Add:
New combination and new synonymy by Hulcr and Cognato 2010a: 27.

Genus ***Wallacellus*** Hulcr and Cognato

ADD GENUS:

Wallacellus Hulcr and Cognato 2010a: 27. Type species: *Anodius piceus* Motschulsky, by original designation.

ADD SPECIES:

Page 761 ***denticulus*** (Motschulsky). Move from ***Xyleborus***. Add *X. similis* (Ferrari) as a synonym.

Page 692 ***piceus*** (Motschulsky). Move from ***Euwallacea***. Add:
New combination by Hulcr and Cognato 2010a: 29.
FIGURES: Hulcr and Cognato 2010: 29 (female habitus); Lin and Wu 2010: 207 (female habitus); Maiti and Saha 2004: 142 (female habitus).
(ds) Beaver and Liu 2010: 29; Lin and Wu 2010; Mandelshtam and Danielsson 2004: 90. **(ds, tx)** Maiti and Saha 2004: 140.

Page 772 ***similis*** (Ferrari). Move from ***Xyleborus***. Move to ***X. denticulus*** (Motschulsky) as a synonym. Add:
Synonymy by Mandelshtam and Nikitsky 2010: 16.

New combination by Hulcr and Cognato 2010a: 29.
FIGURES: Maiti and Saha 2004: 222 (female habitus); Rabaglia, Dole and Cognato 2006: 1045 (female elytral declivity).
DISTRIBUTION: NORTH AMERICA: United States (Texas, introduced).
(ds) Beaver and Liu 2010: 29; Haack 2006: 274; Maiti and Saha 2004: 221; Rabaglia, Dole and Cognato 2006: 1035,1049. (tx) Maiti and Saha 2004: 221. (ds, tx) Wood 2007: 455.

Page 776 ***striatulus*** (Browne). Move from ***Xyleborus***. Add:
New combination by Hulcr and Cognato 2010a: 30.

Genus ***Webbia*** Hopkins

Page 829 ***Webbia*** Hopkins. Add:
KEY: Maiti and Saha 2004: 163 (to species in India).
(tx) Alonso-Zarazaga and Lyal 2009: 102; Hulcr et al. 2007: 581; Maiti and Saha 2004: 161.

Page 829 ***acutus*** (Schedl). Move to ***Cryptoxyleborus***.
(tx) Alonso-Zarazaga and Lyal 2009: 102.

Page 829 ***armifer*** (Schedl). Move to ***Pseudowebbia***.

Page 828 ***divisus*** Browne. Move from ***Taphrodasus***. Add:
New combination by Hulcr 2010: 115.

Page 832 ***pabo*** Sampson. Add:
FIGURE: Maiti and Saha 2004: 165 (female habitus).
(ds, tx) Maiti and Saha 2004: 164.

Page 828 ***penicillatus*** (Hagedorn). Move from ***Taphrodasus***. Add:
New combination by Hulcr 2010: 115.

Page 832 ***seriata*** Browne. Move to ***Pseudowebbia***.

Page 833 ***squamatis*** (Schedl). Move to ***Pseudowebbia***.

Page 833 ***trepanicauda*** (Eggers). Move to ***Pseudowebbia***.

Page 833 ***trigintispinatus*** Sampson. Add:
(ds, tx) Maiti and Saha 2004: 165 (female habitus).

Page 833 ***turbinatus*** Maiti and Saha. Add:
FIGURE: Maiti and Saha 2004: 168 (female habitus).
(ds, tx) Maiti and Saha 2004: 166.

Genus ***Xyleborinus*** Reitter

Page 803 ***Xyleborinus*** Reitter. Add:
KEYS: Bright and Torres 2006: 420 (to species in Puerto Rico); Maiti and Saha 2004: 169 (to species in India); Rabaglia, Dole and Cognato 2006: 1043 (to species in North America north of Mexico); Rabaglia, Knízek and Johnson 2010: 221 (revised key to North American species); Wood 2007: 470 (to species in South America).
(an) López-Buenfil et al. 2001: 346. (ds) Alonso-Zarazaga and Lyal 2009: 103. (tx) Hulcr et al. 2007: 577; Maiti and Saha 2004: 167; Rabaglia 2002: 803; Wood 2007: 470.

- Page 804 **aemulus** (Wollaston). Add:
(**ds**) Mandelshtam and Danielsson 2004: 91.
- Page 804 **alni** (Niisima). Move to **X. attenuatus** (Blandford) as a synonym. Add:
Synonymy by Knízek 2011: 86.
FIGURES: Hoebeke and Rabaglia 2007: 246 (female habitus), 247 (female elytral declivity);
Rabaglia, Dole and Cognato 2006: 1043 (female elytral declivity).
DISTRIBUTION: EUROPE: Denmark, Sweden. NORTH AMERICA: Canada (British Columbia, introduced), United States (Maine, Maryland, Massachusetts, Michigan, New Jersey, New York, Ohio, Oregon, Pennsylvania, Vermont, introduced).
(**ds**) Cognato et al. 2009: 111; Gebhardt 2002; Haack 2006: 273; Hoebeke and Rabaglia 2007;
Knízek 2006b; Lindelöw, Jonsell and Sjödin 2006; Mandelshtam and Petrov 2009a: 209;
Mudge et al. 2001; Nikulina, Martynov and Mandelshtam 2007a; Pedersen, Hanses and
Vagholm-Jensen 2010; Rabaglia, Dole and Cognato 2006: 1043; Weigel 2008.
- Page 804 **andrewsi** (Blandford). Add:
FIGURES: Cognato and Rubinoff 2008: 422 (female habitus); Lin and Wu 2010: 209 (female
habitus); Maiti and Saha 2004: 171 (female habitus, antenna, tibia).
DISTRIBUTION: ASIA: Taiwan. NORTH AMERICA: United States (Florida, introduced),
Hawaii (Hawaii, Ohau).
(**ds**) Beaver and Liu 2010: 30; Brockerhoff, Knízek and Bain 2003: 37; Cognato and Rubinoff
2008: 421; Lin and Wu 2010; Okins and Thomas 2010. (**ds, tx**) Maiti and Saha 2004: 170.
- Page 814 **angustatus** (Eichhoff). Remove from synonymy with **X. saxesenii** (Ratzburg). Add:
(**tx**) Knízek 2011: 86.
- Page 711 **angustior** (Eggers). Move from **Xyleborus**. Add:
New combination by Hulcr et al. 2007: 577.
- Page 805 **artestriatus** (Eichhoff). Add *Xyleborinus beaveri* (Browne) as a synonym. Add:
FIGURES: Lin and Wu 2010: 209 (female habitus); Maiti and Saha 2004: 174 (female habi-
tus).
DISTRIBUTION: ASIA: Taiwan.
(**ds**) Lin and Wu 2010. (**ds, tx**) Maiti and Saha 2004: 172.
- Page 808 **aspericauda** (Eggers) (= **X. gracilis** (Eichhoff)). Add:
FIGURE: López-Buenfil et al. 2001: 366 (proventriculus).
- Page 805 **attenuatus** (Blandford). Add **X. alni** (Niisima) as a synonym. Add:
(**ds**) Beaver and Liu 2010: 30. (**tx**) Knízek 2011: 86.
- Page 805 **beaveri** (Browne). Move to **X. artestriatus** (Eichhoff) as a synonym.
Synonymy by Beaver and Liu 2010: 30.
- Page 806 **bicornatulus** (Wood). Add:
FIGURES: Wood 2007: PLATE 132.
(**ds, hb, tx**) Wood 2007: 477.
- Page 806 **buscki** (Hopkins). Add:
FIGURES: Wood 2007: PLATE 135.
(**tx**) Wood 2007: 472.

- Page 806 ***celatus*** Wood. Add:
FIGURES: Wood 2007: PLATE 132.
(**ds, hb, tx**) Wood 2007: 477.
- Page 806 ***collarti*** (Eggers). Move to ***Xyleborus***.
- Page 806 ***dirus*** Wood. Add:
FIGURES: Wood 2007: PLATE 133.
(**ds, hb, tx**) Wood 2007: 477.
- Page 806 ***exiguus*** (Walker). Add:
FIGURE: Maiti and Saha 2004: 176 (female habitus).
DISTRIBUTION: AFRICA: Gabon. NORTH AMERICA: Costa Rica, Panama.
(**ds**) Beaver 2005b: 116; Kirkendall and Ødegaard 2007. (**ds, tx**) Maiti and Saha 2004: 175.
- Page 807 ***forficulus*** (Eggers). Add:
(**ds**) Mandelshtam and Danielsson 2004: 90.
- Page 807 ***gracilicornis*** (Schedl). Add:
FIGURES: Wood 2007: PLATE 134.
(**tx**) Wood 2007: 478.
- Page 808 ***gracilis*** (Eichhoff). Add *X. schoenherri* (Schedl) as a probable synonym. Add:
FIGURES: Kirkendall and Jordal 2006: 734 (female habitus, elytral declivity, protibia); Wood 2007: PLATE 134.
DISTRIBUTION: NORTH AMERICA: Costa Rica (Isla del Coco), Mexico (Tabasco), United States (South Carolina, Texas).
(**ds**) Bright 2004: 161; Bright and Torres 2006: 420; Flechtmann, Ottati and Berisford 2001; Kirkendall and Jordal 2006: 734; Rabaglia, Dole and Cognato 2006: 1043; Smith and Bográn 2008: 380. (**ds, tx**) Wood 2007: 475.
- Page 808 ***intersetosus*** (Blandford). Add:
FIGURES: Kirkendall and Jordal 2006: 734 (female habitus, elytral declivity, protibia); Wood 2007: PLATE 135.
(**ds**) Kirkendall and Jordal 2006: 734. (**ds, tx**) Wood 2007: 472.
- Page 808 ***linearicollis*** (Schedl). Add:
(**ds**) Bright 2004: 161; Flechtmann, Ottati and Berisford 2001; Mecke, Galileo and Engels 2000: 168. (**ds, tx**) Wood 2007: 474.
- Page 757 ***octiesdentatus*** (Murayama). Move from ***Xyleborus***. Add:
New combination by Beaver, Kajimura and Goto 2008: 234.
FIGURES: Rabaglia, Knízek and Johnson 2010: 222 (lateral female habitus), 223 (female elytral declivity), 224 (scutellum).
DISTRIBUTION: NORTH AMERICA: United States (Alabama, Louisiana, introduced).
(**ds**) Rabaglia, Knízek and Johnson 2010: 219.
- Page 809 ***opimus*** (Schedl). Move to ***X. saxesenii*** (Ratzeburg) as a synonym. Add:
Synonymy by Wood 2007: 809.
- Page 818 ***paraguayensis*** Schedl (= ***X. saxesenii*** (Ratzeburg)). Add:
(**ec**) Morales et al. 2000.

- Page 815 *peregrinus* Eggers (= **X. saxesini** (Ratzeburg)). Add:
(**ds**) Schott 2004. (**ds, ec, hb**) Henin and Nageleisen 2005.
- Page 809 *perpusillus* (Eggers). Add *Xyleborinus perminutissimus* (Schedl) as a synonym.
- Page 809 *perminutissimus* (Schedl). Move to **X. perpusillus** (Eggers) as a synonym. Add:
Synonymy by Hulcr 2010: 115.
- Page 810 *reconditus* (Schedl). Add:
FIGURES: Wood 2007: PLATE 136.
(**ds, tx**) Wood 2007: 476.
- Page 810 *saxesenii* (Ratzeburg). Add *X. opimulus* (Schedl) as a synonym. Add:
FIGURES: Cognato and Rubinoff 2008: 422 (female habitus); de Laclos et al. 2004: 218
(female habitus); Lin and Wu 2010: 209 (female habitus); Maiti and Saha 2004: 179 (female
habitus); Mifsud and Knízek 2009: 50 (female habitus); Rabaglia, Dole and Cognato 2006:
1037 (scutellum), 1043 (female elytral declivity); Wood 2007: PLATE 137.
DISTRIBUTION: ASIA: China (Hengduan Mtns.), Russia (Daghestan, Yakutia). EUROPE:
Malta. NORTH AMERICA: Canada (Nova Scotia, **Quebec** [see Appendix]).
(**bv**) Biedermann 2010; Biedermann, Klepzig and Taborsky 2009; McPherson et al. 2008. (**ds**)
Averensky and Yanovsky 2008: 29; Beaver and Liu 2010: 30; Bright 2004: 161; Brockerhoff,
Knízek and Bain 2003: 35; Brockerhoff et al. 2006; Colonnelli 2003: 103; Faccoli 2002: 101;
Fernández 1999: 30; Furniss and Johnson 2002: 105; Grant et al. 2003; Huang and Yin
1992: 861; Inglebert 2002: 126; Lin and Wu 2010; Maiti and Saha 2004: 177; Majka, Ander-
son and McCorquodale 2007: 421; Mandelshtam and Danielsson 2004: 91; Mandelshtam
and Petrov 2009a: 209; Mifsud and Knízek 2009: 43; Petrov 2005: 221; Petrov and Nikitskii
2001: 175; Podlussány and György 2008: 199; Rabaglia, Dole and Cognato 2006: 1043. (**ec**)
Fernández 1999: 30. (**hb**) Batt 2000; Fernández 1999: 30; Furniss and Johnson 2002: 105;
Oliver and Mannion 2001; Petrov and Nikitskii 2001: 175. (**tx**) Furniss and Johnson 2002:
105; Maiti and Saha 2004: 177 (**ds, hb**) Faccoli and Rukalski 2004; de Laclos et al. 2004:
218. (**ds, tx**) Wood 2007: 473.
NOTE: Treated in **Xyleborus** in de Laclos et al. 2004: 218.
- Page 815 *peregrinus* Eggers (= **X. saxesenii** (Ratzeburg)). Add:
(**ds**) Noblecourt 2004: 35. (**tx**) Bussler 2006. (**ds, hb**) de Laclos et al. 2004: 221.
- Page 826 *schaufussi* (Blandford). Add:
(**ds**) Beaver and Liu 2010: 31.
- Page 816 *schoenherri* (Schedl). Move to **X. gracilis** (Eichhoff) as a probable synonym. Add:
Synonymy by Wood 2007: 475.
- Page 816 *sentosus* (Eichhoff). Add:
FIGURES: Wood 2007: PLATE 137.
(**ds**) Mecke, Galileo and Engels 2000: 168. (**ds, tx**) Wood 2007: 476.
- Page 817 *speciosus* Schedl. Add:
(**ds, tx**) Maiti and Saha 2004: 180.
- Page 817 *spiniger* (Schedl). Add:
(**tx**) Wood 2007: 475.
- Page 817 *spinipennis* (Eggers). Add:
(**ds, tx**) Maiti and Saha 2004: 181.

- Page 817 ***subgranulatus*** (Eggers). Add:
 FIGURES: Maiti and Saha 2004: 183 (female habitus, antenna).
(ds, tx) Maiti and Saha 2004: 182.

ADD SPECIES:

cocoensis Kirkendal and Jordal 2006: 732. Holotype (female), COSTA RICA: Puntarenas, Isla del Coco, Cerro Iglesias, 600 m; INBio.
 FIGURES: Kirkendall and Jordal 2006: 733 (female habitus, elytral declivity, protibia).

insulosus Bright and Torres 2006: 420. Holotype (female), PUERTO RICO: Valle de Oacos, El Yunque; DEBC/USNM.
 FIGURE: Bright and Torres 2006: 426 (outline of female elytral declivity).
 HOST: *Cyrilla racemiflora* log.

saginatus Wood 2007: 474. Holotype (female), BRAZIL: Botucato, Sao Paulo; MZUSP.
 FIGURES: Wood 2007: PLATE 136.

Genus ***Xyleborus*** Eichhoff

- Page 704 ***Xyleborus*** Eichhoff. Add:
 KEYS: Bright and Torres 2006: 416 (to species in Puerto Rico); Furniss and Johnson 2002: 107 (to species in Idaho, USA); Hoebeke and Rabaglia 2008: 471 (to species in North America, north of Mexico); de Laclos et al. 2004: 213-214 (to species in France); Maiti and Saha 2004: 187 (to species in India); Mifsud and Knízek 2009: 42 (to species in Malta); Rabaglia, Dole and Cognato 2006: 1044 (to species in North America, north of Mexico); Vandenberg, Rabaglia and Bright 2000: 66 (to species in eastern North America); Wood 2007: 410 (to species in South America).
(an) López-Buenfil et al. 2001: 346. **(tx)** Alonso-Zarazaga and Lyal 2009: 103; de Laclos et al. 2004: 213; Maiti and Saha 2004: 184; Rabaglia 2002: 803. **(ds, hb, tx)** Wood 2007: 410.

- Page 741 ***acuminatus*** Schedl. Remove from synonymy with ***X. grossmanni*** Schedl. Add:
 FIGURES: Wood 2007: PLATE 97.
(ds, tx) Wood 2007: 448.

- Page 706 ***adelographus*** Eichhoff. Add:
(ds) Mecke, Galileo and Engels 2000: 168. **(ds, tx)** Wood 2007: 435.

- Page 706 ***adossuarius*** Schedl. Move to ***Diuncus***.

- Page 706 ***aequalis*** (Reitter). Move to ***Anisandrus dispar*** (Fabricius) as a synonym. Add:
 Lectotype (female), Siberia orient., Sotka-Gora, designated by Mandelshtam 2001a: 203.
 Synonymy by Mandelshtam 2001a: 203.

- Page 706 ***affinis*** Eichhoff. Add:
 FIGURES: Lin and Wu 2010: 209 (female habitus); López-Buenfil et al. 2001: 366 (proventriculus); Rabaglia, Dole and Cognato 2006: 1047 (lateral view of female elytra); Wood 2007: PLATE 98.
 DISTRIBUTION: ASIA: Japan (Okinawa), Taiwan. EUROPE: Austria (introduced?). NORTH AMERICA: Canada (**Ontario**, **Quebec** [see Appendix]); United States (Kansas, Tennessee).
 HOSTS: in *Eucalyptus robusta* log, *Cecropia schreberiana* log, *Calophyllum calaba* log, *Sloanea berteroana* log, *Pinus caribaea* log, *Swietenia macrophylla* log, "Laurel blanco", *Cajanus cajan* stump, *Syzygium malaccense* log, *Andira inermis* stump, *Mangifera indica* log,

Spathodea campanulata stump, *Spondias dulcis* log and branch, *Terminalia catappa* log, *Annona reticulata* branch, *Melicoccus bijugatus* log, live plants of *Cocos nucifera*, *Anthocephalus chinensis* log, *Tabebuia heterophylla* log, *Sapium laurocerasus* log, *Ocotea coriacea* log, *Dacryodes excelsa* log, *Miconia prasina* log, *Micropholis garcinifolia* log, *Cyrilla racemiflora* log, *Prestoea montana* log, *Hymenaea courbaril* log, *Buchenavia tetraphylla* log, *Manilkara bidentata* log, *Persea americana* log, *Barringtonia asiatica* log, *Inga vera* log and *Syzygium jambos* log, sugar cane.

(bv) Biedermann, Klepzig and Taborsky 2009. (ds) Beaver and Liu 2010: 31; Bright 2004: 161; Bright and Torres 2006: 417; Burgos-Solorio and Equihua 2007: 75; Flechtmann, Ottati and Berisford 2001; Giro 2003; Grant et al. 2003; Holzer 2007; Kirkendall and Jordal 2006: 734; Lin and wo 2010; Maiti and Saha 2004: 189; Mandelstam and Danielsson 2004: 91; Mecke, Galileo and Engels 2000: 168; Oliver and Mannion 2001; Rabaglia, Dole and Cognato 2006: 1050; Uchida et al. 2006; Wood 2007: 447. (ec) Morales et al. 2000. (hb) Abreu et al. 2001; Oliver and Mannion 2001. (tx) Maiti and Saha 2004: 189; Wood 2007: 447.

Page 710 ***altilis*** Schedl. Add:
 FIGURES: Wood 2007: PLATE 98.
 (ds, tx) Wood 2007: 445.

Page 710 ***amanicus*** Hagedorn. Add:
 (ds) Mandelstam and Danielsson 2004: 90.

Page 711 ***angustior*** Eggers. Move to ***Xyleborinus***.

Page 711 ***anisopterae*** Beaver. Move to ***Fortiborus***.

Page 712 ***aquilus*** Blandford. Add:
 (ds) Beaver and Liu 2010: 37 (delete Taiwan).

Page 713 ***aries*** Schedl. Move to ***Planiculus***.

Page 713 ***asper*** Eggers. Add:
 FIGURES: Wood 2007: PLATE 99.
 (ds, tx) Wood 2007: 430.

Page 713 ***asperipunctatus*** Eggers. Add:
 (ds, tx) Wood 2007: 430.

Page 713 ***associatus*** Schedl. Add:
 FIGURES: Wood 2007: PLATE 100.
 (ds, tx) Wood 2007: 429.

Page 713 ***atratus*** Eichhoff. Move to ***Ambrosiophilus***.

Page 714 ***biconicus*** Eggers. Add:
 FIGURES: Wood 2007: PLATE 100.
 (ds) Bright 2004: 161. (ds, tx) Wood 2007: 456.

Page 715 ***bidentatus*** (Motschulsky). Add:
 Lectotype (female), India orientale, designated by Mandelstam and Nikitsky 2010: 18.
 FIGURE: Maiti and Saha 2004: 192 (female habitus).
 (ds, tx) Maiti and Saha 2004: 190.

- Page 739 **bispinatus** Eichhoff. Remove from synonymy with **X. ferrugineus** (Fabricius). Add: Lectotype (female), S. Cathr. [Santa Catarina, Brazil], designation by Kirkendall and Jordal 2006: 734.
FIGURE: Kirkendall and Jordal 2006: 734 (female habitus).
DISTRIBUTION: NORTH AMERICA: Belize, Costa Rica (Isla del Coco). SOUTH AMERICA: Bolivia, Brazil, Ecuador.
(ds, tx) Kirkendall and Jordal 2006: 734.
NOTE: This taxonomic arrangement needs to be verified by molecular evidence.
- Page 716 **bodoanus** Reitter. Move to **Cyclorhipidion**. Add *Xyleborus punctulatus* Reitter as a synonym. Add:
Lectotype (female), Siberia orient., Sotka-Gora, designated by Mandelshtam 2001a: 203.
NOTE: Author of new combination not found. Species treated in **Cyclorhipidion** by Knízek 2011: 243 but not included as a new combination in that publication.
- Page 716 **boliviensis** Eggers. Add *X. parvipunctatus* Eggers and *X. rugosipennis* Schedl as synonyms.
Add:
FIGURES: Wood 2007: PLATE 101.
(ds, tx) Wood 2007: 444, 453.
- Page 716 **cachoeirinhae** Schedl. Move to **X. majusculus** Schedl as a synonym. Add:
Synonymy by Wood 2007: 433.
- Page 716 **cacuminatus** Eggers. Add:
FIGURES: Wood 2007: PLATE 101.
(tx) Wood 2007: 445.
- Page 716 **californicus** Wood. Move to **Cyclorhipidion bodoanum** (Reitter) as a synonym. Add:
Synonymy by Knízek 2011: 86.
FIGURES: Vandenberg, Rabaglia and Bright 2000: 64 (female elytral declivity), 65 (female habitus, antenna).
DISTRIBUTION: NORTH AMERICA: United States (Kansas, Michigan, Ohio, Oregon, Washington).
(bv) McPherson et al. 2008. **(ds)** Cognato et al. 2009111; Gandhi et al. 2010; Lightle et al. 2007; Mudge et al. 2001; Oliver and Mannion 2001; Vandenberg, Rabaglia and Bright 2000: 64; Rabaglia, Dole and Cognato 2006: 1052. **(hb)** Oliver and Mannion 2001.
- Page 716 **canarivorus** Browne. Move to **Truncaudum longior** (Schedl) as a synonym. Add:
Synonymy by Huler and Cognato 2010a: 27.
- Page 717 **caraibicus** Eggers. Add:
FIGURES: Wood 2007: PLATE 102.
(ds, tx) Wood 2007: 434.
- Page 672 **catharinensis** (Eggers). Move from **Ambrosiodmus**. Add:
HOST: Araucaria angustifolia.
(ds) Brockerhoff, Knízek and Bain 2003: 34; Mecke, Galileo and Engels 2001. **(tx)** Wood 2007: 455.
- Page 717 **cavuloides** Browne. Move to **Debus cavulus** Browne as a synonym. Add:
Synonymy by Beaver 2011a: 284
- Page 717 **cavulus** Browne. Move to **Debus**. Add *X. cavuloides* Browne as a synonym. Add:
(tx) Beaver 2011a: 284.

- Page 717 ***celsus*** Eichhoff. Add:
FIGURE: Vandenberg, Rabaglia and Bright 2000: 64 (female elytral declivity).
DISTRIBUTION: NORTH AMERICA: Canada (**Ontario** [see Appendix]); United States (Alabama, **Colorado** [see Appendix], Delaware).
(ds) Rabaglia and Valenti 2003: 316; Rabaglia, Dole and Cognato 2006: 1049.
- Page 718 ***chujoi*** Schedl. Move to ***Beaverium***.
- Page 718 ***circumspinosus*** Schedl. Move to ***Truncaudum impexum*** (Schedl) as a synonym. Add:
Synonymy by Huler and Cognato 2010a: 26.
- Page 718 ***clerodendronae*** Schedl. Move to ***Diuncus***.
- Page 719 ***cognatus*** Blandford. Add:
FIGURE: Maiti and Saha 2004: 194 (female habitus).
(ds, tx) Maiti and Saha 2004: 193.
- Page 806 ***collarti*** Eggers. Move from ***Xyleborinus***.
(tx) Hulcr et al. 2007: 577.
- Page 719 ***concentus*** Wood. Add:
FIGURES: Wood 2007: PLATE 103.
(ds, tx) Wood 2007: 436.
- Page 719 ***conditus*** Schedl. Add:
(ds, tx) Maiti and Saha 2004: 195.
- Page 719 ***confluens*** Schedl. Add:
(ds, tx) Wood 2007: 429.
- Page 719 ***congruens*** Schedl
FIGURES: Wood 2007: PLATE 104.
(ds, tx) Wood 2007: 429.
- Page 720 ***conidens*** Eggers. Move to ***Diuncus***.
- Page 720 ***continentalis*** Eggers. Move to ***X. volvulus*** (Fabricius) as a synonym. Add:
Synonymy by Beaver 2011a: 285.
- Page 720 ***cornivorus*** Murayama. Move to ***Dryocoetes***.
- Page 720 ***cornutus*** Schaufuss. Move to ***Anisandrus***.
- Page 720 ***corpulentus*** Eggers. Move to ***Diuncus***.
- Page 721 ***crinitulus*** Wood. Move to ***Theoborus***.
- Page 721 ***cryptographus*** (Ratzeburg). Add:
FIGURE: de Laclos et al. 2004: 217 (female habitus).
DISTRIBUTION: ASIA: Russia (Daghestan, Primorsk, Yaroslavi). EUROPE: France (Corsica).
(ds) Colonnelli 2003: 102; de Laclos 2004: 169; Mandelsham 2001a: 203; Mandelsham and Petrov 2009a: 209; Mandelsham and Popovichev 2000: 896; Mandelsham, Nikitsky and Bibin 2005b: 21; Noblecourt 2004: 35; Petrov 2005: 221; Petrov and Nikitskii 2001: 175

Podlussány and György 2008: 199; Voolma et al. 2004. (**hb**) Petrov and Nikitskii 2001: 175.
(**tx**) Vlasov 2005: 771. (**ds, hb**) de Laclos et al. 2004: 217.

- Page 722 **cuneiformis** Schedl. Add:
FIGURE: Lin and Wu 2010: 209 (female habitus).
DISTRIBUTION: ASIA: Taiwan.
(**ds**) Beaver and Liu 2010: 31; Lin and Wu 2010.
- Page 722 **curvatus** Browne. Move to *Pseudowebbia*.
- Page 723 **declivis** Eichhoff. Add:
(**ds, tx**) Wood 2007: 434.
- Page 723 **demissus** Wood. Add:
FIGURES: Wood 2007: PLATE 104.
(**ds, tx**) Wood 2007: 434.
- Page 723 **dentatulus** Browne. Move to *Truncaudum impexum* (Schedl) as a synonym. Add:
Synonymy by Hulcr and Cognato 2010a: 26.
- Page 761 **denticulus** (Motschulsky). Remove from synonymy with *X. perforans* (Wollaston). Move
to *Wallacellus*. Add *X. similis* Ferrari as a synonym.
Synonymy by Mandelshtam and Nikitsky 2010: 16.
- Page 724 **deplanatus** Eggers. Add:
FIGURES: Wood 2007: PLATE 105.
(**tx**) Wood 2007: 458.
- Page 725 **discretus** Eggers. Add:
FIGURES: Wood 2007: PLATE 105.
(**ds, tx**) Wood 2007: 437.
- Page 725 **dispar** (Fabricius). Move to *Anisandrus*.
- Page 730 **dossuarius** Eggers. Move to *Diuncus*.
- Page 730 **dryographus** (Ratzeburg). Add:
DISTRIBUTION: ASIA: Russia (Daghestan).
HOST: *Quercus pubescens*
(**ds**) Colonnelli 2003: 103; Faccoli 2002: 101; Mandelshtam, Nikitsky and Bibin 2005b: 21;
Petrov 2005: 221; Podlussány and György 2008: 299. (**ds, hb**) Faccoli and Rukalski 2004;
de Laclos et al. 2004: 220.
- Page 732 **duodecimspinatus** Schedl. Move to *Diuncus*.
- Page 732 **eggersi** Beeson. Move to *Anisandrus*.
- Page 732 **elevatus** Eggers. Add:
(**ds**) Bright and Torres 2006: 4178. (**tx**) Wood 2007: 452.
HOSTS: *Sloanea berteroana* trunk, *Inga* logs, *Miconia prasina* log, *Ocotea coriacea* log.
- Page 733 **emarginatus** Eichhoff. Move to *Debus*.

- Page 733 ***eurygraphus*** (Ratzeburg). Add:
 FIGURE: de Laclos 2004: 169 (outline of female pronotum)
 DISTRIBUTION: ASIA: Russia (Daghestan). EUROPE: Bulgaria, France (Corsica).
 HOST: *Pinus kochiana*.
 (ds) Colonnelli 2003: 103; de Laclos 2004: 169; Doychev and Ovcharov 2006; Haack 2001: 274; Mandelshtam, Nikitsky and Bibin 2005b: 21; Noblecourt 2004: 35; Petrov 2005: 221. (ec) Kapapanida-Kantartzi et al. 2010. (ds, ec, hb) Fernández 1999: 31.
- Page 734 ***exesus*** Blandford. Move to ***Debus emarginatus*** (Eichhoff) as a synonym. Add:
 Synonymy by Huler 2010: 111.
- Page 735 ***falcarius*** Schedl. Move to ***Truncaudum impexum*** (Schedl) as a synonym. Add:
 Synonymy by Huler and Cognato 2010a: 26.
- Page 735 ***fallax*** Eichhoff. Move to ***Debus***.
- Page 735 ***falsus*** Schedl. Add:
 FIGURES: Wood 2007: PLATE 106.
 (ds, tx) Wood 2007: 444.
- Page 735 ***ferox*** Blandford. Add:
 FIGURES: Wood 2007: PLATE 106.
 (ds, tx) Wood 2007: 426.
- Page 735 ***ferrugineus*** (Fabricius). Add:
 FIGURES: Maiti and Saha 2004: 203 (female habitus); Mifsud and Knízek 2009: 50 (female habitus); Rabaglia 2005: 262 (female elytral declivity); Rabaglia, Dole and Cognato 2006: 1046 (female elytral declivity); Wood 2007: PLATE 107.
 DISTRIBUTION: ASIA: Taiwan. NORTH AMERICA: United States (Delaware, Kansas).
 HOSTS: *Eucalyptus robusta* log, *Cecropia schreberiana* log, *Swietenia macrophylla* log, *Inga* sp. log, *Pinus caribaea* log, *Sloanea berteroana* log, *Melicoccus bijugatus* log, *Andira inermis* stump, *Cajanus cajan* stump, *Spathodea campanulata* stump, *Persea americana* log, *Spondias dulcis* branch, *Tabebuia heterophylla* log, *Dacryodes excelsa* log, *Miconia prasina* log, *Micropholis garcinifolia* log, *Hymenaea courbaril* log, *Dendropanax arboreus* log, and *Barringtonia asiatica* dead tree.
 (ds) Beaver and Liu 2010: 31; Bright 2004: 161; Bright and Torres 2006: 419; Burgos-Solorio and Equihua 2007: 75; Flechtmann, Ottati, and Berisford 2001; Grant et al. 2003; Kirkendall and Jordal 2006: 735; Maiti and Saha 2004: 202; Mandelshtam and Danielsson 2004: 90,91; Mecke, Galileo and Engels 2000: 168; Mifsud and Knízek 2009: 43; Rabaglia and Valenti 2003: 316; Rabaglia, Dole and Cognato 2006: 1050. (ec) Morales et al. 2000. (hb) Oliver and Mannion 2001. (tx) Maiti and Saha 2004: 202; Rabaglia 2005: 262. (ds, tx) Wood 2007: 449.
- Page 740 ***foederatus*** Schedl. Add:
 FIGURES: Wood 2007: PLATE 107.
 (ds, tx) Wood 2007: 432.
- Page 740 ***formosae*** Wood. Move to ***Cyclorhipidion formosanum*** Browne as an unnecessary new name.
- Page 740 ***formosanum*** Browne. Remove from synonymy with *X. formosae* Wood. Move to ***Cyclorhipidion***.

- Page 740 **fukiensis** Eggers. Move to **Cyclorhipidion**. Add *X. tenuigraphus* Schedl as a synonym.
Add:
Synonymy by Beaver and Liu 2010: 24.
- Page 740 **fulvulus** Schedl. Move to **Microperus corporali** (Eggers) as a synonym. Add:
Synonymy by Huler 2010: 111.
- Page 740 **ganshoensis** Murayama. Move to **Cyclorhipidion fukiensis** Eggers as a synonym. Add:
Synonymy by Beaver 2011a: 284.
- Page 741 **geayi** Hagedorn. Add:
FIGURES: Wood 2007: PLATE 108.
(ds, tx) Wood 2007: 454.
- Page 741 **glabratulus** Browne. Move to **Planiculus bicolor** (Blandford) as a synonym. Add:
Synonymy by Huler and Cognato 2010a: 22.
- Page 741 **glabratus** Eichhoff. Add:
FIGURES: Maiti and Saha 2004: 205 (female habitus, antenna); Rabaglia, Dole and Cognato 2006: 1039 (pronotum), 1045 (pronotal margin), 1046 (female elytral declivity).
DISTRIBUTION: NORTH AMERICA: United States (Florida, Georgia, South Carolina, introduced).
HOSTS: *Phoebe lanceolata*, *Lithocarpus edulis*, *Leucaena glauca*, *Persea borbonia*, *Sassafras albidum*.
(ds) Beaver and Liu 2010: 31; Haack 2006: 273; Koch and Smith 2008; Rabaglia, Dole and Cognato 2006: 1035, 1049. (ec) Koch and Smith 2008. (ds, tx) Maiti and Saha 2004: 203.
- Page 741 **gorggae** Schedl. Move to **Diuncus**.
- Page 741 **grandis** Eichhoff. Add:
(tx) Wood 2007: 446.
- Page 741 **gratiosus** Schedl. Move to **Truncaudum agnatum** (Eggers) as a synonym. Add:
Synonymy by Huler and Cognato 2010a: 25.
- Page 741 **grossmanni** Schedl. Add:
(tx) Wood 2007: 447.
- Page 741 **haberkorni** Eggers. Move to **Diuncus**.
- Page 742 **haddeni** Schedl. Move to **Diuncus**.
- Page 742 **haesitus** Schedl. Move to **Dryocoetoides rusticus** Wood as a synonym. Add:
Synonymy by Wood 2007: 380.
- Page 742 **hashimotoi** Browne. Move to **Planiculus immersus** (Schedl) as a synonym. Add:
Synonymy by Huler and Cognato 2010a: 23.
- Page 742 **horridatus** Wood. Add:
FIGURES: Wood 2007: PLATE 108.
(ds, tx) Wood 2007: 428.

- Page 743 ***horridicus*** Wood. Add:
FIGURES: Wood 2007: PLATE 109.
(**ds, tx**) Wood 2007: 427.
- Page 743 ***horridus*** Eichhoff. Add:
(**ds**) Rabaglia, Dole and Cognato 2006: 1049.
- Page 743 ***hunanensis*** Browne. Move to ***Ambrosiophilus metanepotulus*** (Eggers) as a synonym.
Add:
Synonymy by Beaver 2011a: 283.
- Page 738 ***impressus*** Eichhoff. Remove from synonymy with ***X. ferrugineus*** (Fabricius). Add:
FIGURES: Rabaglia 2005: 263 (female elytral declivity); Rabaglia, Dole and Cognato 2006: 1046 (female elytral declivity).
DISTRIBUTION: NORTH AMERICA: United States (Alabama, Arkansas, Florida, Georgia, Illinois, Louisiana, Mississippi, Missouri, New Jersey, North Carolina, Ohio, South Carolina, Tennessee, Texas, Virginia).
(**ds**) Coyle, Booth and Wallace 2005; Rabaglia, Dole and Cognato 2006: 1050. (**tx**) Rabaglia 2005: 262.
- Page 744 ***improbus*** Sampson. Move to ***Anisandrus***.
- Page 744 ***improvidus*** Schedl. Add:
Lectotype (female), Venezuela, designated by Wood 2007: 442.
(**ds, tx**) Wood 2007: 442.
- Page 769 ***incertus*** Schedl. See ***X. rugosipennis incertus***.
- Page 675 ***inopinatus*** Schedl. Move from ***Ambrosiodmus***. Add:
New combination (?) by Wood 2007: 427.
(**ds, tx**) Wood 2007: 427.
- Page 744 ***insulindicus*** Eggers. Move to ***Beaverium***.
- Page 745 ***intrusus*** Blandford. Add:
FIGURE: Rabaglia, Dole and Cognato 2006: 1047 (female elytral disc).
DISTRIBUTION: NORTH AMERICA: United States (Mississippi).
(**ds**) Burgos-Solorio and Equihua 2007: 75; Rabaglia, Dole and Cognato 2006: 1051; Schiefer 2010: 114. (**ds, hb, tx**) Furniss and Johnson 2002: 108.
- Page 124 ***inurbanus*** (Broun)). Add:
(Suppl. 2) (**ds, tx**) Brockerhoff, Knízek and Bain 2003: 33.
- Page 745 ***ipidia*** Schedl. Move to ***Debus pumilus*** (Eggers) as a synonym. Add:
Synonymy by Hulcr and Cognato 2010a: 15.
- Page 746 ***javanus*** Eggers. Move to ***Diuncus***.
- Page 825 ***judenkoi*** Schedl. Move from ***Coptodryas***. Add:
New combination by Hulcr and Cognato 2010a: 30.
- Page 746 ***justus*** Schedl. Move to ***Diuncus***.
- Page 746 ***kadoyamaensis*** Murayama. Move to ***Microporus***.

- Page 747 *khinganensis* Murayama. Move to ***Anisandrus dispar*** (Fabricius) as a synonym. Add:
Synonymy by Knízek 2011: 86.
- Page 747 ***latipennis*** Schedl. Add:
FIGURES: Wood 2007: PLATE 110.
(**ds, tx**) Wood 2007: 428.
- Page 747 ***latus*** Eggers. Move to ***Beaverium***.
- Page 748 ***longidens*** Eggers. Move to ***Anisandrus***.
- Page 748 ***longipennis*** Eggers. Add:
(**ds, tx**) Wood 2007: 438.
- Page 748 ***macer*** Blandford. Add:
FIGURES: Wood 2007: PLATE 110.
(**ds**) Bright and Torres 2006: 419. (**ds, tx**) Wood 2007: 458.
- Page 749 ***magnificus*** Wood. Add:
FIGURES: Wood 2007: PLATE 111.
(**ds, tx**) Wood 2007: 440.
- Page 749 ***maiche*** (Stark). Move to ***Anisandrus***.
- Page 749 ***major*** (Stebbing). Move to ***Fortiborus***.
- Page 749 ***majusculus*** Schedl. Add *X. cachoeirinhae* as a synonym. Add:
Synonymy by Wood 2007: 433.
FIGURES: Wood 2007: PLATE 111.
(**ds, tx**) Wood 2007: 433.
- Page 750 ***maniensis*** Browne. Move to ***Debus detritus*** (Eggers) as a synonym. Add:
Synonymy by Beaver 2011a: 284.
- Page 750 ***marginicollis*** Schedl. Move to ***Diuncus justus*** (Schedl) as a synonym. Add;
Synonymy by Hulcr 2010: 107.
- Page 658 ***maronicus*** Eggers. Move from ***Dryocoetoides***. Add:
New combination by Wood 2007: 431.
(**ds, tx**) Wood 2007: 431.
- Page 750 ***mesoleiulus*** Schedl. Move to ***Diuncus***.
- Page 759 ***metacuneolus*** Eggers. Add:
(**ds**) Beaver and Liu 2010: 32.
- Page 750 ***meuseli*** Reitter. Move to ***Monarthrum***.
- Page 750. ***minutus*** Blandford. Move to ***Planiculus***.
- Page 751 ***monographus*** (Fabricius). Add:
FIGURE: de Laclos et al. 2004: 219 (male habitus).
DISTRIBUTION: ASIA: Russia (Daghestan).

- (**ds**) Colonnelli 2003: 103; Faccoli 2002: 101; Mandelshtam, Nikitsky and Bibin 2005b: 21; Petrov 2005: 221; Voolma et al. 2004. (**ds, hb**) Faccoli and Rukalski 2004; de Laclos et al. 2004: 219.
- Page 753 ***morulus*** Blandford. Add:
DISTRIBUTION: NORTH AMERICA: El Salvador. SOUTH AMERICA: **Colombia** [see Appendix].
HOSTS: *Mangifera* sp., *Prioria copaifera*.
- Page 753 ***mucronatulus*** Eggers. Move to ***Diuncus***.
- Page 753 ***mucronatus*** Eggers. Move to ***Diuncus justus*** (Schedl) as a synonym. Add:
Synonymy by Hulcr 2010: 107.
DISTRIBUTION: ASIA: Japan (Honshu).
(**ds**) Beaver, Kajimura and Goto 2008: 236.
- Page 753 ***multipunctatus*** Browne. Add:
(**hb**) Hulcr and Cognato 2010b.
NOTE: Treated in ***Cyclorhipidion*** in Hulcr and Cognato 2010b.
- Page 754 ***mutabilis*** Schedl. Add:
FIGURES: Wood 2007: PLATE 112.
(**ds, tx**) Wood 2007: 443.
- Page 755 ***neivai*** Eggers. Add:
FIGURES: Wood 2007: PLATE 113.
(**ds**) Bright 2004: 161. (**ds, tx**) Wood 2007: 429.
- Page 755 ***neocylindricus*** Schedl. Move to ***Debus pumilus*** (Eggers) as a synonym. Add:
Synonymy by Beaver 2011a: 284.
- Page 683 ***neotruncatus*** Schedl. Move from ***Amasa***. Add:
New combination by Wood 2007: 424.
FIGURES: Wood 2007: PLATE 113.
(**ds, tx**) Wood 2007: 424.
- Page 755 ***nitellus*** Browne. Move to ***Microperus intermedius*** (Eggers) as a synonym. Add:
Synonymy by Hulcr and Cognato 2010a: 20.
- Page 755 ***novagrenadensis*** Eggers. Add:
(**ds, tx**) Wood 2007: 432.
- Page 756 ***obesus*** LeConte. Move to ***Anisandrus***.
- Page 757 ***octiedentatus*** Murayama. Move to ***Xyleborinus***.
- Page 757 ***ohnoi*** Browne. Move to ***Cyclorhipidion***.
- Page 757 ***oneratus*** Schedl. Move to ***X. incertus*** Schedl as a synonym. Add:
Synonymy by Wood 2007: 454.
- Page 757 ***orientalis*** Eggers. Move to ***X. seriatus*** Blandford as a synonym. Add:
Synonymy by Mandelshtam 2006: 324.

- DISTRIBUTION: ASIA: Japan (Hokkaido).
(ds) Mandelshtam 2001a: 204.
- Page 758 ***palatus*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 75.
- Page 758 ***papatrae*** Schedl. Move to ***Diuncus***.
- Page 758 ***parallelocollis*** Eggers. Add:
FIGURES: Wood 2007: PLATE 114.
(tx) Kirkendall and Jordal 2006: 735. (ds, tx) Wood 2007: 436.
- Page 758 ***parcellus*** Wood. Add:
FIGURES: Wood 2007: PLATE 114.
(ds, tx) Wood 2007: 433.
- Page 758 ***pardous*** Eggers. Move to ***Ambrosiodmus***.
- Page 758 ***parvipunctatus*** Eggers. Move to ***X. boliviensis*** Eggers as a synonym. Add:
Synonymy by Wood 2007: 453.
- Page 758 ***pelliculosus*** Eichhoff. Move to ***Cyclorhipidion***.
- Page 759 ***percristatus*** Eggers. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Huang and Yin 1992: 862.
- Page 759 ***perforans*** (Wollaston). Add:
FIGURES: Maiti and Saha 2004: 213 (female habitus, antenna, tibia).
DISTRIBUTION: ASIA: Saudi Arabia. NORTH AMERICA: Costa Rica (Isla del Coco). Delete
New Zealand.
HOST: *Asimina triloba*, Pomegranate.
(ds) Al-Ahmadi and Salem 1999: 129; Beaver and Liu 2010: 312; Jagginavar and Naik 2001a;
Kirkendall and Jordal 2006: 735; Maiti and Saha 2004: 211; Mudge et al. 2001; Mandelshtam,
Nikitsky and Bibin 2005b: 21; Rabaglia, Dole and Cognato 2006: 1052. (hb) Jagginavar
and Naik 2001b, 2002. (tx) Beaver and Liu 2010: 32; Kirkendall and Jordal 2006: 735;
Maiti and Saha 2004: 211.
- Page 701 ***perlaetus*** Schedl. Remove from synonymy with ***X. pelliculosum*** Hagedorn. Move to
Cyclorhipidion.
- Page 762 ***perlanguis*** Eggers. Add:
FIGURES: Wood 2007: PLATE 115.
(ds, tx) Wood 2007: 457.
- Page 762 ***perplexus*** Schedl. Move to ***Beaverium***.
- Page 762 ***pfeili*** (Ratzeburg). Add:
FIGURES: Vandenberg, Rabaglia and Bright 2000: 64 (female elytral declivity), 65 (female
habitus).
DISTRIBUTION: NORTH AMERICA: Canada (British Columbia, introduced), United States
(California, Maryland, Oregon introduced).

(ds) Brockerhoff, Knízek and Bain 2003: 37; Haack 2006: 273; Noblecourt 2004: 36; Rabaglia, Dole and Cognato 2006: 1052; Vandenberg, Rabaglia and Bright 2000: 63. (ds, tx) Wood 2007: 453.

Page 763 *pilifer* Eggers. Move to *Fortiborus*.

Page 764 *pinicola* Eggers. Add *X. pinivorus* Browne as a synonym. Add:
Synonymy by Beaver and Liu 2010: 32.
DISTRIBUTION: ASIA: Taiwan.
(ds, tx) Beaver and Liu 2010: 32.

Page 764 *pinivorus* Browne. Move to *X. pinicola* Eggers as a synonym.

Page 764 *planicollis* Zimmermannn. Add:
FIGURE: Rabaglia, Dole and Cognato 2006: 1047 (female pronotum).
DISTRIBUTION: NORTH AMERICA: United States (Maryland, Michigan, Mississippi, Texas).
(ds) Cognato et al. 2009: 117; Rabaglia 2003: 376; Rabaglia, Dole and Cognato 2006: 1051;
Schiefer 2010: 115.

Page 764 *politus* Hagedorn. Add:
FIGURES: Wood 2007: PLATE 115.
(ds, tx) Wood 2007: 437.

Page 764 *posticus* Eichhoff. Add:
Lectotype (female), Caracus, Venezuela, designated by Wood 2007: 441.
FIGURES: Wood 2007: PLATE 116.
(ds) Bright and Torres 2006: 419. (ds, tx) Wood 2007: 441.
HOSTS: *Inga* sp. log, *Cyrilla racemiflora* log.

Page 765 *princeps* Blandford. Add:
FIGURES: Wood 2007: PLATE 117.
(ds, tx) Wood 2007: 439.

Page 765 *principalis* Eichhoff. Add:
DISTRIBUTION: AFRICA: Kenya.
(ds) Mandelshtam and Danielsson 2004: 90.

Page 765 *procer* Eichhoff. Add:
FIGURES: Wood 2007: PLATE 117.
(ds, tx) Wood 2007: 458.

Page 765 *productus* Hagedorn. Add:
FIGURES: Wood 2007: PLATE 118.
(tx) Wood 2007: 448.

Page 766 *protii* Browne. Move to *Truncaudum longior* (Schedl) as a synonym. Add:
Synonymy by Hulcr and Cognato 2010a: 27.

Page 766 *pseudocylindricus* Eggers. Move to *Debus*.

Page 766 *pseudopilifer* Schedl. Move to *Fortiborus pilifer* (Eggers) as a synonym. Add:
Synonymy by Hulcr and Cognato 2010a: 18.

- Page 766 ***pubescens*** Zimmermann. Add:
FIGURE: Rabaglia, Dole and Cognato 2006: 1048 (female elytral disc).
DISTRIBUTION: NORTH AMERICA: United States (Delaware, **Minnesota** [see Appendix], Tennessee).
(ds) Grant et al. 2003; Rabaglia and Valenti 2003: 316; Rabaglia, Dole and Cognato 2006: 1051.
- Page 767 ***pumilus*** Eggers. Move to ***Debus***.
- Page 767 ***punctulatus*** Kurenzov. Move to ***X. bodoanus*** Reitter as a synonym. Add:
Synonymy by Mandelshtam 2001a: 203.
Lectotype (female), "1" (Suputinka River, Ussurijsk Nature Reserve) designated by Mandelshtam 2001a: 203.
- Page 767 ***pusio*** Eggers. Add:
FIGURES: Wood 2007: PLATE 118.
(ds, tx) Wood 2007: 433.
- Page 767 ***putputensis*** Browne. Move to ***Truncaudum impexum*** (Schedl) as a synonym. Add:
Synonymy by Hulcr and Cognato 2010a: 23.
- Page 768 ***quadrispinosulus*** Eggers. Move to ***Diuncus***.
- quadrispinus*** (Motschulsky). Add:
Lectotype (sex?), India or Birma, designated by Mandelshtam and Nikitsky 2010: 17.
NOTE: Omitted from 1992 Catalog.
- Page 767 ***quercus*** Kurenzov (name preoccupied by Hopkins, 1915, renamed ***starki*** by Nunberg, 1956).
Move to ***Cyclorhipidion pelliculosum*** (Eichhoff) as a synonym. Add:
Synonymy by Knízek 2011: 86.
Lectotype (female), "2" (Suputinka River, Ussurijsk Nature Reserve), designated by Mandelshtam 2002: 9.
DISTRIBUTION: ASIA: North Korea.
HOSTS: *Castanea crenata*, *Quercus acutissima* and *Betula schmidtii*.
(ds, tx) Mandelshtam 2002: 9.
- Page 768 ***rothkirchi*** Eggers. Add:
(ds) Mandelshtam and Danielsson 2004: 90.
- Page 768 ***rufipes*** Eggers. Add:
(ds, tx) Wood 2007: 441.
- Page 769 ***rugosipennis*** Schedl. Move to ***X. boliviianus*** Eggers as a synonym. Add:
Synonymy by Wood 2007: 453.
- Page 769 ***rugosipennis incertus*** Schedl. Add ***X. oneratus*** Schedl as a synonym. Add:
FIGURES: Wood 2007: PLATE 109.
(ds, tx) Wood 2007: 454.
NOTE: Treated as a distinct species in Wood 2007: 454.
- Page 769 ***satoi*** Schedl. Move to ***Ambrosiophilus***.
- Page 769 ***sayi*** (Hopkins). Move to ***Anisandrus***.

- Page 770 ***scaber*** Schedl. Add:
 (ds, tx) Wood 2007: 431.
- Page 770 ***schildi*** Schedl. Add:
 FIGURES: Wood 2007: PLATE 119.
 (ds, hb, tx) Wood 2007: 439.
- Page 770 ***seiryorense*** Murayama. Move to ***Cyclorhipidon***.
- Page 771 ***semipunctatus*** Eggers. Add:
 (ds, tx) Wood 2007: 437.
- Page 771 ***seriatus*** Blandford. Add *X. orientalis* Eggers as a synonym.
 Lectotype (female), Nikko [Japan], designated by Mandelshtam 2006: 324. Add:
 FIGURES: Hoebeke and Rabaglia 2008: 472 (female habitus, female elytral declivity).
 DISTRIBUTION: ASIA: Japan (Hokkaido), Kuril Islands. NORTH AMERICA: United States
 (Massachusetts, introduced). Delete Taiwan.
 (ds) Beaver and Liu 2010: 37; Haack 2006: 274; Hoebeke and Rabaglia 2008; Mandelshtam
 2006: 324; Mandelshtam and Petrov 2009a: 209. (tx) Mandelshtam 2006: 324.
- Page 771 ***sextuberculatus*** Schedl. Add:
 FIGURES: Wood 2007: PLATE 119.
 (tx) Wood 2007: 450.
- Page 772 ***shiva*** Maiti and Saha. Add:
 FIGURE: Maiti and Saha 2004: 217 (female habitus).
 (ds, tx) Maiti and Saha 2004: 217.
- Page 772 ***shoreae*** (Stebbing). Move to ***Debus fallax*** (Eichhoff) as a synonym. Add:
 Synonymy by Hulcr 2010: 109.
 FIGURES: Maiti and Saha 2004: 220 (female habitus, antenna, tibia, elytral declivity).
 (ds, tx) Maiti and Saha 2004: 218.
- Page 772 ***siclus*** Schedl. Move to ***Fortiborus major*** (Stebbing) as a synonym. Add:
 Synonymy by Hulcr and Cognato 2010a: 18.
- Page 772 ***similis*** Ferrari. Move to ***Wallacellus***.
- Page 774 ***simulatus*** Bright. Add:
 (ds) Bright and Torres 2006: 419.
- Page 774 ***sparsipilosus*** Eggers. Add:
 FIGURES: Wood 2007: PLATE 120.
 (ds, tx) Wood 2007: 453.
- Page 774 ***spathipennis*** Eichhoff. Add:
 FIGURES: Wood 2007: PLATE 121.
 (ds, hb, tx) Wood 2007: 439.
- Page 775 ***spinicornis*** Schedl. Move to ***Debus***.
- Page 775 ***spinulosus*** Blandford. Add:
 FIGURES: Wood 2007: PLATE 121.

- (**ds**) Bright and Torres 2006: 419; Burgos-Solorio and Equihua 2007: 75. (**ec**) Morales et al. 2000. (**ds, tx**) Wood 2007: 425.
- Page 775 **squamulatus** Eichhoff. Add:
FIGURES: Wood 2007: PLATE 122.
(**ds**) Flechtmann, Ottati and Berisford 2001. (**ec**) Morales et al. 2000. (**ds, tx**) Wood 2007: 425.
- Page 776 **starki** Nunberg. Move to **Cyclorhipidion pelliculosum** (Eichhoff) as a synonym. Add:
Synonymy by Knízek 2011: 86.
- Page 776 **striatulus** Browne. Move to **Wallacellus**.
- Page 776 **subdentatus** Browne. Move to **Truncaudum impexum** (Schedl) as a synonym. Add:
Synonymy by Hulcr and Cognato 2010a: 26.
- Page 777 **subductus** Schedl. Add:
(**ds, tx**) Wood 2007: 430.
- Page 777 **subplanatus** Eggers. Add:
FIGURES: Wood 2007: PLATE 122.
(**tx**) Wood 2007: 450.
- Page 777 **subtilis** Schedl. Move to **Coptoborus**.
- Page 778 **sundaensis** Eggers. Move to **Beaverium**.
- Page 778 **taichuensis** Schedl. Move to **Diuncus haberkorni** (Eggers) as a synonym. Add:
Synonymy by Beaver and Liu 2010: 26.
- Page 778 **taiwanensis** Browne. Move to **Anisandrus hirtus** (Hagedorn) as a synonym. Add:
Synonymy by Beaver and Liu 2010: 22.
- Page 779 **tonsus** (Hagedorn). Add:
(**ds, tx**) Wood 2007: 424.
- Page 781 **torquatus** Eichhoff (= **X. volvulus** (Fabricius)). Add:
(**ds**) Mandelshtam and Danielsson 2004: 90,91.
- Page 779 **tribulatus** Wood. Add:
FIGURES: Wood 2007: PLATE 123.
(**ds, tx**) Wood 2007: 438.
- Page 779 **tsukubanus** Murayama. Move to **Microporus perparvus** (Sampson) as a synonym. Add:
Synonymy by Beaver, Kajimura and Goto 2008: 233.
- Page 761 **tuberculatus** Motschulsky (= **X. perforans** (Wollaston)). Add:
Lectotype (female), Ceylon, designated by Mandelshtam and Nikitsky 2010: 15.
- Page 779 **tumucensis** Hagedorn. Add:
FIGURES: Wood 2007: PLATE 123.
(**ds, tx**) Wood 2007: 445.

- Page 780 ***uncatus*** Schedl. Add:
(ds, tx) Wood 2007: 443.
- Page 780 ***venustulus*** Schedl. Move to ***Beaverium***.
- Page 780 ***vernaculus*** Schedl. Move to ***Truncaudum impexum*** (Schedl) as a synonym. Add:
Synonymy by Hulcr and Cognato 2010a: 26.
- Page 780 ***viaticus*** Schedl. Move to ***Truncaudum longior*** (Schedl) as a synonym. Add:
Synonymy by Hulcr and Cognato 2010a: 27.
- Page 760 ***viduus*** Eichhoff. Add:
FIGURE: Rabaglia, Dole and Cognato 2006: 1046 (female pronotum).
DISTRIBUTION: NORTH AMERICA: United States (Kansas, Maryland, Mississippi, Texas).
(ds) Rabaglia, Dole and Cognato 2006: 1050; Schiefer 2010: 115.
- Page 780 ***vismiae*** Wood. Add:
(ds, tx) Wood 2007: 443.
- Page 706 ***vitiosus*** Schedl. Remove from synonymy with ***X. adelographus***. Add:
FIGURES: Wood 2007: PLATES 97 and 124.
(ds, tx) Wood 2007: 436.
- Page 780 ***volvulus*** (Fabricius). Add ***X. continentalis*** Eggers as a synonym. Add:
FIGURES: Mifsud and Knízek 2009: 50 (female habitus); Rabaglia, Dole and Cognato 2006:
1048 (female elytral declivity); Wood 2007: PLATE 124.
HOSTS: *Syzygium jambos* log, *Sloanea berteroana* log, *Swietenia macrophylla* log, *Inga* sp.
log, *Terminalia catappa* log, *Andira inermis* log, *Cajanus cajan* stump, *Mangifera indica*
log, *Persea americana* log, *Antocephalus chinensis* log.
(ds) Beaver and Liu 2010: 32; Bright and Torres 2006: 419; Burgos-Solorio and Equihua
2007: 75; Cognato et al. 2009: 116; Mecke, Galileo and Engels 2000: 168; Mifsud and Knízek
2009: 43; Rabaglia, Dole and Cognato 2006: 1051. (tx) Beaver 2011a: 285; Kirkendall and
Jordal 2006. (ds, tx) Wood 2007: 451.
- Page 785 ***xyloteroides*** Eggers. Move to ***Cyclorhipidion***
- Page 783 ***xylographus*** (Say). Add:
FIGURE: Rabaglia, Dole and Cognato 2006: 1047 (lateral view of female elytra).
DISTRIBUTION: NORTH AMERICA: United States (Kansas). Delete Puerto Rico.
(ds) Bright and Torres 2006: 420; Mudge et al. 2001; Rabaglia, Dole and Cognato 2006: 1051.

ADD SPECIES:

araguensis Wood 2007: 411. Holotype (female), VENEZUELA: Rancho Grande, Aragua; USNM.
HOST: broken limb of Moraceae.

atlanticus Bright and Torres 2006: 417. Holotype (female), PUERTO RICO: Guaynabo; USNM.
FIGURE: Bright and Torres 2006: 426 (outline of female).

caldensis Wood 2007: 456. Holotype (female), COLOMBIA: Anserma, Caldas; USNM.
HOST: Limbs and bole of *Citrus* sp.

mimicus Wood 2007: 440. Holotype (female), PERU: Junin; USNM.

pseudoacuminatus Wood: 448. Holotype (female), COSTA RICA: Rincon, Osa Peninsula; USNM.

DISTRIBUTION: NORTH AMERICA: Costa Rica, Panama.

HOST: *Rhizophora mangle*.

(**ds, hb**) Wood 2007: 449.

pseudoferox Wood 2007: 426. Holotype (female), BRAZIL: Itatinga, Frazenda Ariona, San Paulo; MZUSP.

rugulosipes Wood 2007: 446. Holotype (female), COSTA RICA: Tapanti, Cartago; USNM.

sparsegranulosus Kirkendall and Jordal 2006: 736. Holotype (female), COSTA RICA: Puntarenas, Isla del Coco, Bahia Chatan; INBio.

FIGURE: Kirkendall and Jordal 2006: 735 (outline of female elytral declivity).

vochysiae Kirkendall 2006: 212. Holotype (female), COSTA RICA: Heredia, La Selva Biological Station, 10° 26'N, 84° 01'W; INBio.

FIGURES: Kirkendall 2006: 212-214 (female head, antenna, tibia, habitus).

Host: Living *Vochysia ferruginea*.

volutus Wood 2007: 452. Holotype (female), COLOMBIA: Bajo Calima, Valle de Cauca; USNM.

DISTRIBUTION: NORTH AMERICA: Costa Rica. SOUTH AMERICA: Colombia.

HOST: *Protium neglectum*.

(**ds**) Wood 2007: 452.

Genus *Xylosandrus* Reitter

Page 787 ***Xylosandrus*** Reitter. Add:

KEYS: Dole and Beaver 2008: 482 (to species in Australia); Dole and Cognato 2010: 467 (to all species); Maiti and Saha 2004: 226 (to species in India); Rabaglia, Dole and Cognato 2006: 1053 (to species in North America, north of Mexico); Saha, Maiti and Chakraborti 1992 (to species in sub-Himalayan West Bengal); Wood 2007: 465 (to all New World species).

(**an**) López-Buenfil et al. 2001: 346. (**ds**) Alonso-Zarazaga and Lyal 2009: 104. (**hb**) Wood 2007: 464. (**tx**) Dole and Beaver 2008; Dole and Cognato 2010; Dole, Jordal and Cognato 2010; Maiti and Saha 2004: 224; Rabaglia 2002: 803; Wood 2007: 464.

Page 787 ***abruptulus*** (Schedl). Add:

FIGURES: Dole and Cognato 2010: 490 (female habitus).

(**ds, tx**) Dole and Beaver 2008: 490; Dole and Cognato 2010: 471.

Page 787 ***adherescens*** (Schedl). Add:

FIGURES: Dole and Cognato 2010: 490 (female habitus).

(**tx**) Dole and Cognato 2010: 472.

Page 682 ***amputatus*** (Blandford). Move from *Amasa*. Add *Xyleborus melli* Schedl as a synonym. Add:

New combination by Dole and Cognato 2010: 473. Synonymy by Beaver 2010: 55.

FIGURE: Dole and Cognato 2010: 490 (female habitus).

DISTRIBUTION: ASIA: China (Fukien).

(**ds, tx**) Beaver and Liu 2010: 32; Dole and Cognato 2010: 473. (**ds, hb, tx**) Beaver 2010: 55.

Page 787 ***arquatus*** (Sampson). Add:

FIGURES: Dole and Cognato 2010: 491 (female habitus).

(**ds, tx**) Dole and Cognato 2010: 474.

- Page 787 ***assequens*** Schedl. Add:
FIGURES: Dole and Cognato 2010: 491 (female habitus).
DISTRIBUTION: ASIA: Brunei.
(ds, tx) Dole and Cognato 2010: 475.
- Page 787 ***ater*** (Eggers). Move to ***Cnestus***.
- Page 787 ***borealis*** Nobuchi. Add:
FIGURES: Dole and Cognato 2010: 491 (female habitus).
(ds, tx) Dole and Cognato 2010: 476.
- Page 787 ***brevis*** (Eichhoff). Add:
FIGURES: Dole and Cognato 2010: 492 (female habitus); Lin and Wu 2010: 209 (female habitus).
DISTRIBUTION: ASIA: Nepal.
(an) Iyo and Kajimura 2009. (ds) Beaver and Liu 2010: 33; Lin and Wu 2010. (ds, tx) Dole and Cognato 2010: 478.
- Page 788 ***butamali*** Beeson. Move to ***Anisandrus***.
- Page 788 ***compactus*** (Eichhoff). Add:
FIGURES: Dole and Cognato 2010: 492 (female habitus); Lin and Wu 2010: 209 (female habitus); Rabaglia, Dole and Cognato 2006: 1053 (female elytral declivity); Wood 2007: PLATE 129.
DISTRIBUTION: NORTH AMERICA: United States (North Carolina). SOUTH AMERICA: **Trinidad** [see Appendix]. Delete New Zealand.
HOSTS: *Annona muricata*, *Swietenia macrophylla*, *Cattleya pseudobulbs*.
(ds) Beaver and Liu 2010: 33; Bright and Torres 2006: 416; Brockerhoff, Knízek and Bain 2003: 37; Delgado and Couturier 2010; Lin and Wu 2010; Oliveira, Flechtmann and Frizzas 2008; Rabaglia, Dole and Cognato 2006: 1054; Dole and Cognato 2010: 479; Wood 2007: 467. (hb) Abreu et al. 2001; Keshavareddy and Verghese 2009; Wood 2007: 467. (tx) Dole and Cognato 2010: 479; Wood 2007: 467.
- Page 790 ***corthyloides*** (Schedl). Add:
FIGURES: Dole and Cognato 2010: 493 (female habitus).
(ds, tx) Dole and Cognato 2010: 480.
- Page 790 ***crassiusculus*** (Motschulsky). Add:
Lectotype (female), India oriental, designated by Mandelshtam and Nikitsky 2010: 17.
FIGURES: Dole and Cognato 2010: 493 (female habitus); Faccoli 2010c (female habitus); Lin and Wu 2010: 209 (female habitus); Maiti and Saha 2004: 232 (female habitus, antenna, tibia); Rabaglia, Dole and Cognato 2006: 1053 (female elytral declivity); Saha, Maiti and Chakraborti 1992: 13.
DISTRIBUTION: AFRICA: Gabon. EUROPE: Italy. NORTH AMERICA: Costa Rica, Panama, United States (**Colorado** [see Appendix], Delaware, Kansas, Maryland, Michigan, Missouri, Ohio, Oregon [introduced, established ?]). OCEANIA: Mariana Islands (**Guam** [see Appendix]).
HOSTS: *Asimina triloba*, *Vochysia ferruginea*, *Protium pittieri*, *Topoea maurofernandeziana*, *Castilla elastica*, *Cecropia* leaf petiole. Many additional hosts are listed in Dole and Cognato 2010: 481.
(ds) Beaver 2005b: 116; Beaver and Liu 2010: 33; CAB International 2009c; Cognato et al. 2009: 111; Dole and Cognato 2010: 481; Faccoli 2010c; Gandhi et al. 2010; Grant et al. 2003; Horn and Horn 2006; Khuhro et al. 2005; Kirkendall and Faccoli 2010: 234; Kirkendall and Ødegaard 2007; LaBonte, Mudge and Johnson 2005: 558; Lin and Wu 2010; Maiti and

Saha 2004: 231; Mandelshtam and Danielsson 2004: 91; Oliver and Mannion 2001; Pennacchio et al. 2003; Rabaglia 2003: 376; Rabaglia and Valenti 2003: 316; Rabaglia, Dole and Cognato 2006: 1054; Schiefer 2010: 115; Tinivella et al. 2010: (hb) Huler and Cognato 2010b; Oliver and Mannion 2001. (tx) Dole and Cognato 2010: 481; Maiti and Saha 2004: 231; Saha, Maiti and Chakraborti 1992: 13.

- Page 793 *curtulus* (Fichhoff). Add *X. zimmermanni* Hopkins as a synonym. Add:
FIGURES: Dole and Cognato 2010: 493 (female habitus); Wood 2007: PLATE 129.
DISTRIBUTION: NORTH AMERICA: Mexico (Tabasco), United States (Florida, introduced and established)
HOSTS: *igna* sp., *Nectandra* sp., *Tabebuia* sp.
(ds) Burgos-Solorio and Equihua 2007: 75. (ds, tx) Dole and Cognato 2010: 484. (ds, hb, tx) Wood 2007: 467.
- Page 793 *cylindrotomicus* (Schedl). Move to *Amasa*.
- Page 793 *derupteterminatus* (Schedl). Add:
FIGURE: Dole and Cognato 2010: 494 (female habitus).
(ds, tx) Dole and Cognato 2010: 486.
- Page 794 *deruptulus* (Schedl). Add:
FIGURE: Dole and Cognato 2010: 494 (female habitus).
(tx) Dole and Cognato 2010: 487.
- Page 794 *difficilis* (Eggers) (= *morigerus* (Blandford)). Add:
FIGURES: Maiti and Saha 2004: 235 (female habitus); Saha, Maiti and Chakraborti 1992: 16.
(ds, tx) Maiti and Saha 2004: 234; Saha, Maiti and Chakraborti 1992: 13.
- Page 794 *discolor* (Blandford). Add *X. postcestriatus* Eggers as a synonym. Add:
FIGURES: Dole and Cognato 2010: 494 (female habitus); Lin and Wu 2010: 209 (female habitus); Maiti and Saha 2004: 237 (female habitus); Saha, Maiti and Chakraborti 1992 Saha, Maiti and Chakraborti 1992: 16.
DISTRIBUTION: ASIA: Japan (Ryukyu Islands). AUSTRALIA (Queensland).
(ds) Beaver and Liu 2010: 33; Beaver, Kajimura and Goto 2008: 236; Dole and Beaver 2008: 490; Lin and Wu 2010. (ds, tx) Dole and Cognato 2010: 488; Maiti and Saha 2004: 236; Saha, Maiti and Chakraborti 1992: 18.
- Page 794 *diversepilosus* (Eggers). Add:
Figure: Dole and Cognato 2010: 495 (habitus).
DISTRIBUTION: ASIA: Taiwan.
(ds) Beaver and Liu 2010: 34. (tx) Dole and Cognato 2010: 503.
- Page 794 *eupatori* (Eggers). Add:
FIGURES: Dole and Cognato 2010: 495 (female habitus).
(tx) Dole and Cognato 2010: 504.
- Page 794 *ferinus* (Schedl). Add:
FIGURES: Dole and Cognato 2010: 495 (female habitus).
(tx) Dole and Cognato 2010: 503.
- Page 795 *fijianus* (Schedl). Move to *Cnestus*.

- Page 795 ***germanus*** (Blandford). Add:
FIGURES: Cognato and Rubinoff 2008: 423 (female habitus); Dole and Cognato 2010: 496 (female habitus); de Laclos et al. 2004: 216 (female habitus); Faccoli 2010d (female habitus); Lin and Wu 2010: 209 (female habitus); Rabaglia, Dole and Cognato 2006: 1037 (female fore coxae), 1053 (female elytral declivity).
DISTRIBUTION: ASIA: Russia (Caucasus). EUROPE: Czech Republic. NORTH AMERICA: United States (Delaware, Hawaii (Oahu), Maine, Massachusetts, Michigan, **New Hampshire** [see Appendix], Oregon [introduced], Rhode Island).
(an) Ito et al. 2008; Yang et al. 2008. **(bv)** Biedermann, Klepzig and Taborsky 2009. **(ds)** Beaver and Liu 2010: 34; Bernabò 2000; Bussler and Immier 2007; Cognato and Rubinoff 2008: 421; Cognato et al. 2009: 112; Faccoli 2000c, 2002: 100; Henin and Versteirt 2004; Kapitola and Knízek 2008; Kirkendall and Faccoli 2010: 234; Knízek 2009a; LaBonte, Mudge and Johnson 2005: 558; Lin and Wu 2010; Mandershtam 2001a: 204; Mandershtam, Nikitsky and Bibin 2005b: 22; Noblecourt 2004: 35; Rabaglia and Valenti 2003: 316; Rabaglia, Dole and Cognato 2006: 1954; Weigel 2008. **(ec)** Faccoli 2000. **(hb)** Bernabò 2000; Faccoli 2000, 2010d; Faccoli and Rukinski 2004; Oliver and Mannion 2001; Peer and Taborsky 2005; Zach et al. 2001. **(ds, tx)** Dole and Cognato 2010: 505. **(ds, hb)** de Laclos et al. 2004: 216.
NOTE: Treated in ***Xyleborus*** in de Laclos et al. 2004: 216.
- Page 796 ***gravidus*** (Blandford). Move to ***Cnestus***.
- Page 796 ***hirsutipennis*** (Schedl). Add:
FIGURES: Dole and Cognato 2010: 496 (female habitus).
(ds, tx) Dole and Cognato 2010: 507.
- Page 121 ***improcerus*** (Sampson). Move to ***Cnestus***.
(Suppl. 2)
- Page 796 ***jaintianus*** (Schedl). Add:
FIGURES: Dole and Cognato 2010: 497 (female habitus); Maiti and Saha 2004: 241 (female habitus).
(ds, tx) Dole and Cognato 2010: 503; Maiti and Saha 2004: 240.
- Page 796 ***laticeps*** Wood. Move to ***Cnestus***.
- Page 796 ***mancus*** (Blandford). Add:
FIGURES: Dole and Cognato 2010: 497 (female habitus); Lin and Wu 2010: 209 (female habitus); Maiti and Saha 2004: 243 (female habitus).
(ds) Beaver and Liu 2010: 34; Lin and Wu 2010. **(ds, tx)** Dole and Cognato 2010: 509; Maiti and Saha 2004: 242.
- Page 787 ***mediocris*** (Schedl). Add:
FIGURES: Dole and Cognato 2010: 497 (female habitus).
(ds, tx) Dole and Cognato 2010: 511.
- Page 797 ***mesuae*** (Eggers). Add:
FIGURES: Dole and Cognato 2010: 498 (female habitus); Maiti and Saha 2004: 245 (female habitus); Saha, Maiti and Chakraborti 1992: 22.
(ds, tx) Dole and Cognato 2010: 512; Maiti and Saha 2004: 244; Saha, Maiti and Chakraborti 1992: 21.
- Page 797 ***metagermanus*** (Dschedl). Add:
FIGURES: Dole and Cognato 2010: 498 (female habitus).
(tx) Dole and Cognato 2010: 512.

- Page 683 ***mixtus*** (Schedl). Move from ***Amasa***. Add:
New combination by Dole and Cognato 2010: 513.
FIGURES: Dole and Cognato 2010: 498 (female habitus).
- Page 797 ***morigerus*** (Blandford). Add:
FIGURES: Dole and Cognato 2010: 499 (female habitus); López-Buenfil et al. 2001: 366 (proventriculus); Maiti and Saha 2004: 247 (female habitus); Saha, Maiti and Chakraborti 1992: 22; Wood 2007: PLATE 131.
DISTRIBUTION: AFRICA: Gabon. OCEANIA: Mariana Islands (**Guam** [see Appendix]).
HOSTS: *Aspidiosperma* sp., *Ceiba pentandra* branch, *Chrysophyllum cainito*, *Lecythis* sp., many listed in Dole and Cognato 2010: 515.
(ds) Beaver 2005b: 116; Beaver and Liu 2010: 34; Bright and Torres 2006: 416; Dole and Beaver 2008: 491; Dole and Cognato 2010: 514; Haack 2001: 274; Kirkendall and Faccoli 2010: 234; Maiti and Saha 2004: 246; Saha, Maiti and Chakraborti 1992: 23; Wood 2007: 466. **(hb)** Hulcr and Cognato 2010b. **(tx)** Dole and Cognato 2010: 514; Maiti and Saha 2004: 246; Saha, Maiti and Chakraborti 1992: 23; Wood 2007: 466.
- Page 799 ***multilatus*** (Blandford). Move to ***Cnestus***.
- Page 799 ***nanus*** (Blandford). Add:
NOTE: Validity questioned in Dole and Cognato 2010: 517.
- Page 799 ***omissus*** (Schedl). Move to ***Amasa***.
- Page 799 ***oralis*** (Schedl). Move to ***Amasa***.
- Page 800 ***orbiculatus*** (Schedl). Move to ***Cnestus***.
- Page 800 ***posticestriatus*** Eggers. Move to ***X. discolor*** (Blandford) as a synonym. Add:
Synonymy by Dole and Beaver 2008: 490.
- Page 800 ***pseudosolidus*** (Schedl). Move to ***Cnestus***.
- Page 800 ***pusillus*** (Schedl). Add:
FIGURES: Dole and Cognato 2010: 500 (female habitus).
(tx) Dole and Cognato 2010: 518.
- Page 800 ***pygmaeus*** (Eggers). Add:
FIGURES: Dole and Cognato 2010: 500 (female habitus).
(ds, tx) Dole and Cognato 2010: 519.
- Page 800 ***retusus*** (Eichhoff). Move to ***Cnestus***.
- Page 768 ***rotundicollis*** (Browne). Move from ***Xyleborus***. Add:
New combination by Dole and Cognato 2010: 520.
FIGURES: Dole and Cognato 2010: 501 (female habitus).
- Page 693 ***russulus*** (Schedl). Move from ***Euwallacea***. Add:
New combination by Dole and Cognato 2010: 521.
FIGURES: Dole and Cognato 2010: 501 (female habitus).
(hb) Hulcr and Cognato 2010b.
- Page 800 ***solidus*** (Eichhoff). Move to ***Cnestus***.

- Page 800 ***squamulatus*** Beaver. Move to ***Cyclorhipidion***.
- Page 800 ***subsimiliformus*** (Eggers). Add:
FIGURES: Dole and Cognato 2010: 501 (female habitus).
(ds, tx) Dole and Cognato 2010: 522.
- Page 800 ***subsimilis*** (Eggers). Add:
FIGURES: Dole and Cognato 2010: 502 (female habitus); Maiti and Saha 2004: 249 (female habitus).
(ds, tx) Dole and Cognato 2010: 523; Maiti and Saha 2004: 248.
- Page 801 ***terminatus*** (Eggers). Add:
FIGURES: Dole and Cognato 2010: 502 (female habitus); Maiti and Saha 2004: 251 (female habitus).
(ds, tx) Dole and Cognato 2010: 523; Maiti and Saha 2004: 251.
- Page 801 ***testudo*** (Eggers). Move to ***Cnestus***.
- Page 801 ***ursa*** (Eggers). Move to ***Anisandrus***.
- Page 801 ***ursinus*** (Hagedorn). Move to ***Anisandrus***.
- Page 801 ***ursulus*** (Eggers). Move to ***Anisandrus***.
- Page 801 ***zimmermanni*** (Hopkins). Move to ***X. curtulus*** (Eichhoff) as a synonym. Add:
Synonymy by Wood 2007: 467.
(ds) Rabaglia, Dole and Cognato 2006: 1055.

ADD SPECIES:

beesoni Saha, Maiti and Chakraborti 1992: 11. Holotype (female), INDIA: West Bengal, Darjiling District, Rangirum; FRI.
FIGURES: Maiti and Saha 2004: 228 (female habitus, antenna, tibiae); Saha, Maiti and Chakraborti 1992: 11 (female habitus, antenna, tibia).
HOST: *Symplocos theaefolia*.
(ds, tx) Dole and Cognato 2010: 475; Maiti and Saha 2004: 228.
NOTE: Omitted in 1992 Catalog and 1997 and 2002 Supplements.

borneensis Dole and Cognato 2010: 477. Holotype (female), MALAYSIA: Sabah, Danum Valley, 120 m; MSUC.
FIGURES: Dole and Cognato 2010: 492 (female habitus).
HOST: Burseraceae twig.
(hb) Hulcr and Cognato 2010b.

hulcri Dole and Cognato 2010: 508. Holotype (female), PAPUA NEW GUINEA: Chimbo, Mu Village, 1600 m; MSUC.
FIGURES: Dole and Cognato 2010: 496 (female habitus).
HOST: *Ficus mollior*.

monteithi Dole and Beaver 2008: 483. Holotype (female), AUSTRALIA: Queensland, Palmerston, Henrietta Cr.; QMB.
FIGURES: Dole and Beaver 2008: 484 (female habitus); Dole and Cognato 2010: 499 (female and male habitus).
(tx) Dole and Cognato 2010: 515.

peruanus Wood 2007: 468. Holotype (female), PERU: Satipo [Junin]; USNM. Move to ***Cnestus***.

queenslandi Dole and Beaver 2008: 486. Holotype (female), AUSTRALIA: Queensland, Bunya Mountain NP; QMB.

FIGURES: Dole and Beaver 2008: 486 (female habitus); Dole and Cognato 2010: 500 (female habitus).

HOSTS: *Argyrodendron actinophyllum*.

(tx) Dole and Cognato 2010: 519.

retifer Wood 2007: 468. Holotype (female), BRAZIL: Fazende Laminit, Itinga do Maranhio; USNM. Move to ***Cnestus***.

woodi Dole and Beaver 2008: 488. Holotype (female), AUSTRALIA, NEQueensland, Mt. Demi summit; QMB.

FIGURES: Dole and Beaver 2008: 488 (female habitus); Dole and Cognato 2010: 502 (female habitus).

(tx) Dole and Cognato 2010: 524.

TRIBE XYLOCTONINI

Page 835 ***Xyloctonini*** Eichhoff. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 105.

Genus ***Cryphalomimus*** Eggers

Page 835 ***Cryphalomimus*** Eggers. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 105.

Genus ***Ctonoxylon*** Hagedorn

Page 836 ***Ctonoxylon*** Hagedorn. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 105.

Page 837 ***auratum*** Hagedorn. Add:

DISTRIBUTION: AFRICA: Gabon.

(ds) Beaver 2005b: 116.

Page 837 ***capensis*** Schedl. Move to ***C. uniseriatum*** Schedl as a synonym. Add:

Synonymy by Beaver 2011a: 285.

Page 838 ***pygmaeum*** Eggers. Add:

DISTRIBUTION: AFRICA: Gabon.

(ds) Beaver 2005b: 116.

Page 838 ***uniseriatum*** Schedl. Add ***C. capensis*** Schedl as a synonym. Add:

(tx) Beaver 2011a: 285.:

Genus ***Glostatus*** Schedl

Page 835 ***Glostatus*** Schedl. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 105.

Page 836 ***perplexus*** Schedl. Move to ***Lanurgus widdringtoniae*** Schedl as a synonym. Add:

Synonymy by Beaver 2011a: 282.

Genus ***Scolytomimus*** Blandford

- Page 838 ***Scolytomimus*** Blandford. Add:
KEY: Maiti and Saha 2009: 170 (to species in India).
(ds, tx) Maiti and Saha 2009: 169. (tx) Alonso-Zarazaga and Lyal 2009: 106.
- Page 839 ***assamensis*** Schedl. Add:
(ds, tx) Maiti and Saha 2009: 170.
- Page 839 ***philippinensis*** (Eggers). Add:
FIGURES: Maiti and Saha 2009: 172 (habitus, antennal club).
(ds, tx) Maiti and Saha 2009: 171.
- Page 839 ***pusillus*** (Eggers). Add:
FIGURES: Maiti and Saha 2009: 174 (habitus, antennal club).
(ds, tx) Maiti and Saha 2009: 173.

Genus ***Xyloctonus*** Eichhoff

- Page 840 ***Xyloctonus*** Eichhoff. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 106.

SUBFAMILY CRYPHALINAE Lindemann**TRIBE CRYPHALINI**

- Page 842 ***Cryphalini*** Lindemann. Add:
KEYS: Maiti and Saha 2009: 175 (to genera in India); Wood 2007: 479 (to genera in South America).
(hb) Wood 2007: 479. (tx) Alonso-Zarazaga and Lyal 2009: 38; Wood 2007: 479.

Genus ***Acorthylus*** Brèthes

- Page 852 ***Acorthylus*** Brèthes. Add;
KEY: Wood 2007: 483 (to South American species).
(tx) Alonso-Zarazaga and Lyal 2009: 39; Wood 2007: 483.

- Page 853 ***bosqi*** (Schedl). Add:
FIGURES: Wood 2007: PLATE 139.
(tx) Guadalupe del Rio, Lanteri and Suárez 2005: 4; Wood 2007: 484.

- Page 853 ***gracilis*** (Schedl). Add:
FIGURES: Wood 2007: PLATE 139.
(ds, tx) Wood 2007: 485.

- Page 853 ***pruni*** (Wood). Add:
FIGURES: Wood 2007: PLATE 140.
(hb) Wood 2007: 483. (tx) Wood 2007: 484.

- Page 853 ***robustus*** (Schedl). Add:
(ds) Bright 2004: 157. (tx) Guadalupe del Rio, Lanteri and Suárez 2005: 8; (ds, tx) Wood 2007: 485.

ADD SPECIES:

frontalis Wood 2007: 485. Holotype (female), ARGENTINA: Cordoba; USNM.

Genus ***Allernoporus*** Kurenzov

Page 852 ***Allernoporus*** Kurenzov. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 39.

NOTE: Alonso-Zarazaga and Lyal 2009: 39 spell authors name “Kurensov”, I retain the spelling above, based on correct usage.

Genus ***Allothenemus*** Bright

ADD GENUS

Allothenemus Bright and Torres 2006: 400. Type species: *Allothenemus minutus* Bright, original designation.

(tx) Alonso-Zarazaga and Lyal 2009: 39.

ADD SPECIES:

minutus Bright and Torres 2006: 400. Holotype (sex ?), PUERTO RICO: Guaynabo; DEBC/USNM.
FIGURE: Bright and Torres 2006: 425 (habitus).

Genus ***Coriacephilus*** Schedl

Page 853 ***Coriacephilus*** Schedl. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 39.

Page 854 ***coriaceus*** (Eichhoff). Add:

DISTRIBUTION: ASIA: Taiwan.

(ds) Beaver 2004c: 59; Beaver and Liu 2010: 6.

ADD SPECIES:

exiguus Beaver 2004c: 57. Holotype (sex ?), BRUNEI: KBSFC, 4°32'.8N 115°09'.4E; QMB.
FIGURES: Beaver 2004c: 61 (habitus, antenna).

Genus ***Cosmoderes*** Eichhoff

Page 900 ***Cosmoderes*** Eichhoff. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 40; Maiti and Saha 2009: 176.

Page 901 ***attenuatus*** (Nobuchi). Remove from synonymy with ***C. monilicollis*** Eichhoff. Add:

DISTRIBUTION: ASIA: Taiwan.

(ds, tx) Beaver and Liu 2010: 7.

Page 901 ***consobrinus*** Blandford. Add:

DISTRIBUTION: ASIA: Taiwan.

(ds) Beaver and Liu 2010: 7.

Page 901 ***monilicollis*** Eichhoff. Add:
FIGURES: Maiti and Saha 2009: 179 (habitus, antennal club).
DISTRIBUTION: ASIA: Taiwan.
(ds) Beaver and Liu 2010: 7. (ds, tx) Maiti and Saha 2009: 178.

Genus ***Cryphalogenes*** Wood

Page 857 ***Cryphalogenes*** Wood. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 40.

Genus ***Cryphalus*** Erichson

Page 872 ***Cryphalus*** Erichson. Add:
KEYS: de Laclos et al. 2004: 1199 (to 2 species in Bourgogne, France); Maiti and Saha 2009: 181 (to species in India).
(tx) Alonso-Zarazaga and Lyal 2009: 40; de Laclos et al. 2004: 199; Maiti and Saha 2009: 180.

Page 874 ***abietis*** (Ratzeburg) (= ***C. asperatus*** (Gyllenhal)). Add:
FIGURE: de Laclos et al. 2004: 1201 (habitus).
(ds) Colonnelli 2003: 100; Voolma et al. 2004. (ds, hb) de Laclos et al. 2004: 201.
NOTE: Treated as a distinct species in Colonnelli (2003).

Page 873 ***alni*** Krivolutskaya. Move to ***C. longus*** (Eggers) as a synonym. Add:
Lectotype (female), Gornozavodskoi Region, the valley of Rybatskaya River, designated by Mandelshtam 2002: 8.
Synonymy by Mandelshtam 2002: 8.

Page 874 ***asperatus*** (Gyllenhal). Add:
FIGURE: de Laclos et al. 2004: 208 (habitus).
DISTRIBUTION: EUROPE: France (Corsica).
(ds) Colonnelli 2003: 100; de Laclos 2004: 168; Haack 2001: 272; Mandelshtam and Popovichev 2000: 897; Mandelshtam, Nikitsky and Bibin 2005b: 24; Petrov and Nikitskii 2001: 171; Voolma et al. 2004. (hb) Petrov and Nikitskii 2001: 171. (tx) Vlasov 2005: 773. (ds, hb) de Laclos et al. 2004: 208.
NOTE: Treated in ***Trypophloeus*** in Colonnelli (2003), de Laclos (2004), de Laclos et al. (2004) and Voolma et al. (2004). Treated as a subspecies in Colonnelli (2003), de Laclos (2004) and de Laclos et al. (2004).

Page 878 ***cinereotestaceus*** (Motschylsky). Add:
Lectotype (sex?), Ceylon, designated by Mandelshtam and Nikitsky 2010: 19.

Page 878 ***coryli*** Stark. Add:
Lectotype (female), Ussuri, Samarga, designated by Mandelshtam 2002: 8.
(tx) Mandelshtam 2002: 8.

Page 879 ***dorsalis*** (Motschulsky). Add:
Lectotype (sex?), India orientale, Birma, designated by Mandelshtam and Nikitsky 2010: 19.

Page 878 ***dipterocarpi*** Wood. Add:
(ds, tx) Maiti and Saha 2009: 182.

Page 879 ***elongatus*** (Nobuchi). Move to ***Ernoporicus insularum*** (Krivolutskaya) as a synonym.
Add:
Synonymy by Mandelshtam 2006: 323.

- Page 879 ***exiguus*** Blandford. Add:
(**tx**) Beaver and Liu 2010: 7.
- Page 880 ***felis*** Wood. Add:
(**ds, tx**) Maiti and Saha 2009: 183.
- Page 880 ***formosanus*** Schedl. Add:
(**tx**) Beaver and Liu 2010: 7.
- Page 880 ***fulmineus*** Wood. Add:
(**ds, tx**) Maiti and Saha 2009: 184.
- Page 880 ***fulvus*** Niisima. Add:
DISTRIBUTION: ASIA: Taiwan.
(**ds, tx**) Beaver and Liu 2010: 7.
- Page 881 ***intermedius*** Ferrari. Add:
DISTRIBUTION: EUROPE: France.
(**ds**) Colonnelli 2003: 100; Noblecoutr and Schott 2004; Ziegler 2006: 282.
- Page 882 ***kurilensis*** Krivolutskaya. Move to ***C. rhusii*** Niisima as a synonym. Add:
Synonymy by Mandelshtam 2006: 324.
- Page 883 ***latus*** Eggers. Add ***C. premayaensis*** Murayama as a synonym. Add:
DISTRIBUTION: ASIA: Russia (Yakutia).
(**ds**) Averensky and Yanovsky 2008: 29; Mandelshtam, Lafer and Kuznetsov 2001. (**tx**) Mandelshtam et al. 2007: 463.
- Page 883 ***leporinus*** Tsai and Li. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(**ds**) Huang and Yin 1992: 858.
- Page 883 ***leprosulus*** Browne. Move to ***Hylesinopsis***.
- Page 883 ***lipingensis*** Tsai and Li. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(**ds**) Huang and Yin 1992: 858.
- Page 883 ***longipennis*** (Browne). Move to ***Hypocryphalus***.
- Page 851 ***longus*** (Eggers). Move from ***Ernoporicus***. Add ***C. alni*** as a synonym. Add:
New combination by Mandelshtam 2002: 8.
(**ds**) Mandelshtam and Petrov 2009a: 207.
- Page 884 ***major*** Stebbing. Add:
(**ds, tx**) Maiti and Saha 2009: 185.
- Page 884 ***malus*** Niijima. Add ***C. padi*** as a synonym. Add:
Synonymy by Mandelshtam 2002: 8.
- Page 884 ***markangensis*** Tsai and Li. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(**ds**) Huang and Yin 1992: 858.

- Page 884 ***mandschuricus*** Eggers. Add:
(ds) Mandelshtam and Petrov 2009a: 207.
- Page 884 ***massonianus*** Tsai and Li. Add:
FIGURES: Yin 1997: 969 (outline of head and pronotum).
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Huang and Yin 1992: 857; Yin 1997: 969. (tx) Yin 1997: 969.
- Page 884 ***miyalopiceus*** Tsai and Li. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Huang and Yin 1992: 857.
- Page 879 ***nebulosus*** (Motschulsky). Remove from synonymy with ***C. dorsalis*** (Motschulsky). Add:
Lectotype (sex), India oriental, designated by Mandelshtam and Nikitsky 2010: 19.
- Page 885 ***neglectus*** Schedl. Add:
(ds, tx) Maiti and Saha 2009: 185.
- Page 885 ***numidicus*** Eichhoff. Add:
HOST: *Cedrus libani atlantica*.
(ds) Colonnelli 2003: 100; Benhalima et al. 2005.
- Page 894 ***padi*** Krivolutskaya. Remove from synonymy with ***C. scopiger*** Berger, move to ***Cryphalus malus*** Niijima as a synonym. Add:
Lectotype (female), Novoaleksandrovsk, Susun River valley, designated by Mandelshtam 2002: 2.
Synonymy by Mandelshtam 2002: 8.
- Page 886 ***piceae*** (Ratzburg). Add:
FIGURE: de Laclos et al. 2004: 200 (habitus).
(ds) Haack 2001: 272; Mandelshtam, Nikitsky and Bibin 2005b: 24. (hb) Toper 2002. (ds, hb) de Laclos et al. 2004: 200.
- Page 889 ***piceus*** Eggers. Add:
(ds) Colonnelli 2003: 100; Mandelshtam and Petrov 2009a: 207.
- Page 889 ***pilosus*** Tsai and Li. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Huang and Yin 1992: 858.
- Page 889 ***premayaensis*** Murayama. Move to ***C. latus*** Eggers as a synonym. Add:
Synonymy by Mandelshtam et al. 2007: 463.
- Page 890 ***pubescens*** Hopkins. Add:
DISTRIBUTION: North America: United States (Alaska).
(ds) Furniss, Holsten and Schultz 2002: 88.
- Page 890 ***redikorzevi*** Berger. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Huang and Yin 1992: 857.
- Page 890 ***rhusii*** Niisima. Add ***C. kuriensis*** Krivolutskaya as a synonym. Add:
(tx) Mandelshtam 2006: 324.

- Page 891 *robustus* Eichhoff. Move to ***Hypocryphalus mangiferae*** (Stebbing) as a synonym. Add:
Synonymy by Wood 2007: 487.
- Page 891 ***rubentis*** Hopkins. Add:
DISTRIBUTION: NORTH AMERICA: United States (Maryland).
(ds) Rabaglia 2003: 376.
- Page 891 ***ruficollis ruficollis*** Hopkins. Add:
(ds) Furniss, Holsten and Schultz 2002: 88; Majka, Anderson and McCorquodale 2007: 421
Majka, Anderson and McCorquodale 2007: 420 (remove Canada: Prince Edward Island?).
(ds, hb, tx) Furniss and Johnson 2002: 59.
- Page 892 ***saltuarius*** Weise. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.), Russia (Yakutia, Yaroslavi). EUROPE:
France.
(ds) Averensky and Yanovsky 2008: 29; Colonnelli 2003: 100; Mandelshtam and Popovichev
2000: 897; Noblecourt and Schott 2004; Petrov and Nikitskii 2001: 171; Voolma et al. 2004.
(ds) Huang and Yin 1992: 857. (hb) Petrov and Nikitskii 2001: 171. (tx) Vlasov 2005: 773;
Knízek 2011: 87.
- Page 893 ***scabricollis*** Eichhoff. Move to ***Hypocryphalus***.
- Page 894 ***scopiger*** Berger. Add:
(ds) Mandelshtam and Petrov 2009a: 207.
- Page 879 ***sericeus*** Motschulsky (= ***dorsalis*** (Motschulsky)). Add:
Lectotype (sex?), Ceylon, designated by Mandelshtam and Nikitsky 2010: 19.
- Page 894 ***sichotensis*** Kurenzov. Add:
Lectotype (female), Iman Region, river Kolumbe, designated by Mandelshtam 2002: 8.
(tx) Mandelshtam 2002: 8.
- Page 895 ***sinoabietis*** Tsai and Li. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Huang and Yin 1992: 857.
- Page 895 ***strohmeyeri*** Stebbing. Add:
FIGURES: Maiti and Saha 2009: 187 (habitus, antenna).
(ds, tx) Maiti and Saha 2009: 186.
- Page 895 ***subcompactus*** Lea. Add:
FIGURES: Mitchell and Maddox 2010: 107 (habitus, frons); 110 (damage).
(hb) Mitchell and Maddox 2010: 110.
- Page 895 ***submuricatus*** Eichhoff. Add *C. tuberculatus* Schedl as a synonym. Add:
(tx) Beaver 2011a: 278.
- Page 896 ***tabulaeformis*** Tsai and Li. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Huang and Yin 1992: 857.
- Page 896 ***tiawanus*** Schedl. Add:
(ds) Beaver and Liu 2010: 8.

- Page 897 *tuberculatus* Schedl. Move to ***C. submarginatus*** Eichhoff as a synonym. Add:
Synonymy by Beaver 2011a: 278.
- Page 897 ***viburni*** Stark. Add:
(ds) Mandelshtam and Petrov 2009a: 207.
- Page 898 ***wapleri*** Eichhoff. Add:
DISTRIBUTION: NEW ZEALAND (introduced and established).
(ds) Brockerhoff, Knížek and Bain 2003: 34.
- Genus ***Cryptocarenus*** Eggers
- Page 902 ***Cryptocarenus*** Eggers. Add:
KEYS: Atkinson, Rabaglia and Cognato 2010: 66 (to species in United States); Bright and
Torres 2006: 409 (to species in Puerto Rico); Wood 2007: 488 (to species in South America).
(an) López-Buenfil et al. 2001: 348. **(tx)** Alonso-Zarazaga and Lyal 2009: 42; Rabaglia 2002:
803; Wood 2007: 488.
- Page 902 *acaciae* Schedl. Move to ***C. heveae*** (Hagedorn) as a synonym. Add:
Synonymy by Wood 2007: 493.
(tx) Guadeloupe del Rio, Lanteri and Suárez 2005: 3.
- Page 902 *brasiliensis* (Schedl). Move to *C. punctifrons* Schedl (= ***C. heveae*** (Hagedorn)) as a syn-
onym. Add:
Synonym by Wood 2007: 495.
- Page 902 ***brevicollis*** Eggers. Add:
FIGURES: Wood 2007: PLATE 151.
(tx) Wood 2007: 494.
- Page 903 ***diadematus*** Eggers. Add:
FIGURES: Atkinson, Rabaglia and Cognato 2010: 67 (female frons); Wood 2007: PLATE
142.
DISTRIBUTION: NORTH AMERICA: United States (Florida).
(hb) Abreu et al. 2001. **(ds, tx)** Atkinson, Rabaglia and Cognato 2010: 66; Wood 2007: 491.
- Page 903 ***harringtoni*** (Blackman). Add:
(tx) Wood 2007: 492.
- Page 903 ***heveae*** (Hagedorn). Add *C. punctifrons* Schedl, *C. acaciae* Schedl and *C. brasiliensis* Schedl)
as synonyms. Add:
FIGURES: Wood 2007: PLATE 142.
DISTRIBUTION: NORTH AMERICA: Mexico (Tabasco), Puerto Rico. SOUTH AMERICA:
Trinidad [see Appendix].
(ds) Bright and Torres 2006: 409; Burgos-Solorio and Equihua 2007: 77; Pérez-De La Cruz et
al. 2009: 604. **(hb)** Abreu et al. 2001. **(tx)** Wood 2007: 493.
- Page 903 ***leavigatus*** (Blandford). Add:
(tx) Wood 2007: 494.
- Page 903 ***lepidus*** Wood. Add:
(ds, tx) Wood 2007: 493.

- Page 903 ***pilosus*** Eggers. Add:
FIGURES: Wood 2007: PLATE 142.
(tx) Wood 2007: 497.
- Page 903 ***pubescens*** Wood. Add:
FIGURES: Wood 2007: PLATE 143.
(tx) Wood 2007: 494.
- Page 903 ***punctifrons*** Schedl. Move to ***C. heveae*** (Hagedorn) as a synonym. Add:
Synonymy by Guadalupe del Rio, Lanteri and Suárez 2005: 7
(ds) Bright 2004: 157. (tx) Guadalupe del Rio, Lanteri and Suárez 2005: 7; Wood 2007: 495.
- Page 904 ***seriatus*** Eggers. Add:
FIGURES: López-Buenfil et al. 2001: 366 (proventriculus); Wood 2007: PLATE 144.
DISTRIBUTION: NORTH AMERICA: Mexico (Tabasco), Puerto Rico.
(ds) Bright and Torres 2006: 409; Burgos-Solorio and Equihua 2007: 77; Flechtmann, Ottati and Berisford 2001; Mecke, Galileo and Engels 2000: 168; Pérez-De La Cruz et al. 2009: 604. (tx) Wood 2007: 496.
- Page 904 ***spatulatus*** Wood. Add:
(dx, tx) Wood 2007: 490.

ADD SPECIES:

amazonicus Wood 2007: 492. Holotype (female), BRAZIL: Reserva Campinas; USNM.

barinensis Wood 2007: 496. Holotype (female), VENEZUELA: 10 km SE Miri; USNM.
DISTRIBUTION: SOUTH AMERICA: Brazil, Venezuela.
HOSTS: *Protium tenuifolium*.
(ds) Wood 2007: 496.

beaveri Wood 2007: 495. Holotype (female), BRAZIL: Mato Grosso, 12°31'S, 51°46'W; NHML.

frontalis Wood 2007: 495. Holotype (female), VENEZUELA: 10 km SE Miri, Barinas; USNM.
HOSTS: Broken twigs of *Serjania* sp., *Clusia* sp.

tropicalis Wood 2007: 491. Holotype (female), VENEZUELA: Campamento Rio Grande, 30 km E Palmer, Bolivia; USNM.

Genus ***Eidophelus*** Eichhoff

- Page 867 ***Eidophelus*** Eichhoff. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 42.
- Page 867 ***elegans*** (Krivolutskaya) (= ***E. imitans*** Eichhoff). Add:
HOSTS: *Celastrus orbiculata*.
(ds) Mandelshtam 2002: 7.
- Page 867 ***imitans*** Eichhoff. Add:
FIGURE: Lin and Wu 2010: 207 (habitus).
DISTRIBUTION: Delete India (Uttar Pradesh) and Nepal from 1992 Catalog
(ds) Beaver and Liu 2010: 8; Lin and Wu 2010.

Genus ***Ernocladius*** Wood

Page 857 ***Ernocladius*** Wood. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 40; Maiti and Saha 2009: 190.

Page 857 ***corpulentus*** (Sampson). Add:
 (ds, tx) Maiti and Saha 2009: 190.

Genus ***Ernoporicus*** Berger

Page 848 ***Ernoporicus*** Berger. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 42; de Laclos et al. 2004: 204; Rabaglia 2002: 803.

Page 849 ***caucasicus*** (Lindemann). Add:
 FIGURE: de Laclos et al. 2004: 204 (outline of head and pronotum).
 DISTRIBUTION: ASIA: Russia (Daghestan). EUROPE: Yugoslavia.
 (ds) Mandelshtam, Nikitsky and Bibin 2005b: 23; Markovic and Stojanovic 2000a; Petrov
 2005: 221; Voolma et al. 2004. (ds, hb) de Laclos et al. 2004: 205.

Page 913 ***corni*** (Kurenzov). Move from ***Hypothenemus***. Add:
 Lectotype (male), Upper flow of River Iman, Southern Ussuri Reg., designated by Mandelshtam
 2006: 323 (ZISP).
 New combination by Mandelshtam 2006: 323.
 (tx) Mandelshtam 2006: 323.

Page 850 ***fagi*** (Fabricius). Add:
 FIGURE: de Laclos et al. 2004: 204 (outline of head and pronotum), 206 (habitus).
 (ds) Colonnelli 2003: 100; Mandelshtam, Nikitsky and Bibin 2005b: 23. (ds, hb) de Laclos et
 al. 2004: 206.

Page 933 ***insularum*** (Krivolutskaya). Remove from synonymy with ***Hypothenemus krivolutskaya*** Wood.
 Add:
 Cryphalus elongatus (Nobuchi) as a synonym and add ***Hypothenemus krivolutskaya*** Wood as
 an unnecessary name. Add:
 (tx) Mandelshtam 2006: 323.

Page 851 ***longus*** (Eggers). Move to ***Cryphalus***.

Genus ***Ernoporos*** Thomson

Page 854 ***Ernoporos*** Thomson. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 43; de Laclos et al. 2004: 202.

Page 899 ***formosanus*** (Browne). Move from ***Ptilopodius***. Add:
 New combination by Beaver and Liu 2010: 8.
 (ds) Beaver and Liu 2010: 8.

Page 855 ***tiliae*** (Panzer). Add:
 FIGURE: de Laclos et al. 2004: 203 (habitus).
 DISTRIBUTION: ASIA: Russia (Daghestan, Yaroslavl).
 (ds) Colonnelli 2003: 100; Mandelshtam and Popovichev 2000: 897; Mandelshtam, Nikitsky
 and Bibin 2005b: 24; Petrov 2005: 221; Petrov and Nikitskii 2001: 171; Podlussány and
 György 2008: 198; Voolma et al. 2004. (hb) Petrov and Nikitskii 2001: 171. (tx) Vlasov
 2005: 772. (ds, hb) de Laclos et al. 2004: 203.

Genus ***Hemicryphalus*** Schedl

Page 866 ***Hemicryphalus*** Schedl. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 43.

Genus ***Hypocryphalus*** Hopkins

Page 868 ***Hypocryphalus*** Hopkins. Add:
 (an) López-Buenfil et al. 2001: 348. (tx) Alonso-Zarazaga and Lyal 2009: 43; Maiti and Saha 2009: 188; Wood 2007: 487.

Page 868 ***asper*** (Broun). Add:
HOSTS: *Elaeocarpus* sp.
(ds) Brockerhoff, Knízek and Bain 2003: 33.

Page 869 ***formosanus*** Schedl. Add:
(tx) Beaver and Liu 2010: 8.

Page 883 ***longipennis*** (Browne). Move from ***Cryphalus***. Add:
New combination by Brockerhoff, Knízek and Bain 2003: 33.
HOSTS: *Parsonsia heterophylla*.
(ds) Brockerhoff, Knízek and Bain 2003: 33.

Page 869 ***mangiferae*** (Stebbing). Add *Cryphalus robustus* Eichhoff as a synonym. Add:
FIGURES: López-Buenfil et al. 2001: 366 (proventriculus); Wood 2007: PLATE 116.
DISTRIBUTION: ASIA: Taiwan. NORTH AMERICA: Mexico (Tabasco).
(ds) Beaver and Liu 2010: 8; Bright and Torres 2006: 402; Burgos-Solorio and Equihua 2007: 75; Haack 2001: 273; Pérez-De La Cruz et al. 2009: 604. (hb) Masood et al. 2009. (ds, tx) Maiti and Saha 2009: 188; Wood 2007: 487.

Page 893 ***scabricollis*** (Eichhoff). Move from ***Cryphalus***. Add:
New combination by Mifsud and Knízek 2009: 44. Add:
FIGURES: Mifsud and Knízek 2009: 50 (habitus).
DISTRIBUTION: EUROPE: Malta.
(ds) Beaver and Liu 2010: 37. (ds, tx) Mifsud and Knízek 2009: 44.

Genus ***Hypothenemus*** Westwood

Page 904 ***Hypothenemus*** Westwood. Add:
KEYS: Bright and Torres 2006: 402 (to species in Puerto Rico); Maiti and Saha 2009: 193 (to species in India); Mifsud and Knízek 2009: 45 (to species in Malta); Wood 2007: 498 (to all American species).
(an) López-Buenfil et al. 2001: 348. (tx) Alonso-Zarazaga and Lyal 2009: 44; Maiti and Saha 2009: 191; Rabaglia 2002: 804. (hb, tx) Wood 2007: 497.

Page 906 ***africanus*** (Hopkins). Add:
(ds) Bright and Torres 2006: 404. (ds, tx) Wood 2007: 523.

Page 906 ***areccae*** (Hornung). Add:
FIGURES: Maiti and Saha 2009: 194 (habitus, antenna).
DISTRIBUTION: ASIA: Taiwan.
(ds) Beaver and Liu 2010: 9; Burgos-Solorio and Equihua 2007: 75. (tx) Wood 2007: 522. (ds, tx) Maiti and Saha 2009: 193.

- Page 924 *argentinensis* Schedl (= *H. eruditus* Westwood). Add:
(**tx**) Guadalupe del Rio, Lanteri and Suárez 2005: 3.
- Page 908 *arundinis* (Eichhoff). Add:
(**ds**) Colonnelli 2003: 100.
- Page 908 *aterrimus* (Schedl). Add:
FIGURES: Wood 2007: PLATE 144.
(**tx**) Wood 2007: 506.
- Page 941 *aulmanni* (Hagedorn). Remove from synonymy with *H. seriatus* (Eichhoff). Add:
(**ds**) Mandelshtam and Danielsson 2004: 91.
- Page 909 *birmanus* (Eichhoff). Add *H. dubius* (Schedl) as a synonym. Add:
FIGURES: Maiti and Saha 2009: 197 (habitus); Lin and Wu 2010: 208 (habitus); Wood 2007:
PLATE 145.
DISTRIBUTION: ASIA: Japan (Ryukyu Islands), Taiwan. NORTH AMERICA: Mexico
(Tabasco), Puerto Rico. OCEANIA: Mariana Islands (**Guam** [see Appendix]).
(**ds**) Beaver and Liu 2010: 9; Beaver, Kajimura and Goto 2008: 235; Bright and Torres 2006:
405; Burgos-Solorio and Equihua 2007: 76; Haack 2001: 273; Lin and Wu 2010; Pérez-De
La Cruz et al. 2009: 604. (**tx**) Beaver 2011a: 278. (**ds, tx**) Maiti and Saha 2009: 196; Wood
2007: 508.
- Page 911 *boliviianus* (Eggers). Add:
(**ds**) Flechtmann, Ottati and Berisford 2001. (**ec**) Morales et al. 2000. (**ds, tx**) Wood 2007:
509.
- Page 911 *brevicollis* (Eggers). Add *H. lamuensis* (Eggers) as a synonym. Add:
(**tx**) Beaver 2011a: 279.
- Page 911 *brunneus* (Hopkins). Add:
DISTRIBUTION: NORTH AMERICA: Mexico (Tabasco).
(**ds**) Bright and Torres 2006: 405; Burgos-Solorio and Equihua 2007: 75; Pérez-De La Cruz et
al. 2009: 604. (**ds, tx**) Wood 2007: 525.
- Page 912 *californicus* Hopkins. Add:
DISTRIBUTION: NORTH AMERICA: United States (Mississippi).
(**ds**) Burgos-Solorio and Equihua 2007: 76; Schiefer 2010: 115. (**ds, tx**) Wood 2007: 517.
- Page 912 *columbi* Hopkins. Add:
DISTRIBUTION: NORTH AMERICA: Puerto Rico.
(**ds**) Bright and Torres 2006: 405; Burgos-Solorio and Equihua 2007: 76. (**ds, tx**) Wood 2007:
523.
- Page 913 *corni* Kurenzov. Move to *Ernoporicus*.
- Page 913 *cosmoderoides* Murayama. Move to *H. taihokuensis* (Schedl) as a synonym. Add:
Synonymy by Beaver and Liu 2010: 11.
- Page 913 *costatus* (Eichhoff). Add:
(**tx**) Wood 2007: 525.
- Page 914 *crudiae* (Panzer). Add *H. trinitatis* (Hopkins) as a synonym.
FIGURE: Maiti and Saha 2009: 199 (habitus).

- DISTRIBUTION: ASIA: Taiwan. NORTH AMERICA: Mexico (Tabasco), Puerto Rico, United States (Delaware). OCEANIA: Mariana Islands (**Guam** [see Appendix]).
(ds) Beaver and Liu 2010: 9; Bright 2004: 157; Bright and Torres 2006: 406; Burgos-Solorio and Equihua 2007: 76; Rabaglia and Valenti 2003: 316. **(ds, tx)** Maiti and Saha 2009: 198. **(ds, hb, tx)** Wood 2007: 512.
- Page 924 **cylindricus** Schedl (= **H. eruditus** Westwood). Add:
(tx) Guadalupe del Rio, Lanteri and Suárez 2005: 5.
- Page 916 **dissimilis** (Zimmermann). Add:
DISTRIBUTION: NORTH AMERICA: United States (Delaware, Michigan).
(ds) Cognato et al. 2009: 114; Rabaglia and Valenti 2003: 317.
- Page 917 **dolosus** Wood. Add:
DISTRIBUTION: NORTH AMERICA: Puerto Rico.
(ds) Bright and Torres 2006: 407.
- Page 918 **erectus** LeConte. Add:
FIGURES: López-Buenfil et al. 2001: 366 (proventriculus); Wood 2007: PLATE 145; Yin 1997: 970 (outline of pronotum).
DISTRIBUTION: ASIA: China (Hengduan Mtns. introduced ?). NORTH AMERICA: Mexico (Tabasco).
(ds) Burgos-Solorio and Equihua 2007: 75; Huang and Yin 1992: 858; Pérez-De La Cruz et al. 2009: 604; Yin 1997: 970. **(tx)** Yin 1997: 970. **(hb, tx)** Wood 2007: 507.
- Page 919 **eruditus** (Westwood). Add *H. hirtipennis* Schedl, *H. longipilus* Schedl as synonyms. Add:
FIGURES: Lin and Wu 2010: 208 (habitus); Maiti and Saha 2009: 201 (habitus, antenna); Mifsud and Knízek 2009: 50 (habitus); Mitchell and Maddox 2010: 107 (habitus, frons).
DISTRIBUTION: ASIA: China (Hengduan Mtns.), Japan (Ryukyu Islands), Russia (Dagestan). EUROPE: Malta. NORTH AMERICA: Costa Rica (Isla del Coco), United States (Delaware, **South Dakota** [see Appendix]). OCEANIA: Mariana Islands (**Guam** [see Appendix]).
HOSTS: *Artocarpus altilis* log, *Ficus carica*; dry fruit of *Lagenaria siceraria*, *Melicoccus bijugatus* seeds, dry flowers of *Musa paradisiaca*, dry flowers of *Musa sapientum*, *Pinus eldarica*, *P. ponderosa*, *Psidium guajava* seeds, dry fruits of *Ricinus communis*, *Terminalia catappa* seeds.
(an) Gauthier and Rasplus 2004; Mitchell and Maddox 2010: 108. **(ds)** Ak, Uysal and Tuncer 2005; Aksit, Cakmak and Ozsemerci 2005; Beaver and Liu 2010: 9; Beaver, Kajimura and Goto 2008: 235; Bright 2004: 158; Bright and Torres 2006: 407; Burgos-Solorio and Equihua 2007: 76; Colonnelli 2003: 100; Faccoli 2002: 100; Flechtmann, Ottati and Berisford 2001; Huang and Yin 1992: 858; Kirkendall and Jordal 2006: 736; Lin and Wu 2010; Mandelshtam, Nikitsky and Bibin 2005b: 24; Mecke, Galileo and Engels 2000: 168; Mifsud and Knízek 2009: 45; Noblecourt 2004: 35; Petrov 2005: 221; Rabaglia and Valenti 2003: 317. **(ec)** Morales et al. 2000. **(hb)** Abreu et al. 2001. **(ds, tx)** Maiti and Saha 2009: 200. **(hb, tx)** Wood 2007: 518.
- Page 925 **eximius** Schedl. Add:
FIGURES: Wood 2007: PLATE 146.
(ds, hb, tx) Wood 2007: 518.
- Page 926 **fuscicollis** (Eichhoff). Add:
(ds) Beaver and Liu 2010: 10. **(tx)** Wood 2007: 505.

- Page 930 *glabellus* Schedl (= *H. hampei* (Ferrari)). Add:
(tx) Guadalupe del Rio, Lanteri and Suárez 2005: 6.
- Page 926 *glabripennis* (Hopkins). Add:
FIGURE: Maiti and Saha 2009: 202 (habitus).
(ds, tx) Maiti and Saha 2009: 202.
- Page 927 *hampei* (Ferrari). Add:
FIGURES: Mitchell and Maddox 2010: 110 (habitus, frons); Wood 2007: PLATE 146.
DISTRIBUTION: ASIA: Taiwan. NORTH AMERICA: Mexico (Morelos), United States: Hawaii (Hawaii).
(an) Gauthier and Rasplus 2004;) Mitchell and Maddox 2010: 108; Rubio et al. 2008; Rubio 2009. (bv) Vega et al. 2009; Vijayalakshmi, Rehiman and Vijayan 2000. (cn) Damon 2000.
(ds) Beaver and Liu 2010: 10; Bright 2004: 158; Bright and Torres 2006: 407; Burbano et al. 2011.; Burgos-Solorio, López-Martínez and Alia-Tejacal 2008; CAB International 2005; Haack 2001: 273; Vega, Franqui and Benavides 2002. (ec) Damon 2000; Mathieu et al. 2001; Vega et al. 2009; Vijayalakshmi, Rehiman and Vijayan 2000. (hb) Damon 2000; Vega et al. 2009; Vijayalakshmi et al. 2002. (ds, tx) Benavides et al. 2005; Maiti and Saha 2009: 204. (hb, tx) Wood 2007: 511.
NOTE: The occurrence of this species in Puerto Rico is now established (USDA Report 2007).
- Page 930 *hirtipennis* Schedl. Move to *H. eruditus* Westwood as a synonym. Add:
Synonymy by Guadalupe del Rio, Lanteri and Suárez 2005 and in Wood 2007: 519.
(tx) Guadalupe del Rio, Lanteri and Suárez 2005: 6.
- Page 931 *indigens* Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 76.
- Page 931 *ingens* (Schedl). Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Huang and Yin 1992: 859.
- Page 931 *interstitialis* Westwood. Add:
(ds) Burgos-Solorio and Equihua 2007: 76. (ds, hb, tx) Wood 2007: 510.
- Page 932 *javanus* (Eggers). Add:
FIGURES: Maiti and Saha 2009: 204 (habitus, antenna); Yin 1997: 970 (outline of pronotum).
(ds) Burgos-Solorio and Equihua 2007: 76. (tx) Beaver and Liu 2010: 10. (ds, tx) Maiti and Saha 2009: 204; Yin 1997: 970. (ds, hb, tx) Wood 2007: 524.
- Page 933 *krivolutskayae* Wood. Unnecessary name, move to *Ernoporicus insularum* (Krivolutskaya).
(tx) Alonso-Zarazaga 2005; Mandelshtam 2006: 323.
- Page 933 *lamuensis* (Eggers). Move to *H. brevicollis* (Eggers) as a synonym. Add:
Synonymy by Beaver 2011a: 279.
- Page 933 *leprorieuri* (Perris). Add:
FIGURES: Mifsud and Knízek 2009: 50 (habitus).
DISTRIBUTION: EUROPE: Italy (Tuscany Islands), Malta.
(ds) Colonnelli 2003: 100; Faccoli and Cecchi 2003; Mifsud and Knízek 2009: 46.

- Page 934 *longipilus* Schedl. Move to ***H. eruditus*** Westwood as a synonym. Add:
Synonymy by Guadalupe del Rio, Lanteri and Suárez 2005: 7.
(ds) Bright 2004: 158.
- Page 939 *minutissimus* Schedl (= ***H. pubescens*** Hopkins). Add:
(tx) Guadalupe del Rio, Lanteri and Suárez 2005: 7.
- Page 935 ***modestus*** (Murayama). Move to ***Pseudothysanoes***.
- Page 936 ***multidentatus*** (Hopkins). Add:
(tx) Wood 2007: 515.
NOTE: Probable synonym of ***H. seriatus*** (Eichhoff) (Wood 2007).
- Page 921 *myrmidon* (Eichhoff) (= ***H. eruditus*** Westwood). Add:
NOTE: Listed as a new synonym in Knízek 2011: 86 but synonymy established by Wood 1977.
- Page 936 ***novateuteutonicus*** (Schedl). Add:
FIGURES: Wood 2007: PLATE 147.
(tx) Wood 2007: 506.
- Page 925 *obscuriceps* Schedl (= ***H. eruditus*** Westwood). Add:
(tx) Guadalupe del Rio, Lanteri and Suárez 2005: 7.
- Page 936 *oblongus* (Nobuchi). Add:
Preoccupied, renamed ***H. nobuchii*** by Knízek 2011: 86.
- Page 936 ***obscurus*** (Fabricius). Add:
FIGURES: Mitchell and Maddox 2010: 110 (habitus, frons), 110 (damage).
HOSTS: *Tamarindus indica* seeds, seeds of *Melicoccus bijugatus*, *Melicoccus bijugatus* seeds, male flower of *Artocarpus heterophyllus*.
(an) Mitchell and Maddox 2010: 108. **(ds)** Bright and Torres 2006: 407; Flechtmann, Ottati and Berisford 2001. **(hb)** Abreu et al. 2001; Mitchell and Maddox 2010: 109. **(ds, hb, tx)** Wood 2007: 514.
- Page 938 ***opacus*** (Eichhoff). Add:
FIGURES: Wood 2007: PLATE 147.
(ds, hb, tx) Wood 2007: 511.
- Page 938 ***parallelus*** (Hopkins). Add:
(tx) Wood 2007: 521.
- Page 938 ***plumeriae*** (Nordlinger). Add:
(ds, tx) Wood 2007: 521.
- Page 939 ***pubescens*** Hopkins. Add:
(ds) Bright and Torres 2006: 408. **(hb, tx)** Wood 2007: 512.
- Page 939 ***rotundicollis*** (Eichhoff). Add:
DISTRIBUTION: NORTH AMERICA: United States (Mississippi).
(ds) Bright and Torres 2006: 408; Schiefer 2010: 115.
- Page 940 ***schedli*** Browne. Add:
(tx) Beaver and Liu 2010: 10.

- Page 940 ***seriatus*** (Eichhoff). Add:
FIGURES: Lin and Wu 2010: 208 (habitus); Mitchell and Maddox 2010: 107 (habitus, frons).
DISTRIBUTION: ASIA: Taiwan. NORTH AMERICA: Costa Rica (Isla del Coco).
HOSTS: *Cyrilla racemiflora* log, seeds of *Tamarindus indica*, *Hymenaea courbaril* seeds, *Melicoccus bijugatus* seeds, *Genipa americana* seeds.
(an)) Mitchell and Maddox 2010: 108. (ds) Beaver and Liu 2010: 10; Bright and Torres 2006: 408; Burgos-Solorio and Equihua 2007: 76; Kirkendall and Jordal 2006: 736; Lin and Wu 2010. (ec) Shehata 2000 (as *vulgaris* Schaufuss). (ds, hb, tx) Wood 2007: 515.
- Page 943 ***setosus*** (Eichhoff). Add:
DISTRIBUTION: Delete Taiwan.
HOSTS: *Melicoccus bijugatus* seeds, *Psidium guajava* seeds, *Artocarpus altilis* log, dry fruit of *Lagenaria siceraria*.
(ds) Beaver and Liu 2010: 37; Bright and Torres 2006: 408. (ds, hb, tx) Wood 2007: 524.
- Page 845 ***solocis*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 76.
- Page 945 ***squamulosus*** (Hopkins). Add:
DISTRIBUTION: NORTH AMERICA: Puerto Rico.
HOSTS: *Melicoccus bijugatus* seeds.
(ds) Bright and Torres 2006: 408; Burgos-Solorio and Equihua 2007: 77.
- Page 945 ***stigmosus*** (Schedl). Add:
FIGURES: Wood 2007: PLATE 148.
(tx) Wood 2007: 507.
- Page 946 ***suspectus*** Wood. Add:
(tx) Wood 2007: 522.
- Page 946 ***taihokuensis*** (Schedl). Add *H. cosmoderoides* as a synonym. Add:
FIGURE: Lin and Wu 2010: 208 (habitus).
(ds) Lin and Wu 2010
- Page 946 ***teretis*** Wood. Add:
(ds, tx) Wood 2007: 521.
- Page 925 ***tigrensis*** Schedl (= ***H. eruditus*** Westwood). Add:
(tx) Guadalupe del Rio, Lanteri and Suárez 2005: 8.
- Page 946 ***trinitatis*** Hopkins. Move to ***H. crudiae*** (Panzer) as a synonym. Add:
Synonymy by Bright and Torres 2006: 406.
- Page 946 ***trivialis*** Wood. Add:
(ds, tx) Wood 2007: 508.
- Page 925 ***vianai*** Schedl (= ***H. eruditus*** Westwood). Add:
(tx) Guadalupe del Rio, Lanteri and Suárez 2005: 9.

ADD SPECIES:

abhorrens Wood 2007: 504. Holotype (female), BRAZIL: [Rio] Itiquira, southcentral Mato Grosso; MZUSP.
HOST: *Hevea brasiliensis* clone.

amplissimus Bright and Torres 2006: 404. Holotype (female), PUERTO RICO: Guánica; DEBC/USNM.
 FIGURE: Bright and Torres 2006: 425 (habitus).
 HOST: *Serjania polyphylla*.

barinensis Wood 2007: 505. Holotype (female), VENEZUELA: 10 KM se Miri, Barinas; USNM.
 HOST: *Serjania* sp.

concavifrons Bright and Torres 2006: 405. Holotype (female), PUERTO RICO: Guánica, light trap;
 DEBC/USNM.

ebenus Wood 2007: 529. Holotype (female), BRAZIL: Aracruz, Espírito Santo; MZUSP.

meridensis Wood 2007: 506. Holotype (female), VENEZUELA: 9 km E Lagunillas, Merida; USNM.
 HOSTS: *Mimosa* sp, and *Clematis* sp?).

nobuchii Knízek. New name for *H. oblongus* Nobuchi.
 (tx) Knízek 2011: 86.

parvistriatus Wood 2007: 517. Holotype (female), FLORIDA: 1 mile W Ochopee, Collier Co.; USNM.
 HOSTS: Dead fern fronds of *Acrostichum danaeefolium*.

rugosipes Wood 2007: 515. Holotype (female), VENEZUELA: 20 km SW El Vigia, Merida; USNM.
 HOSTS: *Cucurbita* sp.

virolae Wood 2007: 509. Holotype (female), VENEZUELA: 30 km SW El Vigia, Merida; USNM.
 DISTRIBUTION: NORTH AMERICA: Costa Rica. SOUTH AMERICA: Venezuela.
 HOSTS: *Virola* sp., *Trichilla propingua*.

Genus **Margadillius** Hopkins

Page 898 **Margadillius** Hopkins. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 45.

Genus **Neocryphalus** Nunberg

Page 852 **Neocryphalus** Nunberg. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 45; Wood 2007: 482.

Page 852 **argentinensis** Nunberg. Add *N. cristatus* (Schedl) as a synonym. Add:
 FIGURES: Wood 2007: PLATE 138.
 (tx) Wood 2007: 482.

Page 852 *cristatus* (Schedl). Move to ***N. argentinensis*** Nunberg as a synonym. Add:
 Synonymy by Wood 2007: 482.

Genus **Periocryphalus** Wood

Page 948 **Periocryphalus** Wood. Add:
 KEY: Wood 2007: 528 (to all species).
 (tx) Alonso-Zarazaga and Lyal 2009: 45.

Page 948 **pullus** Wood. Add:
 (tx) Wood 2007: 528.

Page 948 ***sobrinus*** Wood. Add:
(tx) Wood 2007: 529.

Genus ***Procryphalus*** Hopkins

Page 847 ***Procryphalus*** Hopkins. Add:
KEY: Furniss and Johnson 2002: 86 (to species in Idaho, USA).
(tx) Alonso-Zarazaga and Lyal 2009: 45; Rabaglia 2002: 803.

Page 848 ***mucronatus*** (LeConte). Add:
DISTRIBUTION: NORTH AMERICA: United States (**Arizona** [see Appendix]).
(ds) Furniss and Johnson 2002: 86; Furniss, Holsten and Schultz 2002: 90. (tx) Furniss and Johnson 2002: 86.

Page 848 ***utahensis*** Hopkins. Add:
(ds) Furniss, Holsten and Schultz 2002: 90. (ds, tx) Furniss and Johnson 2002: 86.

Genus ***Ptilopodius*** Hopkins

Page 899 ***Ptilopodius*** Hopkins. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 45; Maiti and Saha 2009: 207.

Page 899 ***formosanus*** Browne. Move to ***Ernopus***.

Page 900 ***ramosus*** Beeson. Add:
FIGURES: Maiti and Saha 2009: 209 (habitus, antenna).
(ds, tx) Maiti and Saha 2009: 208.

Genus ***Scolytogenes*** Eichhoff

Page 858 ***Scolytogenes*** Eichhoff. Add:
KEYS: Maiti and Saha 2009: 211 (to species in India); Yin 2001: 322 (to Chinese species).
(an) López-Buenfil et al. 2001: 347. (tx) Alonso-Zarazaga and Lyal 2009: 45; Beaver, Kajimura and Goto 2008: 234; Maiti and Saha 2009: 209; Rabaglia 2002: 803; Yin 2001; Wood 2007: 486.

Page 859 ***aspericollis*** (Eichhoff). Add:
FIGURES: Maiti and Saha 2009: 213 (habitus, antennal club).
(ds, tx) Maiti and Saha 2009: 212.

Page 860 ***ceylonicus*** (Schedl). Add:
(ds, tx) Maiti and Saha 2009: 213.

Page 860 ***darwini*** Eichhoff. Add:
FIGURE: Yin 2001: 323 (antenna).
DISTRIBUTION: ASIA: Burma, China (Yunnan), India, Indonesia (Java), New Guinea, Philippine Islands, Vietnam.
HOSTS: *Cryptolepis buchanani*.
(tx) Yin 2001: 323. (ds, tx) Maiti and Saha 2009: 214.

Page 861 ***fulvipennis*** (Nobuchi). Add:
(tx) Beaver and Liu 2010: 11.

Page 862 ***indicus*** Wood. Add:
(**ds, tx**) Maiti and Saha 2009: 216.

Page 862 ***jalapae*** (Letzner). Add:
FIGURES: Ferro and Gimmel 2011 (habitus); Wood 2007: PLATE 140.
DISTRIBUTION: NORTH AMERICA: United States (Louisiana).
HOST: *Ipomoea* sp.
(**ds**) Ferro and Gimmel 2011. (**ds, hb, tx**) Wood 2007: 486.

Page 862 ***knabi*** (Hopkins). Add:
DISTRIBUTION: NORTH AMERICA: Puerto Rico.
(**ds**) Bright and Torres 2006: 402.

Page 865 ***pumilionides*** (Schedl). Add:
(**ds, tx**) Maiti and Saha 2009: 217.

Page 865 ***rusticus*** (Wood). Add:
FIGURE: López-Buenfil et al. 2001: 366 (proventriculus).
(**ds**) Burgos-Solorio and Equihua 2007: 75.

ADD SPECIES:

exilis Yin 2001: 327. Holotype (female), P. R. CHINA: Guangdong, Xuwen; IZAC.
FIGURE: Yin 2001: 333 (habitus).

glabratus Yin 2001: 330. Holotype (female), P. R. CHINA: Yannan, Gongshan; IZAC.
FIGURES: Yin 2001: 331 (head, antenna), 333 (habitus).
DISTRIBUTION: ASIA: China (Hubei, Yunnan).
HOSTS: *Alangium chinense*, *Firmiana simplex*.

incultus Yin 2001: 325. Holotype (male), P. R. CHINA: Jiangsu, Nantong; IZAC.
FIGURES: Yin 2001: 332 (habitus, antenna).
HOSTS: *Pittosporum tobira*.

magnocularis Yin 2001: 326. Holotype (male), P. R. CHINA: Yunnan, Xishuangbannan; IZAC.
FIGURE: Yin 2001: 332 (habitus).
HOSTS: *Cassia siamea*.

polisquamosus Yin 2001: 329. Holotype (female), P. R. CHINA: Fujian, Jiangle; IZAC.
FIGURES: Yin 2001: 329 (antenna), 333 (habitus).

venustus Yin 2001: 328. Holotype (male), P. R. CHINA: Guangdong, Haikang; IZAC.
FIGURE: Yin 2001: 333 (habitus).
HOSTS: under bark of tree.

yunnanensis Yin 2001: 324. Holotype (male), P. R. China: Yunnan, Jinghong; IZAC.
FIGURE: Yin 2001: 322 (habitus).
HOSTS: *Bauhinia variegata*, *Betula alnoides*.

Genus ***Stegomerus*** Wood

Page 852 ***Stegomerus*** Wood. Add:
KEY: Wood 2007: 481 (to all species).
(**an**) López-Buenfil et al. 2001: 347. (**tx**) Alonso-Zarazaga and Lyal 2009: 47; Wood 2007: 480.

Page 852 ***mexicanus*** Wood. Add:
FIGURE: López-Buenfil et al. 2001: 366 (proventriculus).

Page 852 ***mirandus*** Wood. Add:
FIGURES: Wood 2007: PLATE 138.
(**hb, tx**) Wood 2007: 481.

Page 852 ***pygmaeus*** Wood. Add:
(**ds**) Burgos-Solorio and Equihua 2007: 75.

ADD SPECIES:

longipennis Wood 2007: 482. Holotype (female), BRAZIL: Bocaina Mountain, Parati, Rio de Janeiro; MZUSP.
HOST: *Passiflora edulis flanocarpa* stems.

Genus ***Stephanopodius*** Schedl

Page 853 ***Stephanopodius*** Schedl. Add:
(**tx**) Alonso-Zarazaga and Lyal 2009: 47.

Genus ***Trischidias*** Hopkins

Page 947 ***Trischidias*** Hopkins. Add:
KEY: Wood 2007: 526 (to all species).
(**tx**) Alonso-Zarazaga and Lyal 2009: 47; Rabaglia 2002: 804; Wood 2007: 526.

Page 947 ***atoma*** (Hopkins). Add *T. nigrinus* (Schedl) as a synonym. Add:
DISTRIBUTION: ASIA: Taiwan (introduced or intercepted?). NORTH AMERICA: United States (Alabama, Michigan). SOUTH AMERICA: Brazil.
(**ds**) Cognato et al. 2009: 116; Beaver and Liu 2010: 11; Schiefer 2010: 115. (**ds, tx**) Wood 2007: 527.

Page 947 ***nigrina*** (Schedl). Move to ***T. atoma*** (Hopkins) as a synonym. Add:
Synonymy by Wood 2007: 527.

Page 197 ***striata*** Atkinson. Add:
(Suppl. 1) DISTRIBUTION: NORTH AMERICA: United States (Mississippi).
(**ds**) Schiefer 2010: 116. (**ms**) Wood 2007: 527.

ADD SPECIES:

puertoricensis Bright and Torres 2006: 409. Holotype (female), PUERTO RICO: Guaynabo; DEBC/USNM.
FIGURE: Bright and Torres 2006: 425 (habitus).
HOSTS: *Psidium guajava* seeds.

Genus ***Trypophloeus*** Fairmaire

Page 842 ***Trypophloeus*** Fairmaire. Add:
KEY: Furniss and Johnson 2002: 95 (to species in Idaho, USA); de Laclos et al. 2004: 207 (to subspecies of "***T. asperatus***", actually ***T. binodulus***).
(**an**) López-Buenfil et al. 2001: 347. (**tx**) Alonso-Zarazaga and Lyal 2009: 48; de Laclos et al. 2004: 207; Rabaglia 2002: 803.

- Page 842 ***alni*** (Lindemann). Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Colonnelli 2003: 100; Huang and Yin 1992: 859; Mandelshtam and Popovichev 2000: 896; Petrov and Nikitskii 2001: 172; Voolma et al. 2004. **(hb)** Petrov and Nikitskii 2001: 172. **(tx)** Vlasov 2005: 772.
- Page 843 ***binodulus*** (Ratzeburg). Add:
(ds) Mandelshtam and Popovichev 2000: 896; Petrov and Nikitskii 2001: 172. **(hb)** Petrov and Nikitskii 2001: 172. **(tx)** Vlasov 2005: 772.
NOTE: This is “*T. asperatus*” and 2 subspecies in de Laclos et al. 2004.
- Page 843 ***bispinulus*** Eggers (= ***granulatus*** (Ratzeburg)). Add:
DISTRIBUTION: ASIA: Russia (Altai).
(ds) Demidko 2007: 36; Mandelshtam and Popovichev 2000: 896; Petrov and Nikitskii 2001: 172; Voolma et al. 2004. **(hb)** Petrov and Nikitskii 2001: 172. **(tx)** Vlasov 2005: 772.
- Page 129 ***discedens*** Palm. Add:
(Suppl.2) **(ds)** Voolma et al. 2004.
- Page 844 ***granulatus*** (Ratzeburg). Add:
(ds) Petrov and Nikitskii 2001: 172. **(hb)** Petrov and Nikitskii 2001: 172. **(tx)** Vlasov 2005: 774.
- Page 845 ***klimeschi*** Eggers. Add;
DISTRIBUTION: Asia: China (Xinjiang).
(hb) Yu et al. 2004.
- Page 846 ***palmi*** Hansen. Add:
DISTRIBUTION: ASIA: Russia (Leningrad, Yaroslavi).
(ds) Mandelshtam and Popovichev 2000: 896. **(tx)** Vlasov 2005: 772.
- Page 846 ***populi*** Hopkins. Add:
FIGURE: López-Buenfil et al. 2001: 366 (proventriculus).
DISTRIBUTION: NORTH AMERICA: United States (Michigan).
(ds) Cognato et al. 2009: 116. **(ds, hb, tx)** Furniss and Johnson 2002: 95.
- Page 846 ***rybinskii*** Reitter. Add:
FIGURE: de Laclos 2004: 168 (gallery pattern).
DISTRIBUTION: EUROPE: France (Corsica).
(ds) de Laclos 2004: 168; Kania and Krolik 2001: 86.
- Page 844 ***spiculatus*** Eggers (= ***binodulus*** (Ratzeburg)). Add:
(ds, tx) Colonnelli 2003: 100.
NOTE: Treated as a subspecies of ***asperatus*** in Colonnelli (2003).
- Page 847 ***striatulus*** (Mannerheim). Add:
DISTRIBUTION: NORTH AMERICA: United States (Michigan).
HOST: *Salix alaxensis*.
(ds) Cognato et al. 2009: 116; Furniss, Holsten and Schultz 2002: 90. **(hb)** Furniss 2004. **(ds, hb, tx)** Furniss and Johnson 2002: 96.
- Page 847 ***thatcheri*** Wood. Add:
(ds, hb, tx) Furniss and Johnson 2002: 96.

- Page 847 ***tremulae*** Stark. Add:
DISTRIBUTION: ASIA: Russia (Daghestan, Krasnodar).
(ds) Georgiev and Doychev 2010; Mandelshtam, Nikitsky and Bibin 2005b: 23; Petrov 2005: 222.

SUBFAMILY CORTHYLINAE LeConte

- Page 949 ***Corthylinae*** LeConte. Add:
KEY: Wood 2007: 541 (to all genera, as Cortylini).

TRIBE PITYOPHTHORINI

- Page 949 ***Pityophthorini*** Eichhoff. Add:
Recognized herein as a tribe.

Genus ***Arapthus*** Eichhoff

- Page 952 ***Arapthus*** Eichhoff. Add:
KEYS: Bright and Torres 2006: 421 (to species in Puerto Rico); Wood 2007: 547 (to all mainland species from Mexico to Argentina).
(an) López-Buenfil et al. 2001: 350. (tx) Alonso-Zarazaga and Lyal 2009: 34; Rabaglia 2002: 804. (hb, tx) Wood 2007: 547.

- Page 977 ***Breviophthorus*** Schedl. Remove from synonymy with ***Pityophthorus***, move to synonymy with ***Arapthus***. Add:
Synonymy by Wood 2007: 583.

- Page 953 ***amazonicus*** (Eggers). Add *Arapthus sparsepunctatus* (Schedl) as a synonym. Add:
(tx) Wood 2007: 569.

- Page 953 ***araucariae*** (Schedl). Add:
(ds) Mecke, Galileo and Engels 2000: 168. (tx) Wood 2007: 569.

- Page 953 ***arauijiae*** (Brèthes). Add:
(ds) Bright 2004: 156.
NOTE: Evidently omitted in Wood 2007.

- Page 953 ***argentiniae*** (Schedl). Add:
Lectotype (male), Santa Maria, Misiones, Dep. Concepcion, Argentina, designated by Wood 2007: 595.
(tx) Guadalupe del Rio, Lanteri and Suárez 2005: 4; Wood 2007: 595.

- Page 953 ***attenuatus*** Wood. Add:
DISTRIBUTION: NORTH AMERICA: Mexico: **Sonora** [see Appendix].
(an) Garrick et al. 2009.

- Page 953 ***boliviensis*** (Schedl). Add:
Lectotype (male), Cochabamba, Germain, Bolivia, designated by Wood 2007: 611.
(tx) Wood 2007: 611.

- Page 953 ***brasiliensis*** (Schedl). Add:
(tx) Wood 2007: 576.

- Page 984 ***brevisetosus*** (Eggers). Move from ***Pityophthorus***. Add:
New combination by Wood 2007: 571.
NOTE: Name misspelled in Wood 2007: 571.
- Page 957 ***caribaeus*** (Blackman). Remove from synonymy with ***A. hymenaeae***. Add:
(tx) Wood 2007: 571.
- Page 988 ***celatus*** (Schedl). Move from ***Pityophthorus***. Add:
New combination by Wood 2007: 572.
- Page 954 ***chilensis*** (Schedl). Add:
Lectotype (female), Valparaiso, Algarrobo, Chile, designation by Wood 2007: 583.
(tx) Wood 2007: 583.
- Page 954 ***columbianus*** (Schedl). Add:
(tx) Wood 2007: 576.
- Page 954 ***concentralis*** (Schedl). Add:
(ds) Burgos-Solorio and Equihua 2007: 78.
- Page 954 ***confluens*** (Schedl). Add:
(tx) Wood 2007: 598.
- Page 954 ***corpulentus*** (Schedl). Add:
(tx) Wood 2007: 589.
- Page 954 ***costaricensis*** (Schedl). Add *A. nitidulus* (Schedl) as a synonym. Add:
(ds, tx) Wood 2007: 580.
- Page 954 ***crassus*** (Schedl). Add:
(tx) Wood 2007: 600.
- Page 955 ***cribricollis*** (Schedl). Add:
Lectotype (female), Fortaleza R. G., Brazil, designated by Wood 2007: 599.
(tx) Wood 2007: 599.
- Page 955 ***criripennis*** (Schedl). Add:
(tx) Wood 2007: 605.
- Page 955 ***dentifrons*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 77.
- Page 955 ***dubiosus*** (Schedl). Move to ***A. nudus*** (Schedl) as a synonym. Add:
Synonymy by Wood 2007: 598.
- Page 955 ***dubius*** (Schedl). Add:
(tx) Wood 2007: 587.
- Page 955 ***eggersi*** (Schedl). Add:
DISTRIBUTION: SOUTH AMERICA: Peru.
(ds, tx) Wood 2007: 609.
- Page 956 ***elongatus*** (Schedl). Add:
(tx) Wood 2007: 592.

- Page 956 ***foveifrons*** (Schedl). Add:
(**ds**) Burgos-Solorio and Equihua 2007: 77.
- Page 956 ***frenatus*** (Schedl). Add:
Lectotype (female), Cordoba, San Javier, Argentina, designated by Wood 2007: 592.
(**ds**) Bright 2004: 156. (**tx**) Guadalupe del Rio, Lanteri and Suárez 2005: 6; Wood 2007: 592.
- Page 999 ***frontalis*** (Schedl). Move from ***Pityophthorus***. Add:
New combination by Wood 2007: 590.
- Page 956 ***frontalis*** Wood. Preoccupied, rename as ***A. praevious*** Wood, new name. Add:
(**tx**) Wood 2007: 589.
- Page 956 ***frontis*** Wood. Add:
FIGURES: Wood 2007: PLATE 150.
(**tx**) Wood 2007: 615.
- Page 957 ***gracilentus*** (Schedl). Add *Pityophthorus brasiliensis* (Schedl) as a synonym. Add:
(**tx**) Wood 2007: 583.
- Page 957 ***gracilis*** (Schedl). Add:
(**tx**) Wood 2007: 588.
- Page 957 ***grandis*** (Schedl). Add:
Lectotype (male), Rio Caraguata, Mato Grosso, Brazil, designated by Wood 2007: 600.
(**tx**) Wood 2007: 600.
- Page 957 ***granulipennis*** (Schedl). Add:
(**tx**) Wood 2007: 610.
- Page 1001 ***granulosus*** (Schedl). Move from ***Pityophthorus***. Add:
New combination by Wood 2007: 604.
- Page 957 ***hostilis*** (Blackman). Add:
(**tx**) Wood 2007: 577.
- Page 957 ***hymenaeae*** (Eggers). Add:
DISTRIBUTION: NORTH AMERICA: Puerto Rico.
(**ds**) Bright and Torres 2006: 421. (**ds, tx**) Wood 2007: 570.
- Page 958 ***imitatrix*** (Schedl). Add:
(**tx**) Wood 2007: 605.
- Page 958 ***impensus*** (Wood). Add:
FIGURES: Wood 2007: PLATE 151.
DISTRIBUTION: SOUTH AMERICA: Venezuela.
(**ds, hb, tx**) Wood 2007: 606.
- Page 958 ***laevigatus*** (Eggers). Add:
(**tx**) Wood 2007: 579.
- Page 958 ***laudatus*** Wood. Add:
FIGURE: López-Buenfil et al. 2001: 367 (proventriculus).

- Page 958 ***leptus*** (Bright). Add:
(**ds**) Burgos-Solorio and Equihua 2007: 78.
- Page 959 ***limax*** (Schedl). Add:
FIGURES: Wood 2007: PLATE 152.
(**tx**) Wood 2007: 615.
- Page 959 ***linearis*** (Schedl). Add:
(**tx**) Wood 2007: 576.
- Page 959 ***macer*** (Bright). Add:
DISTRIBUTION: SOUTH AMERICA: Brazil.
(**ds, tx**) Wood 2007: 587.
- Page 1012 ***micrographus*** Schedl. Remove from synonymy with ***Pityophthorus micrograptinus*** Wood, reinstate as distinct species. Add *P. micrograptinus* Wood as an unneeded replacement name.
Add:
(**tx**) Wood 2007: 586.
- Page 959 ***minutissimus*** (Schedl). Add:
(**tx**) Wood 2007: 582.
- Page 959 ***mucunae*** (Blackman). Add:
(**tx**) Wood 2007: 570.
- Page 960 ***nitidipennis*** (Schedl, 1963). Add:
(**tx**) Wood 2007: 579.
- Page 960 ***nitidulus*** (Schedl). Move to ***A. costaricensis*** (Schedl) as a synonym. Add:
Synonymy by Wood 2007: 580.
NOTE: Listed as a valid species in Wood 2007, page 553 (key) and page 579, and as a new synonym of ***A. costaricensis*** (Schedl) in the same work, page 580.
- Page 960 ***novateutonicus*** (Schedl). Add:
FIGURES: Wood 2007: PLATE 155.
Lectotype (female), Nova Teutonia, Santa Catarina, Brazil, designated by Wood 2007: 595.
(**tx**) Wood 2007: 595.
- Page 960 ***nudus*** (Schedl). Add *A. dubiosus* (Schedl) as a synonym. Add:
DISTRIBUTION: SOUTH AMERICA: Paraguay.
(**ds, tx**) Wood 2007: 598.
- Page 960 ***obesus*** Wood. Add:
(**tx**) Wood 2007: 582.
- Page 960 ***obscurus*** (Eggers). Add:
(**tx**) Wood 2007: 587.
- Page 960 ***obsoletus*** (Blandford). Add:
(**ds**) Burgos-Solorio and Equihua 2007: 78.
- Page 960 ***oleanderi*** (Schedl). Move to ***Mimiocurus***.

- Page 960 *pallidus* (Blackman). Add:
(ds) Bright and Torres 2006: 422.
- Page 960 *paranae* (Schedl). Add:
Lectotype (male), Rondon, Parana, Brazil, designated by Wood 2007: 603.
(tx) Wood 2007: 603.
- Page 1021 *plaumannii* (Schedl, 1970). Move from *Pityophthorus*. Add:
New combination by Wood 2007: 588.
- Page 960 *plaumannii* (Schedl, 1976). Preoccupied, rename as *A. plaumannianus* Wood, new name.
Add:
FIGURES: Wood 2007: PLATE 155.
(tx) Wood 2007: 575.
- Page 960 *politus* (Blandford). Add:
FIGURE: López-Buenfil et al. 2001: 367 (proventriculus).
- Page 961 *pubescens* (Schedl). Add:
(ds) Bright 2004: 156. (tx) Guadalupe del Rio, Lanteri and Suárez 2005: 7; Wood 2007: 575.
- Page 961 *punctatissimus* (Schedl). Add:
(tx) Wood 2007: 577.
- Page 961 *robustus* (Schedl). Add:
(tx) Wood 2007: 592.
- Page 961 *rufopalliatius* Eichhoff. Add:
FIGURES: Wood 2007: PLATES 156, 157.
DISTRIBUTION: SOUTH AMERICA: Venezuela.
(ds, hb, tx) Wood 2007: 614.
- Page 961 *sparsepunctatus* (Schedl). Move to *A. amazonicus* (Eggers) as a synonym. Add:
Synonymy by Guadalupe del Rio, Lanteri and Suárez 2005: 8 and Wood 2007: 569.
(ds) Bright 2004: 156.
- Page 962 *speciosus* Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 77.
- Page 962 *splendidulus* (Schedl). Add:
(ds, tx) Wood 2007: 581.
- Page 1030 *subsimilis* (Schedl). Move from *Pityophthorus*. Add:
New combination by Wood 2007: 593.
- Page 1030 *subsulcatus* (Schedl). Move from *Pityophthorus*. Add:
New combination by Wood 2007: 604.
- Page 962 *tabogae* (Blackman). Add:
(ds) Burgos-Solorio and Equihua 2007: 78.
- Page 962 *tenellus* (Schedl). Move to *Gnatholeptus*.

Page 962 ***umbraticus*** (Schedl). Add:
(tx) Wood 2007: 613.

Page 1033 ***virtus*** (Schedl). Move from ***Pityophthorus***. Add:
New combination by Wood 2007: 584.

Page 963 ***volastus*** (Schedl). Add:
(tx) Wood 2007: 585.

Page 963 ***xylotrupes*** (Eichhoff). Add:
(ds, tx) Wood 2007: 585.

ADD NEW NAMES:

nitens Wood. Replacement name for *A. nitidipennis* (Schedl, 1967). Add:
(tx) Wood 2007: 607.

plaumannianus Wood, new name for *A. plaumanni* (Schedl), preoccupied.

praevious Wood. Replacement name for *A. frontalis*. Add:
(tx) Wood 2007: 589.

semisulcatus Wood. Replacement name for *A. sulcatus* Nunberg, not Schedl. Add:
(tx) Wood 2007: 608.

ADD SPECIES:

andinus Wood 2007: 609. Holotype (male), VENEZUELA: Merida, Merida; USNM.
HOST: *Podocarpus* sp. limbs.

araguensis Wood 2007: 601. Holotype (female), VENEZUELA: Rancho Grande, Aragua; USNM.

barinensis Wood 2007: 594. Holotype (female), VENEZUELA: 9 km S Barrancas, Barinas; USNM.
HOST: Branches of *Nectandra* sp.

beaveri Wood 2007: 590. Holotype (male), BRAZIL: Mato Grosso, 12°49'S, 51°46'W; NHML.

clematicolens Wood 2007: 608. Holotype (male), VENEZUELA: Merida, Merida; USNM.
HOST: *Clematis* sp. stems.

clusiae Wood 2007: 582. Holotype (male), VENEZUELA: Rancho Grande, Pettier N. F., Aragua; USNM.
HOST: Limb of *Clusia* sp.

convexifrons Wood 2007: 580. Holotype (female), PERU: Tenaco-Herrera; USNM.
HOST: ex nois de *Jessenia bataua*.

coumacomis Wood 2007: 589. Holotype (male), COLOMBIA: Carton de Colombia forest, near
Buenaventura, 8 km S Colonia, Valle de Cauca; USNM.
HOST: *Couma macrocarpa*.

cracens Wood 2007: 604. Holotype (male), BRAZIL: Mato Grosso, 12°47'S, 51°46'W; NHML.

declivis Wood 2007: 596. Holotype (male), BRAZIL: Pocone, Mato Grosso; MZUSP.

epistomalis Wood 2007: 585. Holotype (male), MEXICO: La Mixtequita, Oaxaca; USNM.

equihuai Wood 2007: 595. Holotype (female). MEXICO: Uxpanapa, Oaxaca; USNM.

eusimplicis Wood 2007: 608. Holotype (male), BRAZIL: Mato Grosso, 12°47'S, 51°46'W; NHML.

excavatus Wood 2007: 571. Holotype (male), MEXICO: Laguna Santa Maria, Nayarit; USNM.
DISTRIBUTION: NORTH AMERICA: Mexico (Nayarit, Jalisco).

expers Wood 2007: 612. Holotype (female), COLOMBIA: Piedras Blancas, 10 km E Medellin, Antioquia;
USNM.

HOSTS: *Panopis jolombo* and *Roupala* sp.

falaciosus Wood 2007: 586. Holotype (male), BRAZIL: Cepec, Ilheus, Bahia; USNM.

gloriosus Wood 2007: 590. Holotype (female), GUATEMALA: Tikal, Peten; USNM.

guyanae Wood 2007: 602. Holotype (male), FRENCH GUYANE: Petit-Sant; USNM.

guyananensis Wood 2007: 578. Holotype (male). FRENCH GUYANE: Chemin de Borota; USNM.
DISTRIBUTION: NORTH AMERICA: Panama (Canal Zone). SOUTH AMERICA: Brazil (?).
HOSTS: *Mucuna* sp., *Pseudobombax* sp. flower.
(ds) Wood 2007: 578.

jaliscoensis Wood 2007: 580. Holotype (female), MEXICO: Playa Perula, Jalisco; USNM.

kirkendalli Wood 2007: 579. Holotype (female), COSTA RICA: Estacion Biologia La Selva, Heredia;
USNM.
HOST: Leaf petiole of *Ochroma pyrimadales*.

liminaris Wood 2007: 577. Holotype (male), VENEZUELA: 40 km E Canton, Barinas; USNM.
FIGURES: Wood 2007: PLATE 153.

micarius Wood 2007: 603. Holotype (male), BRAZIL: Mato Grosso, 12°49'S, 51°46'W; NHML.

minulus Wood 2007: 602. Holotype (male), BRAZIL: Mato Grosso, 12°44'S, 51°46'W; NHML.

mirabilis Wood 2007: 591. Holotype (female), COLOMBIA: Piedras Blancas, 10 km E Medellin, Antioquia;
USNM.

mirus Wood 2007: 591. Holotype (female), VENEZUELA: La Mueuy, 20 km W Merida, Merida; USNM.

mucunavorus Wood 2007: 572. Holotype (male), COLOMBIA: Porce, Antioquia; USNM.
HOST: *Mucuna* sp.

muticus Wood 2007: 611. Holotype (male), "Nova Grenada, Colombie"; IRSN.

ocularis Wood 2007: 601. Holotype (male), BRAZIL: Mato Grosso, 12°29'S, 51°56'W; NHML.

partilis Wood 2007: 612. Holotype (female), VENEZUELA: Colonia Tovar, Aragua; USNM.
HOST: Tree limb (? *Roupala* sp.).

parvistriatus Wood 2007: 606. Holotype (male), MEXICO: 2 km N Antenquique, Jalisco; USNM.

parvulus Wood 2007: 611. Holotype (female), COLOMBIA: Piedras Blancas, 10 km E Medellin, Antioquia; USNM.
HOST: *Roupala* sp.

pernicialis Wood 2007: 573. Holotype (male), BRAZIL: Para; USNM.
HOSTS: *Mucuna* seeds, *Mimosa verucosa*.

playonensis Wood 2007: 584. Holotype (male), COSTA RICA: Playon, San Jose Prov.; USNM.
HOST: Legume shrub.

plicatus Wood 2007: 573. Holotype (male), VENEZUELA: Merida, Merida; USNM.

pseudosimilis Wood 2007: 599. Holotype (female), BRAZIL: Maturaca, alto Rio Cauaburi, Amazonas; NHMV.

pumilus Wood 2007: 594. Holotype (female), MEXICO: Estacion de Biologia, Chamela, Jalisco; USNM.
HOST: *Pithecellobium* sp.

reticulatus Wood: 605. Holotype (male), BRAZIL: Mato Grosso, 12°49'S, 51°46'W; NHML.

roupalae Wood 2007: 610. Holotype (female), COLOMBIA: Piedras Blancas, 10 km. E Medellin, Antioquia; USNM.
HOST: *Roupala* bark.

schedlianus Wood 2007: 614. Holotype (female), BRAZIL: Rio Negro, Parana; NHMV.

simplicis Wood 2007: 607. Holotype (female), BRAZIL: Cepec, Ilheus, Bahia; USNM.

spiculatus Wood 2007: 588. Holotype (male), VENEZUELA: La Carbonera Experimental Forest, 50 km NW Merida, Merida; USNM.

subaciculatus Wood 2007: 574. Holotype (mal.e), BRAZIL: Bocaiuva, Para, 25°08', 49°04'; NHMV.

subconcentralis Wood 2007: 597. Holotype (female), VENEZUELA: Merida, Merida; USNM.
HOST: *Mucuna* sp.

subemarginatus Wood 2007: 613. Holotype (female), VENEZUELA: 3 km NE Creole, Barinas; USNM.
HOST: *Nectandra* sp.

uruguayensis Wood 2007: 574. Holotype (male), URUGUAY: Colonia del Sacramento; USNM.
FIGURES: Wood 2007: PLATE 157.
HOST: *Erythrina cristagalli*.

varius Wood 2007: 581. Holotype (female). PERU: Perou: Loreto, Sta. Cecilia sur Rio Maniu (150 km d'Iquitos); USNM.
DISTRIBUTION: NORTH AMERICO: Mexico (Chiapas). SOUTH AMERICA: Brazil (Amazonas, Parana), Suriname.
HOSTS: nuts of *Jessenia batana* and *Parkia candula*.

veritus Wood 2007: 597. Holotype (male), BRAZIL: 12°49'S, 51°46'W, Mato Grosso; NHML.

virolae Wood 2007: 593. Holotype (female), VENEZUELA: 8 km SW Bumbum, Barinas; USNM.
HOST: *Virola* sp. limb.

virolavorus Wood 2007: 601. Holotype (male), VENEZUELA: 20 km SW El Vigia, Merida; USNM.
HOST: *Virola* sp.

Genus ***Conophthorus*** Hopkins

- Page 963 ***Conophthorus*** Hopkins. Add:
KEY: Furniss and Johnson 2002: 98 (to species in Idaho, USA).
(an) López-Buenfil et al. 2001: 350. (tx) Alonso-Zarazaga and Lyal 2009: 36; Cognato et al. 2005; Rabaglia 2002: 804.
- Page 963 ***conicolens*** Wood. Add:
(an) Menard and Cognato 2007. (ds) Burgos-Solorio and Equihua 2007: 78.
- Page 963 ***coniperda*** (Schwarz). Add:
DISTRIBUTION: NORTH AMERICA: United States (Delaware).
(an) Menard and Cognato 2007. (ds) Rabaglia and Valenti 2003: 317.
- Page 964 ***edulis*** Hopkins. Add:
FIGURE: López-Buenfil et al. 2001: 367 (proventriculus).
(an) Menard and Cognato 2007.
- Page 965 ***monophyllae*** Hopkins. Add:
(ds, hb, tx) Furniss and Johnson 2002: 98.
- Page 965 ***ponderosae*** Hopkins. Add:
(an) Menard and Cognato 2007. (ds) Burgos-Solorio and Equihua 2007: 78. (ds, hb, tx)
Furniss and Johnson 2002: 98.
- Page 968 ***teocotum*** Wood. Add:
FIGURE: López-Buenfil et al. 2001: 367 (proventriculus).

Genus ***Dacnophthorus*** Wood

- Page 969 ***Dacnophthorus*** Wood. Add:
KEY: Wood 2007: 616 (to all species).
(tx) Alonso-Zarazaga and Lyal 2009: 36.
- Page 969 ***artus*** (Wood). Add:
(tx) Wood 2007: 617.
- Page 969 ***clematis*** (Wood). Add:
(ds) Burgos-Solorio and Equihua 2007: 80.
- Page 969 ***pertusus*** (Wood). Add:
FIGURES: Wood 2007: PLATE 158.
(tx) Wood 2007: 617.
- Page 969 ***rallus*** (Wood). Add:
(tx) Wood 2007: 618.

Genus ***Dendroterus*** Blandford

- Page 950 ***Dendroterus*** Blandford. Add:

(an) López-Buenfil et al. 2001: 349. (tx) Alonso-Zarazaga and Lyal 2009: 36; Rabaglia 2002: 804.

Page 951 ***decipiens*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 77.

Page 951 ***fossifrons*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 77.

Page 951 ***luteolus*** (Schedl). Add:
(ds) Burgos-Solorio and Equihua 2007: 77.

Page 951 ***mexicanus*** Blandford. Add:
FIGURE: López-Buenfil et al. 2001: 367 (proventriculus).
(ds) Burgos-Solorio and Equihua 2007: 77.

Page 952 ***sallaei*** Blandford. Add:
(ds) Burgos-Solorio and Equihua 2007: 77.

Page 952 ***striatus*** (LeConte). Add:
(ds) Burgos-Solorio and Equihua 2007: 77.

Genus ***Gnatholeptus*** Blackman

Page 970 ***Gnatholeptus*** Blackman. Add:
KEY: Wood 2007: 618 (to all species).
(tx) Alonso-Zarazaga and Lyal 2009: 36.

Page 970 ***semiermis*** (Nunberg). Add:
(tx) Wood 2007: 619.

Page 970 ***shannoni*** (Blackman). Add:
(tx) Wood 2007: 619.

Page 962 ***tenellus*** (Schedl). Move from ***Araptus***. Add:
New combination by Wood 2007: 618.
(tx) Wood 2007: 618.

Genus ***Mimiocurus*** Schedl

Page 949 ***Mimiocurus*** Schedl. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 36; Maiti and Saha 2009: 217.

Page 949 ***beesoni*** Wood. Add:
(ds, tx) Maiti and Saha 2009: 218.

Page 960 ***oleanderi*** (Schedl), Move from ***Araptus***. Add:
New combination by Wood 2007: 544.

Genus ***Phelloterus*** Wood

Page 971 ***Phelloterus*** Wood. Add:
KEY: Wood 2007: 620 (to all species).
(tx) Alonso-Zarazaga and Lyal 2009: 36.

Page 971 ***anaxeus*** Wood. Add:
(hb, tx) Wood 2007: 621.

Page 971 ***atrocis*** Wood. Add:
(hb, tx) Wood 2007: 621.

Page 971 ***tersus*** Wood. Add:
FIGURES: Wood 2007: PLATE 158.
(tx) Wood 2007: 621.

Genus ***Phloeoterus*** Wood

Page 952 ***Phloeoterus*** Wood. Add:
(an) López-Buenfil et al. 2001: 349. **(tx)** Alonso-Zarazaga and Lyal 2009: 36.

Page 952 ***burserae*** Wood. Add:
FIGURE: López-Buenfil et al. 2001: 367 (proventriculus).
(ds) Burgos-Solorio and Equihua 2007: 78.

Genus ***Pityoborus*** Blackman

Page 968 ***Pityoborus*** Blackman. Add:
(an) López-Buenfil et al. 2001: 351. **(tx)** Alonso-Zarazaga and Lyal 2009: 37; Rabaglia 2002: 804.

Page 968 ***comatus*** (Zimmermann). Add:
DISTRIBUTION: NORTH AMERICA: United States (Maryland).
(ds) Rabaglia 2003: 377.

Page 968 ***hirtellus*** Wood. Add:
FIGURE: López-Buenfil et al. 2001: 367 (proventriculus).
(ds) Burgos-Solorio and Equihua 2007: 80.

Genus ***Pityodendron*** Schedl

Page 970 ***Pityodendron*** Schedl. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 37.

Genus ***Pityophthorus*** Eichhoff

Page 976 ***Pityophthorus*** Eichhoff. Add:
KEYS: Bright and Torres 2006: 422 (to species in Puerto Rico); de Laclos et al. 2004: 194 (to species in France); Maiti and Saha 2009: 220 (to species in India); Wood 2007: 625 (to species in South America).
(an) de Laclos et al. 2004: 193; López-Buenfil et al. 2001: 351. **(bv)** Bonello et al. 2001. **(tx)** Alonso-Zarazaga and Lyal 2009: 37; Furniss and Johnson 2002: 77; Rabaglia 2002: 804.
(ds, tx) Maiti and Saha 2009: 219. **(hb, tx)** Wood 2007: 624.

Page 977 ***Breviophthorus*** Schedl. Remove from synonymy with ***Pityophthorus***, move to synonymy with ***Araptus***. Add:
(tx) Wood 2007: 583.

Page 978 ***abbreviatus*** Schedl. Move to ***P. exsectus*** Schedl as a synonym. Add:
Synonymy by Wood 2007: 560.

- Page 978 ***abiegnus*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 78.
- Page 978 ***abietinus*** Wood. Add:
(tx) Mandelshtam 2002: 7.
- Page 978 ***absonus*** Blackman. Add:
(ds, tx) Furniss and Johnson 2002: 78.
- Page 979 ***alpinensis*** G. Hopping. Add:
(ds, tx) Furniss and Johnson 2002: 79.
- Page 980 ***alvarengai*** Schedl. Add:
(tx) Wood 2007: 651.
- Page 980 ***annectans*** LeConte. Add:
(ds) Burgos-Solorio and Equihua 2007: 78.
- Page 981 ***anticus*** Schedl. Add:
FIGURES: Wood 2007: PLATE 159.
(ds) Mecke, Galileo and Engels 2000: 168. (tx) Wood 2007: 639.
- Page 981 ***apicenotatus*** Schedl. Move to ***P. terebrans*** Schedl as a synonym. Add:
Synonymy by Wood 2007: 648.
- Page 981 ***apicipennis*** Schedl. Add:
(tx) Wood 2007: 651.
- Page 981 ***apiculatus*** Schedl. Add:
(tx) Wood 2007: 655.
- Page 978 ***aquilus*** Blackman. Add:
(ds, tx) Furniss and Johnson 2002: 79.
- Page 982 ***argentinensis*** Eggers. Add:
Lectotype (female), Salta, Argentina, designated by Wood 2007: 653.
DISTRIBUTION: SOUTH AMERICA: Brazil.
(ds) Bright 2004: 157. (ds, tx) Wood 2007: 653.
- Page 982 ***ascendens*** Schedl. Add:
DISTRIBUTION: SOUTH AMERICA: Suriname.
(ds, tx) Wood 2007: 633.
- Page 982 ***atomus*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 78.
- Page 982 ***attenuatus*** Blackman. Add:
(ds) Burgos-Solorio and Equihua 2007: 78.
- Page 982 ***aztecus*** Bright. Add:
(ds) Burgos-Solorio and Equihua 2007: 78.

- Page 982 ***balsameus*** Blackman. Add:
DISTRIBUTION: NORTH AMERICA: United States (Maryland).
(ds) Rabaglia 2003: 377.
- Page 983 ***barberi*** Blackman. Add:
(ds, tx) Furniss and Johnson 2002: 80.
- Page 983 ***bassetti*** Blackman. Add:
(ds) Furniss, Holsten and Schultz 2002: 90.
- Page 983 ***blandus*** Blackman. Add:
(ds, tx) Furniss and Johnson 2002: 70.
- Page 984 ***boliviensis*** Eggers. Add:
(tx) Wood 2007: 653.
- Page 984 ***boycei*** Swaine. Add:
(ds, tx) Furniss and Johnson 2002: 80.
- Page 985 ***briscoei*** Blackman. Add:
DISTRIBUTION: NORTH AMERICA: United States (Michigan).
(ds) Cognato et al. 2009: 115.
- Page 985 ***burserae*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 79.
- Page 985 ***buyssoni*** Reitter. Add:
(ds) Colonnelli 2003: 100. (ds, hb) de Laclos et al. 2004: 196.
NOTE: Treated as a subspecies in Colonnelli (2003).
- Page 985 ***cacuminatus*** Blandford. Add:
(ds) Burgos-Solorio and Equihua 2007: 79.
- Page 985 ***carinatus carinatus*** Bright. Add:
DISTRIBUTION: NORTH AMERICA: Canada (Nova Scotia).
(ds) Majka, Anderson and McCorquodale 2007: 421.
- Page 986 ***cariniceps*** LeConte. Add:
DISTRIBUTION: NORTH AMERICA: United States (Delaware, Maryland).
(ds) Rabaglia 2003: 377; Rabaglia and Valenti 2003: 317.
- Page 987 ***carmeli*** Swaine. Add:
(bv) Sakamoto et al. 2007; Seybold, Paine and Dreistadt 2008. (ec) Storer, Wood and Gordon 2004.
- Page 987 ***carniolicus*** Wichmann. Add:
FIGURE: Faccoli and Battisti 2001 (habitus).
DISTRIBUTION: EUROPE: Italy.
HOSTS: *Pinus strobus*.
(ds, hb) Faccoli and Battisti 2001.
- Page 987 ***cedri*** Wood. Add:
(ds, tx) Maiti and Saha 2009: 220.

- Page 988 *chilgoza* Wood. Add:
(ds, tx) Maiti and Saha 2009: 221.
- Page 989 *concinnus* Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 79.
- Page 989 *confertus confertus* Swaine. Add:
(ds, tx) Furniss and Johnson 2002: 81.
- Page 990 *confinis* (LeConte). Add:
(ds, tx) Furniss and Johnson 2002: 81.
- Page 990 *confusus* Blandford. Add:
FIGURE: López-Buenfil et al. 2001: 367 (proventriculus).
DISTRIBUTION: NORTH AMERICA: United States (Delaware, Maryland).
(ds) Burgos-Solorio and Equihua 2007: 78; Rabaglia 2003: 377; Rabaglia and Valenti 2003: 317.
- Page 991 *consimilis* LeConte. Add:
DISTRIBUTION: NORTH AMERICA: United States (Alabama).
(ds) Schiefer 2010: 116.
- Page 992 *coronarius* Blackman. Add:
(ds) Burgos-Solorio and Equihua 2007: 78.
- Page 992 *corticalis* Eichhoff. Add:
Lectotype (male), Chile, designated by Wood 2007: 635.
(tx) Wood 2007: 635.
- Page 992 *costabilis* Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 78.
- Page 992 *costalimai* Blackman. Add:
(tx) Wood 2007: 639.
- Page 992 *costatus* Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 79.
- Page 993 *deletus* LeConte. Add:
(ds, tx) Furniss and Johnson 2002: 81.
- Page 994 *deodara* (Stebbing). Add:
(ds, tx) Maiti and Saha 2009: 222.
- Page 995 *detectus* Schedl. Add:
(tx) Wood 2007: 634.
- Page 995 *digestus* (LeConte). Add:
DISTRIBUTION: NORTH AMERICA: United States (**Colorado** [see Appendix]).
(ds, tx) Furniss and Johnson 2002: 82.
- Page 995 *diminutivus* Bright. Add:
(ds) Burgos-Solorio and Equihua 2007: 79.

- Page 996 ***dimorphus*** Schedl. Add:
(tx) Wood 2007: 648.
- Page 996 ***discretus*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 79.
- Page 997 ***elongatus*** Schedl. Add:
(tx) Wood 2007: 645.
- Page 997 ***equihuai*** Bright. Add:
(ds) Burgos-Solorio and Equihua 2007: 79.
- Page 997 ***erraticus*** Schedl. Add:
(tx) Wood 2007: 652.
- Page 997 ***excellens*** Schedl. Add:
(tx) Wood 2007: 633.
- Page 998 ***exquisitus*** (Blackman). Add:
(ds) Burgos-Solorio and Equihua 2007: 79.
- Page 998 ***exsculptus*** (Ratzeburg). Add:
(ds) Colonnelli 2003: 100.
- Page 999 ***exsectus*** Schedl. Add *P. abbreviatus* Schedl as a synonym. Add:
(tx) Wood 2007: 650.
- Page 999 ***festus*** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 79.
- Page 1000 ***glabratus*** Eichhoff. Add:
FIGURE: de Laclos et al. 2004: 198 (habitus).
(ds) Colonnelli 2003: 100; Mandelshtam and Popovichev 2000: 897; Petrov and Nikitskii 2001: 172; Voolma et al. 2004. (hb) Massuti, Battisi and Faccoli 2005; Petrov and Nikitskii 2001: 172. (tx) Vlasov 2005: 773. (ds, hb) de Laclos et al. 2004: 198.
- Page 1001 ***granulosus*** Schedl. Move to *Arapthus*.
- Page 1001 ***glutae*** Wood. Add:
(ds, tx) Maiti and Saha 2009: 223.
- Page 1001 ***grandis*** Blackman. Add:
(ds, tx) Furniss and Johnson 2002: 82.
- Page 1001 ***gunneri*** Schedl. Move to ***P. quadrispinatus*** Schedl as a synonym. Add:
Synonymy by Wood 2007: 650.
- Page 1001 ***henscheli*** Seitner. Add:
(ds) Colonnelli 2003: 100.
- Page 1002 ***hispaniolus*** Bright. Add:
DISTRIBUTION: NORTH AMERICA: Puerto Rico.
(ds) Bright and Torres 2006: 423.

Page 1003 *inaequidens* Schedl. Add:
(tx) Wood 2007: 647.

Page 1003 *indigens* Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 79.

Page 1003 *infimus* Schedl. Add:
(tx) Wood 2007: 649.

Page 1004 *irregularis* Eggers. Add:
(tx) Wood 2007: 646.

Page 1005 *juglandis* Blackman. Add:
FIGURES: Anonymous undated (habitus, galleries, damage).
DISTRIBUTION: NORTH AMERICA: United States (**Colorado, Idaho, New Mexico, Oregon, Tennessee, Utah, Washington** [see Appendix]).
(bv) Seybold, Paine and Dreistadt 2008. (cn) Tisserat et al. 2009. (ds) Cranshaw 2011. (ds, hb) Anonymous undated. (ec, hb) Seybold, Graves and Coleman 2010; Seybold et al. 2010.

Page 1005 *knoteki* Reitter. Add:
DISTRIBUTION: ASIA: China (Hengduan Mtns.).
(ds) Colonnelli 2003: 100; Huang and Yin 1992: 860.
NOTE: Listed as a synonym of *P. lichtensteinii* (Ratzeburg) in Averensky and Yanovsky 2008: 29.

Page 1005 *kuscheli* Schedl. Add:
FIGURES: Wood 2007: PLATE 160.
(tx) Wood 2007: 641.

Page 1006 *languidus* Eichhoff. Add:
DISTRIBUTION: SOUTH AMERICA: Colombia.
(ds, tx) Wood 2007: 636.

Page 1006 *lapponicus* Stark. Add:
(ds) Mandelshtam and Petrov 2009a: 208; Voolma et al. 2004.

Page 1006 *lautus* Eichhoff. Add:
DISTRIBUTION: NORTH AMERICA: United States (**Illinois** [see Appendix]).

Page 1007 *lichtensteinii* (Ratzeburg). Add *P. rossicus* as a synonym. Add:
DISTRIBUTION: ASIA: Russia (Dahgestan, Yakutia, Yaroslavi).
HOST: *Pinus kochiana*.
(ds) Averensky and Yanovsky 2008: 29; Colonnelli 2003: 100; Mandelshtam and Popovichev 2000: 897; Mandelshtam, Nikitsky and Bibin 2005b: 24; Petrov 2005: 222; Petrov and Nikitskii 2001: 172; Voolma et al. 2004. (hb) Petrov and Nikitskii 2001: 172. (tx) Mandelshtam 2002: 7; Vlasov 2005: 773.

Page 1009 *liquidambarus* Blackman. Add:
DISTRIBUTION: NORTH AMERICA: United States (Alabama, Delaware, Maryland, Tennessee).
(ds) Oliver and Mannion 2001; Rabaglia 2003: 377; Rabaglia and Valenti 2003: 317; Schiefer 2010: 116. (hb) Oliver and Mannion 2001.

Page 1009 *longipilis* Schedl. Add:
(tx) Wood 2007: 640.

Page 1009 *mandibularis* Schedl. Add:
Lectotype (male), Nova Teutonia, Santa Catarina, Brazil, designated by Wood 2007: 640.
FIGURES: Wood 2007: PLATE 161.
(tx) Wood 2007: 640.

Page 1010 *mexicanus* Blackman. Add:
(ds) Burgos-Solorio and Equihua 2007: 79.

Page 1010 *micrographus* (Linnaeus). Add:
DISTRIBUTION: ASIA: Russia (Khabarovskii Krai, Yakutia, Yaroslavi).
(ds) Averensky and Yanovsky 2008: 29; Mandelshtam and Popovichev 2000: 897; Mandelshtam,
Lafer and Kuznetsov 2001; Petrov and Nikitskii 2001: 172; Voolma et al. 2004. (ec)
Kapapanida-Kantartzzi et al. 2010. (hb) Petrov and Nikitskii 2001: 172. (tx) Vlasov 2005:
773.

Page 1012 *minutus* Schedl. Add:
(tx) Wood 2007: 636.

Page 1013 *molestus* Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 79.

Page 1013 *morosovi* Spessivtseff. Add:
DISTRIBUTION: ASIA: China (Qinghai).
(ds) Gren 2001: 85; Han et al. 2010; Mandelshtam and Popovichev 2000: 897; Petrov and
Nikitskii 2001: 172; Voolma et al. 2004. (hb) Petrov and Nikitskii 2001: 172. (tx) Vlasov
2005: 773.

Page 1013 *murrayanae murrayanae* Blackman. Add:
(ds) Furniss, Holsten and Schultz 2002: 90. (ds, tx) Furniss and Johnson 2002: 82.

Page 1014 *nanus* Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 79.

Page 1015 *nemoralis* Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 79.

Page 1015 *niger* Schedl. Add:
(tx) Wood 2007: 637.

Page 1015 *nitidulus* (Mannerheim). Add:
(bv) Seybold, Paine and Dreistadt 2008. (ds) Furniss, Holsten and Schultz 2002: 90. (ds, tx)
Furniss and Johnson 2002: 83.

Page 1016 *nitidus* (Swaine). Add:
DISTRIBUTION: NORTH AMERICA: United States (**Wyoming** [see Appendix]).
(ds) Furniss, Holsten and Schultz 2002: 90. (ds, tx) Furniss and Johnson 2002: 83.

Page 1017 *novateutonicus* Schedl. Add:
(tx) Wood 2007: 647.

Page 1017 *olivieri* Schedl. Add:
(tx) Wood 2007: 632.

Page 1017 *opaculus* Leconte. Add:
DISTRIBUTION: NORTH AMERICA: United States (Delaware, Maryland, Oregon).
(ds) Furniss, Holsten and Schultz 2002: 90; Rabaglia 2003: 377; Rabaglia and Valenti 2003: 317; Westcott et al. 2006: 26. (ds, tx) Furniss and Johnson 2002: 83.

Page 1018 *pampasae* Schedl. Add:
(tx) Wood 2007: 642.

Page 1019 *pini* Kurenzov. Add:
DISTRIBUTION: ASIA: China (Qinghai), Russia (Yakutia).
(ds) Averensky and Yanovsky 2008: 29; Han et al. 2010.

Page 1921 *pityographus* (Ratzberg). Add:
FIGURE: de Laclos et al. 2004: 195 (habitus).
(ds) Colonnelli 2003: 100; Haack 2001: 274. (ds, hb) de Laclos et al. 2004: 195; Massuti, Battisi and Faccoli 2005.

Page 1021 *pityographus cibratus* Pfeffer. Add:
(ds) Mandelshtam, Nikitsky and Bibin 2005b: 24.

Page 1021 *plaumannii* (Schedl). Move to *Araptus*.

Page 1021 *pseudotsugae* Swaine. Add:
(ds, tx) Furniss and Johnson 2002: 84.

Page 1021 *puberulus* (LeConte). Add:
DISTRIBUTION: NORTH AMERICA: United States (Delaware, Maryland).
(ds) Rabaglia 2003: 377; Rabaglia and Valenti 2003: 317.

Page 1022 *pubescens* (Marsham). Add:
FIGURE: de Laclos et al. 2004: 197 (habitus).
(ds) Colonnelli 2003: 100; Inglebert 2002: 126. (ds, hb) de Laclos et al. 2004: 197.

Page 1023 *pudens* (Blackman). Add:
DISTRIBUTION: NORTH AMERICA: Puerto Rico.
(ds) Bright and Torres 2006: 423.

Page 1023 *pudicus* Blackman. Add:
(ds) Burgos-Solorio and Equihua 2007: 79.

Page 1023 *pulchellus tuberculatus* Eichhoff. Add:
(ds) Furniss, Holsten and Schultz 2002: 90. (ds, tx) Furniss and Johnson 2002: 84.

Page 1025 *punctifrons* Bright. Add:
DISTRIBUTION: NORTH AMERICA: United States: Colorado [see Appendix].

Page 1025 *pygmaeolus* Schedl. Add:
(tx) Wood 2007: 638.

Page 1025 *quadrispinus* Swaine. Add *P. gunneri* Schedl and *P. roppae* Schedl as synonyms. Add:
DISTRIBUTION: SOUTH AMERICA: Venezuela.

HOSTS: *Protium tenuifolium*, *P. sagotianum*.
(ds, hb, tx) Wood 2007: 650.

Page 1025 ***ramiperda*** Swaine. Add:
DISTRIBUTION: NORTH AMERICA: Canada (Nova Scotia); United States (**Minnesota**, **Pennsylvania** [see Appendix]).
HOST: *Picea glauca*.
(ds) Majka, Anderson and McCorquodale 2007: 421.

Page 1026 ***rappae*** Schedl. Move to ***P. quadrispinatus*** Schedl as a synonym. Add:
Synonymy by Wood 2007: 650.

Page 1026 ***recens*** Bright. Add:
DISTRIBUTION: NORTH AMERICA: United States (Alaska).
(ds) Furniss, Holsten and Schultz 2002: 90.

Page 1026 ***robai*** (Blackman). Add:
(tx) Wood 2007: 634.

Page 1026 ***rossicus*** Eggers. Move to ***P. lichtensteinii*** (Ratzeburg) as a synonym. Add:
Synonymy by Mandelshtam 2002: 7.

Page 1026 ***sachalinensis*** Krivolutskaya. Add:
Lectotype (sex ?), Sakhalin, Kirovsk region, Forest Territory Agri-Pargi, designated by
Mandelshtam 2002: 7.
HOSTS: *Abies* sp., *Picea ajanensis*.
(ds) Mandelshtam 2002: 7.

Page 1026 ***sambuci*** Blackman. Add:
(ds) Burgos-Solorio and Equihua 2007: 79.

Page 1026 ***sapineus*** Bright. Add:
(ds) Burgos-Solorio and Equihua 2007: 79.

Page 1026 ***scabridus*** Schedl. Add:
(ds) Burgos-Solorio and Equihua 2007: 79.

Page 1026 ***sculptor*** Blackman. Add:
(ds, tx) Furniss and Johnson 2002: 85.

Page 1027 ***schwerdtfegeri*** (Schedl). Add:
(ds) Burgos-Solorio and Equihua 2007: 79.

Page 1027 ***scriptor*** Blackman. Add:
DISTRIBUTION: NORTH AMERICA: United States (Delaware, **Kansas** [see Appendix]).
(ds) Rabaglia and Valenti 2003: 318.

Page 1028 ***serratus*** Swaine. Add:
(ds, tx) Furniss and Johnson 2002: 85.

Page 1028 ***setosus*** Blackman. Add:
(bv) Sakamoto et al. 2007; Seybold, Paine and Dreistadt 2008. (ec) Storer, Wood and Gordon
2004.

Page 1028 *sextuberculatus* Eggers. Add:
(**tx**) Wood 2007: 643.

Page 1028 *sierraensis* Bright. Add:
(**ds, tx**) Furniss and Johnson 2002: 85.

Page 1028 *sinopae* Schedl. Add:
DISTRIBUTION: SOUTH AMERICA: Suriname, Venezuela.
(**ds, tx**) Wood 2007: 649.

Page 1030 *subsimilis* Schedl. Move to *Arapthus*.

Page 1030 *subsulcatus* Schedl. Move to *Arapthus*.

Page 1030 *surinamensis* Schedl. Add:
(**tx**) Wood 2007: 652.

Page 1031 *terebrans* Schedl. Add *P. apicenotatus* Schedl as a synonym. Add:
(**tx**) Wood 2007: 648.

Page 1031 *toralis* Wood. Add:
(**ds, tx**) Furniss and Johnson 2002: 85.

Page 1031 *traegardhi* Spessivtseff. Add:
DISTRIBUTION: ASIA: Russia (Yakutia, Yaroslavi).
(**ds**) Averensky and Yanovsky 2008: 29; Mandelshtam and Popovichev 2000: 897; Voolma et al. 2004. (**tx**) Vlasov 2005: 773.

Page 1032 *trunculus* Bright. Add:
(**ds**) Burgos-Solorio and Equihua 2007: 79.

Page 1032 *turbiculus* Schedl. Add:
(**tx**) Wood 2007: 644.

Page 1031 *venezuelensis* Schedl. Add:
FIGURES: Wood 2007: PLATE 162.
(**tx**) Wood 2007: 639.

Page 1033 *virtus* Schedl. Move to *Arapthus*.

ADD SPECIES:

anacardii Wood 2007: 656. Holotype (female), VENEZUELA: 30 km N Canyon Zancudo, Zulia; USNM.
HOST: *Anacardium excelsum*.

bahiae Wood 2007: 654. Holotype (male), BRAZIL: Cepec, Ilheus; USNM.

barbosai Wood 2007: 652. Holotype (male), BRAIL: Jacareacanga, Para; NHMW

convexicollis Bright and Torres 2006: 422. Holotype (female), PUERTO RICO: Caribbean Nat[ional] Forest, Mt. Britton summit; DEBC/WIBF.
FIGURE: Bright and Torres 2006: 426 (habitus).

eucracens Wood 2007: 644. Holotype (male), COLOMBIA: Piedras Blancas, 10 km E Medellin, Antioquia;
USNM.

icicae Wood 2007: 642. Holotype (female), COLOMBIA: Carton de Colombia forest near Buenaventura, about 8 km S Colonia, Valle de Cauca; USNM.
HOST: *Icicia altissima*.

imbellis Wood 2007: 642. Holotype (female), VENEZUELA: El Laurel Experimental Farm, 12 km SW Caracas, Miranda; USNM.
HOST: *Clematis* ? vine.

minimus Wood 2007: 637. Holotype (male), VENEZUELA: El Vigia, Merida; USNM.
HOST: *Basiloxylon brasiliensis* bole.

moritzi Wood 2007: 655. Holotype (male), VENEZUELA: Colonia Tovar, Aragua; USNM.
HOST: *Inga* sp.

nectandrae Wood 2007: 638. Holotype (male), VENEZUELA: Pico Bolivar Teleferico, Merida, Merida; USNM.
HOST: *Nectandra* sp. branches.

nigriceps Wood 2007: 633. Holotype (male), COLOMBIA: Piedras Blancas, 10 km E Medellin, Antioquia; USNM.

opacifrons Wood 2007: 643. Holotype (male), VENEZUELA: El Laurel Experimental Farm, 12 km SW Caracas, Miranda; USNM.
HOSTS: *Croton* sp., *Clematis* ? sp.

podocarpi Wood 2007: 641. Holotype (male), VENEZUELA: 30 km N Merida, Merida; USNM.
HOST: *Podocarpus* sp. limbs.

reticulatus Wood 2007: 646. Holotype (male), VENEZUELA: 13 km SW El Vigia, Merida; USNM.

retifrons Wood 2007: 644. Holotype (male), VENEZUELA: Merida, Merida; USNM.

similaris Wood 2007: 635. Holotype (male), VENEZUELA: Pico Bolivar Teleferico, Merida, Merida; USNM.

simplicis Wood 2007: 635. Holotype (male), VENEZUELA: Pico Bolivar Teleferico, Merida, Merida; USNM.

splendens Wood 2007: 638. Holotype (male), VENEZUELA: La Carbonera Experimental Forest, 50 km airline W Merida, Merida; USNM.
FIGURES: Wood 2007: PLATE 161.
HOST: *Nectandra* sp. limb.

tucumanensis Wood 2007: 645. Holotype (male), ARGENTINA: Prov. Tucuman; USNM.

vescus Wood 2007: 654. Holotype (male), VENEZUELA: Rancho Grande (Pittier N. P.), Aragua; USNM.

Genus ***Pityotrichus*** Wood

Page 969 ***Pityotrichus*** Wood. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 38; Rabaglia 2002: 804.

ADD SPECIES:

turkmenicus Mandelshtam and Petrov, in Mandelshtam et al. 2006: 414. Holotype (sex ?), TURKMENISTAN, Kopet Dagh Mys., 10 km S of Aidere, 600-1000 m, 58°46' E, 38°14'N; NHMB.

FIGURES: Mandelshtam et al. 2006: 214 (habitus, antenna, elytral declivity).

HOST: Probably *Juniperus* sp.

NOTE: The generic placement of this species should be verified.

Genus **Pseudopityophthorus** Swaine

Page 971 **Pseudopityophthorus** Swaine. Add:

(an) López-Buenfil et al. 2001: 351. (tx) Alonso-Zarazaga and Lyal 2009: 38; Rabaglia 2002: 804. (hb, tx) Wood 2007: 623.

Page 972 **asperulus** (LeConte). Add:

DISTRIBUTION: NORTH AMERICA: United States (**Kansas** [see Appendix], Maryland, Michigan).

HOST: *Fagus* sp.

(ds) Cognato et al. 2009: 115. Rabaglia 2003: 377.

Page 972 **colombianus** Wood. Add:

FIGURES: Wood 2007: PLATE 159.

(hb, tx) Wood 2007: 624.

Page 972 **declivis** Wood. Add:

(ds) Burgos-Solorio and Equihua 2007: 78.

Page 973 **fagi** Blackman. Add:

DISTRIBUTION: NORTH AMERICA: United States: (**Missouri** [see Appendix]).

Page 973 **minutissimus** (Zimmermann). Add:

DISTRIBUTION: NORTH AMERICA: Canada (Nova Scotia), United States (Alabama, Delaware, South Carolina).

(ds) Coyle, Booth and Wallace 2005; Majka, Anderson and McCorquodale 2007: 421; Rabaglia and Valenti 2003: 318; Schiefer 2010: 116.

Page 974 **opacicollis** Blackman. Add:

FIGURE: López-Buenfil et al. 2001: 367 (proventriculus).

Page 975 **pubescens** Blackman. Add:

DISTRIBUTION: United States (Delaware, Mississippi).

(ds) Rabaglia and Valenti 2003: 318; Schiefer 2010: 116.

Page 975 **pubipennis** (LeConte). Add:

(bv) McPherson et al. 2008.

Genus **Sauroptilius** Browne

Page 971 **Sauroptilius** Browne. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 38.

Genus ***Spermophthorus*** Costa Lima

- Page 971 ***Spermophthorus*** Costa Lima. Add:
KEY: Wood 2007: 622 (to both species).
(tx) Alonso-Zarazaga and Lyal 2009: 38. (hb, tx) Wood 2007: 622.
- Page 971 ***apuleiae*** Costa Lima. Add:
(ds) Bright 2004: 157. (tx) Wood 2007: 622.
- Page 971 *vianai* Schedl (= ***S. apuleiae*** Costa Lima). Add:
(tx) Alonso-Zarazaga and Lyal 2009: 38; Guadalupe del Rio, Lanteri and Suárez 2005: 8;
Wood 2007: 622.

Genus ***Styphlosoma*** Blandford

- Page 950 ***Styphlosoma*** Blandford. Add:
KEY: Wood 2007: 545 (to all species).
(an) López-Buenfil et al. 2001: 349. (tx) Alonso-Zarazaga and Lyal 2009: 38; Wood 2007: 544.
- Page 950 ***boliviæ*** (Schedl). Add:
FIGURES: Wood 2007: PLATE 148.
(tx) Wood 2007: 546.
- Page 950 ***brasiliensis*** (Schedl). Add:
FIGURES: Wood 2007: PLATE 148.
(tx) Wood 2007: 545.
- Page 950 ***granulatum*** Blandford. Add:
FIGURE: López-Buenfil et al. 2001: 367 (proventriculus).
(ds) Burgos-Solorio and Equihua 2007: 77.
- Page 950 ***subulatum*** Wood. Add:
FIGURES: Wood 2007: PLATE 149.
(tx) Wood 2007: 546.

TRIBE CORTHYLINI

- Page 1034 **Corthylini** LeConte. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 29.

Genus ***Amphicranus*** Erichson

- Page 1045 ***Amphicranus*** Erichson. Add:
KEY: Wood 2007: 690 (to all species).
(an) López-Buenfil et al. 2001: 352. (tx) Alonso-Zarazaga and Lyal 2009: 29. (hb, tx) Wood
2007: 689.
- Page 1045 ***acus*** Wood. Add:
FIGURES: Wood 2007: PLATE 174.
(tx) Wood 2007: 703.
- Page 1046 ***bipunctatus*** Eichhoff. Add:
(tx) Wood 2007: 705.

Page 1046 *browniei* Schedl. Add:
(tx) Wood 2007: 711.

crenatus Eichhoff. Include as a synonym of *A. thoracicus* Erichson. Omitted in 1992 Catalog, listed as a synonym of *A. thoracicus* in Hagedorn 1910: 95 and as a new synonym in Wood 2007: 711.

Page 1046 *dohrni* (Eichhoff). Add:
FIGURES: Wood 2007: PLATES 175,176.
DISTRIBUTION: SOUTH AMERICA: Argentina.
(ds, tx) Wood 2007: 702.

Page 1047 *elegans* Eichhoff. Move to *A. thoracicus* Erichson as a synonym. Add:
Synonymy by Wood 2007: 711.

Page 1047 *elegantulus* Schedl. Add:
(tx) Wood 2007: 701.

Page 1047 *gracilis* Eggers. Add *Tricolus gracilipennis* Schedl as a synonym. Add:
(tx) Wood 2007: 703.
NOTE: Misspelled “*granulipennis*” in Wood 2007: 703.

Page 1047 *grouvellei* Blandford. Add:
DISTRIBUTION: NORTH AMERICA: Mexico (Chiapas). SOUTH AMERICA: Colombia.
(ds, tx) Wood 2007: 709.

Page 1043 *incisus* (Schedl). Move from *Tricolus*. Add:
New combination by Wood 2007: 704.
(tx) Wood 2007: 704.

Page 1047 *lesnei* Hagedorn. Add:
Lectotype (male), Valle de Cauca, Colombia, designated by Wood 2007: 709.
(tx) Wood 2007: 709.

Page 1048 *minor* (Eggers). Add:
(tx) Wood 2007: 706.

Page 1048 *plaumannii* Schedl. Add:
(tx) Wood 2007: 710.

Page 1048 *politus* Eichhoff. Add:
(tx) Wood 2007: 710.

Page 1048 *quadrimaculatus* Schedl. Add:
(tx) Wood 2007: 712.

Page 1048 *rasilis* Schedl. Add:
(tx) Wood 2007: 705.

Page 1048 *retusus* Eichhoff. Move to *A. thoracicus* Erichson as a synonym. Add:
Synonymy by Wood 2007: 711.

Page 1048 *schaufussi* Blandford. Add:
(tx) Wood 2007: 705.

Page 1062 *sexdenticulum* (Wood). Move from *Monarthrum*. Add:
New combination by Wood 2007: 707.
(tx) Wood 2007: 707.

Page 1049 *spinachius* (Schedl). Add:
FIGURES: Wood 2007: PLATE 178.
(tx) Wood 2007: 702.

Page 1049 *stenodermus* (Schedl). Add:
FIGURE: López-Buenfil et al. 2001: 368 (proventriculus).

Page 1049 *tenuis* Blandford. Add:
(tx) Wood 2007: 699.

Page 1049 *terebella* Blandford. Add:
FIGURES: Wood 2007: PLATE 178.
(tx) Wood 2007: 698.

Page 1049 *thoracicus* Erichson. Add *A. elegans* Eichhoff and *A. retusus* Eichhoff as synonyms and
note *A. crenatus* Eichhoff above. Add:
FIGURES: Wood 2007: PLATE 176.
(ds, tx) Wood 2007: 711.

Page 1050 *truncatorus* Schedl. Move to *Metacorthylus*.

Page 1050 *vagabundus* (Schedl). Move to *Monarthrum scrobiceps* (Eichhoff) as a synonym. Add:
Synonymy by Wood 2007: 735.

ADD SPECIES:

apicalis Wood 2007: 698. Holotype (male), MEXICO: Rancho Grande 432, Jalapa, Veracruz; USNM.
DISTRIBUTION: SOUTH AMERICA: Colombia, Venezuela.
HOST: *Leucena pulverulenta*.

araguensis Wood 2007: 707. Holotype (male), VENEZUELA: Colonia Tovar, Aragua; USNM.

attenuatus Wood 2007: 700. Holotype (female), VENEZUELA: Pico Bolivar, Teleferico, Merida, Merida;
USNM.
FIGURES: Wood 2007: PLATE 174.
HOSTS: *Clusia* sp., *Nectandra* sp., *Eucalyptus* sp.

bahiae Wood 2007: 700. Holotype (female?), BRAZIL: Cepec, Ilheus, Bahia; USNM.

brevior Wood 2007: 709. Holotype (male), VENEZUELA: Valle de Choroni; USNM.
HOSTS: *Theobroma cacao*, *Nectandra* sp.

cracens Wood 2007: 701. Holotype (male), VENEZUELA: Rancho Grande, Aragua; USNM.
FIGURES: Wood 2007: PLATE 175.

eggersianus Wood 2007: 708. Holotype (male), VENEZUELA: Rancho Grande, Aragua; USNM.

electilis Wood 2007: 700. Holotype (male), BRAZIL: 69 km N Manaus, Amazonas; USNM.

explicitus Wood 2007: 699. Holotype (male), VENEZUELA: La Carbonera Experimental Forest, 50 km NW Merida, Merida; USNM.
FIGURES: Wood 2007: PLATE 177.
HOSTS: *Clusia* sp., *Nectandra* sp., *Vouchysia duguei*, *Eucalyptus viminalis*.

laureli Wood 2007: 704. Holotype (male), VENEZUELA: La Carbonera Experimental Forest, 50 km NW Merida, Merida; USNM.
FIGURES: Wood 2007: PLATE 177.
HOST: *Laurel paramero*.

micidus Wood 2007: 702. Holotype (male), MEXICO: Banderilla, Veracruz; USNM.
HOST: *Quercus laurina*.

quadridens Wood 2007: 708. Holotype (male), VENEZUELA: 13 km SW El Vigia, Merida, Merida; USNM.
HOST: *Inga* sp. branch.

thunesi Wood 2007: 706. Holotype (male), COSTA RICA: Heredia, Estacion Biologica La Selva; USNM.
HOSTS: *Pentaclethra macroloba*, *Laetia procera*.

woytkowski Wood 2007: 708. Holotype (male), PERU: Almirante, Dep. San Martin; USNM.

Genus ***Brachyspartus*** Ferrari

Page 1068 ***Brachyspartus*** Ferrari. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 30; Wood 2007: 796.

Page 1068 ***moritzi*** Ferrari. Add:
FIGURES: Wood 2007: PLATE 218.
(tx) Wood 2007: 797.

Genus ****Corthylites*** Bright and Poinar

Page 231 ****Corthylites*** Bright and Poinar. Add:
(Suppl.1) (tx) Alonso-Zarazaga and Lyal 2009: 30.

Genus ***Corthycyclon*** Schedl

Page 1067 ***Corthycyclon*** Schedl. Move to ***Corthylus*** Erichson as a synonym. Add:
Synonymy by Wood 2007: 804.
(an) López-Buenfil et al. 2001: 353. (tx) Alonso-Zarazaga and Lyal 2009: 30.

Page 1067 ***aztecum*** (Bright). Move to ***Corthyloxiphus***.

Page 1067 ***caliginis*** Wood. Move to ***Corthyloxiphus***.

Page 1067 ***ebeninum*** (Blandford. Move to ***Corthyloxiphus***.

Page 1067 ***furvus*** Wood. Move to ***Corthyloxiphus***.

Page 1068 ***morulus*** Wood. Move to ***Corthyloxiphus***.

Page 1068 ***tardus*** Wood. Move to ***Corthyloxiphus***.

Genus ***Corthylocurus*** Wood

Page 1068 ***Corthylocurus*** Wood. Add:

KEY: Wood 2007: 798 (to all species).

(an) López-Buenfil et al. 2001: 353. (tx) Alonso-Zarazaga and Lyal 2009: 30. (hb, tx) Wood 2007: 797.

Page 1068 ***barbatus*** (Blandford). Add:

FIGURE: López-Buenfil et al. 2001: 368 (proventriculus).

Page 1069 ***debilis*** Wood. Add:

(ds) Pérez-De La Cruz et al. 2009: 604.

Page 1069 ***signatifrons*** (Schedl). Add:

DISTRIBUTION: SOUTH AMERICA: Venezuela.

(ds, tx) Wood 2007: 802.

Page 1068 ***tuberculifer*** (Eggers). Add:

DISTRIBUTION: SOUTH AMERICA: Venezuela.

(ds, tx) Wood 2007: 802.

Page 1069 ***vernaculus*** (Schedl). Add:

FIGURES: Wood 2007: PLATE 220.

(ec) Morales et al. 2000. (tx) Wood 2007: 801.

ADD SPECIES:

medialis Wood 2007: 801. Holotype (female), VENEZUELA: La Carbonera Experimental Forest, 50 km NW Merida, Merida; USNM.
HOST: *Nectandra* sp.

moritzi Wood 2007: 800. Holotype (female), VENEZUELA: Colonia Tovar, Aragua; USNM.
HOST: Melastomaceae species.

pristinus Wood 2007: 800. Holotype (female), BRAZIL: Nova Vicosa, Bahia; MZUSP.

protuberans Wood 2007: 801. Holotype (female), VENEZUELA: Merida, Merida; USNM.
HOST: *Miconia* sp.

reticulatus Wood 2007: 803. Holotype (female), COSTA RICA: Escazu, San Jose; USNM.
FIGURES: Wood 2007: PLATE 219.

setifer Wood 2007: 803. Holotype (female), BRAZIL: Ibicarai, Bahia; USNM.
HOST: *Theobroma cacao*.

Genus ***Corthyloxiphus*** Wood

ADD GENUS: ***Corthyloxiphus*** Wood 2007: 788. Type species: ***Corthylus aztecus*** Bright, original designation.

KEY: Wood 2007: 788 (to all species).

(tx) Alonso-Zarazaga and Lyal 2009: 30. (hb, tx) Wood 2007: 788.

Page 1067 ***aztecus*** (Bright). Move from *Corthylocyclon*. Add:

New combination by Wood 2007: 790.
FIGURE: López-Buenfil et al. 2001: 368 (proventriculus).

Page 1067 *caliginis* (Wood). Move from *Corthylcyclon*. Add:
New combination by Wood 2007: 788.

Page 1067 *ebenius* (Blandford). Move from *Corthylcyclon*. Add:
New combination by Wood 2007: 790.

Page 1073 *emarginatus* (Eggers). Move from *Corthylus*. Add:
New combination by Wood 2007: 796.
FIGURES: Wood 2007: PLATE 216.
(tx) Wood 2007: 796.

Page 1067 *furvus* (Wood). Move from *Corthylcyclon*. Add:
New combination by Wood 2007: 788.

Page 1068 *morulus* (Wood). Move from *Corthylcyclon*. Add:
New combination by Wood 2007: 789.

Page 1068 *tardus* (Wood). Move from *Corthylcyclon*. Add:
New combination by Wood 2007: 790.

ADD SPECIES:

antennatus Wood 2007: 794. Holotype (female), COLOMBIA: Piedras Blancas, 10 km E Medellin, Antioquia; USNM.
HOST: *Meriana* sp.

apicalis Wood 2007: 793. Holotype (female), VENEZUELA: Merida, Merida; USNM.
HOST: *Vismia* sp.

araguensis Wood 2007: 791. Holotype (female), VENEZUELA: Colonia Tovar, Aragua; USNM.

carbonerae Wood 2007: 795. Holotype (female), VENEZUELA: La Carbonera Experimental Forest, 50 km NW Merida, Merida; USNM.

colombiae Wood 2007: 793. Holotype (female), COLOMBIA: Piedras Blancas, 11 km W Medellin, Antioquia; USNM.
HOSTS: *Vismia* sp., *Baccharis* (?) sp., *Croton guianensis*, *Mariana* sp.

declivis Wood 2007: 795. Holotype (female), VENEZUELA: La Carbonera Experimental Forest, 50 km NW Merida, Merida; USNM.

frontalis Wood 2007: 792. Holotype (female), VENEZUELA: Pico Bolivar Teleferico, Merida, Merida; USNM.
HOST: *Nectandra* sp.
FIGURES: Wood 2007: PLATE 216.

obesus Wood 2007: 795. Holotype (female), VENEZUELA: La Carbonera Experimental Forest, 50 km NW Merida, Merida; USNM.
HOST: *Nectandra* sp.

punctatus Wood 2007: 792. Holotype (female), VENEZUELA: La Carbonera Experimental Forest, 50 km NW Merida, Merida; USNM.
FIGURES: Wood 2007: PLATE 216.

reticulatus Wood 2008: 794. Holotype (female), VENEZUELA: La Carbonera Experimental Forest, 50 km NW Merida, Merida; USNM.

simplicus Wood 2007: 794. Holotype (female), VENEZUELA: Pico Bolivar Teleferico, Merida, Merida: USNM.
HOST: *Nectandra* sp.

truncatus Wood 2007: 791. Holotype (female), VENEZUELA: 12 km SW El Vigia, Merida; USNM.
FIGURES: Wood 2007: PLATE 217.

usticus Wood 2007: 793. Holotype (female), VENEZUELA: La Carbonera Experimental Forest, 50 kn NW Merida, Merida; USNM.
HOST: *Nectandra* sp.
FIGURES: Wood 2007: PLATE 217.

willei Wood 2007: 791. Holotype (male), COSTA RICA: SE of Cartago, Cartago; USNM.

Genus *Corthylus* Erichson

Page 1069 ***Corthylus*** Erichson. Add *Corthycyclon* Schedl as a synonym. Add:
KEYS: Bright and Torres 2006: 424 (to species in Puerto Rico); Wood 2007: 804 (to all known species except those in West Indies).
(an) López-Buenfil et al. 2001: 353. (tx) Alonso-Zarazaga and Lyal 2009: 31; Rabaglia 2002: 805. (hb, tx) Wood 2007: 804.

Page 1070 ***additus*** Wood. Add:
FIGURES: Wood 2007: PLATE 221.
(tx) Wood 2007: 862.

Page 1070 ***alienus*** Schedl. Add:
(tx) Wood 2007: 832.

Page 1074 ***ater*** Schedl. Add *C. colombianus* Schedl as a synonym. Add:
(tx) Wood 2007: 841.
NOTE: A good species, not synonym of *C. letzneri* Ferrari (Wood 2007: 841).

Page 1070 ***boliviensis*** Eggers. Add:
DISTRIBUTION: SOUTH AMERICA: Colombia.
(ds, tx) Wood 2007: 837.

Page 1074 ***castaneus*** Ferrari. Add:
FIGURES: Wood 2007: PLATE 222.
(tx) Wood 2007: 838.
NOTE: A good species, not synonym of *C. letzneri* Ferrari (Wood 2007: 838).

Page 1071 ***cirritus*** Wood. Add:
FIGURES: Wood 2007: PLATE 223.
(tx) Wood 2007: 861.

- Page 1074 *columbianus* Schedl (preoccupied). Move to *C. ater* Schedl as a synonym. Add:
Synonymy by Wood 2007: 841.
- Page 1071 *columbianus* Hopkins. Add:
DISTRIBUTION: NORTH AMERICA: Canada (Nova Scotia), United States (Delaware, Michigan, Ohio).
(ds) Cognato et al. 2009: 113; Gandhi et al. 2010; Lightle et al. 2007; Majka, Anderson and McCorquodale 2007: 422; Rabaglia and Valenti 2003: 317. (hb) Oliver and Mannion 2001.
- Page 1072 *compressicornis* (Fabricius). Add:
FIGURES: Wood 2007: PLATE 224.
(ds, tx) Wood 2007: 867.
- Page 1072 *convexicauda* Eggers. Add:
(ds) Flechtmann, Ottati and Berisford 2001. (tx) Wood 2007: 836.
- Page 1072 *coronatus* Eggers. Add:
(tx) Wood 2007: 840.
- Page 1073 *detrimentosus* Schedl. Add:
(ds) Burgos-Solorio and Equihua 2007: 80.
- Page 1073 *discoideus* Blandford. Add:
DISTRIBUTION: SOUTH AMERICA: Colombia.
(ds, tx) Wood 2007: 829.
- Page 1073 *emarginatus* Eggers. Move to *Corthyloxyphus*.
- Page 1074 *fuscus* Blandford. Add:
FIGURE: López-Buenfil et al. 2001: 368 (proventriculus).
- Page 1074 *gracilis* (Schedl). Add:
(tx) Wood 2007: 865.
- Page 1074 *ingaensis* (Schedl). Add:
(ds, tx) Wood 2007: 863.
- Page 1074 *insignis* Wood. Add:
(ds, tx) Wood 2007: 866.
- Page 1074 *letzneri* Ferrari. Add:
FIGURES: Wood 2007: PLATE 226.
(tx) Wood 2007: 842.
- Page 1075 *mexicanus* Schedl. Add:
(ds) Burgos-Solorio and Equihua 2007: 80.
- Page 1075 *minutissimus* Schedl. Add:
DISTRIBUTION: NORTH AMERICA: Mexico (Tabasco).
(ds) Pérez-De La Cruz et al. 2009: 604.
- Page 1076 *obliquus* Schedl. Move to *C. suturalis* Eggers as a synonym. Add:
Synonym by Wood 2007: 830.
(ds) Flechtmann, Ottati and Berisford 2001.

- Page 1076 ***papulans*** Eichhoff. Add:
DISTRIBUTION: NORTH AMERICA: Mexico (Tabasco).
HOST: *Araucaria angustifolia*.
(ds) Burgos-Solorio and Equihua 2007: 80; Mecke, Galileo and Engels 2001; Pérez-De La Cruz et al. 2009: 604.
- Page 1077 ***peruanus*** Schedl. Add:
FIGURES: Wood 2007: PLATE 227.
(tx) Wood 2007: 843.
- Page 1077 ***pharax*** Schedl. Add:
(ds, tx) Wood 2007: 867.
- Page 1077 ***praealtus*** Schedl. Add:
HOST: *Araucaria angustifolia*.
(ds) Mecke, Galileo and Engels 2000. (hb) Mecke, Galileo and Engels 2001. (tx) Wood 2007: 864.
- Page 1077 ***praeustus*** Schedl. Add:
(ds, tx) Wood 2007: 859.
- Page 1077 ***punctatissimus*** (Zimmermann). Add:
DISTRIBUTION: NORTH AMERICA: United States (Alabama, Maryland).
(ds) Rabaglia 2003: 377; Schiefer 2010: 117.
- Page 1078 ***pusillus*** Eggers. Add:
(tx) Wood 2007: 828.
- Page 1078 ***redtenbacheri*** Ferrari. Add:
DISTRIBUTION: SOUTH AMERICA: Colombia.
(ds, tx) Wood 2007: 834.
- Page 1079 ***robustus*** Schedl. Add:
FIGURES: Wood 2007: PLATE 228.
(ec) Morales et al. 2000. (ds, tx) Wood 2007: 864.
- Page 1079 ***rufopilosus*** Eggers. Add:
HOST: *Araucaria angustifolia*.
(ds) Mecke, Galileo and Engels 2000. (hb) Mecke, Galileo and Engels 2001.
- Page 1079 ***sanguineus*** Schedl. Add:
FIGURES: Wood 2007: PLATE 229.
DISTRIBUTION: SOUTH AMERICA: Colombia.
(ds, tx) Wood 2007: 838.
- Page 1079 ***schaufussi*** Schedl. Add:
(ds, tx) Wood 2007: 868.
- Page 1079 ***simillimus*** Schedl. Add:
(tx) Wood 2007: 840.
- Page 1080 ***subsulcatus*** Schedl. Add:
(tx) Wood 2007: 840.

Page 1080 ***suturalis*** Eggers. Add *C. obliquus* Schedl as a synonym. Add:
(tx) Wood 2007: 830.

Page 1080 ***theobromae*** Nunberg. Add:
(tx) Wood 2007: 827.

Page 1080 ***truncatus*** Wood. Add:
FIGURES: Wood 2007: PLATE 229.
(tx) Wood 2007: 865.

Page 1080 ***tuberculatus*** (Eggers). Add:
DISTRIBUTION: NORTH AMERICA: Puerto Rico.
(ds) Bright and Torres 2006: 427.

Page 1080 ***tulcanus*** Hagedorn. Add:
DISTRIBUTION: SOUTH AMERICA: Colombia.
(tx) Wood 2007: 839.

Page 1080 ***uniseptis*** Schedl. Add:
(ds) Burgos-Solorio and Equihua 2007: 80.

Page 1068 ***ustus*** (Schedl). Move from *Corthycyclon*. Add:
New combination by Wood 2007: 826.

Page 1081 ***venustus*** (Schedl). Add:
(tx) Wood 2007: 835.

Page 1081 ***villosus*** Eggers. Add:
FIGURES: Wood 2007: PLATE 230.
DISTRIBUTION: SOUTH AMERICA: Colombia.
(ds, tx) Wood 2007: 831.

ADD SPECIES:

andinus Wood 2007: 852. Holotype (female), COLOMBIA: Piedras Blancas, 10 km E Medellin; USNM.
HOSTS: *Meriana* sp., *Salvia* sp.

annexus Wood 2007: 835. Holotype (female), COSTA RICA: La Selva Biological Station, 3 km S Puerto Viejo, Heredia; USNM.

araguensis Wood 2007: 843. Holotype (female), VENEZUELA: El Laurel Experimental Farm, 12 km SW Caracas; USNM.

atomus Wood 2007: 847. Holotype (female), PANAMA: Isla Barro Colorado (in Panama Canal); USNM.

attenuatus Wood 2007: 857. Holotype (female), VENEZUELA: La Carbonera Experimental Forest, 50 km SW Merida, Merida; USNM.

bellus Wood 2007: 861. Holotype (female), COLOMBIA: Piedras Blancas, 11 km E Medellin, Antioquia;
USNM.
HOST: *Vismia* sp.

cecropicoleus Wood 2007: 825. Holotype (female), VENEZUELA: El Laurel Experimental Farm, 12 km SW Caracas; USNM.
HOST: *Cecropia* sp. leaf petiole.

chiriquensis Wood 2007: 835. Holotype (female), PANAMA: Guadeloupe Arriba, Chiriquí; USNM.

cirrifer Wood 2007: 856. Holotype (female), VENEZUELA: Rancho Grande, Aragua; USNM.
FIGURES: Wood 2007: PLATE 223.

coffeae Wood 2007: 829. Holotype (female), COLOMBIA: Los Totumos, Caicedonia, Valle del Cauca;
USNM.
HOST: Coffee branches.

comitabilis Wood 2007: 845. Holotype (female), BRAZIL: Telemaco Borba, Parana, Klabin Papel e Cellulose forest; MZUSP.

confertus Wood 2007: 841. Holotype (female), VENEZUELA: Campamento Rio Grande, 30 km E Palmar,
Bolívar; USNM.
HOST: *Alexa imperatrica*.

confusus Wood 2007. Holotype (female), COSTA RICA: Zuirqui de Malavia, San Jose; USNM.

costulatus Wood 2007: 828. Holotype (female), BRAZIL: Telemaco Borba, Parana Klabin Papel e Cellulose forest; MZUSP.

crassus Wood 2007: 834. Holotype (female), FRENCE GUYANA: Petit-Saut; USNM.

electinus Wood 2007: 833. Holotype (female), COSTA RICA: Tapanti, Cartago; USNM.

epistomalis Wood 2007: 846. Holotype (female), BRAZIL: Nova Vicoso, Bahia; MZUSP.

equihuai Wood 2007: 830. Holotype (female), MEXICO: Apulco (entre Zacapoaxtle y Cuetzlan), Pueblo;
USNM.

frontalis Wood 2007: 863. Holotype (female), VENEZUELA: Rancho Grande, Aragua; USNM.
HOST: *Nectandra* sp.

garai Wood 2007: 826. Holotype (female), COSTA RICA: Turrialba, Cartago; USNM.

gracilens Wood 2007: 860. Holotype (female), BRAZIL: Telemaco Borba, Parana, in Klabin Papel e Cellulose forest; MZUSP.

gracilior Wood 2007: 860. Holotype (female), VENEZUELA: Merida, Merida; USNM.
HOST: Branch of *Vismia* sp.

insularis Bright and Torres 2006: 424. Holotype (female), PUERTO RICO: El Yunque, light trap; DEBC/
USNM.
FIGURE: Bright and Torres 2006: 426 (antenna).
HOST: Log of *Dacryodes excelsa*.

merkli Wood 2007: 866. Holotype (female), PERU: Irena Refugio, El Cedro, Yanachaga Chemilien N. P.;
NHMB.

minulus Wood 2007: 827. Holotype (female), COSTA RICA: La Selva Biological Station, 3 km S Puerto Viejo, Heredia; USNM.

montanus Wood 2007: 833. Holotype (female), COSTA RICA: Cerro de la Muerte, 16 km S Empalme, San Jose; USNM.

nigrescens Wood 2007: 836. Holotype (female), BRAZIL: Monte Alegre, Parana; MZUSP.
DISTRIBUTION: SOUTH AMERICA: Brazil (Parana, Rio Grande do Sul, Santa Catrina).

nigricans Wood 2007: 839. Holotype (female), BRAZIL: Telemaco Borba, Parana, in Klabin Papel e Cellulose forest; MZUSP.

noguerai Wood 2007: 837. Holotype (female), MEXICO: Tlalnehuayacan, Veracruz; USNM.
HOST: *Cnidoscolus* sp.

papuellus Wood 2007: 855. Holotype (female), BRAZIL: Botucatu, Sao Paulo; MZUSP.

parvicirrus Wood 2007: 844. Holotype (female), BRAZIL: Telemaco Borba, Parana, in Klabin Papel e Cellulose forest; MZUSP.

pilifer Wood 2007: 831. Holotype (female), BRAZIL: Pindamonhangaba, San Paulo; NHMW.

pinguis Wood: 826. Holotype (female), VENEZUELA: Campamento Rio Grande, 30 km E Palmar, Bolivar; USNM.

FIGURES: Wood 2007: PLATE 228.
HOST: *Alexa imperiticia*.

pseudoandinus Wood 2007: 852. Holotype (male), COLOMBIA: Piedras Blancas, 10 km E. Medellin, Antioquia; USNM.

pseudoexcisus Wood 2007: 853. Holotype (female), PERU: Ireno Refugio El Cedro, Yanachaga Chemilien N. P., Pasco; NHMB.

pseudovillus Wood 2007: 831. Holotype (female), COSTA RICA: San Jose, San Jose; USNM.
HOST: *Spondias purpurea*.

punctifrons Wood 2007: 848. Holotype (female), BRAZIL: Monte Alegre, Parana; MZUSP.
DISTRIBUTION: SOUTH AMERICA: Brazil (Espirito Santo, Parana, Rio Grande do Sul).

schulzi Wood 2007: 865. Holotype (female), SURINAME: Jodensavanne, at light; USNM.

simplicis Wood 2007: 832. Holotype (female), COSTA RICA: Estacion Biologico La Selva, Heredia; USNM.

spinipennis Wood 2007: 850. Holotype (female), COSTA RICA: Estacion Biologico, Las Alturas, Puntarenas; USNM.

splendidulus Wood 2007: 845. Holotype (female), PANAMA: Guadeloupe Arriba, Chiriqui; USNM.

truncatiformus Wood 2007: 847. Holotype (female), BRAZIL: Lencois Paulista, Sao Paulo; MZUSP.

tuberculifer Wood 2007: 849. Holotype (female), PANAMA: Guadeloupe Arriba, Chiriqui; USNM.

tuberosus Wood 2007: 849. Holotype (female), VENEZUELA: Rancho Grande, Aragua; USNM.
HOST: Guttiferae sp.
FIGURES: Wood 2007: PLATE 230.

vochysiae Wood 2007: 847. Holotype (female), VENEZUELA: La Carbonera Experimental Forest, 50 km NW Merida, Merida; USNM.
HOST: *Vochysia duquei*.

zulmae Wood 2007: 842. Holotype (female), COLOMBIA: Manizales, Caldas; USNM.
HOST: *Alnus acuminata*.
(hb) Gil et al. 2004.
NOTE: This species is listed as "Corthylus n. sp." in Gil et al. 2004.

Genus **Glochinocerus** Blandford

Page 1064 **Glochinocerus** Blandford. Add:
(an) López-Buenfil et al. 2001: 352. **(tx)** Alonso-Zarazaga and Lyal 2009: 31.

Page 1064 **gemellus** Blandford. Add:
FIGURE: López-Buenfil et al. 2001: 368 (proventriculus).

Genus **Gnatharus** Wood and Yin.

Page 1050 **Gnatharus** Wood and Yin. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 31.

Page 1050 **tibetensis** Wood and Yin. Add:
DISTRIBUTION: ASIA: Thailand.
(ds) Petrov, Mandelshtam and Beaver 2007: 252.

Genus **Gnathotrichus** Eichhoff

Page 1034 **Gnathotrichus** Eichhoff. Add:
KEY: Furniss and Johnson 2002: 100 (to species in Idaho, USA).
(an) López-Buenfil et al. 2001: 352. **(tx)** Alonso-Zarazaga and Lyal 2009: 31; de Laclos et al. 2004: 191; Rabaglia 2002: 805.

Page 1035 **denticulatus** Blackman. Add:
DISTRIBUTION: United States (**California, Nevada** [see Appendix]).

Page 1035 **materiarius** (Fitch). Add:
FIGURE: de Laclos et al. 2004: 191 (gallery pattern), 192 (habitus); Faccoli 2010b (female habitus).
DISTRIBUTION: EUROPE: Belgium, Czech Republic. NORTH AMERICA: United States (Delaware, **Kansas** [see Appendix], Oregon, Tennessee).
(ds) Bernabò 2000; Knízek 2009a; Kapitola and Knízek 2008; Moucheron and Warzee 2006; Mudge et al. 2001; Noblecourt 2004: 85; Oliver and Mannion 2001; Rabaglia and Valenti 2003: 317; Schiefer 2010: 116; Tolasch 2004; Voolma et al. 2004; Weigel 2008. **(hb)** Bernado 2000; Faccoli 2010b; Oliver and Mannion 2001; Zach et al. 2001. **(ds, hb)** de Laclos et al. 2004: 192

Page 1036 **perniciosus** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 80.

Page 1036 ***pilosus*** (LeConte). Add:

DISTRIBUTION: NORTH AMERICA: United States (Utah).

(**bv**) McPherson et al. 2008. (**ds**) Schiefer 2010: 117.

Page 1037 ***retusus*** (LeConte). Add:

(**hb**) Kuhnholz, Borden and McIntosh 2000. (**en, ds, hb**) Daterman and Overhulser 2002.

(**ds, hb, tx**) Furniss and Johnson 2002: 100.

Page 1038 ***sulcatus*** LeConte. Add:

FIGURE: López-Buenfil et al. 2001: 367 (proventriculus).

(**ec**) Martikainen, Viiri and Raty 2001. (**en, ds, hb**) Daterman and Overhulser 2002. (**ds, hb,**

tx) Furniss and Johnson 2002: 100.

Genus ***Gnathotrupes*** Schedl

Page 1039 ***Gnathotrupes*** Schedl. Add:

KEY: Wood 2007: 657 (to all species).

(**tx**) Alonso-Zarazaga and Lyal 2009: 32. (**hb, tx**) Wood 2007: 656.

Page 662 ***assiduus*** (Schedl). Move from ***Xyleborus***. Add:

New combination by Wood 2007: 671.

FIGURES: Wood 2007: PLATE 162.

(**tx**) Wood 2007: 671.

Page 1039 ***barbifer*** Schedl. Add ***G. similis*** Schedl as a synonym. Add:

(**tx**) Wood 2007: 666.

Page 1040 ***boliviensis*** Schedl. Add:

(**tx**) Wood 2007: 667.

Page 1040 ***caliculus*** (Schedl). Add:

(**ds**) Bright 2004: 156. (**tx**) Wood 2007: 671.

Page 1041 ***castaneus*** (Schedl). Move to ***G. longipennis*** (Blanchard) as a synonym. Add:

Synonymy by Wood 2007: 665.

Page 1040 ***cirratus*** Schedl. Add:

(**ds**) Bright 2004: 156. (**tx**) Wood 2007: 668.

Page 1040 ***colaphus*** Wood. Add:

FIGURES: Wood 2007: PLATE 163.

(**tx**) Wood 2007: 662.

Page 1040 ***consobrinus*** (Eichhoff). Add ***Gnathotrichus obnixus*** Schedl, ***G. corthyloidea*** Schedl, ***G. sextuberculatus*** Schedl, ***G. quadrituberculatus*** Schedl and ***G. corthyliiformis*** Schedl as synonyms. Add:

FIGURES: Wood 2007: PLATES 163,164.

(**tx**) Wood 2007: 670.

Page 1041 ***corthyliiformis*** (Schedl). Remove from synonymy with ***G. longipennis*** (Blandford), move to ***G. consobrinus*** (Eichhoff) as a synonym. Add:

Synonymy by Wood 2007: 670.

- Page 1041 *corthyloides* (Schedl). Remove from synonymy with ***G. longipennis*** (Blandford), move to ***G. consobrinus*** (Eichhoff) as a synonym. Add:
Synonymy by Wood 2007: 670.
- Page 1040 ***electus*** (Wood). Add:
(tx) Wood 2007: 664.
- Page 1040 ***fimbriatus*** (Schedl). Add *G. frontalis* Schedl as a synonym. Add:
FIGURES: Wood 2007: PLATE 164.
(tx) Wood 2007: 666.
- Page 1040 *frontalis* (Schedl). Move to ***G. fimbriatus*** (Schedl) as a synonym. Add:
Synonymy by Wood 2007: 666.
- Page 1040 ***herbertfranzi*** (Schedl). Add:
FIGURES: Wood 2007: PLATE 165.
(tx) Wood 2007: 664.
- Page 1040 ***impressus*** (Schedl). Add *G. pauciconcavus* Schedl as a synonym. Add:
FIGURES: Wood 2007: PLATE 165.
(ds) Bright 2004: 156. (tx) Wood 2007: 667.
- Page 1040 ***longicollis*** (Schedl). Add:
(tx) Wood 2007: 669.
- Page 1040 ***longipennis*** (Blanchard). Add *G. castaneus* (Schedl) as a synonym. Add:
FIGURES: Wood 2007: PLATE 166.
(ds) Bright 2004: 157. (tx) Wood 2007: 664.
- Page 1041 ***longiusculus*** (Schedl). Add:
(ds) Bright 2004: 157. (tx) Wood 2007: 663.
- Page 1041 *nanulus* (Schedl). Move to ***G. nanus*** (Eichhoff) as a synonym. Add:
Synonymy by Wood 2007: 669.
(ds) Bright 2004: 157.
- Page 1041 ***nanus*** (Eichhoff). Add *G. nanulus* Schedl as a synonym. Add:
(tx) Wood 2007: 669.
- Page 1041 ***naumanni*** (Schedl). Add:
(ds) Bright 2004: 157. (tx) Wood 2007: 672.
- Page 1041 ***nectandrae*** Wood. Add:
FIGURES: Wood 2007: PLATE 167.
(tx) Wood 2007: 662.
- Page 663 ***neoadjunctus*** (Schedl). Move from ***Xyleborus***. Add:
New combination by Wood 2007: 670.
FIGURES: Wood 2007: PLATE 166.
(tx) Wood 2007: 670.
- Page 1042 ***nothofagi*** (Schedl). Add:
(ds) Bright 2004: 157. (tx) Wood 2007: 672.

Page 1041 *obnixus* (Schedl). Remove from synonymy with *G. longipennis* (Blandford) move to *G. consobrinus* (Eichhoff) as a synonym. Add:
Synonymy by Wood 2007: 670.

Page 1042 *pauciconcavus* Schedl. Move to *G. impressus* (Schedl) as a synonym. Add:
Synonymy by Wood 2007: 667.
(ds) Bright 2004: 157. (tx) Wood 2007: 667.

Page 1042 *pustulatus* Schedl. Add:
FIGURES: Wood 2007: PLATE 168.
(ds) Bright 2004: 157. (tx) Wood 2007: 663.

Page 1841 *quadrituberculatus* (Schedl). Remove from synonymy with *G. longipennis* (Blandford) move to *G. consobrinus* (Eichhoff) as a synonym. Add:
Synonymy by Wood 2007: 670.

Page 1041 *sextuberculatus* (Schedl). Remove from synonymy with *G. longipennis* (Blandford) move to *G. consobrinus* (Eichhoff) as a synonym. Add:
Synonymy by Wood 2007: 670.

Page 1042 *similis* Schedl. Move to *G. barbifer* Schedl as a synonym. Add:
Synonymy by Wood 2007: 666.
(ds) Bright 2004: 157.

Page 1042 *solidus* Schedl. Move to *G. velatus* Schedl as a synonym. Add:
Synonymy by Wood 2007: 665.
(ds) Bright 2004: 157.

Page 1042 *vafier* (Schedl). Add:
(ds) Bright 2004: 157. (tx) Wood 2007: 669.

Page 1042 *velatus* Schedl. Add *G. solidus* Schedl as a synonym. Add:
(ds) Bright 2004: 157. (tx) Wood 2007: 665.

ADD SPECIES:

emarginatus Wood 2007: 661. Holotype (male), BRAZIL: IPEAN, Belem, Para; USNM.

kirkendalli Wood 2007: 668. Holotype (female), COSTA RICA: Zurqui de Moravia, San Jose Prov.; USNM.

moraviae Wood 2007: 662. Holotype (male), COSTA RICA: Zurqui de Moravia, San Jose Prov.; USNM.

Genus *Metacorthylus* Blandford

Page 1064 *Metacorthylus* Blandford. Add:
KEY: Wood 2007: 765 (to all species).
(tx) Alonso-Zarazaga and Lyal 2009: 32. (hb, tx) Wood 2007: 765.

Page 1063 *subpronum* (Schedl). Move from *Monarthrum*. Add:
New combination by Wood 2007: 768.
NOTE: Misspelled “subpropius” in Wood 2007: 768.

Page 1063 *subtruncatus* (Schedl). Move from *Monarthrum*. Add:
New combination by Wood 2007: 767.
FIGURES: Wood 2007: PLATE 207.

Page 1065 *velutinus* (Wood). Add:
FIGURES: Wood 2007: PLATE 209.
(tx) Wood 2007: 767.

Page 1064 *vicinus* (Schedl). Move from *Monarthrum*. Add:
New combination by Wood 2007: 768.

Page 1064 *volvulus* (Eichhoff). Move from *Monarthrum*. Add:
New combination by Wood 2007: 770.
FIGURES: Wood 2007: PLATE 210.

ADD SPECIES:

costatus Wood 2007: 771. Holotype (female), COSTA RICA: Braulio Carrillo, San Jose Prov.; USNM.
FIGURES: Wood 2007: PLATE 205.

granosus Wood 2007: 769. Holotype (male), BRAZIL: Aracruz, Espirito Santo; MZUSP.

obscuriceps Wood 2007: 769. Holotype (male), BRAZIL: Aracruz, Espirito Santo; MZUSP.

subcostatus Wood 2007: 771. Holotype (male), VENEZUELA: Colonia Tovar, Aragua; USNM.
FIGURES: Wood 2007: PLATE 206.

Genus *Microcorthylus* Ferrari

Page 1065 *Microcorthylus* Ferrari. Add:
KEY: Wood 2007: 772 (to all species).
(an) López-Buenfil et al. 2001: 353. (hb) Kolarik and Kirkendall 2010. (tx) Alonso-Zarazaga and Lyal 2009: 33. (hb, tx) Wood 2007: 771.

Page 1065 *bicolor* Eggers. Add:
(tx) Wood 2007: 778.

Page 1065 *castaneus* Schedl. Move to *M. puerulus* Schedl as a synonym. Add:
Synonymy by Wood 2007: 785.

Page 1065 *concisus* Wood. Add:
FIGURES: Wood 2007: PLATE 210.

Page 1065 *contractus* Wood. Move to *M. puerulus* Schedl as a synonym. Add:
Synonymy by Wood 2007: 785.

Page 1065 *curtus* Wood. Add:
(tx) Wood 2007: 784.

Page 1065 *dilutus* Wood. Add:
FIGURES: Wood 2007: PLATE 209.
(tx) Wood 2007: 780.

Page 1065 ***diversus*** Wood. Add *M. hostilus* Wood as a synonym. Add:
FIGURES: Wood 2007: PLATE 212.
(tx) Wood 2007: 783.

Page 1065 ***glabratu*s** (Ferrari). Add *M. pallidu*s Schedl as a synonym. Add:
(tx) Wood 2007: 785.

Page 1066 *hostilu*s Wood. Move to ***M. diversus*** Wood as a synonym. Add:
Synonymy by Wood 2007: 783.

Page 1066 *inermis* Wood. Move to ***M. parvulus*** Ferrari as a synonym. Add:
Synonymy by Wood 2007: 779.

Page 1066 ***minimus*** Schedl. Add:
FIGURES: Wood 2007: PLATE 213.
(ds) Burgos-Solorio and Equihua 2007: 80; Flechtmann, Ottati and Berisford 2001. (tx)
Wood 2007: 778.

Page 1066 ***obscurus*** Eggers. Add:
FIGURES: Wood 2007: PLATE 213.
(tx) Wood 2007: 786.

Page 1066 *pallidu*s Schedl. Move to ***M. glabratu*s** (Ferrari) as a synonym. Add:
Synonymy by Wood 2007: 785.

Page 1066 ***parvulus*** Ferrari. Add *M. inermis* Wood as a synonym. Add:
FIGURES: Wood 2007: PLATE 214.
(tx) Wood 2007: 779.

Page 1067 *porrectu*s Schedl. Move to ***M. puerulus*** Schedl as a synonym. Add:
Synonymy by Guadalupe del Rio, Lanteri and Suárez 2005: 7, also listed as new synonymy in
Wood 2007: 785.
(ds) Bright 2004: 157.

Page 1067 ***puerulus*** Schedl. Add *M. castaneu*s Schedl, *M. porrectu*s Schedl and *M. contractu*s Wood as
synonyms. Add:
FIGURES: Wood 2007: PLATE 214 (PLATE #211 is an error).
DISTRIBUTION: SOUTH AMERICA: Argentina, Venezuela.
(tx) Guadalupe del Rio, Lanteri and Suárez 2005: 7. (tx) Wood 2007: 785.

Page 1067 ***rufotestaceu*s** Schedl. Add:
(tx) Wood 2007: 787.

Page 1067 ***suggrandis*** Schedl. Add:
FIGURES: Wood 2007: PLATE 215.
(tx) Wood 2007: 784.

Page 1067 ***umbratus*** Wood. Add:
FIGURES: Wood 2007: PLATE 215.
(tx) Wood 2007: 786.

Page 1067 ***vicinus*** Wood. Add:
FIGURE: López-Buenfil et al. 2001: 368 (proventriculus).

ADD SPECIES:

absonus Wood 2007: 783. Holotype (male), COSTA RICA: Santa Ana, San Jose; USNM.
HOST: *Rheedia edulis*.

brevior Wood 2007: 781. Holotype (male), VENEZUELA: 5 km W El Pinto, Zulia; USNM.
DISTRIBUTION: NORTH AMERICA: Costa Rica (Limon, Puntarenas), Honduras (La Ceiba),
Mexico (Veracruz), Panama (Canal Zone).
HOSTS: *Bauhinia* sp., *Inga* sp., *Protium* sp., *Serjania* sp., *Vismia* sp.,

declivis Wood 2007: 781. Holotype (male), BRAZIL: Agudos, Sao Paulo; MZUSP.

degener Wood 2007: 776. Holotype (male), VENEZUELA: 20 km SW El Vigia, Merida; USNM.

inops Wood 2007: 780. Holotype (male), VENEZUELA: El Laurel Experimental Farm, 12 km SW Caracas;
USNM.
HOSTS: *Piper* sp., *Nectandra* sp.

macer Wood 2007: 780. Holotype (male), VENEZUELA: Colonia Tovar, Aragua; USNM.
DISTRIBUTION: SOUTH AMERICA: Colombia (Antioquia).
HOSTS: *Piper* sp., *Vismia* sp., *Ficus* sp., *Miconia* sp., *Nectanda* sp. *Rubus* sp.

nebulosus Wood 2007: 779. Holotype (male), BRAZIL: Nova Teutonia, Santa Catarina; USNM.

obscuriceps Wood 2007: 778. Holotype (male), PERU: vicinity of Cunyabamba; USNM.

parvus Wood 2007: 784. Holotype (male), VENEZUELA: El Laurel Experimental Farm, 12 km SW
Caracas; USNM.

quadridens Wood 2007: 782. Holotype (male), BRAZIL: Telemaco Borba, Parana; MZUSP.

simulans Wood 2007: 782. Holotype (female), COLOMBIA: Piedras Blancas, 10 km E Medellin, Antioquia;
USNM.

tuberculifer Wood 2007: 777. Holotype (female), VENEZUELA: La Carbonera Experimental Forest, 50
km SW Merida, Merida; USNM.

vietus Wood 2007: 777. Holotype (male), COLOMBIA: Piedras Blancas, 11 km W. Medellin, Antioquia;
USNM.
HOST: *Vismia* sp., *Quercus humboldti*.

Genus **Monarthrum** Kirsch

Page 1050 **Monarthrum** Kirsch. Add *Xyleborips* Reitter as a synonym. Add:
Synonymy by Mandelshtam 2001a: 293.
KEY: Wood 2007: 713 (to all New World species).
(an) López-Buenfil et al. 2001: 352. **(tx)** Alonso-Zarazaga and Lyal 2009: 33; Mandelshtam
2001a: 203; Rabaglia 2002: 805. **(hb, tx)** Wood 2007: 713.
NOTE: *Xyleborips* was placed in synonymy by Mandelshtam 2001a and listed as a new syn-
onymy in Wood 2007: 713.

Page 1051 *adjunctum* (Schedl). Move to ***M. laevigatum*** (Eichhoff) as a synonym. Add:
Synonymy by Wood 2007: 755.

Page 1051 **amphicranoides** (Schedl). Add:
FIGURES: Wood 2007: PLATE 179.
(tx) Wood 2007: 734.

Page 1051 **appendiculatum** (Schedl). Move to **M. nudum** (Schedl) as a synonym. Add:
Synonymy by Wood 2007: 751.

Page 1051 **bicallosum** (Schedl). Add:
FIGURES: Wood 2007: PLATES 179,180.
(tx) Wood 2007: 734.

Page 1051 **bicolor** (Ferrari). Add *M. sexdentatum* Eggers as a synonym. Add:
FIGURES: Wood 2007: PLATES 180,181.
DISTRIBUTION: SOUTH AMERICA: Argentina, Colombia.
(ds, tx) Wood 2007: 738.

Page 1051 **bicoloratum** Wood. Add:
(tx) Wood 2007: 733.

Page 1051 **bifoveatum** Wood. Add:
FIGURES: Wood 2007: PLATE 182.
(tx) Wood 2007: 745.

Page 1052 **brasiliensis** (Schedl). Move to **M. quadridens** (Eichhoff) as a synonym. Add:
Synonymy by Wood 2007: 741.
(ds) Mecke, Galileo and Engels 2000: 168.

Page 1052 **brunneum** (Eichhoff). Add *M. plagiatum* (Eichhoff) as a synonym. Add:
(tx) Wood 2007: 742.

Page 1052 **chapuisi** Kirsch. Add:
FIGURES: Wood 2007: PLATE 185.
DISTRIBUTION: SOUTH AMERICA: Peru, Venezuela.
(tx) Wood 2007: 732.

Page 1052 **comatum** (Eggers). Move to **M. scrobiceps** (Eichhoff) as a synonym. Add:
Synonymy by Wood 2007: 734.

Page 1053 **conversum** Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 80.

Page 1053 **costatum** (Eggers). Add:
(tx) Wood 2007: 754.

Page 1053 **cristatum** (Ferrari). Add:
Neotype (female), Colonia Aragua, Venezuela, designated by Wood 2007: 740.
FIGURES: Wood 2007: PLATE 185.
DISTRIBUTION: SOUTH AMERICA: Brazil, Colombia.
(ds, tx) Wood 2007: 740.

Page 1053 **dentatulum** Wood. Add:
(tx) Wood 2007: 736.

Page 1053 *dentigerum* (LeConte). Add:
(**bv**) McPherson et al. 2008.

Page 1054 *dimidiatum* (Ferrari). Add:
FIGURES: Wood 2007: PLATE 186.
(**tx**) Wood 2007: 750.

Page 1054 *distans* (Schedl). Move to *M. minutum* (Schedl) as a synonym. Add:
Synonymy by Wood 2007: 754.

Page 1054 *dubiosum* (Schedl). Add:
(**tx**) Wood 2007: 753.

Page 1054 *durum* (Schedl). Move to *M. laterale* (Eichhoff) as a synonym. Add:
Synonymy by Wood 2007: 739.

Page 1054 *egeenum* (Blandford). Add:
FIGURE: López-Buenfil et al. 2001: 368 (proventriculus).
DISTRIBUTION: SOUTH AMERICA: Venezuela.
(**ds, tx**) Wood 2007: 730.

Page 1054 *eumerum* Schedl. Move to *M. quadridens* (Eichhoff) as a synonym. Add:
Synonymy by Guadalupe del Rio, Lanteri and Suárez 2005: 5.

Page 1054 *excavatus* (Eggers). Move to *M. ingens* (Eichhoff) as a synonym. Add:
Synonymy by Wood 2007: 743.

Page 1055 *exornatum* (Schedl). Add:
FIGURES: Wood 2007: PLATE 186.
(**tx**) Wood 2007: 749.

Page 1055 *fasciatum* (Say). Add:
DISTRIBUTION: NORTH AMERICA: United States (Alabama, Delaware, Oregon [introduced, established ?]).
(**ds**) LaBonte, Mudge and Johnson 2005: 558; Rabaglia and Valenti 2003: 317; Schiefer 2010: 117. (**hb**) Oliver and Mannion 2001.

Page 1056 *fenestratum* Eggers. Add:
(**tx**) Wood 2007: 738.

Page 1056 *fimbraticorne* (Blandford). Add *M. obliquum* (Schedl) as a synonym. Add:
FIGURES: Wood 2007: PLATE 188.
(**tx**) Wood 2007: 740.

Page 1056 *fulgens* Schedl. Add:
(**tx**) Wood 2007: 737.

Page 1050 *gibber* (Schedl). Move to *M. minutum* (Schedl) as a synonym. Add:
Synonymy by Wood 2007: 754.

Page 1056 *glabriculum* (Schedl). Move to *M. gracilior* (Schedl) as a synonym. Add:
Synonymy by Wood 2007: 746.

Page 1056 ***gracilentum*** (Schedl). Add:
(tx) Wood 2007: 733.

Page 1056 ***gracilior*** (Schedl). Add *M. pennatum* (Schedl) and *M. glabriculum* (Schedl) as synonyms.
Add:
FIGURES: Wood 2007: PLATE 189.
(tx) Wood 2007: 746.

Page 1057 ***hagedorni*** (Schedl). Add:
FIGURES: Wood 2007: PLATE 191.
(tx) Wood 2007: 759.

Page 1057 ***ingens*** (Eichhoff). Add *M. excavatus* (Eggers) as a synonym. Add:
Lectotype (male), Colombia, designated by Wood 2007: 743.
FIGURES: Wood 2007: PLATE 192.
DISTRIBUTION: SOUTH AMERICA: Venezuela.
(ds, tx) Wood 2007: 743.

Page 1057 ***insolitum*** (Schedl). Add:
(tx) Wood 2007: 760.

Page 1057 ***intermedium*** Schedl. Add:
FIGURES: Wood 2007: PLATE 193.
DISTRIBUTION: SOUTH AMERICA: Peru.
(ds, tx) Wood 2007: 733.

Page 1057 ***laevigatum*** (Eichhoff). Add *M. adjunctum* (Schedl) as a synonym. Add:
FIGURES: Wood 2007: PLATE 193.
(tx) Wood 2007: 755.

Page 1057 ***laterale*** (Eichhoff). Add *M. durum* (Schedl) as a synonym. Add:
FIGURES: Wood 2007: PLATE 194.
(tx) Wood 2007: 739.

Page 1058 ***latum*** (Schedl). Move to ***M. scrobiceps*** (Eichhoff) as a synonym. Add:
Synonym by Wood 2007: 734.

Page 1058 ***lobatum*** (Ferrari). Add:
FIGURES: Wood 2007: PLATE 195.
(tx) Wood 2007: 736.

Page 1058 ***longum*** (Schedl). Add:
(tx) Wood 2007: 751.
NOTE change of spelling of species name.

Page 1058 ***mali*** (Fitch). Add *M. omissum* Schedl and *M. praeustum* Eggers as synonyms. Add:
DISTRIBUTION: EUROPE: Italy (introduced). NORTH AMERICA: Canada (Nova Scotia);
United States (Delaware, Kansas).
HOSTS: *Manilkara bidentata*, *Dacryodes excelsa*.
(ds) Bright and Torres 2006: 423; Kirkendall, Del Corrivo and Gatti 2008; Majka, Anderson
and McCorquodale 2007: 421; Rabaglia and Valenti 2003: 317; Schiefer 2010: 117. (hb)
Oliver and Mannion 2001. (tx) Bright and Torres 2006: 423.

- Page 1059 ***marcidum*** (Schedl). Add:
FIGURES: Wood 2007: PLATE 196.
(tx) Wood 2007: 752.
- Page 750 ***meuseli*** (Reitter). Move from *Xyleborips*. Add:
New combination by Mandelshtam 2001a: 203.
(tx) Wood 2007: 749.
- Page 1059 ***minutissimum*** (Schedl). Add:
(tx) Wood 2007: 748.
- Page 1059 ***minutum*** (Schedl). Add *M. gibber* (Schedl), *M. vernaculum* (Schedl) and *M. distans* (Schedl) as synonyms. Add:
(tx) Guadalupe del Rio, Lanteri and Suárez 2005: 8; Wood 2007: 754.
- Page 1059 ***nudum*** (Schedl). Add *M. appendiculatum* (Schedl) as a synonym. Add:
FIGURES: Wood 2007: PLATE 197.
(tx) Wood 2007: 751.
- Page 1060 ***obesum*** (Schedl). Add:
FIGURES: Wood 2007: PLATE 197.
(tx) Wood 2007: 743.
- Page 1060 ***obliquum*** (Schedl). Move to ***M. fimbriaticorne*** (Blandford) as a synonym. Add:
Synonymy by Wood 2007: 740.
- Page 1059 ***obtusum*** (Eggers). Add *M. quadridentatum* (Eggers) as a synonym. Add:
(tx) Wood 2007: 753.
- Page 1060 ***omissum*** Schedl. Move to ***M. mali*** (Fitch) as a synonym. Add:
Synonymy by Bright and Torres 2006: 423.
- Page 1060 ***parvum*** (Eggers). Add:
FIGURES: Wood 2007: PLATE 199.
DISTRIBUTION: SOUTH AMERICA: Colombia.
(ds, tx) Wood 2007: 744.
- Page 1060 ***pennatum*** (Schedl). Move to ***M. gracilior*** (Schedl) as a synonym. Add:
Synonymy by Wood 2007: 746.
- Page 1060 ***peruanum*** (Schedl). Add:
FIGURES: Wood 2007: PLATE 200.
(tx) Wood 2007: 752.
- Page 1060 ***peruvianum*** Wood. Add:
(tx) Wood 2007: 739.
- Page 1060 ***plagiatum*** (Eichhoff). Move to ***M. brunneum*** (Eichhoff) as a synonym. Add:
Lectotype (female), Colombia, designated by Wood 2007: 742 (invalid designation).
Synonymy by Wood 2007: 742.
NOTE: Wood 2007: 742 designates a lectotype for this species, but also states he saw the female holotype, however, the holotype was destroyed with the Hamburg Museum during World War II.

Page 1060 *plaumanni* Schedl). Add:
Lectotype (male), Nova Teutonia, Santa Catarina, Brazil, designated by Wood 2007: 731.
(tx) Wood 2007: 731.

Page 1061 *praestum* Eggers. Move to *M. mali* (Fitch) as a synonym. Add:
Synonymy by Bright and Torres 2006: 423.

Page 1061 *quadridens* (Eichhoff). Add *M. brasiliensis* (Schedl) as a synonym. Add:
FIGURES: Wood 2007: PLATES 200,201.
DISTRIBUTION: SOUTH AMERICA: Argentina.
(ds, tx) Wood 2007: 741.

Page 1061 *quadridentatum* (Eggers). Move to *M. obtusum* (Eggers) as a synonym. Add:
Synonymy by Wood 2007: 753.

Page 1062 *robustum* (Schedl). Add:
FIGURES: Wood 2007: PLATES 200,201.
(tx) Wood 2007: 754.

Page 1062 *scrobiceps* (Eichhoff). Add *M. comatum* (Eggers), *M. latum* (Schedl) and *Amphicranus vagabundus* (Schedl) as synonyms. Add:
(tx) Wood 2007: 734.

Page 1062 *scutellare* (LeConte). Add:
HOST: *Alnus rubra*.
(bv) McPherson et al. 2008. (ds) Humble 2005.

Page 1062 *semipalens* (Schedl). Add:
(tx) Wood 2007: 747.
NOTE: The statement by Wood (2007) under "notes" for this species is confusing. A lectotype was designated by Schedl in 1979, Wood states that he has a male holotype and 2 other males in his collection.

Page 1062 *sexdentatum* Eggers. Move to *M. bicolor* (Ferrari) as a synonym. Add:
Synonymy by Wood 2007: 738.

Page 1063 *subductum* (Schedl). Add:
FIGURES: Wood 2007: PLATE 203.
(tx) Wood 2007: 742.

Page 1063 *subpronum* (Schedl). Move to *Metacorthylus*.
NOTE: Misspelled "subpropius" in Wood 2007: 768.

Page 1063 *subtruncatum* (Schedl). Move to *Metacorthylus*.

Page 1063 *sulcipenne* (Schedl). Add:
FIGURES: Wood 2007: PLATE 204.
(tx) Wood 2007: 736.

Page 1063 *tetradonitium* Wood. Add:
(ds) Burgos-Solorio and Equihua 2007: 80.

Page 1050 *truncatorus* (Schedl). Move from *Amphicranus*. Add:
New combination by Wood 2007: 770.
FIGURES: Wood 2007: PLATE 208.

Page 1063 *vallidum* (Ferrari). Add:
(tx) Wood 2007: 729.
NOTE: Misspelled “validum” in Wood 2007: 729.

Page 1064 *vernaculum* Schedl. Move to *M. minutum* Schedl as a synonym. Add:
Synonymy by Guadalupe del Rio, Lanteri and Suárez 2005: 8. Also listed as new synonymy in
Wood 2007: 754.

Page 1064 *vicinum* (Schedl). Move to *Metacorthylus*.

Page 1064 *volvulus* (Eichhoff). Move to *Metacorthylus*.

ADD SPECIES:

annulatum Wood 2007: 763. Holotype (male). VENEZUELA: Campamento Rio Grande, 30 km E Palmar, Bolivar; USNM.
HOST: *Eschweilera grata*, *Alexa imparatricia*.

aztecum Wood 2007: 745. Holotype (male), MEXICO: Jalapa/Xalapa, Veracruz; USNM.
HOST: *Quercus* sp.

bituberculatum Wood 2007: 760. Holotype (male), VENEZUELA: El Laurel Experimental Farm, 12 km SW Caracas; USNM.
FIGURES: Wood 2007: PLATE 183.
HOST: *Nectandra* sp.

canalis Wood 2007: 759. Holotype (male), COSTA RICA: Heredia, Est. Biol. La Selva, 10°26'N, 84°01'W;
USNM.

carinifrons Wood 2007: 761. Holotype (male), VENEZUELA: Pico Bolivar Teleferico, Merida, Merida;
USNM.
FIGURES: Wood 2007: PLATE 184.
DISTRIBUTION: SOUTH AMERICA: Colombia.
HOSTS: *Laurel peramero*, *Clusia* sp., *Podocarpus* sp., *Eucalyptus viminalis*.

catarinensis Wood 2007: 762. Holotype (male), BRAZIL: Urubici, Santa Catarina; USNM.

connexum Wood 2007: 751. Holotype (male), VENEZUELA: Campamento Rio Grande, 30 km E Palmar,
Bolivar; USNM.
HOST: *Eschweilera corrugata*.

dentifrons Wood 2007: 758. Holotype (female), PANAMA: Guadalupe Arriba, Chiriqui; USNM.

diligens Wood 2007: 764. Holotype (male), MEXICO: 3.6 km NE Teziutlan, Pueblo; USNM.

dolosum Wood 2007: 731. Holotype (male), VENEZUELA: 20 KM SW Le Vigia, Merida; USNM.
DISTRIBUTION: NORTH AMERICA: Costa Rica (Cartago), Panama (Chiriqui). SOUTH
AMERICA: Colombia (Santander Sur).

durangoensis Wood 2007: 757. Holotype (female), MEXICO: 5 km (3 miles) W El Salto, Durango; USNM.
HOST: *Quercus* sp.

eggersi Wood 2007: 743. Holotype (male), BOLIVIA: Cochabamba; USNM.

furnissi Wood 2007: 756. Holotype (female), MEXICO: Via Real, Tlaxcala; USNM.

granosum Wood 2007: 764. Holotype (female), COLOMBIA: Carton de Colombia forest, 8 km S Colonia (near Buenaventura), Valle del Cauca; USNM.
HOST: *Lecythis* sp.

granulifer Wood 2007: 756. Holotype (male), VENEZUELA: El Laurel Experimental Farm, 12 km SW Caracas; USNM.
HOST: *Croton* sp.

granulosum Wood 2007: 761. Holotype (male), VENEZUELA: Colonia Tovar, Aragus; USNM.
FIGURES: Wood 2007: PLATE 190.

hondurensis Wood 2007: 756. Holotype (male), HONDURAS: Cerro Pena Blanca; USNM.
HOST: *Quercus tomentocaulis*.

insidiosum Wood 2007: 730. Holotype (female), VENEZUELA: 20 KM SW Le Vigia, Merida; USNM.
HOSTS: *Croton* sp., *Inga alba*.

lobellum Wood 2007: 737. Holotype (female), MEXICO: Jalapa, Veracruz; USNM.
HOST: *Leucana pulverulenta*.

marginatum Wood 2007: 760. Holotype (female), COLOMBIA: Betulia Alto, San Jose, Timbio, Valle del Cauca; USNM.

obscuriceps Wood 2007: 757. Holotype (female), COSTA RICA: Tapanti, Cartago; USNM.
HOST: *Phoebe mexicana*.

obscurum Wood 2007: 757. Holotype (male), VENEZUELA: El Laurel Experimental Farm, 12 km SW Caracas; USNM.
FIGURES: Wood 2007: PLATE 198.

pseudoparvum Wood 2007: 744. Holotype (male), COLOMBIA: San Isidro, Valle del Cauca; USNM.
HOST: *Dialyanthera gordoniifolia*.

semitruncatum Wood 2007: 763. Holotype (male), MEXICO: 4 mi W Tepic, Nayarit; USNM.

septulosum Wood 2007: 750. Holotype (male), COLOMBIA: El Bosque, Caicedonia, Valle del Cauca; USNM.
DISTRIBUTION: NORTH AMERICA: Costa Rica (San Jose). SOUTH AMERICA: Venezuela (Bolivar).
HOSTS: *Alexa imperatrica*, *Ficus* sp.

subcarinatum Wood 2007: 758. Holotype (female), PANAMA: Guadeloupe Arriba, Chirique; USNM.

subimpressum Wood 2007: 748. Holotype (female), ARGENTINA: Salta-Oran, Abra Grande; USNM.

surinamensis Wood 2007: 762. Holotype (male), SURINAME: Jodensavane, Camp 8; USNM.
FIGURES: Wood 2007: PLATE 204.

DISTRIBUTION: SOUTH AMERICA: Guiana.
HOST: *Euchweilera sigotianum*.

terminalis Wood 2007: 764. Holotype (male), COSTA RICA: Heredia Prov., La Selva Biological Station,
3 km S Puerto Viejo; USNM.

tuberculatum Wood 2007: 747. Holotype (male), MEXICO: Ocoaltepec, Ocuituco, Morelos; USNM.

ADD NEW NAME

amparae Wood 2007: 746.

Replacement name for ***M. brasiliensis*** (Schedl, 1976), not ***M. brasiliensis*** (Schedl, 1936).

Genus ****Paleophthorus*** Bright and Poinar

Page 231 ****Paleophthorus*** Bright and Poinar. Add:
(Suppl.1) (tx) Alonso-Zarazaga and Lyal 2009: 34.

Genus ***Tricolus*** Blandford

Page 1042 ***Tricolus*** Blandford. Add:
KEY: Wood 2007: 673 (to all continental species).
(an) López-Buenfil et al. 2001: 352. (tx) Alonso-Zarazaga and Lyal 2009: 34. (hb, tx) Wood
2007: 673.

Page 1042 ***abruptus*** Schedl. Add:
(tx) Wood 2007: 684.

Page 1042 ***affinis*** Eggers. Add:
Neotype (female), Sao Paulo, Brazil, designated by Wood 2007: 685.
(tx) Wood 2007: 685.

Page 1043 ***bifidus*** Schedl. Add:
(tx) Wood 2007: 686.

Page 1046 ***collaris*** (Blandford). Move from ***Amphicranus***. Add:
New combination by Wood 2007: 689.
FIGURES: Wood 2007: PLATE 170.
(tx) Wood 2007: 689.

Page 1043 ***difordinus*** Bright. Add:
DISTRIBUTION: NORTH AMERICA: Mexico (Tabasco).
(ds) Burgos-Solorio and Equihua 2007: 80; Pérez-De La Cruz et al. 2009: 604.

Page 1043 ***granulipennis*** Schedl. Move to ***Amphicranus gracilis*** Eggers as a synonym. Add:
Synonymy by Wood 2007: 703.

Page 1943 ***incisus*** Schedl. Move to ***Amphicranus***.

Page 1043 ***intrusus*** Wood. Add:
FIGURES: Wood 2007: PLATE 171.
(hb, tx) Wood 2007: 679.

Page 1044 ***minutissimus*** Schedl. Add:
(tx) Wood 2007: 680.

Page 1044 ***nodifer*** Blandford. Add:
FIGURE: López-Buenfil et al. 2001: 367 (proventriculus).

Page 1044 ***octodentatus*** (Schedl). Move to ***T. plaumanni*** Schedl as a synonym. Add:
Synonymy by Wood 2007: 679.

Page 1044 ***pernanulus*** Schedl. Add:
(tx) Wood 2007: 680.

Page 1044 ***plaumanni*** Schedl. Add ***T. octodentatus*** (Schedl) as a synonym. Add:
FIGURES: Wood 2007: PLATE 172.
(tx) Wood 2007: 679.

Page 1044 ***pumilio*** Eggers. Add:
(tx) Wood 2007: 682.

Page 1045 ***ruficollis*** (Fabricius). Add:
(tx) Wood 2007: 681.

Page 1045 ***scitulus*** Wood. Add:
FIGURES: Wood 2007: PLATE 173.
(tx) Wood 2007: 683.

Page 1045 ***senex*** Schedl. Add:
(tx) Wood 2007: 684.

Page 1045 ***spheniscus*** Schedl. Add:
(tx) Wood 2007: 682.

Page 1045 ***subincisuralis*** Schedl. Add:
(tx) Wood 2007: 680.

ADD SPECIES:

abacis Wood 2007: 686. Holotype (male), COLOMBIA: Piedras Blancas, 11 km W Medellin, Antioquia;
USNM.
FIGURES: Wood 2007: PLATE 168.
DISTRIBUTION: SOUTH AMERICA: Venezuela.
HOSTS: *Vismia* sp., *Nectandra* sp. branches.

angustatus Wood 2007: 679. Holotype (female), VENEZUELA: Campamento Rio Grande, 30 km E
Palamar, Bolivar; USNM.

bicavus Wood 2007: 683. Holotype (female), COLOMBIA: Campamento Rio Grande, 30 km E Barbosa,
Antioquia; USNM.
FIGURES: Wood 2007: PLATE 169.
HOSTS: *Xelopia* sp. and *Serjania* sp.
NOTE: Two different type localities are listed in the original description of this species. One
is as above (compare with type locality for *T. angustatus* above); one is “30 km E Palamar,
Bolivar, Venezuela”.

brasilianus Wood 2007: 687. Holotype (female), BRAZIL: San Francisco de Paula, Rio Grande do Sul; ZMUSP.

coloreus Wood 2007: 688. Holotype (male), VENEZUELA: La Carbonera Experimental Forest, 50 km NW Merida, Merida; USNM.

FIGURES: Wood 2007: PLATE 170.

HOSTS: *Nectandra* sp., bromeliad fruiting stalk, tree seedling.

myrti Wood 2007: 687. Holotype (male), COLOMBIA: Piedras Blancas, 11 km W Medellin, Antioquia; USNM.

FIGURES: Wood 2007: PLATE 171.

HOST: *Myrtus* sp.

mystacinus Wood 2007: 682. Holotype (female), COLOMBIA: near Sevilla, Caicedonia; USNM.

nayaritensis Wood 2007: 688. Holotype (male), MEXICO: 4 mi (7 km) W Tepic, Nayarit; USNM.

parvus Wood 2007: 685. Holotype (female), VENEZUELA: Rancho Grande, Aragua; USNM.

FIGURES: Wood 2007: PLATE 172.

HOSTS: *Nectandra* sp., *Tabebuia* sp. branches.

rufodorsalis Wood 2007: 685. Holotype (female), VENEZUELA: Rancho Grande, Aragua; USNM.

HOST: *Nectandra* sp. branches.

subopacus Wood 2007: 681. Holotype (male), VENEZUELA: Rancho Grande, Aragua; USNM.

FIGURES: Wood 2007: PLATE 173.

HOST: dying *Tabebuia* sp. seedling.

subrufus Wood 2007: 681. Holotype (female), VENEZUELA: La Carbonera Experimental Forest, 50 km NW Merida, Merida; USNM.

HOST: A liana.

undulatus Wood 2007: 689. Holotype (male), BRAZIL: Telemaco Borba, Parana; MZUSP.

Genus ***Urocorthylus*** Petrov, Mandelshtam and Beaver

ADD GENUS:

Urocorthylus Petrov, Mandelshtam and Beaver 2007: 249. Type species: *Urocorthylus hirtellus* Petrov, Mandelshtam and Beaver, original designation.

(tx) Alonso-Zarazaga and Lyal 2009: 34.

ADD SPECIES:

hirtellus Petrov, Mandelshtam and Beaver 2007: 251. Holotype (sex?), “VIETNAM, mountains nearby Tamdao [Vinhphl Province]”, (full label in Russian); Zoological Institute, St. Petersburg, Russia.

FIGURES: Petrov, Mandelshtam and Beaver 2007: 250, 253.

DISTRIBUTION: ASIA (Vietnam).

Genera Incertae Sedis

Page 1082 ***Bufonus*** Eggers. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 108.

Page 1082 **Charphoborites* Schedl. Unavailable name. Renamed *Carphoborites* Wood and Bright 1992: 1082. Add:
 Synonymy by Alonso-Zarazaga and Lyal 2009: 109.

***Charphoborites** Carpenter. Add *Carphoborites* Wood and Bright as a synonym. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 109.

Page 1082 ***Cryphalites** Cockerell. Move to Zopheridae: Colydiinae. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 111; Ross and York 2000: 12.

Page 1082 ***Xyleborites** Wickham. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 110.

Page 1082 ***Xylechinites** Hagedorn. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 110.

CATALOGUE OF PLATYPODIDAE, SUPPLEMENT III

The following paragraph is a list of significant references that treat the entire family or major portions thereof. Included are references to symposium proceedings, keys, catalogs, and books in addition to references to other categories.

Page 1084 **PLATYPODIDAE Shuckard.** Add:

KEYS: Anderson 2002: 805 (to Nearctic genera); Beaver 2000a: 759 (to species in South Pacific region); Nandi and Mukhopadhyay 2003 (to subfamilies and species in Sikkim, India).

(an) Morimoto and Kojima 2003. (ds) Burgos-Solorio and Equihua 2007: 69; Jordal, Beaver and Kirkendall 2001. (hb) Hulcr et al. 2007. (tx) Alonso-Zarazaga and Lyal 2009: 10; Bright and Skidmore 2002 (catalog supplement 2); Colonnelli 2003 (checklist of Italian Platypodidae); Farrell et al. 2001; Goto 2009: 479-485 (list of Japanese species); Kuschel, Leschen and Zimmerman 2000; Morimoto and Kojima 2003, 2004; Osella et al. 2005 (list of species in Gran Sasso, Italy).

NOTE: The comments by Alonso-Zarazaga and Lyal (2009) concerning the relationship between the Scolytidae and the Platypodidae are well thought-out and should be considered by future researchers. However, for the most part, I have maintained the arrangement in the 1992 Catalog for consistency and to allow future investigators to follow the changes.

SUBFAMILY COPTONOTINAE Chapuis

TRIBE COPTONOTINI

Page 1084 **Coptonotini** Chapuis. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 28.

NOTE: Alonso-Zarazaga and Lyal (2009) transfer this tribe to the Scolytidae. It is retained here in the Platypodidae to conform to the usage in the 1992 Catalog and for consistency in recording data.

Genus ***Coptonotus*** Chapuis

Page 1084 ***Coptonotus*** Chapuis. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 29.

Genus *Protohylastes* Wood

Page 1084 *Protohylastes* Wood. Move to ***Psepholox*** White (Curculionidae: Cryptorhynchinae: Psepholacini). Add:
Synonymy by Zimmerman 1994: 649.
NOTE: The treatment of this name was inadvertently omitted in Bright and Skidmore (2002).

Page 1084 *annosus* Wood. Move to ***Psephalox latrirostris*** Pascoe as a synonym. Add:
Synonymy by Zimmerman 1994: 649.

Page 1084 *latrirostris* (Pascoe). Move to ***Psephalox*** White. Add:
New combination by Zimmerman 1994: 649.

Genus *Scolytotarsus* Schedl

Page 1085 *Scolytotarsus* Schedl. Move to Curculionidae: Conoderinae: Campyloscelini. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 29.

TRIBE MECOPELMINI

Page 1086 **Mecopelmini** Thompson. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 16.

Genus ***Mecopelmus*** Blackman

Page 1086 ***Mecopelmus*** Blackman. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 16.

Genus *Protoplatus* Wood

Page 1086 *Protoplatus* Wood. Move to Curculionidae: Cossoninae. Add:
New combination by Zimmerman 1994: 644.
NOTE: This name was also inadvertently omitted in Bright and Skidmore (2002).

TRIBE SCHEDLARIINI

Page 1087 **Schedlariini** Wood and Bright. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 17.

Genus ***Schedlarius*** Wood

Page 1087 ***Schedlarius*** Wood. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 17.

Page 1087 ***mexicanus*** Duges. Add:
(ds) Burgos-Solorio and Equihua 2007: 69.

SUBFAMILY TESSEROCERINAE Blandford

TRIBE DIAPODINI

Page 1088 **Diapodini** Strohmeyer. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 21.

Genus ***Diapus*** Chapuis

Page 1088 ***Diapus*** Chapuis. Add:

KEY: Beaver, Liu and Puranasakul 2008: 117 (to males of *Diapus*).

(tx) Alonso-Zarazaga and Lyal 2009: 21; Beaver, Liu and Puranasakul 2008. (hb) Beaver, Liu and Puranasakul 2008.

Page 1088 ***aculeatus*** Blandford. Add:

DISTRIBUTION: ASIA: Thailand.

(an) Beaver, Liu and Puranasakul 2008: 117. (ds) Beaver and Shih 2003: 76; Beaver, Liu and Puranasakul 2008: 117.

Page 1088 ***aculeatus javanus*** Murayama. Remove from synonymy, elevate to species status. Add:

(tx) Browne 2000d: 252.

Page 1089 ***formosanus*** Niisima and Murayama. Move to ***Platypus beaveri*** Browne as a synonym.

Add:

Lectotype (male), Rengeti, Taichu Prov., Formosa, designated by Beaver 2000d: 257.

Synonymy by Beaver 2000d: 256.

Page 1088 ***javanus*** Murayama. Add:

DISTRIBUTION: ASIA: Malaysia (Sabah).

(ds, tx) Browne 2000d: 252.

Page 1090 ***pendleburyi*** Schedl. Move to ***Genyocerus***.

Page 1091 ***quadrispinosus*** Schedl. Move to ***Genyocerus***.

Page 1091 ***quinquespinatus*** Chapuis. Add ***D. tonkinensis*** Schedl as a synonym. Add:

(an) Wang et al. 2010. (ds) Beaver and Shih 2003: 76. (tx) Beaver 2000d: 255.

Page 1092 ***spatulifer*** Browne. Move to ***D. truncatus*** Nijjima and Murayama as a synonym. Add:
Synonymy by Beaver 2000d: 255.

Page 1092 ***tonkinensis*** Schedl. Move to ***D. quinquespinatus*** Chapuis as a synonym. Add:
Synonymy by Beaver 2000d: 255.

Page 1092 ***truncatus*** Nijjima and Murayama. Add ***D. spatulifer*** Browne as a synonym. Add:
(ds) Beaver and Shih 2003: 77. (tx) Beaver 2000d: 255.

ADD SPECIES:

africanus Beaver 2000d: 250. Holotype (male), SOUTH AFRICA: Ciskei, Amatole, Pirie For., 32°43'S,
27°17'E; TVMP.
FIGURES: Beaver 2000d: 258 (elytral apex, antennal club).

aulacus Beaver and Liu 2008: 112. Holotype (male), TAIWAN, [Nantao Co.,], Hui Son; NCHU.
FIGURES: Beaver, Liu and Puranasakul 2008: 113 (male and female habitus, additional
characters).

sabahensis Beaver 2000d: 249. Holotype (male), MALAYSIA, Sabah, Sipitang, Mendolong; ZMLU.
FIGURES: Beaver 2000d: 258 (male elytral apex, antennal club).

unispinosus Beaver and Puranasakul 2008: 114. Holotype (male), THAILAND: Chiang Mai, Doi Pui: NHML.

FIGURES: Beaver, Liu and Puranasakul 2008: 115 (male and female habitus, additional characters).

Genus ***Genyocerus*** Motschulsky

Page 1093 ***Genyocerus*** Motschulsky. Add:

KEY: Beaver and Liu 2007a: 28 (to all species).

(tx) Alonso-Zarazaga and Lyal 2009: 20; Beaver and Liu 2007a.

Page 1093 ***abdominalis*** Browne (male only). Move to ***G. diaphanus*** (Schedl) as a synonym. Add:
Synonym by Beaver and Liu 2007a: 34.

Page 1093 ***albipennis*** Motschulsky. Add:

(ds, tx) Beaver and Liu 2007a: 33.

Page 1093 ***biporus*** (Schedl). Add *Diacavus intermedius* Browne as a synonym. Add:

FIGURES: Beaver and Liu 2007a: 45 (male and female habitus).

(ds, tx) Beaver and Liu 2007a: 33.

Page 1122 ***borneensis*** (Browne). Move from ***Platypus***. Add:

New combination by Beaver and Liu 2007a: 34.

FIGURES: Beaver and Liu 2007a: 46 (male elytral apex, female head).

DISTRIBUTION: ASIA: Brunei, Malaysia (Sabah).

(ds) Beaver and Liu 2007a: 34.

Page 1093 ***compactus*** Schedl. Move to ***G. quadriporus*** (Schedl) as a synonym. Add:
Synonymy by Beaver and Liu 2007a: 39.

Page 1093 ***compactus dubiosus*** Schedl. Move to ***G. quadriporus*** (Schedl) as a synonym. Add:
Synonymy by Beaver and Liu 2007a: 39.

Page 1093 ***decumspinatus*** Schedl. Move to ***G. multiporus*** (Schedl) as a synonym. Add:
Synonymy by Beaver and Liu 2007a: 37.

Page 1094 ***diaphanus*** (Schedl). Add *Diacavus abdominalis* Schedl (female), *D. philippinensis* Schedl
and *D. sexporus* Schedl as synonyms. Add:

FIGURE: Beaver and Liu 2007a: 47 (male habitus).

(ds, tx) Beaver and Liu 2007a: 34.

Page 1094 ***dipterocarpi*** Browne. Move to ***G. talurae*** (Stebbing) as a synonym. Add:
Synonymy by Beaver and Liu 2007a: 41.

Page 1094 ***exilis*** (Schedl). Add:

FIGURES: Beaver and Liu 2007a: 47 (male elytral apex, female head).

DISTRIBUTION: ASIA: Brunei, Malaysia (Sabah).

(ds, tx) Beaver and Liu 2007a: 35.

Page 1094 ***frontalis*** (Strohmeyer). Add *Diacavus laticollis* Browne as a synonym. Add:

FIGURES: Beaver and Liu 2007a: 48 (male and female habitus).

DISTRIBUTION: ASIA: Brunei, Malaysia (Sabah).

(ds, tx) Beaver and Liu 2007a: 36.

- Page 1096 *furtivus* Sampson (synonym of ***G. talurae*** (Stebbing). Add:
(ds, hb) Nandi and Mukhopadhyay 2003: 212.
- Page 1094 *intermedius* Browne. Move to ***G. biporus*** (Schedl) as a synonym. Add:
Synonymy by Beaver and Liu 2007a: 33.
- Page 1094 *laticollis* Browne. Move to ***G. frontalis*** (Strohmeyer) as a synonym. Add:
Synonymy by Beaver and Liu 2007a: 36.
NOTE: *laticollis* is a justified emendation of “*haticollis*” Browne.
- Page 1094 ***multiporus*** (Schedl). Add *Diacavus decumspinatus* Schedl as a synonym. Add:
FIGURES: Beaver and Liu 2007a: 49 (male and female habitus).
(ds, tx) Beaver and Liu 2007a: 37.
- Page 1094 ***papuanus*** Roberts. Add:
FIGURES: Beaver and Liu 2007a: 50 (male and female habitus).
DISTRIBUTION: ASIA: Indonesia (Irian Jaya).
(ds, tx) Beaver and Liu 2007a: 37.
- Page 1090 ***pendleburyi*** (Schedl). Move from ***Diapus***. Add *G. strohymeyeri* Wood as a synonym. Add:
New combination by Beaver and Liu 2007a: 38.
(ds) Beaver and Liu 2007a: 38.
- Page 1095 *philippinensis* Schedl. Move to ***G. diaphanus*** (Schedl) as a synonym. Add:
Synonymy by Beaver and Liu 2007a: 34.
- Page 1085 ***plumatus*** (Schedl). Add:
DISTRIBUTION: ASIA: Malaysia (Sabah).
(ds, tx) Beaver and Liu 2007a: 38.
- Page 1095 ***puer*** (Schedl). Add:
FIGURES: Beaver and Liu 2007a: 51. (male and female habitus).
(ds, tx) Beaver and Liu 2007a: 39.
- Page 1095 *quadridens* Browne. Remove from synonymy under *G. philippinensis* Schedl, move to ***G. quadriporus*** (Schedl) as a synonym. Add:
Synonymy by Beaver and Liu 2007a: 39.
- Page 1095 *quadrifoveolatus* Schedl. Move to ***G. quadriporus*** (Schedl) as a synonym. Add:
Synonymy by Beaver and Liu 2007a: 39.
- Page 1095 ***quadriporus*** (Schedl). Add *Diacavus quadridens* Browne, *D. compactus* Schedl, *D. compactus dubiosus* Schedl, and *D. quadrifoveolatus* Schedl as synonyms. Add:
FIGURES: Beaver and Liu 2007a: 52, 53 (male elytral apex, female habitus and head).
(ds, tx) Beaver and Liu 2007a: 38.
- Page 1091 ***quadrispinosus*** (Schedl). Move from ***Diapus***. Add:
New combination by Beaver and Liu 2007a: 40.
FIGURES: Beaver and Liu 2007a: 53 (male and female habitus).
(ds) Beaver and Liu 2007a: 40. **(tx)** Beaver 2000d: 256.

Page 1095 *serratus* (Schedl). Add:

FIGURES: Beaver and Liu 2007a: 54 (male and female habitus).

DISTRIBUTION: ASIA: Brunei; Malaysia (Sabah).

(ds, tx) Beaver and Liu 2007a: 40.

Page 1095 *sexporus* Schedl. Move to *G. diaphanus* (Schedl) as a synonym. Add:
Synonymy by Beaver and Liu 2007a: 34.

Page 1095 *shoreae* Browne. Add:

(ds, tx) Beaver and Liu 2007a: 40.

Page 1092 *spinatus* Browne. Move from *Diapus*. Add:

New combination by Beaver and Liu 2007a: 41.

(ds) Beaver and Liu 2007a: 41.

Page 1096 *strohmeyeri* Wood. Move to *G. pendleburyi* (Schedl) as a synonym. Add:
Synonymy by Beaver and Liu 2007a: 38.

Page 1096 *talurae* (Stebbing). Add *G. dipterocarpi* Browne as a synonym. Add:

FIGURES: Beaver and Liu 2007a: 55 (female head).

(ds, tx) Beaver and Liu 2007a: 41.

Page 1096 *tenellus* (Schedl). Add:

FIGURES: Beaver and Liu 2007a: 56 (male and female habitus).

(ds, tx) Beaver and Liu 2007a: 42.

TRIBE TESSEROERCERINI

Page 1097 **Tesserocerini** Strohmeyer. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 17.

Genus **Cenocephalus** Chapuis

Page 1109 **Cenocephalus** Chapuis. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 18.

Page 1110 **thoracicus** Chapuis. Add:

(ds) Mecke, Galileo and Engels 2000: 168.

Genus **Chaetastus** Nunberg

Page 1107 **Chaetastus** Nunberg. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 19.

Genus **Mitosoma** Chapuis

Page 1110 **Mitosoma** Chapuis. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 19.

Genus **Notoplatypus** Lea

Page 1097 **Notoplatypus** Lea. Add:

(tx) Alonso-Zarazaga and Lyal 2009: 19.

Genus ***Periommatus*** Chapuis

Page 1102 ***Periommatus*** Chapuis. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 19.

Genus ***Platytaurus*** Schedl

Page 1097 ***Platytaurus*** Schedl. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 20.

Genus ***Spathicranuloides*** Schedl

Page 1210 ***Spathicranuloides*** Schedl. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 20.

Genus ***Spathidicerus*** Chapuis

Page 1101 ***Spathidicerus*** Chapuis. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 20.

Genus ***Tesserocerus*** Saunders

Page 1097 ***Tesserocerus*** Saunders. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 20.

Page 1099 ***insignis*** (Saunders). Add:
(ds) Mecke, Galileo and Engels 2000: 168.

Genus ***Tesserocranulus*** Schedl

Page 1101 ***Tesserocranulus*** Schedl. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 21.

SUBFAMILY PLATYPODINAE Shuckard

TRIBE PLATYPODINI

Page 1113 ***Platypodini*** Shuckard. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 10.

Genus ***Austroplatypus*** Browne

Page 169 ***Austroplatypus*** Browne. Add:
(Suppl. 2) (tx) Alonso-Zarazaga and Lyal 2009: 11.

Page 175 ***incompertus*** (Schedl). Add *Platypus incostatus* Schedl as a synonym. Add:
(Suppl. 2) KEY: Kent 2010: 127 (to larval instars).
FIGURES: Kent 2010: 121 (various larval and adult characters).
(an, hb, tx) Kent 2010: 121.

Page 1148 ***incostatus*** Schedl. Move to ***Austroplatypus incompertus*** (Schedl) as a synonym. Add:
Synonymy by Kent 2010: 135.

Genus ***Baiocis*** Browne

Page 1216 ***Baiocis*** Browne. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 11.

Genus ***Carchesiopygus*** Schedl

Page 1209 ***Carchesiopygus*** Schedl. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 11.

Genus ***Costaroplatus*** Nunberg

Page 1214 ***Costaroplatus*** Nunberg. Remove from synonymy with *Platyscapulus* Schedl. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 11.

Page 1214 ***abditulus*** (Wood). Move from *Platyscapulus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 11.

Page 1214 ***abditus*** (Schedl). Move from *Platyscapulus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 11.

Page 1214 ***carinulatus*** (Chapuis). Move from *Platyscapulus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 11.

Page 1125 ***clunalis*** (Wood). Move from *Platyscapulus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 11.

Page 1125 ***cluniculus*** (Wood). Move from *Platyscapulus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 11.

Page 1125 ***clunis*** (Wood). Move from *Platyscapulus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 11.

Page 1215 ***costellatus*** (Schedl). Move from *Platyscapulus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 11

Page 1215 ***frontalis*** (blandford). Move from *Platyscapulus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 11.

Page 1147 ***imitatrix*** (Schedl). Move from *Platyscapulus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 11.

Page 1215 ***manus*** (Schedl). Move from *Platyscapulus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 11.

Page 1161 ***occipitis*** (Wood). Move from *Platyscapulus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 11

Page 1215 ***pulchellus*** (Chapuis). Move from *Platyscapulus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 11.

Page 1215 ***pulcher*** (Chapuis). Move from *Platyscapulus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 11.

Page 1215 ***pusillimus*** (Chapuis). Move from *Platyscapulus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 11.

Page 1215 ***subabditus*** (Schedl). Move from *Platyscapulus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 11.

Page 1215 ***turgifrons*** (Schedl). Move from *Platyscapulus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 11.

Page 1216 ***umbrosus*** (Schedl). Move from *Platyscapulus*. Add:
New combination by Alonso-Zarazaga and Lyal 2009: 11.

Genus *Crossotarsinulus* Schedl

Page 1210 *Crossotarsinulus* Schedl. Move to ***Crossotarsus*** Chapuis as a synonym. Add:
(tx) Beaver 2004b.

Genus ***Crossotarsus*** Chapuis

Page 1195 ***Crossotarsus*** Chapuis. Add *Crossotarsinulus* Schedl as a synonym. Add:
Synonymy by Beaver 2004b.
(tx) Alonso-Zarazaga and Lyal 2009: 12.

Page 1197 ***concinus*** Blandford. Add:
DISTRIBUTION: Remove Taiwan.
(ds) Beaver and Shih 2003: 85.

Page 1198 ***emancipatus*** Murayama. Add:
(ds) Beaver and Shih 2003: 77.

Page 1198 ***externedentatus*** (Fairmaire). Add *C. formosanus* Strohmeyer as a synonym. Add:
(ds) Beaver and Shih 2003: 78; Brockerhoff, Knízek and Bain 2003: 36; Huang et al. 2003.
(hb) Huang et al. 2003.

Page 1200 ***flavomaculatus*** Strohmeyer. Add:
(ds) Beaver and Shih 2003: 78.

Page 1200 *formosanus* Strohmeyer. Move to ***C. externedentatus*** (Fairmaire). Add:
Synonymy by Beaver 2005a: 196. Lectotype (male), Kosampo, Formosa, designated by Beaver
2005a: 196. (ds) Beaver and Shih 2003: 78. (tx) Beaver 2005a: 196.

Page 1202 ***longicornis*** (Schedl). Add:
(hb) Hulcr and Cognato 2010b.

Page 1203 ***niponicus*** Blandford. Add:
(ds) Beaver and Shih 2003: 78.

Page 1204 ***piceus*** Chapuis. Add:
(ds) Beaver and Shih 2003: 78.

Page 1205 *rengetensis* Niijima and Murayama. Move to ***C. sauteri*** (Strohmeyer) as a synonym. Add:
Synonymy by Beaver 2004b: 243
(ds) Beaver and Shih 2003: 79. (tx) Beaver 2004b: 243.

Page 1210 **sauteri** (Strohmeyer). Add *C. rengetensis* Niijima and Murayama as a synonym. Add:
Lectotype (male), Formosa, designated by Beaver 2004b: 243.
(ds) Beaver and Shih 2003: 77. (tx) Beaver 2004b: 243.

Page 1205 **simplex** Murayama. Add:
(ds) Beaver and Shih 2003: 79.

Page 1209 **wallacei** Thomson. Add:
(ds) Beaver and Shih 2003: 79.

Genus ***Cylindropalpus*** Strohmeyer

Page 1217 ***Cylindropalpus*** Strohmeyer. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 12.

Page 1219 **pumilio** (Schedl). Add:
DISTRIBUTION: AFRICA: Gabon.
(ds) Beaver 2005b: 115.

Genus ***Dendroplatypus*** Browne

Page 1240 ***Dendroplatypus*** Browne. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 12.

Genus ***Dinoplatypus*** Wood

Page 259 ***Dinoplatypus*** Wood. Add:
(Suppl. 1) (tx) Alonso-Zarazaga and Lyal 2009: 13.

Page 192 **calamus** (Blandford). Add:
(Suppl. 2) DISTRIBUTION: Remove Taiwan.
(an) Wang et al. 2010. (ds) Beaver and Shih 2003: 85.

Page 192 **cupulatus** (Schedl). Add:
(Suppl. 2) (an) Wang et al. 2010.

Page 192 **cupulatus** (Chapuis). Add:
(Suppl. 2) HOSTS: Many host plants listed by Nandi and Mukhopadhyay 2003: 213.
(an) Wang et al. 2010. (ds, hb) Nandi and Mukhopadhyay 2003: 211.

Page 1140 **flectus** (Niijima and Murayama). Move from ***Platypus***. Add *P. kusukusensis* Murayama as a synonym. Add:
New combination by Beaver and Shih 2003: 78.
(ds) Beaver and Shih 2003: 78.

Page 1151 **kusukusensis** (Murayama). Move from ***Platypus***. Move to ***D. flectus*** (Niijima and Murayama) as a synonym. Add:
New combination by Beaver and Shih 2003: 80. Synonymy by Beaver 2005a: 196.
(ds) Beaver and Shih 2003: 80.

Page 192 **lepidus** (Chapuis). Add:
(Suppl. 2) (ds) Beaver and Shih 2003: 80.

Page 192 *luniger* (Motschulsky). Add:
(Suppl. 2) DISTRIBUTION: Remove Taiwan.
(ds) Beaver and Shih 2003: 85.

Page 193 *tetracerus* (Beeson). Add:
(Suppl. 2) FIGURE: Beaver 2000a: 757 (elytral apex).

Page 1190 *uncatus* (Browne). Move from *Platypus*. Add:
New combination by Hayase 2003: 35.
FIGURES: Hayase 2005: 36 (habitus, elytral apex).

Genus *Doliopygus* Browne

Page 1223 *Doliopygus* Browne not Schedl. Add *Doliopygus* Schedl as a synonym. Add:
Synonymy by Alonso-Zarazaga and Lyal 2009: 13.

Page 1236 *propinquus* Schedl. Add:
DISTRIBUTION: AFRICA: Gabon.
(ds) Beaver 2005b: 115.

Genus *Epiplatypus* Wood

Page 203 *Epiplatypus* Wood. Add:
(Suppl. 2) (tx) Alonso-Zarazaga and Lyal 2009: 14.

Genus *Euplatypus* Wood

Page 200 *Euplatypus* Wood. Add:
(Suppl. 2) (tx) Alonso-Zarazaga and Lyal 2009: 14; Anderson 2002: 806.

Page 200 *araucariae* (Schedl). Add:
(Suppl. 2) (ds) Mecke, Galileo and Engels 2000: 168.

Page 200 *compositus* (Say). Add:
(Suppl. 2) (ds) Burgos-Solorio and Equihua 2007: 69.

Page 201 *hintzi* (Schaufuss). Add:
(Suppl. 2) (an) Beaver 2000b; Wang et al. 2010.

Page 1165 *linearis* Stephens (synonym of *E. parallelus* (Fabricius)). Add:
(ds) Mecke, Galileo and Engels 2000: 168.

Page 201 *parallelus* (Fabricius). Add:
(Suppl. 2) HOSTS: *Eucalyptus* sp.
(an) Wang et al. 2010. (ds) Burgos-Solorio and Equihua 2007: 69; Zanuncio et al. 2005: 513.

Page 202 *segnis* (Chapuis). Add:
(Suppl. 2) (ds) Burgos-Solorio and Equihua 2007: 69.

Page 203 *solutus* (Schedl). Add:
(Suppl. 2) (an) Wang et al. 2010.

Page 203 *trispinatus* (Schedl). Add:
(Suppl. 2) (tx) Guadalupe del Rio, Lanteri and Suárez 2005: 9.

Genus ***Megaplatypus*** Wood

Page 194 ***Megaplatypus*** Wood. Add:
(Suppl. 2) (tx) Alonso-Zarazaga and Lyal 2009: 14.

Page 1158 ***mutatus*** (Chapuis). Add:
FIGURE: Faccoli 2010a: 894 (female habitus).
(hb) Faccoli 2010a; Zanuncio et al. 2010.

Page 1158 ***sulcatus*** Chapuis (= ***M. mutatus*** (Chapuis). Add:
(ds) Mecke, Galileo and Engels 2000: 168; Tremblay et al. 2000.

Genus ***Mesoplatypus*** Strohmeyer

Page 1221 ***Mesoplatypus*** Strohmeyer. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 14.

Page 1123 ***caravanis*** Schedl. Add: (tx) Guadalupe del Rio, Lanteri and Suárez 2005: 9.
NOTE: This species was placed in ***Megaplatypus*** in Wood (1993).

Genus ***Myoplatypus*** Wood

Page 193 ***Myoplatypus*** Wood. Add:
(Suppl. 2) (tx) Alonso-Zarazaga and Lyal 2009: 14; Anderson 2002: 806.

Genus ***Neotrachyostus*** Browne

Page 1213 ***Neotrachyostus*** Browne. Add;
(tx) Alonso-Zarazaga and Lyal 2009: 14.

Genus ***Oxoplatypus*** Wood

Page 194 ***Oxoplatypus*** Wood. Add:
(Suppl. 2) (tx) Alonso-Zarazaga and Lyal 2009: 14; Anderson 2002: 806.

Genus ***Peroplatypus*** Wood

Page 190 ***Peroplatypus*** Wood. Add:
(Suppl. 2) tx) Alonso-Zarazaga and Lyal 2009: 15.

Page 1135 ***dipterocarpi*** (Browne). Move from ***Platypus***. Add:
New combination by Hayase 2005: 35.
FIGURES: Hayase 2005: 36 (habitus, elytral apex).

Page 1187 ***takeharai*** (Browne). Move from ***Platypus***. Add:
New combination by Hayase 2005: 35.
FIGURES: Hayase 2005: 36 (habitus, elytral apex).

Page 1190 ***truncaturus*** (Browne). Move from ***Platypus***. Add:
New combination by Hayase 2005: 35.
FIGURES: Hayase 2005: 36 (habitus, elytral apex).

Pereioplatus Beaver

ADD GENUS:

Pereioplatus Beaver 2007: 17. Type species: *Platypus octospinosus* Browne, original designation.
KEY: Beaver 2007: 19 (to males).
(tx) Alonso-Zarazaga and Lyal 2009: 15.

Page 1143 **granifer** (Schedl). Move from **Platypus**. Add:
New combination by Beaver 2007: 23.
FIGURE: Beaver 2007: 23 (habitus).
DISTRIBUTION: ASIA: Malaysia (Sabah).
(ds) Beaver 2007: 23.

Page 1157 **minacior** (Schedl). Move from **Platypus**. Add:
New combination by Beaver 2007: 24.
FIGURE: Beaver 2007: 23 (habitus).
DISTRIBUTION: ASIA: Brunei.
(ds) Beaver 2007: 24.

Page 1161 **octospinosus** (Browne). Move from **Platypus**. Add:
New combination by Beaver 2007: 21.
FIGURES: Beaver 2007: 22 (elytral apex); Hayase 2005: 36 (habitus, elytral apex).
DISTRIBUTION: ASIA: Brunei.
HOST: *Dryobalanops beccarii*.
(ds) Beaver 2007: 21. (tx) Hayase 2005: 36.

simulans Beaver 2007: 20. Holotype (male), MALAYSIA, Sabah, Sipitang; ZMLU.
FIGURE: Beaver 2007: 21 (habitus).

Genus **Platyphysus** Wood

Page 194 **Platyphysus** Wood. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 15.

Genus **Platypus** Herbst

Page 1120 **Platypus** Herbst. Add;
KEY: Nandi and Mukhopadhyay 2003: 210 (to males of species in Sikkim, India).
(tx) Alonso-Zarazaga and Lyal 2009: 15; de Laclos et al. 2004: 222.

Page 1116 **apicalis** (White). Add:
(ds) Brockerhoff, Knízek and Bain 2003: 36.

Page 1117 **arisannensis** Murayama. Add:
(ds) Beaver and Shih 2003: 80.

Page 1119 **beaveri** Browne. Move to **P. levannongi** Schedl as a synonym. Add *Diapus quadrispinosus* Schedl and *P. keelungensis* Browne as synonyms. Add:
Synonymy by Beaver 2000d: 256; Beaver 2011a: 286.
(ds) Beaver and Shih 2003: 80.

Page 1122 **borneensis** Browne. Move to **Genyocerus**.

Page 1127 *contaminatus* (Blandford). Add:

HOST: *Prunus mume*.

(ds) Beaver and Shih 2003: 81; Huang et al. 2003. (hb) Huang et al. 2003.

Page 1130 *curtus* Chapuis. Add:

(ds) Beaver and Shih 2003: 81.

Page 1130 *cylindricus* (Fabricius). Add:

FIGURES: de Laclos et al. 2004: 222 (elytral apex of male and female), 223 (head and pronotum).

(ds) Colonnelli 2003: 103. (ds, hb) de Laclos et al. 2004: 223.

Page 1133 *dasycauda* Browne. Add:

(ds) Beaver and Shih 2003: 81.

Page 1135 *dipterocarpi* Browne. Move to *Peroplatypus*.

Page 1140 *flectus* Nijjima and Murayama. Move to *Dinoplatypus*.

Page 1141 *formosanus* Nijjima and Murayama. Add:

(ds) Beaver and Shih 2003: 81. (tx) Beaver 2000b: 257.

Page 1142 *gerstaeckeri* Chapuis. Add:

FIGURES: Beaver 2000a: 757 (apex of elytra, lateral view of female head).

Page 1143 *goilalae* Schedl. Move to *Cryptoxyleborus vestigator* (Schedl) as a synonym. Add:
Synonymy by Beaver and Hulcr 2008: 150.

Page 1143 *gotoi* Browne. Move to *Tretoplatypus*.

Page 1143 *gracilis* Broun. Add:

(ds) Brockerhoff, Knížek and Bain 2003: 36.

Page 1143 *granifer* Schedl. Move to *Pereioplatypus*.

Page 1146 *horishensis* Murayama. Add:

(ds) Beaver and Shih 2003: 81.

Page 1148 *indicus* Strohmeyer. Add:

HOSTS: Many host plants listed by Nandi and Mukhopadhyay 2003: 213.

(ds) Beaver and Shih 2003: 82; Nandi and Mukhopadhyay 2003: 211. (hb) Nandi and Mukhopadhyay 2003: 211.

Page 1151 *keelungensis* Browne. Move to *P. beaveri* Browne as a synonym. Add:

Synonymy by Beaver 2000d: 256.

Page 1151 *kiushuensis* Murayama. Add:

(ds) Beaver and Shih 2003: 82.

Page 1151 *koryoensis* (Murayama). Add:

(ds) Beaver and Shih 2003: 82.

Page 1151 *kusukusensis* Murayama. Move to *Dinoplatypus*.

Page 1153 *levannongi* Schedl. Add *P. beaveri* Browne as a synonym. Add:
(tx) Beaver 2011a: 286.

Page 1153 *lewisi* Blandford. Add:
(an) Wang et al. 2010. (ds) Beaver and Shih 2003: 82.

Page 1155 *lophopetali* Brownr. Move to *Treptoplatypus*.

Page 1187 *lunatulus* Browne. Remove from synonymy with *P. tayabasi* Schedl. Add:
(ds, tx) Beaver and Shih 2003: 82.

Page 1157 *minacior* Schedl. Move to *Pereioplatus*.

Page 1158 *modestus* Blandford. Add:
(ds) Beaver and Shih 2003: 83.

Page 1159 *niijimai* Murayama. Add:
(ds) Beaver and Shih 2003: 83.

Page 1161 *obtusipennis* (Schedl). Add:
(ds) Beaver and Shih 2003: 83.

Page 1161 *octodentatus* Browne. Add:
(ds) Beaver and Shih 2003: 83.

Page 1161 *octospinosus* Browne. Move to *Pereioplatus*.

Page 1175 *querci* Browne. Add:
(ds) Beaver and Shih 2003: 83.

Page 1175 *quercivorus* (Murayama). Add:
(an) Wang et al. 2010. (ds) Beaver and Shih 2003: 83; Mandelshtam and Petrov 2009b: 209;
Ohya and Kinuura 2001.

Page 1178 *secretus* Sampson. Add:
HOSTS: Many host plants listed by Nandi and Mukhopadhyay 2003: 213.
(ds, hb) Nandi and Mukhopadhyay 2003: 211.

Page 1180 *severini* Blandford. Move to *Treptoplatypus*.

Page 1187 *taiheizanensis* (Murayama). Add:
(ds) Beaver and Shih 2003: 84.

Page 1187 *takeharai* Browne. Move to *Peroplatus*.

Page 1190 *truncaturus* Browne. Move to *Peroplatus*.

Page 1190 *uncatus* Browne. Move to *Dinoplatus*.

Page 1193 *vitiensis* Roberts. Add:
FIGURE: Beaver 2000a: 757 (lateral view of female head).

Page 1194 *yasiyasi* Roberts. Add:
FIGURE: Beaver 2000a: 757 (elytral apex).

ADD SPECIES:

bifurcatus Beaver 2001: 8. Holotype (male), BRUNEI: Kuala Belalong FSC, 115°7'E, 4°37'N, dipterocarp forest, ground flight intercept trap; NHML.
FIGURE: Beaver 2001: 14 (elytral apex).

bordoni Beaver 2000a: 756. Holotype (male), FIJI: Viti Levu, Namosi; RABC.
FIGURE: Beaver 2000a: 757 (elytral apex).
HOST: *Syzygiun ?curvistylum*.

dividuus Beaver 2001: 10. Holotype (male), BRUNEI: Kuala Belalong FSC, 11°7'E, 4°34'N, dipterocarp forest, ground malaise trap; NHML.
FIGURE: Beaver 2001: 14 (elytral apex).

namosianus Beaver 2000a: 758. Holotype (male), FIJI: Viti Levu, Namosi, ex *Syzygiun ?curvistylum*; RABC.
FIGURE: Beaver 2000a: 757 (elytral apex).
HOST: *Syzygiun ?curvistylum*.

Genus *Platyscapulus* Schedl

Page 1214 *Platyscapulus* Schedl. Move to ***Costaroplatus*** Nunberg as an unavailable name. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 12.

Genus *Teloplatypus* Wood

Page 204 ***Teloplatypus*** Wood. Add:
(Suppl. 2) (tx) Alonso-Zarazaga and Lyal 2009: 15.

Page 204 ***excisus*** (Chapuis). Add:
(Suppl. 2) (ds) Burgos-Solorio and Equihua 2007: 69.

Page 205 ***striatopennis*** (Schedl). Add:
(Suppl. 2) (tx) Guadalupe del Rio, Lanteri and Suárez 2005: 9.

Genus *Trachyostus* Browne

Page 1211 ***Trachyostus*** Browne not Schedl. Add *Trachyostus* Schedl as a synonym.
(tx) Alonso-Zarazaga and Lyal 2009: 15.

Genus *Treptoplatypus* Schedl

Page 1194 ***Treptoplatypus*** Schedl. Add:
(tx) Alonso-Zarazaga and Lyal 2009: 16; Anderson 2002: 806.

Page 184 ***caviceps*** (Broun). Add:
(Suppl. 2) (ds) Brockhoff, Knízek and Bain 2003: 36.

Page 1143 ***gotoi*** (Browne). Move from ***Platypus***. Add:
New combination by Hayase 2007: 37.
FIGURES: Hayase 2005: 35 (habitus, elytral apex).

- Page 1154 *lophopetalis* (Browne). Move from *Platypus*. Add:
 New combination by Hayase 2005: 37.
 FIGURES: Hayase 2005: 36 (habitus, elytral apex).
- Page 185 *oxyurus* (Dufour). Add:
 (Suppl. 2)
 DISTRIBUTION: EUROPE: Slovak Republic.
 (ds) Colonnelli 2003: 103. (ds, ec, hb) Whitehead and Zach 2003.
- Page 1180 *severini* (Blandford). Move from *Platypus*. Add:
 New combination by Beaver and Shih 2003: 84.
 (ds) Beaver and Shih 2003: 84.
- Page 185 *solidus* (Walker). Add:
 (Suppl. 2) HOSTS: Many host plants listed by Nandi and Mukhopadhyay 2003: 212.
 (an) Wang et al. 2010. (ds) Beaver and Shih 2003: 84; Nandi and Mukhopadhyay 2003: 210.
 (hb) Nandi and Mukhopadhyay 2003: 210.
- Page 1194 *xylographus* (Schedl). Move from *Platypus*. Add:
 New combination by Beaver and Shih 2003: 84.
 (ds) Beaver and Shih 2003: 84.
- Genus *Triozastrus* Schedl
- Page 1219 *Triozastrus* Schedl. Add:
 (tx) Alonso-Zarazaga and Lyal 2009: 16.
- Page 1221 *pilosulus* (Schedl). Add:
 DISTRIBUTION: AFRICA: Gabon.
 (ds) Beaver 2005b: 115.
- Page 206 **Phylloplatypodini** Kato 1998 and *Phylloplatypus* Kato.
 (Suppl. 2) Move to tribe Proecini Voss in the subfamily Cossoninae, family Curculionidae. Add:
 (tx) Alonso-Zarazaga and Lyal 1999: 121; Morimoto and Kojima 2004.

BIBLIOGRAPHY SUPPLEMENT

- Abreu, R. L. S., C. R. V. da Fonseca, J. C. Hurtado Guerrero, and E. V. C. M. de Paula. 2001.** Preferéncia de vôo de nove espécies da família Scolytidae (Insecta: Coleoptera) na Amazônia central. [Flight preference of nine species of Scolytidae (Insecta: Coleoptera) collected in the central Amazonian Region]. Acta Amazonica 31: 61-68.
- Ak, K., S. Guclu, and C. Tuncer. 2010.** A new kiwi fruit pest, *Lymantor coryli* (Perris, 1853) (Coleoptera: Scolytidae) in Turkey. Turkiye Entomoloji Dergisi 34: 391-397.
- Ak, K. S., M. Uysal, and C. Tuncer. 2005.** Bark beetle (Coleoptera: Scolytidae) species which are harmful in hazelnut orchards, and their biology and densities in Giresun, Ordu and Samsun provinces of Turkey. Ondokuz Mays Universitesi, Ziraat Fakütesi Dergisi 20: 37-44.
- Aksit, T., I. Cakmak, and F. Ozsemerci. 2005.** Some new xylophagous species on fig trees (*Ficus carica* cv. *calymirna* L.) in Aydin, Turkey. Turkish Journal of Zoology 29: 211-215.
- Al-Ahmadi, A. Z., and M. M. Salem. 1999.** Entomofauna of Saudi Arabia. General Survey of Insects Reported in the Kingdom of Saudi Arabia. Part 1. Checklist of Insects. King Saud University, Academic Publishing and Press, Riyadh, Saudi Arabia. 240 p. (Scolytidae, p. 129).
- Alekseev, V. I. 2005.** A list of bark beetles (Curculionidae: Scolytinae), leaf-rolling beetles (Attelabidae), anthribid (Anthribidae) and nemonychid (Nemonychidae) beetles found in Kaliningrad. p. 53-62. In:

- A. Barsevskis, S. Huruk, and V. Tamutis (eds.). Proceedings on taxonomy and faunistics of beetles (Coleoptera) dedicated to the 100th birthday of the Latvian entomologist Mihails Stiprais (1905-1990). Daugavpils University Institute of Systematic Biology; Daugavpils. 64 p.
- Allen, A. A., and J. A. Owen. 2000.** *Dryocoetes autographus* (Ratzeburg) (Col.: Scolytidae) in Surry, apparently new to south-east England, with a taxonomic note. The Entomologist's Record and Journal of Variation 12: 121.
- Allender, C. J., K. M. Clancy, T. E. DeGomez, J. D. McMillin, S. A. Woolbright, P. Keim, and D. M. Wagner. 2008.** Lack of genetic differentiation in aggressive and secondary bark beetles (Coleoptera: Curculionidae, Scolytinae) from Arizona. Environmental Entomology 37: 817-824.
- Alonso-Zarazaga, M. A. 2005.** *Hypothenemus krivolutskayae* Wood, 1992, an unnecessary replacement name (Coleoptera, Curculionidae, Scolytinae). Graellsia 61: 259.
- Alonso-Zarazaga, M. A., and C. H. C. Lyal. 2009.** A catalog of family and genus group names in Scolytinae and Platypodinae with nomenclatural remarks (Coleoptera: Curculionidae). Zootaxa 2258: 1-134.
- Anderson, P. L., and N. J. Holliday. 2003.** Distribution and survival of overwintering adults of the Dutch elm disease vector, *Hylurgopinus rufipes* (Coleoptera: Scolytidae), in American elm trees in Manitoba. Agricultural and Forest Entomology 5: 137-144.
- Anderson, R. S. 2002.** Family 18. Platypodinae, p. 805-806. In: R. H. Arnett, Jr., M. C. Thomas, P. E. Skelley, and J. H. Frank (eds.). American beetles, Vol. 2. CRC Press; Boca Raton, FL. 861 p.
- Anducho-Reyes, M. A., A. I. Cognato, J. L. Hayes, and G. Zúñiga. 2008.** Phylogeography of the bark beetle *Dendroctonus mexicanus* Hopkins (Coleoptera: Curculionidae: Scolytinae). Molecular Phylogenetics and Evolution 49: 930-940.
- Anonymous. 2005a.** *Scolytus morawitzi*. Bulletin OEPP/EPPO 35(3): 396-398
- Anonymous. 2005b.** *Ips cembrae* and *Ips subelongatus*. Bulletin OEPP/EPPO 35(3): 445-449
- Anonymous. 2005c.** *Ips hauseri*. Bulletin OEPP/EPPO 35(3): 450-452.
- Anonymous. undated.** Walnut twig beetle and thousand cankers disease of black walnut. Pest Alert, Department of Bioagricultural Sciences and Pest Management, Colorado State University; Fort Collins, Colorado. 4 p.
- Appleby, J. E. 1999.** The pine shoot beetle and the Asian long horned beetle, two new exotic pests. New and re-emerging pests. Symposium, Saint Jean sur Richelieu, Quebec, Canada, 9 June 1999. Phytoprotection 80: 97-101.
- Arthofer, W., D. N. Avtzis, and C. Stauffer. 2007.** Targeted primer development and SSCP as an alternative to direct sequencing analysis of *Pityogenes chalcographus*. Electrophoresis 28: 1046-1052.
- Arthofer, W., D. N. Avtzis, M. Riegler, and C. Stauffer. 2010.** Mitochondrial phylogenies in the light of pseudogenes and *Wolbachia*: re-assessment of a bark beetle dataset. p. 269-280. In: A. I. Cognato and M. Knízek (eds.). Sixty years of discovering scolytine and platypodine diversity: A tribute to Stephen L. Wood. ZooKeys 56. 280 p.
- Atkinson, T. H. 2009.** A new species of *Dryocoetoides* Hopkins from southern Florida (Coleoptera: Curculionidae: Scolytinae). Zootaxa 2311: 66-68.
- Atkinson, T. H. 2010.** New species and records of *Cactopinus* Schwarz with a key to species (Coleoptera, Curculionidae, Scolytinae). p. 17-33. In: A. I. Cognato and M. Knízek (eds.). Sixty years of discovering scolytine and platypodine diversity: A tribute to Stephen L. Wood. ZooKeys 56. 280 p.
- Atkinson, T. H., R. J. Rabaglia, and A. I. Cognato. 2010.** Two newly detected bark and ambrosia beetles from southern Florida (Coleoptera: Curculionidae, Scolytinae). Zootaxa 2338: 63-68.
- Avc, M., and O. Sarkaya. 2009.** *Orthotomicus tridentatus* Eggers: distribution and biology in cedar forests of Turkey. Turkish Journal of Agriculture and Forestry 33: 277-283.
- Averensky, A. I., and V. M. Yanovsky. 2008.** Bark beetles (Coleoptera, Scolytidae) of Yakutia. Evraziatskii Entomologicheskii Zhurnal (Euroasian Entomological Journal) 7: 23-30.
- Avtzis, D. N., W. Arthofer, and C. Stauffer. 2006.** Identifying haplotypes of *Pityogenes chalcographus* (Col., Scolytidae) by single strand conformation polymorphism (SSCP). Mitteilungen der Deutschen Gesellschaft für Allgemeine und Angewandte Entomologie 2006: 173-176.

- Avtzis, D. N., W. Arthofer, and C. Stauffer. 2008.** Sympatric occurrence of diverged mtDNA lineages of *Pityogenes chalcographus* (Coleoptera: Scolytinae) in Europe. Biological Journal of the Linnean Society 94: 331-340.
- Avtzis, D. N., M. Knízek, K. Hellrigl, and C. Stauffer. 2008.** *Polygraphus grandiclava* (Coleoptera: Curculionidae) collected from pine and cherry trees: a phylogenetic analysis. European Journal of Entomology 105: 789-792.
- Avtzis, D. N., W. Arthofer, C. Stauffer, N. Avtzis, and R. Wegensteiner. 2010.** *Pityogenes chalcographus* (Coleoptera, Scolytinae) at the southern borderline of *Picea abies*. Entomologia Hellenica 19: 3-13.
- Ayberk, H., and H. Cebeci. 2010.** *Scolytus rugulosus* (Müller) (Coleoptera: Scolytidae) - a new pest of *Acer undulatum* Pojark in Turkey. Journal of Animal and Veterinary Advances 9: 2325-2326.
- Baranchikov, Y., E. Akulov, and S. Astapenko. 2010.** Bark beetle *Polygraphus proximus*: a new aggressive Far Eastern invader on *Abies* species in Siberia and European Russia. p. 64-65. In: K. A. McManus and K. W. Gottschalk (eds.). Proceedings, 21st U. S. Department of Agriculture Interagency Research Forum on Gypsy Moth and Other Invasive Species 2010, January 12-15, 2010. USDA Forest Service, General Technical Report, NRS-P-75. 156 p.
- Batt, A. M. 2000.** Preliminary observations on the pear root beetle, *Xyleborinus saxeseni* Ratz. (Coleoptera: Scolytidae). Egyptian Journal of Agricultural Research 78: 587-593.
- Baviera, C. 2006.** Coleotteri Nuovi O Poco Noti Di Sicilia III (Carabidae, Histeridae, Cerambycidae, Chrysomelidae, Anobiidae, Tenebrionidae, Curculionidae, Scolytidae). Naturalista Siciliano 30: 21-28.
- Beaver, R. A. 2000a.** Ambrosia beetles (Coleoptera: Platypodidae) of the South Pacific. The Canadian Entomologist 132: 755-763.
- Beaver, R. A. 2000b.** A gynandromorph specimen of *Euplatypus hintzi* (Schaufuss) from South Africa (Coleoptera: Platypodidae). Entomologist's Monthly Magazine 136 (1636-1639): 203-205.
- Beaver, R. A. 2000c.** The ambrosia beetle genus *Indocryphalus* Eggers (Coleoptera: Scolytidae): a new species from West Malaysia, new synonymy and a key to species. Serangga 5: 165-179.
- Beaver, R. A. 2000d.** Studies on the genus *Diapus* Chapuis (Coleoptera: Platypodidae); new species and new synonymy. Serangga 5: 247-260.
- Beaver, R. A. 2001.** Two new species of the *Platypus candezei* Chapuis species-group (Coleoptera: Platypodidae) from Brunei Darussalam. Serangga 6: 7-15.
- Beaver, R. A. 2004a.** Book Review- Fauna of India: Scolytidae/Xyleborini, by P. K. Maiti and N. Saha. Curculio 49: 22-24.
- Beaver, R. A. 2004b.** The genus *Crossotarsinulus* Schedl (Coleoptera: Platypodidae). Entomologist's Monthly Magazine 140: 243-245.
- Beaver, R. A. 2004c.** A new species of *Coriacephilus* Schedl from Brunei Darussalam (Coleoptera: Curculionidae: Scolytinae). Serangga 9: 55-61.
- Beaver, R. A. 2005a.** New synonymy in Taiwanese ambrosia beetles (Coleoptera: Curculionidae: Platypodinae). Plant Protection Bulletin 47: 195-200.
- Beaver, R. A. 2005b.** A remarkable new species of *Cyclorhipidion* Hagedorn, and new records of bark and ambrosia beetles from Gabon (Coleoptera: Curculionidae, Scolytinae and Platypodinae). Entomologist's Monthly Magazine 141: 113-119.
- Beaver, R. A. 2007.** A new Oriental genus of pinhole borer (Coleoptera: Curculionidae: Platypodinae). Entomologist's Monthly Magazine 143: 17-25.
- Beaver, R. A. 2010a.** A review of the genus *Hadrodemius* Wood, with new synonymy and a key to species (Coleoptera: Curculionidae: Scolytinae). Zootaxa 2444: 53-57.
- Beaver, R. A. 2010b.** Taxonomic notes on the afrotropical genera *Hapalogenius* Hagedorn, *Hylesinopsis* Eggers, and *Rhopalopselion* Hagedorn (Coleoptera, Curculionidae, Scolytionae). p. 157-170. In: A. I. Cognato and M. Knízek (eds.). Sixty years of discovering scolytine and platypodine diversity: A tribute to Stephen L. Wood. ZooKeys 56. 280 p.
- Beaver, R. A. 2011a.** New synonymy and taxonomic changes in bark and ambrosia beetles (Coleoptera: Curculionidae: Scolytinae, Platypodinae). Koleopterologische Rundschau 81: 277-289.
- Beaver, R. A. 2011b.** A review of the genus *Phloeosinopsioides* Schedl (Coleoptera: Curculionidae: Scolytinae). Zootaxa 3012: 59-63.

- Beaver, R. A., and H. Gebhardt.** 2004. Notes on the tribe Hyorrhynchini (Col., Curculionidae, Scolytinae). Serangga 9: 91-102.
- Beaver, R. A., and H. Gebhardt.** 2006. A review of the Oriental species of *Scolytoplatypus* Schaufuss (Coleoptera, Curculionidae, Scolytinae). Deutsche Entomologische Zeitschrift 53: 155-178.
- Beaver, R. A., and J. Hulcr.** 2008. A review of the ambrosia beetle genus *Cryptoxyleborus* Schedl (Coleoptera: Curculionidae: Scolytinae). The Coleopterists Bulletin 62: 133-153.
- Beaver, R. A., and B. Jordal.** 2002. This is a weevil? Curculio 45: 8-9.
- Beaver, R. A., and L. Y. Liu.** 2007a. A review of the genus *Genyocerus* Motschulsky (Coleoptera: Curculionidae: Platypodinae), with new synonyms and keys to species. Zootaxa 1576: 25-56.
- Beaver, R. A., and L. Y. Liu.** 2007b. A new species of *Scolytoplatypus* Schaufuss (Coleoptera: Curculionidae: Scolytinae) from Taiwan. Entomologist's Monthly Magazine 143: 227-231.
- Beaver, R. A., and L. Y. Liu.** 2010. An annotated synopsis of Taiwanese bark and ambrosia beetles, with new synonymy, new combinations and new records (Coleoptera: Curculionidae: Scolytinae). Zootaxa 2602: 1-47.
- Beaver, R. A., and H-T. Shih.** 2003. Checklist of Platypodidae (Coleoptera: Curculionoidea) from Taiwan. Plant Protection Bulletin 45: 75-90.
- Beaver, R. A., H. Kajimura, and H. Goto.** 2008. Taxonomic changes and new records of Japanese bark and ambrosia beetles (Coleoptera, Curculionidae, Scolytinae). Elytra 36: 231-239.
- Beaver, R. A., L-Y. Liu, and W. Puranasakul.** 2008. Two new species of *Diapus* Chapuis (Col., Curculionidae: Platypodidae) from Taiwan and Thailand, with notes on the female of *Diapus aculeatus* (Blandford). Entomologist's Monthly Magazine 144: 111-120.
- Benavides, P., F. E. Vega, J. Romero-Severson, A. E. Bustillo, and J. J. Stuart.** 2005. Biodiversity and biogeography of an important inbred pest of coffee, Coffee Berry Borer (Coleoptera: Curculionidae: Scolytinae). Annals of the Entomological Society of America 98: 359-366.
- Benhalima, S., D. Sauvard, C. Villemant, M. Mouna, and F. Lieutier.** 2005. Life cycle of three xylophagous species (Coleoptera: Scolytidae) that cause damage to Atlas cedar (*Cedrus libani atlantica*) in the Middle Atlas (Morocco). p. 169-175. In: Entomological research in Mediterranean forest ecosystems. [Science Update]. Institut National de la Recherche Agronomique; Paris. 275 p.
- Bentz, B., A. Cognato, and K. Raffa (eds.).** 2007. Proceedings from the Workshop on Genetics of Bark Beetles and Associated Organisms. U. S. Department of Agriculture, Forest Service, Rocky Mountain Research Station RMRS P-45. 51 p.
- Bentz, B. A., J. Régnière, C. J. Fettig, E. M. Hansen, J. L. Hayes, J. A. Hicke, R. G. Kelsey, J. F. Negrón, and S. J. Seybold.** 2010. Climate change and bark beetles of the western United States and Canada: Direct and indirect effects. BioScience 60: 602-613.
- Bernabò, E.** 2000. Observations on the presence in Italy of *Xylosandrus germanus* (Blandford, 1894) and *Gnathotrichus materiarius* (Fitch, 1858) (Coleoptera: Scolytidae). Revista Piemontese di Storia Naturale 21: 255-262.
- Biedermann, P. H. W.** 2010. Observations on sex ratio and behavior of males in *Xyleborinus saxesenii* Ratzeburg (Scolytinae, Coleoptera). p. 253-267. In: A. I. Cognato and M. Knížek (eds.). Sixty years of discovering scolytine and platypodine diversity: A tribute to Stephen L. Wood. ZooKeys 56. 280 p.
- Biedermann, P. H. W., K. D. Klepzig, and M. Taborsky.** 2009. Fungus cultivation by ambrosia beetles: behavior and laboratory breeding success in three xyleborine species. Environmental Entomology 38: 1096-1105.
- Bocquillon, J.-C.** 2001. Quelques récoltes intéressantes en Forêt de Chantilly (Coleoptera Lycidae, Rhizophagidae et Scolytidae). L'Entomologiste 57: 41.
- Bocquillon, J.-C.** 2002. Quelques mots sur *Scolytus carpini* Ratzeburg (Coleoptera Scolytidae). L'Entomologiste 58: 143-144.
- Bolu, H., and A. A. Legalov.** 2008. On the Curculionoidea (Coleoptera) fauna of almond (*Amygdalus communis* L.) orchards in south-eastern and eastern Anatolia in Turkey. Baltic Journal of Coleopterology 8: 75-86.
- Bonello, P., W. R. McNee, A. J. Storer, D. L. Wood, and T. R. Gordon.** 2001. Role of olfactory stimuli in host location by twig beetles (Coleoptera: Scolytidae). Ecological Entomology 26: 8-15.

- Bright, D. E. 2004.** Scolytidae. p. 155-162. In: H. G. Cordo, G. Logarzo, K. Braun, and O. Di Iorio (eds.). Catálogo de Insectos Fitófagos de la Argentina y sus Plantas Asociadas. Sociedad Entomológica Argentina. 734 p.
- Bright, D. E. 2010.** *Stevewoodia minutum*, a new genus and species of Scolytidae (Coleoptera) from the West Indies. Studies on West Indian Scolytidae (Coleoptera) 6. p. 45-48. In: A. I. Cognato and M. Knízek (eds.). Sixty years of discovering scolytine and platypodine diversity: A tribute to Stephen L. Wood. ZooKeys 56. 280 p.
- Bright, D. E., and R. E. Skidmore. 1997.** A Catalog of Scolytidae and Platypodidae (Coleoptera), Supplement 1 (1990-1994). NRC Research Press, Ottawa, Ontario, Canada. 368 p.
- Bright, D. E., and R. E. Skidmore. 2002.** A Catalog of Scolytidae and Platypodidae (Coleoptera), Supplement 2 (1995-1999). NRC Research Press, Ottawa, Ontario, Canada. 523 p.
- Bright, D. E., and J. A. Torres. 2006.** Studies on West Indian Scolytidae (Coleoptera) 4. A review of the Scolytidae of Puerto Rico, U. S. A. with descriptions of one new genus, fourteen new species and notes on new synonymy (Coleoptera: Scolytidae). Koleopterologische Rundschau 76: 389-428.
- Britton, K. O., and J. Sun. 2002.** Unwelcome guests: exotic forest pests. Acta Entomologica Sinica 45: 121-130.
- Brockhoff, E. G., M. Knízek, and J. Bain. 2003.** Checklist of indigenous and adventive bark and ambrosia beetles (Curculionidae: Scolytinae and Platypodinae) of New Zealand and interceptions of exotic species (1952-2000). New Zealand Entomologist 26: 29-44.
- Brockhoff, E. G., J. Bain, M. Kimberley, and M. Knízek. 2006.** Interception frequency of exotic bark and ambrosia beetles (Coleoptera: Scolytinae) and relationship with establishment in New Zealand and worldwide. Canadian Journal of Forest Research 36: 289-298.
- Brubano, E., M. Wright, D. E. Bright, and F. E. Vega. 2011.** New record for the coffee berry borer, *Hypothenemus hampei*, in Hawaii. Journal of Insect Science 11: 117.
- Brunelle, A., G. E. Rehfeldt, B. Bentz, and A. S. Munson. 2008.** Holocene records of *Dendroctonus* bark beetles in high elevation pine forests of Idaho and Montana, USA. Forest Ecology and Management 255: 836-846.
- Bu, S-H., and H. Chen. 2009.** The alimentary canal of *Dendroctonus armandi* Tsai and Li (Coleoptera: Curculionidae: Scolytinae). The Coleopterists Bulletin 63: 485-496.
- Buhroo, A. A., and F. Lakatos. 2007.** On the biology of the bark beetle *Scolytus nitidus* Schedl (Coleoptera: Scolytidae) attacking apple orchards. Acta Silvatica and Lignaria Hungarica 3: 65-74.
- Buhroo, A. A., and F. Lakatos. 2011.** Molecular and morphological diagnostic markers for the Himalayan *Ips* DeGeer species (Coleoptera: Curculionidae: Scolytinae). Zootaxa 3128: 47-57.
- Buhroo, A. A., and V. V. Ramamurthy. 2008.** Seasonal history and activity of the bark beetle *Scolytus nitidus* Schedl (Coleoptera: Scolytidae) on apple trees in Kashmir. Indian Journal of Entomology 70: 385-388.
- Buhroo, A. A., M. Z. Chishti, and M. A. Masoodi. 2004.** Studies on the population dynamics of shot-hole borer *Scolytus nitidus* Schedl (Coleoptera: Scolytidae). Indian Forester 130: 1451-1458.
- Burgos-Solorio, A., and A. Equihua Martínez. 2007.** Platypodidae y Scolytidae (Coleoptera) de Jalisco, México. Dugesiana 14: 59-82.
- Burgos-Solorio, A., A. Equihua Martínez, H. González Hernández, J. L. Carrillo Sánchez, and Eudardo Aranda Escobar. 2003.** Descripción de una nueva especie del género *Phloeotribus* Latreille, 1796 (Coleoptera: Scolytidae) y clave para la identificación de las especies Mexicanas. Folia Entomologica Mexicana 42: 341-348.
- Burgos-Solorio, A., V. López-Martínez, and I. Alia-Tejacal. 2008.** Primer registro de la broca del café *Hypothenemus hampei* Ferrari (Coleoptera: Scolytidae) en Morelos México. Dugesiana 15: 77-78.
- Bussler, H. 2006.** Der "Fremde" - eine nicht erkannte sibirisch-nordasiatische Art (Coleoptera, Scolytidae). [The "foreign"- an unknown Siberian-North Asiatic species (Coleoptera, Scolytidae)]. Nachrichtenblatt der Bayerischen Entomologen 55: 29.
- Bussler, H., and T. Immler. 2007.** Neue Borkenkäferarten in Bayern. Forstschultz Aktuell 38: 5-7.
- Bussler, H., and O. Schmidt. 2008.** Remarks on the taxonomy, distribution and ecology of *Trypodendron laeve* Eggers, 1939 (Coleoptera: Scolytidae). Nachrichtenblatt der Bayerischen Entomologen 57: 62-65.

- CAB International.** 2002a. *Dendroctonus brevicomis*. Distribution Maps of Plant Pests (December), Wallingford, Oxfordshire, U. K. Map 633. CAB Abstracts, Ipswich, MA. 2 p.
- CAB International.** 2002b. *Dendroctonus frontalis*. Distribution Maps of Plant Pests (December), Wallingford, Oxfordshire, U. K. Map 634. CAB Abstracts, Ipswich, MA. 2 p.
- CAB International.** 2002c. *Dendroctonus ponderosae*. Distribution Maps of Plant Pests (December), Wallingford, Oxfordshire, U. K. Map 635. CAB Abstracts, Ipswich, MA. 2 p.
- CAB International.** 2003a. *Ips pini*. Distribution Maps of Plant Pests, Wallingford, Oxfordshire, U. K. Map 647. CAB Abstracts, Ipswich, MA. 2 p.
- CAB International.** 2003b. *Ips sexdentatus*. Distribution Maps of Plant Pests, Wallingford, Oxfordshire, U. K. Map 648. CAB Abstracts, Ipswich, MA. 2 p.
- CAB International.** 2004a. *Dendroctonus adjunctus*. Distribution Maps of Plant Pests, Wallingford, Oxfordshire, U. K. Map 659. CAB Abstracts, Ipswich, MA. 2 p.
- CAB International.** 2004b. *Dendroctonus pseudotsugae*. Distribution Maps of Plant Pests, Wallingford, Oxfordshire, U. K. Map 660. CAB Abstracts, Ipswich, MA. 2 p.
- CAB International.** 2004c. *Dendroctonus rufipennis*. Distribution Maps of Plant Pests, Wallingford, Oxfordshire, U. K. Map 661. CAB Abstracts, Ipswich, MA. 2 p.
- CAB International.** 2005. *Hypothenemus hampei*. Distribution Maps of Plant Pests, Wallingford, Oxfordshire, U. K. Map 170. CAB Abstracts, Ipswich, MA. 2 p.
- CAB International.** 2007a. *Ips cembrae*. Distribution Maps of Plant Pests, Wallingford, Oxfordshire, U. K. Map 690. CAB Abstracts, Ipswich, MA. 2 p.
- CAB International.** 2007b. *Ips grandicollis*. Distribution Maps of Plant Pests, Wallingford, Oxfordshire, U. K. Map 691. CAB Abstracts, Ipswich, MA. 2 p.
- CAB International.** 2007c. *Scolytus morawitzi*. Distribution Maps of Plant Pests, Wallingford, Oxfordshire, U. K. Map 700. CAB Abstracts, Ipswich, MA. 2 p.
- CAB International.** 2009a. *Ips calligraphus*. Distribution Maps of Plant Pests, Wallingford, Oxfordshire, U. K. Map 720. CAB Abstracts, Ipswich, MA. 2 p.
- CAB International.** 2009b. *Scolytus schevyrewi*. Distribution Maps of Plant Pests, Wallingford, Oxfordshire, U. K. Map 729. CAB Abstracts, Ipswich, MA. 2 p.
- CAB International.** 2009c. *Xylosandrus crassiusculus*. Distribution Maps of Plant Pests, Wallingford, Oxfordshire, U. K. Map 731. CAB Abstracts, Ipswich, MA. 2 p.
- CAB International.** 2010. *Hylurgus ligniperda*. Distribution Maps of Plant Pests, Wallingford, Oxfordshire, U. K. Map 740. CAB Abstracts, Ipswich, MA. 2 p.
- Campobasso, G., G. Terragitti, E. Colonnelli, and N. R. Spencer.** 2004a. Host specificity of *Thamnurgus euphorbiae* Kuester (Coleoptera: Scolytidae): a potential biological control agent of leafy spurge *Euphorbia esula* L. (Euphorbiaceae) in the United States. *Environmental Entomology* 33: 1673-1680.
- Campobasso, G., G. Terragitti, K. Mann, and P. C. Quimby.** 2004b. Field and laboratory biology of the stem-feeding beetle *Thamnurgus euphorbiae* (Kuster) (Col., Scolytidae) in Italy, a potential biological control candidate of leafy spurge in the USA and Canada. *Journal of Applied Entomology* 128: 1-5.
- Chakali, G.** 2008. Biology and behaviour of the bark beetle, *Tomicus destruens* (Wallaston 1865) (Coleoptera: Scolytidae) in Aleppo pine of Algeria. *Boletim do Museu Municipal do Funchal, Supplement* 14: 35-42.
- Chen, H., and Yuan Feng.** 2000. The mycangium position and structure of the bark beetle *Dendroctonus armandi*. *Scientia Silvae Sinicae* 36: 53-57.
- Chen, H., Z. Li, and M. Tang.** 2006. Scanning electron microscope observations on antennae of *Dendroctonus armandi* (Coleoptera: Scolytidae). *Scientia Silvae Sinicae* 42: 156-158.
- Chen, Z.-L., and H.-F. Yin.** 2001. A new species of the genus *Pseudohylesinus* from Yunnan, China (Coleoptera: Scolytidae). *Acta Zootaxonomica Sinica* 26: 336-338.
- Chilahsaeva, E. A.** 2008. First record of *Polygraphus proximus* (Coleoptera: Scolytidae) in Moscow Province. *Byulleten' Moskovskogo Obshchestva Ispytatelei Prirody Otdel Biologicheskii* 113: 39-42.
- Chilahsaeva, E. A.** 2010. Genus *Polygraphus* Erichson, 1836 (Coleoptera, Scolytidae), species of Moscow Region Faunal Survey. *Byulleten' Moskovskogo Obshchestva Ispytatelei Prirody Otdel Biologicheskii* 115: 48-50.

- Choi, E. J., H. Y. Choo, D. W. Lee, S. M. Lee, and J. K. Park.** 2003. Scolytidae, Platypodidae, Bostrichidae and Lyctidae intercepted from imported timbers at Busan port entry. Korean Journal of Applied Entomology 42: 173-184.
- Clarke, S. R., and J. T. Nowak.** 2009. Southern pine beetle. United States Department of Agriculture, Forest Service, Forest Insect and Disease Leaflet 49. 8 p.
- Clayhills, T.** 2010. Coleoptera new to Finland. Koleopterologische Rundschau 81: 311-319.
- Cognato, A. I.** 2000. Phylogenetic analysis reveals new genus of Ipini bark beetle (Scolytidae). Annals of the Entomological Society of America 93: 362-366.
- Cognato, A. I.** 2008. A new species of *Orthotomicus* Ferrari 1867 (Curculionidae: Scolytinae: Ipini) from Thailand. The Coleopterists Bulletin 62: 496-499.
- Cognato, A. I., and D. Grimaldi.** 2009. 100 million years of morphological conservation in bark beetles (Coleoptera: Curculionidae: Scolytinae). Systematic Entomology 34: 93-100.
- Cognato, A. I., and D. Rubinoff.** 2008. New exotic ambrosia beetles found in Hawaii (Curculionidae: Scolytinae: Xyleborina). The Coleopterists Bulletin 62: 421-424.
- Cognato, A. I., and S. M. Smith.** 2010. Resurrection of *Dryotomicus* Wood and description of two new species from the Amazon River Basin (Coleoptera, Curculionidae, Scolytinae, Phloeotribini). p. 49-64. In: A. I. Cognato and M. Knízek (eds.). Sixty years of discovering scolytine and platypodine diversity: A tribute to Stephen L. Wood. ZooKeys 56. 280 p.
- Cognato, A. I., and F. Sperling.** 2000. Phylogeny of *Ips* DeGeer (Coleoptera: Scolytidae) inferred from mitochondrial cytochrome oxidase I sequence. Molecular Phylogenetics and Evolution 14: 445-460.
- Cognato, A. I., and J. H. Sun.** 2007. DNA based cladograms augment the discovery of a new *Ips* species from China (Coleoptera: Curculionidae: Scolytinae). Cladistics 23: 539-551.
- Cognato, A. I., and A. P. Vogler.** 2001. Exploring data interaction and nucleotide alignment in a multiple gene analysis of *Ips* (Coleoptera: Scolytinae). Systematic Biology 50: 758-780.
- Cognato, A. I., C. E. Bográn, and R. Rabaglia.** 2006. An exotic ambrosia beetle, *Xylosandrus multilatus* (Blandford) (Scolytinae: Xyleborina), found in Texas. The Coleopterists Bulletin 60: 162-163.
- Cognato, A. I., A. D. Harlin, and M. L. Fisher.** 2003. Genetic structure among pinyon beetle populations (Scolytinae, *Ips confusus*). Environmental Entomology 32: 1262-1270.
- Cognato, A. I., N. E. Gillette, R. C. Bolanos, and F. A. H. Sperling.** 2005. Mitochondrial phylogeny of pine cone beetles (Scolytinae, *Conophthorus*) and their affiliation with geographic area and host. Molecular Phylogenetics and Evolution 36: 494-508.
- Cognato, A. I., J-H. Sun, M. A. Anducho-Reyes, and D. R. Owen.** 2005. Genetic variation and origin of red turpentine beetle (*Dendroctonus valens* LeConte) introduced to the People's Republic of China. Agricultural and Forest Entomology 7: 87-94.
- Cognato, A. I., N. Barc, M. Philip, R. Mech, A. D. Smith, E. Galbraith, A. J. Storer, and L. R. Kirkendall.** 2009. The native and introduced bark and ambrosia beetles of Michigan (Coleoptera: Curculionidae: Scolytinae). Great Lakes Entomologist 42: 101-120.
- Colonnelli, E.** 2003. A revised checklist of Italian Curculionoidea (Coleoptera). Zootaxa 337. 142 p. (Scolytidae, p. 97-103; Platypodidae, p. 103)
- Costello, S. L., and W. C. Schaupp, Jr.** 2011. First Nebraska state collection record of the mountain pine beetle, *Dendroctonus ponderosae* Hopkins (Coleoptera: Curculionidae: Scolytinae). The Coleopterists Bulletin 65: 21-23.
- Coyle, D. R.** 2005. Ambrosia beetle (Coleoptera: Scolytidae) species, flight, and attack on living eastern cottonwood trees. Journal of Economic Entomology 98: 2049-2057.
- Cranshaw, W.** 2011. Recently recognized range extensions of the walnut twig beetle, *Pityophthorus juglandis* Blackman (Coleoptera: Curculionidae: Scolytinae), in the western United States. The Coleopterists Bulletin 65: 48-49.
- Cristofaro, M., F. Lecce, G. Campobasso, G. Terragitti, N. R. Spencer, and K. D. Mann.** 2000. Insect-plant relationships and behavioral observations of the stem-feeding beetle *Thamnurgus euphorbiae* Kuster (Coleoptera: Scolytidae), a new biocontrol agent from Italy to control leafy spurge in the U.S. p. 615-619. In: N. R. Spencer (ed.). Proceedings of the X International Symposium of Biological Control of Weeds, 4-14 July 1999, Montana State University; Bozeman, MT, USA.

- Czeslaw, G. 2001/2002.** The first record of *Pityophthorus morosovi* Spessivtseff, 1926 (Coleoptera: Scolytidae) and *Ernobius longicornis* (Strum, 1837) from the Upper Silesia (Coleoptera: Anobiidae). *Acta Entomologica Silesiana* 9-10: 85-86.
- Damon, A. 2000.** A review of the biology and control of the coffee berry borer, *Hypothenemus hampei* (Coleoptera: Scolytidae). *Bulletin of Entomological Research* 90: 453-465.
- Daterman, G. E., and D. L. Overhulser. 2002.** Ambrosia beetles of western conifers. United States Department of Agriculture, Forest Service, Forest Insect and Disease Leaflet 170. 8 p.
- Davis, S. R., and M. S. Engel. 2007.** A new ambrosia beetle in Miocene amber of the Dominican Republic (Coleoptera: Curculionidae: Platypodinae). *Alavesia* 1: 121-124.
- Delgado, C., and G. Couturier. 2010.** *Xylosandrus compactus* (Coleoptera: Curculionidae: Scolytinae), a new pest of *Swietenia macrophylla* in the Peruvian Amazonia. *Boletín de la Sociedad Entomológica Aragonesa* 2010: 441-443.
- Del Rio, M. G., A. A. Lanteri, and S. M. Suárez. 2005.** Types of Scolytidae and Platypodidae (Coleoptera: Curculionoidea) housed at the Museo de La Plata entomological collection. *Revista del Museo de La Plata, Publicación Técnica y Didáctica* 46: 1-11.
- De Marzo, L. 2006.** Further instances of functional anomaly of the spermathecal gland in Coleoptera (Staphylinidae, Curculionidae, Scolytidae). *Bollettino di Zoologia Agraria e di Bachicoltura* 38: 201-208.
- De Marzo, L. 2009.** Anatomical diversity of the spermatheca studied in Coleoptera. *Entomologica* 41: 13-76.
- Demidko, D. A. 2007.** [Scolytid beetles (Coleoptera, Scolytidae) of northeastern Altai]. *Trudy Russkogo Entomologicheskogo Obschestva (Proceedings of the Russian Entomological Society)* 78: 32-36.
- Diaz, E., R. Cisneros, and G. Zúñiga. 2000.** Comparative anatomical and histological study of the alimentary canal of the *Dendroctonus frontalis* (Coleoptera: Scolytidae) complex. *Annals of the Entomological Society of America* 93: 303-311.
- Diaz, E., O. Arciniega, L. Sánchez, R. Cisneros, and G. Zúñiga. 2003.** Anatomical and histological comparison of the alimentary canal of *Dendroctonus micans*, *D. ponderosae*, *D. pseudotsugae*, *pseudotsugae*, *D. rufipennis*, and *D. terebrans* (Coleoptera: Scolytidae). *Annals of the Entomological Society of America* 96: 144-152.
- Dodds, K. J., D. W. Gilmore, and S. J. Seybold. 2010.** Assessing the threat posed by indigenous exotics: a case study of two North American bark beetle species. *Annals of the Entomological Society of America* 103: 39-49.
- Dole, S. A., and R. A. Beaver. 2008.** A review of the Australian species of *Xylosandrus* Reitter (Coleoptera: Curculionidae: Scolytinae). *The Coleopterists Bulletin* 62: 481-492.
- Dole, S. A., and A. I. Cognato. 2007.** A new genus and species of Bothrosternina (Coleoptera: Curculionidae: Scolytinae) from Ecuador. *The Coleopterists Bulletin* 61: 318-325.
- Dole, S. A., and A. I. Cognato. 2010.** Phylogenetic revision of *Xylosandrus* Reitter (Coleoptera: Curculionidae: Scolytinae: Xyleborina). *Proceedings of the California Academy of Sciences, Series 4, Volume 61, No. 10:* 451-545.
- Dole, S. A., B. H. Jordal, and A. I. Cognato. 2010.** Polyphyly of *Xylosandrus* Reitter inferred from nuclear and mitochondrial genes (Coleoptera: Scolytinae). *Molecular Phylogenetics and Evolution* 54: 773-782.
- Doychev, D., and D. Ovcharov. 2006.** First record of *Phloeosinus henschi* Reitt. and *Xyleborus eurygraphus* (Ratz.) (Scolytidae, Coleoptera) for the Bulgarian fauna. *Acta Entomologica Bulgarica* 12(3-4): 11-14.
- Duan, Y., C. Kerdelhué, H. Ye, and F. Lieutier. 2004.** Genetic study of the forest pest *Tomicus piniperda* (Col., Scolytinae) in Yunnan province (China) compared to Europe: new insights for the systematics and evolution of the genus *Tomicus*. *Heredity* (2004): 1-7.
- Eager, T. A., C. W. Berisford, M. J. Dalusky, D. G. Nielsen, J. W. Brewer, S. J. Hilty, and R. A. Haack. 2004.** Suitability of some southern and western pines as hosts for the pine shoot beetle, *Tomicus piniperda* (Coleoptera: Scolytidae). *Journal of Economic Entomology* 97: 460-467.
- Eglitis, A. E. 2000a.** Mediterranean pine engraver beetle. p. 190-193. In: Pest risk assessment for importation of solid wood packing materials into the United States. USDA Animal and Plant Health Inspection Service and U. S. Forest Service. Washington, D. C. 275 p.

- Eglitis, A. E. 2000b.** Red-haired pine bark beetle. p. 183-193. In: Pest risk assessment for importation of solid wood packing materials into the United States. USDA Animal and Plant Health Inspection Service and U. S. Forest Service. Washington, D. C. 275 p.
- Equihua-Martinez, A., and M. M. Furniss. 2009.** Taxonomic status of *Scolytus opacus* and *Scolytus abietis* (Coleoptera: Curculionidae: Scolytinae): a comparative study. Annals of the Entomological Society of America 102: 597-602.
- Faccoli, M. 2000a.** Il bostrico tipografo nelle foreste di abete rosso. [*Ips typographus* in Norway spruce forests]. Sherwood Foreste ed Alberi Oggi 6: 25-26.
- Faccoli, M. 2000b.** I coleotteri scolitidi e la scomparsa dell'olmo. [Scolytid beetles and the disappearance of the elm]. Sherwood Foreste ed Alberi Oggi 6: 27-28.
- Faccoli, M. 2000c.** Bioecologia di coleotteri scolitidi *Ips typographus* (Linnaeus) e specie di recente interesse per la selvicoltura italiana. III Contributo. Reperti su specie di scolitidi nuove per il territorio italiano. [Bio-ecology of bark beetles *Ips typographus* (Linnaeus) and species recently affecting the Italian forests. Part III. Notes about some bark beetle species new to Italy]. Bollettino dell'Istituto di Entomologia "Guido Grandi" della Universita degli Studi di Bologna 54: 77-90.
- Faccoli, M. 2000d.** Considerazioni bio-ecologiche sui coleotteri scolitidi dell'abete bianco (*Abies alba* Miller) in Italia. [Biology and ecology of the Italian bark and ambrosia beetles]. Redia 83: 33-46.
- Faccoli, M. 2002.** Scolytidae. p. 100-101. In: F. Mason, P. Cerretti, A. Tagliapietra, M. Speight, and M. Zapparoli (eds.). Invertebrati di una foresta della Pianura Padana Bosco della Fontana, Primo contributo. [Invertebrates of a Padana Plain forest Bosco della Fontana, First contribution]. Conservazione Habitat Invertebrati I, Centro Nazionale per lo Studio e la Conservazione della Biodiversità Forestale, Bosco della Fontana, Servizio conservazione della Natura-Corpo Forestale dello Stato. Gianluigi Arcari, Mantova. 175 p.
- Faccoli, M. 2004a.** A morphological illustrated key to European species of the genus *Ips* DeGeer (Coleoptera: Scolytidae). The Coleopterist 13: 103-119
- Faccoli, M. 2004b.** *Scolytus scolytus* (F.). In: Crop Protection Compendium 2004 Edition. CAB International. Wallingford, United Kingdom.
- Faccoli, M. 2006.** Morphological separation of *Tomicus piniperda* and *T. destruens* (Coleoptera: Curculionidae: Scolytinae): new and old characters. European Journal of Entomology 103: 433-442.
- Faccoli, M. 2008.** First record of *Xyleborus atratus* Eichhoff, in Europe with an illustrated key to European Xyleborini (Coleoptera, Curculionidae, Scolytinae). Zootaxa 1772: 55-62.
- Faccoli, M. 2010a.** *Megaplatypus mutatus* (Chapuis, 1865) - The grand forest borer (Coleoptera, Curculionidae, Platypodinae). p. 894-895. In: A. Roques, M. Kenis, D. Lees, C. Lopez-Vaamonde, W. Rabitsch, J.-Y. Rasplus, and D. B. Roy (eds.). Alien terrestrial arthropods of Europe. BioRisk 4(2): 855-1021.
- Faccoli, M. 2010b.** *Gnathotrichus materiarius* (Fitch, 1858) – American utilizable wood bark beetle (Coleoptera, Curculionidae, Scolytinae). p. 896-897. In: A. Roques, M. Kenis, D. Lees, C. Lopez-Vaamonde, W. Rabitsch, J.-Y. Rasplus, and D. B. Roy (eds.). Alien terrestrial arthropods of Europe. BioRisk 4(2): 855-1021.
- Faccoli, M. 2010c.** *Xylosandrus crassiusculus* (Motschulsky, 1866) – granulate ambrosia beetle (Coleoptera, Curculionidae, Scolytinae). p. 900-901. In: A. Roques, M. Kenis, D. Lees, C. Lopez-Vaamonde, W. Rabitsch, J.-Y. Rasplus, and D. B. Roy (eds.). Alien terrestrial arthropods of Europe. BioRisk 4(2): 855-1021.
- Faccoli, M. 2010d.** *Xylosandrus germanus* (Blandford, 1894) (=*Xyleborus germanus*) – black stem borer (Coleoptera, Curculionidae, Scolytinae). p. 902-903. In: A. Roques, M. Kenis, D. Lees, C. Lopez-Vaamonde, W. Rabitsch, J.-Y. Rasplus, and D. B. Roy (eds.). Alien terrestrial arthropods of Europe. BioRisk 4(2): 855-1021.
- Faccoli, M., and A. Battisti. 2001.** On the occurrence of *Pityophthorus carniolicus* Wichmann (Coleoptera, Scolytidae) in Italy. Mittelungen der Schweizerischen entomologischen Gesellschaft 74: 7-11.
- Faccoli, M., and B. Cecchi. 2003.** Contributo alla conoscenza dell'Ipidofauna dell'Arcipelago Toscano (Coleoptera Scolytidae). [Notes on the bark beetles (Coleoptera Scolytidae) of Tuscany Islands]. Redia 86: 133-138.

- Faccoli, M., and J. P. Rukalski.** 2004. Attractiveness of artificially killed red oaks (*Quercus rubra*) to ambrosia beetles (Coleoptera: Scolytidae). p. 171-179. In: P. Cerretti, S. Hardersen, F. Mason, G. Nardi, M. Tisato, and M. Zapparoli (eds.). Invertebrati di foresta della Pianura Padana, Bosco della Fontana – Secondo contributo. Conservazione Habitat Invertebrata, 3. Cierre Grafica Editore, Verona.
- Faccoli, M., A. Piscedda, P. Salvato, M. Simonato, L. Masutti, and A. Battisti.** 2005. Genetic structure and phylogeography of pine beetle populations (*Tomicus destruens* and *T. piniperda*, Coleoptera: Scolytidae) in Italy. Annals of Forest Science 62: 361-368.
- Faccoli, M., G. Frigimelica, N. Mori, E. P. Toffolo, M. Vettorazzo, and M. Simonato.** 2009. First record of *Ambrosiodmus* (Hopkins, 1915) (Coleoptera: Curculionidae, Scolytinae) in Europe. Zootaxa 2303: 57-60.
- Farrell, B. D., A. S. Sequeira, B. C. O'Meara, B. B. Normark, J. H. Chung, and B. H. Jordal.** 2001. The evolution of agriculture in beetles (Curculionidae: Scolytinae and Platypodinae). Evolution 55: 2011-2027.
- Fernández, M. F.** 1999. Los representantes de la subfamilia Scolytinae (Coleoptera; Scolytidae) en la Provincia de León (España). [Scolytinae (Coleoptera Scolytidae) species captured in the province of Leon (Spain)]. Anales de Biología 22: 21-33.
- Ferro, M. L., and M. L. Gimmel.** 2011. First record of *Scolytogenes jalapae* (Letzner) (Coleoptera: Curculionidae: Scolytinae) in Louisiana, U.S.A. The Coleopterists Bulletin 65: 363.
- Flechtmann, C. A. H., and A. I. Cognato.** 2011. First report of *Amasa truncata* (Erichson) (Coleoptera: Curculionidae: Scolytinae) in Brazil. The Coleopterists Bulletin 65: 417-421.
- Flechtmann, C. A. H., A. L. T. Ottati, and C. W. Berisford.** 2001. Ambrosia and bark beetles (Scolytidae: Coleoptera) in pine and eucalypt stands in southern Brazil. Forest Ecology and Management 142: 183-191.
- Foster, A. P.** 2011. *Scolytus rugulosus* (Müller) (Scolytidae) new to Ireland. Coleopterist 20: 99.
- Furniss, M. M.** 2001. A new subspecies of *Dendroctonus* (Coleoptera: Scolytidae) from Mexico. Annals of the Entomological Society of America 94: 21-25.
- Furniss, M. M.** 2004. Biology of *Trypophloeus striatulus* (Coleoptera: Scolytidae) in feltleaf willow in interior Alaska. Environmental Entomology 33: 21-27.
- Furniss, M. M., and J. B. Johnson.** 2002. Field guide to the bark beetles of Idaho and adjacent regions. Idaho Forest, Wildlife, and Range Experiment Station, University of Idaho, Moscow, Idaho. Station Bulletin 74. 125 p.
- Furniss, M. M., and S. J. Kegley.** 2006. Observations on the biology of *Dryocoetes betulae* (Coleoptera: Curculionidae) in paper birch in northern Idaho. Environmental Entomology 35: 907-911.
- Furniss, M. M., and S. J. Kegley.** 2008. Biology of *Dendroctonus murrayanae* (Coleoptera: Curculionidae: Scolytinae) in Idaho and Montana and comparative taxonomic notes. Annals of the Entomological Society of America 101: 1010-1016.
- Furniss, M. M., E. H. Holsten, and M. E. Schultz.** 2002. Species of Alaska Scolytidae: Distribution, hosts, and historical review. Journal of the Entomological Society of British Columbia 99: 83-92.
- Gallego, D., and J. Galian.** 2001. The internal transcribed spacers (ITS1 and ITS2) of the rDNA differentiates the bark beetle forest pests *Tomicus destruens* and *T. piniperda*. Insect Molecular Biology 10: 415-420.
- Gallego, D., and J. Galian.** 2008. Hierarchical structure of mitochondrial lineages of *Tomicus destruens* (Coleoptera: Scolytidae) related to environmental variables. Journal of Zoological Systematics and Evolutionary Research 46: 331-339.
- Gallego, D., F. Canovas, M. A. Esteve, and J. Galian.** 2004. Descriptive biogeography of *Tomicus* (Coleoptera: Scolytidae) species in Spain. Journal of Biogeography 31: 2011-2024.
- Gandhi, K. J. K., and S. J. Seybold.** 2002. Tamarack (Pinaceae): previously unrecorded developmental host for pine engraver and southern pine engraver (Coleoptera: Scolytidae). The Canadian Entomologist 134: 299-302.
- Gandhi, K. J. K., J. Audley, J. Johnson, and M. Raines.** 2009. Camphor shot borer, *Xylosandrus mutilatus* (Blandford) (Coleoptera: Curculionidae), an adventive ambrosia beetle in Georgia. The Coleopterists Bulletin 63: 497-500.

- Gandhi, K. J. K., D. W. Gilmore, S. A. Katovich, W. J. Mattson, J. R. Spence, and S. J. Seybold.** 2007. Physical effects of weather events on the abundance and diversity of insects in North American forests. *Environmental Reviews* 15: 113-152.
- Gandhi, K. J. K., D. W. Gilmore, R. A. Haack, S. A. Katovich, S. J. Krauth, W. J. Mattson, J. C. Zasada, and S. J. Seybold.** 2009. Application of semiochemicals to assess the biodiversity of subcortical insects following an ecosystem disturbance in a sub-boreal forest. *Journal of Chemical Ecology* 35: 1384-1410.
- Gandhi, K. J. K., A. I. Cognato, D. M. Lightle, B. J. Mosley, D. G. Nielsen, and D. A. Herms.** 2010. Species composition, seasonal activity, and semiochemical response of native and exotic bark and ambrosia beetles (Coleoptera: Scolytinae) in northeastern Ohio. *Journal of Economic Entomology* 103: 1187-1195.
- Gao, B., X. Wen, H. Guan, M. Knízek, and J. Xdarek.** 2005. Distribution and attack behaviour of the red turpentine beetle, *Dendroctonus valens*, recently introduced to China. *Journal of Forest Science* 51: 155-160.
- Gao Chang-qi, Sun Shou-hui, Ren Xiao-guang, Niu Yan-zhang, Song Li-wen, and Zhang Yun-sheng.** 2000. Study on biological and ecological characteristics of *Ips subelongatus* Motsch. *Journal of Forestry Research* 11: 114-118.
- Garrick, R. C., C. A. Meadows, J. D. Nason, A. I. Cognato, and R. J. Dyer.** 2009. Variable nuclear markers for a Sonoran Desert bark beetle, *Arapthus attenuatus* Wood (Curculionidae: Scolytinae), with applications to related genera. *Conservation Genetics* 10: 1177-1179.
- Gatti, E., and F. Pannacchio.** 2004. Descrizione di un nuova specie di *Triotemnus*, *T. uliana* n. sp., raccolta in Italia (Coleoptera: Scolytidae). *Redia* 87: 103-108.
- Gauthier, N.** 2010. Multiple cryptic genetic units in *Hypothenemus hampei* (Coleoptera: Scolytinae): evidence from microsatellite and mitochondrial DNA sequence data. *Biological Journal of the Linnean Society* 101: 113-129.
- Gauthier, N., and J-Y. Rasplus.** 2004. Polymorphic microsatellite loci in the coffee berry borer, *Hypothenemus hampei* (Coleoptera: Scolytidae). *Molecular Ecology Notes* 4: 294-296.
- Gebhardt, H.** 2002. [Xyleborinus alni (Niisima) - records in Baden-Wuerttemberg (Coleoptera: Scolytidae)]. *Mitteilungen Entomologischer Verein Stuttgart* 37: 55-56.
- Gebhardt, H.** 2003. [Expansion of *Taphrorychus vilifrons* (Dufour) (Coleoptera, Scolytidae) in Germany]. *Mitteilungen der Arbeitsgemeinschaft Rheinischer Koleopterologen* 13: 45-46.
- Georgiev, G. T., and D. Doychev.** 2010. [New xylophagous beetles (Coleoptera) on poplars in Bulgaria]. *Acta Zoologica Bulgarica* 62: 175-179.
- Germann, C.** 2010. Vierter Beitrag zur Rüsselkafer-Fauna der Schweiz – mit Meldungen von 20 Arten (Coleoptera, Curculionoidea). *Mitteilungen der Schweizerischen Entomologischen Gesellschaft* 83: 17-35.
- Gil P., Z. N., A. E. Bustillo P., D. E. Gomez, and P. Marin M.** 2004. *Corthylus* n. sp. (Coleoptera: Scolytidae), pest of alder in Rio Blanco basin of Colombia. *Revista Colombiana de Entomología* 30: 171-178.
- Giro, C.** 2003. *Xyleborus affinis* (Eichh.) (Coleoptera: Scolytidae) attacking sugar cane plantations in Santiago de Cuba province. *Fitosanidad* 7: 61.
- Gosik, R.** 2006. [Contribution to the knowledge of distribution of bark beetles and weevils (Coleoptera: Scolytidae, Curculionidae) in Poland]. *Wiadomo ci Entomologiczne* 25: 185.
- Goto, H.** 2009. [Taxonomic history of Japanese bark and ambrosia beetles with a checklist of them]. *Journal of the Japanese Forest Society* 91: 479-485.
- Gottlieb, D., J. P. Holzman, Y. Bouskila, S. T. Kelley, and A. R. Harari.** 2009. Mate availability contributes to maintain the mixed-mating system in a scolytid beetle. *Journal of Evolutionary Biology* 22: 1526-1534.
- Grant, J. F., A. J. Mayor, P. L. Lambdin, and G. J. Wiggins.** 2003. New species records and incidence of bark beetles and ambrosia beetles (Coleoptera: Scolytidae) from the barrens of middle Tennessee, USA. *Natural Areas Journal* 23: 278-283.
- Graves, A. D., E. H. Holsten, M. L. Ascerno, K. Zogas, J. S. Hard, D. P. W. Huber, R. Blanchette, and S. J. Seybold.** 2008. Protection of spruce from colonization by the bark beetle, *Ips perturbatus*, in Alaska. *Forest Ecology and Management* 256: 1825-1839.

- Grodzki, W., and M. Kosibowicz.** 2009. Materiay do poznania biologii kornika modrzewiowca *Ips cembrae* (Heer) (Col., Curculionidae, Scolytinae) w warunkach poudniowej polski. [Contribution to the recognition of the biology of *Ips cembrae* (Heer) (Col., Curculionidae, Scolytinae) in the conditions of southern Poland]. *Sylwan* 153: 587-593.
- Guadalupe del Rio, M., A. A. Lanteri, and S. M. Suárez.** 2005. Types of Scolytidae and Platypodidae (Coleoptera: Curculionoidea) housed at the Museo de La Plata Entomological Collection. *Revista del Museo de La Plata, Publicación Técnica y Didáctica* 46: 1-11.
- Güclü, C., and H. Özbek.** 2007. Biology and damage of *Thamnurgus pegani* Eggers (Coleoptera: Scolytidae) feeding on *Peganum harmala* L. in eastern Turkey. *Proceedings of the Entomological Society of Washington* 109: 350-358.
- Gugerli, F., R. Gall, F. Meier, and B. Wermelinger.** 2008. Pronounced fluctuations of spruce bark beetle (Scolytinae: *Ips typographus*) populations do not invoke genetic differentiation. *Forest Ecology and Management* 256: 405-409.
- Gumier-Costa, F.** 2009. First record of the coffee berry borer, *Hypothenemus hampei* (Ferrari) (Coleoptera: Scolytidae), in para nut, *Bertholletia excelsa* (Lecythidaceae). *Neotropical Entomology* 38: 430-431.
- Gutknecht, T.** 2005. [141. Rare beetle records (Scolytidae, Apionidae, Curculionidae) from Baden-Württemburg]. *Mitteilungen Entomologischer Verein Stuttgart* 40: 139.
- Gyorgy, Z., and A. Podlussany.** 2005. Notes on Curculionoidea of Hungary (Coleoptera: Anthribidae, Erirhinidae, Curculionidae, Scolytidae). *Folia Entomologica Hungarica* 66: 57-62.
- Haack, R. A.** 2001. Intercepted Scolytidae (Coleoptera) at U. S. ports of entry: 1985-2000. *Intergrated Pest Management Reviews* 6: 253-282.
- Haack, R. A.** 2003. Exotics, exotics, exotics: newly detected bark and wood boring beetles in the U. S. *Newsletter of the Michigan Entomological Society* 48(3-4): 16-17.
- Haack, R. A.** 2004. *Orthotomicus erosus*: A new pine-infesting bark beetle in the United States. *Newsletter of the Michigan Entomological Society* 49(3-4): 3.
- Haack, R. A.** 2006. Exotic bark- and wood-boring Coleoptera in the United States: recent establishments and interceptions. *Canadian Journal of Forest Research* 36: 269-288.
- Haack, R. A., R. K. Lawrence, and G. C. Heaton.** 2000. Seasonal shoot-feeding by *Tomicus piniperda* (Coleoptera: Scolytidae) in Michigan. *Great Lakes Entomologist* 33: 1-8.
- Haack, R. A., R. K. Lawrence, and G. C. Heaton.** 2001. *Tomicus piniperda* (Coleoptera: Scolytidae) shoot-feeding characteristics and overwintering behavior in Scotch pine Christmas trees. *Journal of Economic Entomology* 94: 422-429.
- Haack, R. A., T. R. Petrice, and T. M. Poland.** 2000. *Tomicus piniperda* (Coleoptera: Scolytidae) emergence in relation to burial depth of brood logs. *Journal of Economic Entomology* 93: 342-346.
- Haack, R. A., T. M. Poland, T. R. Petrice, and M. A. Gennrich.** 2000. Range extension of *Tomicus piniperda* and notes on other new exotics. *Newsletter of the Michigan Entomological Society* 45(3-4): 9-10.
- Hagedorn, J. M.** 1910. Coleoptera Fam. Ipidae. Pars 111: 1-178. In: Wytsman, Genera Insectorum. Brussels.
- Han, F., et al.** 2010. [Bark beetle fauna in the natural forests in Longwu River valley of “Three River Sources” area]. *Forest Pests and Disease* 2: 28-30.
- Hansen, M.** 2001. On the type material of some Danish beetles deposited at Zoological Museum, Copenhagen (Coleoptera). *Entomologiske Meddelelser* 69: 109-110.
- Hayase, T.** 2005. New combinations on Platypodidae (Insects: Coleoptera). *Research Bulletin of Plant Protection* 41: 35-37.
- Heal, N. F.** 2003a. *Scolytus pygmaeus* (Fabricius, 1787) (Scolytidae) - a new arrival to Britain. *Coleopterist* 12: 57-60.
- Heal, N. F.** 2003b. *Triotemnus coryli* (Perris) (Scolytidae) rediscovered. *Coleopterist* 12: 79-82.
- Heal, N. F.** 2006. *Taphrorychus villifrons* Dufour (Scolytidae) in Britain. *Coleopterist* 15: 135-136.
- Henin, J.-M., and L.-M. Hageleisen.** 2005. [First observation of *Xyleborus peregrinus* Eggers, 1944 (Coleoptera: Scolytidae in Belgium)]. *Bulletin de la Societe Royale Belge d'Entomologie* 141: 21-24.

- Henin, J-M., and V. Versteirt.** 2004. Abundance and distribution of *Xylosandrus germanus* (Blandford 1894) (Coleoptera, Scolytidae) in Belgium: new observations and an attempt to outline its range. Journal of Pest Science 77: 57-63.
- Henin, J-M., O. Huart, and J. Rondeux.** 2003. Biogeographical observations on four scolytids (Coleoptera, Scolytidae) and one lymexylonid (Coleoptera, Lymexylonidae) in Wallonia (Southern Belgium). Belgian Journal of Zoology 133: 175-180.
- Hoebeke, E. R.** 2001. *Hylurgus ligniperda*: a new exotic pine bark beetle in the United States. Newsletter of the Michigan Entomological Society 46: 1-2.
- Hoebeke, E. R., and R. E. Acciavati.** 2006. *Hylurgops palliatus* (Gyllenhal) (Coleoptera: Curculionidae: Scolytinae), a Eurasian bark beetle new to North America. Proceedings of the Entomological Society of Washington 108: 267-273.
- Hoebeke, E. R., and R. J. Rabaglia.** 2007. First reported occurrence of *Xyleborinus alni* (Coleoptera: Curculionidae: Scolytinae) in the eastern United States, with notes on its recognition and tree hosts. Proceedings of the Entomological Society of Washington 109: 240-248.
- Hoebeke, E. R., and R. J. Rabaglia.** 2008. *Xyleborus seriatulus* Blandford (Coleoptera: Curculionidae: Scolytinae), an Asian ambrosia beetle new to North America. Proceedings of the Entomological Society of Washington 110: 470-476.
- Holuša, J., and W. Grodzki.** 2008. Occurrence of *Ips duplicatus* (Coleoptera: Curculionidae, Scolytinae) on pines (*Pinus* sp.) in the Czech Republic and southern Poland – short communication. Journal of Forest Science 54: 234-236
- Holuša, J., Lubojacký, and M. Knízek.** 2010. Distribution of double-spined spruce beetle *Ips duplicatus* in the Czech Republic: spreading in 1977-2009. Phytoparasitica 38: 435-443.
- Horn, A., G. Roux-Morabito, F. Lieutie, and C. Kerdeihue.** 2006. Phylogeographic structure and past history of the circum-Mediterranean species *Tomicus destruens* Woll. (Coleoptera: Scolytinae). Molecular Ecology 15: 1603-1615.
- Holzman, J. P., A. J. Bohanak, L. R. Kirkendall, D. Gottlieb, A. R. Harrari, and S. T. Kelley.** 2009. Inbreeding variability and population structure in the invasive haplodiploid palm-seed borer, *Coccotrypes dactyliperda*. Journal of Evolutionary Biology 22: 1076-1087.
- Horn, A., C. Stauffer, F. Lieutie, and C. Kerdelhué.** 2009. Complex postglacial history of the temperate bark beetle *Tomicus piniperda* L. (Coleoptera, Scolytinae). Heredity 103: 238-247.
- Horn, S., and G. N. Horn.** 2006. New host record for the Asian ambrosia beetle, *Xylosandrus crassiusculus* (Motschulsky) (Coleoptera: Curculionidae). Journal of Entomological Science 41: 90-91.
- Hua, Li-zhong** 2002. List of Chinese Insects, Volume II. Zhongshan (Sun Yat-sen) University Press, Guangzhou. 612 p. (Scolytidae p. 321-328; Platypodidae p. 328-329)
- Huang, F., and H. Yin.** 1992. Coleoptera: Scolytidae. p. 852-865. In: Insects of the Hengduan Mountains Region. Volume 1, The Series of the Scientific Expedition to the Qinghai-Xizang Plateau. Science Press, Beijing. 865 p.
- Huang, S-H., R. Beaver, H-T. Shih, and C-H. Cheng.** 2003. Insects of the Scolytidae and Platypodidae on *Brownea capitella* and *Prunus mume* in Taiwan. Formosan Entomologist 23: 101-111.
- Huler, J.** 2010. Taxonomic changes in palaeotropical Xyleborini (Coleoptera, Curculionidae, Scolytinae). p. 105-119. In: A. I. Cognato and M. Knízek (eds.). Sixty years of discovering scolytine and platypodine diversity: A tribute to Stephen L. Wood. ZooKeys 56. 280 p.
- Huler, J., and A. I. Cognato.** 2009. Three new genera of oriental Xyleborina (Coleoptera: Curculionidae: Scolytinae). Zootaxa 2204: 19-36.
- Huler, J., and A. I. Cognato.** 2010a. New genera of Palaeotropical Xyleborini (Coleoptera: Curculionidae: Scolytinae) based on congruence between morphological and molecular characters. Zootaxa 2717: 1-33.
- Huler, J., and A. I. Cognato.** 2010b. Repeated evolution of theft in fungus farming ambrosia beetles. Evolution 64: 3205-3212.
- Huler, J., M. Kolarik, and L. R. Kirkendall.** 2007. A new record of fungus-beetle symbiosis in *Scolytodes* bark beetles (Scolytinae, Curculionidae, Coleoptera). Symbiosis 43: 151-159.

- Huler, J., S. A. Dole, R. A. Beaver, and A. I. Cognato.** 2007. A cladistic review of generic taxonomic characters in Xyleborina (Coleoptera: Curculionidae: Scolytinae). Systematic Entomology 32: 568-584.
- Huler, J., M. Mogia, B. Isua, and V. Novotny.** 2007. Host specificity of ambrosia and bark beetles (Col., Curculionidae: Scolytinae and Platypodinae) in a New Guinea rainforest. Ecological Entomology 32: 762-772.
- Humble, L. M.** 2005. A novel host association for *Monarthrum scutellare* (Coleoptera: Curculionidae: Scolytinae) in British Columbia. Journal of the Entomological Society of British Columbia 102: 81-82.
- Humphreys, N., and E. Allen.** 1999. Eight-spined spruce bark beetle - *Ips typographus*. Canadian Forest Service, Pacific and Yukon Region, Pacific Forestry Centre (Victoria, B. C.), Exotic Forest Pest Advisory 3. 4 p.
- Hundsdoefer, A. K., J. Rheinheimer, and M. Wink.** 2009. Toward the phylogeny of the Curculionoidea (Coleoptera): Reconstructions from mitochondrial and nuclear ribosomal DNA sequences. Zoologischer Anzeiger 248: 9-31.
- Hyvarinen, E., and J. Mattila.** 2003. *Carphoborus cholodkovskyi* Spessivtseff, 1916 found in Finland (Coleoptera, Scolytidae). Sahlbergia 8: 82-83.
- Inglebert, H.** 2002. Catalog des Coléoptères de Paris intra-muros "2001 odyssées d'espèces". L'Entomologiste 58(1 and 2): 123-126.
- Ito, M., and H. Kajimura.** 2009. Genetic structure of Japanese populations of *Xylosandrus brevis* (Curculionidae: Scolytinae). Environmental Entomology 38: 1324-1335.
- Ito, M., H. Kajimura, K. Hamaguchi, K. Araya, and F. Lakatos.** 2008. Genetic structure of Japanese populations of an ambrosia beetle, *Xylosandrus germanus* (Curculionidae: Scolytinae). Entomological Science 11: 375-383.
- Jagginavar, S. B., and L. K. Naik.** 2001a. A new species of shothole borer attacking pomegranate. Insect Environment 6: 167-168.
- Jagginavar, S. B., and L. K. Naik.** 2001b. Seasonal activity of the pomegranate shot hole borer, *Xyleborus perforans* (Wollaston) (Coleoptera : Scolytidae). Pest Management in Horticultural Ecosystems 7: 141-146.
- Jagginavar, S. B., and L. K. Naik.** 2002. Distribution of life stages of *Xyleborus perforans* (Wollaston) (Coleoptera: Scolytidae) in pomegranate plant. Karnataka Journal of Agricultural Sciences 15: 584-586.
- Johnson, P. L., J. L. Hayes, J. Rinehart, W. S. Sheppard, and S. E. Smith.** 2008. Characterization of two non-native invasive bark beetles, *Scolytus schevyrewi* and *Scolytus multistriatus* (Coleoptera: Curculionidae: Scolytinae). The Canadian Entomologist 140: 527-538.
- Jordal, B. H.** 2002. Elongation factor 1 resolves the monophyly of the haplodiploid ambrosia beetles Xyleborini (Coleoptera: Curculionidae). Insect Molecular Biology 11: 453-465.
- Jordal, B. H.** 2006. Community structure and reproductive biology in bark beetles (Coleoptera: Scolytinae) associated with Macaronesian *Euphorbia* shrubs. European Journal of Entomology 103: 71-80.
- Jordal, B. H.** 2009a. Two new species of *Aphanarthrum* Wollaston (Coleoptera: Curculionidae, Scolytinae) associated with *Euphorbia* in South Africa. Zootaxa 1983: 54-62.
- Jordal, B. H.** 2009b. The Madagascan genus *Dolurgocleptes* Schedl (Coleoptera: Curculionidae, Scolytinae): description of a new species and transfer to the tribe Polygraphini. Zootaxa 2014: 41-50.
- Jordal, B. H.** 2010. Revision of the genus *Phloeoditica* Schedl - with descriptions of two new genera and two new species in Phloeosini (Coleoptera, Curculionidae, Scolytinae). p. 141-156. In: A. I. Cognato and M. Knízek (eds.). Sixty years of discovering scolytine and platypodine diversity: A tribute to Stephen L. Wood. ZooKeys 56. 280 p.
- Jordal, B. H., and G. M. Hewitt.** 2004. The origin and radiation of Macaronesian beetles breeding in *Euphorbia*: the relative importance of multiple data partitions and population sampling. Systematic Biology 53: 711-734.
- Jordal, B. H., and M. Knízek.** 2007. Resurrection of *Crypturgus subcribrosus* Eggers 1933 stat. n., and its close phylogenetic relationship to Nearctic *Crypturgus* (Coleoptera, Scolytinae). Zootaxa 1606: 41-50.

- Jordal, B. H., R. A. Beaver, and L. R. Kirkendall.** 2001. Breaking taboos in the tropics: incest promotes colonization by wood-boring beetles. *Global Ecology and Biogeography* 10: 345-357.
- Jordal, B. H., L. R. Kirkendall, and K. Harkestad.** 2004. Phylogeny of a Macaronesian radiation: host plant use and possible cryptic specification in *Liparthrum* bark beetles. *Molecular Phylogenetics and Evolution* 31: 554-571.
- Jordal, B.H., B. B. Normark, and B. D. Farrell.** 2000. Evolutionary radiation of an inbreeding haplodiploid beetle lineage (Curculionidae, Scolytinae). *Biological Journal of the Linnean Society* 71: 483-499.
- Jordal, B. H., R. A. Beaver, B. B. Normark, and B. D. Farrell.** 2002. Extraordinary sex ratios, and the evolution of M neoteny in sib-mating *Ozopemon* beetles. *Biological Journal of the Linnean Society* 75: 353-360.
- Jordal, B. H., B. B. Normark, B. D. Farrell, and L. R. Kirkendall.** 2002. Extraordinary haplotype diversity in haplodiploid inbreeders: phylogenetics and evolution of the bark beetle genus *Coccotrypes*. *Molecular Phylogenetics and Evolution* 23: 171-188.
- Kania, J., and R. Roman.** 2001/2002. New records of *Hylastes linearis* Erichson, 1836 and *Trypophloeus rubinskii* (Reitter, 1895) from Poland (Coleoptera: Scolytidae). *Acta Entomologica Silesiana* 9-10: 86.
- Kapapanida-Kantartzi, M., D. N. Milonas, C. T. Buchelos, and D. N. Avtzis.** 2010. A study on bark beetle entomofauna of two pine forests in Greece. *Journal of Biological Research* 13: 67-74.
- Kapitola, P., and M. Knízek.** 2008. Invasní druhy k rovců *Xylosandrus germanus* a *Gnathotrichus materiarius*. [Invasive bark beetles *Xylosandrus germanus* and *Gnathotrichus materiarius*]. *Lesnická Práce* 87: 40.
- Kelley, S. T., B. D. Farrell, and J. B. Mitton.** 2000. Effects of specialization on genetic differentiation in sister species of bark beetles. *Heredity* 84: 218-227.
- Kenis, M., B. Wermelinger, and J-C. Grégoire.** 2004. Research on parasitoids and predators of Scolytidae-A review. p. 237-290. In: F. Lieutier, K. R. Day, A. Battisti, J-C. Grégoire, and H. F. Evans (eds.). *Bark and Wood Boring Insects in Living Trees in Europe, a Synthesis*. Kluwer Academic Publishers, Dordrecht. 569 p.
- Kent, D. S.** 2010. The external morphology of *Austroplatypus incompertus* (Schedl) (Coleoptera, Curculionidae, Platypodinae). p. 121-140. In: A. I. Cognato and M. Knízek (eds.). *Sixty years of discovering scolytine and platypodine diversity: A tribute to Stephen L. Wood*. ZooKeys 56. 280 p.
- Kerdelhué, C., G. Roux-Morabito, and F. Lieutier.** 2003. Deux espèces distinctes d'hylésine du pin, *Tomicus piniperda* et *Tomicus destruens*. [Two distinct species of the pine shoot beetle, *Tomicus piniperda* and *Tomicus destruens*]. *Forêt-Entreprise* 153: 63-64.
- Kerdelhué, C., G. Roux-Morabito, J. Forichon, J. M. Chambon, A. Robert, and F. Lieutier.** 2002. Population genetic structure of *Tomicus piniperda* L. (Curculionidae: Scolytinae) on different pine species and validation of *T. destruens* (Woll.). *Molecular Ecology* 11: 483-494.
- Kerdelhué, C., G. G. Mondor, J. Y. Rasplus, A. Robert, and F. Lieutier.** 2003. Characterization of five microsatellite loci in the pine shoot beetle *Tomicus piniperda* (Coleoptera: Scolytidae). *Molecular Ecology Notes* 3: 100-101.
- Keshavareddy, G., and A. Verghese.** 2009. "Biology of *Xylosandrus crassiusculus* (Eichhoff) reared on custard apple (*Annina squamosa* L.)". *Insect Environment* 15: 46-47. Note: The title of this paper is evidently wrong. The entire paper deals with *Xylosandrus compactus*. The author of *X. compactus* is Eichhoff, while the author of *X. crassiusculus* is Motschulsky.
- Khaustov, A. A., and T. V. Nikulina.** 2008. The first record of *Tomicus destruens* (Coleoptera, Scolytidae) in Ukraine. *Vestnik Zoologii* 42: 84.
- Khuhro, R. D., S. M. Nizamani, Q. D. Abbasi, G. M. Rahoo, and M. M. Jiskani.** 2005. Asian ambrosia beetle: a new insect pest in Sindh Pakistan. *Pakistan Journal of Agriculture, Agricultural Engineering, Veterinary Sciences* 21: 44.
- Khuhro, R. D., S. M. Nizamani, M. M. Jiskani, Q. D. Abbasi, and G. S. Solangi.** 2005. New host records of Asian ambrosia beetle (AAB) in Sindh Pakistan. *Pakistan Journal of Agriculture, Agricultural Engineering, Veterinary Sciences* 21: 43.
- Kirejtshuk, A. G., D. Azar, R. A. Beaver, M. Y. Mandelshtam, and A. Nel.** 2009. The most ancient bark beetle known: a new tribe, genus and species from Lebanese amber (Coleoptera, Curculionidae, Scolytinae). *Systematic Entomology* 34: 101-112.

- Kirisits, T.** 2004. Fungal associates of European bark beetles with special emphasis on the ophiostomatoid fungi. p. 181-235. In: F. Lieutier, K. R. Day, A. Battisti, J-C. Grégoire, and H. F. Evans (eds.). Bark and Wood Boring Insects in Living Trees in Europe, a Synthesis. Kluwer Academic Publishers, Dordrecht. 569 p.
- Kirkendall, L. R.** 2006. A new host-specific, *Xyleborus ochrysaiae* (Curculionidae: Scolytinae), from Central America breeding in live trees. Annals of the Entomological Society of America 99: 211-217.
- Kirkendall, L. R., and M. Faccoli.** 2010. Bark beetles and pinhole borers (Curculionidae, Scolytinae, Platypodinae) alien to Europe. p. 227-251. In: A. I. Cognato and M. Knízek (eds.). Sixty years of discovering scolytine and platypodine diversity: A tribute to Stephen L. Wood. ZooKeys 56. 280 p.
- Kirkendall, L. R., and B. H. Jordal.** 2006. The bark and ambrosia beetles (Curculionidae, Scolytinae) of Cocos Island, Costa Rica and the role of mating systems in island zoogeography. Biological Journal of the Linnean Society 89: 729-743.
- Kirkendall, L. R., and F. Ødegaard.** 2007. Ongoing invasions of old-growth tropical forests: establishment of three incestuous beetle species in southern Central America (Curculionidae: Scolytinae). Zootaxa 1588: 53-62.
- Kirkendall, L. R., M. Dal Cortivo, and E. Gatti.** 2008. First record of the ambrosia beetle, *Monarthrum mali* (Curculionidae: Scolytinae) in Europe. Journal of Pest Science 81: 175-178.
- Kirkendall, L. R., M. Faccoli, and H. Ye.** 2008. Description of the Yunnan shoot borer, *Tomicus yunnanensis* Kirkendall and Faccoli sp. n. (Curculionidae, Scolytinae), an unusually aggressive pine shoot beetle from northern China, with a key to the species of *Tomicus*. Zootaxa 1819: 25-39.
- Knízek, M.** 2006a. *Phleotribus caucasicus* Reitter, 1891- lýkohub, p. 356. In: J. Mlíkovský and P. Stýblo (eds.). Nep vodní druhy fauny a flóry eské republiky. [Non-indigenous species of fauna and flora of the Czech Republic]. SOP, Praha.
- Knízek, M.** 2006b. *Xyleborius alni* (Nijima, 1909) Reitter, 1891- drtník (p. 3364-3365). In: J. Mlíkovský and P. Stýblo (eds.). Nep vodní druhy fauny a flóry eské republiky. [Non-indigenous species of fauna and flora of the Czech Republic]. SOP, Praha.
- Knízek, M.** 2007. Bark and ambrosia beetle species in worldwide trade. p. 101-104. In: H. Evans and T. Oszako (eds.). Alien invasive species and international trade. IUFRO Unit 7.03.12 Monograph, Forest Research Institute, Warsaw. 179 p.
- Knízek, M.** 2008. A new species of *Scolytoplatypus* (Coleoptera: Scolytidae) from China. Studies and reports of District Museum Prague-East, Taxonomic Series 4 (1-2): 119-124.
- Knízek, M.** 2009a. Faunistic records from the Czech Republic-272. Coleoptera: Curculionidae: Scolytinae. Klapalekiana 45: 22.
- Knízek, M.** 2009b. Faunistic records from the Czech Republic-278. Coleoptera: Curculionidae: Scolytinae. Klapalekiana, 45: 190.
- Knízek, M.** 2010. Five new species of *Triotemnus* (Coleoptera, Curculionidae, Scolytinae) from Morocco and Yemen. p. 191-206. In: A. I. Cognato and M. Knízek (eds.). Sixty years of discovering scolytine and platypodine diversity: A tribute to Stephen L. Wood. ZooKeys 56. 280 p.
- Knízek, M.** 2011. Scolytinae and Platypodinae. p. 86-87, 201-251. In: I. Löbl and A. Smetana (eds.). Catalog of Palaearctic Coleoptera, Vol. 7. Stenstrup, Apollo Books. 373 p.
- Knízek, M., and R. Beaver.** 2004. Taxonomy and systematics of bark and ambrosia beetles. p. 41-54. In: F. Lieutier, K. R. Day, A. Battisti, J-C. Grégoire, and H. F. Evans (eds.). Bark and Wood Boring Insects in Living Trees in Europe, a Synthesis. Kluwer Academic Publishers, Dordrecht. 569 p.
- Koch, F. H., and W. D. Smith.** 2008. Spatio-temporal analysis of *Xyleborus glabratus* (Coleoptera: Curculionidae: Scolytinae) invasion in eastern U. S. forests. Environmental Entomology 37: 442-452.
- Kohlmayr, B., M. Riegler, R. Wegensteiner, and C. Stauffer.** 2002. Morphological and genetic identification of the three pine pests of the genus *Tomicus* (Coleoptera, Scolytidae) in Europe. Agricultural and Forest Entomology 4: 151-157.
- Kolarik, M., and L. R. Kirkendall.** 2010. Evidence for a new lineage of primary ambrosia fungi in *Geosmithia* Pitt (Ascomycota: Hypocreales). Fungal Biology 114: 676-689.
- Konwerski, S., and M. Mleczak.** 2001. New records of *Phloeotribus rhododactylus* (Marsham, 1802) (Coleoptera: Scolytidae) from Poland. Wiadomosci Entomologiczne 20: 88.

- Kuhnholz, S., J. H. Borden, and R. L. McIntosh.** 2000. The ambrosia beetle, *Gnathotrichus retusus* (Coleoptera: Scolytidae) breeding in red alder, *Alnus rubra* (Betulaceae). Journal of the Entomological Society of British Columbia 97: 103-104.
- Kuschel, G.** 2000. La fauna Curculiónica (Coleoptera: Curculionidea) de la *Araucaria araucana*. Revista Chilena de Entomología 27: 41-51.
- Kuschel, G., R. A. Leschen, and E. C. Zimmerman.** 2000. Platypodidae under scrutiny. Invertebrate Taxonomy 14: 771-805.
- LaBonte, J. R.** 2010. The banded elm bark beetle, *Scolytus schevyrewi* Semenov (Coleoptera, Curculionidae, Scolytinae) in North America: a taxonomic review and modifications to the Wood (1982) key to the species of *Scolytus* in North and Central America. p. 207-216. In: A. I. Cognato and M. Knízek (eds.). Sixty years of discovering scolytine and platypodine diversity: A tribute to Stephen L. Wood. ZooKeys 56. 280 p.
- LaBonte, J. R., A. D. Mudge, and K. J. R. Johnson.** 2005. Nonindigenous woodboring Coleoptera (Cerambycidae, Curculionidae: Scolytinae) new to Oregon and Washington, 1999-2002: consequences of the intracontinental movement of raw wood products and solid wood packing materials. Proceedings of the Entomological Society of Washington 107: 554-564.
- Labandeira, C. C., B. A. LePage, and A. H. Johnson.** 2001. A *Dendroctonus* bark engraving (Coleoptera: Scolytidae) from a middle Eocene *Larix* (Coniferales: Pinaceae): early or delayed colonization? American Journal of Botany 88: 2026-2039.
- Laclos, E. (de).** 2004. Les scolytes de Corse (Coleoptera – Scolytidae). Le Coléoptériste 7(3): 165-169.
- Laclos, E. (de), C. Mouy, L. Strenna, and P. Agou.** 2004. Les Scolytes de Bourgogne (Coléoptères: Scolytidae – Platypodidae). Société d'Histoire Naturelle et des Amis du Muséum d'Autun. 239 p.
- Lakatos, F., and H. Kajimura.** 2007. Occurrence of the introduced *Xylosandrus germanus* (Blandford, 1894) in Hungary- a genetic evidence (Coleoptera: Scolytidae). Folia Entomologica Hungarica 68: 97-104.
- Lakatos, F., W. Grodzki, Q.-H. Zheng, and C. Stauffer.** 2007. Genetic comparison of *Ips duplicatus* (Sahlberg, 1836) (Coleoptera: Curculionidae, Scolytinae) populations from Europe and Asia. Journal of Forest Research 12: 345-349.
- Långström, B., L. Lisha, L. Hongpin, C. Peng, L. Haoran, C. Hellqvist, and F. Lieutier.** 2002. Shoot feeding ecology of *Tomicus piniperda* and *T. minor* (Col., Scolytidae) in southern China. Journal of Applied Entomology 126: 333-342.
- Latty, T. M., M. J. L. Magrath, and M. R. E. Symonds.** 2009. Harem size and oviposition behaviour in a polygynous bark beetle. Ecological Entomology 34: 562-568.
- Lee, C.-Y., and S.-B. Lee.** 2000. Boring insects of the *Pinus densiflora* S. et Z. in Korea. Journal of the Korean Forestry Society 89: 609-617.
- Lee, J. C., and S. J. Seybold.** 2010. Host acceptance and larval competition in the banded and European elm bark beetles (Coleoptera: Scolytidae): Potential mechanisms for competitive displacement between invasive species. Journal of Insect Behavior 23: 19-34.
- Lee, J. C., M. L. Flint, and S. J. Seybold.** 2008. Suitability of pines and other conifers as hosts for the invasive Mediterranean pine engraver (Coleoptera: Scolytidae) in North America. Journal of Economic Entomology 101: 829-837.
- Lee, J. C., S. L. Smith, and S. J. Seybold.** 2005. The Mediterranean pine engraver, *Orthotomicus erosus*. United States Department of Agriculture, Forest Service, Pest Alert R5-PR-016. 4 p.
- Lee, J. C., R. A. Haack, J. F. Negrón, J. J. Witcosky, and S. J. Seybold.** 2007. Invasive bark beetles. United States Department of Agriculture, Forest Service, Forest Insect and Disease Leaflet 176. 12 p.
- Lee, J. C., S. M. Hamud, J. F. Negrón, J. J. Witcosky, and S. J. Seybold.** 2010. Semiochemical mediated flight strategies of two invasive elm bark beetles: A potential factor in competitive displacement. Environmental Entomology 39: 642-652.
- Lee, J. C., J. F. Negrón, S. J. McElwey, J. J. Witcosky, and S. J. Seybold.** 2006. Banded elm bark beetle - *Scolytus schevyrewi*. United States Department of Agriculture, Forest Service, Forest Health Protection, Rocky Mountain Region, Pest Alert, R2-PR-0106. 2 p.
- Lee, J. C., I. Aguayo, R. Aslin, G. Durham, S. M. Shakeeb, B. D. Moltzan, A. S. Munson, J. F. Negrón, T. Peterson, I. R. Ragenovich, J. J. Witcosky, and S. J. Seybold.** 2009. Co-occurrence

- of the invasive banded and European elm bark beetles (Coleoptera: Scolytidae) in North America. Annals of the Entomological Society of America 102: 426-436.
- Legalov, A. A. 2006a.** Phylogenetic reconstruction of weevil superfamily Curculionoidea (Coleoptera) using the SYNAP method. Biology Bulletin 33: 127-134.
- Legalov, A. A. 2006b.** [Phylogenetic reconstruction of weevil superfamily Curculionoidea (Coleoptera) using the SYNAP method]. Izvestiya Akademii Nauk. Seriya Biologicheskaya 2: 165-172.
- Li, X., Z. Zhang, H. Wang, W. Wu, P. Cao, and P. Zhang. 2010.** *Tomicus armandii* Li and Zhang (Curculionidae, Scolytinae), a new pine shoot borer from China. Zootaxa 2572: 57-64.
- Lie, F. 2004.** Host resistance to bark beetles and its variations. p. 135-180. In: F. Lieutier, K. R. Day, A. Battisti, J-C. Grégoire, and H. F. Evans (eds.). Bark and Wood Boring Insects in Living Trees in Europe, a Synthesis., Kluwer Academic Publishers, Dordrecht. 569 p.
- Lightle, D. M., K. J. K. Gandhi, A. I. Cognato, B. J. Mosley, D. G. Nielsen, and D. A. Herms. 2007.** New reports of exotic and native ambrosia and bark beetle species (Coleoptera: Curculionidae: Scolytinae) from Ohio. Great Lakes Entomologist 40: 194-200.
- Lin, C-S., and W-J. Wu. 2010.** Scolytid species (Coleoptera: Curculionidae: Scolytinae) in China fir (*Cunninghamia lanceolata*) in the Nei-Mou-Pu tract of the NTU Experimental Forest. Formosan Entomologist 30: 203-218.
- Lin, D-G., M. J. Bohne, J. C. Lee, M. L. Flint, R. L. Penrose, and S. J. Seybold. 2007.** New introduction in California: The redhaired pine bark beetle, *Hylurgus ligniperda* Fabricius. United States Department of Agriculture, Forest Service, Pest Alert R5-PR-07. 3 p.
- Lindelöw, Å., M. Jonsell, and G. Sjödin. 2006.** *Xyleborinus alni* (Coleoptera; Curculionidae) – en ny barkborreart funnen i Sverige. [*Xyleborus alni* (Coleoptera: Curculionidae) – a new bark beetle found in Sweden]. Entomologisk Tidskrift 127: 97-99.
- Liu, D., M. L. Flint, and S. J. Seybold. 2008.** A secondary sexual character in the redhaired pine bark beetle, *Hylurgus ligniperda* Fabricius (Coleoptera: Scolytidae). Pan-Pacific Entomologist 84: 26-28.
- Lombardero, M. J., M. P. Ayres, B. D. Ayres, and J. D. Reeve. 2000.** Cold tolerance of four species of bark beetles (Coleoptera: Scolytidae) in North America. Environmental Entomology 29: 421-432.
- López-Buenfil, J. A., J. Valdés-Carrasco, A. Equihua-Martínez, and A. Burgos-Solorio. 2001.** El proventrículo como estructura para identificar géneros Mexicanos de Scolytidae (Coleoptera). [The proventricular plate structure as an element for identifying Mexican genera of Scolytidae (Coleoptera)]. Folia Entomologica Mexicana 40: 325-372.
- Machado, A., and P. Oromi. 2000.** Elenco de los Coleópteros de las Islas Canarias. Instituto de Estudios Canarios, La Laguna. 306 p.
- Macías-Sámano, J. E., and J. H. Borden. 2000.** Interactions between *Scolytus ventralis* and *Pityokteines elegans* (Coleoptera: Scolytidae) in *Abies grandis*. Environmental Entomology 29: 28-35.
- Maiti, P. K., and N. Saha. 2004.** Fauna of India and the adjacent countries. Scolytidae: Coleoptera (Bark- and ambrosia-beetles) Volume: I (Part-1), Introduction and tribe Xyleborini. Zoological Society of India. 268 p.
- Maiti, P. K., and N. Saha. 2009.** Fauna of India and the adjacent countries. Scolytidae: Coleoptera (Bark- and ambrosia-beetles) Volume: I (Part-2). Zoological Society of India. 245 p.
- Majka, C. G., R. S. Anderson, and D. B. McCorquodale. 2007.** The weevils (Coleoptera: Curculionoidea) of the Maritime Provinces of Canada, II: New records from Nova Scotia and Prince Edward Island and regional zoogeography. The Canadian Entomologist 139: 397-442.
- Majka, C. G., R. S. Anderson, D. F. McAlpine, and R. P. Webster. 2007.** The weevils (Coleoptera: Curculionoidea) of the Maritime Provinces of Canada, I: New records from New Brunswick. The Canadian Entomologist 139: 378-396.
- Mandelshtam, M. Y. 2001a.** New synonymy and new records in Palaearctic Scolytidae (Coleoptera). Zoosystematica Rossica 9: 203-204.
- Mandelshtam, M. Y. 2001b.** A new species of bark-beetles (Coleoptera: Scolytidae) from Russian Far East. Far Eastern Entomologist 105: 11-12. (Data included in Bright and Skidmore (2002)).
- Mandelshtam, M. Y. 2001c.** [Thamnurgus rossicus Alexeev, 1957 (Coleoptera: Scolytidae) – endemic bark-beetle of Central Russia]. p. 274-278. In: Vegetation of Central-Chernozem Nature Reserve. Proceedings of Central-Chernozem State Natrue Reserve 18. Tula.

- Mandelshtam, M. Y. 2001d.** [Xylophilous and mycetophilous beetles (Coleoptera) of Zorinsk protected area of Central-Chernozem Nature Reserve]. p. 261-263. In: Nature conditions and biological diversity of Zorinsk Protected Area in Kursk Province. Proceedings of Central-Chernozem State Nature Reserve 17. Tula.
- Mandelshtam, M. Y. 2002.** New synonymy, new records and lectotype designations in Palaearctic Scolytidae (Coleoptera). Far Eastern Entomologist 119: 6-11.
- Mandelshtam, M. Y. 2007.** New synonymies and new combinations in Scolytidae from the Kuril Archipelago and continental territories of the Russian Far East (Coleoptera). Zoosystematica Rossica 15: 323-325.
- Mandelshtam, M. Y. 2008.** [Fauna of bark beetles (Coleoptera, Scolytidae) in the Kaliningrad region: the history of studying and the modern state of knowledge]. Izvestiya Sankt-Peterburgskoi Lesotekhnicheskoy Akademii (Proceedings of the St. Petersburg Forest Technical Academy) 182: 200-209.
- Mandelshtam, M. Y. 2009.** Book Review- S. L. Wood, Bark and Ambrosia Beetles of South America (Coleoptera: Scolytidae). Monte L. Bean Life Science Museum, Brigham Young University, Provo, 2007. 900 p. Entomologicheskoe Obozrenie 88: 207-208. (Translated in Entomological Review 80: 245-246)
- Mandelshtam, M. Y., and R. A. Beaver. 2003.** *Amphiscolytus*-a new genus, and Amphiscolytini-a new tribe of Scolytidae (Coleoptera) for *Dacryophthorus capensis* Schedl. Zootaxa 298: 1-8.
- Mandelshtam, M. Y., and R. Danielsson. 2004.** Some African Scolytidae (Coleoptera) collected by Swedish Entomological Expeditions. Annals of the Transvaal Museum 41: 90-92.
- Mandelshtam, M. Y., and A. Y. Isaev. 2006.** [The bark-beetles (Curculionoidea: Scolytidae) of the Uluanovsk province]. Bulletin Samarskaya Luka 17: 90-100.
- Mandelshtam, M. Y., and N. B. Nikitsky. 2010.** [Review of Scolytidae (Coleoptera) type specimens from V. Motschulsky collection preserved in the Zoological Museum of Moscow State University]. Byulleten' Moskovskogo Obshchestva Ispytatelei Prirody Otdel Biologicheskii 115(5): 13-21.
- Mandelshtam, M. Y., and A. V. Petrov. 2009a.** Family Scolytidae-bark beetles. p. 206-209. In: Insects of Lazovsky Nature Reserve. Russian Academy of Sciences, Far Eastern Branch, Institute of Biology and Soil Science. Vladivostok: Dalnauka.
- Mandelshtam, M. Y., and A. V. Petrov. 2009b.** Family Platypodidae. p. 209. In: Insects of Lazovsky Nature Reserve. Russian Academy of Sciences, Far Eastern Branch, Institute of Biology and Soil Science. Vladivostok: Dalnauka.
- Mandelshtam, M. Y., and A. V. Petrov. 2009c.** [Scolytidae (Coleoptera) of the Kunashir Island: 40 years after first systematic investigation of the Kuril Islas dendrophylic entomofauna]. Izvestiya Sankt-Peterburgskoi Lesotekhnicheskoy Akademii (Proceedings of the St. Petersburg Forest Technical Academy) 187: 182-190.
- Mandelshtam, M. Y., and A. V. Petrov. 2010a.** *Scolyus stepheni* sp. n.- a new species of bark-beetle (Coleoptera, Curculionidae, Scolytinae) from Northern India with a key to Indian *Scolytus* Geoffroy, 1762 species. p. 171-178. In: A. I. Cognato and M. Knízek (eds.). Sixty years of discovering scolytine and platypodine diversity: A tribute to Stephen L. Wood. ZooKeys 56. 280 p.
- Mandelshtam, M. Y., and A. V. Petrov. 2010b.** Description of new *Dryocoetes* (Coleoptera, Curculionidae, Scolytinae) species from Afghanistan and Northern India and redescription of *Scolytoplatypus kunala* Strom. p. 17-19. In: A. I. Cognato and M. Knízek (eds.). Sixty years of discovering scolytine and platypodine diversity: A tribute to Stephen L. Wood. ZooKeys 56. 280 p.
- Mandelshtam, M. Y., and B. G. Popovich. 2000.** Annotated list of bark beetles (Coleoptera, Scolytidae) of Leningrad Province. Entomologicheskoe Obozrenie 79: 599-618. (Translated in Entomological Review 80: 887-903).
- Mandelshtam, M. Y., and A. V. Selikhovkin. 2003.** [Annotated list of scolytids (Coleoptera, Scolytidae) of "Sebezhskii" National Park]. Nature of Pskov Province 15: 14-19.
- Mandelshtam, M. Y., D. Aguin-Pombo, and E. Nunes. 2006.** *Hylastes attenuatus* Erichson 1836 (Coleoptera, Scolytidae), an exotic bark beetle new to Madeira fauna. The Coleopterists Bulletin 60: 297-298.
- Mandelshtam, M. Y., G. S. Lafer, and V. N. Kuznetsov. 2001.** [To the knowledge of the bark beetles (Coleoptera, Scolytidae) of Sikhote-Alin mountains]. Far Eastern Entomologist 103: 6.

- Mandelshtam, M. Y., N. B. Nikitsky, and A. R. Bibin. 2005a.** The bark beetles (Coleoptera, Scolytidae) from the subfamilies Hylesininae and Scolytinae (except tribes Xyleborini, Cryphalini and Corthylini) of the western Caucasus. Byulleten' Moskovskogo Obshchestva Ispytatelei Prirody Otdel Biologicheskii 110(2): 20-30.
- Mandelshtam, M. Y., N. B. Nikitsky, and A. R. Bibin. 2005b.** The bark beetles from the tribes Xyleborini, Cryphalini and Corthylini (Coleoptera: Scolytidae, Scolytinae) of western Caucasus (with notes on some species from other tribes of the family). Byulleten' Moskovskogo Obshchestva Ispytatelei Prirody Otdel Biologicheskii 110(3): 21-28.
- Mandelshtam, M. Y., A. V. Petrov, and B. A. Korotyav. 2011.** [To the knowledge of the herbivorous scolytid genus *Thamnurgus* Eichhoff (Coleoptera, Scolytidae)]. Entomologicheskoe Obozrenie 90: 595-621. (Translated in Entomological Review 92: 329-349)
- Mandelshtam, M. Y., A. V. Petrov, S. J. Axentjev, and M. Knízek. 2006.** A new and poorly known species of bark beetles (Coleoptera: Scolytidae) from Middle Asia. Proceedings of the Russian Entomological Society 77: 213-218.
- Mandelshtam, M. Y., A. V. Petrov, M. Barclay, M. Knízek, and R. A. Beaver. 2007.** Taxonomic changes in Scolytinae (Coleoptera: Curculionidae) from Eastern Asia. Russian Entomological Journal 16: 459-464.
- Markovic, C. 2000.** Novi prilozi poznavanju faune sipaca (Coleoptera, Scolytidae) Kosmaja [Serbia, Jugoslavija]. [A new contribution to the study of the bark beetle fauna (Coleoptera, Scolytidae) of Mt. Kosmaj (Serbia, Yugoslavia)]. Sumarstov 53(2,3): 1-5.
- Markovic, C., and A. Stojanovic. 1999.** The first finding of *Phloeophthorus brevicollis* (Kolenati) (Coleoptera, Scolytidae) in Yugoslavia. Acta Entomologica Serbica 4: 145-147.
- Markovic, C., and A. Stojanovic. 2000a.** The first finding of *Ernoporicus caucasicus* (Lindemann, 1876) (Coleoptera, Scolytidae) in Yugoslavia. Acta Entomologica Serbica 5: 153-154.
- Markovic, C., and A. Stojanovic. 2000b.** [A contribution to the study of bark beetles (Coleoptera, Scolytidae) fauna of the mountain Goc (Serbia, Yugoslavia.)]. Sumarstov 53: 17-23.
- Maroja, L. S., S. M. Bogdanowicz, K. F. Wallin, K. F. Raffa, and R. G. Harrison. 2007.** Phylogeography of spruce beetles (*Dendroctonus rufipennis* Kirby) (Curculionidae: Scolytinae) in North America. Molecular Ecology 16: 2560-2573.
- Martikainen, P. 2000.** Flight period and ecology of *Trypodendron proximum* (Niijima) (Col., Scolytidae) in Finland. Journal of Applied Entomology 124: 57-62.
- Masood, A., S. Saeed, A. Sajjad, and M. Ali. 2009.** Life cycle and biology of the mango bark beetle, *Hypocryphalus mangiferae* (Stebbing), a possible vector of mango sudden death disease in Pakistan. Pakistan Journal of Entomology 41: 281-288.
- Masutti, L., A. Battisti, and M. Faccoli. 2005.** Entomological fauna in pine stands of the *nigra* group in Italy. p. 79-87. In: F. Lieutier and D. Ghaioule. Entomological Research in Mediterranean Forest Ecosystems. INRA Editions, Paris.
- Mausel, D. L., R. I. Gara, D. Lanfranco, C. Ruiz, S. Ide, and R. Azat. 2007.** The introduced bark beetles *Hylurgus ligniperda* and *Hylastes ater* (Coleoptera: Scolytidae) in Chile: seasonal flight and effect of *Pinus radiata* log placement on colonization. Canadian Journal of Forest Research 37: 156-169.
- McNee, W. R., D. L. Wood, and A. J. Storer. 2000.** Pre-emergence feeding in bark beetles (Coleoptera: Scolytidae). Environmental Entomology 29: 495-501.
- McPherson, B. A., N. Erbilgin, D. L. Wood, P. Švihra, A. J. Storer, and R. B. Standiford. 2008.** Attraction of ambrosia and bark beetles to coast live oaks infected by *Phytophthora ramorum*. Agricultural and Forest Entomology 10: 315-321.
- Mecke, R. 2004a.** A new Brazilian bark beetle, *Xylechinosomus lucianae* sp. n. (Coleoptera, Curculionidae, Scolytinae, Tomicini), from *Araucaria angustifolia* (Conifera, Araucariaceae). Deutsche Entomologische Zeitschrift 51: 217-220.
- Mecke, R. 2004b.** New species of *Pachycotes* Sharp and *Xylechinus* Chapuis (Coleoptera: Curculionidae: Scolytinae, Tomicini) from New Caledonian *Araucaria* sp. (Coniferales: Araucariaceae). New Zealand Journal of Zoology 31: 343-349.

- Mecke, R.** 2005. Tibial thorns or true hairs of corresponding structure in both bark beetles (Scolytidae) and bark inhabiting weevils (Curculionidae: Cossoninae: Araucariini). *Entomologia Generalis* 28: 17-21.
- Mecke, R., and M. H. M. Galileo.** 2004. A review of the weevil fauna (Coleoptera, Curculionoidea) of *Araucaria angustifolia* (Bert.) O. Kuntze (Araucariaceae) in South Brazil. *Revista Brasileira de Zoologia* 21: 505-513.
- Mecke, R., M. H. M. Galileo, and W. Engels.** 2000. Insectos e ácaros associados à *Araucaria angustifolia* (Araucariaceae, Coniferae) no sul do Brasil. [Insects and mites associated with *Araucaria angustifolia* (Aracauriaceae, Coniferae) in southern Brazil]. *Iheringia Serie Zoologia* 88: 165-172.
- Mecke, R., M. H. M. Galileo, and W. Engels.** 2001. New records of insects associated with Araucaria trees: phytophagous Coleoptera and Hymenoptera and their natural enemies. *Studies on Neotropical Fauna and Environment* 36: 113-124.
- Meirmans, S., A. Skorping, M. K. Loyning, and L. R. Kirkendall.** 2006. On the track of the Red Queen: bark beetles, their nematodes, local climate and geographic parthenogenesis. *Journal of Evolutionary Biology* 19: 1939-1947.
- Menard, K. L., and A. I. Cognato.** 2007. Mitochondrial haplotypic diversity of pine cone beetles (Scolytinae: *Conophthorus*) collected on food sources. *Environmental Entomology* 36: 962-966.
- Miao, Z. W., W. M. Zhou, F. Y. Huo, X. L. Wang, and Z. X. Fan.** 2001. Biology of red turpentine beetle. *Shanxi Forestry Science and Technology* 1: 34-37.
- Mifsud, D., and E. Colonnelli.** 2010. The Curculionoidea of the Maltese Islands (Central Mediterranean) (Coleoptera). *Bulletin of the Entomological Society of Malta* 3: 55-143.
- Mifsud, D., and M. Knízek.** 2009. The bark beetles (Coleoptera: Scolytidae) of the Maltese Islands (Central Mediterranean). *Bulletin of the Entomological Society of Malta* 2: 25-52.
- Mitchell, A., and C. Maddox.** 2010. Bark beetles (Coleoptera: Curculionidae: Scolytinae) of importance to the Australian macadamia industry: an integrative taxonomic approach to species diagnostics. *Australian Journal of Entomology* 49: 104-113.
- Moore, R.** 2000. More notes on the Coleoptera of the Island of Raasay, Scotland. *Entomologist's Monthly Magazine* 136: 168.
- Moraal, L. G. 2010a.** Infestations of the cypress bark beetles *Phloeosinus rufus*, *P. bicolor* and *P. thuiae* in the Netherlands (Coleoptera: Curculionidae: Scolytinae). *Entomologische Berichten* 70: 140-145.
- Moraal, L. G. 2010b.** *Phloeosinus rufus* Blandford, Japanese thuja bark beetle (Coleoptera, Curculionidae, Scolytinae). p. 898-899. In: A. Roques, M. Kenis, D. Lees, C. Lopez-Vaamonde, W. Rabitsch, J.-Y. Rasplus, and D. B. Roy (eds.). Alien terrestrial arthropods of Europe. *BioRisk* 4(2): 855-1021.
- Morales, N. E., J. C. Zanuncio, D. Pratirossi, and A. S. Fabres.** 2000. Fluctuación poblacional de Scolytidae (Coleoptera) en zonas reforestadas con *Eucalyptus grandis* (Myrtaceae) en Minas Gerais, Brasil. [Population fluctuation of Scolytidae (Coleoptera) in zones reforested with *Eucalyptus grandis* (Myrtaceae) in Minas Gerais, Brazil]. *Revista de Biología Tropical* 48: 101-107.
- Morimoto, K., and H. Kojima.** 2003. Morphological characters of the weevil head and phylogenetic implications (Coleoptera, Curculionoidea). *Esakia* 43: 133-169.
- Morimoto, K., and H. Kojima.** 2004. Systematic position of the tribe Phylloplatypodini, with remarks on the definitions of the families Scolytidae, Platypodidae, Dryophthoridae and Curculionidae (Coleoptera: Curculionoidea). *Esakia* 44: 153-168.
- Moser, J. C., and J. E. Macías-Sámano.** 2000. Tarsonemid mite associates of *Dendroctonus frontalis* (Coleoptera: Scolytidae): Implications for the historical biogeography of *D. frontalis*. *The Canadian Entomologist* 132: 765-771.
- Moser, J. C., B. A. Fitzgibbon, and K. D. Klepzig.** 2005. The Mexican pine beetle, *Dendroctonus mexicanus*: first record in the United States and co-occurrence with the southern pine beetle-*Dendroctonus frontalis* (Coleoptera: Scolytidae or Curculionidae: Scolytinae). *Entomological News* 116: 235-243.
- Moucheron, B.** 2009. Presence of the scolytid *Phloeosinus aubei* (Perris, 1855) in the province of Hainaut, Belgium (Coleoptera, Scolytidae). *Lambillionea* 109: 32-32.
- Moucheron, B., and N. Warzee.** 2006. [*Gnathotrichus materarius* (Fitch, 1858): a North American scolytid to be monitored, new to the fauna of Belgium (Coleoptera, Scolytidae)]. *Lambillionea* 106: 610-612.

- Mudge, A. D., J. R. LaBonte, K. J. R. Johnson, and E. H. LaGasa.** 2001. Exotic woodboring Coleoptera (Micromalthidae, Scolytidae) and Hymenoptera (Xiphydriidae) new to Oregon and Washington. Proceedings of the Entomological Society of Washington 103: 1011-1019.
- Nandi, B., and P. Mukhopadhyay.** 2003. Insecta: Coleoptera: Platypodidae. p. 209-215. In: State Fauna Series, Fauna of Sikkim, Part 3, Zoological Survey of India, Kolkata. 411 p.
- Nash, D. R.** 2003. *Dryocoetes autographus* (Ratzburg) (Col.: Scolytidae) in East Suffolk. Entomologist's Record and Journal of Variation 115: 42.
- Negrón, J. F., J. J. Witcosky, R. J. Cain, J. R. LaBonte, D. A. Duerr, S. J. McElwey, J. C. Lee, and S. J. Seybold.** 2005. The banded elm bark beetle: a new threat to elms in North America. American Entomologist 51: 84-94.
- Nierhaus, W. D., and B. Forster.** 2000. Rindenbrutende Käfer an Föhren. [Bark beetles of pines]. Merkblatt für die Praxis No. 31. 12 p.
- Nikulina, T. V., V. V. Martynov, and M. Y. Mandelshtam.** 2007a. *Xyleborinus alni* a new bark beetle species (Coleoptera: Scolytidae) in the European fauna. Vestnik Zoologii 41: 542.
- Nikulina, T. V., V. V. Martynov, and M. Y. Mandelshtam.** 2007b. The first record of the bark beetle *Anisandrus maiche* (Coleoptera: Scolytidae) in the European fauna. Vestnik Zoologii 41: 542.
- Noblecourt, T.** 2004. Notes sur les Coléoptères Scolytidae: espèces rares ou peu communes en France. [Notes on Scolytidae, Coleoptera: rare and uncommon species in France]. Le Coléoptériste 7(1): 33-36.
- Noblecourt, T., and C. Schott.** 2004. [*Cryphalus intermedius* Ferrari, 1867 and *Cryphalus saltuarius* Weise 1891, new species for the French fauna (Coleoptera: Scolytidae)]. Bulletin Mensuel de la Société Linnaenne de Lyon 73: 290-292.
- Ødegaard, F., and S. Ligaard.** 2000. Contribution to the knowledge of Norwegian Coleoptera. Norwegian Journal of Entomology 47: 7-19.
- Oberprieler, R. G., A. E. Marvaldi, and R. S. Anderson.** 2007. Weevils, weevils, weevils everywhere. Zootaxa 1668: 491-520.
- Ohya, E., and H. Kinuura.** 2001. Close range sound communications of the oak platypodid beetle *Platypus quercivorus* (Murayama) (Coleoptera: Platypodidae). Applied Entomology and Zoology 36: 317-321.
- Okins, K. E., and M. C. Thomas.** 2010. New North American record for *Xyleborinus andrewsi* (Coleoptera: Curculionidae: Scolytinae). Florida Entomologist 93: 133-134.
- Oliveira, C. M., C. A. Flechtmann, and M. R. Frizzas.** 2008. First record of *Xylosandrus compactus* (Eichhoff) (Coleoptera: Curculionidae: Scolytinae) on soursap, *Annona muricata* L. (Annonaceae) in Brazil, with a list of host plants. The Coleopterists Bulletin 62: 45-48.
- Oliver, J. B., and C. M. Mannion.** 2001. Ambrosia beetle (Coleoptera: Scolytidae) species attacking chestnut and captured in ethanol-baited traps in Middle Tennessee. Environmental Entomology 30: 909-918.
- Oroussel, J., and E. de Laclos.** 2007. *Cisurgus ragusae* Reitter, 1906, new species for the French fauna (Coleoptera: Scolytidae). Bulletin de la Société Entomologique de France 112: 135-139.
- Osella, G., C. Di Marco, O. Marotta, and A. M. Zuppa.** 2005. The Curculionoidea population of Gran Sasso. II. Urodontidae, Anthribidae, Nanophyidae, Apionidae, Brachyceridae, Raymondionymidae, Curculionidae, Dryophthoridae, Scolytidae e Platypodidae (Coleoptera). Museo Regionale di Scienze Naturali Bollettino (Turin) 23: 5-244.
- Owen, D. R., S. L. Smith, and S. J. Seybold.** 2010. Red turpentine beetle. United States Department of Agriculture, Forest Service, Forest Insect and Disease Leaflet 55. 8 p.
- Owen, D. R., D. L. Wood, and J. R. Parmeter.** 2005. Association between *Dendroctonus valens* and blackstain root disease on ponderosa pine in the Sierra Nevada of California. The Canadian Entomologist 137: 367-375.
- Pedersen, J., M. Hansen, and O. Vagholm-Jensén.** 2010. Fund af biller i Danmark, 2008 og 2009 (Coleoptera). [Records of beetles from Denmark, 2008 and 2009 (Coleoptera)]. Entomologiske Meddelelser 78: 117-161.
- Pedersen, J., J. B. Runge, and B. P. Jensén.** 2008. Fund af biller i Danmark, 2006 og 2007 (Coleoptera). [Records of beetles from Denmark, 2006 and 2007 (Coleoptera)]. Entomologiske Meddelelser 76: 105-144.

- Pedroni, G. 2002.** First mention of *Dendroctonus micans* for the fauna of Aosta Valley (Italy) (Coleoptera: Scolytidae). *Revus Valdotaine d'Histoire Naturelle* 56: 99-102.
- Peer, K., and M. Taborsky. 2005.** Outbreeding depression, but no inbreeding depression in haplodiploid ambrosia beetles with regular sibling mating. *Evolution* 59: 317-321.
- Pelletier, J. 2004/2005.** Catalog of the Curculionoidea of France (Coleoptera). *Biocosme Mesogeen* 21: 75-147.
- Pennacchio, F., E. Gatti, and P. F. Roversi. 2002.** Le specie del genere *Pityokteines* Fuchs in Italia: Chiave identificativa e bionomia (Coleoptera Scolytidae). *Redia* 85: 229-256.
- Pennacchio, F., M. Faggi, E. Gatti, F. Caronni, M. Colombo, and P. F. Roversi. 2004.** First record of *Phloeotribus liminaris* (Harris) from Europe (Coleoptera, Scolytidae). *Redia* 87: 85-89.
- Pennacchio, F., P. F. Roversi, V. Francardini, and E. Gatti. 2003.** *Xylosandrus crassiusculus* (Motschulsky) a bark beetle new to Europe. *Redia* 86: 77-80.
- Pérez-De La Cruz, M., A. Equihua-Martínez, J. Romero-Nápoles, S. Sánchez-Soto, E. García-López, and H. Bravo-Mojica. 2009.** Escolítidos (Coleoptera: Scolytidae) asociados al agroecosistema cacao en Tabasco, México. *Neotropical Entomology* 38: 602-609.
- Perez-Gelabert, D. E. 2008.** Arthropods of Hispaniola (Dominican Republic and Haiti): a checklist and bibliography. *Zootaxa* 1831: 1-530. (Scolytidae, p. 138-140; Platypodidae, p. 137-138).
- Pernek, M., D. N. Avtzis, B. Hrašovec, D. Diminic, R. Wegensteiner, C. Stauffer, and A. I. Cognato. 2008.** Novel morphological and genetic markers for the discrimination of three European *Pityokteines* (Coleoptera: Curculionidae: Scolytinae) species. *Periodicum Biologorum* 110: 329-334.
- Perny, B. 2000.** *Ips sexdentatus* Boern. – Grosser 12-zähniger Kieferborkenkäfer. [*Ips sexdentatus* Boern. – the large 6-spined pine bark beetle]. *Forstschutz Aktuell* 29: 19-21.
- Petercord, R. 2005.** Der Flugverlauf des Laubnutzholzborkenkäfers *Trypodendron domesticum* L. 2002 bis 2004. [Flight period of the broad-leaved ambrosia beetle *Trypodendron domesticum* L. in the period 2002-2004]. *Mitteilungen der Deutschen Gesellschaft für Allgemeine und Angewandte Entomologie* 2006: 219-223.
- Petrov, A. V. 2002.** A new species and a new synonym in the genus *Hylesinus* Fabricius (Coleoptera, Scolytidae). *Entomologicheskoe Obozrenie* 81: 121-125. (Translated in *Entomological Review* 82: 179-182.)
- Petrov, A. V. 2005.** Fauna of bark beetles (Coleoptera: Scolytidae) of Daghestan. *Russian Entomological Journal* 14: 217-222.
- Petrov, A. V. 2007.** A new species of the genus *Camptocerus* Latreille (Coleoptera: Scolytidae) from Peru. *Russian Entomological Journal* 16: 101-102.
- Petrov, A. V., and M. Y. Mandelshtam. 2002.** New synonymy in the genus *Hylesinus* Fabricius (Coleoptera: Scolytidae). *Far Eastern Entomologist* 119: 11-12.
- Petrov, A. V., and M. Y. Mandelshtam. 2007.** A new species of the genus *Scolytodes* Ferrari (Coleoptera: Curculionidae: Scolytinae) from Peru. *Russian Entomological Journal* 16: 451-452.
- Petrov, A. V., and M. Y. Mandelshtam. 2009.** New data on ambrosia-beetles of the genus *Sampsonius* Eggers, 1935 with descriptions of two new species from Peru (Coleoptera: Curculionidae: Scolytinae). *Koleopterologische Rundschau* 79: 313-319.
- Petrov, A. V., and M. Y. Mandelshtam. 2010.** New data on Neotropical *Scolytus* Geoffroy, 1762 with descriptions of five new species from Peru (Coleoptera, Curculionidae, Scolytinae). p. 65-104. In: A. I. Cognato and M. Knízek (eds.). *Sixty years of discovering scolytine and platypodine diversity: A tribute to Stephen L. Wood*. *ZooKeys* 56. 280 p.
- Petrov, A. V., and M. Y. Mandelshtam. 2011.** New data on bark beetles of the genus *Chramesus* LeConte, 1868 with descriptions of two new species from Peru (Coleoptera: Curculionidae: Scolytinae). *Koleopterologische Rundschau* 81: 269-279.
- Petrov, A. V., and N. B. Nikitski. 2001.** Fauna of bark beetles (Coleoptera, Scolytidae) of Moscow Province. *Entomologicheskoe Obozrenie* 80: 353-367. (Translated in *Entomological Review* 81: 166-176.)
- Petrov, A. V., and E. E. Perkovsky. 2008.** New species of bark beetles from Rovno amber (Insecta: Coleoptera: Scolytidae). *Paleontologicheskii Zhurnal* 4: 70-73. (Translated in *Entomological Journal* 42: 406-408.)

- Petrov, A. V., and V. V. Zherikhin.** 2000. Fossil bark beetles of the genus *Scolytus* from the Neogene of France (Coleoptera: Curculionidae: Scolytinae). *Paleontologicheskii Zhurnal Supplement* 3: 34: S344-S346.
- Petrov, A. V., and V. V. Zherikhin.** 2004. A new species of bark beetles of the genus *Hylesinus* (Insecta: Coleoptera: Scolytidae) from the Oligocene of France. *Paleontologicheskii Zhurnal* 2: 69-71.
- Petrov, A. V., M. Y. Mandelstam, and R. A. Beaver.** 2007. *Urocorthylus* gen. n.: a remarkable monotypic scolytine genus from northern Vietnam (Coleoptera: Curculionidae: Scolytinae). *Koleopterologische Rundschau* 77: 249-254.
- Peverien, G. S., M. Faggi, L. Marziali, and R. Tiberi.** 2008. Life cycle of *Tomicus destruens* in a pine forest of central Italy. *Bulletin of Insectology* 61: 337-342.
- Piel, F., J-C. Grégoire, and M. Knízek.** 2006. New occurrence of *Ips duplicatus* Sahlberg in Herstal (Liege, Belgium). *Bulletin OEPP/EPPO* 36: 529-530.
- Podlussány, A., and Z. György.** 2008. Beetle collection of the Matra Museum, Gyongyos, Hungary. Coleoptera: Curculionoidea: Anthribidae, Apionidae, Attelabidae, Curculionidae, Nanophyidae, Rhynchitidae, Scolytidae, Urodontidae. *Folia Historico Naturalia Musei Matraensis* 32: 183-200.
- Rabaglia, R. J.** 2002. XVII. Scolytinae Latreille 1807. p. 792-805. In: R. H. Arnett, Jr., M. C. Thomas, P. E. Skelley, and J. H. Frank (eds.). *American beetles*, Vol. 2. CRC Press; Boca Raton, FL. 861 p.
- Rabaglia, R. J.** 2003. Annotated list of the bark and ambrosia beetles (Coleoptera: Scolytidae) in Maryland, with new distribution records. *Proceedings of the Entomological Society of Washington* 105: 373-379.
- Rabaglia, R. J.** 2005. The validity of *Xyleborus impressus* Eichhoff (Coleoptera: Curculionidae: Scolytinae) as distinct from *Xyleborus ferrugineus* (Fabricius). *The Coleopterists Bulletin* 59: 261-266.
- Rabaglia, R. J., and M. A. Valenti.** 2003. Annotated list of the bark and ambrosia beetles (Coleoptera: Scolytidae) of Delaware, with new distributional records. *Proceedings of the Entomological Society of Washington* 105: 312-319.
- Rabaglia, R. J., and G. L. Williams.** 2002. Two species of western North American *Hylesinus* Fabricius (Coleoptera: Scolytidae) new to the eastern United States. *Proceedings of the Entomological Society of Washington* 104: 1058-1060.
- Rabaglia, R. J., S. A. Dole, and A. I. Cognato.** 2006. Review of American Xyleborina (Coleoptera: Curculionidae: Scolytinae) occurring north of Mexico, with an illustrated key. *Annals of the Entomological Society of America* 99: 1034-1056.
- Rabaglia, R. J., M. Knízek, and W. Johnson.** 2010. First records of *Xyleborinus octiesdentatus* (Murayama) (Coleoptera, Curculionidae, Scolytinae) from North America. p. 23-28. In: A. I. Cognato and M. Knízek (eds.). *Sixty years of discovering scolytine and platypodine diversity: A tribute to Stephen L. Wood*. ZooKeys 56. 280 p.
- Rabaglia, R. J., N. J. Vandenberg, and R. E. Acciavatti.** 2009. First records of *Anisandrus maiche* Stark (Coleoptera: Curculionidae: Scolytinae) from North America. *Zootaxa* 2137: 23-28.
- Reay, S. D., and P. J. Walsh.** 2001. Observations of the flight activity of *Hylastes ater* and *Hylurgus ligniperda* (Curculionidae: Scolytinae) in *Pinus radiata* forests in the central North Island, New Zealand. *New Zealand Entomologist* 24: 79-85.
- Renner, K.** 2009. Some notable records of beetle species in East Germany and West Poland (Coleoptera: Ptiliidae, Staphylinidae, Latridiidae, Scolytidae). *Entomologische Nachrichten und Berichte* 53: 47-48.
- Rios-Reyes, A. V., J. Valdez-Carrasco, A. Equihua-Martinez, and G. Moya-Raygoza.** 2008. Identification of *Dendroctonus frontalis* (Zimmermann) and *D. mexicanus* (Hopkins) (Coleoptera: Curculionidae: Scolytinae) through structures of the female genitalia. *The Coleopterists Bulletin* 62: 99-103.
- Ritzerow, S., and C. Stauffer.** 2004. Phylogenetic and phylogeographical analysis of three European *Tomicus* species (Coleoptera, Scolytidae). *Mitteilungen der Deutschen Gesellschaft für Allgemeine und Angewandte Entomologie* 14: 287-290.
- Ritzerow, S., H. Konrad, and C. Stauffer.** 2004. Phylogeography of the Eurasian pine shoot beetle *Tomicus piniperda* (Coleoptera: Scolytidae). *European Journal of Entomology* 101: 13-19.

- Robertson, I. C.** 2000. Reproduction and developmental phenology of *Ips perturbatus* (Coleoptera: Scolytidae) inhabiting white spruce (Pinaceae). *The Canadian Entomologist* 132: 529-537.
- Ross, A. J., and P. V. York.** 2000. A list of type and figured specimens of insects and other inclusions in Burmese amber. *Bulletin of the Natural History Museum, Geology Series* 56: 11-20.
- Rubio G., J. D.** 2009. Morfología externa de los estados immaduros de *Hypothenemus hampei* Ferrari (Coleoptera: Curculionidae). Universidad de Ciencias Aplicadas y Ambientales (Bogata). Revista 2009: 157-161.
- Rubio G., J. D., A. E. Bustillo P., L. F. Vallejo E., J. R. Acuña Z., and M. P. Benavides.** 2008. Alimentary canal and reproductive tract of *Hypothenemus hampei* (Ferrari) (Coleoptera: Curculionidae, Scolytinae). *Neotropical Entomology* 37: 143-151.
- Ruiz, C., D. Lanfranco, D. L. Mausei, and R. I. Gara.** 2003. Una contribución al conocimiento de los músculos indirectos de vuelo de *Hylurgus ligniperda* (Coleoptera: Scolytidae). [A contribution to the knowledge of the flight muscles of *Hylurgus ligniperda* (Coleoptera: Scolytidae)]. *Revista Chilena de Entomología* 2003: 39-42.
- Ruiz, E. A., J. E. Rinehart, J. L. Hayes, and G. Zúñiga.** 2009a. Effect of geographic isolation on genetic differentiation in *Dendroctonus pseudotsugae* (Coleoptera: Curculionidae). *Hereditas* 146: 79-92.
- Ruiz, E. A., J. Víctor, J. A. Hayes, and G. Zúñiga.** 2009b. Molecular and morphological analysis of *Dendroctonus pseudotsugae* (Coleoptera: Curculionidae: Scolytinae): an assessment of the taxonomic status of subspecies. *Annals of the Entomological Society of America* 102: 982-997.
- Ruiz, E. A., J. E. Rinehart, J. L. Hayes, and G. Zúñiga.** 2010. Historical demography and phylogeography of a specialist bark beetle, *Dendroctonus pseudotsugae* Hopkins (Curculionidae: Scolytinae). *Environmental Entomology* 39: 1685-1897.
- Ryall, K. L., and S. M. Smith.** 2000a. Brood production and shoot feeding by *Tomicus piniperda* (Coleoptera: Scolytidae). *The Canadian Entomologist* 132: 939-949.
- Ryall, K. L., and S. M. Smith.** 2000b. Reproductive success of the introduced pine shoot beetle, *Tomicus piniperda* (L.) (Coleoptera, Scolytidae) on selected North American and European conifers. *Proceedings of the Entomological Society of Ontario* 131: 113-121.
- Sabbatini, P. G., M. Faggi, L. Marziali, and R. Tiberi.** 2008. Life cycle of *Tomicus destruens* in a pine forest of central Italy. *Bulletin of Insectology* 61: 337-342.
- Saha, N., P. K. Maiti, and S. Chakraborti.** 1992. On some species of *Xylosandrus* Reitter (Scolytidae: Coleoptera) of the sub-Himalayan West Bengal. *Records of the Zoological Survey of India* 91: 9-27.
- Sakamoto, J. M., T. R. Gordon, A. J. Storer, and D. L. Wood.** 2007. The role of *Pityophthorus* sp. as vectors of pitch canker affecting Monterey pine, *Pinus radiata*. *The Canadian Entomologist* 139: 864-871.
- Salinas-Moreno, Y., M. Guadalupe Mendoza, M. A. Barrios, R. Cisneros, J. Macias-Sámano, and G. Zúñiga.** 2004. Areography of the genus *Dendroctonus* (Coleoptera: Curculionidae: Scolytinae) in Mexico. *Journal of Biogeography* 31: 1163-1177.
- Sallé, A., W. Arthofer, F. Lieutier, C. Stauffer, and C. Kerdelhué.** 2007. Phylogeography of a host-specific insect: genetic structure of *Ips typographus* in Europe does not reflect past fragmentation of its host. *Biological Journal of the Linnean Society* 90: 779-797.
- Salsbury, G. A.** 2004. Guide to the bark and ambrosia beetles of Kansas. Kansas Department of Agriculture, Plant Protection and Weed Control Program, Topeka, Kansas. 26 p.
- Sánchez, L., J. L. Andrade, R. Cisneros, and G. Zúñiga.** 2004. Maintenance of midgut epithelial cells from *Dendroctonus valens* (Coleoptera: Scolytidae) in vitro. *Vitro Cellular and Developmental Biology – Animal* 40: 8-13.
- Sánchez-Martínez, G., and M. R. Wagner.** 2009. Host preferences and attack patterns of *Dendroctonus rhizophagus* (Coleoptera: Curculionidae: Scolytinae): a bark beetle specialist on pine regeneration. *Environmental Entomology* 38: 1197-1204.
- Sarikaya, O., and M. Avc.** 2010. Distribution and biology of the Mediterranean pine shoot beetle *Tomicus destruens* (Wollaston, 1865) in the western Mediterranean region of Turkey. *Turkiye Entomoloji Dergisi* 34: 289-298.

- Sauvard, D.** 2004. General biology of bark beetles. p. 67-84. In: F. Lieutier, K. R. Day, A. Battisti, J.-C. Grégoire, and H. F. Evans (eds). Bark and Wood Boring Insects in Living Trees in Europe, a Synthesis. Kluwer Academic Publishers, Dordrecht. 569 p.
- Sauvard, D., M. Branco, F. Lakatos, M. Faccoli, and L. R. Kirkendall.** 2010. Chapter 8.2, Weevils and Bark Beetles. p. 219-266. In: A. Roques, M. Kenis, D. Lees, C. Lopez-Vaamonde, W. Rabitsch, J.-Y. Rasplus, and D. B. Roy (eds.). Alien terrestrial arthropods of Europe. BioRisk 4(1): 219-266.
- Schedl, W.** 2010. Autecology and distribution of *Thamnurgus varipes* Eichhoff, 1878 (Coleoptera: Scolytidae) in Austria. Denisia 29: 339-345.
- Schiefer, T. L.** 2010/2011. New state records of bark and ambrosia beetles (Coleoptera: Curculionidae: Scolytinae), with notes on identification of *Hylastes exilis* Chapuis and *Hylastes tenuis* Eichhoff. Entomological News 121: 109-121.
- Schiefer, T. L., and D. E. Bright.** 2004. *Xylosandrus multilatus* (Blandford), an exotic ambrosia beetle (Coleoptera: Curculionidae: Xyleborini) new to North America. The Coleopterists Bulletin 58: 431-438.
- Schott, C.** 2001a. Un nouveau *Thamnurgus* pour l'Alsace: *Thamnurgus varipes* Eichhoff (Col., Scolytidae). Bulletin de la Société Entomologique de Mulhouse 57: 41.
- Schott, C.** 2001b. *Ips cembrae* Heer en Alsace. Bulletin de la Société Entomologique de Mulhouse 57: 55.
- Schott, C.** 2001c. *Dryocoetes hectographus* Reitter, présent dans les Hautes-Vosges (Coleoptera, Scolytidae). Bulletin de la Société Entomologique de Mulhouse 57: 71.
- Schott, C.** 2002a. Détermination des *Orthotomicus* de France (Coleoptera, Scolytidae). Bulletin de la Société Entomologique de Mulhouse 58: 4-6.
- Schott, C.** 2002b. *Orthotomicus erosus* Wollaston, new for Alsace (Coleoptera: Scolytidae). Bulletin de la Société Entomologique de Mulhouse 58: 51.
- Schott, C.** 2004. Sur la répartition de *Xyleborinus peregrinus* Eggers en France et en Allemagne. Bulletin de la Société Entomologique de Mulhouse 60: 26-28.
- Schrey, N. M., A. W. Schrey, E. J. Heist, and J. D. Reeve.** 2007. Microsatellite loci for the southern pine beetle (*Dendroctonus frontalis*) and cross-species amplification in *Dendroctonus*. Molecular Ecology Notes 7: 857-859.
- Schumacher, J., and V. Pohris.** 2000. Der kleine Buchenborkenkäfer als relevanter Rindenbrüter in Schwarzerlen-Beständen. Allgemeine Forst Zeitschrift für Waldwirtschaft und Umweltvorsorge 55: 760-763.
- Sequeira, A. S., and B. D. Farrell.** 2001. Evolutionary origins of Gondwanan interactions: how old are Araucaria beetle herbivores? Biological Journal of the Linnean Society 74: 459-474.
- Sequeira, A. S., B. B. Normark, and B. D. Farrell.** 2000. Evolutionary assembly of the conifer fauna: distinguishing ancient from recent associations in bark beetles. Proceedings of the Royal Society of London Series B., 267: 2359-2366.
- Seybold, S. J., M. A. Albers, and S. A. Katovich.** 2002. Eastern larch beetle. United States Department of Agriculture, Forest Service, Forest Insect and Disease Leaflet 175. 10 p.
- Seybold, S. J., J. Bohlemann, and K. F. Raffa.** 2000. Biosynthesis of coniferophagous bark beetle pheromones and other conifer isoprenoids: Evolutionary perspective and synthesis. The Canadian Entomologist 132: 697-753.
- Seybold, S. J., A. D. Graves, and T. W. Coleman.** 2010. Walnut twig beetle: update on the biology and chemical ecology of a vector of an invasive fatal disease of walnut in the western U. S. In: K. A. McManus and K. W. Gottschalk (eds.). Proceedings, 21st U. S. Department of Agriculture Interagency Research Forum on Invasive Species. United States Department of Agriculture, Forest Service, Northern Research Station, General Technical Report NPS-P-75. 156 p.
- Seybold, S. J., T. D. Paine, and S. H. Dreistadt.** 2008. Bark beetles. University of California, Agriculture and Natural Resources, Pest Note, Publication 7421. 8 p.
- Seybold, S. J., D. Haugen, J. O'Brien, and A. D. Graves.** 2010. Thousand cankers disease. United States Department of Agriculture, Forest Service, Northeastern Area State and Private Forestry Pest Alert NA-PR-02-10. 2 p.

- Shehata, W. A. 2000.** Some ecological aspects of the shot-hole borer, *Stephanoderes vulgaris* Schauf. (Col., Scolytidae) in fig orchards in Alexandria. Bulletin of Faculty of Agriculture, University of Cairo 51: 239-249.
- Sieger, N. W., and D. G. McCullough. 2001.** Preference of *Tomicus piniperda* (Coleoptera: Scolytidae) parent adults and shoot-feeding progeny adults for three pine species. The Canadian Entomologist 133: 343-353.
- Sieger, N. W., and D. G. McCullough. 2003.** Colonization of Scots, red, and jack pine logs by *Tomicus piniperda* (Coleoptera: Scolytidae) in Michigan pine stands. Canadian Journal of Forest Research 33: 2238-2244.
- Siionen, J. 2000.** Beetles (Coleoptera) imported to Finland on Russian roundwood. Aktueit fra skogforskningen 4: 11-17.
- Silva Olivares, A., E. Díaz, M. Shibayama, V. Tsutsumi, and R. Cisneros. 2003.** Ultrastructural study of the midgut and hindgut in eight species of the genus *Dendroctonus* Erichson (Coleoptera: Scolytidae). Annals of the Entomological Society of America 96: 883-900.
- Six, D. L., Z. W. de Beer, R. A. Beaver, L. Visser, and M. J. Wingfield. 2005.** Exotic invasive elm bark beetle, *Scolytus kirschii*, detected in South Africa. South African Journal of Science 101: 229-232.
- Smith, G. D., A. L. Carroll, and B. S. Lindgren. 2009.** Life history of a secondary bark beetle, *Pseudips mexicanus* (Coleoptera: Curculionidae: Scolytinae), in lodgepole pine in British Columbia. The Canadian Entomologist 141: 56-69.
- Smith, J., and C. E. Bográn. 2008.** First report of *Xyleborinus gracilis* (Eichhoff) in Texas (Curculionidae: Scolytinae). The Coleopterists Bulletin 62: 380.
- Smith, S. M., and A. I. Cognato. 2009.** Occurrence of *Ips apache* Lanier (Coleoptera: Curculionidae: Scolytinae) in Panama. The Coleopterists Bulletin 63: 452-453.
- Smith, S. M., and A. I. Cognato. 2010a.** A taxonomic revision of *Camptocerus* Dejean (Coleoptera: Curculionidae: Scolytinae). Insecta Mundi 0148: 1-88.
- Smith, S. M., and A. I. Cognato. 2010b.** Notes on *Scolytus fagi* Walsh 1867 with the designation of a neotype, distribution notes and a key to *Scolytus* Geoffroy of America east of the Mississippi River (Coleoptera, Curculionidae, Scolytinae, Scolytini). p. 35-43. In: A. I. Cognato and M. Knížek (eds.). Sixty years of discovering scolytine and platypodine diversity: A tribute to Stephen L. Wood. ZooKeys 56. 280 p.
- Staeben, J. C., S. Clark, and K. J. K. Gandhi. 2010.** Black turpentine beetle. United States Department of Agriculture, Forest Service, Forest Insect and Disease Leaflet 12. 8 p.
- Stauffer, C. 2004.** Genetic tools in scolytid research. p. 55-61. In: F. Lieutier, K. R. Day, A. Battisti, J-C. Grégoire, and H. F. Evans (eds.). Bark and Wood Boring Insects in Living Trees in Europe, a Synthesis. Kluwer Academic Publishers, Dordrecht. 569 p.
- Stauffer, C., T. Kirisits, C. Nussbaumer, R. Pavlin, and M. J. Wingfield. 2001.** Phylogenetic relationships between the European and Asian eight-spined larch bark beetle populations (Coleoptera, Scolytidae) inferred from DNA sequences and fungal associates. European Journal of Entomology 98: 99-105.
- Stone, W. D., and T. E. Nebeker. 2007.** Distribution and seasonal abundance of *Xylosandrus mutilatus* (Coleoptera: Curculionidae). Journal of Entomological Science 42: 409-412.
- Stone, W. D., T. E. Nebeker, and P. D. Gerard. 2007.** Host plants of *Xylosandrus mutilatus* in Mississippi. Florida Entomologist 90: 191-195.
- Stone, W. D., T. E. Nebeker, W. A. Monroe, and W. A. MacGown. 2007.** Ultrastructure of the mesonotal mycangium of *Xylosandrus mutilatus* (Coleoptera: Curculionidae). Canadian Journal of Zoology 85: 232-238.
- Storer, A. J., D. L. Wood, and T. R. Gordon. 2002.** Effects of pitch canker pathogen on gallery excavation and oviposition by *Ips paraconfusus* (Coleoptera: Scolytidae). The Canadian Entomologist 134: 519-528.
- Storer, A. J., D. L. Wood, and T. R. Gordon. 2004.** Twig beetles, *Pityophthorus* sp. (Coleoptera: Scolytidae), as vectors of the pitch canker pathogen in California. The Canadian Entomologist 136: 685-693.

- Süda, I. 2006.** Jalaka-maltsaürask (*Scolytus triarmatus* (Eggers, 1912)) – uus üraskiliik Baltikumis. [*Scolytus triarmatus* (Eggers, 1912) – a new bark beetle in the Baltics]. *Metsanduslikki Uurimused* 44: 112-117.
- Tang, WeiQiang. 2000.** Biological characteristics of *Xyleborus multilineatus* and its control. *Journal of the Zhejiang Forestry College* 17: 417-420.
- Telnov, D. 2004.** Check-List of Latvian Beetles (Insecta: Coleoptera). In: D. Telnov. Compendium of Latvian Coleoptera, Volume 1. Riga, "Petrovskis and Ko". 114 p. (Scolytidae, p.108-111, Platypodidae, p. 111).
- Tinivella, F., C. Ferracini, M. Faccoli, C. Pasini, C. Littardi, R. Caviechini, and G. Minuto. 2010.** Osservazioni relative ad alcuni fitofagi di recente introduzione in Italia rinvenuti su alberate cittadine del ponente ligure. [Records of new pests of recent introduction in Liguria]. Atti delle 'Giornate Fitopatologiche 2010. Protezione delle Piante, Qualità, Ambiente. Cervia (RA) 9-12 marzo 2010, Vol. I: 311-312.
- Tiranti, S. I. 2010.** Observaciones sobre los escolitidos de los pinos en la Patagonia andina, con el primer registro del género *Orthotomicus* para la Argentina. *Boletín de Sanidad Vegetal, Plagas* 36: 87-90.
- Tisserat, N., W. Cranshaw, D. Leatherman, C. Utley, and K. Alexander. 2009.** Black walnut mortality caused by the walnut twig beetle and thousand cankers disease. *Plant Health Progress* (August), PHP-2009-0811-01-RS.
- Tolasch, T. 2004.** 171. (Col. Scolytidae) - *Gnathotrichus materiarius* (Fitch) - first record for Schleswig-Holstein. *Bombus* 3(64-65): 260.
- Toper, A. 2002.** Studies on the biology of *Cryphalus piceae* (Ratz.) (Coleoptera, Scolytidae) in the Bartın and Karabük regions of Turkey. *Anzeiger für Schadlingskunde* 75: 103-104.
- Tremblay, E., B. Espinosa, D. Mancini, and G. Caprio. 2000.** Un coleóptero proveniente del Sudamerica minaccia. [A beetle from South America threatens the poplars]. *L'informatore Agrario* 48: 89-90.
- Uchida, N., I. Miyazaki, H. Adachi, T. Doi, Y. Shiroma, and S. Teshigawara. 2006.** Coleoptera captured by flight barrier trap in Okinawa (Okinawa Island, Miyako Island, Ishigaki Island). *Research Bulletin of the Plant Protection Service* 42: 63-65.
- Urban, J. 2002.** Diagnostics of bark beetles of the genus *Pityokteines* Fuchs important in forestry. *Journal of Forest Science* 48: 329-341.
- Vandenberg, N. J., R. J. Rabaglia, and D. E. Bright. 2000.** New records of two *Xyleborus* (Coleoptera: Scolytidae) in North America. *Proceedings of the Entomological Society of Washington* 102: 62-68.
- Vanhanen, H., T. Veteli, and P. Niemelae. 2008.** Potential distributional ranges in Europe for *Ips hauseri*, *Ips subelongatus* and *Scolytus morawitzi*, a CLIMEX analysis. *EPPO Bulletin* 38: 249-258.
- Vasconcelos, T., A. Horn, F. Lieutier, M. Branco, and C. Kerdelhué. 2006.** Distribution and population structure of the Mediterranean pine shoot beetle *Tomicus destruens* in the Iberian Peninsula and southern France. *Agricultural and Forest Entomology* 8: 103-111.
- Vázquez Moreno, L. L., M. Rodríguez Pérez, and M. A. Zorrilla. 2003.** Lista de escolítidos (Coleoptera) de Cuba y sus plantas hospedantes. *Fitosanidad* 7: 17-21.
- Vega, F. E., R. A. Franqui, and P. Benavides. 2002.** The presence of the coffee berry borer, *Hypothenemus hampei*, in Puerto Rico: fact or fiction? *Journal of Insect Science* 2(13): 1-3.
- Vega, F. E., F. Infante, A. Castillo, and J. Jaramillo. 2009.** The coffee berry borer, *Hypothenemus hampei* (Ferrari) (Coleoptera: Curculionidae): a short review, with recent findings and future research directions. *Terrestrial Arthropod Review* 2: 129-147.
- Vijayalakshmi, C. K., P. A. Rehiman, and V. A. Vijayan. 2000.** Observations on the position of attack of the coffee berry borer *Hypothenemus hampei* (Ferrari). *Insect Environment* 6: 118-119.
- Vijayalakshmi, C. K., P. A. Rahiman, V. A. Vijayan, C. B. Prakasan, and K. Sreedharan. 2002.** Biology of the coffee berry borer, *Hypothenemus hampei* (Ferrari) under varying thermal conditions. *Journal of Entomological Research* 26: 67-70.
- Vlasov, D. V. 2005.** An annotated list of scolytids (Coleoptera, Scolytidae) of Yaroslavl Province. *Entomologicheskoe Obozrenie* 84: 761-775.
- Voolma, K. 2001.** Distribution mapping of Estonian insects: the first outcomes for Coleoptera. *Baltic Journal of Coleopterology* 1: 55-63.

- Voolma, K., M. J. Mandelshtam, A. N. Shcherbakov, E. B. Yakovlev, H. Ōunap, I. Süda, B. G. Popovichev, T. V. Sharapa, T. V. Galasjeva, R. R. Khairetdinov, V. A. Lipatkin, and E. G. Mozolevskaya.** 2004. Distribution and spread of bark beetles (Coleoptera: Scolytidae) around the Gulf of Finland: a comparative study with notes on rare species of Estonia, Finland and North-Western Russia. *Entomologica Fennica* 15: 198-210.
- Wallin, K. F., J. Rutledge, and K. F. Raffa.** 2002. Heritability of host acceptance and gallery construction behaviors of the bark beetle *Ips pini* (Coleoptera: Scolytidae). *Environmental Entomology* 31: 1276-1281
- Wang, F., S-L. Chen, and W-C. Zhou.** 2005. Recognition and diagnosis of *Hylurgus ligniperda*. *Plant Quarantine* 20: 30-31.
- Wang, Y-Z., D-J. Yu, R-J. Zhang, L. Xu, Z-L. Chen, and Y. Jao.** 2010. Molecular phylogeny of ten platypodid species (Coleoptera: Platypodidae) based on mitochondrial cytochrome oxidase I gene. *Acta Entomologica Sinica* 53: 457-463.
- Wegensteiner, R.** 2004. Pathogens in bark beetles. p. 291-313. In: F. Lieutier, K. R. Day, A. Battisti, J-C. Grégoire, and H. F. Evans (eds.). *Bark and Wood Boring Insects in Living Trees in Europe, a Synthesis*. Kluwer Academic Publishers, Dordrecht. 569 p.
- Weigel, A.** 2008. Invasive species of bark-beetles in Thuringia (Coleoptera: Scolytidae). *Thueringer Faunistische Abhandlungen* 13: 97-107.
- Westcott, R. L., J. B. LaBonte, G. L. Parsons, and P. J. Johnson.** 2006. New records and other notes for Oregon Coleoptera. *Zootaxa* 1142: 1-38.
- Whitehead, P. F., and P. Zach.** 2003. Observations on *Treptoplatypus oxyurus* (Dufour, 1843) (Coleoptera: Platypodidae), including the first evidence for carnivory in Platypodidae and Scolytidae. *Entomologist's Gazette* 54: 47-53.
- Whitehead, P. F., P. Zach, J. Kulfan, A. Cicak, and I. Cunderlik.** 2000. *Dactylotypes longicollis* (Wollaston 1864) (Coleoptera, Scolytidae) introduced to the Slovak Republic. *Anzeiger für Schadlingskunde* 73: 17-18.
- Williams, K. K., J. D. McMillin, T. E. DeGomez, K. M. Clancy, and A. Miller.** 2008. Influence of elevation on bark beetle (Coleoptera: Curculionidae, Scolytinae) community structure and flight periodicity in ponderosa pine forests of Arizona. *Environmental Entomology* 37: 94-109.
- Wood, D. L., and A. J. Storer.** 2002. Bark beetles infesting California's conifers. *Fremontia* 30: 19-25.
- Wood, S. L.** 2007. Bark and ambrosia beetles of South America (Coleoptera: Scolytidae). Brigham Young University, M. L. Bean Life Sciences Museum. 900 p., 230 illus.
- Yan, Z-L., J. Sun, D. R. Owen, and Z-N. Zhang.** 2005. The red turpentine beetle, *Dendroctonus valens* LeConte (Scolytidae): an exotic invasive pest of pine in China. *Biodiversity and Conservation* 14: 1735-1760.
- Yang, Q-F., Z. Zhou, Q. Li, Y-R. Zhi, and C-L. Wu.** 2008. Morphological characteristics of the new pest attacking grapevine, *Xylosandrus germanus*. *Chinese Bulletin of Entomology* 45: 219-223.
- Yang, X-J., and Y-L. An.** 2002. Diagnosis of *Hylurgus ligniperda* in imported pines during interceptions at ports of entry. *Plant Quarantine* 16: 288-289.
- Yao, J., J-S. Wen, L-W. Zhang, Y-F. Li, X-J. Chen, and X-F. Yu.** 2010. Differentiation of CO I gene of the exotic red turpentine beetle *Dendroctonus valens*. *Kunchong Zhishi* 47: 870-876.
- Ye, H., J. Lu, and F. Lieutier.** 2004. On the bionomics of *Tomicus minor* (Hartig) (Coleoptera: Scolytidae) in Yunnan Province. *Acta Entomologica Sinica* 47: 223-228.
- Yin, H.** 1997. Coleoptera: Scolytidae. p. 967-973. In: *Insects of the Three Gorges Reservoir Area of the Yangtze River*. Chongqing, China. 974 p.
- Yin, H.** 2000. The synopsis on morphological and biological characters of *Dendroctonus valens* LeConte. *Acta Zootaxonomica Sinica* 25: 120.
- Yin, H.** 2001. The Chinese *Scolytogenes* Eichhoff with descriptions of seven new species (Coleoptera: Scolytidae). *Oriental Insects* 35: 321-334.
- Yu, C., Z-B. Luo, S-S. Wang, and P. Zhang.** 2004. Bionomics and control of *Trypophloeus klimeschi*. *Entomological Knowledge* 41: 36-38.
- Zach, P., W. Topp, J. Kulfan, and M. Simon.** 2001. Colonization of two alien ambrosia beetles (Coleoptera, Scolytidae) on debarked spruce logs. *Biologia Bratislava* 56: 175-181.

- Zanunico, A. J. V., P. L. Pastori, L. R. Kirkendall, J. Lino-Neto, J. E. Serrão, and J. C. Zanunico.** 2010. *Megaplatypus mutates* (Chapuis) (Coleoptera: Curculionidae: Platypodinae) attacks hybrid *Eucalyptus* L'Héritier de Brutelle clones in southern Espírito Santo, Brazil. The Coleopterists Bulletin 64: 81-83.
- Zanuncio, J. C., M. F. Sossai, C. Flechtmann, T. V. Zanuncio, E. M. Guimaraes, and M. C. Espindula.** 2005. Plants of an eucalyptus clone damaged by Scolytidae and Platypodidae (Coleoptera). Pesquisa Agropecuaria Brasileira 40: 513-515.
- Zhang, LiYan, Q.-C. Chen, and X.-B. Zhang.** 2002. Studies on the morphological characters and bionomics of *Dendroctonus valens* LeConte. Scientia Silvae Sinicae 38: 95-99.
- Ziaddini, M., H. Seyedeslami, and B. Hatami.** 2002. [Biology and seasonal occurrence of pistachio twig beetle, *Hylesinus vestitus* Rey, (Coleoptera: Scolytidae)]. Iranian Journal of Agricultural Sciences 33: 475-487.
- Ziegler, W.** 2006. [191. (Col. Scolytidae)- *Cryphalus intermedius* Ferrari, 1867 - a new species for Germany]. Bombus 3(70-71): 282-283.
- Zimmerman, E. C.** 1994. Australian Weevils (Coleoptera: Curculionoidea). Volume I – Orthoceri, Anthribidae to Attelabidae. The Primitive Weevils. CSIRO, Australia. 741 p.
- Zúñiga, G., R. Cisneros, J. L. Hayes, and J. Macias-Sámano.** 2002. Karyology, geographic distribution, and origin of the genus *Dendroctonus* Erichson (Coleoptera: Scolytidae). Annals of the Entomological Society of America 95: 267-275.
- Zúñiga, G., R. Cisneros, Y. Salinas-Moreno, J. L. Hayes, and J. E. Rinehart.** 2006 Genetic structure of *Dendroctonus mexicanus* (Coleoptera: Curculionidae: Scolytinae) in the Trans-Mexican Volcanic Belt. Annals of the Entomological Society of America 99: 945-958.
- Zúñiga, G., Y. Salinas-Moreno, J. L. Hayes, J-C. Grégoire, and R. Cisneros.** 2002. Chromosome number in *Dendroctonus micans* and karyological divergence within the genus *Dendroctonus* (Coleoptera: Scolytidae). The Canadian Entomologist 134: 503-510.

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APPENDIX: New locality records of Scolytidae and Platypodidae

Ambrosiodmus rubicollis (Eichhoff)

MISSOURI: Gasconade, Bland, AMF Billards, ETOH or Pinene, 9-13-2006, Mo. Dept. Ag. (2-MDAC and CNCI).

Araptus attenuatus Wood

MEXICO: Sonora, 15.IV.47, stems of *Pedilanthus macrocarpa* / 47-5822, Nog., 66423 (21-USNM and CNCI).

Cactopinus desertus Bright

ARIZONA: Yuma Co., Telegraph Pass, Gila Mountains, IV.5.2003, *Bursera microphylla*, W. B. Warner (many-CNCI and CSUC).

Cactopinus koebeli Blackman

COLORADO: Mesa Co., Colorado National Monument, Cold Shivers Point, X.13.2011, very small twigs of *Pinus edulis*, D. E. Bright and B. A. Barr (10-CNCI and CSUC).

Carphoborus perplexus Wood

COLORADO: Larimer Co., Roosevelt National Forest, Buckhorn Ranger Station, IX.26.2010, *Pinus ponderosa* branch, D. E. Bright and B. A. Barr, collrs. (1-CNCI).

Carphoborus pinicola Wood

TEXAS: Guadeloupe Mountains National Park, “The Bowl”, VII.17.1974, *Pinus flexilis* limbs, D. E. Bright, collr. (6-CNCI).

Chramesus chapuisi LeConte

INDIANA: W. Lafayette, Tippecanoe Co., 22 July 1978, M. and N. Deyrup, in branches of *Celtis occidentalis* (2-CNCI); same locality and collectors, 6 August 1979, in twigs of *Celtis occidentalis* (1-CNCI).

Chramesus parcus Wood

TRINIDAD: St. Augustine, Pax Guest House, 3-10.XI.2000, blacklight trap, R. E. Woodruff (1-REWC, 1-CNCI); Arima Valley, "Simla" Beebe Trop. Res. Center, Nov. 15, 2000, blacklight trap, R. I. Hernandez and R. E. Woodruff (1-REWC).

Coccotrypes advena Blandford

GUAM: Yiao, UOG Agricultural Research Station, 1 Jan-28 Feb 2011, CBB traps, A. Moore (1-CNCI).

Coccotrypes distinctus (Motschulsky)

TRINIDAD: Arima Valley, "Simla" Beebe Trop. Res. Center, Nov. 15, 2000, blacklight trap, R. I. Hernandez and R. E. Woodruff (12-REWC, 5-CNCI).

Coccotrypes rhizophorae (Hopkins)

ECUADOR: Gulfo de Guayaquil, October 2000, *Rhizophora mangle* and *R. harrisonii*, Myriam Azias (12- CNCI).

Coptoborus pseudotenuis (Schedl)

TRINIDAD: Prov. St. David, Grande Raviere, 13-14.XI.2000, blacklight trap, sea level, R. E. Woodruff (1-REWC).

Cryptocarenus heveae (Hagedorn)

TRINIDAD: Arima Valley, "Simla" Beebe Trop. Res. Center, Nov. 15, 2000, blacklight trap, R. I. Hernandez and R. E. Woodruff (1-REWC).

Crypturgus borealis Swaine

MINNESOTA: Itasca Co., east side of Hwy. 38, T36N-R25W, S 7, M. Albers and J. Alberta, collected XII-12-01, emerged III-8-02, ex, *Pices mariana* (20-CNCI).

Dendroctonus adjunctus Blandford

NEVADA: Spring Mtns., Kyle Cyn., June 10 1969, K. Stephen leg. (2-FSCA, 1-CNCI).

Dendroterus striatus (LeConte)

ARIZONA: Yuma Co., Telegraph Pass, Gila Mountains, IV.5.2003, *Bursera microphylla*, W. B. Warner (many-CNCI and CSUC).

MEXICO: Sonora, 3 mi. west Bahia Kino, 22 July 1986, Bloomfield (6-CNCI).

Dryocoetoides velutinus Wood

SURINAME: Brokopondo, Brownsberg Nature Preserve, Witi Creek Trail, 480 m, 22-23.VI.1999, FIT and same locality, 22-25.I.1999, Z. H. Falin (2-CNCI).

Dryoxylon onoharaensis (Murayama)

VIRGINIA: Amelia Co., VA-11-TCD-76, 37.34272, 77.97988, Lindgren trap, compound x bait, 22.-IX-28.IX.2011 / Survey Transect, Thousand Cankers Dis., S. J. Seybold/P. L. Dallara (1-SJSC); Charles City Co., VA-11-TCD-76, 37.34144, 77.20892, 20.IX-27.IX.2011 (additional data as above) (1-SJSC); Hennico Co., VA-11-TCD-28, 37.46532, 77.38026, 27.IX-5.X.2011 (additional data as above) (1-SJSC, 1-CNCI); Powhatan Co., VA-11-TCD-67, 37.65314, 77.9075, 2.IX-8.IX.2011 (additional data as above) (1-SJSC, 1-CNCI).

Gnathotrichus denticulatus Blackman

CALIFORNIA: Pine Valley, San Diego Co., 8.1.27 (1-CNCI).

NEVADA: Spring Mts., Kyle Cyn., June 10, 1969, K. Stephen leg (2-FSCA).

Gnathotrichus materiarius (Fitch)

KANSAS: Bourbon Co., 9 mi SW Fort Scott, 18-26.VI.2009, Lindgren trap, G. A. Salsbury (1-GASC).

Hylastes opacus Erichson

NEW BRUNSWICK: York Co., 15 km W of Tracy off Rt. 645, 45°6848'N, 66°8821'W, May 2009, R. Webster and M. A. Giguére, red pine forest, Lindgren funnel trap (3-CNCI).

NOVA SCOTIA: Halifax Co., McNabs Island, 5 July 2006, J. Sweeney (2-CNCI).

Hylocurus rufus (LeConte)

ONTARIO: Kent Co., Tillbury, Oct. 1967, K. Stephen (1-CNCI).

QUEBEC: Parc d'Oka, Deux-Montagnes, em. 27.IV.97, *Carya ovata*, Robert Vigneault (1-Vigneault collection, Quebec).

Hypothenemus birmanus (Eichhoff)

GUAM: Yiao, UOG Agricultural Research Station, 1 Jan-28 Feb 2011, CBB traps, A. Moore (5-CNCI).

Hypothenemus crudiae (Panzer)

GUAM: Yiao, UOG Agricultural Research Station, 1 Jan-28 Feb 2011, CBB traps, A. Moore (1-GARS).

Hypothenemus eruditus Westwood

GUAM: Yiao, UOG Agricultural Research Station, 1 Jan-28 Feb 2011, CBB traps, A. Moore (7-GARS, 3-CNCI).

SOUTH DAKOTA: Custer Co., Custer State Park, V.5.2012, ex small twigs of *Pinus ponderosa*, D. E. Bright and B. A. Barr (1-CNCI).

Ips avulsus (Eichhoff)

KANSAS: Shawnee County, 1-13 June 2007, Lindgren trap, A. Cruz (2-GASC); Crawford Co., Frontenac, 20-25.IX.2007, uv light, G. A. Salsbury (1-GASC).

Ips woodi Thatcher

COLORADO: Boulder Co., 5-7 km north of Nederland, 5 August 2009, ex bole of fallen *Pinus flexilis*, D. E. Bright and B. A. Barr, collrs (25-CNCI and CSUC); Teller Co., mi 10, Pikes Peak Toll Road, VIII.1.2010, ex: bole and branches of *Pinus flexilis*, D. E. Bright and B. A. Barr (13-CNCI and CSUC).

Liparthrum squamosum (Blackman)

MISSOURI: Springfield, April 23, 2006, canopy trap (1-CSUC).

Phloeosinus bicolor (Brullé)

SAUDI ARABIA: Baha, 16 April 2003, Al-Ayedh and Al-Dawood, Juniper (2-King Saud Arthropod Collection, King Saud University, Riyadh).

Phloeotribus frontalis (Olivier)

COLORADO: Adams Co., 24 Sept. 2012, USDA APHIS, Lindgren funnel, Ips lure, Brighton, Nick's Firewood (2-CSUC).

Phloeotribus lecontei (Schedl)

ALASKA: Fairbanks, Rosie Creek, Tanana Valley State Forest, V.27.-VI.08.04, A. Graves (3-CNCI).

WYOMING: Albany Co., 8.3 km E of Snowy Range Pass, 22.VIII.2009, shaded-out branches of *Picea engelmanni*, D. E. Bright and B. A. Barr (4-CNCI, 2-CSUC).

Phloeotribus liminaris (Harris)

CALIFORNIA: Fullerton, 8.XI.2002, *Prunus lyonii*, D. Nielsen (6-CNCI and CSCA); Los Angeles Co., Whittier Fertilizer Co., 9441 Kruse Rd., Pico Rivera near green waste log pile, VIII.30 to IX.19.2007, Trap A, coll. S. J. Seybold / ex Lindgren funnel trap (1-CNCI).

TENNESSEE: Claibourne Co., N36.43889, W83.60589, TCD-1-13-1, Lindgren trap, Compound x bait, J. Keener, coll., 19.IX-3.X.2011 / survey transect, thousand Cankers Dis., S. J. Seybold/P.L. Dallara (2-SJSC, 1-CNCI); Jefferson Co., N36.12382, W83.46145, TCD-7-45-1, 18.IX-7.X.2011 (additional data as above). (2-SJSC).

SASKATCHEWAN: Indian Head, 25.VI.1986, G. B. Neill (3- CDA); McDowell Pine Plantation, Z13E429429 N5859657, CFS Forest Health, panel intercept trap, Bait: Exotic Beetle Lure #2, 10.VII.2001, Weber, Hammond et al. (1-CFS).

Phloeotribus piceae Swaine

NOVA SCOTIA: Halifax Co., McNabs Island, 8 July 2006, J. Sweeney (1-CNCI).

Pityokteines lasiocarpi (Swaine)

COLORADO: Larimer Co., Cameron Pass, 10,249 ft., 14.VII.2010 and 17.VIII.2010 / ex: *Abies lasiocarpa* limbs, D. E. Bright and B. A. Barr (14-CNCI, 6-CSUC).

Pityogenes meridianus Blackman

MISSOURI: Greene, Springfield, Pinetum canopy trap, 2006.10.18, M. Rolling (2-MDAC).

Pityophthorus digestus LeConte

COLORADO: Larimer County, 1.5 mi. S of junction CO14 and 63E, V.26.2007, very small twigs of *Pinus ponderosa*, D. E. Bright and B. A. Barr, collrs. (36-CNCI and CSUC); Larimer Co., Red Mountain Open Space, 1 mi. W. Ruby Gulch, IV.19.2012, N 40.978 W 105.81 / ex. small twigs of *Pinus ponderosa*, D. E. Bright, collr. (2-CSUC).

Pityophthorus juglandis Blackman

IDAHO: Boise/Meridian Area, July 2003, black walnut (Univ. Idaho).

OREGON: Wasco Co., The Dalles, #65.07, urban forest, 6.X.2004 and 25.VIII.2004 (6-CNCI and ODAC); Wasco Co., funnel trap, 5.V.2005 (1-ODAC); Multnomah Co., Portland, Jantzen Beach, trap 51.07, 20.VI.1997 (1-ODAC).

TENNESSEE: Knoxville area, 30.VIII.2010, ex: branch *Juglans nigra* (12-CSUC, 6-CNCI).

- UTAH:** Provo, Utah Co., 22 Aug 1988 (1-MLBM); Springville, 4 Sept 1996, Black Walnut (MLBM). *Pityophthorus laetus* Eichhoff
- ILLINOIS:** 6 miles west of Monmouth, Warren County, XI.2.2003, ex dead branches of *Acer* sp., D. E. Bright, colr. (4-CNCI).
- Pityophthorus punctifrons* Bright
- COLORADO:** Fremont Co., Royal Gorge, 14 June 1990, D. Leatherman, ex. Pinyon Pine (5-CSUC).
- Pityophthorus ramiperda* Swaine
- MINNESOTA:** Grand Portage National Monument, 0.1 km E. Grand Portage, VII.12.2005, S. J. Seybold / ex. white spruce, *Picea glauca* branches (20+, CNCI and Univ. MN).
- PENNSYLVANIA:** Huntingdon Co., Route 829, Colfax, 29 June 2009, *Pinus strobus* twigs, F. Binsmore, collr. (3-CNCI).
- Pityophthorus scriptor* Blackman
- KANSAS:** W Pittsburg, Crawford Co., 8-14 April 2009, canopy trap, G. A. Salsburg (1-GASC).
- Pityophthorus nitidus* Swaine
- WYOMING:** Albany Co., Green Rock Campground, Medicine Bow Mountains, IX.6.2010 / ex. *Picea engelmanni* branches, D. E. Bright and B. A. Barr, colrs. (11-CNCI, 4-CSUC).
- Polygraphus convexifrons* Wood
- WYOMING:** Albany Co., Green Rock Campground, Medicine Bow Mountains, IX.6.2010 / ex. *Picea engelmanni* branches, D. E. Bright and B. A. Barr, colrs. (1-CNCI).
- Premnobius cavipennis* Eichhoff
- TRINIDAD:** Arima Valley, "Simla" Beebe Trop. Res. Center, Nov. 15, 2000, blacklight trap, R. I. Hernandez and R. E. Woodruff (1-REWC).
- Procryphalus mucronatus* (LeConte)
- ARIZONA:** Santa Catalina Mtns., elev. 9000 ft., April 25, 1970 / under Aspen bark, K. Stephen leg. (6-FSCA, 3-CNCI).
- Pseudopityophthorus asperulus* (LeConte)
- KANSAS:** Galena, Cherokee Co., 21-30 April 2009 (1), 19-28 May 2009 (1), 8-14 April 2009 (1), canopy trap, G. A. Salsburg (3-GASC).
- Pseudopityophthorus fagi* Blackman
- MISSOURI:** Gasconade, Bland, AMF Billards, Triple, 2006.9.13, Mo. Dept. Ag (1-CNCI); Boone, Columbia, Piotter's Nursery, ETOH, 2006.9.19, Mo. Dept. Ag. (1-MDAC).
- Pseudothysanoes rigidus* (LeConte)
- MINNESOTA:** Goodhue Co., Sogn, Jun. 3, 1997, bark beetle trap, J. Luhman, MDA-BC Prog (1-Univ. MN).
- Pycnarthrum pallidum* (Chapuis)
- TRINIDAD:** Arima Valley, "Simla" Beebe Trop. Res. Center, Nov. 15, 2000, blacklight trap, R. I. Hernandez and R. E. Woodruff (1-REWC).
- Scolytus praeceps* LeConte
- WYOMING:** Albany Co., Spruce Campground, Snowy Range, IX.6.2010 / ex: *Abies concolor* branches, D. E. Bright and B. A. Barr colrs. (4-CNCI).
- Xyleborinus saxeseni* (Ratzeburg)
- QUEBEC:** Oka, Parc d'Oka, Lac Sauvagine, 05-X-2002, R. Vigneault, legit (1-Vigneault collection, Quebec).
- Xyleborus affinis* Eichhoff
- ONTARIO:** Rondeau Park, various dates in June and July 1985, various collectors (25-CNCI).
- QUEBEC:** Oka, Parc d'Oka, Lac Sauvagine, 05-X-2002, R. Vigneault, legit (2-Vigneault collection).
- Xyleborus celsus* Eichhoff
- ONTARIO:** Alvinston, Petrolia Line, 21.VI.2006, Shagbark Hickory, L. Tucker (2-GLFC, 1-CNCI); Clinton, Roman Road, 21.VI.2006, Bitternut Hickory, L. Tucker (1-GLFC); Dutton, Largie Line, 21.VI.2006, Shagbark Hickory, L. Tucker (2-GLFC); Fullerton, Line 18, 21.VI.2006, Bitternut Hickory, L. Tucker (1-GLFC); London, south end of Prospect Hill Road, 21.VI.2006, Bitternut Hickory, L. Tucker (4-GLFC, 1-CSUC).
- Xyleborus morulus* Blandford
- EL SALVADOR:** San Andres, 500 m/ ex *Mangiferae* sp. (1-CNCI). **COLOMBIA:** Chocó Sautatá, 0-

200 m, 12.1977, H. Schmutzenhofer / *Prioria copaifera* (Cativo) (4-CNCI).

Xyleborus pubescens Zimmermann

MINNESOTA: Goodhue Co., Cannon Falls, Jun. 5, 1997, bark beetle trap, J. Luhman, MDA-BC Prog (1-Univ. MN).

Xylosandrus compactus (Eichhoff)

TRINIDAD: Arima Valley, "Simla" Beebe Trop. Res. Center, Nov. 15, 2000, blacklight trap, R. I. Hernandez and R. E. Woodruff (1-REWC).

Xylosandrus crassiusculus (Motschulsky)

COLORADO: Denver, Denver Co., 32 August 2009, Lindgren funnel trap w/ETOH (3-CSUC).

GUAM: Yiao, UOG Agricultural Research Station, 1 Jan-28 Feb 2011, CBB traps, A. Moore (2-GARS, 1-CNCI).

Xylosandrus germanus (Blandford)

NEW HAMPSHIRE: Hillsborough Co., Hollis, 7/14-17/2010, Thornless Blackberry, A. T. Eaton (2-CSUC).

Xylosandrus morigerus (Blandford)

GUAM: Yiao, UOG Agricultural Research Station, 1 Jan-28 Feb 2011, CBB traps, A. Moore (4-GARS, 3-CNCI).