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New species, new records and synonymy of  
Brazilian species of *Hypothenemus* Westwood, 1834  
(Coleoptera: Curculionidae: Scolytinae)

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# New species, new records and synonymy of Brazilian species of *Hypothenemus* Westwood, 1834 (Coleoptera: Curculionidae: Scolytinae)

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**Abstract.** Eight new species of *Hypothenemus* Westwood (Coleoptera: Curculionidae: Scolytinae) are described from Brazil and Peru: *H. subsulcatus* Atkinson and Flechtmann **new species**, *H. wilsoni* Atkinson and Flechtmann **new species**, *H. murariae* Atkinson and Flechtmann **new species**, *H. lunzi* Atkinson and Flechtmann **new species**, *H. cordeiroi* Atkinson and Flechtmann **new species**, *H. concavodeclivis* Atkinson and Flechtmann **new species**, *H. foelkelae* Atkinson and Flechtmann **new species**, *H. olzenoi* Atkinson and Flechtmann **new species**. Fifteen species are recorded from Brazil for the first time, including *H. aulmanni*, a new record from the Western Hemisphere. New synonymies affecting Brazilian species include *H. ebenus* Wood 2007 = *H. crudiae* (Panzer, 1791) and *Stephanoderes parallelus* Hopkins 1915 = *H. plumeriae* (Nordlinger, 1856).

**Key words.** Trypophloeini, pygmy bark beetles.

**ZooBank registration.** urn:lsid:zoobank.org:pub:A9BBF063-AEC9-48AC-B5B6-6553C19208DA

## Introduction

Wood (2007) listed 37 species of *Hypothenemus* from South America out of 46 species known from the New World. This genus of small borers is very difficult taxonomically, primarily because of their small size and variability of some species. Existing keys (Wood 1982 for North and Central America, Wood 2007 for all species known at the time from the New World) are difficult to use because of poorly defined terms and a total lack of useful illustrations. Previous works (Wood and Bright 1992, Wood 2007) have treated this genus in the tribe Cryphalini. Genera previously treated within the Cryphalini have been examined by Johnson et al. (2020) resulting in numerous changes, including the transfer of *Hypothenemus* to the tribe Trypophloeini. The recent synonymy of *Trischidias* Hopkins (Bright 2019) and *Periocryphalus* Wood (Johnson et al. 2020) with *Hypothenemus* and descriptions of new taxa by Bright (2019) bring the total number of named species in the New World to 88.

Over the last three decades the second author and collaborators have run trapping studies in numerous sites throughout Brazil mainly using ethanol-baited flight intercept traps. Among the material collected were eight new species of *Hypothenemus* as well as numerous species not previously known from Brazil.

From 2017–2018 primary types of almost all species reported from the New World were examined by the senior author. Several new synonymies were noted. Recently Bright (2019) described 33 new species of *Hypothenemus* from the Caribbean, almost as many as previously known from the New World. We have not had the opportunity to examine material of these species, but based on his descriptions and illustrations, it appears that the species described here are new.

## Materials and Methods

This work is entirely based on a morphological species concept. So few species of *Hypothenemus* have been sequenced that there is insufficient context for interpretation of genetic characters. All of the species described here were collected in traps monitored at relatively long intervals such that extraction of usable DNA is unlikely.

Primary types of all species known from the New World up until 2019 were examined before concluding that the species described here are in fact novel. Bright (2019) described 34 new species of *Hypothenemus* from the Caribbean which were not examined.

Collections in which specimens, including primary types, include the following:

- BMNH** Natural History Museum (British Museum), London.  
**FSCA** Florida State Collection of Arthropods, Gainesville, Florida.  
**IRSNB** Institut Royal des Sciences Naturelles de Belgique, Brussels, Belgium  
**MEFEIS** Museu de Entomologia da Faculdade de Engenharia de Ilha Solteira, Universidade Estadual Paulista, Ilha Solteira, São Paulo, Brazil.  
**NMW** Naturhistorisches Museum Wien, Vienna, Austria.  
**USNM** National Museum of Natural History, Smithsonian Institution, Washington, DC (including Stephen L. Wood Collection).  
**UTIC** University of Texas Insect Collection, Integrative Biology, University of Texas at Austin, Austin, Texas.

The bulk of the specimens cited here, including all holotypes are deposited in Ilha Solteira, São Paulo, Brazil (MEFEIS). The collection in which specimens are deposited is only cited for the small number of exceptions.

Photographs were taken with a Canon EOS 60D body with a Canon MP-E-65 1–5× macro lens mounted on a Cognisys StackShot™ mounting rail as described by Wild (2015). Photographs were stacked with Zerene Stacker (<http://zerenesystems.com/cms/stacker>). Complete label data for all photographs is provided as an appendix.

**Definition of terms.** Identification of species of *Hypothenemus* using existing keys (Wood 1982, 2007) is difficult, in part because many critical characters are not adequately defined or illustrated. A comprehensive treatment of morphology in this genus is beyond the scope of this article, but some characters used in the following descriptions are discussed here. The usage here is based on the previously cited works by Wood.

Several features of the pronotum are important in this genus. In many tribes and genera included by Wood (1982, 2007) the pronotal summit is prominent (Fig. 1A–D). In all cases the summit marks the transition between the anterior slope and the posterior, flattened pronotal disc. In many cases there is a sharp elevation when viewed laterally (Fig. 3B). In *Hypothenemus* there are sharply elevated teeth (referred to as asperities by Wood) that vary in size, shape and number on the antero-lateral slope of the pronotum. These are abruptly elevated, slightly curved in dorsal view, and generally chisel-shaped. At the pronotal summit these asperities may be reduced in size and more densely spaced. The anterior margin of the pronotum also has two to many teeth that are usually similar in structure. The number and arrangement of these marginal teeth is used in various parts of Wood's keys. The number and size of the antero-lateral asperities are important characters. In Wood's keys the number of anterior asperities does not include teeth on the pronotal margin or smaller asperities at the summit.

The shape and arrangement of setae, especially on the elytra is also important in identification. On the elytral disc the general arrangement is prominent, erect interstitial setae, with small, recumbent strial setae (Fig. 2). The shape of these interstitial setae may be hair-like (Fig. 2A), scale-like (Fig. 2B, almost as wide as long, generally blunt apically), ribbon-like (Fig. 2C, flattened, elongate, apically truncate), or spatulate (Fig. 2D, elongate, narrow at base, wider distally, and apically rounded). In general setae on the anterior portion of the pronotum are hair-like, but different types may be mixed on the pronotal disc. In most species erect interstitial setae form a single row (uniseriate) on the elytral disc. These are often longer on the declivity and may be confused (not forming a single row).

## Results

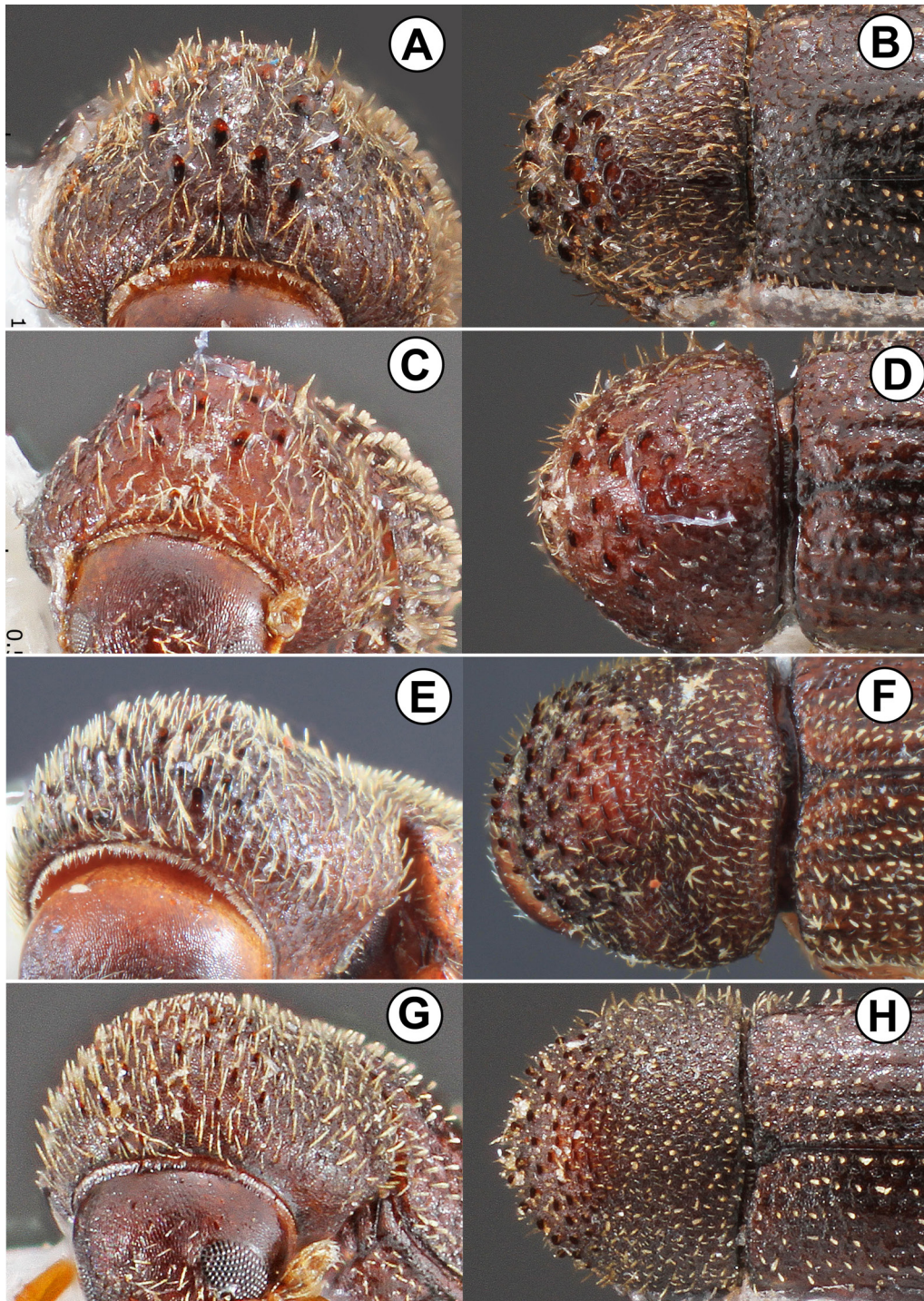
### New synonymy and notes

#### *Hypothenemus crudiae* (Panzer, 1791)

*Bostrichus crudiae* Panzer 1791: 25

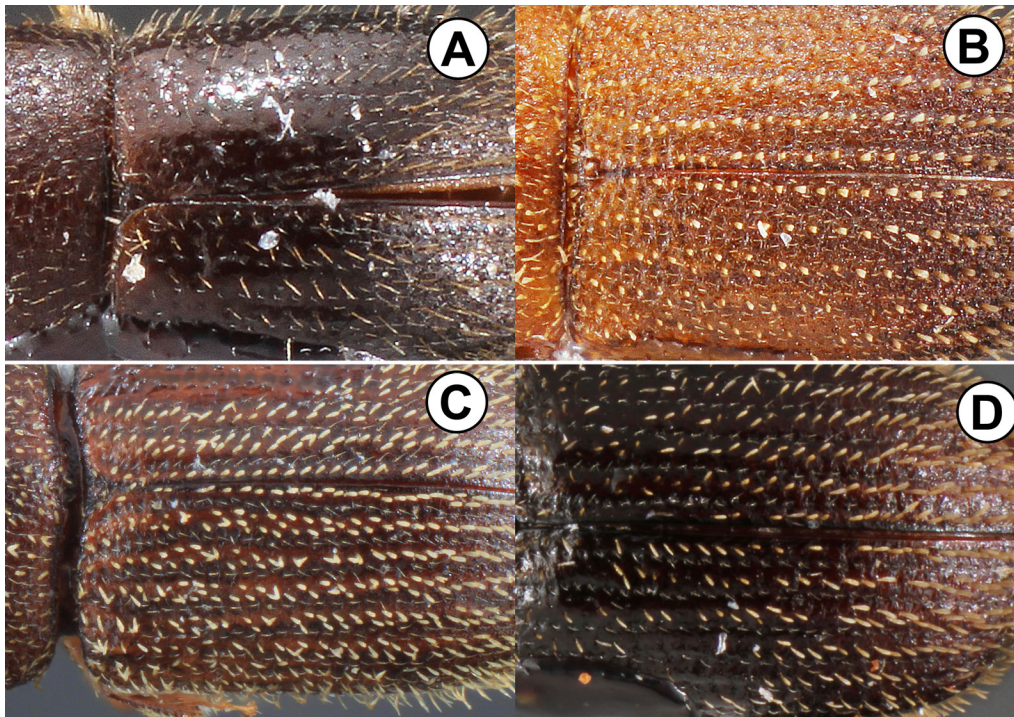
*Hypothenemus crudiae* (Panzer). Wood and Bright 1992: 914. Complete synonymy given.

*Hypothenemus ebenus* Wood 2007: 520. **New synonymy.**



**Figure 1.** Dorsal and anterior views of the pronotum. A–B) *Hypothenemus subsulcatus* new species, female holotype. C–D) *H. wilsoni* new species, female holotype. E–F) *H. foelkelae* new species, female holotype. G–H) *H. cordeiroi* new species, female holotype. Photos by T.H. Atkinson.

*Hypothenemus crudiae* is widely distributed in tropical and subtropical regions of the Americas and Africa. The holotype of *H. ebenus* Wood was described from the state of Espírito Santo, Brazil, in Wood's (2007) monograph of the South American species. The holotype is in the Museu de Entomologia in Ilha Solteira (MEFEIS,



**Figure 2.** Dorsal view of elytral disc. A) *Hypothenemus concavodeclivis* new species, female holotype. B) *H. lunzi* new species, female holotype. C) *H. foelkelae* new species, female holotype. D) *H. murariae* new species, female holotype. Photos by T.H. Atkinson.

not the Museu de Zoologia da Universidade de São Paulo as stated in the description. While the holotype of *H. crudiae* Panzer has been lost, the material used by Wood in his monographs of North and Central America (1982) and South America (2007) has been examined by the first author. The holotype and other specimens identified by Wood as *H. ebenus* fall completely within the range of variation of *H. crudiae sensu* Wood.

### ***Hypothenemus plumeriae* (Nordlinger, 1856), status restored**

*Bostrichus plumeriae* Nordlinger 1856: 74

*Hypothenemus plumeriae* (Nordlinger). Wood and Bright 1992: 938. Complete synonymy given.

*Hypothenemus eruditus* Westwood 1834. Bright 2019: 136 *plumeriae* = *eruditus*

*Stephanoderes parallelus* Hopkins, 1915: 25. **New synonymy.**

Wood (1982: 905) questioned the validity of *H. parallelus* and suggested that it might be a synonym of *H. eruditus* Westwood. Later he suggested that it might be synonymous with *H. plumeriae* (Wood 2007). Large numbers of specimens of *H. plumeriae* were collected from traps in Brazil by the second author and collaborators and we were concerned that the differences given in his 2007 key between *H. parallelus* and *H. plumeriae* were extremely minor and variable. The holotype of *S. parallelus* (USNM) was compared by the first author with those of *S. cylindricus* Hopkins (USNM), *H. pallidus* Hopkins (USNM), and *H. guadaloupensis* Schedl (USNM), all of which have previously been synonymized with *H. plumeriae* by Wood. Likewise, all of the specimens in Wood's collection identified as *H. plumeriae* were studied. We conclude that *parallelus* Hopkins falls within the range of *H. plumeriae sensu* Wood (2007). Bright (2019: 136) treated *H. plumeriae* as a synonym of *eruditus* Westwood without mentioning *H. parallelus* because the small frontal elevation on the frons was difficult to see. While this character is subtle, it is consistent and typical “*eruditus*” and “*plumeriae*” are often found in the same trap samples with no intergradation. There is a great deal of variation within what is currently referred to *H. eruditus* which is most likely a complex of cryptic species (Kambestad et al. 2017), but all of these forms have the frons completely

convex apart from a slight transverse impression above the epistoma. In specimens of *H. plumeriae* there is a distinct concavity above the epistoma with an impunctate elevation above it in the middle of the frons.

### ***Hypothenemus novateutonicus* (Schedl 1951)**

*Ptilopodius novateutonicus* Schedl 1951: 105

*Hypothenemus novateutonicus* (Schedl). Wood 2007: 506

Bright (2019) treated *Trischidias* Hopkins, 1911 as a junior synonym of *Hypothenemus* Westwood, 1834, because the characters used to separate the two genera were inconsistent and overlapped. In general, we have no argument with this position based on morphology and Johnson et al. (2020) provide molecular data from two species formerly assigned to *Trischidias* that support the synonymy. However, species included in *Trischidias* form a compact group which differ from most other New World species of *Hypothenemus*. Specifically, they have a robust, compact body shape, and uniseriate, erect setae on the interstriae without any confused ground vestiture. The holotype of *Ptilopodius novateutonicus* (NMW) was examined by the first author and clearly belongs in this group, not with other species of *Hypothenemus* as treated by Wood (2007).

## **New Species**

### ***Hypothenemus subsulcatus* Atkinson and Flechtmann, new species**

Fig. 3

**Diagnosis.** This species is larger than most New World species. It belongs in a group with robust body form, strongly marked pronotal summit and with a small number of large, chisel-shaped asperities on the anterior margin of the pronotum. Distinguishing characters of this species include the slightly sulcate declivity (most species of the genus are evenly convex) with elevated interstriae and the confused erect interstitial setae (generally uniseriate in related species). This species will key to couplet 10 in Wood's 2007 key.

Specimens of this species have been commonly misidentified in Brazil as *Hypothenemus elephas* (Eichhoff, 1872) based on revision of material by the second author (e.g., Flechtmann and Gaspareto 1997). Likewise, the record of *H. elephas* from Argentina (Iturre and Darchuk 1996) probably refers to this species as well. The type of *elephas*, an African species (IRSNB), was examined by the first author. While there are some similarities the species described here is clearly distinct and it is very likely that any references to *elephas* in South America are probably this species. It is widely distributed in Brazil.

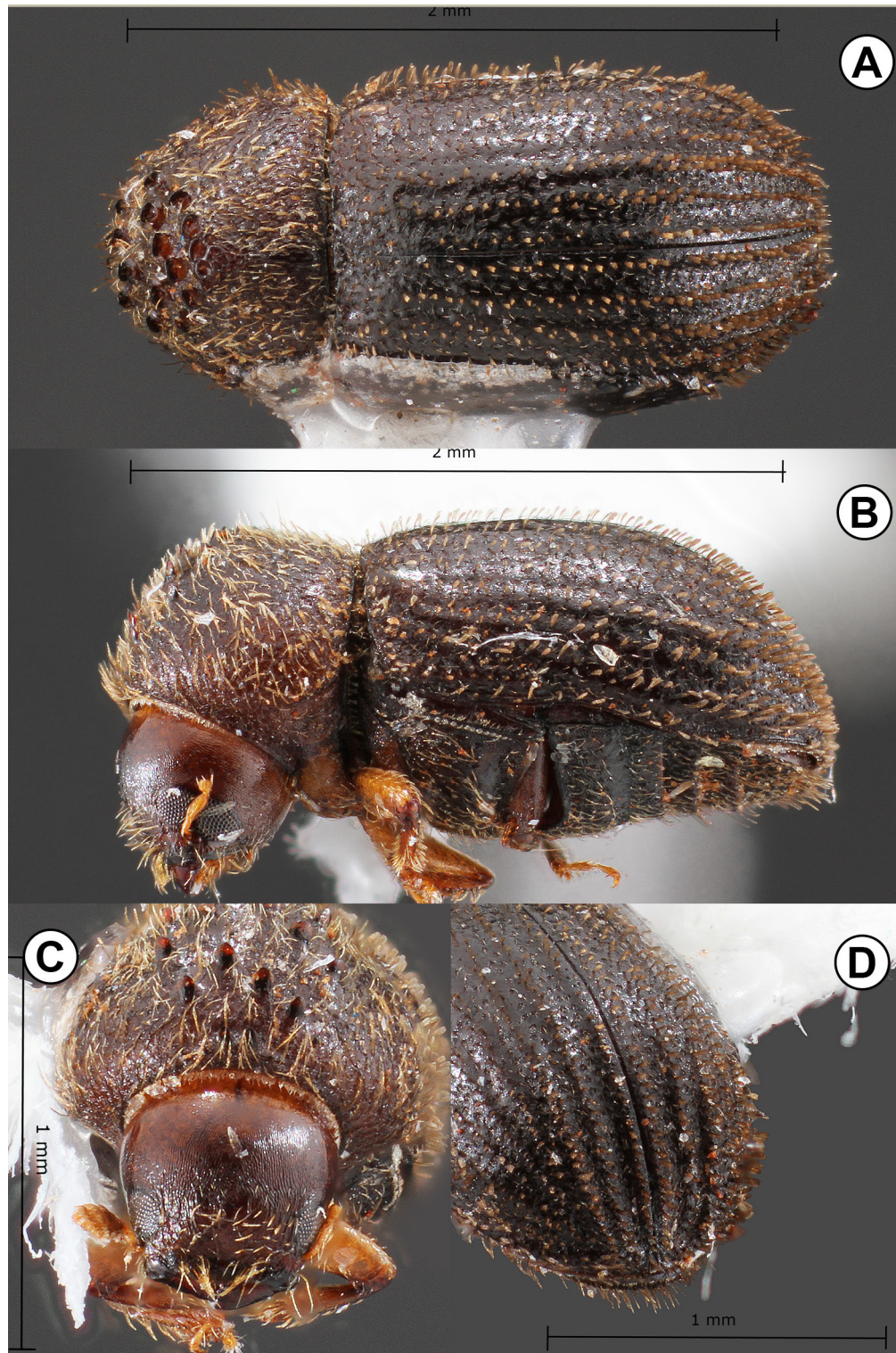
**Female.** total length: 2.13 mm (2.05–2.25), maximum width: 1.03 mm (1.0–1.1), length of elytra: 1.38 mm (1.3–1.5), total length / width: 2.06, elytra length / total length: 0.65, pronotal length / width: 0.73 (n = 6).

Frons convex, slightly flattened in area between eyes, surface finely reticulate, vestiture of sparse hair-like setae. Frons shallowly impressed above epistomal margin with a central, longitudinal shining area from midpoint of eyes almost to epistomal margin. Antenna with four segments in flagellum (plus pedicel); club oval with clearly marked sutures, narrower than width of compound eye.

Anterior margin of pronotum with two large contiguous teeth; anterior slope with 10–12 large, chisel-like asperities, vestiture of hair-like setae amongst asperities; summit prominent, posterior to the middle of the pronotum, with a prominent, longitudinal ridge running from summit to posterior margin of pronotum. Pronotal disc with mixture of semi-erect blunt scale-like and hair-like setae, surface granulate, reticulate, but shining.

Striae moderately impressed on disc, punctures nearly confluent, confused on some striae, with short recumbent setae. Striae subequal in width to interstriae on disc, becoming nearly as wide as interstriae on declivity. Surface of interstriae strongly reticulate. Ground vestiture on elytral interstriae hair-like on disc and on declivity, confused, similar in size to setae associated with strial punctures. Erect interstitial setae scale-like, length = 4× width, blunt terminally; mostly uniseriate but clearly confused on some interstriae especially in postero-lateral areas.

All striae on declivity strongly impressed with interstriae elevated and almost costate. Declivital interstriae 2 impressed with respect to interstriae 1 and 3, very broad, 1.5× the width of interstria 1, widened slightly in the middle, causing striae 2 and 3 to be displaced laterad in mid declivity but converging posteriorly. Surface of all interstriae reticulate, dull; strial punctures shallow, partly confused. All interstriae with small granules at base of erect scales, similar in size on 1–3. Setae blunt, slightly longer than those on disc, spaced within row by ½ length,



**Figure 3.** *Hypothenemus subsulcatus* new species, female holotype. A) Dorsal view. B) Lateral view. C) Frontal view. D) Posterolateral view. Photos by T.H. Atkinson.



mostly uniseriate on interstriae 1, clearly confused on other interstriae, especially 3, often with nearly a double row of setae. Interstitial ground vestiture absent. Interstriae 9 strongly elevated in postero-lateral area, converging with interstriae 3.

**Male.** Unknown.

**Type material. Holotype female: Brazil: Mato Grosso do Sul:** Selvíria, UNESP Farm, cerradão fragment, 20°20'12.95"S 51°24'45.06"W, unbaited window trap, 16-IX-2011, J.C.C. Silva (MEFEIS).

**Paratypes: Bahia:** Cruz das Almas, Mata de Cazuzinha, 12°39'59"S 39°6'26"W, ethanol-baited flight intercept trap, 3-X-2012, R.C. Pereira (UTIC, 1); **Mato Grosso:** Itiquira, Fazenda Pedregulho, 17°19'15.78"S 54°44'23.34"W, ethanol-baited flight intercept trap, 17-VII-1992, O.T. Dall'Oglio (MEFEIS, 1, UTIC, 1); **Mato Grosso do Sul:** Selvíria, UNESP Farm, same data as holotype except 7-X-2011 (UTIC, 1) Três Lagoas, Champion Papel e Celulose, Horto Rio Verde, cerrado fragment, 20°55'47.00"S 52°8'38.00"W, ethanol-baited flight intercept trap, 8-III-1994 C.A.H. Flechtmann, (MEFEIS, 4); **Pará:** Cumarú do Norte, Mongaguá Farm, *Tectona grandis* stand planted November 1995, 09°27'52.27"S 51°14'20.99"W, ethanol-baited flight intercept trap, 18-VIII-2011, A.M. Lunz (MEFEIS, 1); Rio Maria, Fazenda Rongi-Porã, *Tectona grandis* stand planted November 2004, 07°38'02.8"S 50°01'13.9"W, ethanol-baited flight intercept trap, 10-X-2011, A.M. Lunz (MEFEIS, 1); **Rio de Janeiro:** Seropédica; UFRRJ Campus, *Mimosa caesalpiniaefolia* stand, 22°45'21"S 43°41'32"W, ethanol-baited flight intercept trap, various dates in 2001, A.C. Jorge (UTIC, 4, MEFEIS, 43); **São Paulo:** Botucatu, Duratex, Paula Souza sawmill, *Pinus* and *Eucalyptus* logs, 22°57'40.39"S 48°31'58.62"W, ethanol-baited flight intercept trap, 1-III-1989, C.A.H. Flechtmann (MEFEIS, 40); Ibaté, RIPASA, Fazenda Fortaleza, *Eucalyptus grandis* stand, 21°50'00"S 48°01'00"W, ethanol-baited flight intercept trap, XI-1984, C.A.H. Flechtmann (MEFEIS, 1); Santana da Ponte Pensa, Sítio Nossa Senhora Aparecida, *Hevea brasiliensis* clone PB 235, 20°13'20.04"S 50°48'41.18"W, ethanol-baited flight intercept trap, 26-V-2012, J.C.P. Silva (MEFEIS, 1); Três Fronteiras, Sítio Boa Sorte, *Hevea brasiliensis* clone RRIM 600 planted Feb/Apr 2006, 20°12'36.35"S 50°51'50.00"W, ethanol-baited flight intercept trap, 20-I-2013, J.C.P. Silva (MEFEIS, 1).

**Additional localities. Ceará:** Crato, Floresta Nacional do Araripe, cerrado fragment, 7°20'46.5"S 39°28'15.4"W, several dates between 2012-2013, F.R. Azevedo (MEFEIS, 16); **Minas Gerais:** Capinópolis, Grama Farm, 18°46'6.18"S 49°28'51.59"W, several dates between 2017-2019, C.F. Faria (MEFEIS, 12); Nova Porteira, Khaya Woods Group, 15°41'1.99"S 43°17'44.48"W, 12-II-2018, 17-VIII-2018, F.R.P. Alves (MEFEIS, 2); São Roque de Minas, Taquaril Farm, 20°7'7.45"S 46°27'29.03"W, several dates between 2016-2018, L.S. Covre (MEFEIS, 14); **Pará:** Redenção, Marcenaria Artica, 08°02'34.2"S 50°03'25.5"W, 23-I-2012, A.D. Antonio (MEFEIS, 1); São Domingos do Araguaia, Fazenda Guzerá, 05°31'54.4"S 48°42'35.0"W, 28-XII-2012, D.B. Guinhazi (MEFEIS, 1); **Paraíba:** Patos, Universidade Federal de Campina Grande - campus of Patos, 07°01'37.3"S 7°16'27.1"W 16-V-2012, R.S. Guedes (MEFEIS, 1); **Piauí:** Bom Jesus, Fazenda Alto da Cruz, 9°06'41.30"S 44°22'32.75"W, 14-V-2011, J.M. Araújo (MEFEIS, 1); **Roraima:** Cantá, EMBRAPA Roraima, 02°14'45.8"N 60°39'47.9"W, 27-V-2015, E.G.F. Morais (MEFEIS, 1); **São Paulo:** Castilho, Assentamento Celso Furtado, 20°49'4.47"S 51°33'47.81"W, several dates in 2015, G.C. Pinheiro (MEFEIS, 5).

**Etymology.** The species name reflects the subsulcate form of the declivity, unusual in this genus.

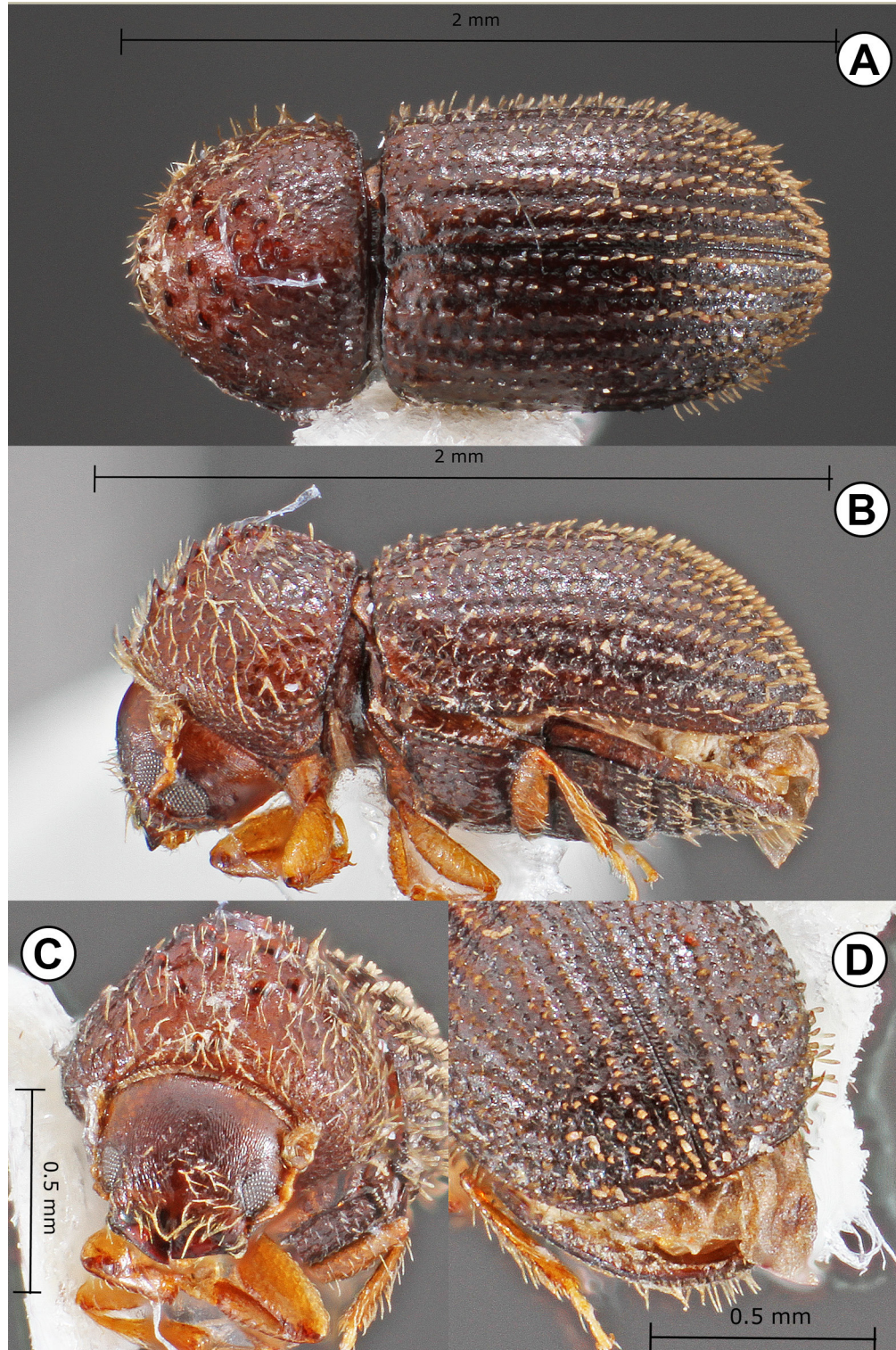
### *Hypothenemus wilsoni* Atkinson and Flechtmann, new species

Fig. 4

**Diagnosis.** This species belongs with species with robust body form, strongly marked pronotal summit and with a smaller number of large, chisel-shaped asperities on the antero-lateral margin of the pronotum. It would key out to couplet 10 in Wood's 2007 key. Depending on how the reader interprets the characters in his key, it might be incorrectly identified as *H. barinensis* Wood, 2007 (couplet 8) which it resembles in elytral vestiture, but differs in having many fewer asperities on the anterior slope of the pronotum.

**Female.** total length: 1.84 mm (1.7–1.9), maximum width: 0.86 mm (0.8–0.9), length of elytra: 1.15 mm (1.1–1.2), total length / width: 2.13 elytra length / total length: 0.63, pronotal length / width: 0.80 (n = 10).

Frons convex without any elevations or impressions. Surface shining, shallowly strigose to vertex, except impunctate in narrow area from between eyes to epistoma. Vestiture of sparse setae between eyes, sparse hairs



**Figure 4.** *Hypothenemus wilsoni* new species, female holotype. A) Dorsal view. B) Lateral view. C) Frontal view. D) Posterolateral view. Photos by T.H. Atkinson.

along epistomal margin. Antenna with four segments in flagellum (plus pedicel); club oval with clearly marked sutures, narrower than width of compound eye.

Anterior margin of pronotum with two large, closely spaced teeth. Anterior slope (not including summit) with 10–12 large, chisel shaped asperities. Pronotal summit closer to posterior margin than anterior margin, sharply defined. Area posterior to summit marked by a posteriorly directed carina or additional large asperities, not reaching posterior margin of pronotum. Discal surface of pronotum with large, deep punctures; surface shining, coarsely rugose. Vestiture of erect, hair-like setae on anterior slope, with blunt scale-like setae on disc.

Striae on elytral disc weakly impressed, with punctures clearly indicated on disc and declivity, about  $\frac{1}{2}$  width of interstriae, becoming wider and more impressed on declivity. Interstriae on disc and declivity smooth, shining, narrowed posteriorly becoming subequal in width to striae. Erect interstitial setae scale-like, blunt, about  $3\times$  as long as wide; spaced within rows by  $\frac{3}{4}$  length scale;  $\frac{1}{2}$  distance between rows; generally uniseriate, with a few “extra” or out-of-line setae. Strial setae small, recumbent, hair-like.

Declivity evenly convex (dorsally and laterally), without indication of impressed or elevated sutures or interstriae. Striae more impressed than on disc, punctures closely spaced. Erect interstitial setae strictly uniseriate, shorter and more closely spaced than on disc, each subtending distinct granules. Interstitial ground vestiture absent. Strial setae similar to those on disc.

**Male.** Unknown.

**Type material. Holotype female: Brazil: Paraíba:** Patos, UFCG Campus, anthropized caatinga fragment, 07°01'37.3"S 7°16'27.1"W, ethanol-baited flight intercept trap, 29-II-2012, R.S. Guedes (MEFEIS).

**Paratypes. Ceará:** Crato, Floresta Nacional do Araripe, carrasco fragment, 7°17'16.71"S 39°32'25.79"W, ethanol-baited flight intercept trap, 25-III-2013, F.R. Azevedo, (UTIC, 2), same except 19-IX-2012 (UTIC, 1); **Maranhão:** Florianópolis, 26-VIII-1963 (BMNH, 1); **Pará:** Rio Maria, Fazenda Rongi-Porã, *Tectona grandis* stand planted 2004, 07°38'00.8"S 50°01'14.3"W, ethanol-baited flight intercept trap, several dates between 2011–2012, A.M. Lunz (MEFEIS, 6); **Paraíba:** Patos, UFCG Campus, same as holotype, except various dates in 2011 (MEFEIS, 3, UTIC, 3); **São Paulo:** Santana da Ponte Pensa, Sítio Nossa Senhora Aparecida, *Hevea brasiliensis* clone PB 235 planted 1987, 20°13'23.5"S 50°48'36.6"W, ethanol-baited flight intercept trap, 30-VI-2012, J.C.P. Silva (UTIC, 1).

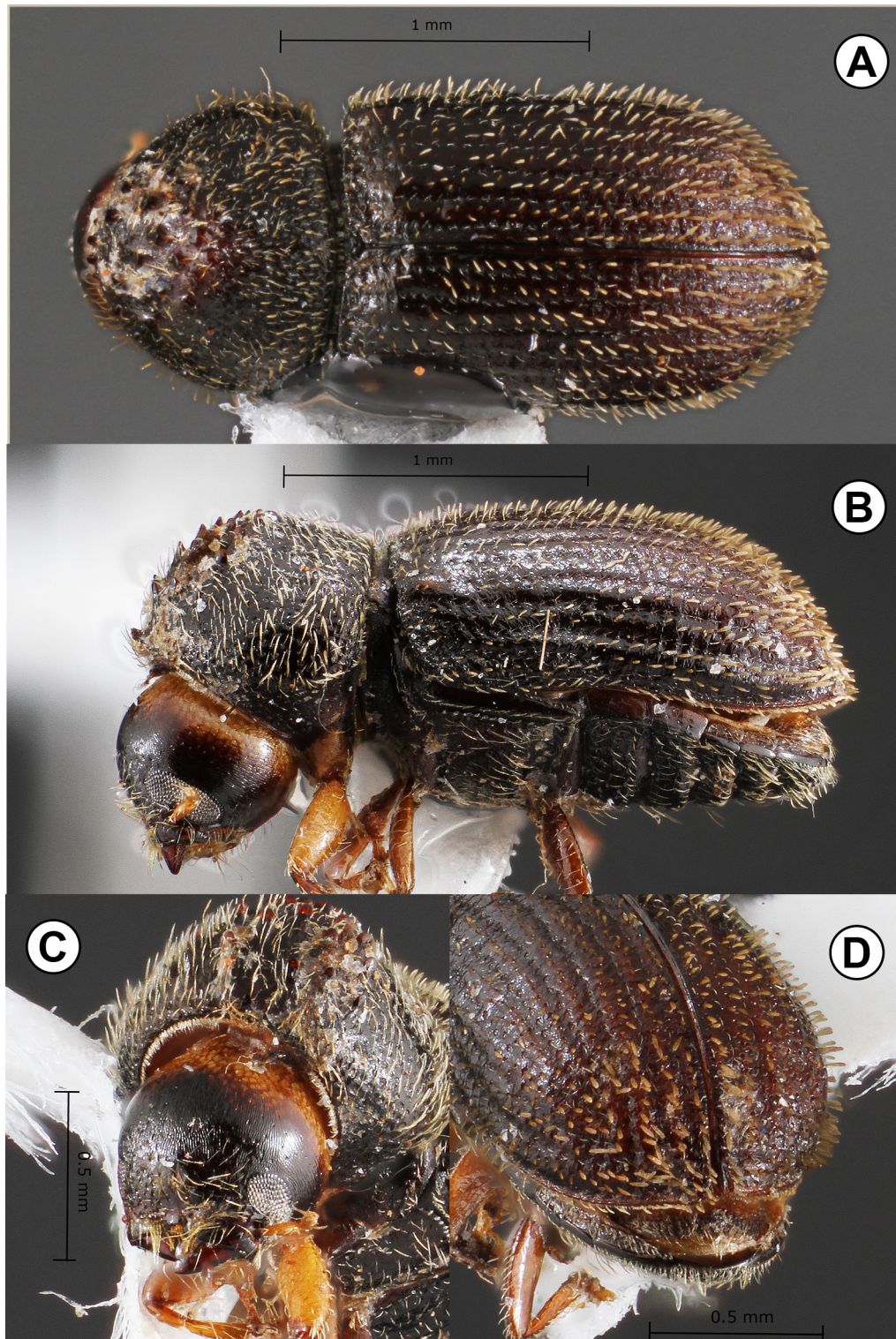
**Other localities. Bahia:** Cruz das Almas, UFRB campus, 12°39'46.15"S 39°5'43.29"W, 5-IX-2012, 3-X-2012, R.C. Pereira (MEFEIS, 24); **Mato Grosso do Sul:** Inocência, Fazenda Laguna, 19°44'08.0"S 51°59'30.4"W 11-XI-2017, M.B.C. Ramos (MEFEIS, 1); **Minas Gerais:** Capinópolis, Grama Farm, 18°46'6.18"S 49°28'51.59"W, 26-XI-2018, 21-I-2019, C.F. Faria (MEFEIS, 2); Janaúba, Khaya Woods Group, 15°46'20.97"S 43°18'40.01"W, several dates between 2018–2019, F.R.P. Alves (MEFEIS, 20); Nova Porteira, Khaya Woods Group, 15°41'1.99"S 43°17'44.48"W, several dates in 2018, F.R.P. Alves (MEFEIS, 8); Pirapora, Fazenda Atlântica Agropecuária, 17°29'28.57"S 44°57'24.02"W, 23-VIII-2017, 1-XI-2017, L.S. Covre (MEFEIS, 1); São Roque de Minas, Taquaril Farm, 20°7'7.45"S 46°27'29.03"W, 17-VIII-2018, L.S. Covre (MEFEIS, 1); **Pará:** Cumarú do Norte, Fazenda Veluma, 09°18'15.75"S 51°25'00.47"W, 15-X-2012, A.M. Lunz (MEFEIS, 3); Pau d'Arco, Serriaria TKX Indústria Madeireira, 07°48'48.6"S 50°03'18.6"W, several dates between 2011–2013, A.D. Antonio (MEFEIS, 8); Redenção, Marcenaria Artica, 08°02'34.2"S 50°03'25.5"W, 23-I-2012, A.D. Antonio (MEFEIS, 1); **São Paulo:** Castilho, Assentamento Celso Furtado, 20°49'4.47"S 51°33'47.81"W, 30-IX-2015, G.C. Pinheiro (MEFEIS, 2); Jardinópolis, Sítio São José, *Persea americana* var. Geada stand planted Nov.1998 w/o *Phytophthora* root rot, 51°0'8.7"S 47°44'22.38"W, ethanol-baited flight intercept trap, 30-X-2015, 15-I-2016, 15-II-2016, N.A. Lima (MEFEIS, 4); **Tocantins:** Palmas, EMBRAPA, Reserva Legal, cerradão fragment, 10°8'9.00"S 48°18'49"W, ethanol-baited flight intercept trap, 31-III-2017, 31-VII-2017, F.N. Nascimento (MEFEIS, 2).

**Etymology.** This species is named for Wilson Rodrigues da Silva, for his significant contribution to the knowledge of the Scolytinae and Platypodinae of Amapá state, Brazil.

### *Hypothenemus murariae* Atkinson and Flechtmann, new species

Fig. 5

**Diagnosis.** As with the two previously described species this will key out to couplet 10 in Wood's 2007 key. It differs from these and related species by the spatulate, confused interstitial setae on the disc and declivity.



**Figure 5.** *Hypothenemus murariae* new species, female holotype. A) Dorsal view. B) Lateral view. C) Frontal view. D) Posterolateral view. Photos by T.H. Atkinson.

**Female.** Total length: 2.3 mm, maximum width: 1.0 mm, length of elytra: 1.5, total length / width: 2.30, elytra length / total length: 0.65, pronotal length / width: 0.80.

Frons convex; central area from above level of eyes to epistoma smooth, sparsely punctured, peripheral areas faintly strigose. Vestiture of sparse, hair-like setae. Antennae missing from unique holotype, presumably like that of related species.

Pronotum with two prominent teeth on the anterior margin, with 10–12 teeth on the anterior slope, vestiture of hair-like setae. Summit prominent, but not elevated, about  $\frac{1}{2}$  distance from anterior to posterior margins, without posteriorly directed extensions or carina. Disc smooth, shining; punctures deep, separated by greater than their diameters. Vestiture of disc a mixture of hair-like and scale-like setae.

Discal striae not impressed, interstriae  $3\times$  width of striae, smooth, shining. Interstitial vestiture of erect spatulate setae, rounded apically, their length less than interstitial width, mostly uniseriate, near base, becoming confused towards declivity. Strial setae short, hair-like, recumbent.

Declivity evenly convex, rounded; interstitial setae longer than on disc, almost as wide as interstriae, setae definitely confused on interstriae 2 and higher. Strial setae similar to those on disc.

**Male.** Unknown.

**Type material. Holotype female: Brazil: Río Grande do Sul:** Butiá, Empresa Seta, Fazenda Menezes, 4-year old *Acacia mearnsii* stand, 30°13'57.2"S 51°58'29.9"W, ethanol-baited flight intercept trap; 12-X-2004, FIT, A.B. Murari (MEFEIS, 1). Known only from the holotype.

**Etymology.** This species is named for Augusto Bolson Murari, *in memoriam*, a former master's student at Universidade Federal de Santa Maria, state of Rio Grande do Sul, and who collected the only known specimen.

### ***Hypohenemus lunzi* Atkinson and Flechtmann, new species**

Fig. 6

**Diagnosis.** This remarkable species is unlike any other species known from the New World fauna. Like the previous three species it will key to couplet 10 in Wood's 2007 key based on size and number of asperities on the anterior margin and anterior slope of the pronotum. It differs from all of these because of the asperate texture of the entire surface of the pronotum and elytra.

**Female.** Total length: 1.98 mm (1.85–2.10), maximum width: 0.93 mm (0.85–1.00), length of elytra: 1.30 mm (1.10–1.35), total length / width: 2.14, elytra length / total length: 0.66, pronotal length / width: 0.73 (n = 14).

Frons convex, without concavities, impressions or elevations. Surface prominently, longitudinally aciculate from vertex, becoming more reticulate near epistoma. A shallow, longitudinal impression is present from the upper level of the eyes to the epistoma. Vestiture in central area of sparse, hair-like setae. Antenna with four segments in flagellum (plus pedicel); club oval with clearly marked sutures, narrower than width of compound eye.

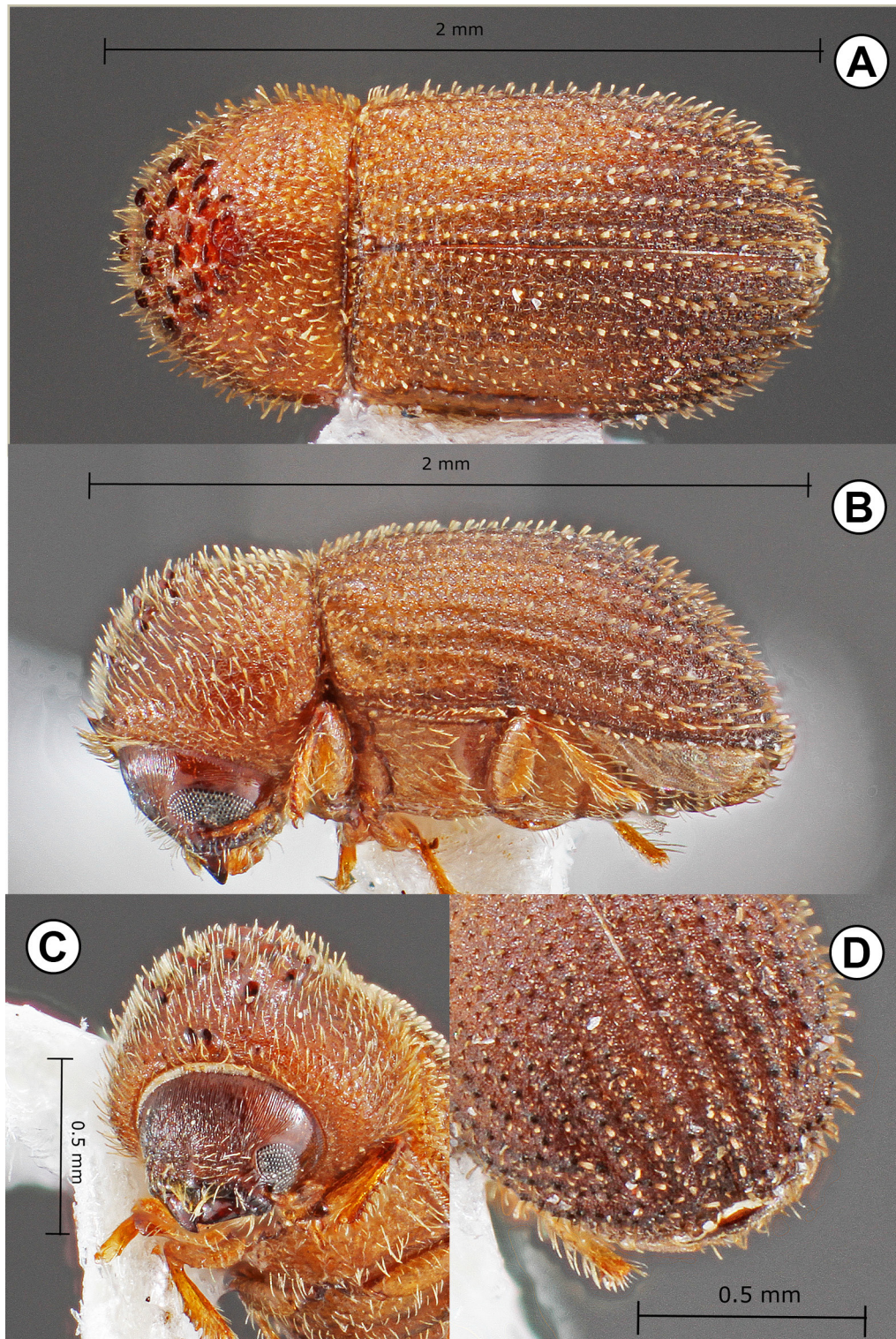
Pronotum with two prominent teeth on the anterior margin, 10–14 asperities on anterior slope; surface reticulate, vestiture of hair-like setae. Summit well defined, not elevated, about in center of pronotum in lateral view. Disc reticulate-granulate; vestiture a mixture of hair-like and spatulate setae.

All elytral surfaces are completely reticulate with both strial and interstitial punctures completely obscured by extensive reticulation. Interstriae only visible by a uniseriate row of erect setae. Disc with striae slightly impressed, subequal in width to interstriae. Interstriae with erect, uniseriate, short scale-like setae, truncate at their apex, their length about  $\frac{1}{4}$  of the distance between rows. Some hair-like, recumbent setae also present in the interstitial ground vestiture almost to base, on both sides of erect setae. Uniseriate fine granules present on interstriae almost to base. Strial setae recumbent, short, hair-like.

Declivity evenly convex. Striae impressed, as wide as interstriae. Interstriae with numerous strong, uniseriate granules, each associated with an erect scale-like seta. In addition to erect setae, interstriae with two rows of recumbent setae, these wider than the narrow strial setae.

**Male.** Unknown.

**Type material. Holotype female: Brazil: Pará:** Rio Maria, Fazenda Rongi Porã, *Tectona grandis* stand planted 2004, 07°38'00.8"S 50°01'14.3"W, ethanol-baited flight intercept trap, 19-IX-2011, A.M. Lunz (MEFEIS).



**Figure 6.** *Hypothenemus lunzi* new species, female holotype. A) Dorsal view. B) Lateral view. C) Frontal view. D) Posterolateral view. Photos by T.H. Atkinson.

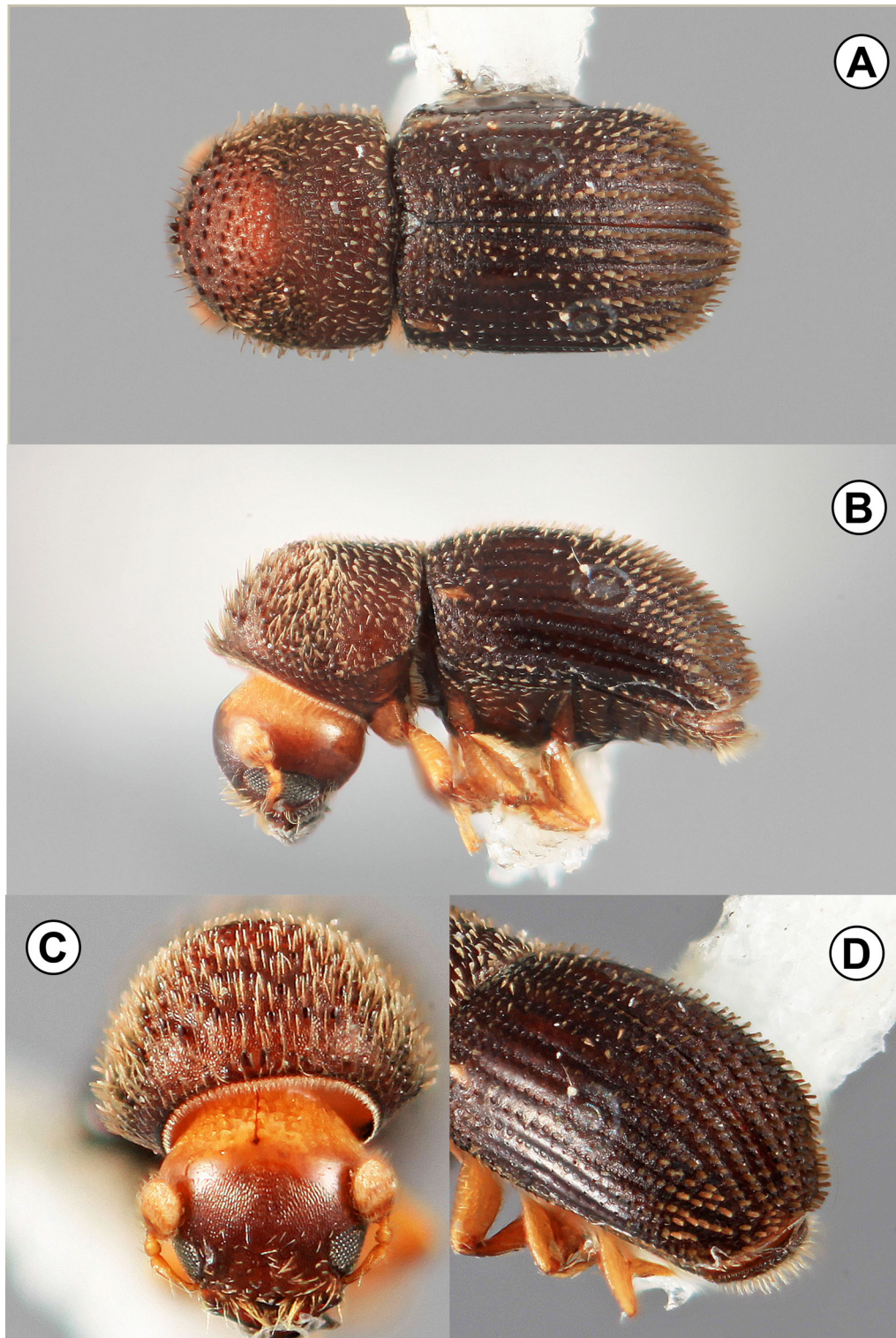
**Paratypes: Mato Grosso:** Cuiabá, Sadia Frigobrás Indústria e Comércio S.A, Fazenda Mutuca, cerrado fragment, 15°35'21.59"S 55°56'47.45"W, XII-1998, A. Dorval (UTIC, 1); **Mato Grosso do Sul:** Selviria, UNESP Farm, cerrado fragment, 20°22'58"S 51°24'42"W, ethanol-baited flight intercept trap, several dates between 2013-2015, F.L.L. Leonel (MEFEIS, 3, UTIC, 3); **Pará:** Pau d'Arco, Serraria TKX Indústria Madeireira, 07°48'48.6"S 50°03'18.6"W, ethanol-baited flight intercept trap, several dates in 2011, A.D. Antonio (MEFEIS, 17); Rio Maria, Fazenda Rongi-Porã, *Tectona grandis* stand planted 2004, 07°38'00.8"S 50°01'14.3"W, ethanol-baited flight intercept trap, various dates in 2011, A.M. Lunz (MEFEIS, 3, UTIC, 1); São Domingos do Araguaia, Fazenda Guzerá, *Tectona grandis* stand planted Nov2003, 05°31'54.4"S 48°42'35.0"W, ethanol-baited flight intercept trap, several dates in 2012, D.B. Guinhazi (MEFEIS, 5); **Rondônia:** Ouro Preto do Oeste, CEPLAC Cocoa Research Station, terra firme ombrophilous forest, 10°43'12.60"S 62°13'45.40"W, ethanol-baited flight intercept trap, VIII-2011, O. Trevisan (MEFEIS, 1); **São Paulo:** Sud Menucci, Fazenda Jangada, 15-yr old *Hevea brasiliensis* clone RRIM 600, 20°44'46.4"S 50°51'37.4"W, F. Magrini (UTIC, 1); Jardinópolis, Sítio São José, *Persea americana* var. Geada stand planted 10-X-2009 w/o *Phytophthora* root rot, 21°0'13.2"S 47°44'10.44"W, ethanol-baited flight intercept trap, 30-V-2016, N.A. Lima (MEFEIS, 1).

**Other localities. Minas Gerais:** Nova Porteirinha, Khaya Woods Group, 15°41'1.99"S 43°17'44.48"W, 6-VII-2018, F.R.P. Alves (MEFEIS, 1); Pirapora, Fazenda Atlântica Agropecuária, 17°29'28.57"S 44°57'24.02"W, ethanol-baited flight intercept trap, 23-VIII-2017, 4-X-2017, L.S. Covre (MEFEIS, 6).

**Etymology.** This species is named for Alexandre Mehl Lunz, researcher at EMBRAPA Amazônia Oriental in Belém, state of Pará, responsible for many surveys throughout the state of Pará (where this new species was recorded) and Rio de Janeiro, Brazil.

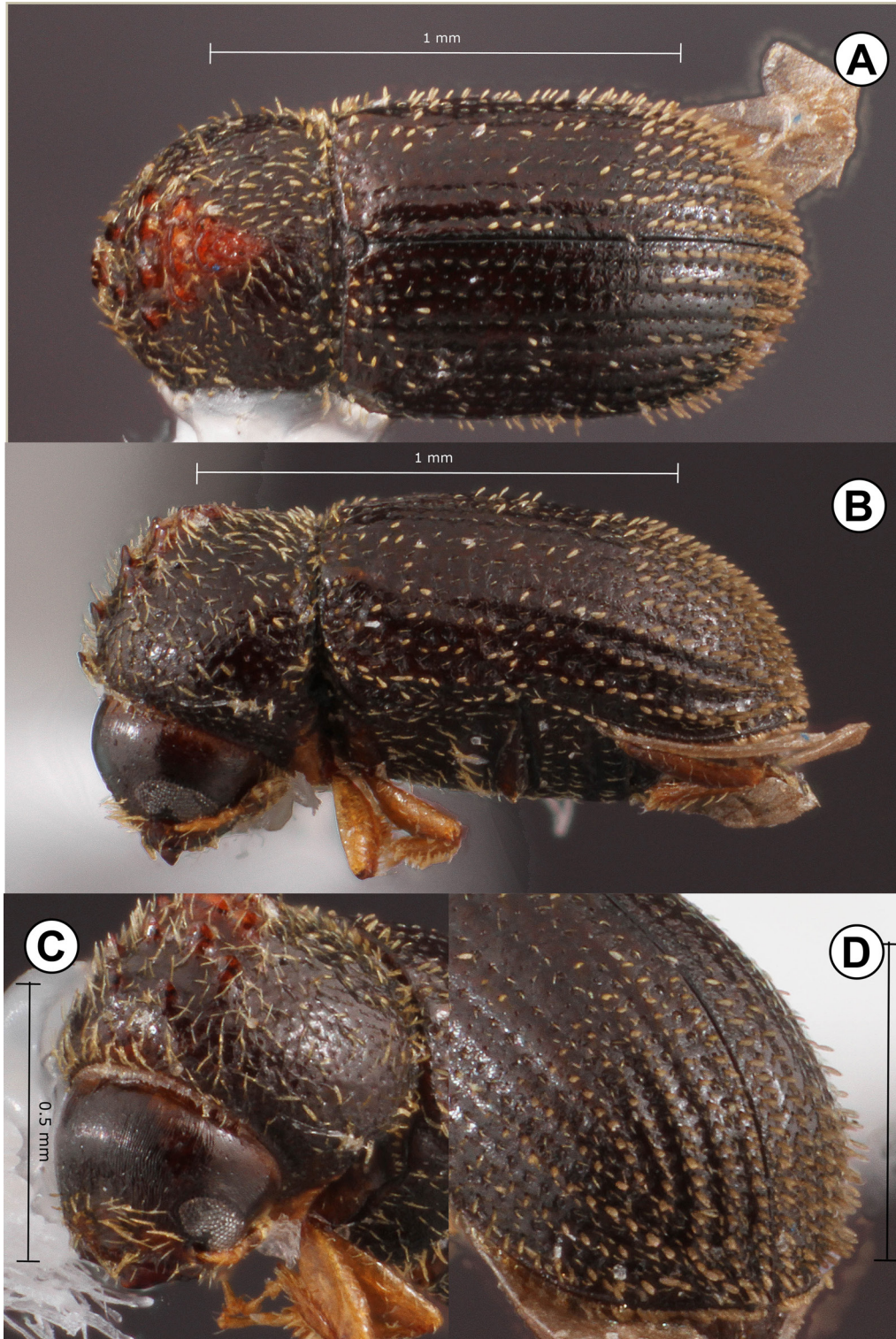
The four species described above will all key to couplet 10 of Wood's 2007 key. The following modification of that key will aid in their identification. Photographs of *H. barinensis* Wood, *H. rotundicollis* (Eichhoff) and *H. meridensis* Wood are included as an aid to the reader. Text excluded from Wood's key is shown as stricken out. Figure references are to this paper, not to Wood (2007).

- 9(8). Elytral declivity much more broadly convex, its posterior profile more broadly rounded; declivity occupying half of elytral length (Fig. 7B); anterior slope of pronotum (excluding anterior margin and summit) with numerous asperities (>20), summit not strongly elevated (Fig. 7A) ~~pronotum strongly, coarsely reticulate; declivity dull, minutely rugose, discal interstriae almost smooth, shining on posterior half, rugose near base; scales on declivital interstriae each four (rarely six) times as long as wide, their length very slightly shorter than distance between rows; Venezuela (Barinas); 1.2–1.4 mm. . . . .~~ ***H. barinensis* Wood**
- Elytral declivity less strongly convex, its posterior profile more narrowly rounded; declivity occupying only one-third of elytra length (Fig. 1B, 2B, 3B, 4B); anterior slope of pronotum) with 10–12 large asperities, summit strongly pronounced and elevated (Fig. 3A, 4A, 5A, 6A); ~~pronotum shining or partly, weakly reticulate; elytra either smooth, shining or rugose . . . . .~~ **10a**
- 10a(9). Interstitial vestiture of declivity and posterior portion of disc consisting only of erect interstitial setae, in addition to small, recumbent strial setae (Fig. 3A, D, 4A, D, 5A, D) . . . . . **10b**
- Interstitial vestiture of declivity and posterior portion of disc including abundant recumbent ground vestiture in addition to erect interstitial setae, these sometimes appear to be in uniseriate rows on either side of the erect setae, these distinct from strial setae (Fig. 6A, D, 8A, D, 9A, D) . . . . . **10d**
- 10b(10a). Erect interstitial setae on declivity in uniseriate rows, each seta subtending a small, distinct granule (Fig. 4 A, D) . . . . . ***H. wilsoni* Atkinson and Flechtmann**
- Erect interstitial setae on declivity distinctly confused on interstriae 1–3 (Fig. 3A, D, 5A, D) . . . . . **10c**
- 10c(10b). Declivity weakly bisulcate; declivital striae strongly impressed, interstriae correspondingly elevated, 1 and 3 notably higher than 2; interstitial vestiture consisting of short, erect, truncate scales with length < interstitial width (Fig. 3) . . . . . ***H. subsulcatus* Atkinson and Flechtmann**
- Declivity evenly convex, striae not impressed, all interstriae similar in height; interstitial vestiture consisting of longer, erect spatulate scales (apices rounded) with length > interstitial width (Fig. 4) . . . . . ***H. murariae* Atkinson and Flechtmann**



**Figure 7.** *Hypothenemus barinensis* Wood, female holotype. **A)** Dorsal view. **B)** Lateral view. **C)** Frontal view. **D)** Posterolateral view. Photos by S.M. Smith. Copyright National Museum of Natural History, Smithsonian Institution, Washington, D.C., published by permission.





**Figure 8.** *Hypothenemus rotundicollis* (Eichhoff), female. **A)** Dorsal view. **B)** Lateral view. **C)** Frontal view. **D)** Posterolateral view. Photos by T.H. Atkinson.

- 10d(9). Entire surface of pronotum and elytra strongly reticulate, striae punctures of elytral disc and declivity obsolete, striae impressed; all declivital interstriae with prominent uniseriate granules (Fig. 6) . . . . . ***H. lunzi* Atkinson and Flechtmann**
- Posterior portion of pronotum and base of elytra glabrous (declivity may be reticulate), shining; striae punctures shallow, clearly distinct, striae not impressed on disc (may be on declivity); granules on declivital interstriae absent or minute (Fig. 8–9) . . . . . **10e**
- 10e(10d). Pronotum disc partly to mostly shining, reticulation weak (when present); elytral interstriae mostly to entirely smooth, shining, with little, if any rugosity; SE USA to Mexico (Nayarit, Oaxaca); 1.5–1.7 mm (Fig. 8) . . . . . ***H. rotundicollis* (Eichhoff)**
- Pronotum mostly weakly reticulate; elytral interstriae minutely rugose, dull, without any smooth, shining areas on disc; erect interstitial scales each about twice as long as wide, each equal in length to about half distance between rows; Venezuela and Brazil; 1.4–1.7 mm (Fig. 9) . . . . . ***H. meridensis* Wood**

### ***Hypothenemus cordeiroi* Atkinson and Flechtmann, new species**

Fig. 10

**Diagnosis.** This species would key out to couplet 15 in Wood's 2007 key. At that point neither alternative is appropriate. Distinctive characters include the dense, short scale-like setae of the declivity that are wider than long, consisting of longer, erect setae and rows of smaller, semi-erect scale-like setae on either side of the erect setae.

**Female.** Total length: 1.38 mm (1.37–1.45), maximum width: 0.61 mm (0.60–0.63), length of elytra: 0.89 mm (0.85–0.97), total length / width: 2.27, elytra length / total length: 0.64, pronotal length / width: 0.81 (n = 7).

Frons convex, without concavities, impressions or elevations, surface shining, finely reticulate, with sparse hair-like setae. Antenna with four segments in flagellum (plus pedicel); club oval with clearly marked sutures, narrower than width of compound eye.

Anterior margin of pronotum with four teeth, the middle two slightly larger. Anterior slope with numerous asperities (>25), surface reticulate, vestiture of hair-like setae. Summit not elevated or prominent, at or anterior to middle of pronotum. Surface of disc reticulate, vestiture of short, truncate scale-like setae and finer hair-like setae.

Basal portion of discal striae and interstriae reticulate; interstriae in the central portion smooth, shining, becoming reticulate towards declivity. Interstriae 2–3× width of striae, erect setae scale-like, short, truncate at apex. Length less than ½ distance between rows. Striae not impressed, punctures large, shallow, striae setae not evident.

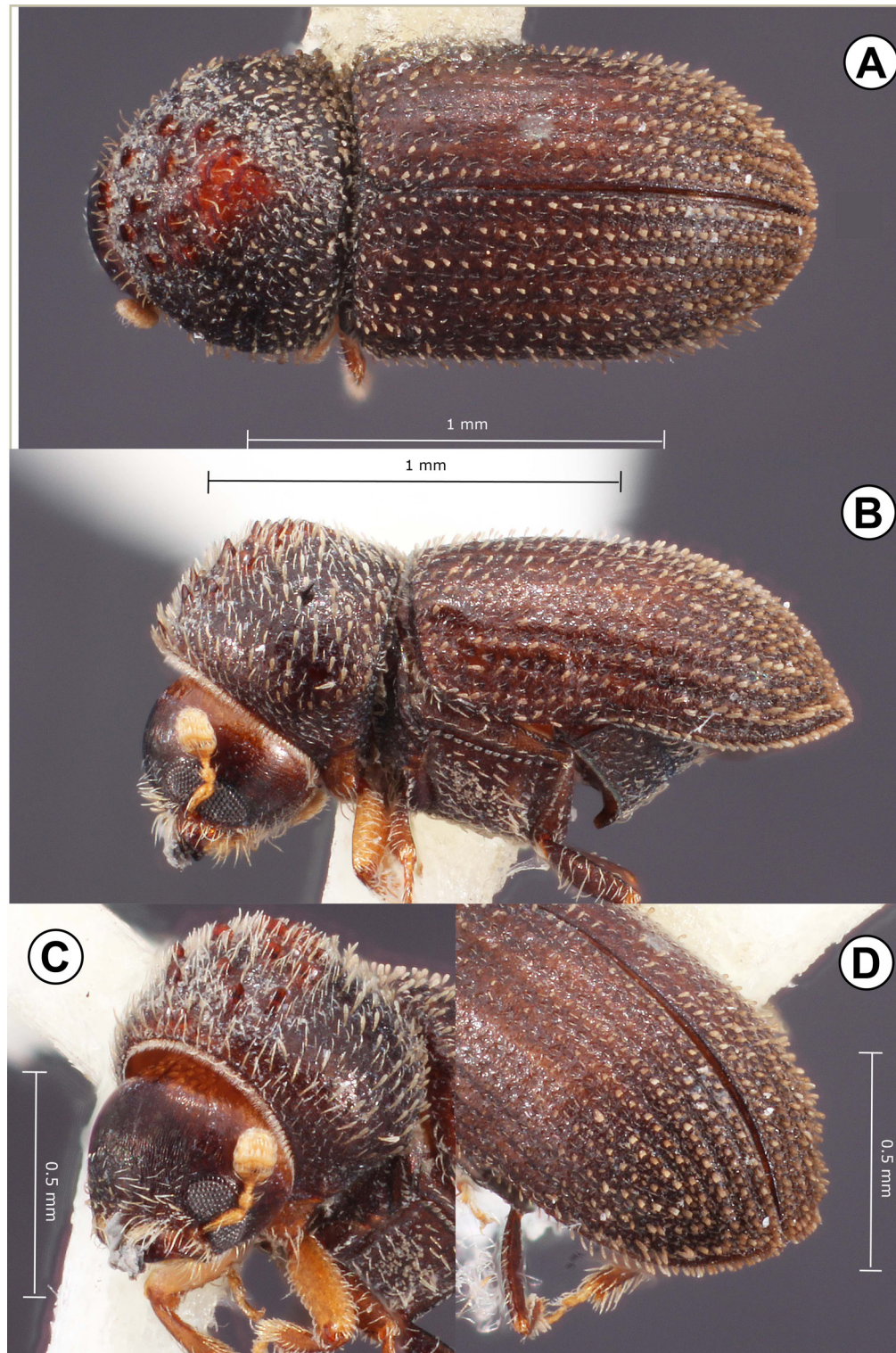
Declivity flattened. Strial punctures smaller than on disc; interstitial scale-like setae more abundant, wider than on disc, smaller semi-erect scale-like setae present in rows to either side of the erect setae. Interstriae 7–9 strongly elevated posteriorly, interstriae 9 joining interstriae 3 and not reaching suture. Recumbent, fine, hair-like setae associated with striae punctures.

**Male.** Unknown.

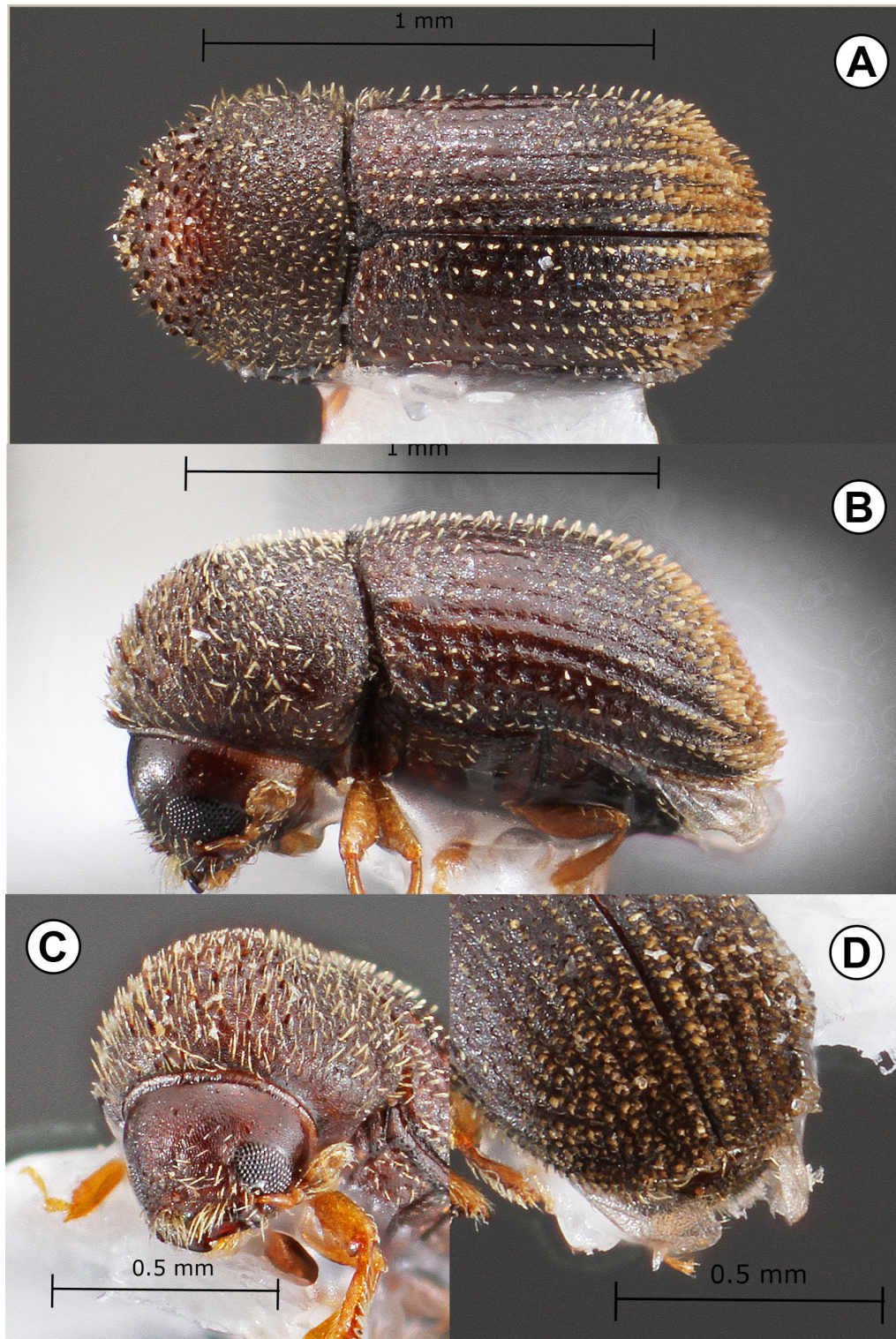
**Type material. Holotype female: Brazil: Paraná:** Telêmaco Borba, Klabin Papel e Celulosa, hybrid of *Pinus taeda* × *Pinus elliottii* stand planted Mar.1998, 24°26'22.72"S 50°28'38.30"W, ethanol-baited flight intercept trap, 13-VIII-2004, C.A.H. Flechtmann (MEFEIS).

**Paratypes: Amapá:** Tartarugalzinho, Comunidade Entre Rios, terra firme ombrophilous forest fragment, 1°7'32.70"N 51°18'34.20"W, ethanol-baited flight intercept trap, 1-XII-2014, W.R. Silva (MEFEIS, 1). **Paraná:** Telêmaco Borba, Klabin Papel e Celulosa same data as holotype, dates 1998–2007 (MEFEIS, 5, UTIC, 5). **Mato Grosso do Sul:** Três Lagoas, FIBRIA, Horto Barra do Moeda, cerradão fragment, 20°58'57.837"S 51°46'8.181"W, ethanol-baited flight intercept trap, 9-I-2017, J.E.P. Mendes (MEFEIS, 1).

**Etymology.** This species is named for Luiz Cordeiro, head of the Forest Protection Sector at the forest company Klabin, and his staff, in Telêmaco Borba, state of Paraná, Brazil, and the person responsible for the establishment of several trapping experiments there over the years, which also resulted in the trapping of this new species.



**Figure 9.** *Hypothenemus meridensis* Wood, female holotype. A) Dorsal view. B) Lateral view. C) Frontal view. D) Posterolateral view. Photos by T.H. Atkinson. Copyright National Museum of Natural History, Smithsonian Institution, Washington, D.C., published by permission.



**Figure 10.** *Hypothenemus cordeiroi* new species, female holotype. A) Dorsal view. B) Lateral view. C) Frontal view. D) Posterolateral view. Photos by T.H. Atkinson.

***Hypothenemus concavodeclivis* Atkinson and Flechtmann, new species**

Fig. 11

**Diagnosis.** This small species would key out to couplet 37 in Wood's 2007 key. Beyond this point it does not resemble any of the other species included in the key. Unique features include the fine, hair-like setae that are very long on the declivity, the robust body form, and the weakly sulcate declivity.

**Female.** total length: 1.25 mm, maximum width: 0.60 mm, length of elytra: 0.8 mm, total length / width: 2.03, elytra length / total length: 0.64, pronotal length / width: 0.71.

Frons flattened, central area between eyes with sparse granules and sparse hair-like setae. A shallow, longitudinal impression extends from epistoma to upper level of eyes. Antennal flagellum with three segments (plus pedicel); club oval, with clearly marked sutures.

Pronotum with six evenly spaced asperities on anterior margin, central pair larger than others. Anterior slope with numerous small asperities (>25), surface smooth, shining, with fine hair-like setae mixed with asperities. Summit not produced, at or near middle of pronotum. Disc shallowly punctured, surface finely reticulate between punctures, vestiture of fine, hair-like setae.

Surface of pronotal disc smooth, shining. Striae not impressed, punctures shallow, with short, recumbent hair-like setae. Interstriae smooth, flattened, 3–4× as wide as striae, vestiture of uniseriate, fine, hair-like setae, their length about the same as width of interstriae.

Declivity occupying slightly more than ½ the total elytral length, its surface flattened, slightly concave between the third interstriae. Interstriae with long, erect, hair-like setae, at least twice as long as those on disc as well as confused, recumbent hair-like setae forming the ground vestiture. Longer, erect setae associated with fine granules. Striae also with recumbent setae, longer than those on disc. Strial punctures obscure on declivity, overall declivital surface reticulate.

**Male.** Unknown.

**Type material. Holotype female: Peru: Loreto:** Requena, Genaro Herrera, terra firme forest, 4°52'44.22"S 73°38'52.42"W, unbaited window trap, 05-VIII-2011, G. Lamarre (MEFEIS).

**Etymology.** The species name refers to the unusual concave declivity in this species.

***Hypothenemus foelkelae* Atkinson and Flechtmann, new species**

Fig. 12

**Diagnosis.** This species would key out easily to couplet 15 in Wood's (2007) key at which point it would not proceed further. Like those species keyed out in the first half of the couplet, vestiture is restricted to erect interstitial setae and recumbent, hair-like, uniseriate strial setae. It differs from all other species beyond that point in the key in that the erect interstitial setae are clearly confused on all interstriae except for the first. The following description is based on the unique holotype.

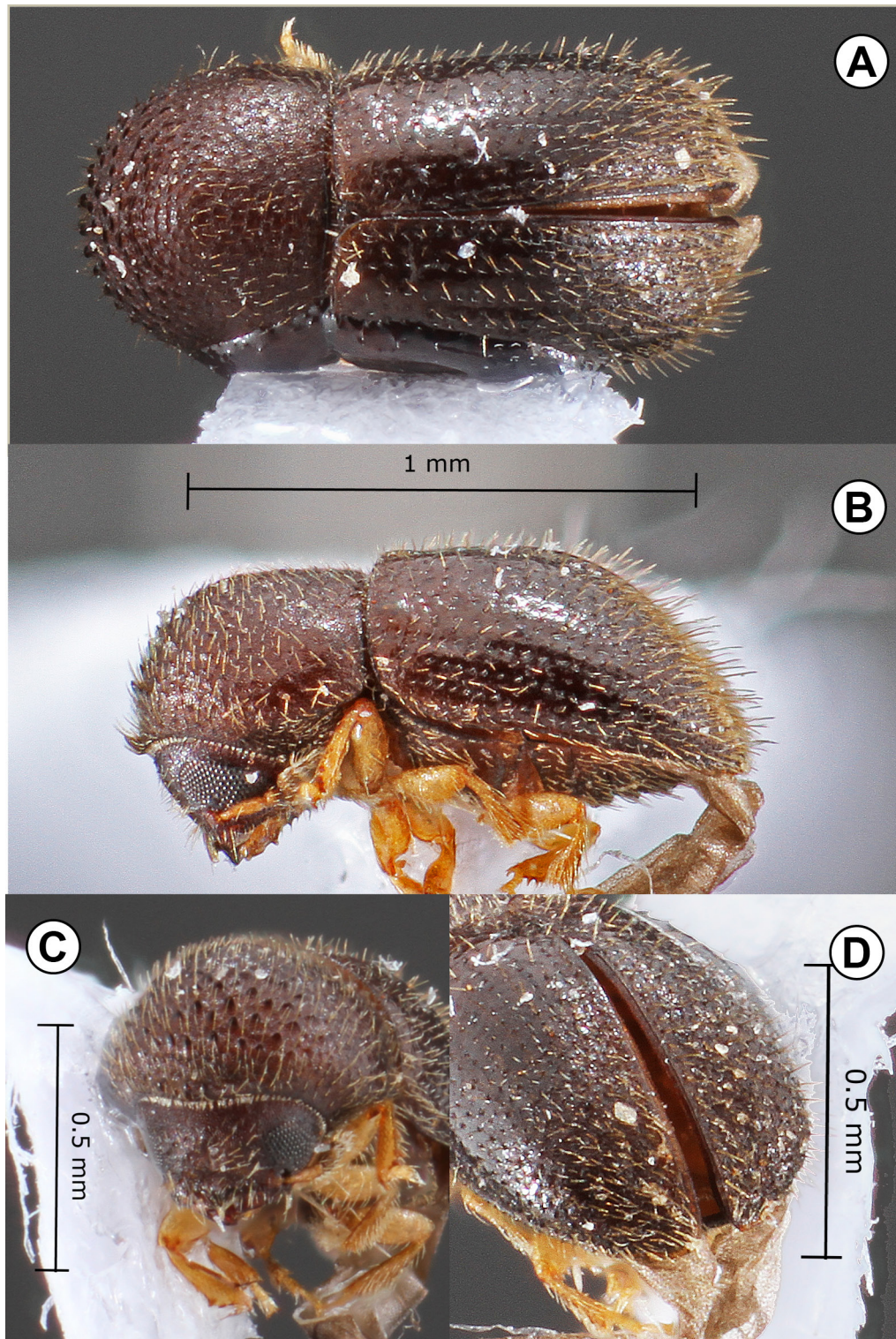
**Female.** Total length: 2.3 mm, maximum width: 0.95 mm, length of elytra: 1.5 mm, total length / width: 2.42, elytra length / total length: 0.65, pronotal length / width: 0.84.

Frons convex, evenly rounded, surface shining, finely reticulate with a few scattered, shallow punctures associated with fine, hair-like setae. The antennal flagellum consists of four segments (in addition to the pedicel). The club is oval, slightly less wide than the compound eye, with two clearly marked transverse sutures.

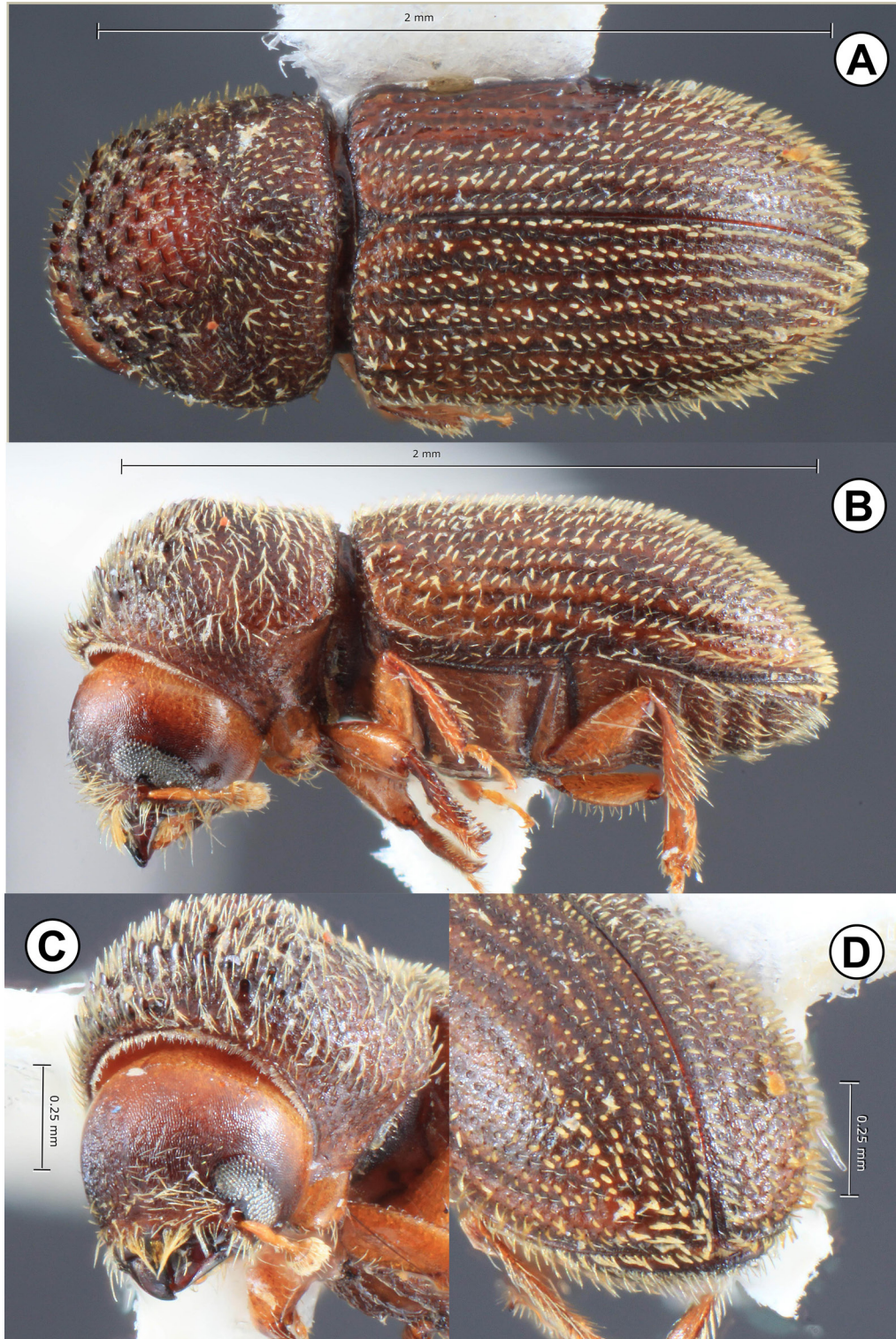
Anterior margin of pronotum with six closely spaced asperities, the middle pair slightly larger. Anterior slope with numerous, sharp asperities (20–30); surface granulate-reticulate, with abundant hair-like setae. Summit clearly defined, but not elevated, located at midpoint of pronotum. Disc moderately punctured, smooth and shining between punctures, vestiture mixture of hair-like and scale-like setae.

Discal striae moderately impressed, punctures close, spaced within row by less than their diameters, each associated with a fine, recumbent, hair-like seta. Interstriae shining, roughly 2× as wide as striae. Vestiture of erect, spatulate setae, confused on all interstriae except the first, these spaced within rows by less than their length.

Declivity smoothly convex. Striae more strongly impressed than on disc, subequal in width to interstriae, punctures associated with fine, recumbent setae. Erect, spatulate setae on interstriae slightly longer than on disc, uniformly uniseriate in contrast to discal arrangement.



**Figure 11.** *Hypothenemus concavodeclivis* new species, female holotype. A) Dorsal view. B) Lateral view. C) Frontal view. D) Posterolateral view. Photos by T.H. Atkinson.



**Figure 12.** *Hypothenemus foelkelae* new species, female holotype. A) Dorsal view. B) Lateral view. C) Frontal view. D) Posterolateral view. Photos by T.H. Atkinson.

**Male.** Unknown.

**Type material. Holotype female: Brazil: Santa Catarina:** Água Doce, linha Nova Concórdia, property Vitalino Brugnara, mixed ombrophilous forest fragment, 27°00'38.61"S 51°31'05.14"W, ethanol-baited flight intercept trap, 8-X-2011, E. Foelkel (MEFEIS).

**Etymology.** This species is named for the collector of the type species, Ester Foelkel, Grau Celsius Negócios em Gestão do Conhecimento LTDA.

### ***Hypothenemus olzenoi* Atkinson and Flechtmann, new species**

Fig. 13

**Diagnosis.** This species is related to *H. opacus* (Eichhoff) and *H. dolosus* Wood. Wood (2007: couplet 21) distinguished *H. opacus* and *H. dolosus* from other species by the number of asperities on the anterior slope of the pronotum (>50 and <30, respectively) and by the "indefinite" pronotal summit. In practice this description of characters is misleading. In most species of *Hypothenemus* the asperities on the anterior slope of the pronotum are sharply elevated, taller than wide, and chisel-shaped. At the pronotal summit there are a small number of closely spaced asperities. In *H. opacus* and *H. dolosus* the anterior asperities are less pronounced and almost as wide at their base as tall. The summit, while clearly marked, has a large number of small asperities placed over a wider area, some of which have clearly visible, large punctures associated with them. This species differs in that the declivity is narrowly rounded behind (in dorsal view), the pronotal summit is narrow and lacks prominent punctures, and in differences in the elytral vestiture.

**Female.** Total length: 2.3 mm, maximum width: 1.0 mm, length of elytra: 1.5 mm, total length / width: 2.3, elytra length / total length: 0.65, pronotal length / width: 0.8.

Frons flattened between eyes, convex above. Flattened area smooth, with sparse punctures, these associated with short, hair-like setae. Surface at vertex shining, weakly strigose. Antennal flagellum with four segments (plus pedicel), antennal club oval, about as wide as compound eye, with clearly marked transverse sutures.

Anterior margin of pronotum with four asperities, the middle two larger. Anterior slope with numerous asperities (>30), these not strongly elevated, nearly as wide at base as high; surface reticulate; vestiture of dense, hair-like setae, longer than asperities. Summit clearly indicated, with numerous small asperities; short hair-like setae associated with these convergently oriented towards center. Pronotal disc coarsely punctate, surface between punctures reticulate, shining; vestiture consists of mixture of hair-like and scale-like setae.

Striae on disc of elytra impressed, almost as wide as interstriae; punctures large, almost touching, each associated with a recumbent, hair-like seta. Discal interstriae smooth, shining with mostly uniseriate rows of erect, ribbon-like setae, blunt at their apex; their length about ½ the distance between rows. Beginning in the middle of the elytra towards the declivity there are rows of recumbent, hair-like setae on either side of the erect setae, forming a single row on either side of the interstriae.

Declivity evenly rounded in horizontal profile, narrowly rounded behind in dorsal view. Interstriae narrower than on disc, with similar vestiture of erect ribbon-like setae and recumbent ground vestiture; erect setae similar in length to those on disc. Striae similar to those of disc in width and vestiture. Entire surface of declivity shining, weakly reticulate.

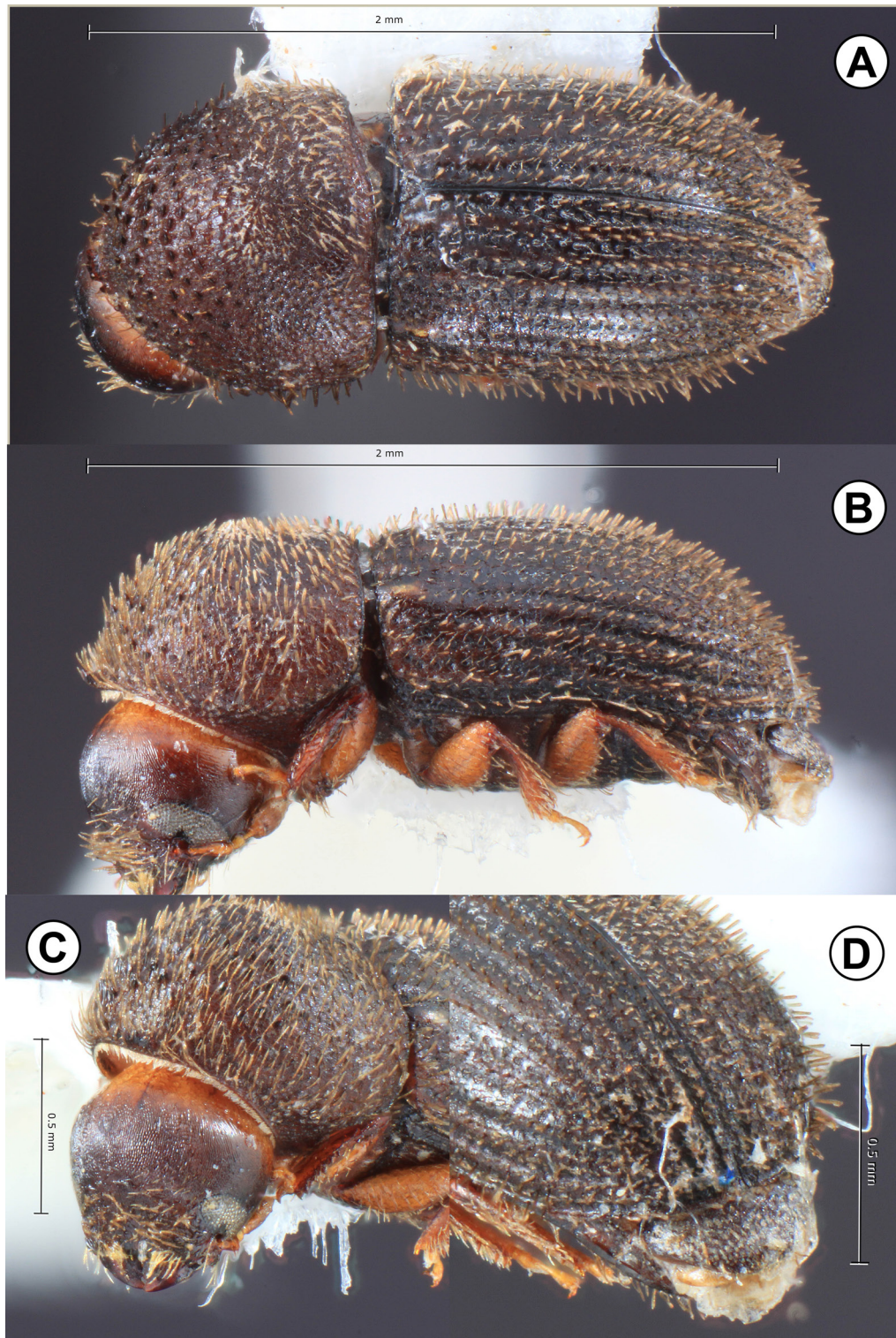
**Male.** Unknown.

**Type material. Holotype female: Brazil: Rondônia:** Ouro Preto do Oeste, 16-year-old intercropping area w/ peach palm, cocoa and coffee, 10°43'31.82"S 62°14'0.68"W, ethanol-baited flight intercept trap, 12-IX-2011, O. Trevisan (MEFEIS).

**Comments.** Bright (2019: 159) treated *H. dolosus* Wood as a synonym of *H. opacus* Eichhoff. We do not agree with Bright's proposal. In the latter species there are circular pits associated with the asperities at on the pronotal summit. In totally clean specimens these may be difficult to see. On other specimens these pits are filled with boring dust (also fungal symbionts?) and are clearly visible. These are not present in *H. dolosus*.

**Etymology.** This species is named for the collector of the type species, Olzeno Trevisan, researcher at the Comissão Executiva do Plano da Lavoura Cacaueira (CEPLAC) in Ouro Preto do Oeste, state of Rondônia, Brazil.





**Figure 13.** *Hypothenemus olzenoi* new species, female holotype. A) Dorsal view. B) Lateral view. C) Frontal view. D) Posterolateral view. Photos by T.H. Atkinson.

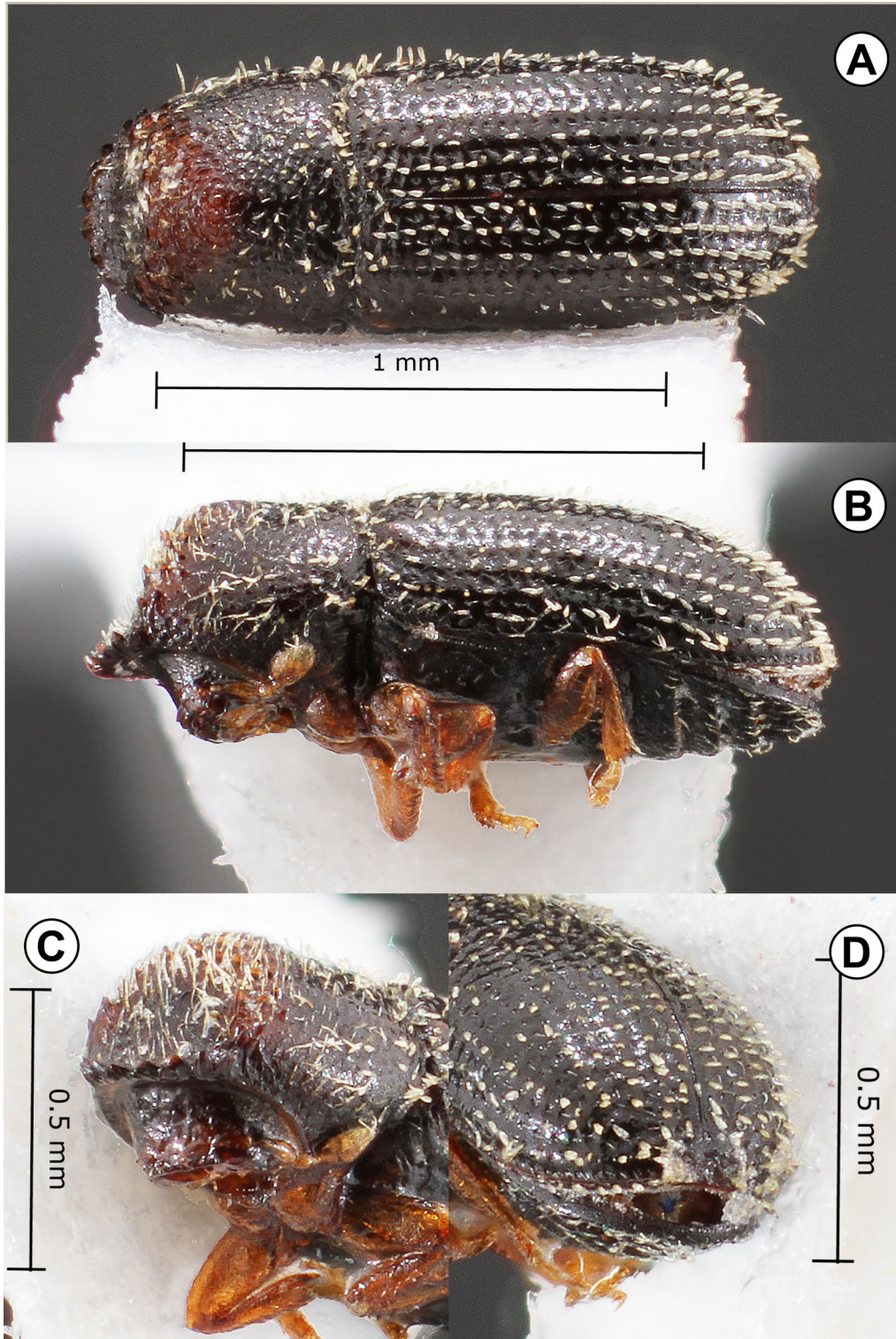
### New Records

All specimens cited below that are deposited in MEFEIS were collected in flight intercept traps baited with ethanol unless otherwise indicated. Because traps were monitored over a year or longer at many of these localities, complete dates are not cited for all incidences. Rather, a single year or range of years is given.

***Hypothenemus arecae* (Hornung, 1842).** Africa, SE Asia, Mexico and Central America, Caribbean. **Amapá:** Macapá, Área de Proteção Ambiental do Rio Curiaú, 0°8'54.11"N 51°6'44.17"W, 28-IV-2014, A.L. Jordão (MEFEIS, 1); **Ceará:** Crato, Floresta Nacional do Araripe, 7°20'46.5"S 39°28'15.4"W, 2012-2013, F.R. Azevedo (MEFEIS, 11); **Goiás:** Goianésia, Fazenda Covoá, 15°19'0.07"S 49°9'53.82"W, 7-I-2014, J.M. Pereira (MEFEIS, 1); **Mato Grosso:** Nova Xavantina, Parque Municipal do Bacaba, 14°42'35.10"S 52°21'08.20"W, 29-XI-2015, J.M. Gomes (MEFEIS, 1); São José dos Quatro Marcos, Fazenda Itamaraty, 15°39'5.92"S 58°13'40.28"W, 2018, A. Santos (MEFEIS, 18); **Mato Grosso do Sul:** Chapadão do Sul, Fazenda Campo Bom, ex *Khaya grandifoliola* branch broken by the wind planted Jan2011, 18°42'30.7"S 52°35'44.1"W, 25-V-2016, J.C.P. Silva (MEFEIS, 1); Inocência, Fazenda Laguna, 19°44'08.0"S 51°59'30.4"W, 14-X-2017, M.B.C. Ramos (MEFEIS, 1); Selvíria, UNESP Farm, 20°20'17.52"S 51°24'42.92"W, 2014-2018, several collectors (MEFEIS, 9); **Minas Gerais:** Capinópolis, Grama Farm, 18°46'6.18"S 49°28'51.59"W, 17-IV-2017, 18-IX-2017, 1-X-2017, C.F. Faria (MEFEIS, 4); Janaúba, Khaya Woods Group, 15°46'20.97"S 43°18'40.01"W, 1-XII-2018, 1-II-2019, 13-II-2019, F.R.P. Alves (MEFEIS, 3); Pirapora, Fazenda Atlântica Agropecuária, 17°29'28.57"S 44°57'24.02"W, 2017-2018, L.S. Covre (MEFEIS, 7); São Roque de Minas, Taquaril Farm, 20°77'45"S 46°27'29.03"W, 22-X-2016, 5-XI-2016, 2-II-2018, L.S. Covre (MEFEIS, 3); **Pará:** Canaã dos Carajás, Sítio José Ribamar da Silva Costa, 06°24'2035"S 49°51'12"W, 2012-2013, S.L. Lopes (MEFEIS, 10); Cumaru do Norte, Fazenda Veluma, 09°18'15.75"S 51°25'00.47"W, 2011-2012, A.M. Lunz (MEFEIS, 7); Pau d'Arco, Serraria TKX Indústria Madeireira, 07°48'48.6"S 50°03'18.6"W, 2011, A.D. Antonio (MEFEIS, 14); Redenção, Marcenaria Artica, 08°02'34.2"S 50°03'25.5"W, 23-I-2012 17-II-2012, 16-VII-2012, A.D. Antonio (MEFEIS, 3); Rio Maria, Fazenda Rongi-Porã, 07°38'00.8"S 50°01'14.3"W, 2011-2012, A.M. Lunz (MEFEIS, 13); Santarém, Alter do Chão, 2°32'56.43"S 54°53'55.89"W, 28-I-2016, M.K.S. Costa (MEFEIS, 1); São Domingos do Araguaia, Fazenda Guzerá, 05°31'54.4"S 48°42'35.0"W, 2012-2014, D.B. Guinhazi (MEFEIS, 15); Ulianópolis, Fazenda Pingo de Ouro, 03°49'58.6"S 47°44'16.5"W, 28-XII-2011, 17-X-2012, J.C. Bastos Junior (MEFEIS, 2); Xinguara, Carajás Madeira, 07°06'56.6"S 49°57'31.2"W, 2012, S.L. Lopes (MEFEIS, 16); **Pernambuco:** Recife, Mata Brennand, 8°2'23.41"S 34°58'49.14"W, 22-XI-2014, 29-XI-2014, 6-XII-2014, 16-XII-2014, T.J.S. Alves (MEFEIS, 5); **Rio de Janeiro:** Rio de Janeiro, Baía de Sepetiba, 22°55'29.43"S 43°46'20.16"W, 18-VIII-2011, H. Trevisan (MEFEIS, 1); Seropédica, EMBRAPA Agroecologia, 22°45'13.15"S 43°40'35.26"W, various dates in 2007, H. Trevisan (MEFEIS, 4); **Rio Grande do Sul:** Santa Maria, FEPAGRO, 29°40'08.69"S 53°54'47.08"W, 22-IX-2011, L.M. Machado (MEFEIS, 1); **Rondônia:** Ouro Preto do Oeste, CEPLAC Cocoa Research Station, 10°43'12.60"S 62°13'45.40"W, 2011, O. Trevisan (MEFEIS, 18); **Roraima:** Cantá, EMBRAPA Roraima, 02°14'45.8"N 60°39'47.9"W, 10-X-2014, E.G.F. Morais (MEFEIS, 1); **São Paulo:** Agudos, Duraflores, 22°26'24.77"S 48°51'9.98"W, 29-IX-1987, C.A.H. Flechtmann (MEFEIS, 1); Castilho, Assentamento Celso Furtado, 20°49'4.47"S 51°33'47.81"W, 2015, G.C. Pinheiro (MEFEIS, 14); Jardinópolis, Sítio São José, 21°0'8.7"S 47°44'22.38"W, 14-VII-2015, N.A. Lima (MEFEIS, 1); Lençóis Paulista, Duratex S.A., 22°49'22.7"S 48°53'19.7"W, 13-X-2006, 13-IV-2007, C.A.H. Flechtmann (MEFEIS, 2); Rubinéia, São Marcos Farm, 20°13'59.1"S 50°59'0.00"W, I-VIII-2017, 29-VIII-2017, F.L.L. Leonel (MEFEIS, 2); Sud Mennucci, Fazenda Jangada, 20°43'55"S 50°51'37.4"W, 1-IV-2013, 17-VIII-2013, F. Magrini (MEFEIS, 3); Três Fronteiras, Sítio Lagoa Azul, 20°15'29.65"S 50°54'52.39"W, 2013-2016, J.C.P. Silva (MEFEIS, 36); **Tocantins:** Palmas, EMBRAPA, 10°8'9.00"S 48°18'49"W, 15-XI-2017, F.N. Nascimento (MEFEIS, 1).

***Hypothenemus ascitus* Wood, 1971.** Previously known from southern Mexico to Panamá. **Bahia:** Vitória da Conquista, UESB campus, 14°52'47.55"S 40°47'37.10"W, ex cut branch of *Artocarpus heterophyllus* on the ground, 2-III-2011, L.C. Oliveira (MEFEIS, 1); **São Paulo:** Três Fronteiras, Sítio Lagoa Azul, 20°15'29.65"S 50°54'52.39"W, 11-I-2014, J.C.P. Silva (MEFEIS, 1).

***Hypothenemus aulmanni* (Hagedorn, 1878).** Africa, SE Asia (Fig. 14). These represent the first records of this species in the New World. This species is completely unlike any species previously known from the New World. The anterior margin of the pronotum is very steep and abrupt. The anterior margin of the pronotum is prominently extended anteriorly in a sort of platform and is armed with large, serrate teeth. **Bahia:** Vitória da Conquista, UESB



**Figure 14.** *Hypothenemus aulmanni* (Hagedorn), female. **A)** Dorsal view. **B)** Lateral view. **C)** Frontal view. **D)** Posterolateral view. Photos by T.H. Atkinson.

campus, 14°52'47.55"S 40°47'37.10"W, ex cut branch of *Artocarpus heterophyllus* on the ground, 2-III-2011, L.C. Oliveira (MEFEIS, 1); **Espírito Santo**: Jerônimo Monteiro, Barra Limpa, 20°50'9.19"S 41°23'30.68"W, ex *Citrus* branch, 15-VII-2019, D. Pratisoli (MEFEIS, 1); **Minas Gerais**: São Roque de Minas, Fazenda Taquaril, ex stem of dry *Vernonia polysphaera*, 20°7'23.7"S 46°26'23.96"W, 26-VII-2017, C.A.H. Flechtmann (MEFEIS, 1); **Rio de Janeiro**: Seropédica, EMBRAPA Agroecologia, 22°45'15.64"S 43°40'20.42"W, 9-I-2015, H. Trevisan (MEFEIS, 1).

***Hypothenemus birmanus* (Eichhoff, 1878)**. Known from southern Florida (U.S.), Mexico to Panama, the Antilles and the Galapagos Islands. This is the first record from continental South America. **Bahia**: Cruz das Almas, Mata de Cazuzinha, 12°39'59"S 39°6'26"W, various dates 2012, R.C. Pereira (MEFEIS, 14); **Mato Grosso do Sul**: Selvíria, UNESP Farm, 20°20'17.52"S 51°24'42.92"W, several dates 2016-2017, G.C. Pinheiro (MEFEIS, 3); **Pernambuco**: Recife, Mata Brennand, 8°2'23.41"S 34°58'49.14"W, several dates between 2014-2015, T.J.S. Alves (MEFEIS, 4); **São Paulo**: Santana da Ponte Pensa, Sítio Nossa Senhora Aparecida, 20°13'20.04"S 50°48'41.18"W, 21-X-2012, J.C.P. Silva (MEFEIS, 1).

***Hypothenemus bolivianus* (Eggers, 1931)**. Reported from Bolivia, Colombia and Venezuela. **Amapá**: Tartarugalzinho, Comunidade Entre Rios, 1°7'32.70"N 51°18'34.20"W, 2014-2017, W.R. Silva (MEFEIS, 22); **Espírito Santo**: Venda Nova do Imigrante, Fazenda Alto Viçosa, 20°22'34.6"S 41°03'46.2"W, 13-X-2016, D.S. Martins (MEFEIS, 1); **Mato Grosso**: Alta Floresta, IDC Florestal, 10°0'0.00"S 56°1'0.00"W, 13-VII-2016, 8-VIII-2016, M. Monteiro (MEFEIS, 2); **Mato Grosso do Sul**: Selvíria, UNESP Farm, 20°20'17.52"S 51°24'42.92"W, 2018, several collectors (MEFEIS, 12); **Minas Gerais**: São Roque de Minas, Taquaril Farm, 20°7'7.45"S 46°27'29.03"W, 16-II-2016, 17-IX-2016, 22-X-2016, 16-II-2018, L.S. Covre (MEFEIS, 24); **Pernambuco**: Recife, Mata Brennand, 8°2'23.41"S 34°58'49.14"W, 9-V-2015, T.J.S. Alves (MEFEIS, 1); **Rondônia**: Ouro Preto do Oeste, CEPLAC Cocoa Research Station, 10°43'12.60"S 62°13'45.40"W, 2011-2012, O. Trevisan (MEFEIS, 18); **São Paulo**: Garça, Fazenda Enseada, 22°15'43.92"S 49°40'50.46"W, healthy *Khaya senegalensis* trunk planted Mar2014, 29-VIII-2017, L.A. Benso (MEFEIS, 1); Rubinéia, São Marcos Farm, 20°13'59.1"S 50°59'0.00"W, 2017-2018, F.L.L. Leonel (MEFEIS, 8).

***Hypothenemus brunneus* (Hopkins, 1915)**. Bright (2019) treated this as a synonym of *H. javanus* (Eggers) with which we disagree. This will be addressed in an upcoming paper (AJ. Johnson, *in litt.*) Southern Florida and Texas (U.S.) to Ecuador. **Bahia**: Cruz das Almas, Mata de Cazuzinha, 12°39'59"S 39°6'26"W, 3-X2012, R.C. Pereira (MEFEIS, 1); **Ceará**: Crato, Floresta Nacional do Araripe, 7°20'46.5"S 39°28'15.4"W, 2012, F.R. Azevedo (MEFEIS, 7); **Espírito Santo**: Linhares, Goytacazes National Forest, 19°26'08.7"S 40°04'33.4"W, 8-XI-2015, D.S. Martins (MEFEIS, 1); **Mato Grosso do Sul**: Inocência, Fazenda Laguna, 19°44'08.0"S 51°59'30.4"W, 6-I-2018, 1-VI-2018, M.B.C. Ramos (MEFEIS, 2); Selvíria, UNESP Farm, 20°20'17.52"S 51°24'42.92"W, 2011-2018, several collectors (MEFEIS, 27); **Minas Gerais**: Capinópolis, Grama Farm, 18°46'6.18"S 49°28'51.59"W, 7-XI-2017, 24-IV-2017, 11-III-2019, 24-VIII-2019, 23-IX-2019, C.F. Faria (MEFEIS, 6); Janaúba, Khaya Woods Group, 15°46'20.97"S 43°18'40.01"W, 2018-2019, F.R.P. Alves (MEFEIS, 11); Nova Porteirinha, Khaya Woods Group, 15°41'1.99"S 43°17'44.48"W, 12-II-2018, 3-VIII-2018, 28-III-2018, F.R.P. Alves (MEFEIS, 7); Pirapora, Fazenda Atlântica Agropecuária, 17°29'28.57"S 44°57'24.02"W, 23-VIII-2017, L.S. Covre (MEFEIS, 2); São Roque de Minas, Taquaril Farm, 20°7'7.45"S 46°27'29.03"W, 2016-2018, L.S. Covre (MEFEIS, 5); **Pará**: Cumaru do Norte, Fazenda Veluma, 09°18'15.75"S 51°25'00.47"W, 2012, A.M. Lunz (MEFEIS, 16); Pau d'Arco, Serraria TKX Indústria Madeireira, 07°48'48.6"S 50°03'18.6"W, 2011, A.D. Antonio (MEFEIS, 16); Redenção, Marcenaria Artica, 08°02'34.2"S 50°03'25.5"W, 4-IV-2012, 20-IV-2012, 8-V-2012, A.D. Antonio (MEFEIS, 6); São Domingos do Araguaia, Fazenda Guzerá, 05°31'54.4"S 48°42'35.0"W, 2012, D.B. Guinhazi (MEFEIS, 25); Ulianópolis, Fazenda Pingo de Ouro, 03°49'58.6"S 47°44'16.5"W, 26-I-2012, J.C. Bastos Junior (MEFEIS, 1); **Paraíba**: Patos, Universidade Federal de Campina Grande - campus of Patos, 07°01'37.3"S 7°16'27.1"W, 2010-2012, R.S. Guedes (MEFEIS, 15, UTIC, 6); **Rio de Janeiro**: Seropédica, UFRRJ campus, 22°45'28"S 43°41'42"W, several dates between 1999-2008, different collectors (MEFEIS, 17); **Santa Catarina**: Porto União, Fazenda Pintado, 26°16'48.47"S 51°02'10.78"W, 17-XI-1998, C.A.H. Flechtmann (MEFEIS, 1); **São Paulo**: Castilho, Assentamento Celso Furtado, 20°49'4.47"S 51°33'47.81"W, 2015, G.C. Pinheiro (MEFEIS, 13); Jardinópolis, Sítio São José, 21°0'8.7"S 47°44'22.38"W, 14-VII-2015, N.A. Lima (MEFEIS, 1); Rubinéia, São Marcos Farm, 20°13'59.1"S 50°59'0.00"W, 2017, F.L.L. Leonel (MEFEIS, 5); Três Fronteiras, Sítio Lagoa Azul, 20°15'29.65"S 50°54'52.39"W, 2013-2015, J.C.P. Silva (MEFEIS, 40).

***Hypothenemus columbi* Hopkins, 1915.** Coastal regions from South Carolina to Texas (U.S.) to Ecuador. **Ceará:** Crato, Floresta Nacional do Araripe, 7°20'46.5"S 39°28'15.4"W, 2012-2013, F.R. Azevedo (MEFEIS, 1); **Mato Grosso do Sul:** Selvíria, 20°20'17.52"S 51°24'42.92"W, ethanol + methanol-baited flight intercept trap, 2-X-2010, J.C.C. Silva (MEFEIS, 1); **Roraima:** Cantá, EMBRAPA Roraima, 02°14'45.8"N 60°39'47.9"W, 26-IV-2015, E.G.F. Morais (MEFEIS, 1).

***Hypothenemus crudiae* (Panzer, 1791).** Africa, SE Asia, eastern U.S. to Argentina. Wood (2007) cited several Brazilian states. Records listed below are new state records. **Amapá:** Macapá, Área de Proteção Ambiental do Rio Curiaú, 0°8'49.97"N 51° 6'51.43"W, 14-X-2013, A.L. Jordão (MEFEIS, 1); **Ceará:** Crato, Floresta Nacional do Araripe, 7°20'46.5"S 39°28'15.4"W, 16-VIII-2012, 14-VI-2013, F.R. Azevedo (MEFEIS, 3); **Mato Grosso:** São José dos Quatro Marcos, Fazenda Itamaraty, 15°39'5.92"S 58°13'40.28"W, 8-IX-2017, A. Santos (MEFEIS, 3); **Mato Grosso do Sul:** Inocência, Fazenda Laguna, 19°44'08.0"S 51°59'30.4"W, 21-X-2017, M.B.C. Ramos (MEFEIS, 1); same except 20°58'57.837"S 51°46'8.181"W, 12-X-2016, J.E.P. Mendes (MEFEIS, 1); Selvíria, UNESP Farm, 20°20'17.52"S 51°24'42.92"W, 7-X-2011, J.C.C. Silva (MEFEIS, 1); Três Lagoas, International Paper, seasonal semideciduous forest remnant, 21°2'19.93"S 51°46'45.68"W, ex *Cecropia* petiole, 2000-2001, C.A.H. Flechtmann (MEFEIS, 8); **Minas Gerais:** Capinópolis, Grama Farm, 18°46'6.18"S 49°28'51.59"W, 13-VIII-2018, 22-X-2019, C.F. Faria (MEFEIS, 12); Janaúba, Khaya Woods Group, 15°46'20.97"S 43°18'40.01"W, 2018-2019, F.R.P. Alves (MEFEIS, 5); **Pará:** Cumaru do Norte, Fazenda Veluma, 09°18'15.75"S 51°25'00.47"W, 15-X-2012, A.M. Lunz (MEFEIS, 1); Redenção, Marcenaria Artica, 08°02'34.2"S 50°03'25.5"W, 20-IV-2012, 20-VII-2012, 20-IX-2012, 17-XII-2012, A.D. Antonio (MEFEIS, 7); Rio Maria, Fazenda Rongi-Porã, 07°38'00.8"S 50°01'14.3"W, 10-IX-2012, A.M. Lunz (MEFEIS, 1); São Domingos do Araguaia, Fazenda Guzerá, 05°31'54.4"S 48°42'35.0"W, 2012-2013, D.B. Guinhazi (MEFEIS, 12); Ulianópolis, Fazenda Pingo de Ouro, 03°49'58.6"S 47°44'16.5"W, 2011-2012, J.C. Bastos Junior (MEFEIS, 9); Xinguara, Carajás Madeira, 07°06'56.6"S 49°57'31.2"W, 10-II-2012, 28-VI-2012, S.L. Lopes (MEFEIS, 3); **Rio Grande do Sul:** Santa Maria, Fundação Estadual de Pesquisa Agropecuária, 29°40'13.57"S 53°55'20.92"W, 2011, L.M. Machado (MEFEIS, 3); **Santa Catarina:** Porto União, Fazenda Pintado, 26°16'48.47"S 51°02'10.78"W, 10-XI-1998, 20-I-1999, C.A.H. Flechtmann (MEFEIS, 2).

***Hypothenemus distinctus* Wood, 1954.** This seldom collected species has previously been found only in the eastern U.S. **Rio de Janeiro:** Seropédica, EMBRAPA Agroecologia, 22°45'13.15"S 43°40'35.26"W, 12-II-2015, H. Trevisan (MEFEIS, 1).

***Hypothenemus dolosus* Wood, 1974.** Wood (1982) cited this species from Veracruz to Costa Rica. Bright and Torres (2006) extended the known distribution to Puerto Rico. We do not agree with Bright's (2019) synonymy of this species with *H. opacus* (Eichhoff). **Paraná:** Telêmaco Borba, Klabin Papel e Celulose, Guarda Florestal Faisqueira, *Pinus taeda* stand planted 1978, 24°22'58.24"S 50°24'9.06"W, 17-III-2000, C.A.H. Flechtmann (MEFEIS, 1).

***Hypothenemus eximius* Schedl, 1951.** This species was described from Santa Catarina and has been reported from Espírito Santo, Mato Grosso, and Rio de Janeiro. **Paraná:** Telêmaco Borba, Klabin Papel e Celulose, 24°26'30.95"S 50°28'52.42"W, 4-I-2002, C.A.H. Flechtmann (MEFEIS, 1); **São Paulo:** Campinas, Núcleo Lupunamanta, 22°45'49.19"S 46°58'53.15"W, 12-III-2010, R. Pena (MEFEIS, 1); **Rio Grande do Sul:** Santa Maria, Fundação Estadual de Pesquisa Agropecuária, 29°40'13.57"S 53°55'20.92"W, 29-V-2012, L.M. Machado (UTIC, 1).

***Hypothenemus gossypii* (Hopkins, 1915).** Cited by Wood and Bright (1992) from southern U.S. (Florida), Mexico, and Cuba. These are the first records from South America. **Goiás:** Goianésia, Fazenda Covoá, 15°19'0.07"S 49°9'53.82"W, 13-IV-2013, 7-VIII-2013, J.M. Pereira (MEFEIS, 2); **Mato Grosso do Sul:** Selvíria, UNESP Farm, 10-VIII-2013, (MEFEIS,1); Três Lagoas, Horta Barra de Moeda, ex fallen petiole *Cecropia* sp., 2-III-2002, C.A.H. Flechtmann (MEFEIS, 1); **Minas Gerais:** Janaúba, Khaya Woods Group, 15°46'20.97"S 43°18'40.01"W, 12-II-2018, 6-II-2019, F.R.P. Alves (MEFEIS, 2); Pirapora, Fazenda Atlântica Agropecuária, 17°29'28.57"S 44°57'24.02"W, 4-X-2017, 30-VIII-2017, L.S. Covre (MEFEIS, 2); São Roque de Minas, Taquaril Farm, 20°7'7.45"S 46°27'29.03"W, 2016, L.S. Covre (MEFEIS, 7); **Paraíba:** Patos, Universidade Federal de Campina Grande - campus of Patos, 07°01'37.3"S 7°16'27.1"W, 26-I-2011, R.S. Guedes (MEFEIS, 1); **Rio Grande do Sul:** Santa Maria, Fundação Estadual de Pesquisa Agropecuária, 29°40'13.57"S 53°55'20.92"W, 3-XI-2011, L.M. Machado (MEFEIS, 1); **São Paulo:** Fazenda Cambuhy, Matão, 2-4-X-2005, suction trap, S. Halbert (FSCA, 2); Castilho,

Assentamento Celso Furtado, 20°49'4.47"S 51°33'47.81"W, 2015, G.C. Pinheiro (MEFEIS, 6); Jardinópolis, Sítio São José, 21°0'8.7"S 47°44'22.38"W, 28-VIII-2015, 30-IX-2015, N.A. Lima (MEFEIS, 2); Lençóis Paulista, Duratex S.A., 22°49'22.7"S 48°53'19.7"W, 27-X-2006, C.A.H. Flechtmann (MEFEIS, 1); Sud Mennucci, Fazenda Jangada, 20°43'55"S 50°51'37.4"W, 1-VII-2013, F. Magrini (MEFEIS, 1); Três Fronteiras, Sítio Lagoa Azul, 20°15'29.65"S 50°54'52.39"W, 2013-2015, J.C.P. Silva (MEFEIS, 27).

***Hypothenemus interstitialis* (Hopkins, 1915).** Eastern U.S. to Colombia and Venezuela. These are the first records from Brazil. **Mato Grosso:** Cuiabá, Fazenda Mutuca, 15°35'21.59"S 55°56'47.45"W, VI-1998, A. Dorval (MEFEIS, 1); **Pará:** Pau d'Arco, Serraria TKX Indústria Madeireira, 07°48'48.6"S 50°03'18.6"W, 20-VI-2011, A.D. Antonio (MEFEIS, 1); **Rio de Janeiro:** Seropédica, UFRJ campus, various dates between 2000-2001, A.M. Lunz (MEFEIS, 4); **Rondônia:** Ouro Preto do Oeste, CEPLAC Cocoa Research Station, 10°43'12.60"S 62°13'45.40"W, 2011, O. Trevisan (MEFEIS, 7); **São Paulo:** Agudos, Duraflores, 22°26'15"S 48°51'1.49"W, 8-V-1984, C.A.H. Flechtmann (MEFEIS, 1); Castilho, Assentamento Celso Furtado, 20°49'4.47"S 51°33'47.81"W, 10-X-2015, G.C. Pinheiro (MEFEIS, 1).

***Hypothenemus javanus* (Eggers, 1908).** Africa, SE Asia, southern Florida to Venezuela. **Amapá:** Macapá, Comunidade São José do Mata Fome, 0°13'29.89"N 50°58'18.97"W, 9-I-2015, S.J.M. Rodrigues Filho (MEFEIS, 1); **Goiás:** Goianésia, Fazenda Covoá, 15°19'0.07"S 49°9'53.82"W, 9-X-2013, J.M. Pereira (MEFEIS, 1); **Mato Grosso:** São José dos Quatro Marcos, Fazenda Itamaraty, 15°39'5.92"S 58°13'40.28"W, 12-VII-2018, A. Santos (MEFEIS, 6); **Mato Grosso do Sul:** Selvíria, UNESP Farm, 20°20'17.52"S 51°24'42.92"W, ex branch of *Fusarium*-diseased *Cassia ferruginea* ca. 2 m above ground, 1-XII-2015, J.A. Agostini (MEFEIS, 12); **Minas Gerais:** Capinópolis, Grama Farm, 18°46'6.18"S 49°28'51.59"W, 14-VIII-2017, C.F. Faria (MEFEIS, 1); Janaúba, Khaya Woods Group, 15°46'20.97"S 43°18'40.01"W, 19-XII-2018, 21-II-2019, F.R.P. Alves (MEFEIS, 2); Nova Porteirinha, Khaya Woods Group, 15°41'1.99"S 43°17'44.48"W, 17-VIII-2018, 19-XII-2018, F.R.P. Alves (MEFEIS, 2); **Pará:** Canaã dos Carajás, Sítio José Ribamar da Silva Costa, 06°24'2035"S 49°51'12"W, 29-II-2012, 18-IX-2012, S.L. Lopes (MEFEIS, 2); Rio Maria, Fazenda Rongi-Porã, 07°38'00.8"S 50°01'14.3"W, 10-VII-2012, 11-X-2012, A.M. Lunz (MEFEIS, 2); São Domingos do Araguaia, Fazenda Guzerá, 05°31'54.4"S 48°42'35.0"W, 2012, D.B. Guinhazi (MEFEIS, 7); **Paraíba:** Patos, Universidade Federal de Campina Grande - campus of Patos, 07°01'37.3"S 7°16'27.1"W, 12-I-2011, R.S. Guedes (MEFEIS, 1); **Paraná:** Telêmaco Borba, Klabin Papel e Celulose, 24°18'56.2"S 50°30'37.5"W, 9-IV-1999, 8-III-2002, C.A.H. Flechtmann (MEFEIS, 2); **Rio de Janeiro:** Seropédica, EMBRAPA Agroecologia, 22°45'15.64"S 43°40'20.42"W, 2007-2008, H. Trevisan (MEFEIS, 8); **Rio Grande do Sul:** Santa Maria, Fundação Estadual de Pesquisa Agropecuária, 29°40'13.57"S 53°55'20.92"W, 17-XI-2011, L.M. Machado (MEFEIS, 2); **Rondônia:** Ouro Preto do Oeste, CEPLAC Cocoa Research Station, 10°43'12.60"S 62°13'45.40"W, 14-I-2011, O. Trevisan (MEFEIS, 1); **São Paulo:** Campinas, Núcleo Lupunamanta, 22°45'49.19"S 46°58'53.15" W, 5-III-2010, R. Pena (MEFEIS, 1); Castilho, Assentamento Celso Furtado, 20°49'4.47"S 51°33'47.81"W, 5-IX-2015, 12-IX-2015, G.C. Pinheiro (MEFEIS, 2); Rubinéia, São Marcos Farm, 20°13'59.1"S 50°59'0.00"W, 19-IX-2017, 29-VIII-2017, 31-VIII-2018, F.L.L. Leonel (MEFEIS, 9); Sud Mennucci, Fazenda Jangada, 20°43'55"S 50°51'37.4"W, 2013-2014, F. Magrini (MEFEIS, 13); Três Fronteiras, Sítio Lagoa Azul, 20°15'29.65"S 50°54'52.39"W, 2014-2016, J.C.P. Silva (MEFEIS, 14); **Tocantins:** Palmas, EMBRAPA, 10°8'9.00"S 48°18'49"W, 31-VIII-2017, F.N. Nascimento (MEFEIS, 1).

***Hypothenemus meridensis* Wood, 2007.** Previously known only from the type locality in Venezuela. **Bahia:** Valença, Fazenda Sucupira, 13°19'58.03"S 39°18'40.64"W, ex *Khaya ivorensis* petiole planted Jul2013, 26-VII-2016, J.C.P. Silva (MEFEIS, 1); **Paraíba:** Santa Terezinha, Fazenda Tamanduá, 07°01'20.3"S 37°24'35.1"W, 2015, F.J.A. Silva (MEFEIS, 18); **Paraná:** Curitiba, Afonso Pena International Airport, 25°32' 09"S 49°10'17"W, 7-IV-2010, S.R.C. Penteado (MEFEIS, 1); Telêmaco Borba, Klabin Papel e Cellulose, 14-VIII-1998, C.A.H. Flechtmann (MEFEIS, 2, UTIC, 1); **Rio de Janeiro:** Rio de Janeiro, Baía de Sepetiba, 22°55'29.43"S 43°46'20.16"W, 7-IV-2011, H. Trevisan (MEFEIS, 1); **São Paulo:** Jardinópolis, Sítio São José, 21°0'8.7"S 47°44'22.38"W, 30-XII-2015, N.A. Lima (MEFEIS, 2).

***Hypothenemus nanellus* Wood, 1971.** Previously known only from the type locality in Costa Rica. Specimens were compared to Wood's holotype (USNM) by the senior author. **Amapá:** Macapá, Comunidade São José do Mata Fome, 0°13'29.89"N 50°58'18.97"W, 3-IV-2015, S.J.M. Rodrigues Filho (UTIC, 1); **Mato Grosso do Sul:**

Selvária, UNESP Farm, 20°22'58.72"S 51°24'42.30"W, several dates between 2014 and 2018, different collectors (MEFEIS, 4).

***Hypothenemus opacus* (Eichhoff, 1872).** Costa Rica to Brazil. Specimens of this species, previous to this current publication, were mostly (if not all) misidentified as *Hypothenemus bolivianus* (Eggers) (e.g., Flechtmann et al. 1995). The following are new state records. **Amapá:** Macapá, Área de Proteção Ambiental do Rio Curiaú, 0°8'54.11"N 51°6'44.17"W, 2013-2015, different collectors (MEFEIS, 36); Tartarugalzinho, Comunidade Entre Rios, 1°7'32.70"N 51°18'34.20"W, 2014-2015, W.R. Silva (MEFEIS, 45); **Bahia:** Nova Viçosa, Aracruz Celulose S.A., 17°55'52.91"S 39°47'8.19"W, 1997, C.A.H. Flechtmann (MEFEIS, 17); **Espírito Santo:** Aracruz, Aracruz Celulose S.A., 19°48'15.32"S 40°12'33.28"W, Malaise trap, 12-III-1990, J.F. Ramos (MEFEIS, 3); Venda Nova do Imigrante, Fazenda Alto Viçosa, 20°22'34.6"S 41°03'46.2"W, 12-IV-2017, D.S. Martins (MEFEIS, 1); Linhares, Goytacazes National Forest, 19°26'08.7"S 40°04'33.4"W, 20-IX-2017, D.S. Martins (MEFEIS, 1); **Goiás:** Goianésia, Fazenda Covoá, 15°19'0.07"S 49°9'53.82"W, 28-V-2013, 9-X-2013, 7-III-2014, 24-X-2013, J.M. Pereira (MEFEIS, 4); Itiquira, Fazenda Pedregulho, 17°19'15.78"S 54°44'23.34"W, 30-VIII-1992, O.T. Dall'Oglio (MEFEIS, 4); **Mato Grosso:** Nova Xavantina, Parque Municipal do Bacaba, 14°42'35.10"S 52°21'08.20"W, 2015-2016, J.M. Gomes (MEFEIS, 21); Sinop, evergreen seasonal forest, 11°56'56.78"S 55°29'3.13"W, 29-III-2015, 22-VI-2015, O.T. Dall'Oglio (MEFEIS, 2); **Mato Grosso do Sul:** Aquidauana, UEMS Farm, 20°27'13.20"S 55°39'40.77"W, 2016-2017, A. Abot (MEFEIS, 7); Inocência, Fazenda Laguna, 19°44'08.0"S 51°59'30.4"W, 2-XII-2017, M.B.C. Ramos (MEFEIS, 1); Selvária, UNESP Farm, 20°20'17.52"S 51°24'42.92"W, 1993-2019, several collectors (MEFEIS, 28); Três Lagoas, Champion Papel e Celulose, 20°57'48.58"S 51°48'3.09"W, 1993-1994 and 2015-2016, different collectors (MEFEIS, 24); **Minas Gerais:** Capinópolis, Grama Farm, 18°46'6.18"S 49°28'51.59"W, 13-IX-2019, C.F. Faria (MEFEIS, 1); Janaúba, Khaya Woods Group, 15°46'20.97"S 43°18'40.01"W, 2018-2019, F.R.P. Alves (MEFEIS, 8); São Roque de Minas, Taquaril Farm, 20°7'7.45"S 46°27'29.03"W, 25-XI-2013, 9-XII-2013, 13-VIII-2016, 17-IX-2016, 22-X-2016, L.S. Covre (MEFEIS, 13); Viçosa, Mata da Biologia da UFV, 20°45'20.93"S 42°51'55.37"W, 2016, P.E.C. Loja (MEFEIS, 21); **Pará:** Canaã dos Carajás, Sítio José Ribamar da Silva Costa, 06°24'2035"S 49°51'12"W, 11-IV-2013, S.L. Lopes (MEFEIS, 1); Cumarú do Norte, Fazenda Veluma, 09°18'15.75"S 51°25'00.47"W, 2011-2012, A.M. Lunz (MEFEIS, 9); Pau d'Arco, Serraria TKX Indústria Madeireira, 07°48'48.6"S 50°03'18.6"W, 2011-2012, A.D. Antonio (MEFEIS, 10); Redenção, Fazenda Experimental Piroás, 4°9'18.64"S 38°47'50.17"W, 23-I-2012, 4-IV-2012, 20-IV-2012, 5-IV-2013 2012 -2013, J.G.L. Moraes (MEFEIS, 4); Rio Maria, Fazenda Rongi-Porã, 07°38'00.8"S 50°01'14.3"W, 2011-2012, A.M. Lunz (MEFEIS, 3); São Domingos do Araguaia, Fazenda Guzerá, 05°31'54.4"S 48°42'35.0"W, 2012-2013, D.B. Guinhazi (MEFEIS, 5); Xinguara, Carajás Madeira, 07°06'56.6"S 49°57'31.2"W, 2012-2013, S.L. Lopes (MEFEIS, 4); **Paraná:** Cândido de Abreu, Klabin Papel e Celulose, 24°27'56.07"S 51°12'36.54"W, 2003, C.A.H. Flechtmann (MEFEIS, 12); Telêmaco Borba, Klabin Papel e Celulose, 24°18'56.2"S 50°30'37.5"W, 1999-2007, C.A.H. Flechtmann (MEFEIS, 213); **Pernambuco:** Recife, Mata Brennand, 8°2'23.41"S 34°58'49.14"W, 2014-2015, T.J.S. Alves (MEFEIS, 31); **Rio de Janeiro:** Seropédica, UFRRJ campus, 22°45'28"S 43°41'42"W, 1998-2002, different collectors (MEFEIS, 66); **Rio Grande do Sul:** Butiá, Empresa Seta, 24°29' S 51°16' W, several dates in 2004, A.B. Murari (MEFEIS, 23); Santa Maria, Fundação Estadual de Pesquisa Agropecuária, 29°40'13.57"S 53°55'20.92"W, 2003-2012, different collectors (MEFEIS, 43); **Rondônia:** Ouro Preto do Oeste, CEPLAC Cocoa Research Station, 10°43'12.60"S 62°13'45.40"W, 2011-2012, O. Trevisan (MEFEIS, 8); Porto Velho, Sítio Menino Jesus, 8°49'56.78"S 63°46'53.56"W, 6-II-2018, 9-IV-2018, A. Puker (MEFEIS, 2); **Roraima:** Cantá, EMBRAPA Roraima, 02°14'45.8"N 60°39'47.9"W, 2014-2015, E.G.F. Morais (MEFEIS, 14); **Santa Catarina:** Joaçaba, Parque Natural Municipal Rio do Peixe, 27°09'47.66"S 51°34'47.30"W, 2015-2016, E. Orlandin (MEFEIS, 18); **São Paulo:** Agudos, Duraflora, 22°27'41.59"S 48°51'12.60"W, 1984-1986, C.A.H. Flechtmann (MEFEIS, 10); Anhembi, Estação Experimental de Ciências Florestais de Anhembi, 22°42'46.26"S 48°10'27.83"W, 2011-2012, E.N.L. Ferreira (MEFEIS, 30); Botucatu, Paula Souza sawmill, 22°57'40.39"S 48°31'58.62"W, 23-VII-1989, 28-III-1990, C.A.H. Flechtmann (MEFEIS, 2); Brotas, International Paper do Brasil, 22°14'31.89"S 47°59'57.23"W, 30-X-2001, K. Trefflich (MEFEIS, 1); Campinas, Núcleo Lupunamanta, 22°45'49.19"S 46°58'53.15" W, 2010, R. Pena (MEFEIS, 6); Castilho, Assentamento Celso Furtado, 20°49'4.47"S 51°33'47.81"W, 2015, G.C. Pinheiro (MEFEIS, 17); Garça, Fazenda Enseada, 22°15'43.92"S 49°40'50.46"W, *Khaya senegalensis* branch planted Mar 2014, 7-VI-2018, L.A. Benso (MEFEIS, 1); Ibaté, RIPASA, 21°50'00"S 48°01'00"W, 12-XI-1984, 5-IX-1984, C.D.

Santos (MEFEIS, 2); Jardinópolis, Sítio São José, 21°0'8.7"S 47°44'22.38"W, 2015-2016, N.A. Lima (MEFEIS, 17); Lençóis Paulista, Duratex S.A., 22°49'22.7"S 48°53'19.7"W, 2006, C.A.H. Flechtmann (MEFEIS, 34); Piracicaba, Horto Florestal de Tupi, 22°43'S 47°31"W, 1998, C.A.H. Flechtmann (MEFEIS, 11); Rubinéia, São Marcos Farm, 20°13'59.1"S 50°59'0.00"W, various dates 2017, F.L.L. Leonel (MEFEIS, 3); São Paulo, Parque Ecológico do Guarapiranga, 23°42' 32.90"S 46°45'18.60"W, 7-X-2008, F.J. Zorzenon (MEFEIS, 1); Sud Mennucci, Fazenda Jangada, 20°43'55"S 50°51'37.4"W, 2013, F. Magrini (MEFEIS, 4); Três Fronteiras, Sítio Boa Sorte, 20°12'33.58"S 50°51'51.67"W, 2013, J.C.P. Silva (MEFEIS, 2).

***Hypothenemus pubescens* Hopkins., 1915.** Southern Florida and Texas (U.S.) to Argentina. Not previously cited from Brazil. **Bahia:** Valença, Fazenda Sucupira, 13°19'53.58"S 39°18'41.51"W, ex *Swietenia mahogany* seedling, 26-VII-2016, J.C.P. Silva (MEFEIS, 1); **Minas Gerais:** São Roque de Minas, Taquaril Farm, 20°7'23.7"S 46°26'23.96"W, ex stem of dry *Vernonia polysphaera*, 26-VII-2017, C.A.H. Flechtmann (MEFEIS, 1); Viçosa, Mata da Biologia da UFV, 20°45'20.93"S 42°51'55.37"W, several dates in 2016, P.E.C. Loja (MEFEIS, 31); **Pará:** Cumaru do Norte, Fazenda Veluma, 09°18'15.75"S 51°25'00.47"W, 18-VIII-2011, A.M. Lunz (MEFEIS, 1); **Paraíba:** Patos, Universidade Federal de Campina Grande - campus of Patos, 07°01'37.3"S 7°16'27.1"W, 20-VII-2011, 7-IV-2011, R.S. Guedes (MEFEIS, 1).

***Hypothenemus rugosipes* Wood, 2007.** Previously known only from two localities in Venezuela. Specimens were compared to Wood's holotype by the senior author. **Pará:** Paragominas, pitfall with ethanol, XII-1997, S. Ketelhut (MEFEIS, 1); **Paraná:** Telêmaco Borba, Klabin Papel e Celulose, 24°18'56.2"S 50°30'37.5"W, 10-I-2006, 22-IX-2006, C.A.H. Flechtmann (MEFEIS, 3); **Rio de Janeiro:** Rio de Janeiro, Maciço do Gericinó/Mendanha, 22°49'19.50"S 43°31'23.80"W, 15-I-2013, 12-III-2013, 19-III-2015, 24-III-2015, M.S. Santos (MEFEIS, 4); Seropédica, UFRJ campus, 22°45'27"S 43°41'53"W, 4-II-2000, A.M. Lunz (UTIC, 3); **Rio Grande do Sul:** Santa Maria, FEPAGRO, 29°40'8.03"S 53°55'16.90"W, 3-XI-2011, L.M. Machado (UTIC, 1); **Rondônia:** Ouro Preto do Oeste, CEPLAC Cocoa Research Station, 12-XII-2011, O. Trevisan (UTIC, 1); **Roraima:** Cantá, EMBRAPA Roraima, 02°14'45.8"N 60°39'47.9"W, 27-I-2016, 12-V-2016, 11-VIII-2016, E.G.F. Morais (MEFEIS, 5); **São Paulo:** Castilho, Assentamento Celso Furtado, 20°49'4.47"S 51°33'47.81"W, 24-I-2015, 27-II-2015, 6-VI-2015, G.C. Pinheiro (MEFEIS, 5); São Paulo, Parque Ecológico do Guarapiranga, 23°42' 32.90"S 46°45'18.60"W, 23-II-2009, F.J. Zorzenon (MEFEIS, 1).

***Hypothenemus suspectus* Wood, 1974.** Wood (2007) cited Mexico, Panama and Venezuela. These are the first records from Brazil. **Bahia:** Vitória da Conquista, UESB campus, 14°52'47.55"S 40°47'37.10"W, ex cut branch of *Artocarpus heterophyllus* on the ground, 2-III-2011, L.C. Oliveira (MEFEIS, 17); **Mato Grosso:** São José dos Quatro Marcos, Fazenda Itamaraty, 15°39'5.92"S 58°13'40.28"W, 17-VII-2018, A. Santos (MEFEIS, 3); **Mato Grosso do Sul:** Inocência, Fazenda Laguna, 19°43'19.9"S 51°59'21.4"W, 14-X-2017, M.B.C. Ramos (MEFEIS, 1); Selvíria, UNESP Farm, 20°20'17.52"S 51°24'42.92"W, 2014-2018, several collectors (MEFEIS, 11); same except ex cut *Luehea grandifolia* stem, 18-III-2011 (MEFEIS, 1); same except ex cut *Copaifera langsdorffii* stem, 18-III-2011 (MEFEIS, 1); **Minas Gerais:** Capinópolis, Grama Farm, 18°46'6.18"S 49°28'51.59"W, 2017-2018, C.F. Faria (MEFEIS, 12); Nova Porteirinha, Khaya Woods Group, 15°41'1.99"S 43°17'44.48"W, 29-VI-2018, F.R.P. Alves (MEFEIS, 1); Pirapora, Fazenda Atlântica Agropecuária, 17°29'28.57"S 44°57'24.02"W, 2017, L.S. Covre (MEFEIS, 6); São Roque de Minas, Fazenda Taquaril, 20°6'21.86"S 46°27'30.19"W, 15-X-2016, L.S. Covre (MEFEIS, 1); **Pará:** Canaã dos Carajás, Sítio José Ribamar da Silva Costa, 06°24'2035"S 49°51'12"W, 2012-2013, S.L. Lopes (MEFEIS, 4); Cumaru do Norte, Fazenda Veluma, 09°18'15.75"S 51°25'00.47"W, 2011, A.M. Lunz (MEFEIS, 10); Pau d'Arco, Serraria TKX Indústria Madeireira, 07°48'48.6"S 50°03'18.6"W, 2011, A.D. Antonio (MEFEIS, 4); Redenção, Marcenaria Artica, 08°02'34.2"S 50°03'25.5"W, 2012, A.D. Antonio (MEFEIS, 10); Rio Maria, Fazenda Rongi-Porã, 07°38'00.8"S 50°01'14.3"W, 2011, A.M. Lunz (MEFEIS, 16); São Domingos do Araguaia, Fazenda Guzerá, 05°31'54.4"S 48°42'35.0"W, 2012, D.B. Guinhazi (MEFEIS, 15); Xinguara, Carajás Madeira, 07°06'56.6"S 49°57'31.2"W, 2012, S.L. Lopes (MEFEIS, 2); **Paraíba:** Patos, Universidade Federal de Campina Grande, 07°01'37.3"S 37°16'27.1"W, 2011-2012, R.S. Guedes (MEFEIS, 25); **Rio de Janeiro:** Seropédica, UFRJ campus, 22°45'28"S 43°41'42"W, 2001, A.M. Lunz (MEFEIS, 4); **Rio Grande do Sul:** Butiá, Empresa Seta, 30°13'57.2"S 51°58'29.9"W, 26-XI-2003, A.B. Murari (MEFEIS, 2); Santa Maria, Fundação Estadual de Pesquisa Agropecuária, 29°40'13.57"S 53°55'20.92"W, 2011, L.M. Machado (MEFEIS, 7); **São Paulo:** Agudos, Duraflora, 22°26'24.77"S 48°51'9.98"W, 20-III-1984, C.A.H. Flechtmann (MEFEIS, 1); Anhembi, Estação Experimental



de Ciências Florestais de Anhembi, 22°42'46.26"S 48°10'27.83"W, 2011-2012, E.N.L. Ferreira (MEFEIS, 78); Campinas, Núcleo Lupunamanta, 22°45'49.19"S 46°58'53.15" W, 28-V-2010, R. Pena (MEFEIS, 2); Castilho, Assentamento Celso Furtado, 20°49'4.47"S 51°33'47.81"W, 2014-2015, G.C. Pinheiro (MEFEIS, 13); Rubinéia, São Marcos Farm, 20°13'59.1"S 50°59'0.00"W, 2017, F.L.L. Leonel (MEFEIS, 5); Três Fronteiras, Sítio Lagoa Azul, 20°15'29.65"S 50°54'52.39"W, 2013-2015, J.C.P. Silva (MEFEIS, 45); **Santa Catarina:** Nova Teutônia, 1-III-1950, F. Plaumann (BMNH).

***Hypothenemus teretis* Wood, 1971.** Wood (2007) cites Costa Rica and Venezuela. This is the first record from Brazil. **Amapá:** Macapá, Área de Proteção Ambiental do Rio Curiaú, 0°6'38.01"N 51°1'33.08"W, 14-X-2013, A.L. Jordão (UTIC, 1); **Roraima:** Cantá, EMBRAPA Roraima, 02°14'45.8"N 60°39'47.9"W, 20-XI-2014, 14-V-2015, E.G.F. Morais (MEFEIS, 1).

***Hypothenemus trivialis* Wood, 1974.** Wood (2007) cites Mexico, Panama, Colombia and Venezuela. This is the first record from Brazil. **Amapá:** Macapá, Área de Proteção Ambiental do Rio Curiaú, 0°8'54.11"N 51°6'44.17"W, 2013-2016, different collectors (MEFEIS, 6, UTIC, 1); Tartarugalzinho, Comunidade Entre Rios, 1°7'32.70"N 51°18'34.20"W, 2015-2017, W.R. Silva (MEFEIS, 34); **Mato Grosso:** Alta Floresta, IDC Florestal, 10°0'0.00"S 56°1'0.00"W, 3-XII-2016, M. Monteiro (MEFEIS, 1); **Minas Gerais:** Viçosa, Mata da Biologia da UFV, 20°45'20.93"S 42°51'55.37"W, 2015-2016, P.E.C. Loja (MEFEIS, 4); **Rôndônia:** Ouro Preto do Oeste, CEPLAC Cocoa Research Station, 10°43'12.60"S 62°13'45.40"W, 2011, O. Trevisan (MEFEIS, 7, UTIC, 2); **Roraima:** Cantá, EMBRAPA Roraima, 02°14'45.8"N 60°39'47.9"W, 2014-2016, E.G.F. Morais (MEFEIS, 9).

***Hypothenemus vesculus* Wood, 1974.** Previously known only from the type locality in Mexico (Chiapas). This is the first record from Brazil. **Amapá:** Macapá, Área de Proteção Ambiental do Rio Curiaú, 0°8'54.11"N 51°6'44.17"W, 25-IX-2014, A.L. Jordão (MEFEIS, 1); **Mato Grosso do Sul:** Selvíria, UNESP Farm, 20°23'53"S 51°24'31.74"W, 20-VI-2015, G.C. Pinheiro (MEFEIS, 1); **Pará:** Rio Maria, Fazenda Rongi-Porã, 07°38'00.8"S 50°01'14.3"W, 2012-2013 (MEFEIS, 2, UTIC, 1); **Rio Grande do Sul:** Santa Maria, 5-III-2012, L.M. Machado (UTIC, 1); **Rondônia:** Ouro Preto do Oeste, CEPLAC Cocoa Research Station, 10°43'12.60"S 62°13'45.40"W, 20-X-2011, 18-XI-2012, O. Trevisan (MEFEIS, 3); **Roraima:** Cantá, EMBRAPA Roraima, 02°14'45.8"N 60°39'47.9"W, 20-XI-2014, 14-V-2015, E.G.F. Morais (MEFEIS, 2).

***Hypothenemus virolae* Wood, 2007.** Wood (2007) cited Costa Rica and Venezuela. This is the first record from Brazil. **Mato Grosso do Sul:** Selvíria, UNESP Farm, 20°23'53"S 51°24'31.74"W, 2011-2018, different collectors (MEFEIS, 9); **Pará:** Cumaru do Norte, Fazenda Veluma, 09°18'15.75"S 51°25'00.47"W, 15-VI-2011, 9-VII-2011, A.M. Lunz (MEFEIS, 2); **Rio de Janeiro:** Seropédica, UFRRJ campus, 22°45'28"S 43°41'42"W, 31-XII-1999, A.M. Lunz (MEFEIS, 1, UTIC, 1); **Rondônia:** Ouro Preto do Oeste, CEPLAC Cocoa Research Station, 10°43'12.60"S 62°13'45.40"W, several dates between 2011-2012, O. Trevisan (MEFEIS, 10); Porto Velho, Sítio Menino Jesus, 8°49'56.78"S 63°46'53.56"W, 9-IV-2018, A. Puker (MEFEIS, 1); **Roraima:** Cantá, EMBRAPA Roraima, 02°14'45.8"N 60°39'47.9"W, several dates between 2015-2016, E.G.F. Morais (MEFEIS, 14).

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## Appendix 1

Label data of specimens in plates. All photographs are of single specimens.

- Hypothenemus aulmanni* (Hagedorn). **Brazil: Bahia:** Vitória da Conquista, UESB campus, 14°52'47.55"S 40°47'37.10"W, ex cut branch of *Artocarpus heterophyllus* on the ground, 2-III-2011, L.C. Oliveira (MEFEIS, 1)
- Hypothenemus barinensis* Wood. Female holotype. **Venezuela: Barinas:** 10 km SEE Miri, 150 m, 8-II-1970, S.L. Wood, No. 290 (USNM).
- Hypothenemus concavodeclivis* Atkinson and Flechtmann. Female holotype. **Peru: Loreto:** Requena, Genaro Herrera, terra firme clay forest, 4°52'44.22"S 73°38'52.42"W, unbaited window trap, 05-VIII-2011, G. Lamarre (MEFEIS).
- Hypothenemus cordeiroi* Atkinson and Flechtmann. Female holotype. **Brazil: Paraná:** Telémaco Borba, Klabin Papel e Celulosa, hybrid of *Pinus taeda* x *Pinus elliottii* stand planted Mar 1998, 24°26'22.72"S 50°28'38.30"W, ethanol-baited flight intercept trap, 13-VIII-2004, C.A.H. Flechtmann (MEFEIS).
- Hypothenemus foelkelae* Atkinson and Flechtmann. Female holotype. **Brazil: Santa Catarina:** Água Doce, linha Nova Concórdia, property Vitalino Brugnara, mixed ombrophilous forest fragment, 27°00'38.61"S 51°31'05.14"W, ethanol-baited flight intercept trap, 8-X-2011, E. Foelkel (MEFEIS).
- Hypothenemus lunzi* Atkinson and Flechtmann. Female holotype. **Brazil: Pará:** Rio Maria, Fazenda Rongi Porã, *Tectona grandis* stand planted 2004, 07°38'00.8"S 50°01'14.3"W, ethanol-baited flight intercept trap, 19-IX-2011, A.M. Lunz (MEFEIS).
- Hypothenemus meridensis* Wood. Female holotype. **Venezuela: Mérida:** 3 km E Lagunillas, 1000 m, 12-I-1970, ex twig *Mimosa* sp. (Leguminosae), S.L. Wood, No. 237 (USNM).

- Hypothenemus murariae* Atkinson and Flechtmann. Female holotype. **Brazil: Rio Grande do Sul:** Butiá, Empresa Seta, Fazenda Menezes, 4-year-old *Acacia mearnsii* stand, 30°13'57.2"S 51°58'29.9"W, ethanol-baited flight intercept trap; 12-X-2004, FIT, A.B. Murari (MEFEIS, 1).
- Hypothenemus olzenoi* Atkinson and Flechtmann. Female holotype. **Brazil: Rondônia:** Ouro Preto do Oeste, 16-year-old intercropping area w/ peach palm, cocoa and coffee, 10°43'31.82"S 62°14'0.68"W, ethanol-baited flight intercept trap, 12-IX-2011, O. Trevisan (MEFEIS).
- Hypothenemus rotundicollis* (Eichhoff). **México: San Luís Potosí:** Vilella, 21.68 N, 100.70 W, 1786 m, 9-VIII-2014, ex girdled twig *Prosopis* sp. (Leguminosae), T.H. Atkinson, THA-998 (UTIC).
- Hypothenemus subsulcatus* Atkinson and Flechtmann. Female holotype. **Brazil: Mato Grosso Sul:** Selvíria, UNESP Farm, cerradão fragment, 20°20'12.95"S 51°24'45.06"W, unbaited window trap, 16-IX-2011, J.C.C. Silva (MEFEIS).
- Hypothenemus wilsoni* Atkinson and Flechtmann. Female holotype. **Brazil: Paraíba:** Patos, UFCG Campus, anthropized caatinga fragment, 07°01'37.3"S 7°16'27.1"W, ethanol-baited flight intercept trap, 29-II-2012, R.S. Guedes (MEFEIS).

