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A revision of the tribe Coelidiini of the Oriental, Palearctic and  
Australian biogeographical regions  
(Hemiptera: Cicadellidae: Coelidiinae)

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## A revision of the tribe Coelidiini of the Oriental, Palearctic and Australian biogeographical regions (Hemiptera: Cicadellidae: Coelidiinae)

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**Abstract.** Within the tribe Coelidiini, subfamily Coelidiinae (Cicadellidae: Hemiptera), fragmentation of the genera *Calodia* Nielson, *Olidiana* McKamey and *Taharana* Nielson established the following 13 **new genera**: *Cladolia*, type-species, *Lodiana cladopenis* Zhang; *Creberulidia*, type-species, *Calodia paucita* Nielson; *Glaberana*, type-species, *Glaberana spadix*, **sp. nov.**; *Hamusolidia*, type-species, *Hamusolidia introrsa*, **sp. nov.**; *Hiatusorus*, type-species, *Taharana schonhorsti* Nielson; *Laosolidia*, type-species, *Laosolidia complexa*, **sp. nov.**; *Orbisolidia*, type-species, *Calodia spinocava* Nielson; *Singillatus*, type-species, *Lodiana furcata* Nielson; *Trinoridia*, type-species, *Trinoridia calcaris*, **sp. nov.**; *Tripesidia*, type-species, *Calodia warei* Nielson; *Tumidorus*, type-species, *Lodiana nielsoni* Zhang; *Webboldia*, type-species, *Taharana webbi* Nielson and *Zhangolidia*, type-species, *Lodiana polyspinata* Zhang. Nineteen genera in the tribe are treated.

The following 62 **new species** in 12 genera are described, illustrated and photographed: *Calodia bicompressa* (India); *C. birama* (Philippines); *C. propennata* (India); *C. sichuanensis* (China); *C. sinuata* (Laos); *C. vincula* (China, Vietnam); *Creberulidia corniger* (Laos); *C. inflata* (Thailand); *C. multipenicula* (Cambodia); *C. ordospinosa* (Thailand); *C. penicula* (Thailand); *Glaberana ampla* (Thailand); *G. dentilamina* (Thailand); *G. longilamina* (Thailand); *G. penita* (Laos); *G. spadix* (Laos); *G. stylafurcata* (Indonesia); *Hamusolidia introrsa* (Laos); *Hiatusorus aviformus* (Laos); *H. robustus* (China); *H. supraspinosus* (Thailand); *Laosolidia complexa* (Laos); *L. tuberis* (Laos); *L. longiserrata* (Laos); *Olidiana tuberis* (Vietnam); *O. bispiculata* (Laos); *O. filiata* (Thailand); *O. implicata* (Thailand); *O. inaequabilia* (Thailand); *O. lata* (Laos); *O. parafringa* (Laos); *O. pennata* (Laos); *O. tonkinensis* (Vietnam); *O. vincula* (Vietnam); *Singillatus gracilius* (Indonesia); *S. ventrospinatus* (India); *Taharana abstrusa* (Thailand); *T. angusta* (Vietnam); *T. biavicula* (Thailand); *T. biunca* (Thailand); *T. brevicutata* (Thailand); *T. caverna* (Malaysia); *T. exiquitas* (Thailand); *T. forcipia* (Thailand); *T. gracilata* (Thailand); *T. incisura* (Thailand); *T. intimacalcara* (Thailand); *T. lacertosa* (Thailand); *T. mediolata* (Thailand); *T. minutura* (Thailand); *T. oblongiserrata* (Laos); *T. subspinata* (Thailand); *T. sublamina* (Thailand); *T. phetchahabunesis* (Thailand); *T. protriangulata* (Thailand); *T. subtumida* (Thailand); *T. truncata* (Thailand); *Trinoridia calcaris* (India); *T. trifida* (Malaysia); *Tripesidia kubani* (Laos); *Webboldia kristenseni* (Thailand); *W. magna* (Laos).

Taxonomy of all the genera is elucidated with a revised key to genera and species. The following formerly suppressed species are herein reinstated: *Olidiana (Lodiana) flavofasciana* Li, 1989, *Olidiana (Lodiana) nigriritibiana* Li, 1987, *Olidiana rufofasciana* Li and Wang, 1989 and *Webboldia (Taharana) uniaristata* Zhang, 1990. The following 3 species are new junior synonyms: *Calodia flavinota* Cai and Kuoh, 1993: 220 [= *Calodia patricia* (Jacobi), 1944: 49], *Olidiana yangi* McKamey 2006: 502 [= *Lodiana (Olidiana) hamularis* Xu, 2000: 220] and *Taharana yinggenensis* Zhang and Zhang, 1994: 96 [= *Taharana (Coelidia) sparsa* (Stål) 1854: 254]. *Taharana hainana* Zhang 1994: 132 is a nomen nudum based on the same name in Zhang's thesis (1988) which name was cited later by Li and Wang 1991: 275. *Lodiana hainana* Cai and He 2002: 139 is also a nomen nudum. A replacement name proposed herein is *caii*, **nom. nov.** in the genus *Olidiana*; Zhang's 1994: 71 illustrations of subgenital plate (I) and aedeagus (M) of "*fasciana* Li" does not appear to represent the respective illustrations in Li 1991: 357 and may represent a new species in the genus *Glaberana*. The name of *Olidiana nigradorsum* (Cai and Shen) is changed to *Olidiana nigradorsa* (Cai and Shen) to agree with gender. Among 12 genera, 102 species are proposed in new combinations. *Lodiana reductusi* Xu and Kuoh, 1997 and *Lodiana spicata* Xu and Kuoh, 1997 are declared *incertae sedis* after attempts failed to locate the original descriptions and type specimens. Both species are provisionally assigned to the genus *Olidiana*. Two syntype specimens of *Jassus egregius* Schumacher, previously thought to be lost, were located in the Senckenberg Deutsches Entomologisches Institut, Müncheberg, Germany. The male specimen is designated lectotype herein. Six species in the *Olidiana brevis* (Walker) interspecific variation complex are elucidated with illustrations of male genitalia features. New records, an updated checklist and a synoptic catalogue are also provided. All taxa including 264 valid species and 304 names are indexed.

**Key words.** Leafhoppers, taxonomy, new genera, new species, synonymy, new combinations, reinstated taxa, intra-interspecific variation, checklist, synoptic catalogue.

## Introduction

The tribe Coelidiini (Hemiptera: Cicadellidae: Coelidiinae) is a large, diverse group of leafhoppers occupying primarily the Neotropical, Afrotropical and Oriental biogeographical regions (Nielson 1982, 1990, 1991, 1992, 2011, Nielson and Knight 2000, Nielson, Knight and Zhang 2000). Occupation in the Palearctic region is currently marginal. In the Australian region the tribe is well established except for Australia proper. Occupation in the Australian region is of Indo-Malayan origin. Generic diversity is most evident in the Neotropical region whereas in the remaining regions of the Old World fewer than half of the known genera are represented. However, species diversity in the old world far exceeds known fauna in the Neotropical region on a species per genus basis. *Calodia* Nielson, *Olidiana* McKamey and *Taharana* Nielson remain the largest genera in the Old World.

This study includes fauna of the tribe chiefly known from the Oriental and Australian regions. In this work, 19 genera and 264 species are treated, including new taxa described herein. An updated synoptic catalogue listing 298 names and a checklist of 104 species with proposed new combinations in 12 genera are provided. New combinations cited herein are bold face with the former assigned genus in parentheses at the end of each citation. Three genera (*Calodia*, *Olidiana*, *Taharana*) formed 11 new genera: *Creberulidia*, *Orbisolidia*, *Trinoridia* and *Tripesidia* from *Calodia*; *Cladolidia*, *Singillatus*, *Tumidorus* and *Zhangolidia* from *Olidiana*; *Glaberana*, *Hiatusorus* and *Webboldia* from *Taharana*. Review of the taxonomy of each group and revised keys to genera and species are presented. The revised key to genera herein updates Nielson (2011).

## Materials and Methods

Material for this study was generously provided by the following institutions: The Natural History Museum, London (**BMNH**), Moravian Museum, Brno, Czech Republic (**MMBC**), Institut Royal des Sciences Naturelles de Belgique, Brussels, Belgium (**IRSNB**), Naturhistorisches Museum, Basel, Switzerland (**NHMB**), Muséum National d'Histoire Naturelle, Paris (**NMHN**), University of Copenhagen, Zoological Museum (**ZMUC**), University of Kentucky, Lexington (**ULKY**) and Queen Srikrit, Botanic Garden, Chiang Mai, Thailand (**QSBG**). The male and female syntypes of *Jassus egregius* Schumacher were placed on loan through the courtesy of Dr. Stefan Blank, Senckenberg Deutsches Entomologisches Institut, Müncheberg, Germany (**DEI**). All illustrations of the male genitalia were done on the same scale (40X). Photographs of the dorsal habitus of adults were taken by using Infinity 1 camera mounted on Olympus SZ61 stereoscopic microscope. Plates were prepared using Photoshop program. Deposition of specimens are also in the following institutions: Monte L. Bean Museum, Provo, Utah, (**MLBM**) and Utah State University, Logan, Utah (**USUL**).

## Taxonomy

The tribe Coelidiini was established by Dohrn (1859) when he proposed the family Coelidiidae and who is, *ipso facto*, the author of nominate hierarchical taxa Coelidiini, Coelidiinae and Coelidiidae, the latter name rarely in current usage. The tribe was first revised by Nielson (1982), resulting in seven new genera in the Ethiopian (Afrotropical) region, five in the Oriental region and 27 in the Neotropical region. Additional new genera were since added, including seven in the Ethiopian region (Nielson 1990, 1991, 1992), four in the Neotropical region (Nielson 2011) and 13 more are elucidated herein which enriched the concept of the tribe. A brief overall review of the tribe is in Nielson (2011).

Since the last revision many new species of the Oriental Coelidiini have been described: Cai and Shen (1998); Xu (2000); Yang and Zhang (1995); Zhang (1990, 1994); Freytag (2010a, 2010b, 2011); Nielson (1990, 1996, 1998). The number of valid species known thus far in the tribe is 259, including 70 new species described herein.

Thirteen new genera are proposed following taxonomic fragmentation of *Calodia*, *Olidiana*, and *Taharana*. All genera in the tribe are explicitly redefined with diagnostic features presented in the general description, key to genera and in the data matrix presented in Table 1. General habitus features are very similar among genera so that recognition can be reached only by examination of the male genitalia characters. The original concept of each genus was broad and more or less arbitrary. Many new species

described since the first revision provided evidence for redefining the original concepts. These genera also have affinities similar to a few Ethiopian genera which may require further taxonomic re-evaluation of those groups. All species affected by fragmentation will be found in the checklist with species formerly assigned to genera prior to fragmentation.

### Key to genera of Coelidiini of the Oriental, Palearctic and Australian biogeographical regions (males)

1. Aedeagus with long, very narrow, tubular shaft, shaft often sinuate, sometimes inflated or constricted, rarely with narrow, longitudinal cavity, with or without processes (fig. 21, 22, 95, 96, 124, 125, 161, 289, 290, 474, 475, Nielson 1982) ..... **2**
- Aedeagus with long, broad, tubular shaft, shaft rarely narrow and tubular or sinuate, sometimes inflated or laminate, sometimes with longitudinal cavity, constricted or twisted, with or without processes (fig. 35, 36, 61, 62, 133, 134, 248, 249, 268, 269, Nielson 1982) ..... **14**
- 2(1). Aedeagus with 1 to numerous processes, processes short to very long, origin of processes varies from middle to apex of shaft ..... **3**
- Aedeagus glabrous or nearly so, if processes present, restricted to patch of very fine teeth or short tuft of coarse teeth on apico-dorsal margin of shaft, some specimens with short row of setae basad of apex ..... **12**
- 3(2). Aedeagus with 1-3 processes on shaft, rarely with short row, processes range from middle to apex ..... **4**
- Aedeagus with numerous processes, processes medial or in distal 1/3 of shaft ..... **10**
- 4(3). Aedeagus with 1 long apical or subapical process, process glabrous or with secondary processes, sometimes with short subapical processes on primary shaft (fig. 548, 549, Nielson 1982) ... **5**
- Aedeagus with 1-3 processes, processes very short, always glabrous, subapical to apical, accompanied with patch of short teeth on dorsal margin of shaft (Fig. 446), sometimes with short row of setae basad of apex (*webbi* Nielson); subgenital plate often with apical spine (Fig. 456); pygofer sometimes with long caudodorsal process (Fig. 444) .... **Webbolidia, gen. nov.**
- 5(4). Aedeagus with 1 process, process apical or subapical, very short to very long, glabrous or with numerous secondary spines or setae ..... **6**
- Aedeagus with 2 or 3-4 processes, processes range from middle to apex of shaft, glabrous or with numerous secondary spines and/or setae ..... **8**
- 6(5). Aedeagus with simple, single, short to long, glabrous spine, spine near middle to subapex of shaft, sometimes with very small teeth near apex of shaft, sometimes apex of spine toothed (fig. 279, 280, Nielson 1982) ..... **Singillatus, gen. nov.**
- Aedeagus with single long, often complex, multisetose or multispinose spine ..... **7**
- 7(6). Subgenital plate very broad, apical 1/5 abruptly reduced to short, narrow lobe, curved mesally (Fig. 140); dorsal connective in dorsal view with elliptical apex, in lateral view hooked apically (fig. 135, 136); connective in dorsal view with stem narrow laterally (Fig. 137) ..... **Hamusolidia, gen. nov.**
- Subgenital plate very narrow to slightly broad throughout, apical 1/5 not as above (fig. 314, 319, Nielson 1982); dorsal connective not as above; connective with stem not as above ..... **Olidiana McKamey**
- 8(5). Aedeagus with 2 medial or apical to subapical processes, processes glabrous or with multispinose and/or multisetose secondary processes (fig. 507, 508, 518, 519, Nielson 1982) ..... **Calodia Nielson**

- Aedeagus with 3-4 subapical to apical processes, processes glabrous or with secondary spines and/or setae ..... **9**
- 9(8). Aedeagus with 1 very long and 2 short primary processes, sometimes with 2-3 very short processes on shaft adjacent near base of primary ones, primary processes glabrous or with secondary processes (fig. 543, 544, Nielson 1982) ..... ***Trinoridia*, gen. nov.**
- Aedeagus with 3 short or long processes, processes nearly equal in length, with or without secondary processes (fig. 537, 538, Nielson 1982) ..... ***Tripesidia*, gen. nov.**
- 10(3). Aedeagus with numerous subapical to apical processes on shaft ..... **11**
- Aedeagus with numerous setae restricted to margins of gonopore (fig. 569, 570, Nielson 1982) ..... ***Orbisolidia*, gen. nov.**
- 11(10). Aedeagus with longitudinal cavity on dorsal or lateral margin of shaft, margin dentate or with row of spicules, apex of shaft with patch of short teeth on dorsal margin (Fig. 207, Nielson 1982) ..... ***Hiatusorus*, gen. nov.**
- Aedeagus without such cavity, shaft with several to numerous spines, setae or teeth in distal 1/3, often arranged in closely arranged tufts (fig. 611, 612, 626, 627, Nielson 1982) ..... ***Creberulidia*, gen. nov.**
- 12(2). Style glabrous ..... **13**
- Style with row of long subapical to apical spines (fig. 4, 6, 11, 13, Nielson 1986) ..... ***Stylolidia* Nielson**
- 13(12). Aedeagus in lateral view with apex abruptly angled dorsally, long patch of fine, short teeth on apico-dorsal margin (fig. 161, 168, 172, Nielson 1982); pygofer in lateral view with long caudodorsal and long caudoventral processes, caudodorsal process (fig. 153, 157, 165, 169, Nielson 1982) sometimes bifurcate, caudoventral process sometimes serrate on ventral margin; subgenital plate with few to no apical microsetae, rarely with apical spine (fig. 155, 160, Nielson 1982) ..... ***Taharana* Nielson**
- Aedeagus in lateral view with apex gradually curved dorsally, small, very short tuft of teeth on apico-dorsal margin (Fig. 225, Nielson 1982); pygofer in lateral view usually with long caudodorsal process, never bifurcate (Fig. 56 F, Zhang 1994), caudoventral margin rarely with process, short, always lobe like (Fig. 44F, Zhang 1994); subgenital plate often with distinct, apical spine (Fig. 561, Zhang 1994) ..... ***Glaberana*, gen. nov.**
- 14(1). Aedeagus with shaft constricted medially, with longitudinal cavity or with laminate ventral flange ..... **15**
- Aedeagus with shaft broad, sometimes tapered distally, with 1-2 apical spines ..... **16**
- 15(14). Aedeagal shaft constricted medially or along distal half ..... **17**
- Aedeagal shaft with large, laminate ventral flange and long, bifurcate, subapical spine (Fig. 79 M, Zhang 1994) ..... ***Tumidorus*, gen. nov.**
- 16(14). Aedeagus with shaft broad throughout with single apical or subapical process, process setose or dentate (fig. 105M, L, Zhang 1994) ..... ***Zhangolidia*, gen. nov.**
- Aedeagus with shaft broad or slightly narrow, tapered distally with 1 apical and 1 subapical lateral spines, spines glabrous or with row of teeth (fig. 261, 262, 268, 269, Nielson 1982) .... ***Mahellus* Nielson**
- 17(15). Aedeagus nearly glabrous or with numerous spines, setae or spicules on shaft ..... **18**
- Aedeagus with numerous medial processes (fig. 585, 586, 590, 591, Nielson 1982) ..... ***Cladolidia*, gen. nov.**

- 18(17). Pygofer in lateral view with mesal semicircular indentation near base of apex (fig. 162, 169); aedeagus with numerous spines, teeth, setae on shaft; subgenital plate inflated subapically on lateral margin or constricted subapically (fig. 168, 175); style with moderately long, narrow apophysis ..... ***Laosolidia*, gen. nov.**
- Pygofer in lateral view without such indentations; aedeagus glabrous or with few short spines on shaft (fig. 248, 249, 253, 254, Nielson 1982); subgenital plate long and slender (fig. 247, 251, Nielson 1982); style with very short rounded apophysis ..... ***Jenolidia* Nielson**

### ***Calodia* Nielson 1982: 140**

**Type-species**, *Calodia multipectinata* Nielson 1982: 140

**Description.** Medium size to large, robust species. Length: male 6.10-9.70 mm.; female 7.50-12.40 mm. Very similar to *Olidiana* in color and other general habitus features. *Calodia* is delimited principally by combination of the following features: Aedeagus with 2 distinctive processes, processes long to short, subapical, apical or medial, attached separately to the aedeagal shaft, glabrous or one or both adorned with accessory spines or setae on the lateral margins. Accessory features vary from fine dentations to moderately long spines or setae, small setae or dentations may be present on or near apex of the aedeagal shaft. Pygofer setose, rarely with caudodorsal or caudoventral processes. Style broad, apophysis short to moderately long. Subgenital plate glabrous or setose apically and/or laterally; rarely with spine apically. (Further details of these characters are found in Nielson 1982: 140). The aedeagal features will distinguish the genus from all others in the tribe. The genus is broadly distributed throughout the Oriental region with dispersal in southern Palearctic region. Thirty-four species comprise the genus, including six new species. *Lodiana nigrilibiana* Li is reinstated and placed in *Calodia* in new combination. Three new combinations are proposed in the genus.

### **Key to species of *Calodia***

To simplify identification, keys to species in *Calodia* are arranged in two separate geographical groups as follows: **I.** China, India, Laos, Nepal, Sri Lanka, Tibet, and Vietnam, which primarily represent one continental land mass except for Sri Lanka; the latter has a very close faunal affiliation with India. **II.** Indonesia, Malaysia, Philippines, which primarily represent three island land masses. The Malaysia fauna has a closer affiliation with its attendant island congeners than with Asian mainland group. *Calodia ostenta* (Distant) is the only widely distributed species. *Calodia guttivena* (Walker), reported from a single female from China, is doubtful and represents a probable misidentification by Nielson (1982: 163). The China record for *C. fusca* (Melichar) reported by Zhang (1994) is considered doubtful given the wide disjunct distribution between China and Sri Lanka, the latter the original locality.

#### **I. Key to 20 species of *Calodia* from China, India, Laos, Nepal, Sri Lanka, Tibet and Vietnam**

1. Aedeagus in dorsal or ventral view with paired apical or near apical processes ..... **2**
- Aedeagus in dorsal or ventral view with paired subapical or paired near medial processes ..... **7**
- 2(1). Aedeagal processes with secondary spines or setae confined to distal 1/3 ..... **3**
- Aedeagal processes with secondary spines or setae confined to distal 2/3 ..... **4**
- 3(2). Aedeagal paired processes broad in apical half (fig. 93, 94, Nielson 1990); subgenital plate glabrous (Fig. 96, Nielson 1990) (Vietnam) ..... ***C. pennata* Nielson**
- Aedeagal paired processes narrow throughout (Fig. 21, Li 1989); subgenital plate sparsely setose apically (Fig. 24, Li 1989) (China) ..... ***C. apicalis* Li**
- 4(2). Aedeagal paired processes with secondary spines of uniform length ..... **5**

- Aedeagal paired processes with secondary spines not of uniform length, with one very long setose process (Fig. 4, Li 1987) (China) ..... ***C. nigriritibiana* (Li)**
- 5(4). Subgenital plate glabrous; pygofer glabrous or setose ..... **6**  
 — Subgenital plate setose (Fig. I, Zhang 1994); pygofer setose (Fig. F, Zhang 1992) (China) .....  
 ..... ***C. lii* Zhang**
- 6(5). Aedeagal paired processes of near equal length (fig. 41, 42); pygofer setose (Fig. 40) (India) .....  
 ..... ***C. propennata*, sp. nov.**  
 — Aedeagal paired processes of unequal length, one nearly twice as long (fig. 14, 15); pygofer glabrous (Fig. 13) (Laos) ..... ***C. sinuata*, sp. nov.**
- 7(1). Aedeagus paired processes subapical ..... **8**  
 — Aedeagus paired processes medial or near medial ..... **14**
- 8(7). Pygofer with caudoventral process, process long, narrow or short lobe like ..... **9**  
 — Pygofer without caudoventral process ..... **10**
- 9(8). Pygofer with long, narrow caudoventral process (Fig. 82, Nielson 1990); aedeagal subapical processes unequal in length, distal process longer than basal process (fig. 83, 84, Nielson 1990) (India) ..... ***C. kodikanelensis* Nielson**  
 — Pygofer with short, lobe-like caudoventral process (Fig. 466, Nielson 1982); aedeagal subapical processes equal in length (fig. 469, 470, Nielson 1982) (China, India, Sri Lanka, Tibet) .....  
 ..... ***C. ostenta* (Distant)**
- 10(8). Aedeagal processes with 1-4 secondary spines ..... **11**  
 — Aedeagal processes with numerous secondary spines ..... **13**
- 11(10). Aedeagus with 1 bifurcate process, 1 entire or both processes bifurcate apically, processes very short ..... **12**  
 — Aedeagus with 1 process entire, 1 process with subbasal spines, processes very long (fig. 41, 42, Nielson 1996) (India) ..... ***C. subcrista* Nielson**
- 12(11). Aedeagus with 1 bifurcate, 1 entire process (fig. 103, 104, Nielson 1990) (Sri Lanka) .....  
 ..... ***C. paraostenta* Nielson**  
 — Aedeagus with 2 bifurcate processes (fig. 522, 523, Nielson 1982) (China, Thailand) .....  
 ..... ***C. guttivena* (Walker)**
- 13(10). Aedeagus with subapical processes of near equal length, processes curved in dorsal view (fig. 501, 503, Nielson 1982); subgenital plate setose on lateral margin (Fig. 502, Nielson 1982). (Sri Lanka) ..... ***C. fusca* (Melichar)**  
 — Aedeagus with subapical processes not equal in length, basal process over twice as long as distal process (fig. 29, 30); subgenital plate glabrous (Fig. 31) (Vietnam) ..... ***C. vincula*, sp. nov.**
- 14(7). Subgenital plate with 2 apical spines (China) ..... ***C. patricia* (Jacobi)**  
 — Subgenital plate without apical spines ..... **15**
- 15(14). Aedeagus with 2 glabrous processes ..... **16**  
 — Aedeagus with 1 glabrous process, 1 dentate ..... **17**
- 16(15). Subgenital plate setose apically (Fig. I, Li and Wang 1991); style with apophysis sharply pointed apically (Fig. J, Li and Wang 1992) (China) ..... ***C. longispina* Li and Wang**  
 — Subgenital plate glabrous (Fig. 39); style with apophysis bifurcate apically (Fig. 36) (India) ....  
 ..... ***C. bicompressa*, sp. nov.**



- 17(15). Aedeagus with processes of near equal length; subgenital plate glabrous or sparsely setose ..... 18  
 — Aedeagus with processes not near equal length, dentate process twice as long as glabrous process (fig. M, L, Zhang 1994); subgenital plate with numerous microsetae (Fig. I, Zhang 1994) (China) ..... ***C. scutopunctata* (Zhang)**
- 18(17). Style with long, tapered apophysis; aedeagal processes long ..... 19  
 — Style with curved, apically bifurcate apophysis (Fig. J, Zhang 1994); aedeagal processes short, dentate process broad, glabrous process narrow curved (fig. L, M, Zhang 1994) (China) ..... ***C. harpagota* Zhang**
- 19(18). Pygofer and subgenital plate sparsely setose apically (fig. 20, 27); connective very broad (Fig. 26) (China) ..... ***C. sichuanensis*, sp. nov.**  
 — Pygofer and subgenital plate glabrous (fig. I, F, Zhang 1994); connective very narrow (Fig. K, Zhang 1994) (China) ..... ***C. longilamina* (Zhang)**

## II. Key to 14 species of *Calodia* from Indonesia, Malaysia, Philippines and Thailand.

1. Aedeagus with 2 apical processes ..... 2  
 — Aedeagus with 2 subapical processes or 1 apical and 1 subapical process ..... 5
- 2(1). Aedeagus with apical processes of unequal length ..... 3  
 — Aedeagus with apical processes of equal length (Fig. 507, Nielson 1982) (Malaysia) ..... ***C. bispinata* Nielson**
- 3(2). Aedeagus with 2 short processes not reaching midlength of shaft ..... 4  
 — Aedeagus with 1 very long process far exceeding midlength, 1 very short process not reaching midlength of shaft, each process with moderately long secondary setae/spines (Fig. 479, Nielson 1982) (Malaysia) ..... ***C. multipectinata* Nielson**
- 4(3). Aedeagus with longest process narrow with subbasal, spinate lobe (Fig. 518, Nielson 1982) (Philippines) ..... ***C. martini* Nielson**  
 — Aedeagus with long process very broad medially, constricted subbasally (Fig. 107, Nielson 1990) (Malaysia) ..... ***C. iniquitas* Nielson**
- 5(1). Aedeagus with 2 subapical processes ..... 6  
 — Aedeagus with 1 apical and 1 subapical process ..... 13
- 6(5). Aedeagus with 2 very slender processes ..... 7  
 — Aedeagus with 1 long slender and 1 short robust process or 2 very short processes ..... 11
- 7(6). Style with robust apophysis, apex bluntly rounded ..... 8  
 — Style with tapered apophysis, apex sharply pointed (Fig. 77, Nielson 1990) (Malaysia) ..... ***C. falx* Nielson**
- 8(7). Aedeagus with slender processes ..... 9  
 — Aedeagus with stout processes (fig. 463, 464, Nielson 1982) (Malaysia) ..... ***C. inclinans* (Walker)**
- 9(8). Aedeagus with processes more or less straight, close together on shaft ..... 10  
 — Aedeagus with 1 straight, 1 curved process, widely separated on shaft (fig. 48, 49) (Philippines) ..... ***C. birama*, sp. nov.**

- 10(9). Aedeagal processes long, basal process longer than distal process, in lateral view shaft with single subapical tooth (fig. 79, 80, Nielson 1990) (Indonesia (Sulawesi)) ..... ***C. paraobscura* Nielson**  
 — Aedeagal processes moderately long, basal process shorter than distal process, in lateral view shaft with apex sharply pointed, row of teeth apically on dorsal margin (fig. 88, 89, Nielson 1990) (Indonesia (Siberut Is.)) ..... ***C. siberutensis* Nielson**
- 11(6). Aedeagus with processes unequal in length ..... **12**  
 — Aedeagus with processes equal in length, 1 very broad in basal half, 1 very slender throughout (fig. 111, 112, Nielson 1990) (Malaysia) ..... ***C. grandis* Nielson**
- 12(11). Aedeagus in dorsal view with short stubby process on dorsal margin basad of long, slender distal process (Fig. 474, Nielson 1982); pygofer in lateral view with 2 setae on caudodorsal margin (Fig. 471, Nielson 1982) (Indonesia) ..... ***C. claustra* Nielson**  
 — Aedeagus in dorsal view with short process on lateral margin opposite of long, slender process (Fig. 513, Nielson 1982) (Malaysia) ..... ***C. punctivena* (Walker)**
- 13(5). Aedeagal shaft in lateral view toothed on ventral margin in distal 1/3, processes near equal in length (fig. 496, 497, Nielson 1982) (Malaysia) ..... ***C. serrata* Nielson**  
 — Aedeagal shaft in lateral view with such teeth, processes unequal in length (fig. 98, 99, Nielson 1990) (Indonesia) ..... ***C. sulawesiensis* Nielson**

## Descriptions

### ***Calodia sinuata*, sp. nov.**

(Plate 1A, Fig. 13-19)

**Description. Length.** Male 7.75 mm., female unknown.

**External morphology.** Moderately large, slender species. General color dark brown to blackish, with numerous, small, ivory to yellow spots on forewings; head narrower than pronotum, anterior margin broadly obtuse; crown wide, about as wide as eyes, produced anteriorly beyond margin of eyes, lateral margins convergent basally; pronotum large, slightly longer medially than crown; surface bul-lated; mesonotum very large, nearly twice as long medially than pronotum; clypeus long, narrow, lateral margins broadly convex; clypellus long, about 1/3 as long as clypeus, narrow lateral margins flared apically.

**Male genitalia.** Pygofer in lateral view somewhat triangulate, small lobe on apex, glabrous (Fig. 13); aedeagus asymmetrical, sinuate, narrowly tubular in dorsal view, inflated in basal 1/3, recurved apically in lateral view, with 2 long, sinuate, setose apical spines (Fig. 14, 15); style long, robust, apophysis strongly striate longitudinally, apex abruptly tapered (Fig. 16, 17); dorsal connective long, narrow (Fig. 14, 15); connective large, anterior membranous arms broad, without medial ridge, stem small, lobate (Fig. 18); subgenital plate long, broad, glabrous (Fig. 19).

**Material examined.** Holotype male. LAOS: Phongsaly prov., Ban Sano Mai, 19-26, V, 2004, 1150 m., 21° 21' N, 102° 03' E, P. Pacholatko, leg. (MMBC).

**Etymology.** The name of the species is descriptive for the sinuate shaft and apical processes of the aedeagus in dorsal and lateral views.

**Remarks.** This species is similar to a group of species which possess setose, apical or subapical, spines on aedeagal shaft and can be distinguished by the triangulate apex of the aedeagus in dorsal view which is recurved apically in lateral view.

***Calodia sichuanensis*, sp. nov.**

(Plate 1B, Fig. 20-27)

**Description. Length.** Male 7.70 mm., female unknown.**External morphology.** Moderate size, slightly robust species. General color black throughout with numerous, small, tannish specks dorsally, except eyes, eyes nearly transparent; head narrower than pronotum, anterior margin obtusely rounded; crown very narrow, narrower than width of eyes, slightly produced anteriorly, lateral margins convergent basally; eyes large, elongate ovoid; pronotum moderately large, about  $\frac{1}{2}$  longer medially than crown, surface bullated, mesonotum large, nearly twice as long medially as pronotum; clypeus long, narrow, lateral margins broadly convex; clypellus narrow, about  $\frac{1}{3}$  as long as clypeus, apex flared.**Male genitalia.** Pygofer in lateral view triangulate, with small lobe apically, sparsely setose apically (Fig. 20); aedeagus asymmetrical, slightly broad, tubular in dorsal and lateral views, with 2 long, subapical processes, 1 very narrow, glabrous, 1 broad, with few spines apically in ventral view, 2 spines subapically in lateral view, shaft toothed on dorsal margin between apex and base of subapical process, gonopore near base of processes (Fig. 21, 22); style long and narrow, apex tapered (Fig. 23, 24); dorsal connective long, broad basally, tapered apically (Fig. 25); connective large, membranous arms broad, tapered distally, stem oval (Fig. 26) subgenital plate long, sparsely setose apically (Fig. 27).**Material examined.** Holotype male. CHINA: Sichuan, Mt. Emei, 1050 m., 18.VII.1990, L. and M. Bocák, leg. (NHMB).**Etymology.** The name of the species is geographical for province of Sichuan, China.**Remarks.** From *C. bicompressa*, sp. nov. to which it is similar in aedeagal and stylar features, *C. sichuanensis*, sp. nov. can be distinguished by the aedeagal processes, both of which are glabrous and by the tapered apex of the style.***Calodia vincula*, sp. nov.**

(Plate 1C, Fig. 28-32)

**Description. Length.** Male 6.50-6.60 mm., female unknown.**External morphology.** Medium size, robust species. General color black throughout except for dark brown eyes and light brown crown, with a single broad, yellow transverse band on base of forewings below apex of mesonotum; head narrower than pronotum, anterior margin broadly rounded; crown broad, slightly broader than width of eyes; slightly produced beyond anterior margin of eyes, lateral margin convergent basally; eyes large, semiglobular; pronotum large, slightly longer medially than crown, surface sparsely bullated; mesonotum moderately large, about half again longer than pronotum; clypeus long, broad in basal half, slightly tapered apically; clypellus long, narrow, about  $\frac{1}{3}$  longer than clypeus, median longitudinal ridge, apex flared laterally.**Male genitalia.** Pygofer in lateral view triangulate, sparsely setose apically (Fig. 28); aedeagus asymmetrical, shaft narrowly tubular in dorsal view in distal  $\frac{3}{4}$  with 2 subapical processes, distal one glabrous, basal one with row of spines on lateral margin and 1 very long spine apically (Fig. 29, 30); style moderately long (Fig. 31); dorsal connective very long, very narrow (Fig. 30); connective large, membranous arms narrow, slightly tapered (Fig. 31); subgenital plate inflated medially on outer lateral margin, glabrous (Fig. 32).**Material examined.** Holotype male. VIETNAM: Tam Dao N. P., 25-28.VIII. 2010, I. G. 31668/Day Catch. Leg. J. Constant and P. Limbourg (IRSNB). Paratype, 1 male, CHINA: Kouy Tchéou, Abbé Largeteau, Museum Paris, R. Oberthur 1898 (NMHN).**Etymology.** The name is descriptive for the very long, slender dorsal connective attached to the aedeagus that serves as a fulcrum for movement of the aedeagus.

**Table 1.** Diagnostic features of 19 genera in the tribe Coelidiini supporting fragmentation of *Calodia*, *Olidiana* and *Taharana*.

Feature	<i>Calodia</i>	<i>Cladolia</i>	<i>Creberulidia</i>	<i>Glaberana</i>	<i>Hamusolidia</i>	<i>Hiatusorus</i>	<i>Jenolidia</i>	<i>Laosolidia</i>	<i>Mahellus</i>	<i>Olidiana</i>
<b>1. Aedeagal Shaft</b>										
Narrow	+	+	+	+	+	-	-	-	-	+
Broad	-	+	-	-	-	-	-	+	+	-
Tubular	+	+	+	+	+	+	+	+	+	+
Long	+	-	+	+	+	+	+	+	+	+
Constricted	-	+	-	-	-	-	+	+	-	-
Inflated	-	-	-	-	-	-	+	+	-	-
Concavity	-	-	-	-	-	+	-	-	-	-
Glabrous	-	-	-	+	-	-	+	-	-	-
Setose	+	+	+	-	-	-	+	+	+	-
Spinose	+	+	+	-	+	-	+	+	+	+
Flanged	-	+	-	-	-	-	-	-	-	-
Minute teeth	-	-	-	-	-	+	+	+	-	-
<b>2. Aedeagal Primary Processes *</b>										
One	-	+	-	-	+	-	-	-	-	+
Two	+	-	-	-	-	-	-	-	+	-
Three	-	-	-	-	-	-	-	-	-	-
Long	+	+	-	-	+	-	-	-	+	+
Short	+	+	+	-	-	-	-	-	-	-
Numerous	-	+	+	-	-	+	+	+	-	-
Apical	+	+	+	-	-	+	+	+	+	+
Subapical	+	+	+	-	+	+	+	+	+	+
Medial	-	+	-	-	-	+	+	+	-	-
Glabrous	+	-	-	+	-	-	+	-	+	+
Setose	+	+	+	-	+	+	+	+	+	+
Spinose	+	+	-	-	-	+	+	+	+	+
<b>3. Pygofer</b>										
Glabrous	+	+	+	+	+	+	-	+	-	+
Setose	+	+	+	+	-	+	+	-	+	+
Long C/D Process	-	-	***	+	-	***	-	-	-	-
Long C/V Process	***	-	***	***	-	-	-	-	+	***
<b>4. Subgenital Plate</b>										
Narrow	+	+	+	+	-	+	+	-	+	+
Broad	-	-	-	-	+	-	-	+	-	-
Glabrous	+	+	***	+	+	+	+	+	-	+
Setose	+	+	+	+	-	+	+	+	+	+
Spinose	-	-	****	****	-	****	***	-	-	-

\* Arising from aedeagal shaft

\*\* Rarely present

\*\*\* Frequently present

**Table 1 (continued).** Diagnostic features of 19 genera in the tribe Coelidiini supporting fragmentation of *Calodia*, *Olidiana* and *Taharana*.

Feature	<i>Orbisolidia</i>	<i>Singillatus</i>	<i>Stylolidia</i>	<i>Taharana</i>	<i>Trinorida</i>	<i>Tripesidia</i>	<i>Tumidorus</i>	<i>Webbolidia</i>	<i>Zhangolidia</i>
<b>1. Aedeagal Shaft</b>									
Narrow	+	+	+	+	-	-	+	+	-
Broad	-	-	-	-	+	+	-	-	+
Tubular	+	+	+	+	+	+	+	+	+
Long	-	+	+	+	-	+	+	+	+
Constricted	-	-	-	-	+	-	-	-	-
Inflated	-	-	-	-	+	-	-	-	-
Concavity	-	-	-	-	-	-	-	-	-
Glabrous	-	-	-	-	-	-	-	-	-
Setose	+	+	+	+	+	+	+	+	+
Spinose	+	+	+	+	+	+	+	+	+
Flanged	-	-	-	-	-	-	+	-	-
Minute	-	-	-	+	-	-	+	+	-
Teeth									
<b>2. Aedeagal Primary Processes *</b>									
Absent	-	+	+	+	-	-	-	-	-
One	-	+	-	-	-	-	+	+	+
Two	-	-	-	-	-	-	-	-	+
Three	-	-	-	-	+	+	-	-	+
Long	-	+	-	-	+	-	+	+	-
Short	+	+	-	-	+	+	-	+	-
Numerous	+	-	-	-	-	-	-	-	-
Apical	-	+	-	-	+	-	-	+	+
Subapical	-	+	-	-	+	+	+	+	+
Medial	+	-	-	-	-	-	-	-	-
Glabrous	-	+	-	-	+	+	-	-	+
Setose	-	-	-	-	-	-	-	+	-
Spinose	-	-	-	-	+	-	+	+	-
<b>3. Pygofer</b>									
Glabrous	-	+	***	+	+	+	-	+	-
Setose	+	+	+	***	***	-	+	-	+
Long C/D Process	-	-	-	+	-	+	-	-	***
Long C/V Process	-	***	-	+	***	-	-	-	-
<b>4. Subgenital Plate</b>									
Narrow	+	+	+	+	+	+	+	+	+
Broad	-	-	-	-	-	-	-	-	-
Glabrous	+	***	+	+	+	+	-	-	-
Setose	-	+	+	***	***	+	+	+	+
Spinose	-	***	-	-	-	+	-	+	-

\* Arising from aedeagal shaft

\*\* Rarely present

\*\*\* Frequently present

**Remarks.** This species can be distinguished from the group of species with 1 glabrous and 1 spinose process by the long process which has a row of spines on lateral margin with a very long spine apically.

***Calodia bicompressa*, sp. nov.**

(Plate 1D, Fig. 33-39)

**Description. Length.** Male 8.00 mm., female unknown.

**External Morphology.** Moderately large, robust species. General color tannish with numerous, scattered dark brown markings on translucent forewings, mesonotum, pronotum and crown; eyes dark brown; head narrower than pronotum, anterior margin broadly rounded, slightly produced anteriorly; crown broad, about as wide as eyes; eyes large, semiglobular; clypeus long, narrow, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, narrow, apex flared laterally.

**Male genitalia.** Pygofer in lateral view triangulate, tapered caudodorsally, small digitate process on caudoventral margin (Fig. 33); aedeagus with very long, narrow shaft, 2 long, straight, narrow, glabrous processes arising near middle, closely appressed (Fig. 34, 35); style with long broad apophysis, shallow bifurcation apically (Fig. 36, 37); dorsal connective short, narrow (Fig. 34, 35); connective moderately large, anterior membranous arms broad, short basal, longitudinal ridge medially, stem digitate (Fig. 38); subgenital plate tapered to blunt apex, glabrous (Fig. 39).

**Material examined.** Holotype male. INDIA: Place: Bida, Host: Neem, Date: 18-11-61/ 14/ 454, no collector (BMNH).

**Etymology.** The name of the species is descriptive for the 2 closely appressed processes on the middle of the shaft of the aedeagus.

**Remarks.** This species is similar to *C. patricia* (Jacobi) in position and configuration of the aedeagal processes and can be separated by the narrower shaft of the aedeagus, long style with shallow apical bifurcation and the glabrous subgenital plate.

***Calodia propennata*, sp. nov.**

(Plate 1E, Fig. 40-46)

**Description. Length.** Male 10.15 mm., female unknown.

**External morphology.** Large robust species. General color dark brown to black, head light yellow with large transverse yellow band basally and weak, narrow, broken, transverse, pale ivory band subapically on forewings; forewing with small stripes on veins; head distinctly narrower than pronotum, anterior margin obtusely rounded; crown wide, about as wide as eyes, produced slightly anteriorly; lateral margins convergent basally; pronotum moderately large, slightly longer medially than crown, surface bullated; mesonotum very large, nearly twice as long medially as pronotum; clypeus long, broad, lateral margins broadly convex; clypellus short, broad, about 1/3 as long as clypeus, apex flared laterally.

**Male genitalia.** Pygofer in lateral view triangulate, with small lobe apically, sparsely setose apically (Fig. 40); aedeagus asymmetrical, narrowly tubular, sinuate, in dorsal view with 2 long, apical, setose spines, spines with row of short processes on outer lateral margin (Fig. 41, 42); style with short apophysis, narrow in dorsal view, broad in lateral view (Fig. 43, 44); dorsal connective long, narrow (Fig. 41, 42); connective with broad transparent arms, stem broad (Fig. 45); subgenital plate broad in middle  $\frac{3}{4}$ , glabrous (Fig. 46).

**Material examined.** Holotype male. INDIA: Arunachal prov., Hunli vicinity, 1500 m., 28° 19' N, 95° 57' E., 4-5.VI. 2007, Leg., L Dembicky, Entomological Expedition, "NE India 2007", Moravian Museum, Brno, Czech Republic (MMBC).

**Etymology.** The species is named for the setose, broadly curved spines of the aedeagus.

**Remarks.** This species is very similar to *C. lii* Zhang but can be distinguished by pygofer with truncate dorsal half, more sharply tapered caudodorsal margin and absence of the caudoventral lobe and by the glabrous subgenital plate.

***Calodia birama*, sp. nov.**

(Plate 1F, Fig. 47-54)

**Description.** **Length:** Male 7.70 mm., female unknown.

**External morphology.** Moderate size, slender species. General color black throughout; head distinctly narrower than pronotum, anterior margin broadly obtuse; crown narrower than width of eyes, slightly produced anteriorly, its margins convergent basally; eyes large, semiglobular; pronotum large, about 1/3 longer medially than crown, surface rugulose in disconnected strands; mesonotum large, about twice as long medially than pronotum; clypeus long, narrow, lateral margins broadly convex; clypellus narrow, short, about 1/3 as long as clypeus, with medial longitudinal ridge, apex flared.

**Male genitalia.** Pygofer sharply triangulate in apical 2/3, small lobe on caudodorsal margin (Fig. 47); aedeagus asymmetrical, shaft narrowly tubular in dorsal and lateral views, 2 long subapical processes widely separated, gonopore near basal process (Fig. 48, 49); style moderately long, apophysis broadly digitate (Fig. 50, 51); dorsal connective long, narrow (Fig. 48, 50); connective small, membranous arms short, quadrate, stem rectangular (Fig. 53); subgenital plate long, narrow, row of microsetae on outer lateral margin (Fig. 54).

**Material examined.** Holotype male. PHILIPPINES: 1600 m., Mindanao, 30 km. W. of Maramag, 28-30. Dec. 1990, Bolm, leg. (NHMB).

**Etymology.** The name of the species is descriptive for the 2 long subapical processes on the aedeagus.

**Remarks.** This species is nearest to *C. obscura* and can be distinguished by 2 processes (3 in *C. obscura*), lack of caudoventral process on the pygofer that is very evident in *C. obscura* and presence of a row of microsetae on the subgenital plate.

**Checklist of species of *Calodia*.**

*Calodia apicalis* Li 1989: 3 [sp. nov.]

*Calodia bicompressa*, **sp. nov.**

*Calodia bispinata* Nielson 1982: 157 [sp. nov.]

*Calodia birama*, **sp. nov.**

*Calodia claustra* Nielson 1982: 149 [sp. nov.]

*Calodia falx* Nielson 1990: 465 [sp. nov.]

*Calodia fusca* (Melichar), Nielson 1982: 156 [comb. nov.] (*Jassus*, *Coelidia*)

*Calodia grandis* Nielson 1990: 472

*Calodia guttivena* (Walker), Nielson 1982: 160 [comb. nov.] (*Coelidia*, *Jassus*)

*Calodia harpagota* Zhang 1994: 125 [sp. nov.]

*Calodia inclinans* (Walker), Nielson 1982: 146 [comb. nov.] (*Tettigonia*, *Jassus*, *Coelidia*)

*Calodia iniquitas* Nielson 1990: 471 [sp. nov.]

*Calodia kodikanelensis* Nielson 1990: 466 [sp. nov.]

*Calodia lii* Zhang 1994: 122 [sp. nov.]

*Calodia longilamina* (Zhang) 1994: 88, **comb. nov.** (*Lodiana*, *Olidiana*)

*Calodia longispina* Li and Wang 1991: 121 [sp. nov.]

*Calodia martini* Nielson 1982: 161 [sp. nov.]

*Calodia multipectinata* Nielson 1982: 149 [sp. nov.]

*Calodia nigritibiana* (Li) 1987: 87, **comb. nov., reinstated** (*Lodiana*)

*Calodia ostenta* (Distant), Nielson 1982: 146 [comb. nov.] (*Jassus*, *Coelidia*, *Tettigonia*)

*Calodia paraobscura* Nielson 1990: 446 [sp. nov.]

- Calodia paraostenta* Nielson 1990: 470 [sp. nov.]  
*Calodia patricia* (Jacobi), Nielson 1982: 144 [comb. nov.] (*Jassus*, *Coelidia*)  
*Calodia pennata* Nielson 1990: 469 [sp. nov.]  
*Calodia propennata*, **sp. nov.**  
*Calodia punctivena* (Walker), Nielson 1982: 158 [comb. nov.] (*Coelidia*, *Jassus*)  
*Calodia scutopunctata* (Zhang) 1994: 83, **comb. nov.** (*Olidiana*)  
*Calodia serrata* Nielson 1982: 155 [sp. nov.]  
*Calodia siberutensis* Nielson 1990: 468 [sp. nov.]  
*Calodia sichuanensis*, **sp. nov.**  
*Calodia sinuata*, **sp. nov.**  
*Calodia subcrista* Nielson 1996: 153 [sp. nov.]  
*Calodia sulawesiensis* Nielson 1990: 469 [sp. nov.]  
*Calodia vincula*, **sp. nov.**

### Genus *Cladolidia*, gen. nov.

**Type species.** *Lodiana cladopenis* Zhang 1990: 101

**Description.** Moderate size, robust species. Length male 7.20-9.00 mm. General habitus similar to *Calodia* and *Olidiana*; aedeagus long, more or less broadly tubular, never narrowly tubular, always constricted, slightly to broadly inflated on one or each side of constriction, sometimes shaft broadly incurvated medially with toothed margin, processes long, subapical or near middle, often attached to narrow or broad flange near middle of shaft, dorsal margin of shaft often toothed apically; pygofer glabrous to setose; style often with well developed apophysis; subgenital plate glabrous or with microsetae, never with apical spine.

**Etymology.** The name is a combination of the stem clad- [= clothed] and the suffix *-olidia*, an arbitrary selection derived from the genus *Coelidia*. The gender is feminine.

**Remarks.** *Cladolidia* is similar to the group of genera that possess a broad, aedeagal shaft (*Tumidorus*, *Jenolidia*, *Zhangolidia*, *Laosolidia*, *Mahellus*) and can be distinguished from them by combination of near medial flange adorned with processes on the aedeagal shaft, robust style and lack of apical spine on the subgenital plate. *C. hemicycla* is provisionally assigned to this genus. The inflated basal half of the aedeagus and semicircular row of spines are unique features which may justify new generic status. The broad aedeagal shaft with spinose medial flange distinguishes the genus. Seven species, all new combinations, are assigned to this genus formerly assigned to either *Calodia* or *Olidiana*; all occupy China except *C. attenuata* and *C. hemicycla* which occur in Laos.

### Key to species of *Cladolidia* (males)

- |       |  |  |
|-------|--|--|
| 1.    | Style deeply bifurcate apically .....  | 2  |
| —     | Style not bifurcate apically .....   | 3  |
| 2(1). | Pygofer in lateral view broadly truncate apically (fig. 357, Nielson 1982) (China) ..... | <b><i>C. biungulata</i> (Nielson)</b>    |
| —     | Pygofer in lateral view narrowed apically (fig. C, Xu and Kuoh 1999) (China) .....       | <b><i>C. bifurcata</i> (Xu and Kuoh)</b> |
| 3(1). | Subgenital plate rounded apically .....  | 4  |
| —     | Subgenital plate asymmetrically bifurcate apically (fig. 589, Nielson 1982) (Laos) ..... | <b><i>C. attenuata</i> (Nielson)</b>     |
| 4(3). | Subgenital plate setose apically and on lateral margin .....                             | 5  |



- Subgenital plate setose apically ..... 6
- 5(4). Pygofer profusely setose (fig. A, Cai and Kuoh 1999); aedeagus in ventral view with 3 long, narrow processes arising from medial flange (fig. F, Cai and Kuoh 1999) (China) ..... ***C. trifurcata* (Cai and Kuoh)**
- Pygofer sparsely setose on ventral margin (fig. F, Zhang 1990); aedeagus in ventral view with 4 long processes arising from medial flange (fig. L, Zhang 1990) (China) ..... ***C. cladopenis* (Zhang)**
- 6(4). Aedeagus constricted along distal 1/3, shaft with semicircular row of dense spines (fig. 580, 581, Nielson 1982) (Laos) ..... ***C. hemicycla* (Nielson)**
- Aedeagus constricted medially, with several long spines medially (fig. 585, 586, Nielson 1982) (China) ..... ***C. robusta* (Nielson)**

### Checklist of species of *Cladolidia*.

- Cladolidia attenuata* (Nielson) 1982: 179, **comb. nov.** (*Calodia*)  
*Cladolidia bifurcata* (Xu and Kuoh) 1999: 209, **comb. nov.** (*Calodia*)  
*Cladolidia biungulata* (Nielson) 1982: 89, **comb. nov.** (*Olidiana*)  
*Cladolidia cladopenis* (Zhang) 1990: 101, **comb. nov.** (*Olidiana*)  
*Cladolidia hemicycla* (Nielson) 1982: 143, **comb. nov.** (*Calodia*)  
*Cladolidia robusta* (Nielson) 1982: 179, **comb. nov.** (*Calodia*)  
*Cladolidia trifurcata* (Cai and Kuoh) 1993: 218, **comb. nov.** (*Lodiana*)

### *Creberulidia*, gen. nov.

**Type species.** *Calodia paucita* Nielson 1982: 186

**Description.** Moderate size to large robust species. Length of male 6.00-10.50 mm. General habitus as in description of *Calodia*; aedeagus long to moderately long, narrow, tubular, shaft never inflated or constricted, processes range from few to numerous, very short to moderately long, often setose, sometimes spinose, rarely toothed, rarely in combination, in dorsal view processes often subapical in rows on each lateral margin of shaft, projecting laterally or short to long row on one side of shaft, rare near middle of shaft; pygofer glabrous, usually sparsely setose; pygofer without caudodorsal process, often with small lobe, rarely with caudoventral process, glabrous or sparsely setose; style simple, often with short apophysis; subgenital plate often with apical spine, often in combination with sparse microsetae or not, rarely glabrous.

**Etymology.** The name is a combination the Latin root *creber-* [= dense] and suffix *-olidia*, an arbitrary selection derived from the genus *Coelidia*. The gender is feminine.

**Remarks.** *Creberulidia* is similar to genera possessing long, narrow aedeagus and is distinguished from them by several to numerous processes on the shaft. Twenty two species (17 in new combinations) are assigned, all formerly in the genus *Calodia* except *Taharana aperta* and 5 new species. The genus is widely distributed throughout the Oriental region from India eastward across Asia to Japan, Philippines and Indonesia.

### Key to species of *Creberulidia* (males)

1. Subgenital plate with 1 or 2 apical spines ..... 2  
 — Subgenital plate without such spines ..... 17

- 2(1). Aedeagus in dorsal view with row of short microsetae on 1 side of shaft ..... 3  
 — Aedeagus in dorsal view with row of short to long microsetae on each side of shaft ..... 9
- 3(2). Aedeagus in dorsal view with short to long row of microsetae commencing subapically ..... 4  
 — Aedeagus in dorsal view with short to long row of microsetae commencing basad of subapex 7
- 4(3). Aedeagus in dorsal view with long row of microsetae ..... 5  
 — Aedeagus in dorsal view with short row of microsetae (Fig. 616, Nielson 1982) (Laos, Myanmar, Thailand, Vietnam) ..... ***C. excelsa* (Distant)**
- 5(4). Aedeagus in lateral view with row of microsetae arising on dorsal margin ..... 6  
 — Aedeagus in lateral view with row of microsetae arising on ventral margin (Fig. 56) (Cambodia) ..... ***C. multipenicula, sp. nov.***
- 6(5). Subgenital plate with very small apical spine (Fig. I, Zhang 1994); aedeagus with slender shaft (fig. L, M, Zhang 1994) (China) ..... ***C. yunnanensis* (Zhang)**  
 — Subgenital plate with robust apical spine (Fig. 620, Nielson 1982); aedeagus with apex of shaft inflated (fig. 621, 622, Nielson 1982) (Cambodia, Thailand) ..... ***C. lateralis* (Nielson)**
- 7(3). Aedeagus in dorsal view with lateral margins of shaft nearly parallel throughout length ..... 8  
 — Aedeagus in dorsal view with lateral margins of shaft broadly inflated subbasally (Fig. 64) (Thailand) ..... ***C. inflata, sp. nov.***
- 8(7). Aedeagus in dorsal view sinuate subbasally, in lateral view with toothed apex on dorsal margin (fig. 70, 71); style with short apophysis (fig. 72, 73); pygofer in lateral view without caudoventral process (Fig. 69) (Thailand) ..... ***C. ordospinosa, sp. nov.***  
 — Aedeagus in dorsal view straight subbasally, in lateral view without toothed apex on dorsal margin (fig. 77, 78); style with long apophysis (fig. 79, 80); pygofer in lateral view with long, digitate caudoventral process (Fig. 76) (Laos) ..... ***C. corniger, sp. nov.***
- 9(2). Subgenital plate with single apical spine ..... 10  
 — Subgenital plate with 1 apical, 1 subapical spine ..... 16
- 10(9). Style with short, narrow to robust apophysis; aedeagus with microsetae arising subapically .... 11  
 — Style with very long, narrow apophysis (Fig. 87); aedeagus with microsetae arising basad of subapex (Fig. 85) (Thailand) ..... ***C. penicula, sp. nov.***
- 11(10). Aedeagus long as or longer than subgenital plate ..... 12  
 — Aedeagus considerably shorter than subgenital plate ..... 15
- 12(11). Aedeagus in dorsal view with subapical microsetae on each lateral margin ..... 13  
 — Aedeagus in dorsal view with large, lateral subapical spine, row of 4-5 lateral microsetae on opposite margin (Fig. 595, Nielson 1982) (Vietnam) ..... ***C. inaequalis* (Nielson)**
- 13(12). Aedeagus in dorsal view with lateral margins parallel; subgenital plate arising apically ..... 14  
 — Aedeagus in dorsal view with lateral margins inflated apically (Fig. 604, Nielson 1982); subgenital plate arising subapically on lateral margin (Fig. 604, Nielson 1982) (Philippines) ..... ***C. cumula* (Nielson)**
- 14(13). Aedeagus in dorsal view with lateral rows of microsetae near equal in length and number of processes (Fig. 611, Nielson 1982) (Indonesia, Laos, Vietnam) ..... ***C. paucita* (Nielson)**  
 — Aedeagus in dorsal view with lateral rows of microsetae not equal in length and number of processes (Fig. 631, Nielson 1982) (Thailand) ..... ***C. jonesi* (Nielson)**

- 15(11). Aedeagus in dorsal view with very short subapical microsetae (Fig. L, Zhang 1994) (China) .... *C. setulosa* (Zhang)  
 — Aedeagus in dorsal view with moderately long microsetae (Fig. L, Zhang 1994) (China) ..... *C. spinifera* (Zhang)
- 16(9). Aedeagus with narrow shaft (fig. L, M, Zhang 1994); subgenital plate with near subapical spine (Fig. I, Zhang 1994) (China) ..... *C. centata* (Zhang)  
 — Aedeagus with robust shaft (fig. 626, 627, Nielson 1982); subgenital plate with near medial spine (Fig. 625, Nielson 1982) (China, Thailand) ..... *C. bispinosa* (Nielson)
- 17(1). Aedeagus with processes arising on lateral margins ..... 18  
 — Aedeagus with processes arising on dorsal margin ..... 21
- 18(17). Aedeagal processes unequal in length, loosely clustered ..... 19  
 — Aedeagal processes equal in length, closely clustered (fig. 600, 601, Nielson 1982) (China, Japan, Taiwan) ..... *C. yayeyamae* (Matsumura)
- 19(18). Subgenital plate inflated subapically on outer lateral margin ..... 20  
 — Subgenital plate not inflated subapically on outer lateral margin, plate broadly curved (Fig. 636, Nielson 1982); aedeagus with 2 long and 3 short subapical processes (Fig. 637, Nielson 1982) (India) ..... *C. pica* (Nielson)
- 20(19). Aedeagus in dorsal view with 2 short, 4 long subapical processes (Fig. 642, Nielson 1982) (China, Thailand) ..... *C. barnesi* (Nielson)  
 — Aedeagus in dorsal view with 6 long subapical processes, 3 processes arising from single spine (Fig. 124, Nielson 1990) (Laos) ..... *C. laosensis* (Nielson)
- 21(17). Aedeagal processes very long (fig. 118, 119, Nielson 1990); style with short apophysis (Fig. 120, Nielson 1990) (Laos) ..... *C. quadrispinata* (Nielson)  
 — Aedeagal processes very short (Fig. 221, Nielson 1982); style with very long apophysis (Indonesia (Sumatra)) ..... *C. aperta* (Nielson)

## Description of species

### *Creberulidia multipenicula*, sp. nov.

(Plate 1G, Fig. 55-61)

**Description. Length.** Male 8.80 mm., female unknown.

**External morphology.** Moderately large, robust species. General color dark brown to black with numerous small, yellow spots on forewings; mesonotum black; pronotum black with yellow bullae; crown light brown; eyes dark brown; face ivory, clypeus with dark brown, longitudinal stripe on inner lateral margin; clypellus with light brown, longitudinal stripe medially; head distinctly narrower than pronotum, anterior margin broadly rounded; crown short, broad, broader than width of eyes, produced slightly anteriorly, lateral margins convergent basally; eyes large, semi oval; pronotum large, nearly twice as long medially as crown, surface bullated; mesonotum large, slightly longer medially than pronotum; clypeus long, narrow, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, narrow, apex concave.

**Male genitalia.** Pygofer in lateral view subrectangulate, small lobe apically, sparsely setose apically, small digitate lobe on caudoventral margin (Fig. 55); aedeagus long, tubular, shaft nearly straight in dorsal and lateral views, with long row of short setae on distal 1/4 of lateral margin in dorsal view, gonopore near middle of shaft (Fig. 56, 57); style with moderately long, narrow apophysis in dorsal view (Fig. 58, 59); dorsal connective moderately long, narrow (Fig. 56, 57); connective large, anterior arms

tapered anteriorly, medial ridge incomplete, stem small, ovate (Fig. 60); subgenital plate long, broad in medial 3/5, pointed apically, sparsely setose subapically (Fig. 61).

**Material examined.** Holotype male. CAMBODIA: Siem Reap Prov., Preah Khan Temple, Malaise Trap 1, 31-v-2006, Oul Yothin, leg. (IRSNB).

**Etymology.** The name of this species is descriptive for the long row of setae on the lateral margin of the aedeagus.

**Remarks.** *Creberulidia multipenicula* is allied to species with 1 row of setae on the aedeagus lateral margin and can be distinguished from them by the longer row of setae by the straight shaft of the aedeagus and by the narrow anterior arms of the connective.

***Creberulidia inflata*, sp. nov.**

(Plate 1H, Fig. 62-68)

**Description. Length.** Male 7.90-8.80 mm., female unknown.

**External morphology.** Moderately large, slender species. General color dark brown to black with numerous small yellow spots on forewings; mesonotum and pronotum black, pronotal bullae yellow; crown yellow; eyes dark brown; face yellow, clypeus with orange, longitudinal stripes on inner lateral margins, clypellus with orange longitudinal stripe medially; head distinctly narrower than pronotum, anterior margin rounded; crown narrower than width of eyes, produced slightly anteriorly, lateral margins convergent basally; pronotum large, slightly longer medially than crown; mesonotum large, slightly longer medially than pronotum; clypeus long, narrow, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, narrow, apex flared laterally.

**Male genitalia.** Pygofer in lateral view sub-quadrate, small lobe apically, moderately long, digitate caudoventral lobe (Fig. 62); aedeagus with shaft strongly inflated in basal 1/4 in dorsal view, tubular in distal 3/4, short row of short setae on lateral margin near middle, small tuft of teeth apically on dorsal margin, gonopore medial (Fig. 63, 64); style with moderately long apophysis (Fig. 65, 66); dorsal connective long, narrow (Fig. 63, 64); connective large, anterior arms narrow, medial ridge incomplete, stem large, semi ovate (Fig. 67); subgenital plate long, broad with apex tapered, curved laterally, sparsely setose in apical 1/4 (Fig. 68).

**Material examined.** Holotype male. THAILAND: Loei Phu Ruea NP, Pha Lo Noy, 17° 30.502'N 101° 20.868'E., / 1343 m., pan traps, 10.vii.2007, Patikhom Tumtip, leg., T2301 (QSBG). Additional material (ULKY, MLBM).

**Etymology.** The name of the species is descriptive for the inflated base of the aedeagal shaft.

**Remarks.** From *Creberulidia corniger* sp. nov. (see below) to which it is most similar, *C. inflata* can be separated by the shorter aedeagus with inflated base of the aedeagal shaft in dorsal view, the sub quadrate pygofer and the curved apex of the subgenital plate.

***Creberulidia ordospinosa*, sp. nov.**

(Plate 1I, Fig. 69-75)

**Description. Length.** Male 8.20-8.90 mm., female unknown.

**External morphology.** Moderately large, somewhat robust species. General color dark brown to black with veins of forewings marked with very short yellow stripes, cells finely reticulated; mesonotum dark brown to black, with small dark markings; pronotum black with yellow bullae; crown tannish to light brown; eyes tannish to dark brown; face light to dark tannish; clypeus with reddish brown longitudinal stripe on inner lateral margins; clypellus with short reddish medial longitudinal stripe; head narrower than pronotum, anterior margin obtusely angled; crown long, narrow, narrower than width of eyes, slightly produced anteriorly, lateral margins convergent basally; eyes unusually large, semiglobular;

pronotum moderately large, slightly shorter medially than crown, surface bullated; mesonotum large, nearly twice as long medially as pronotum; clypeus long, narrow, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, narrow, apex flared laterally.

**Male genitalia.** Pygofer in lateral view triangulate, apex lobed, glabrous, without caudoventral process (Fig. 69); aedeagus long, tubular, shaft broadly curved in lateral view, angulate subbasally in dorsal view, short row of short setae near middle on lateral margin in dorsal view (Fig. 70, 71), gonopore median; style with short, curved apophysis (Fig. 72, 73); dorsal connective moderately long, narrow (Fig. 70, 71); connective large, broad, arms narrow, medial ridge absent, stem small, ovate (Fig. 74); subgenital plate long, narrow, with very large spine apically, few short setae subapically on outer lateral margin (Fig. 75).

**Material examined.** Holotype male. THAILAND: Nakhon Nayok, KhaoYai NP, San Jao Khaokaew, 14° 22.960'N 101° 22.253'E., 750m., Pan trap, 6-7.iii.2007, Wirat Sukho, leg., T2095 (QSBG). Paratypes. 1 male, same data as holotype except Pong Sandao, leg. T2100 (QSBG); 1 male, same data as holotype except 8-9.iii.2007, Pong Sandao, leg., T2097 (QSBG); 2 males, Phetchabun, Khae Kho NP, Mix deciduous forest, 16° 32.539'N 0° E., 534 m., / Pan traps, 9-10.vi.2007, Somchai Chachumnan and Saink Singtong, leg., T2447 (ULKY); 1 male, same data as above paratype except 8-9.vi.2007, T2446 (MLBM).

**Etymology.** The name of the species is descriptive for similar setae on the aedeagus and subgenital plate.

**Remarks.** From *C. corniger* sp. nov. to which it is similar, *C. ordospinosa* can be distinguished by the shorter, less slender aedeagal shaft, more robust pygofer without caudoventral process (present in *C. corniger*) and short apophysis of the style.

***Creberulidia corniger*, sp. nov.**

(Plate 2A, Fig. 76-82)

**Description. Length.** Male 8.40-8.70 mm., female unknown.

**External morphology.** Moderately large, slightly slender species. General color light brown in holotype (dark brown to black in paratypes) with dark brown markings on forewings and mesonotum, veins of forewings with small, yellow stripes; crown brown; eyes black; face yellow, inner margins of clypeus with suffused brown stripe; head distinctly narrower than pronotum, anterior margin obtusely rounded; crown short, broad, about as wide as width of eyes, slightly produced anteriorly beyond margin of eyes, lateral margins convergent basally; pronotum large, longer medially than crown, surface bullated; mesonotum large, about half longer than pronotum; clypeus long, narrow, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, narrow, slightly inflated basally, flared laterally in apical half.

**Male genitalia.** Pygofer in lateral view narrowly triangulate, tapered in distal 1/3, small lobe apically, moderately long, digitate process on caudoventral margin, glabrous (Fig. 76); aedeagus long, narrow, tubular, with short, subapical row of very short setae on lateral margin in dorsal view, gonopore distad of middle of shaft (Fig. 77, 78); style with moderately long apophysis (Fig. 79, 80); dorsal connective long, narrow, attached to side of shaft in dorsal view (Fig. 77, 78); connective large, anterior arms broadly tapered distally, medial ridge incomplete, stem small, short, digitate (Fig. 81); subgenital plate long, broad, large setose spine apically (Fig. 82).

**Material examined.** Holotype male. Laos-NE: Hua Phan prov., 20° 12'N 104° 01'E., Phu Phan Mt., 1500-1900 m., 17 v.-3 vi. 2007, Vit Kuban, leg. / Entomological expedition, "Laos 2007", Moravian Museum, Brno, Czech Republic (MMBC). Paratypes, 1 male, LAOS-C: Kham Mouan prov., 19-31 v. 2001, 18° 07'N 104° 29'E., Ban Khoun Hgeun, 200 m., L. Dembicky, leg. / Entomological expedition, "Laos 2001", Moravian Museum, Brno, Czech Republic (MMBC); 1 male, LAOS; Khammouan prov., 24-29 iv. 2001, 18° 07'N 104° 29'E., Ban Khoun Ngeun, 200m., Vit Kuban, leg. (MLBM).

**Etymology.** The name of the species is descriptive for the very large apical spine on the subgenital plate.

**Remarks.** The species is nearest to *C. ordospinosa* and is distinguished by the slender aedeagal shaft (inflated basally in *C. ordospinosa*) and by the narrower tapered caudodorsal margin of the pygofer.

***Creberulidia penicula*, sp. nov.**

(Plate 2B, Fig. 83-89)

**Description. Length.** Male 8.40-9.40 mm., female unknown.

**External morphology.** Moderately large, very robust species. General color dark brown to black; forewings with numerous yellow, small stripes on veins, cells reticulated; mesonotum light brown with dark markings; pronotum black with yellow bullae; crown tannish with few black spots; eyes dark brown to tannish; face tannish; clypeus with reddish brown longitudinal stripes on inner lateral margins; clypellus light brown; head much narrower than pronotum, anterior margin broadly rounded; crown short, narrow, narrower than width of eyes, slightly produced anteriorly, lateral margins convergent basally; eyes large, semiglobular; pronotum large, slightly longer medially than crown, surface bullated, mesonotum large, about half longer medially than pronotum; clypeus long, broad in posterior 1/3; clypellus narrow, slightly inflated longitudinally in middle, apex flared laterally.

**Male genitalia.** Pygofer in lateral view broadly triangulate, small digitate lobe distally, glabrous, without caudoventral process (Fig. 83); aedeagus with shaft inflated in basal ¼ in dorsal and lateral views, shaft narrow, tubular in distal ¾, two short rows of short setae near middle of shaft in dorsal view, gonopore near middle (Fig. 84, 85); style with long, narrow apophysis in distal 2/3 (Fig. 86, 87); dorsal connective moderately long, narrow (Fig. 84, 85); connective large, anterior arms narrow, tapered anteriorly, medial ridge incomplete, stem large, sub quadrate (Fig. 88); subgenital plate long, with prominent apical spine, sparsely setose subapically on outer lateral margin (Fig. 89).

**Material examined.** Holotype male. THAILAND: Phetchabun, Khao Kho NP, Thanthip waterfall, / 16° 39.087' N 101° 07.777' E., 210 m., Malaise trap, 19-26.ix.2006 / Somchai Chachumnan & Saink Singtong, leg., T595 (QSBG). Paratypes. 2 male same data except view point at Klump stream / 16° 39.120' N., 101° 07.810' E., 246 m., pan trap, 10-11.ix.2006 / Somchai Chachumnan and Saink Singtong, leg., T585 (QSBG); 1 male, same data as above paratype except Malaise trap, 5-12.x.2006, T588 (QSBG); 1 male, Kanchanaburi, Khuean Srinagarindra NP, / Tourist Center, 14° 38.136' N 98° 59.837' E., Pan trap. / 20-21.viii.2008, Somboon, leg. T3437 (QSBG); 1 male, same data as holotype except Mix deciduous forest / 16° 32.539' N 0° 0' E., 524 m., Pan trap, 6-7.vi.2007 / Somchai Chachumnan and Saink Singtong, leg., T2444 (ULKY); 1 male, Kanchanaburi, Khuean Srinagarindra NP, 100 m. NW/Mae / Kamint entrance station 1, 14° 38.123' N 98° 59.657' E., Pan trap, / 18-19.ix.2008, Somboon and Daorueng, leg., T3455 (MLBM).

**Etymology.** The name of the species is descriptive for the 2 rows of brush-like subapical setae on the lateral margin of the aedeagus.

**Remarks.** The species is unique by the presence of a double row of aedeagal setae and can be separated by a combination of this feature, the inflated base of the aedeagus, the narrower connective, the very long apophysis of the style and the prominent apical spine of the subgenital plate.

**Checklist of species of *Creberulidia*.**

*Creberulidia aperta* (Nielson) 1982: 73, **comb. nov.** (*Taharana*)  
*Creberulidia barnesi* (Nielson) 1982: 193, **comb. nov.** (*Calodia*)  
*Creberulidia bispinosa* (Nielson) 1982: 190, **comb. nov.** (*Calodia*)  
*Creberulidia centata* (Zhang) 1994: 113, **comb. nov.** (*Calodia*)  
*Creberulidia corniger*, **sp. nov.**  
*Creberulidia cumula* (Nielson) 1982: 185, **comb. nov.** (*Calodia*)  
*Creberulidia excelsa* (Distant), Nielson 1982: 188, **comb. nov.** (*Calodia*)  
*Creberulidia inaequalis* (Nielson) 1982: 181, **comb. nov.** (*Calodia*)  
*Creberulidia inflata*, **sp. nov.**

- Creberulidia jonesi* (Nielson) 1982: 192, **comb. nov.** (*Calodia*)  
*Creberulidia laosensis* (Nielson) 1982: 473, **comb. nov.** (*Calodia*)  
*Creberulidia lateralis* (Nielson) 1982: 189, **comb. nov.** (*Calodia*)  
*Creberulidia multipenicula*, **sp. nov.**  
*Creberulidia ordospinosa*, **sp. nov.**  
*Creberulidia paucita* (Nielson) 1982: 186, **comb. nov.** (*Calodia*)  
*Creberulidia penicula*, **sp. nov.**  
*Creberulidia pica* (Nielson) 1982: 193, **comb. nov.** (*Calodia*)  
*Creberulidia quadrispinata* (Nielson) 1990: 473, **comb. nov.** (*Calodia*)  
*Creberulidia setulosa* (Zhang) 1994: 115, **comb. nov.** (*Calodia*)  
*Creberulidia spinifera* (Zhang) 1990: 108, **comb. nov.** (*Calodia*)  
*Creberulidia yayeyamae* (Matsumura) 1913: 65, **comb. nov.** (*Calodia*)  
*Creberulidia yunnanensis* (Zhang) 1994: 111, **comb. nov.** (*Calodia*)

### ***Glaberana*, gen. nov.**

**Type species.** *Glaberana spadix*, **sp. nov.**

**Description.** Moderately long, generally slender species. Length of male 7.40-8.70 mm. General habitus similar to *Taharana*; aedeagus generally very long, narrowly tubular, glabrous except for small tuft of very short, subapical teeth on dorsal margin; pygofer often with long caudodorsal process, sometimes with small digitate caudoventral process, glabrous or sparsely setose apically on ventral margin; style with short to long apophysis; subgenital plate often long, with or without apical spine, if present usually very distinct, sparsely setose subapically to apically.

**Etymology.** The name is a combination of the Latin root *glaber*- [= smooth or bald] and feminine suffix *-ana*. The gender is feminine.

**Remarks.** The narrow tubular, glabrous shaft of the aedeagus will separate *Glaberana* from all other genera. Twenty one species, including 6 new species and 15 previously assigned to *Taharana* are assigned to the genus. Twelve species occur in China, the remainder in Laos, Thailand, Malaysia and Indonesia.

### **Key to species of *Glaberana* (males)**

- |      |   |  |
|------|---|--|
| 1.   | Pygofer in lateral or dorsal view with caudodorsal margin prominently long and narrowly produced distally ..... | <b>2</b>                                       |
| —    | Pygofer in lateral or dorsal view with caudodorsal margin not so, with or without small lobe apically .....     | <b>12</b>                                      |
| 2(1) | Subgenital plate with 1 apical spine, 1 apical and 1 subapical spine or without spine .....                     | <b>3</b>                                       |
| —    | Subgenital plate with row of teeth in apical 1/5 on inner lateral margin (Fig. 96) (Thailand) ...<br>.....      | <b><i>G. dentilamina</i>, sp. nov.</b>         |
| 3(2) | Subgenital plate with 1 apical spine or with 1 apical and 1 subapical spine .....                               | <b>4</b>                                       |
| —    | Subapical plate without spine(s) .....  | <b>10</b>                                      |
| 4(3) | Subgenital plate with 1 apical spine .....  | <b>5</b>                                       |
| —    | Subapical plate with 1 apical and 1 subapical spine (Fig. I, Zhang and Zhang, 1994) (China) ...<br>.....        | <b><i>G. bicuspidata</i> (Zhang and Zhang)</b> |
| 5(4) | Pygofer with caudoventral process bifurcate apically .....  | <b>6</b>                                       |
| —    | Pygofer with caudoventral process not bifurcate apically .....  | <b>7</b>                                       |

- 6(5) Pygofer with caudoventral, bifurcate processes short (Fig. 6, Nielson 1990) (China) ..... ***G. furca* (Nielson)**  
 — Pygofer with caudoventral, bifurcate processes very long and ornate (Fig. 1, Nielson 1990) (Laos) ..... ***G. parabifurcata* (Nielson)**
- 7(6) Subgenital plate tapered distally to base of spine ..... **8**  
 — Subgenital plate not tapered distally to base of spine, lobed at base of spine ..... **9**
- 8(7) Subgenital plate broad, longitudinal line of microsetae medially in distal half (Fig. I, Zhang 1990) (China) ..... ***G. aproboscidea* (Zhang)**  
 — Subgenital plate slender, with such microsetae medially (Fig. I, Zhang 1994) (China) ..... ***G. mengshuengensis* (Zhang)**
- 9(7) Subgenital plate broad, lateral margins parallel to near base (Fig. I, Zhang 1994); style with short apophysis (Fig. J, Zhang 1994) (China) ..... ***G. acontata* (Zhang)**  
 — Subgenital plate narrow, lateral margins sinuate to near base (Fig. I, Zhang 1994); style with long narrow apophysis (Fig. J, Zhang 1994) (China) ..... ***G. concavi* (Zhang)**
- 10(3) Subgenital plate setose apically, apex narrowly rounded ..... **11**  
 — Subgenital plate profusely setose, apex broadly rounded (Fig. I, Zhang 1994) (China) ..... ***G. acuminata* (Zhang)**
- 11(10) Pygofer with caudodorsal process straight, setaceous along middle of ventral margin (Fig. B, Li and Du 1995) (China) ..... ***G. hamulosa* (Li and Du)**  
 — Pygofer with caudodorsal process broadly curved dorsally, without setae (Fig. F, Zhang 1994) (China) ..... ***G. choui* (Zhang)**
- 12(1) Pygofer in lateral view with short to long, digitate caudoventral process ..... **13**  
 — Pygofer in lateral view without such caudoventral process ..... **17**
- 13(12) Style with short to long apophysis, about twice length of stylar base, apophysis glabrous ... **14**  
 — Style with very long apophysis, about 3 times as long as stylar base, apophysis with long apical seta (fig. 100, 101) (Laos) ..... ***G. penita*, sp. nov.**
- 14(13) Pygofer in lateral view triangulate; subgenital plate setaceous ..... **15**  
 — Pygofer in lateral view elongate (Fig. 1, Xu, Zhu and Kuoh 2002); subgenital plate glabrous (Fig. 5, Xu, Zhu and Kuoh) (China) ..... ***G. cuspidata* (Xu, Zhu and Kuoh)**
- 15(14) Subgenital plate with single, apical spine ..... **16**  
 — Subgenital plate with 1 subapical and 1 apical spine (Fig. I, Zhang 1994) (China) ..... ***G. ruliensis* (Zhang)**
- 16(15) Aedeagus in lateral view with shaft broadly curved (Fig. 109), in dorsal view inflated in distal 1/6 (Fig. 110) (Thailand) ..... ***G. longilamina*, sp. nov.**  
 — Aedeagus in lateral view with shaft straight (Fig. 113), in dorsal view not inflated in distal 1/6 (Fig. 114) (Laos) ..... ***G. spadix*, sp. nov.**
- 17(12) Pygofer in lateral view with broad, apical caudodorsal lobe ..... **18**  
 — Pygofer in lateral view with narrow, apical, caudodorsal, digitate lobe ..... **20**
- 18(17) Style short, much shorter than length of aedeagus ..... **19**  
 — Style long, about as long as length of aedeagus (Fig. 215, Nielson 1982); subgenital plate rounded apically, with small spine apically (Fig. 216, Nielson 1982) (Malaysia, Kuala Lumpur, Sarawak)



- ..... *G. longistyla* (Nielson)
- 19(18) Aedeagus in lateral view very slender throughout, arched subbasally (Fig. 225, Nielson 1982); subgenital plate moderately long, shorter than length of aedeagus, apex with short spine (Fig. 224, Nielson 1982) (Malaysia (Penang)) ..... *G. arca* (Nielson)
- Aedeagus in lateral view slightly inflated subbasally (Fig. 120); subgenital plate very long, robust, longer than length of aedeagus, apex with long, robust spine (fig. 125, 126) (Thailand) ..... *G. ampla*, sp. nov
- 20(17) Style with very long apophysis, apex furcate (Fig. 130, 131); subgenital plate broad (Fig. 133) (Indonesia (Sumatra)) ..... *G. stylafurcata*, sp. nov.
- Style with very short apophysis, apex not furcate (Fig. 4, Xu, Zhu and Kuoh 2002); subgenital plate very narrow (fig. 5, Xu, Zhu and Kuoh 2002) (China) ..... *G. digitata* (Xu, Zhu and Kuoh)

### Descriptions of species

#### *Glaberana dentilamina*, sp. nov.

(Plate 2C, Fig. 90-96)

**Description. Length.** Male 7.60 mm., female unknown.

**External morphology.** Moderate size, slender species. General color black; forewings, mesonotum and pronotum black without markings; crown brown with black stripe on each side of middle, contiguous anteriorly; eyes ivory; face yellow, without markings; head narrower than pronotum, anterior margin nearly acutely angled; crown narrower than width of eyes, produced anteriorly about 1/3 of entire length, lateral margins convergent basally; eyes large, elongate ovoid; clypeus long, broad, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, narrow, apex flared laterally.

**Male genitalia.** Pygofer moderately large, triangulate, with small caudoventral, digitate lobe, glabrous (Fig. 90); aedeagus long, narrow, tubular, straight in dorsal view, shaft broadly curved in lateral view, basal 1/4 broad, tapered in apical 3/4, glabrous (Fig. 91, 92); style small, boot-shape (calceus) in lateral view, apophysis narrow in dorsal view (Fig. 93, 94); dorsal connective long, narrow (Fig. 95); connective small, anterior arms narrow, medial ridge absent, stem sub-ovate (Fig. 94); subgenital plate long, narrow, with row of teeth on inner lateral margin in distal 1/5 (Fig. 96).

**Material examined.** Holotype male. THAILAND: Phetchabun, Khao Kho NP, Savanna at nursery/ 16° 52.568'N 101° 08.104'E., 520 m., pan traps, 6-7.x.2006, / Somchai Chatchumman and Sa-ink Singtong, leg., T797 (QSBG).

**Etymology.** The name of the species is descriptive for the toothed subgenital plate.

**Remarks.** From *G. arca* (Nielson) to which it is similar in aedeagal features, *G. dentilamina* can be separated by the much shorter style, presence of a caudoventral lobe of the pygofer and by the row of teeth on the inner lateral margin of the subgenital plate.

#### *Glaberana penita*, sp. nov.

(Plate 2D, Fig. 97-104)

**Description. Length.** Male 8.85-9.40 mm., female unknown.

**External morphology.** Moderately large, somewhat slender species. General color dark brown to black. Forewings with numerous yellow spots on veins and cells; mesonotum black with few yellow spots; pronotum dark brown to black, bullae dark yellow; crown light to dark brown; eyes light to dark brown; face light to dark yellow, clypeus with suffused orange brown, longitudinal stripe on inner lateral margins; clypellus with short medial orange stripe; head narrower than pronotum, anterior margin

obtusely rounded; crown short, wider than width of eyes, slightly produced anteriorly, lateral margins convergent basally; pronotum large, slightly longer medially than crown, surface bullated; mesonotum large, about half longer medially than pronotum; clypeus long, narrow, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, narrow, apex slightly flared laterally.

**Male genitalia.** Pygofer large, triangulate, with cleft lobe apically, moderately long, digitate caudoventral lobe, glabrous (Fig. 97); aedeagus long, narrow, tubular, sinuate in dorsal and lateral views, base of shaft triangulate with fine teeth in distal 1/6 on dorsal margin, gonopore in distal 4/5 of shaft (Fig. 98, 99); style long with large base in lateral view, apophysis long with long seta apically (Fig. 100, 101); dorsal connective long, narrow (Fig. 98, 99); connective large, arms narrow, very broad, medial ridge absent, stem small, sub-triangulate (Fig. 102); subgenital plate very long, broad, large apical spine curved laterally in ventral view, setose along outer lateral margin in distal 1/8 (Fig. 103, 104).

**Material examined.** Holotype male. LAOS: 24-29.iv.2001, Khammouan prov., 18° 07'N 104° 29'E, Ban Khoun Ngeun, 200m., Vit Kuban, leg. / Entomological expedition, "Laos 2001", Moravian Museum, Brno, Czech Republic (MMBC). Paratypes, 2 males, same data as holotype (MMBC, MLBM), 1 male, LAOS-C: 19-31.v.2001, Kham Mouan prov., 18° 07'N 04° 29'E., Ban Khoun Ngeun, 200 m., L. Dembicky, leg. / Entomological expedition, "Laos 2001", Moravian Museum, Brno, Czech Republic (MMBC), 1 male, LAOS-N: (Oudomxai), 1-9.v.2002, 1100 m., 20° 45'N 102° 09'E., Oudom Xai (17 km. Nee), Vit Kuban, leg. (MMBC).

**Etymology.** The name of this species is descriptive for the inwardly curved, apical spine of the subgenital plate.

**Remarks.** Among species with large spinate subgenital plate, *G. penita* can be separated by the inward projection of the spine, by the sinuate aedeagus and presence of the apical stylar seta.

***Glaberana longilamina*, sp. nov.**

(Plate 2E, Fig. 105-111)

**Description. Length.** Male 8.70-8.80 mm., female unknown.

**External morphology.** Moderately large, narrow species. General color dark brown to black; forewings with small yellow spots on veins, cells translucent with few suffused reticulations; mesonotum dark brown with yellow spot in basal 2/3, yellow apically; pronotum dark brown to black, bullae yellow; crown tannish; eyes dark brown; face yellow with dark orange longitudinal stripe on inner lateral margins, clypellus with short, suffused orange, longitudinal stripe medially; head distinctly narrower than pronotum, anterior margin obtusely angled; crown long, narrow, narrower than width of eyes, produced about ¼ of entire length beyond anterior margin of eyes; lateral margins convergent basally; eyes large, globular; clypeus long, narrow, lateral margins broadly convex; clypellus narrow, apex flared laterally.

**Male genitalia.** Pygofer in lateral view large, triangular, small lobe apically, long mesal digitate caudoventral process, glabrous (Fig. 105); aedeagus long, narrow in lateral view with shaft inflated in apical 1/5 in dorsal view, glabrous (Fig. 106, 107); style with long narrow apophysis (Fig. 108, 109); dorsal connective long, narrow (Fig. 106, 107); connective large, anterior arms very narrow, medial ridge complete, stem small, broadly lobed (Fig. 110); subgenital plate very long, narrow with short spine apically (Fig. 111).

**Material examined.** Holotype male. THAILAND: Kampphaeng Phet Mae Wong NP, Chong Yen, 16° 5.212' N 99° 6.576' E., 1306 m., Malaise trap, 17-24.iii.2008, Piluek C. leg., T3641 (QSBG). Paratype, 1 male, Chiang Mai Doi Inthanon NP, Checkpoint 2, 18° 31.554' N. / 98° 29.940' E., 1900 m., Malaise trap, 23.iii.-1.v.2007, Y. Areeluck leg. T1822 (ULKY).

**Etymology.** The name of the species is descriptive for the very long, broad subgenital plate.

**Remarks.** *Glaberana longilamina* is allied to other species possessing a long subgenital plate and can be distinguished by the following features: pygofer with long, mesal caudoventral process, aedeagal shaft

inflated in distal 1/5 and by the very narrow anterior arms of the connective.

***Glaberana spadix*, sp. nov.**

(Plate 2F, Fig. 112-118)

**Description. Length.** Male 9.50 mm., female 11.00 mm.

**External morphology.** Large, robust species. General color dark brown to black; forewings brown with small yellow stripes on veins, cells with suffuse light brown markings; mesonotum black with yellow bullae in center; pronotum black with numerous yellow bullae; crown light brown; eyes dark brown; face light brown; head narrower than pronotum, anterior margin obtusely rounded; crown short, broad, about as wide as width of eyes, produced anteriorly, lateral margins convergent basally, eyes large, semiglobular; pronotum large, nearly twice as long medially as crown, surface bullated; mesonotum very large, nearly twice as long medially as pronotum; clypeus long, broad, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, narrow, slightly inflated longitudinally along middle, apex flared laterally.

**Male genitalia.** Pygofer in lateral view very large, triangulate, small lobe distally, short digitate caudoventral lobe, glabrous (Fig. 112); aedeagus long, narrow, tubular, shaft nearly straight in lateral and dorsal views, row of short teeth in apical 1/6 on dorsal margin, gonopore in apical 5/6 (Fig. 113, 114); style small, with moderately long apophysis (Fig. 115, 116); dorsal connective very long, narrow (Fig. 113, 114); connective large, anterior arms narrow, medial ridge nearly complete, stem very large, subovate (Fig. 117); subgenital plate long, moderately broad, with short apical tooth, sparsely setose apically (Fig. 118).

**Female.** Segment VII very large, more than twice as long as penultimate sternum, posterior margin slightly convex on each side of middle.

**Material examined.** Holotype male. LAOS: Khammouan prov., 24-29.iv.2001, 18° 07'N 104° 29'E., Ban Khoun Ngeun, 200 m., Vit Kuban leg. / Entomological expedition, "Laos 2001", Moravian Museum, Brno, Czech Republic (MMBC). Paratypes. 3 males, 1 female, same data as holotype (MMBC, MLBM), 1 female, LAOS-N: Phongsaly prov., 21° 41.2'N 102° 06.8'E., 28.v.-20.vi.2003, Phongsaly envir., 1500 m., Vit Kuban, leg. (MMBC).

**Etymology.** The name of the species is descriptive for the dominant brown color of the general habitus.

**Remarks.** Among species with a large pygofer, *G. spadix* can be distinguished by the short apical spine of the subgenital plate, the small style with narrow apophysis and by the very large stem on the connective.

***Glaberana ampla*, sp. nov.**

(Plate 2G, Fig. 119-126)

**Description. Length.** Male 8.10 mm., female unknown.

**External morphology.** Moderately large, robust species. General color brown to black; forewing with numerous short, yellow stripes on veins, cells with light yellow markings; mesonotum black with yellow spots; pronotum black with yellow bullae; crown light yellow, 2 orange square transverse spots medially next to outer margins, eyes ivory; face ivory, orange longitudinal stripe next to inner lateral margins; clypellus with medial orange spot; head narrower than pronotum, anterior margin broadly rounded; crown long, narrow, narrower than width of eyes, produced slightly anteriorly, lateral margins convergent basally; eyes very large, semiglobular; pronotum short, length medially less than length of crown; surface bullated; mesonotum large, about twice as long medially as pronotum; clypeus long, broad, lateral margins broadly convex; clypellus narrow, inflated longitudinally medially, apex flared laterally.

**Male genitalia.** Pygofer in lateral view large, triangular, large lobe apically, sparsely setose caudoventrally (Fig. 119); aedeagus long, tubular, shaft broadly curved in lateral view, somewhat inflated in basal ¼ in dorsal and lateral views, very small teeth on dorsal margin near apex, gonopore

medial (Fig. 120, 121); style short with slender apophysis (Fig. 122, 123); dorsal connective long, very narrow (Fig. 120, 121); connective broad, anterior arms membranous in basal half, medial ridge short, complete, stem small, lobed (Fig. 124); subgenital plate very long, broad, with long spine apically, setose from 4/7 to 6/7 on inner lateral margin (Fig. 125).

**Material examined.** Holotype male. THAILAND: Nakhon Nayok, Khao Yai NP, valley at entrance / Huay Pak Chee, 14° 27.115'N 101° 27.951'E., 733 m., pan trap, / 11-12.xi.2006, Pong Sandao, leg. T986 (QSBG).

**Etymology.** The name of the species is descriptive for the very large subgenital plate and pygofer.

**Remarks.** Among species with long subgenital plate and prominent apical spine, *G. ampla* can be distinguished by the following combination of characters: large triangulate pygofer with large apical lobe, inflated aedeagal shaft in basal ¼ and broad connective with narrow, membranous anterior arms.

***Glaberana stylafurcata*, sp. nov.**

(Plate 2H, Fig. 127-133)

**Description. Length.** Male 6.80 mm., female 7.60 mm.

**External morphology.** Small, slender species. General color black throughout except for light brown to ivory head; face variable, black to ivory; clypeus light brown to ivory, clypellus dark brown to black; head narrower than pronotum; anterior margin broadly rounded; crown very narrow, nearly half as wide as width of eyes, produced anteriorly about ¼ of entire median length, lateral margins convergent basally; eyes moderately large, semiglobular; clypeus moderately long, very narrow, lateral margins broadly convex; clypellus moderately long, more than 1/3 as long as clypeus, narrow, narrowly inflated longitudinally in middle, slightly flared apically.

**Male genitalia.** Pygofer in lateral view moderate size, narrowly triangulate, small lobe apically, glabrous (Fig. 127); aedeagus moderately long, narrow, tubular, short row of teeth on dorsal margin subapically (Fig. 128, 129); style with very long apophysis, concave apically (Fig. 130, 131); dorsal connective moderately long, narrow (Fig. 128, 129); connective large, anterior arms narrow, medial ridge complete, stem small, triangulate (Fig. 132), subgenital plate short, broad, about as long as aedeagus, without apical spine, glabrous (Fig. 133).

**Female.** Segment VII short, slightly longer than penultimate sternite, posterior margin sinuate.

**Material examined.** Holotype male. MALAYSIA: West Sumatra, Bengkulu prov., nr. Curup, Bunkit Kaba Mt., 3° 29'S 102° 36'E., 1000-1500 m., D Hauch leg, 30.i-3.ii.2000 (MMBC). Paratypes, 2 males, same data as holotype (MMBC, MLBM), 2 males, 2 females, Malaysia: Sumatra, Jambi prov., Kerinci Seblat NP, 7 km. E. Kayuaro, Mt. Tujuh, 1750 +/- 250 m., 1° 45'S 101° 25'E, L. Dembicky leg., 25.ii.-iii.2003 / Entomological expedition, "Sumatra 2003", Moravian Museum, Brno, Czech Republic (MMBC).

**Etymology.** The name of the species is descriptive for the concave apex of the style.

**Remarks.** *Glaberana stylafurcata* is distinguished from the group of species which lack the apical spine on the subgenital plate by the long bifurcate style and lack of long caudodorsal process.

**Checklist of species of *Glaberana*.**

*Glaberana acontata* (Zhang) 1994: 61, **comb. nov.** (*Taharana*)

*Glaberana acuminata* (Zhang) 1994: 55, **comb. nov.** (*Taharana*)

*Glaberana ampla*, **sp. nov.**

*Glaberana aproboscidea* (Zhang) 1990: 110, **comb. nov.** (*Taharana*)

*Glaberana arca* (Nielson) 1982: 73, **comb. nov.** (*Taharana*)

*Glaberana bicuspidata* (Zhang and Zhang) 1994: 95, **comb. nov.** (*Taharana*)

*Glaberana choui* (Zhang) 1994: 54, **comb. nov.** (*Taharana*)  
*Glaberana concavi* (Zhang) 1990: 113, **comb. nov.** (*Taharana*)  
*Glaberana cuspidata* (Xu, Zhu and Kuoh) 2002: 37, **comb. nov.** (*Taharana*)  
*Glaberana dentilamina*, **sp. nov.**  
*Glaberana digitata* (Xu, Zhu and Kuoh) 2002: 37, **comb. nov.** (*Taharana*)  
*Glaberana longilamina*, **sp. nov.**  
*Glaberana furca* (Nielson) 1990: 448, **comb. nov.** (*Taharana*)  
*Glaberana hamulosa* (Li and Du) 1995: 35, **comb. nov.** (*Taharana*)  
*Glaberana longistyla* (Nielson) 1982: 71, **comb. nov.** (*Taharana*)  
*Glaberana mengshuengensis* (Zhang) 1994: 62, **comb. nov.** (*Taharana*)  
*Glaberana parabifurcata* (Nielson) 1990: 448, **comb. nov.** (*Taharana*)  
*Glaberana penita*, **sp. nov.**  
*Glaberana ruiliensis* (Zhang) 1994: 52, **comb. nov.** (*Taharana*)  
*Glaberana spadix*, **sp. nov.**  
*Glaberana stylafurcata*, **sp. nov.**

### ***Hamusolidia*, gen. nov.**

**Type species.** *Hamusolidia introrsa*, **sp. nov.**

**Description.** Moderately large, slender species. General habitus similar to *Laosolidia* gen. nov. (see below); pygofer in lateral view broad, similar to *Laosolidia*; aedeagus extremely long, narrow with long, single, very narrow subapical process similar to *Olidiana*, 2 curved, very short secondary processes medially on shaft; style very broad in lateral and dorsal views, apophysis small; connective large, anterior arms broad, digitate laterally, apex hooked; subgenital plate broad, similar to *Laosolidia*.

**Etymology.** The name is a combination of the Latin root *hamus* [= hooked] and suffix *-olidia*, an arbitrary name derived from the genus *Coelidia*. The gender is feminine.

**Remarks.** From *Laosolidia* to which it is similar, *Hamusolidia* can be separated by the very slender aedeagus, broad style and the unique, lateral digitate stem of the connective in dorsal view. Only 1 species is known.

### **Checklist of species of *Hamusolidia***

*Hamusolidia introrsa*, **sp. nov.**

### **Description of species**

***Hamusolidia introrsa*, sp. nov.**

(Plate 2I, Fig. 134-140)

**Description. Length.** Male 8.85 mm., female 9.40 mm.

**External morphology.** Moderately large, slender species. General color dark brown to black with numerous, small yellow spots except on head, light to dark brown; face tannish with orange longitudinal stripe on inner lateral margins of clypeus; clypellus brown; head small, distinctly narrower than pronotum, anterior margin narrowly obtuse; crown short, narrow, narrower than width of eyes, produced about  $\frac{1}{4}$  distance beyond anterior margin of eyes; eyes large, semiglobular; pronotum slightly longer medially than crown, surface bullated; mesonotum large, slightly longer medially than pronotum; forewings with typical venation; clypeus long, narrow, lateral margins broadly convex; clypellus short, about  $\frac{1}{3}$  as long as clypeus, narrow, slightly inflated longitudinally on middle, apex flared laterally.

**Male genitalia.** Pygofer in lateral view broadly triangular, small lobe apically, with narrow, mesal caudoventral lobe, glabrous (Fig. 134); aedeagus with long, very narrow shaft, with very long subapical process, process with 2 short, curved accessory processes (Fig. 135, 136); style short, broad with short, narrow apophysis (Fig. 137, 138); dorsal connective short, narrow, with apex curved in lateral view, sub ovate in dorsal view (Fig. 135, 136); connective large, anterior arms broad, complete ridge medially, stem elongate horizontally (Fig. 139); subgenital plate long, broad, apex abruptly curved laterally, tapered, rounded apically (Fig. 140).

**Female seventh sternum.** Long, broad, posterior margin sub truncate.

**Material examined.** Holotype male. LAOS: Houa Phan prov., 20°13'09-19"N. 103°59'54-104°00'03"E, 1480-1510 m., Phou Pane Mt., 1-16.vi.2009, Vit Kuban, leg. / Primary mountain forest, yellow plate trap, Laos 2009 expedition, NHMB, Basel, NMPC Prague. / Collection Moravské Museum, Brno (MMBC). Paratype female, same data as holotype (MMBC).

**Etymology.** The name of the species is descriptive for the apical 1/3 of the subgenital plate which is strongly curved inwardly.

**Remarks.** The genus is presently monobasic.

### *Hiatusorus*, gen. nov.

**Type species.** *Taharana schonhorsti* Nielson 1982: 69

**Description.** Moderately large, slender to robust species. Length male 6.00-7.20 mm., female 7.50-9.00 mm. General habitus as in *Taharana*; aedeagus long, narrow, tubular, with short to long narrow, longitudinal dorsal excavation, often bounded by narrow linear dorsal flange or with longitudinal dorsal row of spicules within distal 1/3 of shaft, patch of subapical to apical teeth on dorsal margin; pygofer often with very long caudodorsal process, rarely with long caudoventral process, glabrous or sparsely setose apically; style with moderately long apophysis; subgenital plate frequently spinate apically, accompanied with sparse microsetae or apex sometimes setose without apical spine.

**Etymology.** The name is a combination of the Latin root *hiatus* [= opening or slit] and the arbitrary suffix *-orus*. The gender is masculine.

**Remarks.** *Hiatusorus* belongs to the narrow, tubular aedeagus group and can be distinguished by the longitudinal incurvation on the dorsal margin of the aedeagus, with processes limited to the presence or absence of spicules within distal 1/3 of shaft and small, subapical to apical teeth on the dorsal margin. All species except 3 new species are new combinations originally assigned to the genus *Taharana*. Twenty species are recognized from India to Malaysia.

### Key to species of *Hiatusorus* (males).

- |       |  |    |
|-------|--|----|
| 1.    | Subgenital plate with 1 to 3 apical spines, spines subapical to apical .....   | 2  |
| —     | Subgenital plate without such apical spines .....  | 15 |
| 2(1). | Segment X ventral process absent .....   | 3  |
| —     | Segment X ventral process very long, spiculated apically (Fig. 194, Nielson 1982) (China, Vietnam)<br>..... <i>H. spiculatus</i> (Nielson) |    |
| 3(2). | Subgenital plate with 1 apical spine .....   | 4  |
| —     | Subgenital plate with 2-3 apical spines .....  | 13 |

4(3).	Aedeagus in lateral view straight or broadly curved .....	5
—	Aedeagus in lateral view sinuate (Fig. 142) (Laos) .....	<b><i>H. aviformus</i>, sp. nov.</b>
5(4).	Style with apophysis glabrous .....	6
—	Style with apophysis setose apically .....	12
6(5).	Style with long apophysis, more than twice as long as base .....	7
—	Style with short apophysis, less than twice as long as base .....	8
7(6).	Pygofer in lateral view with blunt caudodorsal margin (Fig. 240, Nielson 1982); aedeagus in lateral view with longitudinal cavity from base to apex on dorsal margin (Fig. 244, Nielson 1982) (Myanmar) .....	<b><i>H. concavus</i> (Nielson)</b>
—	Pygofer in lateral view with pointed caudodorsal margin (Fig. 226, Nielson 1982); aedeagus in lateral view with short subapical incurvation (Fig. 230, Nielson 1982) (Thailand, Vietnam) .....	<b><i>H. horridus</i> (Nielson)</b>
8(6).	Subgenital plate with short apical spine .....	9
—	Subgenital plate with long apical spine .....	11
9(8).	Aedeagus with lateral margin of incurvation coarsely serrated .....	10
—	Aedeagus with lateral margin of incurvation finely spiculated (Fig. M, Zhang 1990) (China, Vietnam) .....	<b><i>H. bifasciatus</i> (Zhang)</b>
10(9).	Subgenital plate broad (Fig. 206, Nielson 1982); aedeagus with long, serrated incurvation (Fig. 207, Nielson 1982) (China, Thailand, Vietnam) .....	<b><i>H. schonhorsti</i> (Nielson)</b>
—	Subgenital plate narrow (Fig. C, Li and Wang 1995); aedeagus with short serrated incurvation (Fig. D, Li and Wang 1995) (China) .....	<b><i>H. heidainus</i> (Li and Wang)</b>
11(8).	Pygofer in lateral view with very long caudodorsal process (Fig. 208, Nielson 1982) (Thailand) .....	<b><i>H. fortis</i> (Nielson)</b>
—	Pygofer in lateral view with large caudodorsal lobe (Fig. 236, Nielson 1982) (Myanmar) .....	<b><i>H. ellsburyi</i> (Nielson)</b>
12(5).	Subgenital plate elongate, outer lateral margin inflated in distal 1/3 (Fig. 7, Li 1991); body length (male) 7.2-7.5 mm. (Li 1991: 355) (China) .....	<b><i>H. ruficinctus</i> (Li)</b>
—	Subgenital plate short, broad, lateral margins slightly inflated (Fig. 12, Li 1991); body length (male) 8.0-8.2 mm. (Li 1991: 355) (China) .....	<b><i>H. albopunctatus</i> (Li)</b>
13(3).	Subgenital plate with 2 apical/subapical spines .....	14
—	Subgenital plate with 3 apical/subapical spines (Fig. I, Zhang 1990) (China) .....	<b><i>H. spineus</i> (Zhang)</b>
14(13).	Subgenital plate with 2 apical spines (Fig. I, Zhang 1994) (China) .....	<b><i>H. lii</i> (Zhang)</b>
—	Subgenital plate with 1 subapical, 1 apical spine (Fig. 154) (Thailand) .....	<b><i>H. supraspinosus</i>, sp. nov.</b>
15(1).	Pygofer in lateral view without caudoventral process .....	16
—	Pygofer in lateral view with long caudoventral process (Fig. 16, Li 1991) (China) .....	<b><i>H. fascianus</i> (Li)</b>
16(15).	Pygofer in lateral view or dorsal view with long caudodorsal process .....	17
—	Pygofer in lateral view or dorsal view with small caudodorsal lobe .....	19

- 17(16). Aedeagus without row of serrations or spiculations along incurvation ..... 18  
 — Aedeagus with long row of spiculations (fig. L, M, Zhang 1990) (China) .....  
 ..... *H. prionophyllus* (Zhang)
- 18(17). Pygofer in lateral view with narrow hooked caudodorsal process (Fig. 11, Nielson 1990); style in lateral view hooked apically (Fig. 14, Nielson 1990) (India) ..... *H. hardyi* (Nielson)  
 — Pygofer in lateral view with very broad, robust caudodorsal process (Fig. 155); style in lateral view straight (Fig. 158) (China) ..... *H. robustus*, sp. nov.
- 19(16). Aedeagus with long row of serrations (fig. 17, 18, Nielson 1990); subgenital plate slender, tapered apically (Fig. 20, Nielson 1990) (Malaysia (Kuala Lumpur)) ..... *H. dentatus* (Nielson)  
 — Aedeagus with small, scattered, subapical to apical teeth on dorsal margin (fig. 234, 235, Nielson 1982); subgenital plate slender not tapered apically (Fig. 233, Nielson 1982) (Malaysia (Singapore), Vietnam) ..... *H. clarus* (Nielson)

### Description of species

#### *Hiatusorus aviformus*, sp. nov.

(Plate 3A, Fig. 141-147)

**Description. Length.** Male 8.80 mm., female unknown.

**External morphology.** Large, robust species. General color light to dark brown to black; forewings brown, large black triangulate mark at apex of clavus, transparent area distally, apical 1/5 dark brown, veins interspersed with short yellow and black stripes, cells translucent except at apex, mesonotum black, apex yellow; pronotum black, bullae dark yellow; crown brown; eyes dark brown; face entirely brown; head narrower than pronotum, anterior margin obtusely rounded; crown short, broad, slightly narrower than width of eyes, produced anteriorly about ¼ of entire length, lateral margins convergent basally; eyes large, semiglobular; pronotum large, about half longer medially than crown, surface bullated, mesonotum large, about 1/3 longer medially than pronotum; clypeus long, broad, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, narrow, longitudinally inflated medially, apex flared laterally.

**Male genitalia.** Pygofer in lateral view with long robust caudodorsal process, apex aviform, glabrous (Fig. 141); aedeagus long, tubular, shaft slightly inflated in distal 1/5, in lateral view sinuate, narrow incurvation in apical 1/5, apex toothed, gonopore subapical (Fig. 142, 143); style with moderately long apophysis (Fig. 144, 145); dorsal connective short, narrow (Fig. 142, 143); connective small, anterior arms curved apically, medial ridge incomplete, stem small, subrectangulate (Fig. 146); subgenital plate long, broad, with moderately long, slender apical spine, sparsely setose apically (Fig. 147).

**Material examined.** Holotype male. LAOS: (Oudomxai), 1-9.v.2002, 1100 m., 20° 45'N 102° 09'E., Oudom Xai (17 km. Nee), Vit Kuban, leg / Entomological expedition, "Laos 2002", Moravian Museum, Brno, Czech Republic (MMBC).

**Etymology.** The species name is descriptive for the aviform apex of the caudodorsal process of the pygofer.

**Remarks.** From *H. heidainus* Li and Wang to which it is similar in the apex of the pygofer caudodorsal process, *H. aviformus* can be separated by the broad subgenital plate which is not membranous on the outer lateral margin, not toothed on the margin of the incurvated aedeagus and broader anterior arms of the connective. The crown is much shorter than in *H. heidainus*.

#### *Hiatusorus supraspinosus*, sp. nov.

(Plate 3B, Fig. 148-154)



**Description. Length.** Male 9.00 mm., female unknown.

**External morphology.** Large, somewhat narrow species. General color brown to black; forewing translucent pale brown throughout; mesonotum black with dark yellow markings; pronotum black, bullae dark yellow; crown dark yellow with short black stripe on each side of middle; eyes dark brown; face yellow with orange longitudinal stripe on inner lateral margins; clypellus tinged with orange medially; head narrower than pronotum, anterior margin broadly rounded; crown short, very broad, wider than width of eyes; eyes large, elongate ovoid; pronotum very large, nearly twice as long medially as crown, surface bullated; mesonotum large, about 1/3 longer medially than pronotum; clypeus long, broad, lateral margins broadly convex; clypellus narrow, slightly inflated longitudinally on middle, lateral margins slightly convergent apically.

**Male genitalia.** Pygofer large, sub globular except caudodorsal process, process very long, sharply pointed, sparsely setose (Fig. 148); aedeagus very long, tubular, broad in basal half in dorsal view, narrow, slightly sinuate in lateral view; incurvated in distal 1/6 on dorsal margin, with patch of small teeth on dorsal margin, gonopore within distal 2/6 (Fig. 149, 150); style small, moderately long apophysis (Fig. 151, 152); dorsal connective moderately long, narrow (Fig. 149, 150); connective large, anterior arms very narrow; medial ridge complete, stem small, sub-ovate (Fig. 153); subgenital plate very long, robust, with prominent subapical spine on inner lateral margin, moderate long spine apically (Fig. 154).

**Material examined.** Holotype male. THAILAND: Chiang Mai, Doi Chiang Dao NP Nature trail. / 19° 24.278'N 98° 55.311'E., Malaise trap, 10-17.iii.2008. / Songkran and Apichart, leg. T3155 (QSBG).

**Etymology.** The name of the species is descriptive for the large subapical spine on the subgenital plate.

**Remarks.** This species is unique and can be distinguished from all members assigned to the genus by the large subapical spine on the subgenital plate.

***Hiatusorus robustus*, sp. nov.**

(Plate 3C, Fig. 155-161)

**Description. Length.** Male 7.60 mm., female unknown.

**External morphology.** Moderately large, slender species. General color light brown to black; forewings membranous except for suffused light brown markings apical 1/6, veins black; mesonotum black with small yellow contiguous spots; pronotum black, bullae dark yellow; crown light brown; eyes transparent; face yellow; clypeus with orange, longitudinal stripes on inner lateral margins; clypellus tinged with orange; head narrower than pronotum, anterior margin obtusely rounded; crown short, broad, slightly wider than width of eyes, lateral margins convergent basally; eyes large, semiglobular; clypeus long, narrow, lateral margins broadly convex; clypellus very narrow, slightly tumid longitudinally in middle.

**Male genitalia.** Pygofer in lateral view very large with long robust caudodorsal process, sparsely setose on ventral margin of process (Fig. 155); aedeagus moderately long, narrow, tubular, incurved in distal 4/5, row of teeth in apical 5th (Fig. 156, 157); style small with short, narrow apophysis, base very broad (Fig. 158, 159); dorsal connective moderately long, very narrow, curved medially in lateral view (Fig. 156, 157); connective small, anterior arms narrow, obliquely truncate apically, medial ridge complete, stem very small, ovate (Fig. 160); subgenital plate long, broad, setose apically (Fig. 161).

**Material examined.** Holotype male. CHINA: Yunnan, Jinhong, 5.III.1999, river bed, Grootaert, leg. (IRSNB).

**Etymology.** The name of the species is descriptive for the large robust caudodorsal process on the pygofer.

**Remarks.** The combination of the large caudodorsal pygofer process, small connective with narrow, oblique truncate arms, absence of subgenital apical spine will distinguish the species.

**Checklist of species of *Hiatusorus*.***Hiatusorus aviformus*, **sp. nov.***Hiatusorus albopunctatus* (Li) 1991: 355, **comb. nov.** (*Taharana*)*Hiatusorus bifasciatus* (Zhang) 1990: 112, **comb. nov.** (*Taharana*)*Hiatusorus clarus* (Nielson) 1982: 77, **comb. nov.** (*Taharana*)*Hiatusorus concavus* (Nielson) 1982: 79, **comb. nov.** (*Taharana*)*Hiatusorus dentatus* (Nielson) 1990: 450, **comb. nov.** (*Taharana*)*Hiatusorus ellsburyi* (Nielson) 1982: 77, **comb. nov.** (*Taharana*)*Hiatusorus fascianus* (Li) 1991: 356, **comb. nov.** (*Taharana*)*Hiatusorus fortis* (Nielson) 1982: 69, **comb. nov.** (*Taharana*)*Hiatusorus hardyi* (Nielson) 1990: 449, **comb. nov.** (*Taharana*)*Hiatusorus heidainus* (Li and Wang) 1995: 36, **comb. nov.** (*Taharana*)*Hiatusorus horridus* (Nielson) 1982: 75, **comb. nov.** (*Taharana*)*Hiatusorus lii* (Zhang) 1994: 69, **comb. nov.** (*Taharana*)*Hiatusorus prionophyllus* (Zhang) 1990: 111, **comb. nov.** (*Taharana*)*Hiatusorus robustus*, **sp. nov.***Hiatusorus ruficinctus* (Li) 1991: 355, **comb. nov.** (*Taharana*)*Hiatusorus schonhorsti* (Nielson) 1982: 69, **comb. nov.** (*Taharana*)*Hiatusorus spiculatus* (Nielson) 1982: 65, **comb. nov.** (*Taharana*)*Hiatusorus spineus* (Zhang) 1990: 113, **comb. nov.** (*Taharana*)*Hiatusorus supraspinosus*, **sp. nov.*****Jenolidia* Nielson 1982: 81****Type species**, *Jenolidia jenniferae* Nielson 1982: 82

**Description.** Medium size, slender species. Length male 6.90-7.70 mm. General habitus piceous throughout. Aedeagus long, robust, inflated, constricted with few short teeth and spines on shaft or glabrous; pygofer without long caudodorsal or caudoventral processes, small lobe apically, sparsely setose on ventral margin; style with very short, stubby apophysis; subgenital plate setose apically, with or without distinctive apical spine (Details in Nielson 1982: 81) The genus can be distinguished by the features of the aedeagus and is comprised of 2 species from Malaysia.

**Key to the species of *Jenolidia* (males)**

1. Subgenital plate with robust spine, profusely setose apically (Fig. 251, Nielson 1982) (Malaysia (Sabah)) ..... ***J. jenniferae* Nielson**
- Subgenital plate without spine, sparsely setose apically (Fig. 247, Nielson 1982) (Malaysia (Sarawak)) ..... ***J. inflata* Nielson**

**Checklist of species of *Jenolidia*.***Jenolidia inflata* Nielson 1982: 81 [sp. nov.]*Jenolidia jenniferae* Nielson 1982: 82 [sp. nov.]***Laosolidia*, gen. nov.****Type species**, *Laosolidia complexa*, sp. nov.

**Description.** Moderately large, slender species. Length male 8.20-8.50 mm., female 9.90 mm. General color dark brown to black with numerous small, yellow specks on forewings, veins marked with ivory dashes; head distinctly narrower than pronotum, obtusely angulate anteriorly; crown narrower than width of eyes, slightly produced anteriorly; eyes large, elongate ovoid; pronotum large, about  $\frac{1}{2}$  longer medially than crown, surface bullae yellow; mesonotum large, slightly longer medially than pronotum; forewings long, slender, venation typical; clypeus long, slender, nearly twice as long as clypellus; clypellus narrower than base of clypeus at juncture of clypeal suture, with medial longitudinal inflated ridge, flared laterally at apex; pygofer in lateral view with semi-oval, mesal subapical indentation on caudoventral margin, without typical long caudoventral or caudodorsal processes, apex slightly lobed; aedeagus asymmetrical, inflated in dorsal and lateral views, with processes on shaft; style short with apophysis about as long as base; dorsal connective long, narrow; connective nearly wholly membranous between arms, stem rectangular; subgenital plate very long, broad with subapical constriction or tapered toward apex.

**Etymology.** The name is a combination of the root Laos after the country and the suffix -olidia, an arbitrary name derived from the genus *Coelidia*. The gender is feminine.

**Remarks.** The genus has a unique combination of characters which consists of the following features: inflated, constricted aedeagus with an assortment of processes, broad subgenital plate and presence of a mesal ovate, subapical indentation on the caudoventral margin of the pygofer. It is most closely related to *Jenolidia* and is distinguished from it by the above combination of characters. Three new species are assigned to the genus, all from Laos.

#### Key to species of *Laosolidia* (males)

1. Subgenital plate with apex twisted or asymmetrically bifid ..... 2
- Subgenital plate inflated subapically on outer margin (Fig. 168) (Laos) .... *L. tuberis*, sp. nov.
- 2(1). Subgenital plate with apex asymmetrically bifid (Fig. 182) (Laos) .... *L. longiserrata*, sp. nov.
- Subgenital plate with apex twisted (Fig. 175) (Laos) ..... *L. complexa*, sp. nov.

#### Description of species

##### *Laosolidia tuberis*, sp. nov.

(Plate 3D, Fig. 162-168)

**Description. Length.** Male 8.50 mm., female unknown.

**External morphology.** Moderate size, slender species. General color dark brown to black with numerous yellow specks on mesonotum and forewings, veins marked with ivory dashes; head narrower than pronotum, obtusely angulate anteriorly; crown short, narrower than eyes, lateral margins slightly convergent basally; eyes large, slightly elongate ovoid; pronotum large, about  $\frac{1}{3}$  longer medially than crown, surface bullated, yellow; mesonotum large, longer medially than pronotum; forewings long, narrow, venation typical; clypeus long, slender, lateral margins broadly convex, about twice as long as clypellus; clypellus as in *L. complexa*.

**Male genitalia.** Pygofer in lateral view slightly narrow, apex distad of segment X very short, triangulate (Fig. 162); aedeagus in lateral view inflated, constricted medially, with blunt toothed, subapical process near middle of shaft near gonopore, tuft of long setae distad of middle, subapical row of short teeth on dorsal margin, in ventral view inflated near middle on outer lateral margin, triangulate process subapically, gonopore near middle (Fig. 163, 164); style short, configuration similar to *L. complexa* (Fig. 165, 166); dorsal connective long and narrow (Fig. 163, 164); connective as in *L. implicata*, except stem narrower (Fig. 167); subgenital plate long, inflated subapically on outer lateral margin, glabrous (Fig. 168).

**Material examined:** Holotype male. LAOS: 24-29.iv.2001, Khammouan Prov., 18o 07'N, 104o 29'E., Ban Khoun Ngeun, 200 m., Vit Kuban, leg. Entomological Expedition, Moravia Museum, Brno, Czech Republic (MMBC).

**Etymology.** The name is descriptive for subapical swelling on the outer margin of the subgenital plate.

**Remarks.** This species is closest to *L. longiserrata* and can be separated by the tuberos subgenital plate, by the tuft on long subapical setae on the aedeagus shaft and by the overall configuration of the aedeagus.

***Laosolidia complexa*, sp. nov.**

(Plate 3E, Fig. 169-175)

**Description. Length.** Male 8.80-9.20 mm., female 9.90 mm.

**External morphology.** Features as in description of genus.

**Male genitalia.** Pygofer in lateral view broad, apex distad of segment X short, triangulate (Fig. 169); aedeagus in lateral and dorsal view inflated in basal half, somewhat tubular in apical half, in dorsal view with short row of very long setae medially, projecting laterally, broad toothed subapical process directed laterally, long narrow process near apex directed laterobasally, in lateral view very long subapical process (hidden in dorsal view) extending basally beyond midlength of aedeagal shaft, sparsely serrate on lateral margin, gonopore near middle of shaft (Fig. 170, 171); style short, apophysis digitate, about as long as base (Fig. 172, 173); dorsal connective very long, narrow (Fig. 170, 171); connective triangulate, completely membranous between arms, stem large, ovate (Fig. 174); subgenital plate long, broad subapically, apex very narrow, twisted with few short microsetae apically (Fig. 175).

**Material examined.** Holotype male. LAOS: N-(Oudom Xai), 1-9.v.2002, 1100 m., 20° 45'N 102° 09'E, Oudom Xai (17 km. Nee), Vit Kuban, leg.; Entomological Expedition, Laos 2004, Moravian Museum Brno, Czech Republic (MMBC). Paratypes. 1 female, Laos, N. Phongsaly prov., 21° 41'N 102° 06-8'E., Phongsaly env., 6-17.v.2004, 1400 m., Vit Kuban, leg.; Entomological Expedition, Laos 2002, Moravian Museum Brno (MMBC). Additional material examined: 14 males, same data as holotype (MMBC, MLBM, EMUS), 24 males Laos-N. (Louangphrabang) 11-21.v.2002, 19° 35' N 101° 58' E. Thong Khans, 750 m., Vit Kuban, leg. Entomological Expedition, Moravian Museum, Brno (MMBC).

**Etymology.** This species is named for the entwined apex of the subgenital plate.

**Remarks.** From *L. longiserrata*, sp. nov., to which it is nearest, *L. complexa* can be distinguished by the tuft of long setae on the middle of the aedeagal shaft, 3 subapical highly variable processes (Fig. 170, 171) and the twisted apex of the subgenital plate (Fig. 175).

***Laosolidia longiserrata*, sp. nov.**

(Plate 3F, Fig. 176-182)

**Description. Length.** Male 8.20 mm., female unknown.

**External morphology.** Moderate size, slender species. General color dark brown with numerous tiny, yellow specks on forewings, veins marked with ivory dashes; head narrower than pronotum, anterior margin obtusely angled; crown narrower than width of eyes, slightly produced anteriorly, lateral margins convergent basally; eyes large, semiglobular; pronotum large, slightly longer medially than crown, surface with yellow bullae; mesonotum large, nearly twice as long medially as pronotum; forewings long, narrow, venation typical; clypeus long, narrow, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus; clypellus as in *L. implicata*.

**Male genitalia.** Pygofer in lateral view elongate, small lobe apically (Fig. 176); aedeagus in lateral and dorsal views with shaft inflated except subapically, in lateral view with long row of teeth on dorsal margin, apex curved laterally with subapical process (Fig. 177, 178); style short, apophysis digitate (Fig. 179, 180); dorsal connective long, narrow (Fig. 177, 178); connective large, triangulate (Fig. 181);

subgenital plate long, broad throughout except in apical 1/5, reduced to pendulate lobe, few short microsetae apically (Fig. 182).

**Material examined.** Holotype male. LAOS: 24-29.iv.2001, Khammouan Prov., 18° 07'N, 104° 29'E., Bhan Khuoun Ngeun, 200 m., Vit Kuban, leg. Entomological Expedition, Moravian Museum, Brno (MMBC).

**Etymology.** The name of the species is descriptive for the long row of teeth on the dorsal margin of the aedeagal shaft.

**Remarks.** This species can be easily separated from its congeners by the pendulate apex of the subgenital plate and by the long row of teeth on the dorsal margin of the aedeagus.

#### Checklist of species of *Laosolidia*.

*Laosolidia complexa*, **sp. nov.**

*Laosolidia tuberis*, **sp. nov.**

*Laosolidia longiserrata*, **sp. nov.**

#### *Mahellus* Nielson 1982: 84

**Type species.** *Jassus determinatus* Distant 1917: 316

**Description.** Medium sized species. Length male 6.40-6.80 mm. The shaft of the aedeagus varies from very broad to somewhat narrow and tapered basally and apically. Pygofer is sparsely setose with a long caudoventral process, and robust style with abruptly pointed apex. The features distinguish the genus from all other genera. Two species are recognized from far western Oriental region.

#### Key to species of *Mahellus* (males)

1. Pygofer with long caudoventral process (Fig. 258, Nielson 1982); aedeagus with narrow shaft, processes very narrow (Fig. 262, Nielson 1982) (Seychelles) .... ***M. determinatus* (Distant)**
- Pygofer with short caudoventral process (Fig. 264, Nielson 1982); aedeagus with robust shaft, processes very broad (Fig. 268, Nielson 1982) (India) ..... ***M. distanti* Nielson**

#### Checklist of species of *Mahellus*.

*Mahellus determinatus* (Distant) 1917: 317 (*Jassus*, *Coelidia*)

*Mahellus distanti* Nielson 1982: 86 [sp. nov.]

#### *Olidiana* McKamey 2006: 503

(New name for *Lodiana* Nielson, nec *Lodiana* Ragonot 1888).

**Type species.** *Lodiana alata* Nielson 1982: 86

**Description.** Medium to large, robust species. Length male 6.40-9.30 mm., female 9.10-9.70 mm. Similar to *Calodia* in general habitus; aedeagus long, narrow, tubular with single short to long, subapical to apical, setose and/or spinaceous process, sometimes with small teeth or small setae near or adjacent to subapical process; pygofer without prominent caudodorsal process, always with small lobe apically, often

with caudoventral process, glabrous or with sparse to numerous setae; style variable, very long to short, often robust, rarely with secondary process; subgenital plate glabrous to setose. The long, narrow, tubular aedeagus with a single long, spinose and/or setose process will distinguish the genus from others of the tribe. The genus is the largest group in the tribe and widespread throughout the Oriental and southern Palearctic regions. Seventy nine valid species comprise this genus, including 10 new species and 12 new combinations. Two species are provisionally assigned to this genus and designated *incertae sedis* because papers on original descriptions and type specimens were not available. Four species are reinstated and 1 new synonym, *Olidiana yangi* McKamey, is cited in the check list and catalogue.

**Interspecific variation.** Six species in a proposed *Olidiana brevis* (Walker) species complex share 2 broad, yellow to orange, transverse bands against a dark brown to black background on the forewings, except *O. praetexta* (Distant) which is atypical but has very similar aedeagal features and 2 very narrow transverse translucent ivory bands. Five species are unidentifiable without recourse to features of the male genitalia. The complex is widely distributed in the following countries: *O. brevis* (Walker) [Bangladesh, China, Laos, Myanmar, Thailand, Vietnam]; *O. brevisina* (Zhang) [China]; *O. egregia* (Schumacher) [Taiwan]; *O. flavofascia* (Zhang) [China]; *O. praetexta* (Distant) [Myanmar] and *O. uenoi* (Hayashi) [Japan]. Diagnostic features of the male genitalia are shown in Figures 1-12 and in Table 2. A separate key to species is also presented. Photographs of the lectotype male and syntype female of *Jassus egregius* Schumacher are shown in Plate 3, G and H, respectively.

#### Key to species of the *Olidiana brevis* (Walker) complex.

1. Pygofer in lateral view with mesal digitate caudoventral process ..... 2
- Pygofer in lateral view without such process (fig. 7, 10, Hayashi 1995) (Japan) ..... *O. uenoi* (Hayashi)
- 2(1). Subgenital plate setose from base to apex; pygofer setose throughout ..... 3
- Subgenital plate setose apically; pygofer sparsely setose apically ..... 4
- 3(2). Aedeagal spine in dorsal view triangulate, outer lateral margin spinate (Fig. L, Zhang 1994) (China) ..... *O. brevisina* (Zhang)
- Aedeagal spine in dorsal view digitate, outer lateral margin with few long setae (fig. 395, 396, Nielson 1982) (China, Myanmar) ..... *O. praetexta* (Distant)
- 4(2). Aedeagal spine entire (not bifurcate basally) ..... 5
- Aedeagal spine bifurcate basally, one arm setose, one arm glabrous (fig. 11, 12) (Taiwan) ..... *O. egregia* (Schumacher)
- 5(4). Aedeagal spine in lateral view broad medially, long row of spines on lateral margin (Fig. 434, Nielson 1982) (Bangladesh, China, Laos, Myanmar, Thailand, Vietnam) ..... *O. brevis* (Walker)
- Aedeagal spine in lateral view narrow, 2 sparse tufts of spines, one basally, one apically (Fig. M, Zhang 1994) (China) ..... *O. flavofascia* (Zhang)

#### Key to species of *Olidiana* (males)

In view of the large number of known species, the keys to species are modified for easier identification of candidate specimens. Species are pooled into 4 separate geographical/species groups with number of species in parenthesis as follows: **I.** China/Taiwan/Vietnam (34), **II.** India/Myanmar/Nepal/Thailand (11), **III.** Laos/Thailand/Vietnam (17) and **IV.** Japan/Malaysia/Indonesia (14). Species that occupy more than 1 geographical state are also keyed in each geographical/species group in which they occur. Among 79 known species, only 6 occupy more than 1 geographical state. *Olidiana brevis* (Walker), the most widespread species is recorded from China, Bangladesh, Laos, Thailand and Vietnam. The remaining 5 spe-

cies occupy no more than 2 geographical states. Members of the *Olidiana brevis* species complex are keyed in a separate key above and are not included here.

### I. Key to species of *Olidiana* from China, Taiwan and Vietnam.

1. Subgenital plate sparsely to profusely setose from near base to apex ..... 2  
 — Subgenital plate sparsely setose, placement variable between midlength to apex, or plate glabrous ..... 15
- 2(1). Aedeagal spine with numerous secondary processes ..... 3  
 — Aedeagal spine with few such secondary processes, processes range from 2-5 ..... 10
- 3(2). Aedeagal spine long, slender ..... 4  
 — Aedeagal spine broad, laminate ..... 8
- 4(3). Aedeagal spine very long, exceeding midlength of shaft ..... 5  
 — Aedeagal spine long, reaching to midlength of shaft or nearly so ..... 6
- 5(4). Subgenital plate with row of microsetae on inner lateral margin (Fig. E, Yang 1995) (China) ... *O. mecistenata* (Yang)  
 — Subgenital plate with numerous microsetae on plate and inner lateral margin (Fig. I, Zhang 1994) (China) ..... *O. pectiniformis* (Zhang)
- 6(4). Aedeagal spine with long secondary spine at base ..... 7  
 — Aedeagal spine without such spine at base (Fig. L, Li and He 1992) (China) ..... *O. flavocostata* (Li and He), n. comb.
- 7(6). Pygofer profusely setose (Fig. A, Cai and Shen, 1998) (China) ..... *O. nigridora* (Cai and Shen)  
 — Pygofer with few setae apically (Fig. F, Zhang 1994) (China) ..... *O. ritcheriina* (Zhang)
- 8(3). Aedeagal spine long, reaching to or slightly beyond midlength of shaft ..... 9  
 — Aedeagal spine short, not reaching midlength of shaft (fig. M, L, Zhang 1994); style with strongly rugose apophysis (Fig. J, Zhang 1994) (China) ..... *O. laminispinosa* (Zhang)
- 9(8). Aedeagal spine broad in basal half, broadly digitate in apical half, spines short, near equal in length (Fig. L, Zhang 1994) (China) ..... *O. laminapellucida* (Zhang)  
 — Aedeagal spine moderately broad throughout, spines varied in length (Fig. L, Zhang 1994) (China) ..... *O. zhengi* (Zhang)
- 10(2). Aedeagal spine short, not reaching to midlength of shaft ..... 11  
 — Aedeagal spine very long, extending considerably beyond midlength of shaft (Fig. 4, Li and Zhang 2007) (China) ..... *O. nigrifasciana* (Li and Zhang), n. comb.
- 11(10). Aedeagal spine short to long, bifurcate apically ..... 12  
 — Aedeagal spine not bifurcate, broad with several long processes on flange on lateral margin in dorsal view (Fig. E, Cai and He 2002) (China) ..... *O. caii* (Cai and He), n. comb.
- 12(11). Aedeagal spine long, bifurcation very long ..... 13  
 — Aedeagal spine short, bifurcation very short (fig. L, M, Zhang 1990) (China) ..... *O. brevissima* (Zhang)
- 13(12). Pygofer in lateral view triangulate (Fig. F, Zhang 1990) ..... 14

—	Pygofer in lateral view subquadrate (Fig. 7, Li 1988); style with rugose apophysis. (China) .....	<b><i>O. halberta</i> (Li), n. comb.</b>
14 (13).	Pygofer in lateral view with distinct mesal, caudoventral process (Fig. F, Zhang 1994) (China) .....	<b><i>O. spina</i> (Zhang)</b>
—	Pygofer in lateral view without such caudoventral process (Fig. F, Zhang 1994) (China) .....	<b><i>O. bigemina</i> (Zhang)</b>
15(1).	Aedeagus with 1-2 secondary processes .....	<b>16</b>
—	Aedeagus with numerous secondary processes, secondary processes may have additional processes .....	<b>19</b>
16(15).	Aedeagal spine with 2 apical processes .....	<b>17</b>
—	Aedeagal spine with basal or subbasal process .....	<b>18</b>
17(16).	Pygofer with long bifurcate caudoventral process (Fig. E, Zhang 1994) (China) .....	<b><i>O. huangi</i> (Zhang)</b>
—	Pygofer with 2 very short spines (Fig. E, Zhang 1994) (China) .....	<b><i>O. tongmaiensis</i> (Zhang)</b>
18(16).	Aedeagal spine with short, slender subbasal process (fig. 6, 7, Nielson 1998) (China) .....	<b><i>O. recurvata</i> (Nielson)</b>
—	Aedeagal spine with long, lobate subbasal process (fig. L, M, Zhang 1994) (China) .....	<b><i>O. curvispinata</i> (Zhang)</b>
19(15).	Aedeagus with numerous short to long secondary processes on spine .....	<b>20</b>
—	Aedeagus with tiny spicules on lateral margins of spine (fig. 305, 306, Nielson 1982) (China) ..	<b><i>O. fasciculata</i> (Nielson)</b>
20(19).	Aedeagus with numerous short processes on spine, processes of uniform length .....	<b>21</b>
—	Aedeagus with numerous short processes and at least one long to very long process on spine, long process glabrous or with numerous secondary processes .....	<b>29</b>
21(20).	Style with apophysis rugose .....	<b>22</b>
—	Style with apophysis not rugose .....	<b>23</b>
22(21).	Subgenital plate with few, short apical microsetae or glabrous .....	<b>24</b>
—	Subgenital plate with row of setal pits on inner lateral margin (Fig. F, Xu 2000) (China) .....	<b><i>O. kuohi</i> (Xu)</b>
23(21).	Connective with narrow lateral arms (Fig. 4, Li and Wang 1989) (China) .....	<b><i>O. rufofasciana</i> (Li and Wang)</b>
—	Connective with broad lateral arms (Fig. 9, Li and Wang 1989) (China) .....	<b><i>O. huangmina</i> (Li and Wang)</b>
24(22).	Style with short apophysis .....	<b>25</b>
—	Style with long apophysis .....	<b>26</b>
25(24).	Pygofer in lateral view sub quadrate, glabrous (Fig. 15, Li 1989); aedeagal process with long basal and apical spine, few setae-like processes subbasally and subapically (Fig. 16, Li 1989) (China) .....	<b><i>O. flavofasciana</i> (Li)</b>
—	Pygofer in lateral view long, slender, with tuft of setae subapically, small digitate caudoventral process mesally (Fig. A, Xu 2000); aedeagal process with long subapical process, numerous processes on lateral margin (Fig. B, Xu 2000) (China) .....	<b><i>O. platyfaciata</i> (Li)</b>



- 26(24). Aedeagus with short, narrow process at base of spine, length not exceeding length of spine. **27**  
 — Aedeagus with long, narrow process at base of spine, length exceeding length of spine (fig. 65, 66, Nielson 1990); style with small subapical lobe (Fig. 67, Nielson 1990) (Taiwan) ..... ***O. fissa* (Nielson)**
- 27(26). Subgenital plate with few, short microsetae on apical margin ..... **28**  
 — Subgenital plate with numerous, short microsetae in distal 1/6 (Fig. I, Zhang 1994) (China) .... ***O. huoshanensis* (Zhang)**
- 28(27). Pygofer setose apically (Fig. 382, Nielson 1982); forewings fuscous throughout (China) ..... ***O. mutabilis* (Nielson)**  
 — Pygofer not setose (Fig. 377, Nielson 1982); forewings with narrow flavous band across costa (China) ..... ***O. ritcheri* (Nielson)**
- 29(20). Aedeagal shaft with spine long, extending basad beyond midlength of shaft ..... **30**  
 — Aedeagal shaft with spine short, not extending basad beyond midlength of shaft ..... **31**
- 30(28). Aedeagal spine broadly recurved, apex narrowed in distal 1/2 (fig. B, C, Xu 2000) (China) ..... ***O. hamularis* (Xu)**  
 — Aedeagal spine narrowly recurved, apex narrow in distal 1/4 (Fig. 407, Nielson 1982) (China). ..... ***O. scopae* (Nielson)**
- 31(29). Aedeagal spine bifurcate apically, setose on inner lateral margins (fig. 370, 371, Nielson 1982) (China, Taiwan) ..... ***O. alata* (Nielson)**  
 — Aedeagal spine not bifurcate apically, setose on outer lateral margins (Fig. M, Zhang 1994) (China) ..... ***O. fringa* (Zhang)**

## II. Key to species of *Olidiana* from India, Myanmar, Nepal, Thailand and Vietnam.

1. Pygofer in lateral view with short to very long, narrow, sharply pointed caudoventral process ..... **2**  
 — Pygofer in lateral view with small caudoventral lobe or lobe absent ..... **3**
- 2(1). Pygofer with very long caudoventral process (Fig. 21, Nielson 1990) (India) ..... ***O. perbrevis* (Nielson)**  
 — Pygofer with very short, sharply pointed caudoventral process (Fig. 445, Nielson 1982) (India, Nepal) ..... ***O. nocturna* (Distant)**
- 3(1). Aedeagus with subapical process long, exceeding midlength of aedeagal shaft ..... **4**  
 — Aedeagus with subapical process short, not reaching or reaching to midlength of aedeagal shaft ..... **6**
- 4(3). Aedeagus longer than subgenital plate; aedeagal subapical process very slender, nearly needlelike ..... **5**  
 — Aedeagus shorter than subgenital plate; aedeagal subapical process broad (fig. 422, 423, 424, Nielson 1982) (Myanmar) ..... ***O. genista* (Nielson)**
- 5(4). Aedeagus with subapical process with dense row of lateral secondary spines (fig. 484, 485, Nielson 1982) (Nepal) ..... ***O. multispinata* (Nielson)**  
 — Aedeagus with subapical process with very few lateral secondary spines (fig. 491, 492, Nielson 1982) (India) ..... ***O. sparsispinulata* (Nielson)**
- 6(3). Subgenital plate with subapical and or apical microsetae ..... **7**

- Subgenital plate with apical microsetae and prominent apical spine (Fig. 309, Nielson 1982) (Myanmar, Vietnam) ..... ***O. pectita* (Nielson)**
- 7(6). Aedeagus in dorsal view with subapical process twisted (Fig. 438, Nielson 1982); subgenital plate markedly constricted subbasally (Fig. 436, Nielson 1982) (Myanmar, Thailand) ..... ***O. opulenta* (Distant)**
- Aedeagus in dorsal view with subapical process not twisted; subgenital plate without marked constriction subbasally ..... **8**
- 8(7). Aedeagal subapical process with secondary apical and lateral processes on one margin ..... **9**
- Aedeagal subapical process with secondary processes on both lateral margins (fig. 355, 356, Nielson 1982) (India) ..... ***O. peniculata* (Nielson)**
- 9(8). Aedeagus with subapical process with very short, secondary spines ..... **10**
- Aedeagus with subapical process with long secondary spines (Fig. 428, Nielson 1982) (Myanmar, Thailand) ..... ***O. perculata* (Distant)**
- 10(9). Aedeagus with subapical process with tuft of short, apical spines and very small teeth on one lateral margin (fig. 548, 549, Nielson 1982) (India) ..... ***O. kirkaldyi* (Nielson)**
- Aedeagus with subapical process not as above, row of short spines from middle to apex (fig. 454, 455, Nielson 1982) (India, Nepal) ..... ***O. indica* (Walker)**

### III. Key to species of *Olidiana* from Laos, Thailand and Vietnam.

1. Subgenital plate sparsely setose apically or on outer lateral margin ..... **2**
- Subgenital plate glabrous ..... **7**
- 2(1). Style with apical, digitate spines or medial spur ..... **3**
- Style without such processes ..... **4**
- 3(2). Style with 3 apical, digitate spines (Fig. 49, Nielson 1990) (Thailand) ..... ***O. ctenostyla* (Nielson)**
- Style in dorsal view with medial, triangulate, lateral process (Fig. 363, Nielson 1982) (Thailand) ..... ***O. corneola* (Nielson)**
- 4(2). Style with long, robust apophysis, apex very broad ..... **5**
- Style with long, narrow apophysis, apex very narrow (Fig. 373, Nielson 1982) (Vietnam) ..... ***O. bifurcata* (Nielson)**
- 5(4). Aedeagus with single apical process ..... **6**
- Aedeagus with bifurcate apical process (fig. 190, 191) (Vietnam) ..... ***O. tuberis*, sp. nov.**
- 6(5). Aedeagus with broad, laminate apical process (fig. 197, 198); subgenital plate broad, about as long as aedeagus (Fig. 202) (Laos) ..... ***O. parafringa*, sp. nov.**
- Aedeagus with narrow apical process (fig. 204, 205); subgenital plate narrow, longer than aedeagus (Fig. 209) (Laos) ..... ***O. lata*, sp. nov.**
- 7(1). Pygofer in lateral view with digitate, caudoventral lobe ..... **8**
- Pygofer in lateral view without such lobe ..... **9**
- 8(7). Pygofer in lateral view sparsely setose apically (Fig. 210); connective with lateral anterior arms slightly tapered, medial ridge absent (Fig. 215) (Thailand) ..... ***O. vincula*, sp. nov.**
- Pygofer in lateral view glabrous (Fig. 217); connective with lateral anterior arms not tapered, medial ridge present, incomplete (Fig. 222) (Thailand) ..... ***O. inaequabilia*, sp. nov.**

9(7).	Pygofer in lateral view sparsely setose .....	10
—	Pygofer in lateral view glabrous .....	13
10(9).	Style with apophysis very long, robust or very long, narrow; aedeagal apical process bifurcate .....	11
—	Style with apophysis moderately long, slender (Fig. 227); aedeagal apical process single (fig. 225, 226) (Vietnam) .....	<b><i>O. tonkinensis</i>, sp. nov.</b>
11(10).	Style with long, robust apophysis, without apical spine .....	12
—	Style with long, narrow apophysis, spinate apically, obliquely striate (Fig. 234) (Laos) .....	<b><i>O. bispiculata</i>, sp. nov.</b>
12(11).	Aedeagus with setose process with very long subapical spine (Fig. 241) (Laos) .....	<b><i>O. implicata</i>, sp. nov.</b>
—	Aedeagus with setose process with 2 very short subapical spines (fig. 246, 247) (Laos) .....	<b><i>O. pennata</i>, sp. nov.</b>
13(9).	Style with apophysis spiculate or with apical spine .....	14
—	Style with apophysis without such processes .....	15
14(13).	Style with apophysis with apical spine (Fig. 5, Freytag 2011) (Thailand) .....	<b><i>O. paridens</i> Freytag</b>
—	Style with apophysis spiculated (fig. 255, 256) (Vietnam) .....	<b><i>O. filiata</i>, sp. nov.</b>
15(13).	Aedeagus with broad, multisetose apical process .....	16
—	Aedeagus with narrow, apical bisetose process (fig. 8, 9, Freytag 2011) (Thailand) .....	<b><i>O. spimera</i> Freytag</b>
16(15).	Style with pendulate apophysis (Fig. 57, Nielson 1990); subgenital plate broad subapically (Fig. 58, Nielson 1990) (Vietnam) .....	<b><i>O. spira</i> (Nielson)</b>
—	Style with apophysis not pendulate, lateral margins parallel (Fig. 62, Nielson 1990); subgenital plate tapered apically (Fig. 63, Nielson 1990) (Thailand) .....	<b><i>O. tantula</i> (Nielson)</b>

#### IV. Key to species of *Olidiana* from Japan, Malaysia, Indonesia, and Philippines.

1.	Style with short to very long apophysis, longer than base .....	2
—	Style with very short apophysis, about as long as base (Fig. 349, Nielson 1982) (Malaysia, Singapore) .....	<b><i>O. pectinata</i> Nielson</b>
2(1).	Aedeagus with long process arising apically .....	3
—	Aedeagus with long process arising subapically or near middle .....	4
3(2).	Aedeagal process with numerous setae-like secondary processes (fig. 391, 392, Nielson 1982) (Malaysia) .....	<b><i>O. setacea</i> Nielson</b>
—	Aedeagal process with several spine-like secondary processes (fig. 401, 403, Nielson 1982) (Philippines) .....	<b><i>O. kodeti</i> Nielson</b>
4(2).	Aedeagal process with several to numerous spines, setae or teeth .....	5
—	Aedeagal process with 3 long, very distinctive apical secondary processes (fig. 345, 346, Nielson 1982) (Malaysia) .....	<b><i>O. cupraria</i> (Walker)</b>
5(4).	Stylar apophysis with 1-2 secondary subapical or apical processes or glabrous .....	6

- Stylar apophysis with 3 very short, narrow, curved apical processes (Fig. 49, Nielson 1990) (Japan, Malaysia, Indonesia) ..... ***O. ctenostyla* Nielson**
- 6(5). Aedeagal process with numerous setae-like or spine-like processes on inner and outer lateral margins ..... **7**
- Aedeagal process with numerous short teeth on inner lateral margin (Fig. 43, Nielson 1990) (Malaysia) ..... ***O. parapectinata* Nielson**
- 7(6). Style short, robust, shorter than aedeagus, bluntly pointed apically ..... **8**
- Style very long, nearly as long as aedeagus, attenuated in apical 1/3 (Fig. 53, Nielson 1990) (Malaysia) ..... ***O. gladia* Nielson**
- 8(7). Stylar apophysis with short, blunt, apical or subapical, secondary processes in lateral or dorsal view ..... **9**
- Stylar apophysis without such processes ..... **11**
- 9(8). Aedeagal process broad in dorsal or ventral view ..... **10**
- Aedeagal process very narrow in dorsal or ventral view (fig. 70, 71, Nielson 1990) (Malaysia) .  
..... ***O. alvea* Nielson**
- 10(8). Aedeagal process in dorsal or ventral view with large lateral process on middle of inner margin in combination with numerous spines apically and on outer lateral margin (Fig. 412, Nielson 1982) (Malaysia) ..... ***O. ornata* Nielson**
- Aedeagal process in dorsal or ventral view without lateral process on middle of inner lateral margin, numerous small spines on inner and outer lateral margins (Fig. 417, Nielson 1982) (Malaysia) ..... ***O. bedardi* Nielson**
- 11(9). Forewings with 2 broad, transverse yellow bands; pygofer without caudoventral process (Fig. 10, Hayashi 1995) (Japan) ..... ***O. uenoi* (Hayashi)**
- Forewings without such yellow bands; pygofer with prominent caudoventral process (Fig. 440, Nielson 1982) (Japan) ..... ***O. boninensis* (Matsumura)**

### Description of species

#### ***Olidiana egregia* (Schumacher), n. comb.**

(Plate 3 G, H, Fig. 183-188)

**Description. Length.** Male 8.20 mm., female 9.40 mm.

**External morphology.** Moderately large, robust species. General color black to dark brown with 2 broad, yellow transverse bands on forewings; mesonotum and pronotum black; crown light brown; eyes dark brown; face in male black, in female brown; head narrower than pronotum, broadly rounded anteriorly; crown short, narrower than width of eyes, slightly produced anteriorly, lateral margins convergent basally; eyes large, semiglobular; clypeus long, broad, lateral margins broadly convex; clypellus in male obscured by glue, short, narrow in female. (Female body slightly teneral.)

**Male genitalia.** Pygofer in lateral view large, sub-triangular, small digitate caudoventral lobe mesally, small lobe apically, few setae apically (Fig. 183); aedeagus with long bifurcate, subapical process, one with row of secondary setae, one glabrous (Fig. 184, 185); style in dorsal view elongate, curved near middle (Fig. 186); dorsal connective long, narrow (Fig. 184); connective large, anterior arms broad, medial ridge absent, stem small, sub-quadrate (Fig. 187); subgenital plate long, broad in basal 1/5, membranous stripe in apical 1/5 on inner lateral margin (Fig. 188).

**Female seventh sternal segment.** Length about twice as long as penultimate segment, posterior margin truncate, slightly sinuate, slightly teneral.

**Table 2.** Diagnostic features separating 6 species in the *Olidiana brevis* (Walker) interspecies complex.

Feature	<i>brevis</i>	<i>brevisina</i>	<i>egregia</i>	<i>flavofascia</i>	<i>praetexta</i>	<i>uenoi</i>
<b>1. Pygofer</b>						
C/V process present	X	X	X	X	X	-
Profusely setose	-	X	-	-	X	-
Sparsely setose	X	-	X	X	-	X
<b>2. Subgenital plate</b>						
Setose throughout	-	X	-	-	X	-
Setose apically	X	-	-	X	-	X
Glabrous	-	-	X	-	-	-
<b>3. Aedeagal spine</b>						
Bifurcate basally	-	-	X	-	-	-
Sparsely spinate/setate	-	-	X	X	X	X
Profusely spinate/setate	X	X	-	-	-	-
<b>4. Style</b>						
Long broad apophysis	-	-	X	X	?	X
Short narrow apophysis	X	X	-	-	?	-

**Material examined.** *Jassus egregius* Schumacher. Lectotype male, here designated: Formosa (Taiwan), Kosempo, H. Sauter, 1911 / 7. IV/ Eberswalde, Coll. EDI / *Jassus egregius* Schumacher, Typen (in Schumacher's handwriting), P. Schumacher det. / Syntypus (Red label) / DE Hemimetabola, #100093 (White label) / DEI Müncheberg, Hemi - 0001 (Green label). *Jassus egregius* Schumacher, syntype female, Formosa (Taiwan), Kosempo, Formosa, H. Sauter 1911 / 7. V. / Schumacher, det. / Eberswalde Coll., DEI / Syntypus (Red Label) / DEI Hemimetabola #100094 / DEI Müncheberg, Hemi - 00002 (DEI).

**Remarks.** The species is a member of the *O. brevis* (Walker) species complex. Distinguishing features which separate *O. egregia* from related species are found in Table 2 and illustrated in Figures 1-12. Two "syntypes" of *Jassus egregia* Schumacher were located in the Senckenberg Deutsches Entomologische Institute in Müncheberg, Germany. The handwritten "Typen" label attached to the male specimen by Schumacher may be considered an important issue which may or may not impact the lectotype designation.

***Olidiana tuberis*, sp. nov.**

(Plate 3I, Fig. 189-195)

**Description. Length.** Male 7.50 mm., female unknown.

**External morphology.** Moderately long, slightly robust species. General color black with numerous, tiny yellow markings on pronotum, mesonotum and forewings; crown dark brown, marked by black spots; eyes dark brown; face pale yellow with 2 orange, longitudinal stripes in inner lateral margins of clypeus; clypeus dark orange; head narrower than pronotum, obtusely rounded anteriorly; crown narrow, narrower than width of eyes, slightly produced anteriorly beyond eyes, lateral margins convergent basally; eyes large, elongate ovoid; pronotum large, slightly longer medially than crown, surface bulged; mesonotum very large, nearly twice as long medially than pronotum; venation of forewings typical; clypeus long, narrow, lateral margins broadly convex; clypellus short, narrow, about 1/3 as long as clypeus, apex inflated laterally.

**Male genitalia.** Pygofer in lateral view triangulate, small lobe apically, small digitate caudoventral lobe, glabrous (Fig. 189); aedeagus long, tubular sinuate in dorsal and lateral views, shaft inflated in

basal 1/3, in dorsal view, apical process recurved, bifurcate, each arm long, outer arm with medial process, toothed apically, outer arm with basal spur, serrate in distal half (Fig. 190, 191); style very long, in dorsal view apophysis narrow in distal half, in lateral view apophysis very broad, constricted in apical 1/3, slightly concave apically (Fig. 192, 193); dorsal connective short, narrow (Fig. 190); connective moderately large, anterior arms narrow with median ridge, stem very small, sub-ovate (Fig. 194); subgenital plate long, with few short microsetae on inner lateral margin in apical 1/6 (Fig. 195).

**Material examined.** Holotype male. VIETNAM: [Ninh Binh]: Cuc Phuong, 11-18-viii-2010, IG 31.668, Leg. J. Constant and P. Limbourg (IRSNB).

**Etymology.** The name of the species is descriptive for the 2 digitate, apical processes of the aedeagus.

**Remarks.** From *O. bispiculata*, sp. nov. to which it is similar in aedeagal features, *tuberis* can be distinguished by the long robust style in lateral view, narrow subgenital plate and presence of a digitate caudoventral process on the pygofer.

***Olidiana parafringa*, sp. nov.**

(Plate 4A, Fig. 196-202)

**Description. Length.** Male. 8.20 mm., female unknown.

**External morphology.** Moderately large, robust species. General color black with dark yellow markings. Forewings with black veins, veins with few dark yellow markings, cells with numerous, irregular light brown markings; mesonotum black with few dark yellow spots; pronotum black, bullae dark yellow; crown light brown, marked with few, suffused dark markings; eyes dark brown; face light yellow; clypeus with reddish brown longitudinal band on inner lateral margins; clypellus with broad, longitudinal brown stripe medially; head distinctly narrower than pronotum, anterior margin obtusely rounded; crown short, narrow, narrower than width of eyes; produced anteriorly about ¼ total length, lateral margins convergent basally; pronotum large, slightly longer medially than crown, surface bullated; mesonotum large, slightly longer medially than pronotum; clypeus long, narrow, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, narrower than clypeus, slightly inflated basally, apex flared laterally.

**Male genitalia.** Pygofer in lateral view large, sub-triangular, sparsely setose on ventral apical margin (Fig. 196); aedeagus long, tubular, sinuate in lateral view with subapical, setose process, process elliptical in dorsal view, setae subapical on lateral margin and apically, with 2 small, subapical, digitate lobes in lateral view; gonopore long, basad of apex of process, serrate on outer lateral margin in lateral view (Fig. 197, 198); style long, apophysis broad, lobed apically in dorsal view, outer lateral margin expanded (Fig. 199, 200); dorsal connective, short, narrow, arising from outer margin of aedeagal shaft in dorsal view (Fig. 197); connective large, arms broad, medial ridge complete, stem small, lobate (Fig. 201); subgenital plate slightly longer than aedeagus, broad, sparsely setose on outer lateral margin in distal 1/5 (Fig. 202).

**Material examined.** Holotype male. LAOS-N: (Oudomxai), 1-9.v.2002, 1100 m., 20° 45'N 102° 09' E., Oudom Xai (17 km. NEE), Vit Kuban, leg. / Entomological expedition, "Laos 2002", Moravian Museum, Brno, Czech Republic (MMBC). Paratype male. Same data as holotype (MLBM).

**Etymology.** The species name is descriptive for the near similarity of the aedeagal features to *O. fringa*.

**Remarks.** From *O. fringa* to which it is similar in male genitalia features, *O. parafringa* can be distinguished by the shorter length and configuration of the style which has a larger lobe apically in dorsal view, broader subgenital plate and different arrangement of the setae on the aedeagal process.

***Olidiana lata*, sp. nov.**

(Plate 4B, Fig. 203-209)

**Description. Length.** Male 8.26-8.40 mm., female 9.44 mm.

**External morphology.** Moderately large, slender species. General color black with numerous yellow spots except on head; crown light brown with black markings; eyes dark brown; face yellowish; clypeus with dark orange stripe on inner lateral margins; clypellus dark brown, sometimes suffused on genae; head distinctly narrower than pronotum, anterior margin obtusely angled; crown short, moderately broad, about as wide as width of eyes, produced anteriorly about  $\frac{1}{4}$  distance beyond anterior margin of eyes; eyes semiglobular; pronotum moderately large, slightly longer medially than crown, surface bullated; mesonotum large, about half longer than pronotum; forewings with venation typical; clypeus long, narrow, lateral margins broadly convex; clypellus short, about  $\frac{1}{3}$  as long as clypeus, narrow, inflated medially from base to near apex, apex flared apically.

**Male genitalia.** Pygofer in lateral view narrow, triangulate, glabrous (Fig. 203); aedeagus moderately long, tubular, sinuate in lateral view, with long apical process, process in lateral view with rectangular spur subbasally, short row of short setae subapically to apex, with dorsal sub-triangulate process basally (Fig. 204, 205); style with long, very robust apophysis, in lateral view, long triangulate flange on outer lateral margin from middle to near apex (Fig. 206, 207); dorsal connective moderately long, narrow (Fig. 204, 205); connective large, anterior arms wide, medial ridge incomplete, stem small, sub-quadrate (Fig. 208); subgenital plate long, narrow, tapered apically with several, short microsetae on lateral margins in distal  $\frac{1}{6}$  (Fig. 209).

**Material examined.** Holotype male. LAOS-N: Phongsaly Prov., 21° 41-2'N 102° 06-8'E., 28.v.-20vi. 2003, Phongsaly envir., 1500 m., Vit Kuban, leg. / Entomological Expedition, Laos 2003, Moravian Museum, Brno, Czech Republic (MMBC). Additional material examined. 9 males, 1 female, same data as holotype (MMBC); 1 male, 1 female, same data as holotype (MLBM); 8 males, Phongsaly prov., 21° 21'N 102° 03'E, Ban Sano Mai env., 19-26.v.2004, 1150 m., Vit Kuban, leg. (MMBC); 17 males, Louang Phrabang prov., 20° 33-4' N 102° 4' E., Ban Song Cha (5 km. W), 1200 m., Vit Kuban, leg. (MMBC); 6 males, Louang Namtha pr., 21° 09' N 101° 19'E, Namtha-Muang Sing, 5-31.v.1997, 900-1200 m., Vit Kuban, leg. (MMBC).

**Etymology.** The name of the species is descriptive for the broad, lateral flange on the outer margin of the stylar apophysis.

**Remarks.** Among species having an entire aedeagal apical process, not bifurcate, *O. lata* can be distinguished from them by the subbasal rectangular spur and apical setae on the aedeagal process, and by the broad flange on the apophysis of the style.

***Olidiana vincula*, sp. nov.**

(Plate 4C, Fig. 210-216)

**Description. Length.** Male 8.00 mm., female unknown.

**External morphology.** Moderately large, robust species. General color black with distinctive markings; forewings black with pale ivory band along apex with large, translucent, triangular spot near middle of costa, narrow, broken, transverse ivory band basad of base of mesonotum; mesonotum black, unmarked; pronotum black with yellow mark below eyes; crown dark brown with black mark next to eyes, dark yellow longitudinal stripe medially; eyes dark brown; face black, long yellow stripe below eyes; head narrower than pronotum, anterior margin broadly rounded; crown short, broad, slightly wider than width of eyes; eyes large, semiglobular; pronotum large, slightly longer medially than crown, surface bullated; mesonotum very large, nearly twice as long medially than pronotum; clypeus long, broad, lateral margins broadly convex; clypellus short, about  $\frac{1}{3}$  as long as clypeus, broad, narrower than clypeus, apex slightly inflated longitudinally along middle.

**Male genitalia.** Pygofer in lateral view small, triangular, with small apical lobe, digitate caudoventral process, sparsely setose apically (Fig. 210); aedeagus with shaft long, tubular, very narrow, with long bifurcate, subapical process projecting basally, in lateral and dorsal views with long, glabrous basal process projecting laterally, long setose process distad of basal process, row of short accessory setae on lateral margin ending with long seta distally (Fig. 211, 212); style short, apophysis moderately broad, about as long as base (Fig. 213, 214); dorsal connective very long, narrow (Fig. 211); connective small,

anterior arms slightly tapered distally, medial ridge absent (Fig. 215); subgenital plate long, somewhat narrow, glabrous (Fig. 216).

**Material examined.** Holotype male. Collection I.R.Sc.N.B., THAILAND 21057: Nahao Khong Nam, 12/05/2001, Loei, Leg. P. Grootaert (IRSNB).

**Etymology.** The name of the species is descriptive for the narrow, broken, transverse band below base of mesonotum.

**Remarks.** This species is similar in general habitus to *O. inaequabilis* but the latter lacks the narrow, yellow transverse band on the forewings. In male genitalia features, *O. vincula* is distinguished by the narrower apophysis without apical concavity, by the broader arms of the connective and by the row of short accessory processes on the subapical spine on the aedeagus with an extra long, apical accessory process at the base.

***Olidiana inaequabilis*, sp. nov.**

(Plate 4D, Fig. 217-223)

**Description. Length.** Male 8.00 mm., female unknown.

**External morphology.** Moderately large robust species. General color black with 1 moderately large, ivory spot near middle of costa, small ivory spot at apex of clavus, narrow, ivory band on apex of forewings; head light brown; face black except for large sub-quadrate ivory spot below eyes; head narrower than pronotum, anterior margin broadly rounded; crown narrower than width of eyes, slightly produced anteriorly, lateral margins convergent basally; eyes large, elongate ovoid; pronotum large, longer medially than crown, surface bullated; mesonotum large, about half longer than pronotum; forewing venation typical; clypeus long, broader anteriorly than posteriorly, lateral margins slightly convergent posteriorly; clypellus short, about 1/3 as long as clypeus, narrow, inflated longitudinally on middle, apex flared laterally.

**Male genitalia.** Pygofer in lateral view broadly triangular, small lobe apically, with short digitate caudoventral lobe, glabrous (Fig. 217); aedeagus with long, narrow, tubular shaft, in dorsal view very long, setose process subapically, long glabrous spine subbasally on process (Fig. 218, 219); style moderately long, with robust apophysis, apex with small excavation apically in dorsal view (Fig. 220, 221); dorsal connective long, narrow (Fig. 218, 219); connective moderately large, anterior arms together sub-quadrate, medial ridge short, stem small, ovate (Fig. 222); subgenital plate long, narrow, glabrous (Fig. 223).

**Material examined.** Holotype male. THAILAND: Loei-Na Haeo Chang Tok, 17.v.2003 (23035), leg. P. Grootaert (IRSNB).

**Etymology.** The name of the species is descriptive for the varied length of the accessory processes on the aedeagal subapical spine.

**Remarks.** *Olidiana inaequabilis* is similar to species which have setose aedeagal spine (*O. genista* (Nielson), *O. laminispinosa* (Zhang), *O. zhengi* (Zhang)) and can be distinguished from them by the much narrower aedeagal spine and length of its accessory processes.

***Olidiana tonkinensis*, sp. nov.**

(Plate 4F, Fig. 224-230)

**Description. Length.** Male 7.60 mm., female unknown.

**External morphology.** Moderately large, robust species. General color dark brown to black throughout; forewings translucent; face black throughout; head narrower than pronotum, anterior margin broadly rounded; crown very broad, broader than width of eyes, slightly produced anteriorly, lateral margins convergent basally; eyes large, semiglobular; clypeus long, broad, broader anteriorly than posteriorly; clypellus short, about 1/3 as long as clypeus, broad, apex flared laterally.



**Male genitalia.** Pygofer in lateral view narrowly triangular, small lobe subapically, few long microsetae apically (Fig. 224); aedeagus moderately long, tubular, in dorsal view with broad, setose, subapical, triangulate process (Fig. 225, 226); style with moderately long, somewhat slender apophysis (Fig. 227, 228); dorsal connective moderately long, slender (Fig. 225, 226); connective large, anterior arms with lateral margins extended anterior to membrane, without medial ridge, stem short, sub-quadrate (Fig. 229); subgenital plate moderately long, sinuate, glabrous (Fig. 230).

**Material examined.** Holotype male. TONKIN (VIETNAM): region de Hoa-binh / Museum Paris, XI – 1934, de Cooman (NMHN).

**Etymology.** The species is named after the region in which it was collected in Vietnam.

**Remarks.** From species which display a broad (laminated), setose, aedeagal process (*Olidiana laminapellucida*, *O. laminaspinosa*, *O. zhengi*), *O. tonkinensis* can be distinguished by the narrower, triangulate, laminated, aedeagal process, glabrous subgenital plate and narrow apophysis of the style.

***Olidiana bispiculata*, sp. nov.**

(Plate 4F, Fig. 231-237)

**Description. Length.** Male 8.12-9.00 mm., female unknown.

**External morphology.** Moderately large, slightly robust species. General color dark brown to black with numerous small, yellow spots on forewings, mesonotum and pronotum; crown and eyes light to dark brown; face light yellow with 2 light to dark orange stripes on inner lateral margins of clypeus; clypellus light to dark orange; head narrower than pronotum, anterior margin obtusely rounded; crown narrow, narrower than width of eyes, slightly produced anteriorly, lateral margins convergent basally; eyes large, semiglobular; clypeus long, narrow, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, narrow, apex flared laterally.

**Male genitalia.** Pygofer in lateral view broadly triangulate, sparsely setose on upper ventral margin (Fig. 231); aedeagus with shaft narrowly tubular, with recurved bifurcate apical process, each arm with subbasal spur and lateral to apical setae in distal ¼; gonopore subapical (Fig. 232, 233); style with very long, slender apophysis, obliquely striate, long spine apically (Fig. 234, 235); dorsal connective very long, narrow (Fig. 232, 233); connective large, anterior arms broad, with medial ridge, stem short, sub-quadrate (Fig. 236); subgenital plate long, broad, tapered apically, glabrous (Fig. 237).

**Material examined.** Holotype male. LAOS-N: Louanphrabang, 11-21.v.2002, 19° 35' N 101° 58' E., Thong Khan, 75 m., Vit Kuban, leg. (MMBC). Paratypes: 1 male, same data as holotype (MLBM); 6 males (Oudomxai), 1-9.v.2002, 1100 m., 20° 45' N 102° 09' E, Oudom Xai, 17 km. NEE, Vit Kuban, leg. / Entomological Expedition, "Laos 2002", Moravian Museum, Brno, Czech Republic (MMBC).

**Etymology.** The name of this species is descriptive for the 2 basal spurs on the aedeagal process.

**Remarks.** This species is distinguished from relatives that possess a single, bifurcate, apical aedeagal process by the 2 basal spurs attached on each arm and by the style with oblique striations and apical spine on the apophysis.

***Olidiana implicata*, sp. nov.**

(Plate 4G, Fig. 238-244)

**Description. Length.** Male 10.00-10.20mm., female unknown.

**External morphology.** Large, robust species. General color black with numerous small ivory to yellow spots on forewings; crown light brown; eyes dark brown; face light brownish yellow with light,

brownish orange longitudinal stripe on inner lateral margins of clypeus; clypellus light brown; head distinctly narrower than pronotum, anterior margin obtusely rounded; crown narrower than width of eyes, produced slightly beyond anterior margin of eyes, lateral margins convergent basally; eyes large, elongate ovoid; pronotum large, nearly twice as long medially than crown, surface bullated; mesonotum very large, nearly half longer than pronotum; forewings typical; clypeus long, moderately narrow, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, very narrow, slightly inflated longitudinally in middle, apex flared laterally.

**Male genitalia.** Pygofer in lateral view narrowly triangular, sparsely setose apically (Fig. 238); aedeagus with shaft long, tubular, sinuate, apex recurved with 3 long processes arising subapically from common base, 1 slender, glabrous and 2 broad, setose (Fig. 239, 240); style with long, broad, striate apophysis (Fig. 241, 242); dorsal connective long, narrow (Fig. 239, 240); connective large, anterior arms transparent, broad basally, medial ridge complete, stem small, ovate (Fig. 243); subgenital plate long, broad, sparsely setose on outer lateral margin (Fig. 244).

**Material examined.** Holotype male. LAOS: Phongsaly prov., 21° 38' N 101° 57' E., Bun Neua, (4 km. E.), 20.vi.2003, 1100 m., Vit Kuban, leg./ Entomological Expedition, Laos 2003, Moravian Museum, Brno, Czech Republic (MMBC). Paratype, 1 male, Laos-N (Oudomxai), 1-9.v.2002, 1100 m., 20° 45' N 102° 09' E, Oudom Xai (17 km. NEE), Vit Kuban, leg. (MLBM).

**Etymology.** The name of the species is descriptive for 3 entwined, subapical aedeagal processes.

**Remarks.** This species is unique from other species in the genus by the presence of 3 processes arising subapically from the aedeagus.

***Olidiana pennata*, sp. nov.**

(Plate 4H, Fig. 245-251)

**Description. Length.** Male 10.62 mm., female unknown.

**External morphology.** Large, somewhat slender species. General color dark brown with numerous small yellow spots on dorsum except head; crown light brown with 2 brown stripes medially, 2 suffused spots near anterior margin; eyes dark brown; face yellow with reddish brown stripe on inner lateral margins; clypellus light reddish brown; head distinctly narrower than pronotum, anterior margin obtusely rounded; crown short, broad, about as wide as width of pronotum, produced anteriorly about ¼ distance beyond anterior margin of eyes, convergent basally; eyes large, elongate ovoid; pronotum large, about half longer than crown; mesonotum large, slightly longer medially than pronotum; clypeus long, narrow, lateral margins broadly convex; clypellus narrow, slightly inflated longitudinally in middle, apex flared laterally.

**Male genitalia.** Pygofer in lateral view elongate triangulate, sparsely setose apically (Fig. 245); aedeagus with shaft long, narrow, tubular, sinuate with long, bifurcate, setose apical processes, 2 spurs basally in dorsal view, moderately long spine apically, projecting laterally in lateral view (Fig. 246, 247); style with long, robust apophysis (Fig. 248, 249); dorsal connective long, narrow (Fig. 246, 247); connective large, anterior arms somewhat narrow, medial ridge complete, stem small, sub-quadrate (Fig. 250); subgenital plate long, broad, sinuate with few, short microsetae apically (Fig. 251).

**Material examined.** Holotype male. LAOS: Louang Namtha Prov., 21° 09' N 101° 19' E., Namtha, Muang Sing, 5-31.v.1997, 900-1200 m., Vit Kuban, leg. (MMBC).

**Etymology.** The species name is descriptive for wing-like arms of the connective.

**Remarks.** From *O. bispiculata* to which it is similar in aedeagal features, *O. pennata* can be distinguished by the broader aedeagal processes, lack of caudoventral process on the pygofer, narrow anterior arms of the connective and by the more robust stylar apophysis.

***Olidiana filiata*, sp. nov.**

(Plate 4I, Fig. 252-258)

**Description. Length.** Male 9.20 mm., female unknown.

**External morphology.** Large, moderately robust species. General color black with numerous yellow spots on translucent forewings, mesonotum, and pronotum; crown and eyes dark brown; face pale yellow; clypeus with orange longitudinal stripe on inner lateral margins; clypellus pale orange; head distinctly narrower than pronotum, anterior margin somewhat acutely angled; crown narrow, narrower than width of eyes, moderately produced beyond anterior margin of eyes, lateral margins convergent basally; eyes large, elongate ovoid; pronotum moderately large, slightly longer medially than crown, surface bullated; mesonotum very large, about half longer medially than pronotum; clypeus long, narrow, lateral margins broadly convex; clypellus long, about 1/3 as long as clypeus, narrow, with slight, inflated longitudinal ridge medially, apex flared laterally.

**Male genitalia.** Pygofer in lateral view narrowly triangular, small lobe apically, glabrous (Fig. 252); aedeagus asymmetrical, shaft long, narrowly tubular in distal 2/3, inflated in basal 1/3, in dorsal and lateral views apex recurved with apical long process, process sub-quadrangle basally, trumpet shape in dorsal 1/3 with long, narrow setose process attached medially, extending basally beyond midlength of shaft (Fig. 253, 254); style long, in dorsal view pendulate in distal 1/2, broad, finely striate, spiculate in lateral view (Fig. 255, 256); dorsal connective long, narrow, sinuate (Fig. 253, 254); connective large, anterior transparent arms very broad, medial ridge short, stem long, digitate (Fig. 257); subgenital plate long, broad, inner lateral margin broadly concave, glabrous (Fig. 258).

**Material examined.** Holotype male. VIETNAM: Tam Dao Mts., June 1991, V. Novotny/ B12/ 108 SP, Brit. Mus. 1994-29 (BMNH).

**Etymology.** The species name is descriptive for the slender, secondary, setaceous process arising from the apical aedeagal process.

**Remarks.** The long, slender, setaceous accessory process on the apical, aedeagal process and the spiculated, pendulate style will distinguish *O. filiata* from other species.

### Checklist of species of *Olidiana*.

- Olidiana alata* (Nielson) 1982: 115 (*Lodiana*)  
*Olidiana alvea* (Nielson) 1990: 461 (*Lodiana*)  
*Olidiana bedardi* (Nielson) 1982: 128 (*Lodiana*)  
*Olidiana bifurcata* (Nielson) 1982: 117 (*Lodiana*)  
*Olidiana bigemina* (Zhang) 1990: 89 (*Lodiana*)  
*Olidiana bispiculata*, **sp. nov.**  
*Olidiana boninensis* (Matsumura) 1914: 84 (*Lodiana*)  
*Olidiana brevis* (Walker) 1851: 774 (*Lodiana*)  
*Olidiana brevisina* (Zhang) 1990: 104 (*Lodiana*)  
*Olidiana brevissima* (Zhang) 1990: 106 (*Lodiana*)  
*Olidiana corneola* (Nielson) 1982: 114 (*Lodiana*)  
*Olidiana ctenostyla* (Nielson) 1990: 457 (*Lodiana*)  
*Olidiana cupraria* (Walker) 1857: 173 (*Lodiana*)  
*Olidiana curvispinata* (Zhang) 1994: 82 (*Lodiana*)  
*Olidiana egregia* (Schumacher) 1915: 125, **comb. nov.** (*Jassus*)  
*Olidiana fasciculata* (Nielson) 1982: 99 (*Lodiana*)  
*Olidiana filiata*, **sp. nov.**  
*Olidiana fissa* (Nielson) 1990: 460 (*Lodiana*)  
*Olidiana flavocostata* (Li and He) 1992: 99, **comb. nov.** (*Lodiana*)  
*Olidiana flavofascia* (Zhang) 1994: 97 (*Lodiana*)  
*Olidiana flavofasciana* (Li) 1989: 3, **comb. nov., reinstated** (*Lodiana*)  
*Olidiana fringa* (Zhang) 1994: 97 (*Lodiana*)

- Olidiana genista* (Nielson) 1982: 129 (*Lodiana*)  
*Olidiana gladia* (Nielson) 1990: 458 (*Lodiana*)  
*Olidiana hainana* (Cai and He) 2002: 141, **nomen nudum** (*Lodiana*)  
*Olidiana hamularis* (Xu) 2000: 218 (*Lodiana*)  
*Olidiana halberta* (Li) 1988: 89, **comb. nov.** (*Lodiana*)  
*Olidiana huangi* (Zhang) 1994: 72 (*Lodiana*)  
*Olidiana huangmina* (Li and Wang) 1991: 2, **comb. nov.** (*Lodiana*)  
*Olidiana huoshanensis* (Zhang) 1994: 86 **comb. nov.** (*Lodiana*)  
*Olidiana implicata*, **sp. nov.**  
*Olidiana inaequibilia*, **sp. nov.**  
*Olidiana indica* (Walker) 1851: 855 (*Lodiana*)  
*Olidiana kirkaldyi* (Nielson) 1982: 169, **comb. nov.** (*Lodiana*)  
*Olidiana knowltoni* (Nielson) 1982: 101 (*Lodiana*)  
*Olidiana kodeti* (Nielson) 1982: 124 (*Lodiana*)  
*Olidiana kuohi* (Xu) 2000: 221 (*Lodiana*)  
*Olidiana laminapellucida* (Zhang) 1994: 104 (*Lodiana*)  
*Olidiana laminispinosa* (Zhang) 1994: 105 (*Lodiana*)  
*Olidiana lata*, **sp. nov.**  
*Olidiana mecistenata* (Yang) [in Yang and Zhang 1995: 41] (*Lodiana*)  
*Olidiana multispinata* (Nielson) 1982: 151 **comb. nov.** (*Calodia*)  
*Olidiana mutabilis* (Nielson) 1982: 120 [sp. nov.] (*Lodiana*)  
*Olidiana nigridora* (Cai and Shen) 1998: 42, **new application to agree with gender** (*Lodiana*)  
*Olidiana nigrifasciana* (Li and Zhang) 2007: 148, **comb. nov.; reinstated** (*Lodiana*)  
*Olidiana nocturna* (Distant) 1908a: 137 (*Lodiana*)  
*Olidiana opulenta* (Distant) 1908a: 336 (*Lodiana*)  
*Olidiana ornata* (Nielson) 1982: 127 (*Lodiana*)  
*Olidiana parafringa*, **sp. nov.**  
*Olidiana parapectinata* (Nielson) 1990: 456 (*Lodiana*)  
*Olidiana paridens* Freytag 2011: 364  
*Olidiana pectinata* (Nielson) 1982: 110 (*Lodiana*)  
*Olidiana pectiniformis* (Zhang) 1994: 87 (*Lodiana*)  
*Olidiana pectita* (Distant) 1908a: 329 (*Lodiana*)  
*Olidiana peniculata* (Nielson) 1982: 111 (*Lodiana*)  
*Olidiana pennata*, **sp. nov.**  
*Olidiana perbrevis* (Nielson) 1990: 453 (*Lodiana*)  
*Olidiana perculata* (Distant) 1908a: 337 (*Lodiana*)  
*Olidiana platyfasciata* (Xu) 2000: 218 (*Lodiana*)  
*Olidiana praetexta* (Distant) 1908a: 338 (*Lodiana*)  
*Olidiana recurvata* (Nielson) 1998: 129 (*Lodiana*)  
*Lodiana reductusi* Xu and Ge 1997 [**Incertae sedis**, paper unavailable]  
*Olidiana ritcheri* (Nielson) 1982: 118 (*Lodiana*)  
*Olidiana ritcheriina* (Zhang) 1990: 82 (*Lodiana*)  
*Olidiana rufofasciana* (Li and Wang) 1989: 1, **comb. nov.; reinstated** (*Lodiana*)  
*Olidiana scopae* (Nielson) 1982: 124 (*Lodiana*)  
*Olidiana setacea* (Nielson) 1982: 120 (*Lodiana*)  
*Olidiana sparsispinulata* (Nielson) 1982: 153, **comb. nov.** (*Calodia*)  
*Lodiana spicata* Xu and Kuoh 1997 [**Incertae sedis**, paper unavailable]  
*Olidiana spimera* Freytag 2011: 365  
*Olidiana spina* (Zhang) 1990: 103, **reinstated** (*Lodiana*)  
*Olidiana spira* (Nielson) 1990: 458 (*Lodiana*)  
*Olidiana tantula* (Nielson) 1990: 459 (*Lodiana*)  
*Olidiana tongmaiensis* (Zhang) 1994: 79 (*Lodiana*)  
*Olidiana tonkinensis*, **sp. nov.**  
*Olidiana tuberis*, **sp. nov.**

*Olidiana uenoi* (Hayashi) 1995: 197 (*Lodiana*)

*Olidiana vincula*, **sp. nov.**

*Olidiana yangi* McKamey 2006: 502 [**new synonymy**]

*Olidiana zhengi* (Zhang) 1994: 106 (*Lodiana*)

### ***Orbisolidia*, gen. nov.**

**Type-species**, *Calodia spinocava* Nielson 1982: 175

**Description.** Medium size, slender to robust species. Length male, 5.50-7.50 mm., female 9.70 mm. General habitus similar to *Calodia*; aedeagus long, narrow, tubular, glabrous except for short microsetae adjacent to or surrounding gonopore; pygofer sparsely setose; style with short, broad apophysis; subgenital plate glabrous, broadly curved.

**Etymology.** The name is a combination of the Latin root *orbis* [= circle or ring] and the suffix *-olidia* derived from the genus *Coelidia*. The gender is feminine.

**Remarks.** *Orbisolidia* is distinguished from related genera by the combination of setae orbiting the gonopore of the aedeagus and the broadly curved subgenital plate. Two species are known, both from India.

### **Key to species of *Orbisolidia* (males)**

1. Aedeagus in ventral view broadly curved, slightly inflated in middle  $\frac{3}{4}$ , gonopore sub-distal (Fig. 569, Nielson 1982) (India) ..... ***O. spinocava* (Nielson)**
- Aedeagus in ventral view straight, constricted in middle  $\frac{3}{4}$ , gonopore subbasal (Fig. 575, Nielson 1982) (India) ..... ***O. paracava* (Nielson)**

### **Checklist of species of *Orbisolidia*.**

*Orbisolidia spinocava* (Nielson) 1982: 175, **comb. nov.** (*Calodia*)

*Orbisolidia paracava* (Nielson) 1982: 175, **comb. nov.** (*Calodia*)

### **Genus *Singillatus*, gen. nov.**

**Type species.** *Lodiana furcata* Nielson 1990: 453

**Description.** Moderately small size to large robust species. Length male 6.40-9.00 mm., female 10.20-10.50 mm. General habitus similar to *Olidiana*; aedeagus long, narrow, tubular with single, short to long, subapical or apical glabrous spine, sometimes with short teeth apically, rarely with spicules on shaft; pygofer glabrous or sparsely setose; subgenital plate sparsely setose apically, rarely with apical spine.

**Etymology.** The name of the genus is a combination of Latin root *singilla-* [= single or one], -t- is the arbitrary consonant, and -us is suffix. The gender is masculine.

**Remarks.** *Singillatus* is distinguished from its closest relative, *Olidiana*, by the single, aedeagal spine which is entirely glabrous whereas in *Olidiana* the aedeagal spine varies from profusely setose to a few, very small teeth not easily seen.

The genus is widespread from India to Indonesia. Seventeen species are recognized including 2 new species.

### Key to species of *Singillatus* (males)

1. Subgenital plate with 1 or 2 apical spines ..... 2
- Subgenital plate without such spines ..... 3
  
- 2(1). Subgenital plate with single apical spine (Fig. 278, Nielson 1982); aedeagus with short subapical process (fig. 279, 280, Nielson 1982) (India) ..... ***S. curtus* (Nielson)**
- Subgenital plate with 1 apical, 1 subapical spine (Fig. I, Zhang 1994); aedeagus with long, slender medial process (fig. M, L, Zhang 1994) (China) ..... ***S. xanthopronotatus* (Zhang)**
  
- 3(1). Style with short to long, glabrous apophysis ..... 4
- Style with very long apophysis with row of spines in distal half (Fig. 287, Nielson 1982) (Malaysia) ..... ***S. unicus* (Nielson)**
  
- 4(3). Pygofer in lateral view with long prominent caudoventral process ..... 5
- Pygofer in lateral view without such process or with small digitate lobe ..... 8
  
- 5(4). Pygofer caudoventral process with accessory process(es) ..... 6
- Pygofer caudoventral process entire (Fig. 31, Nielson 1990); subgenital plate obliquely truncate apically (Fig. 35, Nielson 1990) (India) ..... ***S. singularis* (Nielson)**
  
- 6(5). Pygofer caudoventral process very broad with 2 accessory processes ..... 7
- Pygofer caudoventral process very narrow with 1 subapical process (Fig. 26, Nielson 1990) (India) ..... ***S. furcatus* (Nielson)**
  
- 7(6). Aedeagus with very short subapical process (Fig. 274, Nielson 1982); pygofer caudoventral process with 1 subbasal and 1 apical process (Fig. 270, Nielson 1982) (China, Laos) ..... ***S. laminus* (Nielson)**
- Aedeagus with very long subapical process (fig. 268, 269) (India) ..... ***S. ventrospinatus*, sp. nov.**
  
- 8(4). Style with moderately long, digitate apophysis, not exceeding midlength of aedeagal shaft ..... 9
- Style with very long, sharply pointed apophysis exceeding midlength of aedeagal shaft (Fig. 2, Freytag 2011) (Thailand) ..... ***S. anisotus* (Freytag)**
  
- 9(8). Aedeagus with process arising subapically, distance between base of process and apex of shaft shorter than length of process ..... 10
- Aedeagus with process arising subapically, distance between base of process and apex of shaft greater than length of process (Fig. 260, 261) (Indonesia (Sumatra)) ..... ***S. gracilius*, sp. nov.**
  
- 10(9). Aedeagal process short, not reaching to or slightly extending basad of midlength of aedeagal shaft ..... 11
- Aedeagal process very long, extending basad much beyond midlength of aedeagal shaft, shaft in lateral view with small, globular, subapical, serrated lobe (Fig. 294, Nielson 1982) (Malaysia, Raja Ampat Isl., Sabah) ..... ***S. marginifrons* (Walker)**
  
- 11(10). Aedeagal process closely appressed to shaft ..... 12
- Aedeagal process not appressed to shaft, curved from base to apex ..... 13

- 12(11). Large species, length 8.60-10.00 mm.; aedeagus with short process, not reaching midlength of aedeagal shaft (fig. 339, 340, Nielson 1982) (Malaysia Peninsula, (Sarawak)) ..... ***S. mundus* (Nielson)**  
 — Small species, length 6.40-7.80 mm.; aedeagus with moderately long process, reaching to midlength of aedeagal shaft (fig. 333, 334, Nielson 1982) (Laos, Thailand, Vietnam) ..... ***S. reidi* (Nielson)**
- 13(11). Aedeagus in lateral view with subapical process arising from dorsal margin ..... **14**  
 — Aedeagus in lateral view with subapical process arising from ventral margin (Fig. 12, Freytag 2011) (Thailand) ..... ***S. nudus* (Freytag)**
- 14(13). Pygofer in lateral view glabrous ..... **15**  
 — Pygofer in lateral view setose apically ..... **16**
- 15(14). Aedeagus in lateral view with very short subapical process, process about 1/5 as long as length of aedeagus, gradually tapered apically (Fig. 329, Nielson 1982) (Malaysia, Indonesia) ..... ***S. apertus* (Nielson)**  
 — Aedeagus in lateral view with moderately long subapical process, process about 1/4 as long as length of aedeagus, abruptly tapered about midlength (Fig. M, Zhang 1994) (China) ..... ***S. signatus* (Zhang)**
- 16(14). Aedeagus in dorsal or ventral view with shaft abruptly narrowed subapically (Fig. 38, Nielson 1990); subgenital plate slightly constricted medially (Fig. 40, Nielson 1982) (Malaysia) ..... ***S. viraktamathi* (Nielson)**  
 — Aedeagus in dorsal or ventral view with shaft not abruptly narrowed subapically (Fig. 320, Nielson 1982); subgenital plate slightly inflated medially (Fig. 319, Nielson 1982) (Malaysia) ..... ***S. ventrosolus* (Nielson)**

### Description of species

#### ***Singillatus gracilius*, sp. nov.**

(Plate 5A, Fig. 259-265)

**Description. Length.** Male 7.80 - 8.20 mm., female unknown.

**External morphology.** Moderately large, slender species. General color black with small yellow spots on forewings, pronotum yellow with yellow bullae; crown yellow with brown markings; eyes dark brown; face yellow; clypeus with longitudinal orange stripe on inner lateral margins; clypellus orange; head distinctly narrower than pronotum, anterior margin broadly rounded; crown short, narrower than width of eyes, slightly produced anteriorly, lateral margins convergent basally; eyes large, elongate ovoid; clypeus long, narrow, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, narrow, inflated longitudinally in middle, apex inflated laterally.

**Male genitalia.** Pygofer in lateral view narrowly triangulate, small lobe apically, broad digitate lobe on caudoventral margin, glabrous (Fig. 259); aedeagus long, tubular, very narrow, with moderately long spine near middle of shaft, short row of teeth near apex in lateral view; gonopore near base of spine (Fig. 260, 261); style with moderately long, robust apophysis (Fig. 262, 263); dorsal connective short, slender (Fig. 261); connective small, anterior arms slightly compressed, medial ridge incomplete, stem short, semiglobular (Fig. 264); subgenital plate long, narrow, few microsetae apically (Fig. 265).

**Material examined.** Holotype male. MALAYSIA: S. Sumatra, Lampung prov., Bukit Barisan Selatan S. P., 5° 4' S. 104° 4' E., 600 m., 5km. SW Liwa, 7-17.ii.2000, D. Hauck, leg (MMBC). Paratype. 1 male, same data as holotype, except J. Bezed k, leg. (MLBM).

**Etymology.** The name of this species is descriptive for the slender aedeagal shaft and subgenital plate.

**Remarks.** From *S. ventrosolus* to which it is similar, *S. gracilius* can be separated by the narrower aedeagal shaft, process arising near the middle of the shaft and by presence of caudodorsal and caudoventral lobes on the pygofer.

***Singillatus ventrospinatus*, sp. nov.**

(Plate 5B, Fig. 266-273)

**Description. Length.** Male 7.60 mm., female unknown.

**External morphology.** Moderately large, robust species. General color dark brown to black, broad transverse translucent subapical band on forewings, translucent within middle and inner anteapical cells; mesonotum black; pronotum black with yellow bullae; crown brown; eyes dark brown; face ivory; clypeus and clypellus black; head distinctly narrower than pronotum, anterior margin broadly rounded; crown narrower than width of eyes, slightly produced anteriorly, lateral margins convergent basally; eyes large, semiglobular; pronotum large, about as long medially as crown, surface bullated; mesonotum very large, about half longer than pronotum; clypeus long, broad, lateral margins nearly parallel except anteriorly and posteriorly; clypellus very short, about ¼ as long as clypeus, narrow, apex flared laterally.

**Male genitalia.** Pygofer in lateral view (reverse view) elongate, small lobe apically, with sharply recurved caudoventral process, glabrous (Fig. 266), caudoventral process strongly hooked in ventral view (Fig. 267); aedeagus long, tubular with long subapical, glabrous spine, in dorsal view base of spine broad, small secondary spine apically (Fig. 268, 269); style with moderately long apophysis (Fig. 270, 271); dorsal connective long, narrow (Fig. 268, 269); connective large, anterior arms tapered distally, medial ridge complete, stem short, lobate (Fig. 272); subgenital plate long, slightly expanded along middle on outer lateral margin; glabrous (Fig. 273).

**Material examined.** Holotype male. NE INDIA: Meghalaya, SW of Cherrapunjee, 25° 13'-14'N 91° 40' E., 5-24.v.2005, 900 m., P. Pacholatko, leg. / Collection Moraské Museum, Brno, Czech Republic (MMBC).

**Etymology.** The name of the species is descriptive for the caudoventral process of the pygofer.

**Remarks.** *Singillatus ventrospinatus* can be easily separated by the unique configuration of the caudoventral process on the pygofer which is retrorse basally and not evident among known species in the genus.

**Checklist of species of *Singillatus*.**

*Singillatus anisotus* (Freytag) 2010b: 362, **comb. nov.** (*Olidiana*)  
*Singillatus apertus* (Nielson) 1982: 103, **comb. nov.** (*Olidiana*)  
*Singillatus curtus* (Nielson) 1982: 91, **comb. nov.** (*Olidiana*)  
*Singillatus furcatus* (Nielson) 1990: 453, **comb. nov.** (*Olidiana*)  
*Singillatus gracilius*, **sp. nov.**  
*Singillatus laminus* (Nielson) 1982: 91, **comb. nov.** (*Olidiana*)  
*Singillatus marginifrons* (Walker) 1870: 340, **comb. nov.** (*Olidiana*)  
*Singillatus mundus* (Nielson) 1982: 107, **comb. nov.** (*Olidiana*)  
*Singillatus nudus* (Freytag) 2010b: 366, **comb. nov.** (*Olidiana*)  
*Singillatus reidi* (Nielson) 1982: 106, **comb. nov.** (*Olidiana*)  
*Singillatus signatus* (Zhang) 1994: 91, **comb. nov.** (*Olidiana*)  
*Singillatus singularis* (Nielson) 1990: 454, **comb. nov.** (*Olidiana*)  
*Singillatus unicus* (Nielson) 1982: 95, **comb. nov.** (*Olidiana*)  
*Singillatus ventrospinatus*, **sp. nov.**  
*Singillatus ventrosolus* (Nielson) 1982: 103, **comb. nov.** (*Olidiana*)  
*Singillatus viraktamathi* (Nielson) 1990: 454, **comb. nov.** (*Olidiana*)  
*Singillatus xanthopronotatus* (Zhang) 1994: 75, **comb. nov.** (*Olidiana*)



***Stylolidia* Nielson 1986: 137**

**Type species,** *Stylolidia pectinata*, sp. nov.

**Description.** The genus has features similar to *Olidiana* in general habitus and to *Taharana* in aedeagal characters. Absence of aedeagal processes and presence of spines distally on the style will readily distinguish the genus.

*Stylolidia* was originally described from 2 species from Malaysia. One new species was recently described from Thailand with a key to 3 known species (Freytag 2010a).

**Key to the species of *Stylolidia* (males)**

1. Pygofer in lateral view with small lobe on caudoventral margin, lobe hooked or semi oval; style with short, apical spines or with row of lateral spines in apical half of apophysis ..... **2**
- Pygofer in lateral view hooked apically on caudoventral margin (Fig. 3, Nielson 1986); style with very long spines on apex of apophysis, spines about as long as apophysis (fig. 4, 6, Nielson 1986) (Malaysia) ..... ***S. pectinata* Nielson**
- 2(1). Style with short apical spines, spines about 1/3 as long as apophysis (fig. 3, 4, Freytag 2010a) (Thailand) ..... ***S. khaoensis* Freytag**
- Style with row of short lateral spines in distal half of apophysis (fig. 11, 13, Nielson 1986) (Malaysia) ..... ***S. cristata* Nielson**

**Checklist of species of *Stylolidia*.**

*Stylolidia cristata* Nielson 1986: 138

*Stylolidia khaoensis* Freytag 2010a: 119

*Stylolidia pectinata* Nielson 1986: 137

***Taharana* Nielson 1982**

**Type-species.** *Coelidia sparsa* Stål 1854: 254

**Description.** The genus *Taharana* is delimited to species possessing a long, narrow, tubular aedeagal shaft which is glabrous except for a longitudinal patch of very fine teeth on the dorsoapical margin. In lateral view, the apex is abruptly curved dorsally at an angle about 45° whereas in related genera the apex is not so curved. The style is very small with a short, digitate apophysis. The pygofer caudodorsal and caudoventral processes vary in configuration. Thirty one species, including 21 new species comprise the genus which is widespread, primarily in the Oriental region.

**Intraspecific variation.** Variation in specific features of the male genitalia is often recognized among large population of a single species. Coelidiine species, until recently, were rarely collected in large numbers. Flight traps have produced numerous specimens of individual species, known and unknown. Among exemplars, variation is often recognized which may represent several species depending on interpretation of the data. However, a case presented herein is held in abeyance because several forms evident in populations of *Taharana serrata* Nielson were too close to call. Nine different morphological variations of the caudoventral and caudodorsal processes of the pygofer were recognized in a population of 68 males representing 9 different locations in Thailand. These features are among several that separate several *Taharana* species (Table 2).

**Key to species of *Taharana* (males)**

1. Pygofer in lateral view with bifurcate or trifurcate caudodorsal process ..... **2**  
 — Pygofer in lateral view with single, long caudodorsal process ..... **3**
- 2(1). Pygofer in lateral view with bifurcate caudodorsal process (fig. 177, Nielson 1982) (Cambodia, Vietnam) ..... ***T. bifurcata* Nielson**  
 — Pygofer in lateral view with trifurcate caudodorsal process (fig. 161, Nielson 1982) (Vietnam).  
 ..... ***T. trifurcata* Nielson**
- 3(1). Pygofer in lateral view with caudoventral process glabrous along ventral margin ..... **4**  
 — Pygofer in lateral view with caudoventral margin serrate or toothed on ventral margin ..... **9**
- 4(3). Pygofer in lateral view with straight caudoventral process ..... **5**  
 — Pygofer in lateral view with twisted caudoventral process (Fig. 274) (Thailand) .....  
 ..... ***T. caverna*, sp. nov.**
- 5(4). Pygofer in lateral view with caudodorsal process sinuate or abruptly curved dorsally ..... **6**  
 — Pygofer in lateral view with caudodorsal process nearly straight or slightly curved ..... **7**
- 6(5). Pygofer in lateral view with caudodorsal process sinuate, caudoventral process slender, nearly straight (fig. 173, Nielson 1982) (China, Malaysia, Philippines, Vietnam, Taiwan, Thailand)  
 ..... ***T. sparsa* (Stål)**  
 — Pygofer in lateral view with caudodorsal process abruptly curved dorsally near middle, caudoventral process curved (fig. 169, Nielson 1982) (Vietnam) ..... ***T. curvata* Nielson**
- 7(5). Pygofer in lateral view with long caudodorsal process; subgenital plate glabrous ..... **8**  
 — Pygofer in lateral view with very short caudodorsal process (fig. 189, Nielson 1982); subgenital plate with small, apical spine (Philippines) ..... ***T. dubia* (Walker)**
- 8(7). Pygofer in dorsal view with caudodorsal processes very broad in apical 1/3 (Fig. 282); aedeagus in lateral view with shaft inflated basally, very slender in distal 2/3 (Fig. 284); connective with anterior arms rounded on ventral margin (Fig. 287) (Thailand) ..... ***T. sublamina*, sp. nov.**  
 — Pygofer in dorsal view with caudodorsal processes constricted subapically (Fig. 289); aedeagus in lateral view with shaft not inflated, nearly evenly narrow throughout (Fig. 291); connective with anterior arms angled on ventral margin (Fig. 294) (Thailand) .... ***T. abstrusa*, sp. nov.**
- 9(3). Pygofer in lateral view with caudoventral process triangulate or narrow, sinuate apically, with or without teeth ..... **10**  
 — Pygofer in lateral view with caudoventral process broad, serrate ventrally in distal half ..... **19**
- 10(9). Pygofer in lateral view with caudoventral process triangulate apically ..... **11**  
 — Pygofer in lateral view with caudoventral process sinuate, serrate in distal 1/3 (Laos, Vietnam)  
 ..... ***T. stipulata* Nielson**
- 11(10). Pygofer in lateral view with caudodorsal process narrowed, hooked apically ..... **12**  
 — Pygofer in lateral view with caudodorsal process not as above ..... **13**
- 12(11). Pygofer in lateral view with caudoventral process triangulate apically (fig. 153, Nielson 1982); subgenital plate with few apical microsetae (fig. 155, Nielson 1982) (Thailand) .....  
 ..... ***T. triangulata* Nielson**  
 — Pygofer in lateral view with caudoventral processes slightly bulbous apically, small subapical spine on ventral margin (Fig. 296); subgenital plate glabrous (Fig. 303) (Thailand) .....  
 ..... ***T. biunca*, sp. nov.**

- 13(11). Pygofer in lateral view with caudoventral process serrate ..... 14  
 — Pygofer in lateral view with caudoventral process not serrate ..... 16
- 14(13). Pygofer caudoventral process serrate on apical margin; caudodorsal processes in dorsal view with apex obliquely truncate ..... 15  
 — Pygofer caudoventral process serrate on apical margin and basally (Fig. 304), caudodorsal processes in dorsal view clawed, apices pointed (Fig. 305) (Thailand) ..... *T. lacertosa*, sp. nov.
- 15(14). Subgenital plate narrow, long, longer than length of pygofer (Fig. 317); dorsal connective short, about  $\frac{1}{4}$  as long as aedeagus (Fig. 313); connective large, stem broad (Fig. 316) (Thailand) ..  
 ..... *T. biavicula*, sp. nov.  
 — Subgenital plate moderately long, shorter than length of pygofer (Fig. 324); connective small, stem digitate (Fig. 323) (Thailand) ..... *T. brevicutata*, sp. nov.
- 16(13). Pygofer caudoventral, triangulate, apical process acutely angled apically ..... 17  
 — Pygofer caudoventral, triangulate, apical process bluntly angled apically (Fig. 325); aedeagus in lateral view abruptly narrowed medially (Fig. 327) (Thailand) ..... *T. truncata*, sp. nov.
- 17(16). Pygofer caudoventral process narrowly triangulate apically; connective medial ridge absent ....  
 ..... 18  
 — Pygofer caudoventral process broadly triangulate apically (Fig. 332); connective medial ridge present (Thailand) ..... *T. angusta*, sp. nov.
- 18(17). Pygofer caudoventral, triangulate apical process with prominent subapical spine on ventral margin (Fig. 339); caudodorsal processes in dorsal view rounded apically (Fig. 340); dorsal connective short, not reaching midlength of aedeagal shaft (Fig. 341) (Thailand) .....  
 ..... *T. exiquitas*, sp. nov.  
 — Pygofer caudoventral, triangulate apical process with weak subapical spine on ventral margin (Fig. 346); caudodorsal processes in dorsal view truncate apically (Fig. 347); dorsal connective long, extending beyond midlength of aedeagal shaft (Fig. 347) (Thailand) .....  
 ..... *T. intimacalcara*, sp. nov.
- 19(9). Pygofer in lateral view with caudodorsal margins tapered to blunt or narrow apex ..... 20  
 — Pygofer in lateral view with caudodorsal margins forming long, narrow to broad, distinctive process ..... 24
- 20(19). Pygofer in lateral view with narrow, serrate caudoventral process; subgenital plate glabrous ...  
 ..... 21  
 — Pygofer in lateral view with broad, serrate caudoventral process (fig. 185, Nielson 1982); subgenital plate with few microsetae apically (fig. 187, Nielson 1982) (Thailand) ..... *T. goldi* Nielson
- 21(20). Pygofer caudodorsal processes in dorsal view tapered apically ..... 22  
 — Pygofer caudodorsal processes in dorsal view truncate apically ..... 23
- 22(21). Pygofer in lateral view with caudodorsal process narrow, curved apically (Fig. 353), in caudal view strongly hooked apically (Fig. 354); aedeagal shaft in dorsal view inflated in basal  $\frac{3}{4}$  (Fig. 356); dorsal connective in lateral view short, not reaching midlength of aedeagal shaft (Fig. 355) (Thailand) ..... *T. incisura*, sp. nov.  
 — Pygofer in lateral view with caudodorsal process not as above (Fig. 361); in caudal view slightly hooked (Fig. 362); aedeagal shaft in dorsal view slightly inflated in basal half (Fig. 364); dorsal connective in lateral view long, extending distad of midlength of shaft of aedeagus (Fig. 363) (Thailand) ..... *T. phetchabunensis*, sp. nov.

- 23(21). Subgenital plate very narrow throughout (Fig. 374); pygofer caudodorsal processes in dorsal view inflated in inner lateral margins (Fig. 369); connective with lateral arms broadly separated (Fig. 373) (Thailand) ..... ***T. subtumida*, sp. nov.**
- Subgenital plate broad throughout except for base and apex (Fig. 381); pygofer caudodorsal processes in dorsal view without inflated inner lateral margins (Fig. 376); connective with lateral arms narrowly separated (Fig. 380) (Thailand) ..... ***T. protriangulata*, sp. nov.**
- 24(19). Pygofer caudodorsal process in lateral view with spine on dorsal margin or with short, digitate lobe ventroapically ..... **25**
- Pygofer caudodorsal process in lateral view without such process ..... **27**
- 25(24). Pygofer caudodorsal process with spine, caudoventral process with fine teeth on ventral margin ..... **26**
- Pygofer caudodorsal process with short digitate lobe ventroapically, caudoventral process with sinuate, toothed ventral margin (Fig. 382) (Thailand) ..... ***T. mediolata*, sp. nov.**
- 26(25). Pygofer caudodorsal process with spine near middle of dorsal margin, caudoventral process with coarse teeth apically basad to near middle of ventral margin (Fig. 389) (Thailand) ..... ***T. subspinata*, sp. nov.**
- Pygofer caudodorsal process with subapical spine (fig. 157, Nielson 1982); caudoventral process with fine teeth along middle of ventral margin (fig. 157, Nielson 1982) (Malaysia, Thailand, Vietnam) ..... ***T. serrata* Nielson**
- 27(24). Pygofer in dorsal view with caliperate caudodorsal processes ..... **28**
- Pygofer in dorsal view with broadly curved, caudodorsal processes ..... **29**
- 28(27). Pygofer caudoventral process long, subrectangulate in distal  $\frac{3}{4}$ , row of coarse teeth on ventral margin (Fig. 396); connective moderately large, stem ovate (Fig. 401) (Thailand) ..... ***T. minutura*, sp. nov.**
- Pygofer caudoventral process moderately long, ventral margin broadly curved, finely toothed (Fig. 403); connective small, stem digitate (Fig. 408) (Thailand) ..... ***T. forcipia*, sp. nov.**
- 29(27). Pygofer in lateral view with sharply pointed caudodorsal process (Fig. 410), in dorsal view with small tooth on inner lateral margin (Fig. 411), caudoventral process sharply pointed (Fig. 410) (Thailand) ..... ***T. gracilata*, sp. nov.**
- Pygofer in lateral view with apical, truncate caudodorsal process (Fig. 417), in dorsal view without such spine (Fig. 418), caudoventral process bluntly pointed (Fig. 417) (Thailand) .... ***T. oblongiserrata*, sp. nov.**

### Description of species

#### ***Taharana caverna*, sp. nov.**

(Plate 5C, Fig. 274-281)

**Description. Length.** Male 7.40-7.60 mm., female 8.50-8.60 mm.

**External morphology.** Moderately large, slender species. General color dark brown to black; forewings with small, dark yellow stripes on veins, cells with numerous, dark yellow, irregular shaped markings; mesonotum black with several dark yellow spots; pronotum black with dark yellow bullae; crown black with dark yellow, contiguous line of spots on each side of middle; eyes light brown; face light to dark brown; clypeus dark brown; clypellus light brown with dark brown markings medially; head narrower than pronotum, anterior margin obtusely rounded; crown short, narrower than width of eyes, produced anteriorly about  $\frac{1}{4}$  of entire length, convergent basally; eyes large, elongate ovoid; pronotum large, slightly longer medially than crown, dorsal surface bullated; mesonotum large, about half longer

medially than pronotum; clypeus long, narrow, lateral margins broadly convex; clypellus long, narrow, apex flared laterally.

**Male genitalia.** Pygofer in lateral view with dorsal margin excavated, long sharply pointed caudodorsal process, caudoventral process long, twisted medially, glabrous (Fig. 274), in dorsal view processes long, narrow throughout (Fig. 275); aedeagus long, inflated in basal 2/5 in dorsal view, tubular in distal 3/5, broadly curved in lateral view, small teeth on dorsal margin within distal fifth, gonopore near middle (Fig. 276, 277); style small, short narrow apophysis (Fig. 278, 279); dorsal connective moderately long, extremely narrow (Fig. 276, 277); connective large, anterior arms short, extended laterally, outer margins extended anterior to anterior margin of membrane, medial ridge absent; stem small, digitate (Fig. 280); subgenital plate long, somewhat narrow, glabrous (Fig. 281).

**Female.** Segment VII large, twice as long as penultimate segment, posterior margin sinuate.

**Material examined.** Holotype male. MALAYSIA: Perak Cameron Highlands, Batu [=Mile], 19.viii. envir., 04° 22.2'N., 101° 20.0'E., 590 m., sweeping/beating along stream, P. Banar, P. Pacholatko & M. Tryzna, leg. 22.iv.2009. / Collection Moravské Museum, Brno (MMBC). Paratypes. 2 males, 4 females, same data as holotype (MMBC, MLBM).

**Etymology.** The name of the species is descriptive for the excavated caudodorsal margin of the pygofer.

**Remarks.** This species is easily distinguished by the excavated caudodorsal margin of the pygofer.

***Taharana sublamina*, sp. nov.**

(Plate 5D, Fig. 282-288)

**Description. Length.** Male 7.20 mm., female unknown.

**External morphology.** Moderate size, slender species. General color black; forewings black, veins with short, yellow stripes, cells with brown, irregularly shaped markings; mesonotum black, with few small, yellow spots; pronotum black, bullae yellow; crown dark brown; eyes dark brown; face light brown except for black clypellus; head narrower than pronotum, anterior margin somewhat narrowly rounded; crown short, narrower than width of eyes, slightly produced anteriorly, lateral margins convergent basally; pronotum moderately large, slightly longer medially than crown, surface bullated; mesonotum large, nearly twice as long medially as pronotum; clypeus long, broad, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, narrow, apex flared.

**Male genitalia.** Pygofer in lateral view triangulate, glabrous, with long narrow caudodorsal process, pointed apically, caudoventral process long, curved, tapered apically, without serrations on ventral margin (Fig. 282), in dorsal view processes slightly broad in apical 1/3, obliquely truncate apically (Fig. 283); aedeagus long, shaft inflated in basal 2/5 in dorsal and lateral views, patch of small teeth on dorsoapical margin (Fig. 284, 285); style in lateral view very small, apophysis curved, digitate (Fig. 286); dorsal connective long, narrow (Fig. 284); connective moderately large, anterior arms broad, medial ridge absent, stem small, sub-ovate (Fig. 287); subgenital plate long, broad, glabrous (Fig. 288).

**Material examined.** Holotype male. THAILAND: Chaiyaphum, Pa Hin Ngam NP, Dry evergreen / forest at waterfall, 15° 34.802'N 101° 25.990'E., 430 m., Pan traps, 12- / 13.xi.2006, Katae Sa-nog and Bua- Kaw Adnafai, leg. T1024 (QSBG). Paratype, 1 male, same data as holotype except T1638 (MLBM).

**Etymology.** The name of the species is descriptive for the near blade-like caudoventral pygofer process.

**Remarks.** From *T. forcipia* to which it is similar in configuration of caudoventral pygofer process and inflated aedeagus, *T. sublamina* can be separated by the following combinations of features: long tapered caudodorsal process in lateral view, broad, obliquely truncate in dorsal view, narrower, tapered caudoventral pygofer process and by the larger anterior arms of the connective.

***Taharana abstrusa*, sp. nov.**

(Plate 5E, Fig. 289-295)

**Description. Length.** Male 7.40-7.50 mm., female unknown.

**External morphology.** Moderate size, slender species. General color dark brown to black. Forewings with numerous brown irregular shaped markings in cells, veins with short, dark yellow stripes; mesonotum black with few dark yellow spots; pronotum black, bullae dark yellow; crown light brown to black; eyes grey to dark brown; face light to dark brown; head narrower than pronotum, anterior margin obtusely rounded, crown short, narrower than width of eyes, slightly produced anteriorly, lateral margins convergent basally; eyes large, semiglobular; pronotum large, slightly longer medially than crown, surface bullated; mesonotum large, nearly twice as long medially as pronotum; clypeus long, moderately broad, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, narrow, apex flared.

**Male genitalia.** Pygofer in lateral view subtriangulate, glabrous, caudodorsal processes long, narrow with small subapical spur on dorsal margin, caudoventral processes long, narrow, sharply attenuated (Fig. 289), in dorsal view, caudodorsal processes narrow, slightly curved mesally in apical 1/3, constricted subapically, caudoventral processes triangulate apically, serrate on inner lateral margin (Fig. 290); aedeagus long, tubular, shaft slightly inflated in basal 1/4, finely toothed in apical 1/4 on dorsal surface, gonopore distad of middle (Fig. 291, 292); style small, apophysis short, digitate (Fig. 293); dorsal connective short, narrow (Fig. 291); connective large, arms tapered, medial ridge complete, stem small, sub ovate (Fig. 294); subgenital plate short, broad medially, glabrous (Fig. 295).

**Material examined.** Holotype male. THAILAND: Phetchabun, Thung Salaeng Luang NP / Pine forest, Gang Wang Yeb 16° 36.284'N 100° 53.128'E, 749 m. / Malaise trap, 22-29.vi.2007, Pongpitak and Sathit, leg. T2063 (QSBG); 3 males, same data as holotype except Nam Nao NP, Forest protection unit- Huay Praland / cave, 16° 44.963'N. 101° 27.833'E., 711 m., Pan traps, 19- / 20.i.2007, Noopean Hongyothi and Leng Janteab, leg. T1616, T1617, T1618 (QSBG, ULKY, MLBM).

**Etymology.** The name of the species is descriptive for the position of the caudoventral pygofer process, particularly the triangulate apex which can only be seen in dorsal view.

**Remarks.** From *T. lacertosa* to which it is similar in configuration of the pygofer caudoventral processes and aedeagus, *T. abstrusa* can be separated by the longer, narrower caudodorsal processes in lateral and dorsal views (short in lateral view, clawed in dorsal view in *T. lacertosa*).

***Taharana biunca*, sp. nov.**

(Plate 5F, Fig. 296-303)

**Description. Length.** Male 7.60-8.20 mm., female unknown.

**External morphology.** Moderately large, slender species. General color black. Forewings with very short, dark yellow stripes on veins, cells with numerous, irregular shaped pale brown markings; mesonotum black with few dark yellow spots or without; pronotum black, bullae dark yellow; crown brown with black stripe on each side of middle; eyes light to dark brown; face light brown throughout except for pale to dark orange, longitudinal stripe on inner margins; clypellus light brown, unmarked; head narrower than pronotum, anterior margin obtusely angulate; crown short, narrower than width of eyes; produced anteriorly about 1/4 entire length, convergent basally; eyes large, semiglobular, pronotum moderately large, about as long medially as crown, surface bullated; mesonotum, about half again medially as long as pronotum; clypeus long, narrow, lateral margins nearly parallel, clypellus narrow, apex flared laterally.

**Male genitalia.** Pygofer in lateral view sub quadrate with long caudodorsal process, process with narrow curved, apical spine, caudoventral process long, margins nearly parallel with small subapical spur on ventral margin (Fig. 296), in dorsal view caudodorsal processes very narrow throughout, curved mesally in apical half, crossing subapically (Fig. 297); aedeagus moderately long, tubular, sinuate in lateral view, shaft slightly inflated in basal half, toothed in distal 1/5 on dorsal margin, gonopore near middle (Fig. 298, 299); style small with short apophysis (Fig. 300, 301); dorsal connective long, narrow (Fig. 298, 299); connective small, anterior arms moderately broad, sub truncate apically, medial ridge

complete, stem small sub ovate (Fig. 302); subgenital plate moderately long, moderately broad, glabrous (Fig. 303).

**Material examined.** Holotype male. THAILAND: Phetchabun Khao Khu NP, Deciduous forest at Khla stream. / 16° 39.267'N 101° 07.945'E., 186 m., Malaise trap, 26.iii-2.iv.2007, Somchai Chachumman and Saink Singtong, leg., T2418 (QSBG). Paratypes. 1 male, Chaiyaphum, Pa Hin Ngam NP, car park at Tung / Pok Graejeaw, 15° 38.438'N 101° 23.576'E., 780 m., pan traps / 7-8.viii.2006, Kratae Sa-nog and Buakaw Adnafai, leg., T325 (ULKY); 1 male, Chaiyaphum Pa Hin Ngam NP, Nature trail at Lan / Hin Nau, 15° 37.615'N 101° 23.436'E., 668 m., Malaise trap, 13- / 19.ix.2006, Katae Sa-nog & Buakaw Adnafai, leg., T851 (MLBM). Additional material: 7 males. Phetchabun Nam Nao NP, Forest protection unit-Huay Pralard / cave, 16° 44.963'N. 101° 27.833'E., 711 m., pan traps, 17- / 18.i.2007, Noopean Hongyothi – Leng Janteab, leg. T1616. (QSBG).

**Etymology.** The name of the species is descriptive for the hooked apexes of the caudodorsal process and caudoventral process of the pygofer in lateral view.

**Remarks.** The hooked apex of pygofer processes will separate *T. biunca* from all other known species.

***Taharana lacertosa*, sp. nov.**

(Plate 5G, Fig. 304-310)

**Description. Length.** Male 7.60-8.20 mm., female unknown.

**External morphology.** Moderately large, slender species. General color black. Forewings black with numerous light brown, irregular shaped markings in cells, veins marked with short dark yellow stripes; mesonotum black with numerous dark yellow spots; pronotum black with dark yellow bullae; crown dark yellow with black markings on each side of middle; eyes grey to light brown; face variable, from grey to brown to black; clypeus grey to black; clypellus grey to brown; head narrower than pronotum, anterior margin broadly rounded; crown short, narrower than width of eyes, slightly produced anteriorly, lateral margins convergent basally; pronotum moderately large, short, about as long medially as crown, surface bullated; mesonotum large, nearly twice as long medially as pronotum; clypeus long, narrow, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, narrow, slightly inflated longitudinally along middle, apex flared.

**Male genitalia.** Pygofer in lateral view triangulate, glabrous, caudodorsal process very short, caudoventral processes very narrow in basal 2/3, triangulate in apical 1/3, serrate in apical 1/3 (Fig. 304), in dorsal view caudodorsal processes robust, claw like (Fig. 305); aedeagus long, tubular, in ventral view shaft inflated in basal 1/4, finely toothed in apical 1/4 on dorsal surface (Fig. 306, 307); style small with very short apophysis (Fig. 308); dorsal connective long, narrow (Fig. 306); connective moderately large, arms narrow, tapered anteriorly, stem small, ovate (Fig. 309); subgenital plate long, broad, abruptly narrowed in on inner lateral margin subapically (Fig. 310).

**Material examined.** Holotype male. THAILAND: Phetchabun Nam Nao NP, Tham Pra Laad / Forest Unit, 16° 44.963'N 101° 27.833'E., 711 m., Pan traps /2-3.viii.2006, Noopean Hongyothi, leg., T415 (QSBG). Additional material. 10 males, same data as holotype (QSBG, ULKY, MLBM), 1 male, except 16° 44.986'N 101° 27.874' E, Malaise trap, 14-21.viii.2006, Leng Janteab, leg. T428 (MLBM).

**Etymology.** The name of the species is descriptive for the paired, robust caudodorsal pygofer processes in dorsal view.

**Remarks.** From among species with serrated caudoventral processes, *T. lacertosa* can be distinguished by the more robust, curved caudodorsal processes of the pygofer in dorsal view.

***Taharana biavricula*, sp. nov.**

(Plate 5H, Fig. 311-317)

**Description. Length.** Male 6.90 mm., female unknown.

**External morphology.** Small, slightly robust species. General color black. Forewings somewhat hyaline with numerous, small, light brown, irregular shaped markings in cells, veins with short, dark yellow stripes; mesonotum black with dark yellow spots; pronotum black, bullae dark yellow; crown light brown with few black markings; eyes grey; face light to dark brown, clypeus with dark brown, longitudinal band on inner lateral margins; clypellus with 2 separate, black, transverse stripes basally; head narrower than pronotum, anterior margin narrowly rounded; crown narrower than width of eyes, produced anteriorly about  $\frac{1}{4}$  entire median length, elevated, lateral margins convergent basally; eyes large, elongate ovoid; pronotum large, about half again as long medially as crown, surfaced bullated; mesonotum large, nearly twice as long medially as pronotum; clypeus long, moderately broad, lateral margins nearly parallel, clypellus short, about  $\frac{1}{3}$  as long as clypeus, narrow, apex flared.

**Male genitalia.** Pygofer in lateral view rectangulate in basal half, glabrous, caudodorsal process long, robust, apex slightly aviculate, caudoventral process very narrow in basal  $\frac{3}{4}$ , apex buccinate, caudal margin serrate (Fig. 311), in dorsal view caudodorsal processes flared apically (Fig. 312); aedeagus moderately long, shaft tubular, slightly inflated in basal  $\frac{1}{3}$  in ventral and lateral views, finely toothed in apical  $\frac{1}{5}$  on dorsal margin, gonopore distad of middle (Fig. 313, 314); style small, apophysis digitate, about as long as base (Fig. 315); dorsal connective short, narrow (Fig. 313); connective moderately large, anterior arms tapered, medial ridge complete, stem sub ovate (Fig. 316); subgenital plate long, narrow, slightly sinuate, glabrous (Fig. 317).

**Material examined.** Holotype male. THAILAND: Loei Phu Kradueng NP, mixed deciduous forest south of Na / Noy forest unit,  $16^{\circ} 49.099'N$   $101^{\circ} 47.624'E.$ , 276 m., pan traps, 17 / 18.xi.2006, Prasit Gongphucam, leg., T1069 (QSBG).

**Etymology.** The name of the species is descriptive for the avicular apex of the pygofer caudodorsal processes in lateral and dorsal views.

**Remarks.** From species with apical triangulate caudoventral processes, *T. biavicula* can be separated by the aviculate apex of the caudodorsal processes.

***Taharana brevicutata*, sp. nov.**

(Plate 5I, Fig. 318-324)

**Description. Length.** Male 7.00-7.40 mm., female unknown.

**External morphology.** Moderately large, slender species. General color black. Forewings black with short yellow stripes on veins, numerous light brown, irregular shaped markings in cells; mesonotum black with yellow spots; pronotum black with numerous yellow spots; crown black with yellow stripe on each side of middle; eyes ivory; face black with dark brown markings inner lateral margins of clypeus, light brown markings on clypellus; head distinctly narrower than pronotum; crown short, narrower than width of eyes, slightly produced anteriorly, lateral margins slightly convex, convergent basally; pronotum moderately large, slightly longer medially than crown, surface bullated; mesonotum large, nearly twice as long as pronotum; clypeus long, broad, lateral margins broadly convex; clypellus short, narrow, apex flared laterally.

**Male genitalia.** Pygofer in lateral view moderately large, glabrous with long broad caudodorsal process, caudoventral process long, with short, triangulate apex, slightly dentate (Fig. 318), in dorsal view caudodorsal processes long, broad, slightly curved mesally, apex obliquely truncate (Fig. 319); aedeagus long, narrow, tubular, shaft slightly inflated basally, patch of small teeth dorsoapically, gonopore near middle (Fig. 320, 321); style small, broad basally, short digitate apophysis (Fig. 322); dorsal connective long (Fig. 320), connective small, anterior arms narrow, tapered lateroanteriorly, medial ridge complete, stem digitate (Fig. 323); subgenital plate moderately long, broad, glabrous, slightly curved apically on outer lateral margin (Fig. 324).

**Material examined.** Holotype male. THAILAND: Phetchabun, Nam Nao NP Hill, evergreen forest,  $16^{\circ} 44.387'N$   $101^{\circ} 34.631'E.$  / 838 m., Pan traps, 28-29.v.2007, Noopean Hongyothi and Leng Janteab, leg.



T2424 (QSBG). Paratypes. 2 males, same data as holotype (ULKY, MLBM), 1 male, same data as holotype except Helicopter landing ground, 16° 43.156'N. / 101° 35.118' E., Pan traps, 3-4.vii.2006, Noopean Hongyothi, leg. T261 (QSBG). Additional specimens examined: 16 males, similar data as in holotype except different, specific localities (QSBG).

**Etymology.** The name of this species is descriptive for the short, triangulate apex of the pygofer caudoventral process.

**Remarks.** This species is nearest to *T. biavicula* and can be separated by the smaller connective with narrower anterior arms and digitate stem.

***Taharana truncata*, sp. nov.**

(Plate 6A, Fig. 325-331)

**Description. Length.** Male 7.20 mm., female unknown.

**External morphology.** Moderate size, slightly robust species. General color black. Forewings black, cells with numerous, irregularly shaped light brown markings, veins marked with short, dark yellow stripes; mesonotum black with small dark yellow spots; pronotum black, bullae dark yellow; crown black with margins dark yellow; eyes dark yellow with black patches; face dark brown, ocellular area dark yellow; head narrower than pronotum, anterior margin broadly rounded; crown moderately long, narrower than width of eyes, produced anteriorly about ¼ of entire medial length, lateral margins convergent basally; eyes large, pronotum short, moderately large, about as long medially as crown, surface bullated; mesonotum large, nearly twice as long medially as pronotum; clypeus long, broad, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, narrow, apex flared.

**Male genitalia.** Pygofer in lateral view broadly triangulate, glabrous, caudodorsal processes long, sinuate, tapered apically, caudoventral processes narrow throughout length except for apex, obliquely truncate apically (Fig. 325), in dorsal view processes narrow in basal 2/3, curved mesally and broadened in subapical 1/3, with apex short, digitate (Fig. 326); aedeagus long, tubular, shaft inflated in nearly basal 1/3 in ventral and lateral views, finely toothed on dorsal surface in distal 1/5 (Fig. 327, 328); style small, apophysis short, digitate (Fig. 327), dorsal connective long, narrow (Fig. 329); connective moderately large, arms broad, tapered anteriorly, medial ridge nearly complete, stem small, semi ovate (Fig. 330); subgenital plate long, broad medially, slightly tapered apically, glabrous (Fig. 331).

**Material examined.** Holotype male. THAILAND: Loei Phu Ruea NP, Old road to the park, 17° 27.901'N 101° 21.301'E, 700 m. / Malaise trap, 26.xii.2006 – 2.i.2007, Patikom Tumtip, leg. T1272 (QSBG).

**Etymology.** The name of the species is descriptive for the truncate caudoventral pygofer processes.

**Remarks.** *Taharana truncata* is unique for its truncate caudoventral pygofer processes and triangular shape apex of the pygofer caudodorsal processes, all of which will distinguish the species from all known species.

***Taharana angusta*, sp. nov.**

(Plate 6B, Fig. 332-338)

**Description. Length.** Male 7.60 mm., female unknown.

**External morphology.** Moderately large, slender species. General color black. Forewings with numerous, irregularly shaped brown spots in cells, veins with short, dark yellow stripes; mesonotum black; pronotum black, bullae dark yellow; crown black with small, dark brown spots, some contiguous; eyes light brown; clypeus black, with few short, dark yellow, transverse stripes on middle of lateral margins, rest of face light tan; head narrower than pronotum, anterior margin narrowly rounded; crown nar-

rower than width of eyes, slightly produced anteriorly, lateral margins convergent basally; eyes large, semiglobular; clypeus long, broad, lateral margins broadly convex, clypellus short, about 1/3 as long as clypeus, narrow, slightly inflated longitudinally along middle, apex flared.

**Male genitalia.** Male pygofer in lateral view narrowly triangulate, glabrous, caudodorsal process short, slightly curved dorsally, apex truncate, caudoventral process with triangulate apex (Fig. 332), in dorsal view narrow, curved mesally in apical 1/3, apex pointed (Fig. 333); aedeagus moderately long, tubular, shaft in ventral view inflated in basal 1/3, finely toothed in distal 1/5 on dorsal margin (Fig. 334, 335); style in lateral view small, apophysis digitate, about as long as base (Fig. 336); dorsal connective long, narrow (Fig. 334); connective moderate size, arms tapered distally, medial ridge nearly complete, stem ovate (Fig. 337); subgenital plate long, broad, glabrous (Fig. 338).

**Material examined.** Holotype male. THAILAND: Chiang Mai, Doi Chiang Dao NP Nature trail / 19° 24.278'N 98° 55.311'E., 491 m., Pan trap, 30.ix-1.x.2007 / Songkran and Apichart, leg., T3181 (QSBG). Paratype male, same data as holotype (MLBM).

**Etymology.** The name of this species is descriptive for the narrow caudodorsal processes of the pygofer in dorsal view.

**Remarks.** From *T. brevicutata* to which it has similar caudoventral processes, *T. angusta* can be separated by the much narrower caudodorsal processes in dorsal view and by the much longer subgenital plate with evenly tapered apex.

***Taharana exiquitas*, sp. nov.**

(Plate 6C, Fig. 339-345)

**Description. Length.** Male 7.00 mm., female unknown.

**External morphology.** Moderate size, slender species. General color black. Forewings with numerous, brown, irregular shaped markings in cells, veins with short, yellow stripes; mesonotum black with numerous small yellow spots; pronotum black, bullae yellow; crown black with small yellow markings medially; face black with light brown markings on clypeus; head narrower than pronotum, anterior margin obtusely rounded; crown short, narrower than width of eyes, produced anteriorly about ¼ entire length, lateral margins convergent basally; clypeus long, broad, lateral margins parallel; clypellus short, about 1/3 as long as clypeus, narrow, apex flared.

**Male genitalia.** Pygofer in lateral view triangulate, glabrous, caudoventral process narrowly triangulate apically (Fig. 339), caudodorsal processes in dorsal view long, robust, sinuate, in dorsal view narrow, curved mesally, sub apex slightly concave on inner lateral margin, apex short, digitate (Fig. 340); aedeagus moderately long, tubular, shaft slightly inflated in basal 1/3 in ventral view, minute teeth apically on dorsal surface (Fig. 341, 342); style short, apophysis broadly digitate (Fig. 343); dorsal connective moderately long, narrow (Fig. 341); connective broad, arms narrow, medial ridge complete, stem small, ovate (Fig. 344); subgenital plate moderately long, broad medially, glabrous (Fig. 345).

**Material examined.** Holotype male. THAILAND: Loei, Phu Ruea NP, Ma Kraow ditch, 17° 29.652'N 101° 21.020'E, /1167 m., Pan traps, 6-7.xi.2006, Patikhom Tumtip, leg, T1109 (QSBG). Paratype. 1 male, same data as holotype (MLBM).

**Etymology.** The species name is descriptive for the small male genitalia features compared to other species.

**Remarks.** From *T. angusta* to which it is similar in pygofer caudoventral processes, *T. exiquitas* can be distinguished by the narrower triangular apex of the pygofer caudoventral processes, shorter subgenital plate, sinuate caudodorsal processes and shorter aedeagus.

***Taharana intimacalcara*, sp. nov.**

(Plate 6D, Fig. 346-352)

**Description. Length.** Male 7.20 mm., female unknown.

**External morphology.** Medium size, robust species. General color black. Forewings black with small, yellow stripes on veins, numerous, irregular, yellowish brown markings in cells; mesonotum black with few small yellow spots; pronotum black, bullae yellow; crown yellow with irregular black stripes on each side of middle; eyes translucent; face black except yellow genae and lorae; head distinctly narrower than pronotum, anterior margin nearly acutely rounded; crown long, narrower than width of eyes, produced anteriorly about  $\frac{1}{4}$  entire length, lateral margins convergent basally; eyes large, semiglobular; pronotum moderately large, slightly longer medially than crown, surface bullated; mesonotum moderately large, about as long medially as pronotum; clypeus long, broad, lateral margins broadly convex; clypellus short, about  $\frac{1}{3}$  as long as clypeus, narrow, apex flared.

**Male genitalia.** Pygofer in lateral view subrectangulate, glabrous, caudodorsal process long, broad, sinuate, caudoventral processes slender, slightly enlarged subapically with small ventral tooth on ventral margin (Fig. 346), in dorsal view long, narrow, with small, subbasal spur on inner lateral margins (Fig. 347); aedeagus moderately long, tubular, shaft inflated nearly in basal half, patch of fine teeth dorsoapically (Fig. 348, 349); style small, moderately long apophysis (Fig. 350); dorsal connective long, very slender (Fig. 348); connective small, anterior arms tapered anteriorly, medial ridge absent; stem small, sub ovate (Fig. 351); subgenital plate long, broad in outer  $\frac{4}{5}$ , glabrous (Fig. 352).

**Material examined.** Holotype male. THAILAND: Loei Phu Ruea NP, office, 17° 28.826'N 101° 21.330'E., 860 m. / Malaise trap, 12-19.vii.2006, Patikhom Tantip, leg, T314 (QSBG).

**Etymology.** The name of this species is descriptive for the small spur on the inner lateral margins of the pygofer caudodorsal processes.

**Remarks.** From *T. brevicutata* to which it is similar in configuration of the caudoventral process, *T. intimacalcara* is separated by the longer and sinuate caudodorsal process in lateral view, presence of the small subapical spur on the inner lateral margins of the caudodorsal processes in dorsal view, presence of medial ridge and sub ovate stem on the connective and longer subgenital plate.

***Taharana incisura*, sp. nov.**

(Plate 6E, Fig. 353-360)

**Description. Length.** Male 8.20 mm., female unknown.

**External morphology.** Moderately large, slender species. General color black. Forewings black with numerous, small dark, irregular yellow markings in cells; mesonotum black with dark yellow spots; pronotum black, bullae dark yellow, crown yellow with black markings in each side of middle, eyes dark brown; face yellow, short brown transverse stripes on inner lateral margins, clypellus yellow with tinge of brown medially; head narrower than pronotum, anterior margin obtusely rounded; crown short, broad, slightly narrower than width of eyes; pronotum large, nearly twice as long medially as crown; mesonotum large, nearly half again as long medially as pronotum; clypeus long, narrow, lateral margins broadly convex; clypellus short, narrow, lateral margins parallel.

**Male genitalia.** Male pygofer in lateral view broadly triangular, caudodorsal process short, broad basally, narrow, curved distally, caudoventral process long, broad in apical half, serrate on ventral margin in apical half (Fig. 353), in dorsal view caudodorsal processes narrowed apically, hooked apically (Fig. 354); aedeagus moderately long, shaft inflated in basal half, slightly inflated in distal  $\frac{1}{5}$  in dorsal view, in lateral view apex curved laterally, toothed on dorsal margin in apical region (Fig. 355, 356); style small, apophysis short, digitate (Fig. 357, 358); dorsal connective short, narrow (Fig. 355); connective moderately large, anterior arms curved anteriorly, medial ridge complete, stem broad, sub ovate (Fig. 359); subgenital plate long, broad, sparsely setose apically (Fig. 360).

**Material examined.** Holotype male. THAILAND: Phetchabun, Thung Salaeng, Luang, Pine forest, Gang Wang Nam Yen, 16° 36.284'N 10° 53.128' E., 749 m. / pan trap, 19-20.vi.2007, Pongpitak and Sathit, leg. T2055 (QSBG).

**Etymology.** The name of the species is descriptive for the evenly serrated ventral margin of the caudoventral pygofer process.

**Remarks.** This species can be distinguished by the combination of the following features: Aedeagus inflated in basal half in dorsal view, pygofer caudodorsal process narrow apically and curved laterally in lateral and dorsal views and the broad subgenital plate.

***Taharana phetchabunensis*, sp. nov.**

(Plate 6F, Fig. 361-367)

**Description. Length.** Male 7.30-7.90 mm., female unknown.

**External morphology.** Moderate size, slender species. General color dark brown to black. Forewings with short, yellow stripes on veins, cells with numerous, small, irregular shaped brown spots; mesonotum black with small, yellow spots; pronotum black, bullae yellow; crown brown to black, with dark brown to black markings; eyes light to dark brown; face yellow with reddish brown longitudinal stripe on inner lateral margins of clypeus, clypellus with suffused, narrow, longitudinal stripe medially; head narrower than pronotum, anterior margin obtusely rounded; crown short, slightly narrower than width of eyes, produced about ¼ entire length, lateral margins convergent basally; eyes large, semiglobular; pronotum large, nearly twice as long as crown; surface bullated; mesonotum large, about 1/3 longer medially than pronotum; clypeus long, narrow, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, slightly inflated longitudinally along middle, narrow, apex flared laterally.

**Male genitalia.** Pygofer in lateral view triangulate, glabrous, tapered to blunt point, caudoventral process very long, narrowly laminate, serrated on ventral margin about apical half, small spine on dorsoapical margin (Fig. 361), in dorsal view caudodorsal processes very broad, slightly tapered and curved apically with few microsetae (Fig. 362); aedeagus long, tubular, shaft broad in basal ¼ in dorsal view, small patch of small teeth in apical 1/7, gonopore in apical 4/5 (Fig. 363, 364); style very small, base large, short narrow apophysis (Fig. 365); dorsal connective long, narrow (Fig. 366); connective small, arms narrow, medial ridge incomplete, stem large, ovate (Fig. 363); subgenital plate long, broad, glabrous (Fig. 367).

**Material examined.** Holotype male. THAILAND: Phetchabun, Nam Nao NP, Forest protection unit - Huay Praelard / cave, 16° 44.964'N 101° 27.833'E., 711 m., Pan traps / 21.i.2007-22.i.2007, Noopean Hongyothi – Leng Janteab, leg. T1620 (QSBG). Additional material examined: Paratypes: 1 male, same data as holotype (QSBG); 3 males, same data as holotype except 20-21.i.2007, T1619 (QSBG); 2 males, same data as holotype except 16-17.i.2007, T1615 (MLBM, ULKY); 1 male, same data as holotype, 18-19.i.2007, T1617 (QSBG); 1 male, same data as holotype except 19-20.i.2007, T1618 (QSBG); 1 male, same data as holotype, 7-14.viii.2006 T424 (QSBG); 44 males, same data as holotype except various collecting dates and T numbers (QSBG).

**Etymology.** The name of the species is after the collection locality of Phetchabun which produced 54 specimens, all collected in pan traps.

**Remarks.** The species is nearest to *T. incisura* and can be separated by the shorter subgenital plate, shorter inflated base of the aedeagal shaft, longer dorsal connective, smaller and broader arms of the connective, broader apical 1/4 of the pygofer and shorter row of ventral teeth with caudodorsal spine on the pygofer caudoventral process.

***Taharana subtumida*, sp. nov.**

(Plate 6G, Fig. 368-374)

**Description. Length.** Male 7.00-7.60 mm., female unknown.

**External morphology.** Moderate size, slightly robust species. General color black. Forewings with numerous light brown, irregular shaped markings in cells, veins marked with dark yellow, short stripes;

mesonotum black with small dark yellow spots; pronotum black, bullae dark yellow; crown dark yellow with black markings; eyes light brown; face light to dark brown, sometimes with clypeus bordered with dark brown; head narrower than pronotum, anterior margin obtusely rounded; crown short, broad, narrower than width of eyes, slightly produced anteriorly, lateral margins convergent basally, eyes large, semiglobular; pronotum large, slightly longer medially than crown, surface bullated; mesonotum large, nearly twice as long medially as pronotum; clypeus long, broad, lateral margins broadly convex, clypellus short, about 1/3 as long as clypeus, narrow, apex flared.

**Male genitalia.** Pygofer in lateral view somewhat narrowly triangular, glabrous, caudoventral process nearly parallel throughout, serrate on ventral margin in apical half (Fig. 368), caudodorsal processes inflated on inner lateral margin to near apex, apex obliquely truncate (Fig. 369); aedeagus long, tubular, shaft inflated in basal ¼ in ventral and lateral views, finely toothed in apical 1/7 on dorsal surface (Fig. 370, 371); style small, apophysis short, digitate, about as long as base (Fig. 372); dorsal connective long, narrow (Fig. 370); connective small, broad, arms narrow, medial ridge complete, stem large, ovate (Fig. 373); subgenital plate long, narrow, glabrous (Fig. 374).

**Material examined.** Holotype male. THAILAND: Ubon Ratchathani, Pha Taem NP, Phu Krajeaw foothill, 15° 39.989'N / 105° 30.468'E., Pan trap 7-8.vi.2007, Tongcam and Banlu, leg. T2203 (QSBG). Additional material: 2 males, same data as holotype except First level, Huay / Sanom waterfall, 15° 27.407' N 105° 34.867'E., 230 m., Pan trap, 5- / 6.v.2007, Sorawit Mingman, leg., T2180 (ULKY); 1 male, Loei Phu Kradueng NP, Dry dipterocarp forest at Loei / Malaise trap 18-26.ix.2006, Sutin Glong-lasae, leg. T952 (MLBM); 1 male, same data as holotype except Saengjan waterfall, 15° 31.985' N / 105° 35.774'E, 155 m., Pan traps, 7-8.ix.2006, Mitchai Sai-ngam, leg. T883 (QSBG).

**Etymology.** The name of the species is descriptive for the pygofer caudodorsal processes which are inflated from base to sub apex.

**Remarks.** From *T. mediolata* to which it is nearest in caudodorsal and caudoventral pygofer processes, *T. subtumida* can be separated by the clearly inflated pygofer caudodorsal processes in dorsal view, its tapered apex in lateral view, the straight ventral margin of the pygofer caudoventral processes (inflated medially in *T. mediolata*) and the straight inner lateral margin of the subgenital plate (apex curved laterally in *T. mediolata*).

### ***Taharana protriangulata*, sp. nov.**

(Plate 6H, Fig. 375-381)

**Description. Length.** Male 7.60 mm., female unknown.

**External morphology.** Moderate size, robust species, General color black. Forewings black, veins with short yellow stripes, cells with brown, irregular shaped markings; mesonotum black with yellow spots; pronotum black, bullae yellow; crown light yellow, marked with black spots; eyes light brown; face yellow, clypeus with orange longitudinal band on inner lateral margin; head slightly narrower than pronotum, anterior margin broadly rounded; crown short, about as wide as width of eyes, slightly produced anteriorly, lateral margins convergent basally; pronotum moderately large, slightly longer medially than crown; mesonotum large, nearly twice as long medially as pronotum; clypeus long, broad, lateral margins broadly convex; clypellus short, narrow, apex flared.

**Male genitalia.** Pygofer in lateral view narrowly triangular, glabrous, caudodorsal process short, tapered apically, caudoventral process long, apical half serrate on ventral margin (Fig. 375), in dorsal view, caudodorsal processes slightly bowed, apex sub triangulate (Fig. 376); aedeagus long, tubular, shaft inflated in basal ¼, patch of small teeth on dorsoapical margin, gonopore near middle (Fig. 377, 378); style small, very short, digitate apophysis (Fig. 379); dorsal connective moderately long, narrow (Fig. 377); connective small, anterior arms slightly curved, medial ridge complete, stem small, digitate (Fig. 380); subgenital plate long, broad, glabrous (Fig. 381).

**Material examined.** Holotype male. THAILAND: Sakon Nakhon, Phu Phan NP, Behind office / 17° 03.488'N 103° 58.497'E., Malaise trap, 27.vii-2.viii.2006. / Sailong, Tongboonch, leg. T208 (QSBG).

**Etymology.** The species name is descriptive for the triangulate apex of the pygofer in lateral view and caudodorsal apex in dorsal view.

**Remarks.** The species is most similar to *T. incisura* in configuration of the caudoventral pygofer process and can be distinguished by the following combination of characters: apex of caudodorsal processes triangulate, (digitate in *T. incisura*), shaft of aedeagus inflated in basal ¼, (inflated in basal half in *T. incisura*), shorter, narrower subgenital plate and smaller style and connective than in *T. incisura*.

***Taharana mediolata*, sp. nov.**

(Plate 6I, Fig. 382-388)

**Description. Length.** Male 7.00-7.30 mm., female unknown.

**External morphology.** Medium size, slender species. General color black. Forewings black, veins with short yellow stripes, cells with numerous, irregular shaped, light brown markings; mesonotum black with few yellow spots; pronotum black, bullae yellow; crown brown with black markings; eyes light brown, translucent; face dark brown, lateral sutures of clypeus black; head narrower than pronotum, anterior margin nearly acutely rounded, crown short, narrower than width of eyes, lateral margins convergent basally; eyes large, semi oval; pronotum large, nearly half again medially as long as crown; mesonotum large, nearly twice as long medially as pronotum; clypeus long, broad, lateral margins broadly convex, slightly excised near middle; clypellus short, about 1/3 as long as clypeus, narrow, apex flared.

**Male genitalia.** Pygofer in lateral view elongate, caudodorsal process very broad, apex abruptly narrowed, glabrous, caudoventral process long broad medially, serrate on ventral margin (Fig. 382), in dorsal view broad in basal half, apex obliquely truncate (Fig. 383); aedeagus long, tubular, inflated in basal 1/5 in dorsal view, patch of fine teeth on dorsoapical margin, gonopore near middle (Fig. 384, 385); style small, short, digitate apophysis (Fig. 386); dorsal connective long, very narrow (Fig. 384); connective small, anterior arms curved anteriorly, stem small, ovate (Fig. 387); subgenital plate long, narrow, curved in apical 1/5, glabrous (Fig. 388).

**Material examined.** Holotype male. THAILAND: Ratchthani Pha Taem NP, Saengjan Waterfall, 15° 31.985'N. / 105° 35.774'E., Pan traps, 8-9.ix.2006, Mitchai Sai-gnam, leg. T884 (QSBG). Paratypes, 1 male, same data as holotype except Foot of Phu Kra Jeaw. 15° 39.989'N / 105° 30.468'E., Pan traps, 9-10.xii.2006, Thongcome and Pakdee, leg. T1197 (ULKY); 1 male, same data as holotype except / waterfall, 15° 31.985'N. 105° 35.774'E., 155 m., / 10.iii.2007, Porntip Tonsu and Bunlu Sapsiri, leg. T2138 (MLBM).

**Etymology.** The name of the species is descriptive for the medial broad caudoventral pygofer process.

**Remarks.** From *T. protriangulata* to which it is similar in pygofer features, *T. mediolata* can be distinguished by the broad caudodorsal processes with abruptly narrowed apex in lateral view and broad in basal 3/4, broad medial caudoventral process and narrow, curved subgenital plate.

***Taharana subspinata*, sp. nov.**

(Plate 7A, Fig. 389-395)

**Description. Length.** Male 7.00-7.70 mm., female unknown.

**External morphology.** Moderately small, slender species. General color black. Forewings with small yellow stripes, cells with numerous, small, brown, irregular shape markings; mesonotum black with few dark yellow spots; pronotum black, bullae dark yellow; crown tannish with black markings, eyes translucent to dark brown; face tannish to light brown, sometimes marginal junctures black; head narrower than pronotum, anterior margin nearly acutely rounded; crown short, broad, as wide as width of eyes, produced anteriorly about ¼ of entire length, lateral margins convergent basally; eyes large, elongate ovoid; pronotum large, slightly longer medially than crown, surface bullated; mesonotum large, nearly twice as long as pronotum; clypeus long, narrow, lateral margins broadly convex; clypellus narrow, lateral margins parallel to base.

**Male genitalia.** Pygofer in lateral view moderately large, sub ovate except for with long caudodorsal process, process with subapical spine on dorsal margin, caudoventral process serrate on ventral margin, toothed apically (Fig. 389); aedeagus moderately long, inflated subbasally in dorsal view, sinuate in lateral view, patch of teeth on dorsal margin in distal fifth, gonopore near middle of shaft (Fig. 390, 391); style small with short, narrow apophysis (Fig. 392); dorsal connective moderately long, narrow (Fig. 390, 391); connective small, anterior arms narrow, medial ridge incomplete, stem small (Fig. 393, 394); subgenital plate moderately long, very broad, with few setae subapically on outer lateral margin (Fig. 395).

**Material examined.** Holotype male. THAILAND: Sakon Nakhon, Phu Phan NP, Behind office, 17° 03'.521'N. 103° 58.450'E., / Pan traps, 9.vii.2006, Winlon Kongnara, leg., T198 (QSBG); Paratypes: 1 male, same data as holotype except deciduous dipterocarp forest. / 16° 55.449' N 104° 10.757'E., 295 m., Malaise trap, 17-23.vii.2006. / Manop Ngoyjansri and Chatree Cheaukamjan, leg., T298 (QSBG); 1 male, same data as holotype except Phu Phan NP reservoir, 16° 55.655'N. / 104° 10.658'E., 280 m., pan traps, 6.vii.2006-5.vii.2007, Manop Ngoyjansri and Chatree Cheaukamjan, leg., T282; 1 male, same data as holotype except Phu Phan NP channel. / 16° 55.639' N., 104° 10.748' E., 295 m., Malaise trap, 17-23.vii.2006 / Manop Ngoyjansri and Chatree Cheaukamjan, leg., T295 (ULKY); 1 male, same data as holotype except T190 (MLBM).

**Etymology.** The name of the species is descriptive for the subapical spine on the pygofer caudodorsal process.

**Remarks.** *T. subspinata* can be easily distinguished from other species by the combination of the following characters: subapical spine on dorsal margin of the pygofer caudodorsal process, narrow, serrated caudoventral process, sub globular-shaped pygofer, small connective, short broad subgenital plate and by the subbasal inflated aedeagus.

***Taharana minutura*, sp. nov.**

(Plate 7B, Fig. 396-402)

**Description. Length.** Male 8.00-8.20 mm., female unknown.

**External morphology.** Moderately long, slender species. General color black. Forewings black with short, yellow stripes on veins, numerous, irregular, dark brown markings in cells; mesonotum black with yellow spots; pronotum black, bullae yellow; crown light brown, black stripe on each side of middle; eyes dull ivory; face light yellow, clypeus with longitudinal, orange brown stripe on inner lateral margins; clypellus unmarked; head narrower than pronotum, broadly and evenly rounded; crown short, narrower than width of eyes, slightly produced anteriorly, lateral margins convergent basally; eyes large, semi oval; pronotum moderately large, about 1/3 longer medially than crown, surface bullated; mesonotum large, nearly twice as long as pronotum; clypeus long, narrow, lateral margins broadly convex; clypellus short, narrow, apex flared laterally.

**Male genitalia.** Pygofer in lateral view glabrous with moderately long, narrow caudodorsal process, caudoventral process long, serrate on ventral margin, spine on dorsoapical margin (Fig. 396), in dorsal view caudodorsal process caliperate (Fig. 397); aedeagus long, tubular, shaft inflated basally in dorsal view, patch of fine teeth dorsoapically, gonopore in distal ¼ (Fig. 398, 399); style small, with short apophysis (Fig. 400); dorsal connective long, narrow (Fig. 398); connective small, anterior arms narrow, tapered anteriorly, medial ridge complete, stem large, ovate (Fig. 401); subgenital plate moderately long, slightly tapered in distal fifth, glabrous (Fig. 402).

**Material examined.** Holotype male. THAILAND: Loei, Phu Kradueng NP, Koke Hi Ngam, 16° 51.817' N 101° 50.704'E., 270 m. / Pan traps, 10-11.viii.2006, Sutin Khonglasae, leg. T476 (QSBG). Paratype. 1 male, Phetchabun, Nam Nao NP, Hill evergreen forest, 16° 44.387'N. 101° 34.531'E., / 838 m., Pan traps, 31.v-1.vi.2007, Noopean Hongyothi and Leng Janteab, leg. T2427 (MLBM).

**Etymology.** The species name is descriptive for the small style and connective.

**Remarks.** From *T. phetchabunensis* to which it has a similar caudoventral process, *T. minutura* can be distinguished by the narrower caudodorsal process, tapered subgenital plate, forceps-like caudodorsal pygofer processes in dorsal view and by the narrower anterior arms of the connective.

***Taharana forcipia*, sp. nov.**

(Plate 7C, Fig. 403-409)

**Description. Length.** Male 7.30-7.70 mm., female unknown.

**External morphology.** Moderate size, slender species. General color black; forewings black with small, dark yellow stripes on veins, numerous small, irregular shape, light brown markings in cells; mesonotum black with dark yellow spots; pronotum black, surface with numerous, dark yellow bullae; crown light to dark yellow with narrow black stripe on each side of middle; eyes light to dark yellow; face light yellow; clypeus with narrow, longitudinal, reddish brown stripe on inside of lateral margins; clypellus with suffused orange longitudinal stripe medially; head narrower than pronotum, anterior margin broadly rounded; crown short, narrower than width of eyes, slightly produced anteriorly, lateral margins convergent basally; eyes large, semiglobular; clypeus long, narrow, lateral margins broadly convex, sinuate; clypellus short, narrow, apex flared laterally.

**Male genitalia.** Pygofer small, glabrous, with narrow, broadly curved caudodorsal process, caudoventral process long, ventral margin broad along middle, tapered to sharp point apically, ventral margin minutely serrate (Fig. 403), in dorsal view caudodorsal processes caliperate (Fig. 404); aedeagus moderately long, tubular, shaft inflated in basal 1/3 in ventral view, narrow in distal 2/3, patch of small teeth on dorsoapical margin, gonopore in distal 3/4 (Fig. 405, 406); style very small, short apophysis (Fig. 407); dorsal connective moderately long, narrow (Fig. 404); connective small, anterior arms narrow, medial ridge absent, stem short, digitate (Fig. 408); subgenital plate moderately long, broad, glabrous (Fig. 409).

**Material examined.** Holotype male. THAILAND: Ubon, Ratchathani, Pha Taem NP, Rong Hi Noy, 15° 40.021'N / 105° 30.448'E, 240 m., Malaise trap, 7-14.i.2007, Thongkam and Pakdee, leg. T1479 (QSBG). Paratypes. 3 males, same data as holotype except First level- Huay / Sannom waterfall, 15° 27.407' N 105° 34.867'E., 230 m. Pan traps, 6.v.2007, Sorowit Mingnan, leg., T2180 (QSBG, ULKY).

**Etymology.** The name of the species is descriptive for the forceps-like caudodorsal pygofer processes in dorsal view.

**Remarks.** This species is nearest to *T. serrata* in shape of the caudoventral process of the pygofer and can be separated by the smaller pygofer with shorter, curved, caudodorsal process in lateral view (very long, slender with subapical spine in *T. serrata*), by the narrower aedeagal shaft in lateral view and by the subgenital plate which is broader throughout.

***Taharana gracilata*, sp. nov.**

(Plate 7D, Fig. 410-416)

**Description. Length.** Male 7.00-7.40 mm., female unknown.

**External morphology.** Moderately large, slender species. General color black; forewings black with short, yellow stripes on veins, dark brown, irregularly shaped markings in cells; mesonotum black, without markings; pronotum black, bullae yellow; crown light to dark brown, without markings; eyes light to dark brown; face light brown, without markings; head narrower than pronotum, anterior margin rounded; crown moderately long, narrower than width of eyes, slightly produced anteriorly, lateral margins convergent basally; eyes large, semiglobular; pronotum moderately large, about as long medially as crown, surface bullated; mesonotum large, longer medially than pronotum; clypeus long, narrow, lateral margins broadly convex; clypellus short, narrow, apex flared.

**Male genitalia.** Pygofer in lateral view narrow, long, glabrous, caudodorsal process very narrow, subapical spine in dorsal view, caudoventral process long, slightly sinuate, broad medially, tapered sharply



apically, short row of small teeth on ventral margin medially (Fig. 410), in dorsal view caudodorsal processes caliperate with small subapical spine on inner lateral margin (Fig. 411); aedeagus long, tubular, shaft slightly broad in basal 1/3, tubular in distal 2/3 in lateral view, patch of small teeth in dorsoapical margin, gonopore sub-medial (Fig. 412, 413); style very small, base large with short, digitate apophysis (Fig. 414); dorsal connective long, narrow (Fig. 412); connective small, anterior arms very narrow, medial ridge complete, stem digitate (Fig. 415); subgenital plate moderately long, somewhat broad (Fig. 416).

**Material examined.** Holotype male. THAILAND: Nakhon Si Thammarat, Namtok Yong NP, Behind / Campground Lavatory, 8° 10.44'N 99° 44.508'E, 80 m., / Pan trap, 30-31.vii.2008, U. Prai. K., leg., T3085 (QSBG). Paratypes. 4 males, same data as holotype, T3080, T3075, T3075, T3979 (QSBG, ULKY, MLBM).

**Etymology.** The species name is descriptive for the slender pygofer processes and connective.

**Remarks.** This species is similar to *T. forcipia* in features of the pygofer caudoventral process and can be distinguished by the pygofer with the subapical spine on a very narrow caudodorsal process and broader arms of the connective.

***Taharana oblongiserrata*, sp. nov.**

(Plate 7E, Fig. 417-423)

**Description. Length.** Male 7.20-7.60 mm., female unknown.

**External Morphology.** Moderately large, slender species. General color dark brown to black; forewings dark brown to black, veins marked with short, yellow stripes, cells with numerous, light brown, irregular markings; mesonotum black with small dark yellow markings; pronotum black, bullae dark yellow; crown light yellow to dark brown; eyes translucent to dark brown; entire face light to dark brown; clypeus bordered with narrow black line; head narrower than pronotum, anterior margin broadly rounded; crown short, narrower than width of eyes, lateral margins convergent basally; clypeus long, narrow, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, narrow, slightly inflated longitudinally along middle, apex flared.

**Male genitalia.** Pygofer in lateral view sub-triangular, glabrous, with long narrow caudodorsal process, narrow in dorsal view, caudoventral process long, apical half expanded, serrate along ventral margin, sometimes expanded in apical 1/3 (Fig. 417), in dorsal view caudodorsal processes broadly curved, apex obliquely truncate (Fig. 418); aedeagus long, tubular, shaft inflated in basal 1/3, patch of fine teeth on dorsoapical margin, gonopore distad of middle (Fig. 419, 420); style small, base large, apophysis short, digitate (Fig. 421); dorsal connective moderately long, narrow (Fig. 419); connective broad, anterior arms narrow, medial ridge complete, stem ovate (Fig. 422); subgenital plate long, broad, glabrous (Fig. 423).

**Material examined.** Holotype male. THAILAND: Chaiyaphum, Tat Tome NP, Lam Poi Ta, dry evergreen forest / head water, 15° 58.486'N 102° 02.239'E., 270 m., Malaise trap, 26.viii.-5.ix.2006 / Tawir Jaruphan and Orawan Budsawong, leg. T555 (QSBG). Additional material examined: 21 males, same data as holotype except several subspecific localities, coordinates and T numbers (QSBG, ULKY, MLBM).

**Etymology.** The species name is descriptive for the configuration of the pygofer caudoventral process.

**Remarks.** From *T. minutura* to which it is most similar in configuration of the pygofer caudoventral process, *T. oblongiserrata* can be separated by longer, narrower caudodorsal pygofer process in lateral and dorsal views, broader anterior arms of the connective and by the rounded apex and fewer, smaller teeth on the ventral margin of the pygofer caudoventral process.

**Checklist of species of *Taharana*.**

*Taharana abstrusa*, sp. nov.

*Taharana angusta*, sp. nov.

- Taharana biavricula*, **sp. nov.**  
*Taharana bifurcata* Nielson 1982: 59 [sp. nov.]  
*Taharana biunca*, **sp. nov.**  
*Taharana brevicutata*, **sp. nov.**  
*Taharana caverna*, **sp. nov.**  
*Taharana curvata* Nielson 1982: 56 [sp. nov.]  
*Taharana dubia* (Walker) 1851: 781 [sp. nov.] (*Tettigonia*, *Coelidia*, *Jassus*)  
*Taharana exiquitas*, **sp. nov.**  
*Taharana forcipia*, **sp. nov.**  
*Taharana goldi* Nielson 1982: 62 [sp. nov.]  
*Taharana gracilata*, **sp. nov.**  
*Taharana incisura*, **sp. nov.**  
*Taharana intimacalcara*, **sp. nov.**  
*Taharana lacertosa*, **sp. nov.**  
*Taharana mediolata*, **sp. nov.**  
*Taharana minutura*, **sp. nov.**  
*Taharana oblongiserrata*, **sp. nov.**  
*Taharana phetchabunensis*, **sp. nov.**  
*Taharana protriangulata*, **sp. nov.**  
*Taharana serrata* Nielson 1982: 53 [sp. nov.]  
*Taharana sparsa* (Stål) 1854: 254 [sp. nov.] (*Coelidia*, *Jassus*)  
*Taharana stipulata* Nielson 1982: 65 [sp. nov.]  
*Taharana sublamina*, **sp. nov.**  
*Taharana subspinata*, **sp. nov.**  
*Taharana subtumida*, **sp. nov.**  
*Taharana triangulata* Nielson 1982: 52 [sp. nov.]  
*Taharana trifurcata* Nielson 1982: 61 [sp. nov.]  
*Taharana truncata*, **sp. nov.**

### ***Trinoridia*, gen. nov.**

**Type species**, *Trinoridia calcaris*, sp. nov.

**Description.** Moderately small to medium size species. General habitus similar to *Calodia*; aedeagus long, tubular with 3 distinctive processes arranged subapically to apex of shaft, glabrous and/or with accessory spines apically on shaft, sometimes with patch of small teeth on dorsal margin; pygofer glabrous or sparsely setose, sometimes with digitate caudoventral process, never with long caudodorsal process, always with small lobe apically; style with short to long apophysis; subgenital plate glabrous or with few apical setae, never with apical spine.

**Etymology.** The name of the genus is a combination of the Latin root *trin-* [= three of each] and suffix *-idia* is derived from the genus *Coelidia*.

**Remarks.** The genus *Trinoridia* is distinguished from related genera by the narrow aedeagal shaft with 3 separate, subapical to apical processes. Two new species and 3 species removed from *Calodia* are assigned to this genus. The group is widely distributed from India to Malaysia.

### **Key to species of *Trinoridia***

1. Aedeagus with short to moderately long processes not reaching midlength of shaft ..... **2**
- Aedeagus with 2 short, 1 very long subapical process exceeding midlength of shaft (fig. 543, Nielson 1982) (India)..... ***T. rama* (Kirkaldy)**

- 2(1). Aedeagus in lateral view broadly curved, in dorsal view with 2-3 narrow, moderately long processes ..... **3**  
 — Aedeagus in lateral view sinuate, in dorsal view with 3 short, spur-like processes (Fig. 426). (Malaysia) ..... ***T. trifida*, sp. nov.**
- 3(2). Aedeagus with 1 of 3 processes spinose ..... **4**  
 — Aedeagus with 3 glabrous processes (Fig. 432) (India) ..... ***T. calcaris*, sp. nov.**
- 4(3). Style with very long apophysis (fig. 551, Nielson 1982); aedeagal processes in dorsal view near equal in length (fig. 553, Nielson 1982) (Malaysia, Thailand) ..... ***T. trispinata* (Nielson)**  
 — Style with moderately long apophysis (fig. 556, Nielson 1982); aedeagal processes in dorsal view not equal in length, 1 long setose, 2 short glabrous processes (fig. 558, Nielson 1982) (Malaysia, Thailand) ..... ***T. tripectinata* (Nielson)**

### Description of species

#### ***Trinoridia trifida*, sp. nov.**

(Plate 7F, Fig. 424-430)

**Description. Length.** Male 9.80 mm., female unknown.

**External morphology.** Large, robust species. General color dark brown, cells of forewings translucent, veins marked with yellow stripes; mesonotum tannish with dark brown markings; pronotum black, bullae yellow; crown light brown; eyes dark brown; face dark brown, clypeus and ocellular area dark tannish; head distinctly narrower than pronotum, anterior margin obtusely rounded; crown short, broad, narrower than width of eyes; eyes large, elongate ovoid; pronotum large, about twice as long medially as crown, surface bullated; mesonotum very large, nearly twice as long as pronotum; forewings with typical venation; clypeus long, narrow, lateral margins broadly convex; clypellus narrow, apex slightly flared laterally.

**Male genitalia.** Pygofer in lateral view narrowly triangulate, small lobe apically (Fig. 424); aedeagus long, tubular, very narrow, sinuate in lateral view, processes very short, gonopore subapical (Fig. 425, 426); dorsal connective, very long, narrow (Fig. 427); style short, apophysis narrow (Fig. 428); connective large, lateral arms triangulate, lateral margins produced anterior to membrane, medial ridge complete, stem short, digitate (Fig. 429); subgenital plate long, narrow, few microsetae apically (Fig. 430).

**Material examined.** Holotype male. MALAYSIA: Pahang. 2009, Cameron Highlands, Tanah Rata, vill. envir. ca. 1470-1550 m., 04° 28.4-7'N. 101° 21.6-22.1'E, sweeping/beating, P. Banar, M. Tryzna and P. Pacholatko leg. 18 iv. – 15.v. (MMBC) [second label has Cameroon data, not affiliated with Malaysia].

**Etymology.** The name of the species is descriptive for the 3 short, glabrous processes on the aedeagus.

**Remarks.** From *T. calcaris* to which it is similar in male genitalia, *T. trifida* can be distinguished by the narrow triangulate pygofer, the larger connective with short ligulate stem and narrower apophysis of the style.

#### ***Trinoridia calcaris*, sp. nov.**

(Plate 7G, Fig. 431-436)

**Description. Length.** Male 8.14 mm., female unknown.

**External morphology.** Moderately large, robust species. General color light brown with very small to large, dark brown spots on forewings, central, medial and inner preapical cells translucent; mesonotum ivory, with large, black triangular spot in upper, lateral corners, numerous light brown markings medially; pronotum dark brown, bullae yellow; crown light brown; eyes dark brown; face yellow, clypeus with short, transverse black stripes on inner lateral margins; clypellus yellow with light brown, longitudinal

stripe medially; head narrower than pronotum, broadly rounded anteriorly; crown narrow, narrower than width of eyes, slightly produced anteriorly, lateral margins convergent basally; pronotum large, about as long medially as crown, surface bullated; mesonotum very large, nearly twice as long as pronotum; forewings with typical venation; clypeus long, narrow, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, lateral margins narrow, slightly flared apically.

**Male genitalia.** Pygofer in lateral view broadly triangulate, small lobe apically, caudoventral margin with small digitate process (Fig. 431); aedeagus long, tubular, very narrow, in dorsal view with moderately long, slender, glabrous apical and subapical spines, small spur basad of distal spines, gonopore subapical (Fig. 432, 433); style very short, apophysis broad (Fig. 434); dorsal connective long, narrow (Fig. 432); connective large, anterior arms triangulate, lateral margins produced anteriorly, medial ridge complete, stem large, ovate (Fig. 435); subgenital plate long, broad, outer margin broadly convex along middle, sparsely setose along outer lateral margin (Fig. 436).

**Material examined.** Holotype male. INDIA: Tamil Nadu, 32 km. E. Kodaikanal, 1050 m., Sept. 25, 1985, C.W. and L.B. O'Brien / Brit. Mus. 1992-118. (BMNH).

**Etymology.** The name of the species is descriptive for the small processes on the aedeagus.

**Remarks.** The species is nearest to *T. trifida* and can be separated by the broad triangulate pygofer, presence of the caudoventral process and smaller connective and style.

#### Checklist of species of *Trinoridia*.

*Trinoridia calcaris*, **sp. nov.**

*Trinoridia rama* (Kirkaldy) 1910: 63, **comb. nov.** (*Calodia*)

*Trinoridia trifida*, **sp. nov.**

*Trinoridia trispinata* (Nielson) 1982: 170, **comb. nov.** (*Calodia*)

*Trinoridia tripectinata* (Nielson) 1982: 172, **comb. nov.** (*Calodia*)

#### *Tripesidia*, **gen. nov.**

**Type species,** *Calodia warei* Nielson 1986:172

**Description.** Moderately small to medium size species. General habitus similar to *Trinoridia*; aedeagus long, tubular with 3 distinct processes basad of apex, often closely appressed to shaft, always glabrous; pygofer sometimes with long prominent caudodorsal process; style often with long apophysis; subgenital plate rarely glabrous, sometimes with prominent apical spine.

**Etymology.** The name is a combination of the root *tripes*- [= 3 legged] and the suffix *-idia* derived from the genus *Coelidia*. The gender is feminine.

**Remarks.** *Tripesidia* is closely allied to *Trinoridia* with 3 aedeagal processes. All of the processes are glabrous, attached some distance from the apex of the shaft and often appressed to each other or on the shaft. Five species are assigned to the genus, including 4 transferred from *Calodia* and 1 new species.

#### Key to species of *Tripesidia* (males)

1. Aedeagal processes very short, set in a row on the same side of the shaft ..... **2**
  - Aedeagal processes long, not set in a row on the same side of the shaft ..... **3**
- 2(1). Style with long slender apophysis, apex with long seta (Fig. 442) (Laos) .. ***T. kubani*, sp. nov.**

- Style with very short apophysis, apex without seta (fig. 561, Nielson 1982) (China, Vietnam) ..  
..... ***T. warei* (Nielson)**
- 3(1). Aedeagal processes set close together ..... **4**  
— Aedeagal processes not so arranged, distal process separate from 2 closely set basal processes  
(Fig. 115, Nielson 1990) (Malaysia, Thailand) ..... ***T. vicina* (Nielson)**
- 4(3). Pygofer in lateral view with digitate caudoventral process (fig. 530, Nielson 1982); style with  
moderately long, bluntly pointed apophysis (fig. 531, Nielson 1982) (Philippines, Indonesia)  
..... ***T. obscura* (Stål)**  
— Pygofer in lateral view without such process (fig. 536, Nielson 1982); style with very long,  
sharply pointed apophysis (fig. 539, Nielson 1982) (Malaysia, Indonesia) .....  
..... ***T. longistyla* (Nielson)**

### Description of species

#### *Tripesidia kubani*, sp. nov.

(Plate 7H, Fig. 437-443)

**Description. Length.** Male 9.20 mm., female unknown.

**External morphology.** Large, robust species. General color dark brown to black throughout except for mesonotum and pronotum with small yellow spots on surface; crown black; eyes dark brown; face dark brown except for yellow, broad, longitudinal stripe on clypeus; head distinctly narrower than pronotum, anterior margin obtusely rounded; crown short, about as wide as width of eyes, slightly produced anteriorly, lateral margin convergent basally; eyes large, semiglobular; pronotum large, nearly twice as long medially as crown; mesonotum large, nearly twice as long medially as pronotum; forewing venation typical; clypeus long, narrow, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, narrow, inflated longitudinally along middle, apex flared laterally.

**Male genitalia.** Pygofer in lateral view subrectangulate, glabrous with long, prominent caudodorsal process (Fig. 437); aedeagus long, tubular, narrow with subapical row of short processes arising from lateral margin (Fig. 438, 439); style with long narrow apophysis, setal process apically (Fig. 440); dorsal connective long, pendulate in apical half in dorsal view (Fig. 441); connective large, anterior arms broad, narrow, medial ridge complete, stem small, sub-ovate (Fig. 442); subgenital plate very long, broad, setose apically, prominent spine apically (Fig. 443).

**Material examined.** Holotype male. LAOS-NE.: Houa Phan prov., 20° 13'09"-19°N. 103° 59'54" - 104° 00' 03" E., 1480-1510 m., Phou Pane Mt., 1-16.vi.2009, Vít Kuban, leg. / primary mountain forest, yellow plate trap, Laos 2009 Expedition, NHMB Basel, NMPC Prague. / Collection, Moravské museum, Brno (MMBC).

**Etymology.** This species is named in honor of Mr. Kuban who has collected many new species of coelidiine leafhoppers in Laos.

**Remarks.** This species can be distinguished by the very long subgenital plate with prominent apical spine and the style with narrow apophysis adorned with single seta apically.

### Checklist of species of *Tripesidia*.

#### *Tripesidia kubani*, sp. nov.

*Tripesidia longistyla* (Nielson) 1982: 166 [sp. nov.], **comb. nov.** (*Calodia*)

*Tripesidia obscura* (Stål) 1870: 735 [sp. nov.], **comb. nov.** (*Jassus*, *Coelidia*, *Calodia*)

*Tripesidia vicina* (Nielson) 1990: 473, **comb. nov.** (*Calodia*)

*Tripesidia warei* (Nielson) 1982: 172, **comb. nov.** (*Calodia*)

***Tumidorus*, gen. nov.**

**Type species.** *Lodiana nielsoni* Zhang 1994

**Description.** Large, robust species. Length male 9.00-10.50 mm., female 12.00 mm. Similar in general habitus to *Lodiana*. Aedeagus long, broad with large inflated lobe on ventral margin, long spinate bifurcate process in distal half; pygofer triangulate, setose, small lobe apically; style with long, robust apophysis; subgenital plate with micro/macrosetae.

**Etymology.** The name is a combination of the Latin stem *tumid-* [= swelling], arbitrary combination of vowel and consonant *or* and suffix *-us*. The gender is masculine.

**Remarks.** *Tumidorus* is a unique, monobasic genus characterized by the aedeagus in which the basal half is inflated ventrally and with a dorsal, subapical, bifurcate process, unlike any aedeagus among other genera of the tribe in the Oriental region. The aedeagal features separate the genus from related genera. Only 1 species is recognized, known only from China.

**Checklist of species of *Tumidorus*.**

*Tumidorus nielsoni* (Zhang) 1994: 76, **comb. nov.** (*Olidiana*)

***Webbolidia*, gen. nov.**

**Type species,** *Taharana webbi* Nielson 1982: 67

**Description.** Medium to moderately large species. Length male 6.10-8.20 mm., female 8.00-9.80 mm. General habitus similar to *Calodia* and *Taharana*; aedeagus long, narrow, tubular with 1-3 short, apical to subapical setae or spines accompanied with a patch of very short teeth on dorsal margin, sometimes with short row of setae near middle; pygofer sparsely setose, often with prominent caudodorsal process; style and subgenital plate setose apically, the latter often with distinct spine apically.

**Etymology.** The name is a combination of a patronymic name [= Webb] and suffix *-olidia* derived from the genus *Coelidia*. The gender is feminine.

**Remarks.** *Webbolidia* is distinguished from its congeners by 1-3 short, slender, subapical to apical processes on the aedeagus. The genus is named in honor of Mick Webb, retired taxonomist, British Museum of Natural History, for his comprehensive studies on a wide range of groups in the Cicadellidae. The genus is largely restricted to southeast mainland Asia. One species, *Webbolidia webbi*, has wide distribution from The Seychelles to Vietnam. Seven species, including 2 new species are assigned to the genus. One species is reinstated.

**Key to species of *Webbolidia* (males)**

1. Subgenital plate with apical spine; pygofer with small lobe on caudodorsal margin ..... **2**
- Subgenital plate without such spine, few short microsetae apically (fig. 201, Nielson 1982); pygofer in lateral view with long caudodorsal spine (fig. 198, Nielson 1982) (Cambodia, China, Laos, Seychelles, Thailand, Vietnam) ..... ***W. webbi* (Nielson)**
- 2(1). Aedeagus with 1 or 2 subapical setal processes ..... **3**

- Aedeagus with 2 subapical setal and 1 subapical processes (fig. 528, Nielson 1982) (China, Vietnam) ..... *W. obliqua* (Nielson)
- 3(2). Aedeagus with 1 subapical setal process ..... 4  
 — Aedeagus with 2 subapical setal processes ..... 6
- 4(3). Pygofer with moderately long, digitate caudoventral and caudodorsal lobes (Fig. 444) (Laos) ..  
 ..... *W. magna, sp. nov.*  
 — Pygofer in lateral view without caudoventral lobe, caudodorsal lobe present ..... 5
- 5(4). Pygofer profusely setose (fig. H, Zhang 1990); subgenital plate setose in middle of inner lateral margin (fig. M, Zhang 1990) (China) ..... *W. uniaristata* (Zhang)  
 — Pygofer not setose (fig. A, Li and Wang 1989); subgenital plate glabrous (fig. A, Li and Wang 1989) (China) ..... *W. acutistyla* (Li and Wang)
- 6(3). Aedeagus with 2 setal processes arising from 1 lateral margin (Fig. 453); subgenital plate very long, much longer than aedeagus (Fig. 457) (Thailand) ..... *W. kristenseni, sp. nov.*  
 — Aedeagus with 2 setal processes, each arising from each lateral margin (fig. Q, Zhang 1990); subgenital plate shorter than aedeagus (fig. M, Zhang 1995) (China) .....  
 ..... *W. obliquasimilaris* (Zhang)

### Description of species

#### *Webbolidia magna, sp. nov.*

(Plate 7I, Fig. 444-450)

**Description. Length.** Male 9.40-10.00 mm., female unknown.

**External morphology.** Large, robust species. General color dark brown to black; forewings with small, yellow stripes on black veins, cells uniformly dark brown, translucent; mesonotum black; pronotum black, bullae yellow; crown light to dark brown, eyes dark brown; face light brown; clypeus light brown with dark brown, longitudinal stripe on inner lateral margins; clypellus light brown; head narrower than pronotum, anterior margin obtusely rounded; crown broad, about as wide as width of eyes, slightly produced anteriorly, lateral margins convergent basally; pronotum large, nearly twice as long medially as crown, surface bullated; mesonotum large, nearly twice as long medially as pronotum; clypeus long, narrow, lateral margins broadly convex; clypellus narrow, apex flared laterally.

**Male genitalia.** Pygofer very large, broadly triangulate, glabrous, apex narrowed with digitate lobe apically, caudoventral margin with digitate process (Fig. 444); aedeagus very long, shaft straight in dorsal view, slightly sinuate in lateral view, shaft toothed on apical 1/6, short setae slightly subapical, gonopore near middle of shaft (Fig. 445, 446); dorsal connective long, narrow (Fig. 445); connective large, anterior arms narrowly angled, medial ridge absent, stem large, ovate (Fig. 449); subgenital plate very long, narrow, with long apical spine, sparsely setose along inner lateral margin near apex, sparsely setose subapically on outer lateral margin (Fig. 450).

**Material examined.** Holotype male. LAOS-N: (Oudomxai), 1-9.v.2000, 1100 m., 20° 45'N. 102° 09'E., Oudom Xai, (17 km. nee), Vit Kuban, leg. / Entomological expedition, "Laos 2002", Moravian Museum, Brno, Czech Republic (MMBC). Additional material: 19 males, same data as holotype (MMBC), 20 males, LAOS: Louang Namtha prov., 21° 09'N 101° 19'E., Namtha-Muang Sing, 5-31.v.1997, 900-1200 m., Vit Kuban, leg. (MMBC, MLBM).

**Etymology.** The name of the species is descriptive for the large pygofer, subgenital plate and connective and very long aedeagus.

**Remarks.** From *W. kristenseni* to which it is similar, *W. magna* can be distinguished by very long, robust spine on the subgenital plate, a single subapical aedeagal seta (2 in *W. kristenseni*) and the narrowed apex of the pygofer.

***Webbolidia kristenseni*, sp. nov.**

(Plate 7J, Fig. 451-457)

**Description. Length.** Male 10.60 mm., female unknown.

**External morphology.** Large, robust species. General color light brown to black; forewings light brown, apical 1/7 dark brown, veins black with short, yellow stripes, numerous light brown, irregularly shaped markings in cells; mesonotum black with numerous yellow spots; pronotum black, bullae yellow; crown light brown with short black stripe on each side of middle; eyes dark brown; face light yellow, black longitudinal stripe on inner lateral margins; clypellus with dark brown suffused spot; head narrower than pronotum, anterior margin broadly rounded; crown short, very broad, broader than width of eyes, slightly produced anteriorly, lateral margins convergent basally; eyes large, semiovoid; pronotum very large, nearly twice as long medially as crown, surface bullated; mesonotum large, about half longer medially than pronotum; clypeus long, narrow, lateral margins broadly convex; clypellus short, about 1/3 as long as clypeus, narrow, inflated longitudinally along middle, apex strongly flared laterally.

**Male genitalia.** Pygofer in lateral view very large, broadly triangulate, sparsely setose apically, with caudodorsal lobe, caudoventral margin with small digitate lobe near middle (Fig. 451); aedeagus very long, narrow, tubular, slightly sinuate in dorsal and lateral views, with short, serrated flange near apex, 2 short setae subapically, gonopore distad of middle (Fig. 452, 453); style short, with moderately long apophysis (Fig. 454, 455); dorsal connective moderately long, narrow; connective large, anterior arms broad, somewhat tapered apically, medial ridge incomplete, stem large, ovate (Fig. 456); subgenital plate very long, broad, short spine apically, sparsely setose apically (Fig. 457).

**Material examined.** Holotype male. THAILAND: Chiang Mai province, Doi Saket, 450 m., 3.xi.1981, Zool. Museum Copenhagen, leg. (ZMUC). Paratype, 1 male, THAILAND: 7 km. NW of Fang, Horticultural Experiment Station, 30.xi.-2.xii.1979, Zool. Mus., Copenhagen Exped. (MLBM).

**Etymology.** The species is named for Niels Kristensen, Curator of the Hemiptera collection in the Zoology Museum in the University of Copenhagen, Denmark and who was very helpful during my visit there in the fall of 2010.

**Remarks.** From *W. obliquasimilaris* to which it is similar, *W. kristenseni* can be separated by the setal processes arising subapically from the one side of the aedeagus, by shorter apical spine on the subgenital plate and by the presence of the digitate caudoventral pygofer process.

**Checklist of species of *Webbolidia*.**

*Webbolidia acutistyla* (Li and Wang) 1989: 2 [sp. nov.], **comb. nov.** (*Lodiana*)

*Webbolidia kristenseni*, **sp. nov.**

*Webbolidia magna*, **sp. nov.**

*Webbolidia obliqua* (Nielson) 1982: 163 [sp. nov.], **comb. nov.** (*Calodia*)

*Webbolidia obliquasimilaris* (Zhang) 1990: 107 [sp. nov.], **comb. nov.** (*Calodia*)

*Webbolidia uniaristata* (Zhang) 1990: 114 [sp. nov.], **comb. nov., reinstated** (*Taharana*)

*Webbolidia webbi* (Nielson) 1982: 67 [sp. nov.], **comb. nov.** (*Taharana*, *Calodia*)

***Zhangolidia*, gen. nov.**

**Type species.** *Olidiana polypinata* Zhang 1994:108



**Description.** Medium size, robust species. Length male 7.00- 8.20 mm., female unknown. General habitus similar to *Olidiana*. Aedeagus long, robust, inflated, tubular, serrate or toothed on middle of lateral margin, with long robust, subapical to apical process, process with numerous secondary setae or small teeth; pygofer with long caudodorsal process, glabrous; style with robust, moderately long apophysis; subgenital plate sparsely setose from sub apex to apex.

**Etymology.** The name is a combination of the patronymic name Zhang and suffix *-olidia* derived from the genus *Coelidia*. The gender is feminine.

**Remarks.** *Zhangolidia* is similar to *Hiatusorus* in some aedeagal features and is distinguished by the aedeagus which is inflated and has a robust apical spine lacking in *Hiatusorus*. The genus is named in honor of Yalin Zhang for his numerous contributions in the Cicadellidae of China. Two species are assigned to genus, 1 from China and 1 from Thailand. Both species were transferred from *Olidiana*.

#### Key to species of *Zhangolidia* (males)

1. Aedeagus in dorsal view with process arising subapically, spiculated (fig. 284, Nielson 1982); subgenital plate with few short microsetae apically (fig. 283, Nielson 1982) (China, Thailand) ..... ***Z. spiculata* (Nielson)**
- Aedeagus in dorsal view with process arising apically, setose (fig. 105 L, Zhang 1994); subgenital plate with few short microsetae apically and on outer lateral margin (fig. 105 I, Zhang 1994) (China) ..... ***Z. polyspinata* (Zhang)**

#### Checklist of species of *Zhangolidia*.

*Zhangolidia polyspinata* (Zhang) 1994: 107 [sp. nov.], **comb. nov.** (*Lodiana*)

*Zhangolidia spiculata* (Nielson) 1982: 93 [sp. nov.], **comb. nov.** (*Lodiana*)

#### Synoptic catalogue of genera and species in the tribe Coelidiini (Coelidiinae) of the Oriental, Australian and Palearctic biogeographical regions.

Because these entries are organized alphabetically under a generic name, generic abbreviations are intentionally omitted from the main entry. They are included in the synonymies.

Citations of the original and subsequent combinations of names follow Metcalf (1962, 1964) which cover references up to 1955, Oman et al. (1990) from 1956 to 1985 and thereafter by the author's and other subsequent author's listings up to the present year. Valid species are in alphabetical order, bold face, italicized and arranged in numerical order. Species not valid are unnumbered, italicized and are synonyms, homonyms or *nomen nudum* and set in brackets. Cross indexed names are not italicized and referenced in parenthesis. The catalogue is not fully complete for want of some original papers that were not available.

Species names, new taxonomic treatment, new combinations reported for the first time and locality records are bold face for emphasis. Citations separated without comma between the species name and author indicate author of the species; with colon, author of the citation. The format generally follows Metcalf with additional annotations by the author.

Metcalf and other authors are credited for new combinations (in parentheses) that apply to species transferred from one genus to another, if they were not so stated in the original work, and are considered implied new combinations herein, including names transferred to more than one different genus. Up to 10 annotations are given, where applicable, and in format as they were written in the articles. Subject matter includes abstract, keys, n. sp., descriptions, illustrations (with number of figures), type deposition, distribution, comparative note to related species and changes in taxonomic status. New taxonomic

treatment or new status is bracketed and bold face at the end of citation. The listings are arranged in alphabetical order by genera and species.

Two species, *Lodiana reductusi* Xu and Kuoh 1997 and *Lodiana spicata* Xu and Kuoh 1997, are treated *incertae sedis* herein. Original published articles were not available. Both species are placed provisionally herein in the genus *Olidiana*. The number of names listed in this catalogue is 298.

### **Calodia Nielson**

*Calodia* Nielson 1982: 8 [Zoogeography]: 12 [Key]: 35 [Comparative note to *Limentinus* Distant]: 86 [Comparative note to *Lodiana* Nielson]: 87 [Comparative note to *Lodiana* Nielson]: 140 [Described, type species, *Calodia multipectinata*, n. sp., described]: 312 [Checklist]: 317 [Indexed]

*Calodia* Nielson: Cai and Kuoh 1993: 218 [Listed]

*Calodia* Nielson: Cai and He 2002: 139 [Key, checklist, new species, in Chinese]

*Calodia* Nielson: Cai and Huang 1999: 315 [Listed]

*Calodia* Nielson: Li 1989: 1 [Cited]

*Calodia* Nielson: Li and Wang 1991: 104 [Key]

*Calodia* Nielson: Zhang 1990: iii [Index, in Chinese and English]: 92 [Key, in Chinese]: 107 [Catalogued, comparative note to *Lodiana* Nielson]: 197 [Index, in English]

*Calodia* Nielson: Knight 2010: 48 [Listed, distribution, type species, in Chinese]

*Calodia* Nielson: Xu 2000: 218 [Listed, review, distribution, in Chinese]

*Calodia* Nielson: Xu and Kuoh 1999: 209 [Cited, literature review, distribution, in English]

*Calodia* Nielson: Zhang 1994: 9 [Map, distribution]: 11 [Key, in Chinese]: 108 [Catalogue, key, in Chinese]: 136 [Checklist]: 149 [Index, in English]

#### **1. apicalis** Li

*Calodia apicalis* Li 1989: 3 [sp. nov.]: 4 [Illustrated, fig. 20-24, in Chinese and English, described, type deposition, distribution, in Chinese]: 5 [comparative note to *bispinosa* Nielson, described, type material, in English]

*Calodia apicalis* Li: Li and Wang 1991: v. [Contents, listed]: 114 [Keyed, in Chinese, catalogued, described, in Chinese]: 115 [Illustrated, 5 fig., described, in Chinese]: 243 [Indexed, in English]: 273 [Comparative distribution]

*Calodia apicalis* Li: Zhang 1994: 109 [Keyed, in Chinese]: 123 [Catalogued, description, in Chinese]: 124 [Illustrated, 5 fig. (after Li), in Chinese]: 137 [Checklist, distribution, in English]: 148 [Indexed, in Chinese]: 149 [Indexed, in English]

Distribution: **(China)**

*apicalis* (See *longispina* (Li and Wang))

#### **2. bicompressa, sp. nov.**

*Calodia bicompressa*, Nielson, sp. nov.

Distribution: **(India)**

#### **3. birama, sp. nov.**

*Calodia birama* Nielson, sp. nov.

Distribution: **(Philippines)**

#### **4. bispinata** Nielson

*Calodia bispinata* Nielson 1982: 142 [Keyed]: 157 [New species, described, type deposition, distribution, comparative note to *punctivena* (Walker)]: 158 [Illustrated, fig. 504-508]: 313 [Checklist]: 317 [Indexed]

*Calodia bispinata* Nielson: Knight 2010: 49 [Listed, type locality, type disposition, distribution]

Distribution: **(Malaysia (Sabah))**

*bispinata* (See *pennata* Nielson, *punctivena* (Walker))

bispinosa Nielson (See *apicalis* Li)

5. ***claustra*** Nielson

*Calodia claustra* Nielson 1982: 141 [Keyed]: 149 [New species, described, typed deposition, distribution, comparative note to *ostenta* (Distant)]: 150: [Illustrated, fig. 471-475]: 313 [Checklist]: 317 [Indexed]

*Calodia claustra* Nielson: Knight 2010: 49 [Listed, type locality, type disposition, distribution]

Distribution: **(Indonesia)**

6. ***falx*** Nielson

*Calodia falx* Nielson 1990: 445 [Abstract]: 462 [Keyed]: 464 [Illustrated, fig. 74-78]: 465 [sp. n., described]: 466 [Type disposition, distribution, comparative note to *siberutensis* Nielson]

*Calodia falx* Nielson: Knight 2010: 49 [Listed, type locality, type disposition, distribution]

Distribution: **(Malaysia)**

*flavinota* Cai and Kuoh (See *patricia* (Jacobi)) [Synonym]

*flavinota* Cai and Kuoh 1993: 219 [sp. nov., described, in Chinese]: 220 [Type deposition, distribution, in Chinese, illustrated, 6 figs., in Chinese and English, catalogued]: 221 [sp. nov., described, type deposition, distribution, in English] [**New synonymy**]

Distribution: **(China)**

7. ***fusca*** (Melichar)

*Jassus fuscus* Melichar 1903: 179 [New species]

*Jassus pauperculus* Spångberg 1878b: 35 [n. sp.]

*Tettigonia frontalis* Kirby 1891a: 171 [n. sp.]

*Jassus pauperculus* Spångberg, Distant 1908b: 332 [New synonym of *fusca* Melichar and *Tettigonia frontalis* Kirby]

*Coelidia fusca* (Melichar): Metcalf 1964: 50 [New combination]

*Calodia fusca* (Melichar): Nielson 1982: 142 [Keyed]: 149 [Notes on synonymy]: 155 [Comparative note to *serrata* Nielson]: 156 [New combination, 2 references, described, illustrated, fig. 493-503]: 157 [Distribution, type disposition, comparative note to *bispinata* Nielson]: 313 [Checklist]: 317 [Indexed]

*Calodia fusca* (Melichar): Zhang 1994: 109 [Keyed]: 122 [Comparative note to *lii* Zhang]: 123 [Catalogued, described, illustrated (after Nielson), in Chinese]: 137 [Checklist, in English]: 148 [Indexed, in Chinese]: 150 [Indexed, in English]

Distribution: **(China, Sri Lanka)**

*frontalis* Kirby (See *fusca* (Melichar)) [Synonym]

8. ***grandis*** Nielson

*Calodia grandis* Nielson 1991: 445 [Abstract]: 463 [Keyed]: 471 [Comparative note to *iniquitas*]: 472 [Illustrated, fig. 110-113]: 473 [sp. n., described, type deposition, distribution, comparative note to *martini*]

*Calodia grandis* Nielson: Knight 2010: 49 [Listed, type locality, type disposition, distribution]

Distribution: **(Malaysia)**

9. ***guttivena*** (Walker)

*Coelidia guttivena* Walker 1857: 99 [n. sp.]

*Coelidia guttivena* Walker: Metcalf 1964: 53 [Catalogued, distribution]

*Calodia guttivena* (Walker): Nielson 1982: 142 [Keyed]: 160 [Comparative note to *martini*, new combination, catalogued, described]: 161 [Illustrated, fig. 515-519, described]: 162 [Distribution, type deposition]

tion, comparative note]: 313 [Checklist]: 318 [Indexed]

*Calodia guttivena* (Walker): Knight 2010: 49 [Listed, type locality, type disposition, distribution]

Distribution: **(China, Malaysia, Thailand)**

*guttivena* Walker (See *martini* Nielson)

#### 10. *harpagota* Zhang

*Calodia harpagota* Zhang 1994: 109 [Keyed, in Chinese]: 125 [sp. n., described, type deposition]: 126 [Comparative note to *Lodiana mutabilis* Nielson, *L. ritcheri* Nielson, *Lodiana richteriina* Zhang, *L. huoshanensis*, n. sp., *L. scutopunctata*, n. sp., illustrated, 6 fig., in Chinese]: 137 [Checklist, distribution, in English]: 146 [sp. n., described, comparative note to *Lodiana mutabilis* Nielson, *L. ritcheri* Nielson, *L. richteriina* Zhang, *L. huoshanensis*, n. sp. and *L. scutopunctata*, n. sp., in English]: 147 [Indexed, in Chinese]: 150 [Indexed, in English]

Distribution: **(China)**

*harpagota* Zhang (See *scutopunctata* (Zhang), *Olidiana ritcheri* (Nielson))

#### 11. *inclinans* (Walker)

*Tettigonia inclinans* Walker 1857b: 169 [n. sp.]

*Jassus inclinans* (Walker): Distant 1908b: 148 [New combination, catalogued]

*Coelidia marginifrons* Walker 1870b: 310 [n. sp., new combination]

*Jassus inclinans* (Walker): Distant 1908b: 148 [Senior synonym of *Coelidia marginifrons* Walker]

*Jassus cupraria* (Walker): Distant 1908b: 148 [Junior synonym of *inclinans* Walker]

*Coelidia inclinans* (Walker): Metcalf 1964: 53 [Catalogued, distribution]

*Calodia inclinans* (Walker): Nielson 1982: 110 [Taxonomic note to *Lodiana cupraria* Walker]: 141 [Keyed]: 146 [New combination, catalogued, described, type deposition, distribution, comparative note to *obscura* (Stål)]: 147 [Illustrated, fig. 461-465]: 145 [Comparative note to *patricia* (Jacobi)]: 313 [Checklist]: 317 [Indexed]

*Calodia inclinans* (Walker): Knight 2010: 49 [Listed, type locality, type disposition, distribution]

Distribution: **(Indonesia (Borneo), Malaysia)**

*inclinans* (See *patricia* (Jacobi), *siberutensis* Nielson, *Singillatus marginifrons* (Walker), *Tripesidia obscura* (Stål))

#### 12. *iniquitas* Nielson

*Calodia iniquitas* Nielson 1990: 445 [Abstract]: 463 [Keyed]: 471 [Illustrated, fig. 107-109, sp. n., described, type deposition, distribution, comparative note to *martini*]

*Calodia iniquitas* Nielson: Knight 2010: 40 [Listed, type locality, type disposition, distribution]

Distribution: **(Malaysia (Brunei))**

*iniquitas* Nielson (See *grandis* Nielson)

#### 13. *kodikanelensis* Nielson

*Calodia kodikanelensis* Nielson 1990: 445 [Abstract]: 462 [Keyed]: 466 [Illustrated, fig. 82-86]: 467 [sp. n., described, type deposition, distribution, comparative note to *ostenta* and *paraostenta*]

Distribution: **(India)**

#### 14. *lii* Zhang

*Calodia lii* Zhang 1994: 109 [Keyed, in Chinese]: 122 [sp. n., described, type deposition, illustrated, 4 fig., distribution, comparative note to *Calodia martini* Nielson, in Chinese]: 137 [Checklist, distribution, in English]: 146 [sp. n., description, comparative note to *martini* Nielson, type deposition, distribution, in English]: 150 [Indexed, in English]

Distribution: **(China)**

lii Zhang (See *fusca* (Melichar), *martini* Nielson)

15. ***longilamina*** (Zhang) [**comb. nov.**]

*Lodiana longilamina* Zhang 1994: 73 [Keyed, in Chinese]: 88 [sp. n., described, in Chinese, illustrated, 6 fig.]: 89 [Described, type deposition, distribution, comparative note to *Lodiana ritcheiina* Zhang, *L. mutabilis* Nielson, *L. scutopunctata*, *L. huoshanensis*, in Chinese]: 134-135 [sp. n., distribution, in English]: 143 [sp. n., comparative note to *Lodiana ritcheiina* Zhang, *L. mutabilis* Nielson, *L. ritchei* Nielson, *L. scutopunctata*, n. sp., *L. huoshanensis*, n. sp., type deposition, distribution, in English]  
*Olidiana longilamina* (Zhang): McKamey 2006: 504 [new combination]  
 Distribution: **(China)**

*longilamina* Zhang (See *scutopunctata* (Zhang))

16. ***longispina*** Li and Wang

*Calodia longispina* Li and Wang 1991: V. [Contents, listed]: 116 [sp. n., described, in Chinese]: 117 [Illustrated, 4 fig., type deposition, in Chinese]: 260 [Described, in English]: 261 [Type deposition, in English]: 273 [Distribution]  
*Calodia longispina* Li and Wang: Zhang 1994: 109 [Keyed, in Chinese]: 121 [Catalogued, described, comparative note to *apicalis*, illustrated, 4 fig, in Chinese]: 137 [Checklist, distribution, in English]: 147 [Indexed, in Chinese]: 150 [Indexed, in English]  
*Calodia longispina* Li and Wang: Li and Zhang 2007: 147 [Described]  
 Distribution: **(China)**

*marginifrons* Walker (See *inclinans* (Walker)) [Junior synonym]

17. ***martini*** Nielson

*Calodia martini* Nielson 1982: 141 [Keyed]: 160 [new species, described, type deposition, distribution, comparative note to *guttivena* (Walker)]: 313 [Checklist]: 318 [Indexed]  
*Calodia martini* Nielson: Zhang 1994: 122 [Comparative note to *lii* Zhang]  
*Calodia martini* Nielson: Knight 2010: 49 [Listed, type locality, type disposition, distribution]  
 Distribution: **(Philippines)**

*martini* (See *grandis* Nielson, *guttivena* (Walker), *iniquitas* Nielson, *lii* Zhang, *punctivena* (Walker))

18. ***multipectinata*** Nielson

*Calodia multipectinata* Nielson 1982: 140 [Type-species of *Calodia* Nielson]: 141 [Keyed]: 149 [new species, described]: 150 [Described, type deposition, distribution]: 151 [Illustrated, fig. 476-480, comparative note to *multispinata*, n. sp.]  
*Calodia multipectinata* Nielson: Zhang 1994: 108 [Type-species of *Calodia* Nielson]  
*Calodia multipectinata* Nielson: Knight 2010: 49 [Listed, type locality, type disposition, distribution]  
 Distribution: **(Malaysia)**

*multipectinata* Nielson (See *sulawesiensis* Nielson)

19. ***nigritibiana*** (Li) [**comb. nov., reinstated**]

*Lodiana nigritibiana* Li 1987f: 87 [sp. nov., described, illustrated, fig. 1-5]: 88 [Described, type locality, comparative note to *Lodiana alata* Nielson, in Chinese]: 90 [sp. nov., comparative note to *Lodiana alata* Nielson, length, type locality, in English]  
*Lodiana nigritibiana* Li: Li and Wang 1991: V. [Contents, listed]: 108 [Keyed, in Chinese]: 109 [Catalogued, described, illustrated, 5 fig.]: 246 [Indexed, in English]: 274 [Comparative distribution]  
*Lodiana nigritibiana* Li: Zhang 1994: 72 [Taxonomic note to *alata* Nielson, in Chinese]: 102 [New synonym of *alata* Nielson]: 134 [New synonym of *Lodiana alata* Nielson, in English]: 135 [New synonym of *alata* Nielson, in English]: 150 [Indexed, in English]  
 Distribution: **(China)**

nigritibiana (See *alata* (Nielson), *halberta* (Li))

ochraceus Jacobi (See *patricia* Jacobi) [Synonym]

#### 20. *ostenta* (Distant)

*Jassus ostentus* Distant 1918: 49 [n. sp.]

*Coelidia ostenta* (Distant): Metcalf 1964: 68 [Catalogued, new combination, distribution]

*Calodia ostenta* (Distant): Nielson 1982: 141 [Keyed]: 146 [New combination, catalogued]

*Jassus pauperculus* Spångberg: Nielson 1982: 146 [new synonym]: 147 [Catalogued, *Tettigonia frontalis* Kirby 1891: 169, new synonym, described]: 148 [Illustrated, fig. 466-470, distribution, type deposition, taxonomic notes on *Tettigonia frontalis*, n. syn., *Jassus pauperculus*, n. syn.]: 149 [Comparative note to *claustra*, taxonomic notes (synonym of *paupercula*, *frontalis* and *fuscus*): 313 [Checklist]: 318 [Indexed]

*Calodia ostenta* (Distant): Zhang 1994: 109 [Keyed, in Chinese]: 119 [Catalogued, described, in Chinese, illustrated, 6 fig., (after Nielson)]: 120 [Described, in Chinese]: 136 [Checklist, distribution, in English]: 148 [Indexed, in Chinese]: 150 [Indexed, in English]

Distribution: (**China, India, Sri Lanka, Tibet**)

*ostenta* Distant (See *claustra* Nielson, *kodikanelensis* Nielson, *pauperculus* Spångberg, *frontalis* (Kirby),

*fusca* (Melichar), *paraostenta* Nielson, *patricia* (Jacobi), *ochraceus* (Jacobi), *subcrista* Nielson, *flavinota* Cai and Kuoh)

#### 21. *paraobscura* Nielson

*Calodia paraobscura* Nielson 1990: 445 [Abstract]: 462 [Keyed]: 465 [Illustrated, fig. 79-81]: 466 [sp. n., described, type deposition, distribution]: 467 [Comparative note to *Tripesidia obscura* (Nielson)]

*Calodia paraobscura* Nielson: Knight 2010: 49 [Listed, type locality, type disposition, distribution]

Distribution: (**Indonesia**)

#### 22. *paraostenta* Nielson

*Calodia paraostenta* Nielson 1990: 445 [Abstract]: 463 [Keyed]: 470 [Illustrated, fig. 102-106, sp. n., described]: 471 [Type deposition, distribution, comparative note to *ostenta*]

Distribution: (**Sri Lanka**)

*paraostenta* Nielson (See *kodikanelensis* Nielson)

#### 23. *patricia* (Jacobi)

*Jassus patricius* Jacobi 1944: 49 [n. sp.]

*Coelidia patricia* (Jacobi): Metcalf 1964: 68 [New combination, catalogued, distribution]

*Calodia patricia* (Jacobi): Nielson 1982: 141 [Keyed]: 144 [New combination, catalogued, new senior synonym of *Jassus ochraceus* Jacobi, described]: 145 [Illustrated, fig. 456-460, distribution, type deposition, comparative note to type of *ochraceus* Jacobi, comparative note to *inclinans* (Walker)]

*Calodia patricia* (Jacobi): Zhang 1994: 109 [Keyed, in Chinese]: 112 [Catalogued, illustrated, 6 fig. (after Nielson)]: 113 [Described]: 136 [Checklist, distribution, in English]: 148 [Indexed, in Chinese]: 150 [Indexed, in English]

*Calodia flavinota* Cai and Kuoh 1993: 219 [sp. nov., described]: 220 [Described, type deposition, distribution, illustrated, 6 fig., catalogued]: 221 [Abstract, comparative note to *Webboldia obliquasimilaris* (Zhang), in English] [**New synonymy**]

Distribution: (**China**)

*patricia* (See *inclinans* (Walker), *Creberulidia quadrispinata* (Nielson))

*pauperculus* Spångberg (See *fusca* Melichar, *ostenta* (Distant)) [Synonym]

**24. pennata** Nielson

*Calodia pennata* Nielson 1990: 445 [Abstract]: 463 [Keyed]: 468 [Illustrated, fig. 92-96]: 469 [sp. n., described, type deposition, distribution, comparative note to *bispinata*]

Distribution: **(Vietnam)**

**25. propennata, sp. nov.**

*Calodia propennata* Nielson, sp. nov.

Distribution: **(India)**

**26. punctivena** (Walker)

*Coelidia punctivena* Walker 1857: 99 [n. sp.]

*Jassus punctivena* (Walker): Distant 1908b: 149 [Catalogued, new combination]

*Coelidia punctivena* (Walker): Metcalf 1964: 71 [New combination, catalogued, distribution]

*Calodia punctivena* (Walker): Nielson 1982: 142 [Keyed]: 157 [Comparative note to *bispinata* Nielson]: 158 [New combination, catalogued, described]: 159 [Illustrated, fig. 509-514, described]: 160 [Distribution, type deposition, comparative note to *martini*, n. sp.]: 313 [Checklist]: 318 [Indexed]

*Calodia punctivena* (Walker): Knight 2010: 50 [Listed, type locality, type disposition, distribution]

Distribution **(Malaysia)**

punctivena Walker (See *bispinata* Nielson)

**27. scutopunctata** (Zhang) [**comb. nov.**]

*Lodiana scutopunctata* Zhang 1994: 73 [Keyed, in Chinese]: 83 [sp. nov., described, in Chinese]: 84 [Described, type deposition, distribution, comparative note to *Lodiana mutabilis* Nielson and *L. ritcheri* Nielson, in Chinese, illustrated, 6 figures]: 89 [Comparative note to *Lodiana longilamina* Zhang]: 126 [Comparative note to *Calodia harpagota* Zhang]: 134 [Checklist, distribution, in English]: 143 [sp. n., described, comparative note to *Lodiana mutabilis* Nielson and *L. ritcheri* Nielson, type deposition, distribution, in English]: 146 [Comparative note to *Calodia harpagota* Zhang, in English]: 147: [Indexed, in Chinese]: 151 [Checklist, in English]

*Olidiana scutopunctata* (Zhang): McKamey 2006: 506 [New combination]

Distribution: **(China)**

**28. serrata** Nielson

*Calodia serrata* Nielson 1982: 142 [Keyed]: 153 [new species, described]: 154 [Described]: 155 [Illustrated, fig. 493-497, type deposition, distribution, comparative note to *fusca* (Melichar)]: 313 [Checklist]: 318 [Indexed]

*Calodia serrata* Nielson: Knight 2010: 50 [Listed, type locality, type disposition, distribution]

Distribution: **(Malaysia)**

serrata Nielson (See *fusca* Melichar, *Glaberana digitata* Xu, Zhu and Kuoh)

**29. siberutensis** Nielson

*Calodia siberutensis* Nielson 1990: 445 [Abstract]: 446 [Keyed]: 467 [Illustrated, fig. 87-91]: 468 [sp. n., described, type deposition, distribution, comparative note to *inclinans*]

*Calodia siberutensis* Nielson: Knight 2010: 50 [Listed, type locality, type disposition, distribution]

Distribution: **(Indonesia (Sumatra))**

siberutensis Nielson (See *falx* Nielson)

**30. sichuanensis, sp. nov.**

*Calodia sichuanensis* Nielson, sp. nov.

Distribution: **(China)**

31. *sinuata*, sp. nov.*Calodia sinuata* Nielson, sp. nov.Distribution: **(Laos)**32. *subcrista* Nielson*Calodia subcrista* Nielson 1996: 147 [Abstract]: 153 [new species, described]: 154 [Described, type deposition, distribution, comparative note to *ostenta* (Distant)]: 160 [Illustrated, fig. 40-44]Distribution: **(India)**33. *sulawesiensis* Nielson*Calodia sulawesiensis* Nielson 1990: 445 [Abstract]: 463 [Keyed]: 469 [Illustrated, fig. 97-101, sp. n., described]: 470 [Described, type deposition, distribution, comparative note to *multipectinata*]*Calodia sulawesiensis* Nielson: Knight 2010: 50 [Listed, type locality, type disposition, distribution]Distribution: **(Indonesia (Sulawesi))**34. *vincula*, sp. nov.*Calodia vincula* Nielson, sp. nov.Distribution: **(Vietnam)***Cladolidia*, gen. nov.1. *attenuata* (Nielson) [comb. nov.]*Calodia attenuata* Nielson 1982: 143 [Keyed]: 179 [new species, described]: 180 [Described, type deposition, distribution]: 181 [Illustrated, fig. 587-591, comparative note to *inaequalis*, n. sp.]: 313 [Checklist]: 317 [Indexed]Distribution: **(Laos)***attenuata* (See *robusta* (Nielson))2. *bifurcata* (Xu and Kuoh) [comb. nov.]*Calodia bifurcata* Xu and Kuoh 1999: 209 [Abstract, sp. n., described, in English]: 210 [Described, illustrated, 6 fig., type deposition, distribution, comparative note to *robusta* Nielson]: 212 [Described, type deposition, comparative note to *robusta*, in Chinese]Distribution: **(China)***bifurcata* (See *Glaberana parabifurcata* (Nielson))3. *biungulata* (Nielson) [comb. nov.]*Lodiana biungulata* Nielson 1982: 89 [Keyed]: 112 [Comparative note to *peniculata*]: 113 [new species, described, illustrated, fig. 357-361]: 114 [Type deposition, distribution, comparative note to *corneola*, n. sp.]*Lodiana biungulata* Nielson: Zhang 1990: 100 [Illustrated, 6 fig. (after Nielson)]: 101 [Listed]: 104 [Indexed, in Chinese]: 197 [Indexed, in English]*Lodiana biungulata* Nielson: Li and Wang 1991: 108 [Keyed, in Chinese]: 111 [Catalogued, described, in Chinese]: 243 [Indexed, in English]: 274 [Listed, distribution, in Chinese]*Lodiana biungulata* Nielson: Cai, He, and Zhu 1998: 70 [Listed]*Olidiana biungulata* (Nielson): McKamey 2006: 503 [new combination]Distribution: **(China)***biungulata* Nielson (See *cladopenis* (Zhang), *Olidiana corneola* (Nielson))4. *cladopenis* (Zhang) [comb. nov.]*Lodiana cladopenis* Zhang 1990: 101 [sp. n., described, in Chinese]: 102 [type deposition, comparative note to *Lodiana biungulata*, illustrated, 6 fig, in Chinese]: 198 [Indexed, in English]



*Lodiana cladopenis* Zhang 1994: 73 [Keyed, in Chinese]: 95 [Catalogued, described, in Chinese]: 96 [Described, illustrated, 6 fig., in Chinese]: 135 [Checklist, distribution, in English]: 147 [Indexed, in Chinese]: 149 [Indexed, in English]

*Olidiana cladopenis* (Zhang): McKamey 2006: 504 [new combination]

Distribution: **(China)**

5. *hemicycla* (Nielson) [**comb. nov.**]

*Calodia hemicycla* Nielson 1982: 143 [Keyed]: 177 [new species, described]: 178 [Illustrated, fig. 577-581, described]: 179 [Type deposition, distribution, comparative note to *robusta*, n. sp.]: 313 [Checklist]: 317 [Indexed]

Distribution: **(Laos)**

6. *robusta* (Nielson) [**comb. nov.**]

*Calodia robusta* Nielson 1982: 179 [new species, described, type deposition, distribution, comparative note to *attenuata*, n. sp.]: 180 [Illustrated, fig. 582-586]: 313 [Checklist]: 318 [Indexed]

*Calodia robusta* Nielson: Zhang 1994: 109 [Keyed, in Chinese]: 124 [Catalogued, described]: 125 [Illustrated, 6 fig., after Nielson]: 137 [Checklist, distribution]: 148 [Indexed, in Chinese]: 151 [Indexed, in English]

Distribution: **(China, Laos)**

*robusta* Nielson (See *bifurcata* (Xu and Kuoh))

7. *trifurcata* (Cai and Kuoh) [**comb. nov.**]

*Lodiana trifurcata* Cai and Kuoh 1993: 218 [Described]: 219 [Described, type deposition, distribution, comparative note to *Lodiana bigemina* Zhang, in Chinese, illustrated, 7 fig.]: 221 [sp. nov., comparative note to *Lodiana bigemina* Zhang, described, type deposition, distribution, in English]

*Lodiana trifurcata* Cai and Kuoh: Cai and Huang 1999: 313 [Described, in Chinese]: 314 [Illustrated, 7 fig.]

Distribution: **(China)**

*Creberulidia*, **gen. nov.**

1. *aperta* (Nielson) [**comb. nov.**]

*Taharana aperta* Nielson 1982: 73 [new species, described, type deposition, distribution, comparative note to *arca* Nielson]: 74 [Illustrated, fig. 218-221]: 312 [Checklist]: 317 [Indexed]

*Taharana aperta* Nielson 1990: 447 [Keyed]

*Taharana aperta* Nielson: Knight 2010: 53 [Listed, type locality, type deposition, distribution]

Distribution: **(Indonesia (Sumatra))**

*aperta* (See *Glaberana longistyla* (Nielson), *Tripesidia longistyla* (Nielson))

2. *barnesi* (Nielson) [**comb. nov.**]

*Calodia barnesi* Nielson 1982: 144 [Keyed]: 193 [new species, described]: 194 [Described]: 195 [Illustrated, type deposition, distribution, comparative note to *pica* Nielson]: 313 [Checklist]: 317 [Indexed]

*Calodia barnesi* Nielson: Zhang 1994: [Keyed, in Chinese]: 117 [Catalogued, described, in Chinese]: 118 [Illustrated, 6 fig. (after Nielson)]: 136 [Checklist, in English]: 147 [Indexed, in Chinese]: 149 [Indexed, in English]

Distribution: **(Thailand)**

*barnesi* (See *pica* (Nielson))

3. *bispinosa* (Nielson) [**comb. nov.**]

*Calodia bispinosa* Nielson 1982: 144 [Keyed]: 189 [Comparative note to *lateralis* Nielson]: 190 [new species, described]: 190 [Illustrated, fig. 623-627, type deposition, distribution, comparative note to *jonesi* Nielson]: 313 [Checklist]: 317 [Indexed]

*Calodia bispinosa* Nielson: Xu and Kuoh 1999: 209 [Abstract, in English]: 210 [New record, catalogued, described, in English]: 211 [Described, illustrated, 5 fig., distribution, in English]: 212 [Comparative note to *Calodia spinifera* Zhang, in English, summary in Chinese]

Distribution: **(China, Thailand)**

bispinosa (See *jonesi* (Nielson), *lateralis* (Nielson))

#### 4. ***centata*** (Zhang) [**comb. nov.**]

*Calodia centata* Zhang 1994: 109 [Keyed, in Chinese]: 113 [sp. n., described, illustrated, 6 fig., in Chinese]: 114 [Type deposition, distribution, comparative note to *yayeyamae* Matsumura]: 136 [Checklist, distribution, in English]: 145 [sp. n., described, comparative note to *yayeyamae* Matsumura, type deposition, distribution, in English]: 148 [Indexed, in Chinese]: 149 [Indexed, in English]

Distribution: **(China)**

centata (See *yayeyamae* (Matsumura))

#### 5. ***corniger***, sp. nov.

*Creberulidia corniger* Nielson, sp. nov.

Distribution: **(Laos)**

#### 6. ***cumula*** (Nielson) [**comb. nov.**]

*Calodia cumula* Nielson 1982: 143 [Keyed]: 185 [New species, described, illustrated, fig. 602-606]: 186 [Type deposition, distribution, comparative note to *paucita* Nielson]: 313 [Checklist]: 317 [Indexed]

*Calodia cumula* Nielson: Knight 2010: 49 [Listed, type locality, type disposition, distribution]

Distribution: **(Philippines)**

cumula (See *yayeyamae* (Matsumura))

#### 7. ***excelsa*** (Distant) [**comb. nov.**]

*Jassus excelsus* Distant 1918: 49 [n. sp.]

*Coelidia excelsa* (Distant): Metcalf 1964: 48 [New combination, catalogued, distribution]

*Calodia excelsa* (Distant): Nielson 1992: 144 [Keyed]: 187 [Comparative note to *paucita*, n. sp.]: 188 [New combination, described, illustrated, fig. 613-617]: 189 [Type deposition, distribution, comparative note to *lateralis*, n. sp.]: 313 [Checklist]: 317 [Indexed]

Distribution: **(Laos, Myanmar, Thailand, Vietnam)**

excelsa (See *paucita* (Nielson))

*formosana* Matsumura (Nomen nudum)

#### 8. ***inaequalis*** (Nielson) [**comb. nov.**]

*Calodia inaequalis* Nielson 1982: 143 [Keyed]: 181 [new species, described]: 182 [Illustrated, fig. 592-596, described]: 183 [Type deposition, distribution, comparative note to *yayeyamae* (Matsumura)]: 313 [Checklist]: 317 [Indexed]

Distribution: **(Vietnam)**

inaequalis (See *Laosolidia attenuata* (Nielson))

#### 9. ***inflata***, sp. nov.

*Creberulidia inflata* Nielson, sp. nov.

Distribution: **(Thailand)**

10. ***jonesi*** (Nielson) [**comb. nov.**]

*Calodia jonesi* Nielson 1982: 144 [Keyed]: 192 [new species, described, illustrated, fig. 628-632]: 193  
[Type deposition, distribution, comparative note to *bispinosa*]: 313 [Checklist]: 317 [Indexed]

Distribution: (**Cambodia, Thailand**)

*jonesi* (See *bispinosa* (Nielson))

11. ***laosensis*** (Nielson) [**comb. nov.**]

*Calodia laosensis* Nielson 1990: 445 [Abstract]: 464 [Keyed]: 473 [sp. n., described]: 474 [Described, type deposition, distribution, comparative note to *inaequalis*]: 475 [Illustrated, fig. 122-126]

Distribution: (**Laos**)

12. ***lateralis*** (Nielson) [**comb. nov.**]

*Calodia lateralis* Nielson 1982: 144 [Keyed]: 189 [new species, described, type deposition, distribution, comparative note to *bispinosa*]: 190 [Illustrated, fig. 618-622]: 313 [Checklist]: 317 [Indexed]

Distribution: (**Thailand**)

*lateralis* (See *bispinosa* (Nielson), *excelsa* (Distant))

13. ***multipenicula*, sp. nov.**

*Creberulidia multipenicula* Nielson, sp. nov.

Distribution: (**Cambodia**)

14. ***ordospinosa*, sp. nov.**

*Creberulidia ordospinosa* Nielson, sp. nov.

Distribution: (**Thailand**)

15. ***paucita*** (Nielson) [**comb. nov.**]

*Calodia paucita* Nielson 1982: 144 [Keyed]: 186 [new species, described, type deposition, distribution]: 187 [Illustrated, distribution, comparative note to *excelsa* (Distant)]: 313 [Checklist]: 318 [Indexed]

*Calodia paucita* Nielson: Zhang 1994: 117 [Comparative note to *spinifera* Zhang]: 150 [Indexed]

*Calodia paucita* Nielson: Knight 2010: 49 [Listed, type locality, type disposition, distribution]

Distribution: (**Indonesia, Laos, Vietnam**)

*paucita* (See *cumula* (Nielson), *excelsa* (Distant))

16. ***penicula*, sp. nov.**

*Creberulidia penicula* Nielson, sp. nov.

Distribution: (**Thailand**)

17. ***pica*** (Nielson) [**comb. nov.**]

*Calodia pica* Nielson 1982: 144 [Keyed]: 193 [new species, described, type deposition, distribution, comparative note to *barnesi*]: 313 [Checklist]: 318 [Indexed]

Distribution: (**India**)

*pica* (See *barnesi* (Nielson))

18. ***quadrispinata*** (Nielson) [**comb. nov.**]

*Calodia quadrispinata* Nielson 1990: 445 [Abstract]: 464 [Keyed]: 473 [sp. n., described, type deposition, distribution, comparative note to *patricia*]: 474 [Illustrated, fig. 117-121]

Distribution: (**Laos**)

19. *setulosa* (Zhang) [**comb. nov.**]

*Calodia setulosa* Zhang 1994: 109 [Keyed, in Chinese]: 115 [sp. n., described]: 116 [Described, type deposition, distribution, comparative note to *yayeyamae* (Matsumura), illustrated, 5 fig.]: 136 [Checklist, distribution, in English]: 145-146 [Described, type deposition, comparative note to *Calodia yayeyamae* (Matsumura), distribution, in English]: 148 [Indexed, in Chinese]: 151 [Indexed, in English]

Distribution: **(China)**

*setulosa* (See *yayeyamae* (Matsumura), *yunnanensis* (Zhang))

20. *spinifera* (Zhang) [**comb. nov.**]

*Calodia spinifera* Zhang 1990: 108 [sp. n., description, illustrated, 3 fig.]: 109 [Type deposition, distribution, comparative note to *paucita* Nielson]: 194 [Indexed, in Chinese]: 201 [Indexed, in English]: 212 [sp. n., description, type deposition, distribution, in English]

*Calodia spinifera* Zhang 1994: 109 [Keyed]: 116 [Catalogued, described, in Chinese]: 117 [Described, comparative note to *paucita* Nielson, in Chinese]: 136 [Illustrated, 6 fig.]: 136 [Checklist, distribution, in English]: 151 [Indexed, in English]

*Calodia spinifera* Zhang: Xu and Kuoh 1999: 212 [Comparative note to *bispinosa* Nielson in English, summary, in Chinese]

Distribution: **(China)**

*spinifera* (See *bispinosa* (Nielson), *paucita* (Nielson))

21. *yayeyamae* (Matsumura) [**comb. nov.**]

*Coelidia yayeyamae* Matsumura 1913: 65 [n. sp., illustrated]

*Calodia yayeyamae* (Matsumura): Nielson 1982: 143 [Keyed]: 183 [New combination, resurrected from synonymy, catalogued, described, distribution, type deposition]: 184 [Illustrated, fig. 597- 601, comparative note to *cumula*, n. sp., taxonomic note to *yayeyamae* and *formosana* Matsumura]: 313 [Checklist]: 318 [Indexed]

*Calodia yayeyamae* (Matsumura): Zhang 1994: 109 [Keyed, in Chinese]: 114 [Comparative note to *centata* Zhang]: 116 [Comparative note to *setulosa* Zhang]: 118 [Illustrated, 6 fig. (after Nielson)]: 119 [Catalogued, described, taxonomic comments, in Chinese]: 136 [Checklist, distribution, in English]: 151 [Indexed, in English]

*Calodia yayeyamae* (Matsumura): Cai and He 2002: 139 [Keyed, in Chinese]: 140 [Listed]

Distribution: **(China, Japan, Taiwan)**

*yayeyamae* (See *centata* (Zhang), *inaequalis* (Nielson), *setulosa* (Zhang))

22. *yunnanensis* (Zhang) [**comb. nov.**]

*Calodia yunnanensis* Zhang 1994: 109 [Keyed, in Chinese]: 111 [sp. n., illustrated, 4 fig.]: 112 [Described, type deposition, distribution, comparative note to *warei* Nielson, in Chinese]: 136 [Checklist, distribution, in English]: 145 [sp. n., description, comparative note to *setacea* Nielson and *laminapellucida*, sp. n., type deposition, distribution, in English]: 147 [Indexed, in Chinese]: 151 [Indexed, in English]

Distribution: **(China)**

*yunnanensis* (See *Tripesidia warei* (Nielson))

***Glaberana*, gen. nov.**1. *acontata* (Zhang) [**comb. nov.**]

*Taharana acontata* Zhang 1994: 52 [Keyed, in Chinese]: 61 [sp. n., described, type deposition, distribution, comparative note to *aproboscidea* and *mengshuengensis*, in Chinese]: 62 [Illustrated, 6 fig.]

Distribution: **(China)**

*acontata* (See *aproboscidea* (Zhang), *mengshuengensis* (Zhang))

2. ***acuminata*** (Zhang) [**comb. nov.**]

*Taharana acuminata* Zhang 1994: 51 [Keyed, in Chinese]: 55 [sp. n., illustrated, 6 fig., described]: 56 [Type disposition, distribution, comparative note to *aproboscidea*]: 133 [Checklist, distribution, in English]: 140 [sp. n., comparative note to *aproboscidea*, description, type deposition, distribution, in English]: 147 [Indexed, in Chinese]: 149 [Indexed, in English]

Distribution: **(China)**

*acuminata* (See *aproboscidea* (Zhang), *choui* (Zhang))

3. ***ampla***, sp. nov.

*Glaberana ampla* Nielson, sp. nov.

Distribution: **(Thailand)**

4. ***aproboscidea*** (Zhang) [**comb. nov.**]

*Taharana aproboscidea* Zhang 1990: 110 [sp. n., described, illustrated, 6 fig.]: 111 [Type disposition, distribution, comparative note to *spiculata*]: 193 [Indexed, in Chinese]: 197 [Indexed, in English]

*Taharana aproboscidea* Zhang 1994: 52 [Keyed, in Chinese]: 56 [Comparative note to *acuminata*, in Chinese]: 60 [Catalogued, described, in Chinese]: 61 [Illustrated, 6 fig.]: 68 [Comparative note to *spinea*, in Chinese]: 133 [Checklist, distribution, in English]: 140 [Comparative note to *acuminata* and *acontata*, in English]: 141 [Indexed, in Chinese]: 149 [Indexed, in English]

Distribution **(China)**

*aproboscidea* (See *acontata* (Zhang), *acuminata* (Zhang))

5. ***arca*** (Nielson) [**comb. nov.**]

*Taharana arca* Nielson 1982: 51 [Keyed]: 73 [New species, described]: 74 [Type disposition, distribution, comparative note to *horrida*]: 75 [Illustrated, fig. 222-225]: 77 [Comparative note to *horrida*]: 312 [Checklist]: 317 [Indexed]

*Taharana arca* Nielson: Knight 2010: 53 [Listed, type locality, type disposition, distribution]

Distribution: **(Malaysia (Penang))**

*arca* (Nielson) (See *Creberulidia aperta* (Nielson))

6. ***bicuspidata*** (Zhang and Zhang) [**comb. nov.**]

*Taharana bicuspidata* Zhang and Zhang 1994: 95 [sp. n., described, type disposition, distribution, comparative note to *spinea*, in Chinese]: 96 [Illustrated, 7 fig.]

*Taharana bicuspidata* Zhang and Zhang, Zhang 1994: 51 [Keyed]: 52 [Comparative note to *ruiliensis*, in Chinese]: 53 [Illustrated, 6 fig.]: 132-133 [Checklist, distribution, in English]: 140 [Comparative note to *ruiliensis*]: 147 [Indexed, in Chinese]: 149 [Indexed, in English]

Distribution: **(China)**

*bicuspidata* (See *ruiliensis* (Zhang))

7. ***choui*** (Zhang) [**comb. nov.**]

*Taharana choui* Zhang 1994: 54 [sp. n., illustrated, 6 fig., described, in Chinese]: 55 [Type disposition, distribution, comparative note to *acuminata*]

Distribution: **(China)**

8. ***concavi*** (Zhang) [**comb. nov.**]

*Taharana concavi* Zhang 1990: 113 [sp. n., description]: 114 [Type disposition, distribution, comparative note to *schonhorsti*, illustrated, 5 fig., in Chinese]: 213 [sp. n., comparative note to *schonhorsti*, type

deposition, in English]

*Taharana concavi* Zhang 1994: 67 [Catalogued, described, comparative note to *schonhorsti*, in Chinese]: 68 [Illustrated, 5 fig.]

Distribution: **(China)**

9. *cuspidata* (Xu, Zhu and Kuoh) [**comb. nov.**]

*Taharana cuspidata* Xu, Zhu and Kuoh 2002: 37 [Abstract, described, in Chinese]: 38 [Type deposition, distribution, comparative note to *mengshuengensis*, in Chinese]: 39 [Illustrated, 5 fig., described, type deposition, distribution, comparative note to *mengshuengensis*, in English]

Distribution: **(China)**

10. *dentilamina*, **sp. nov.**

*Glaberana dentilamina* Nielson, sp. nov.

Distribution: **(Thailand)**

11. *digitata* (Xu, Zhu and Kuoh) [**comb. nov.**]

*Taharana digitata* Xu, Zhu and Kuoh 2002: 37 [Abstract, sp. n., described, in Chinese]: 38 [Illustrated, 5 fig., type deposition, distribution, comparative note to *mengshuengensis* Zhang, in Chinese, n. sp., catalogued, described, type deposition, distribution, comparative note to *serrata* Nielson, in English]

Distribution: **(China)**

12. *furca* (Nielson) [**comb. nov.**]

*Taharana furca* Nielson 1990: 445 [Abstract]: 447 [Illustrated, fig. 6-10, keyed]: 448-449 [sp. n., described, type deposition, distribution, comparative note to *concavi*]

*Taharana furca* Nielson: Zhang 1994: 52 [Keyed, in Chinese]: 66 [Catalogued, described]: 67 [Illustrated, 5 fig. (after Nielson)]: 133 [Checklist, distribution]: 147 [Indexed, in Chinese]: 150 [Indexed, in English]

Distribution: **(China)**

13. *hamulosa* (Li and Du) [**comb. nov.**]

*Taharana hamulosa* Li and Du 1995: 35 [Abstract]: 36 [Described, illustrated, 6 fig., in Chinese]

Distribution: **(China)**

14. *longilamina*, **sp. nov.**

*Glaberana longilamina* Nielson, sp. nov.

Distribution: **(Thailand)**

15. *longistyla* (Nielson) [**comb. nov.**]

*Taharana longistyla* Nielson 1982: 51 [Keyed]: 71 [new species, described]: 72 [Illustrated, fig. 214-217, type deposition, distribution]: 73 [Comparative note to *aperta*]: 312 [Checklist]: 317 [Indexed]

*Taharana longistyla* Nielson 1990: 447 [Keyed]

*Taharana longistyla* Nielson: Knight 2010: 53 [Listed, type locality, type disposition, distribution]

Distribution: **(Malaysia (Sarawak, Kuala Lumpur, Singapore))**

16. *mengshuengensis* (Zhang) [**comb. nov.**]

*Taharana mengshuengensis* Zhang 1994: 52 [Keyed, in Chinese]: 62 [sp. n., described, type deposition, distribution, in Chinese]: 63 [Illustrated, 6 fig]: 133 [Checklist, distribution, in English]: 141 [sp. n., comparative note to *acontata*, described, type deposition, distribution, in English]: 148 [Indexed, in Chinese]: 150 [Indexed, in English]

Distribution: **(China)**

*mengshuengensis* (See *acontata* (Zhang), *cuspidata* (Xu, Zhu and Kuoh), *digitata* (Xu, Zhu and Kuoh))

17. *parabifurcata* (Nielson) [**comb. nov.**]

*Taharana parabifurcata* Nielson 1990: 445 [Abstract]: 446 [Illustrated, fig. 1-5, keyed]: 448 [sp. n., described, type deposition, distribution, comparative note to *bifurcata*]  
Distribution: (**Laos**)

18. ***penita*, sp. nov.**

*Glaberana penita* Nielson, sp. nov.

Distribution: (**Laos**)

19. ***ruihensis*** (Zhang) [**comb. nov.**]

*Taharana ruihensis* Zhang 1994: 51 [Keyed, in Chinese]: 52 [sp. n., described, type deposition, distribution, comparative note to *bicuspidata*, in Chinese]: 53 [Illustrated, 6 fig.]: 133: [Checklist, distribution, in English]: 140 [n. sp., comparative note to *bicuspidata*, description, type deposition, distribution, in English]: 148 [Indexed, in Chinese]: 151 [Indexed, in English]

Distribution: (**China**)

*ruihensis* (See *bicuspidata* (Zhang and Zhang))

20. ***spadix*, sp. nov.**

*Glaberana spadix* Nielson, sp. nov.

Distribution: (**Laos**)

21. ***stylafurcata*, sp. nov.**

*Glaberana stylafurcata* Nielson, sp. nov.

Distribution: (**Sumatra**)

***Hamusolidia*, gen. nov.**

1. ***introrsa*, sp. nov.**

*Hamusolidia introrsa* Nielson, sp. nov.

Distribution: (**Laos**)

***Hiatusorus*, gen. nov.**

1. ***aviformis*, sp. nov.**

*Hiatusorus aviformis* Nielson, sp. nov.

Distribution: (**Laos**)

2. ***albopunctatus*** (Li) [**comb. nov.**]

*Taharana albopunctata* Li 1991: 355-356 [Described, type disposition, distribution, comparative note to *spiculata* Nielson, in Chinese]: 357 [Illustrated, fig. 11-15, in English and Chinese]: 359 [Comparative note to *spiculata* Nielson, type disposition, distribution, in English]

*Taharana leucostigma* Li: Li and Wang 1991: 275 [Comparative distribution, in Chinese]

*Taharana leucostigma* Li: Zhang 1994: 10 [Distribution]: 64 [Nomen nudum, new synonymy]: 133 [Checklist, nom. nud., syn. n.]

*Taharana albopunctata* Li: Li and Wang 1991: V. [Contents, listed]: 104 [Keyed, in Chinese]: 106 [Catalogued, described, illustrated, 5 fig.]: 107 [Described]: 243 [Indexed, in English]: 274 [Comparative distribution]

Distribution: (**China**)

3. ***bifasciatus*** (Zhang) [**comb. nov.**]

*Taharana bifasciata* Zhang 1990: 112 [sp. n., described, in Chinese, illustrated, 6 fig., type deposition, distribution, comparative note to *schonhorsti*, *aproboscidea*]

*Taharana bifasciata* Zhang 1994: 52 [Keyed, in Chinese]: 65 [Catalogued, described, comparative note to *aproboscidea*, *schonhorsti*, in Chinese, illustrated, 6 fig.]: 68 [Comparative note to *spinea*]: 133 [Check-

list, distribution, in English]: 147 [Indexed, in Chinese]: 149 [Indexed, in English]  
Distribution: **(China, Vietnam)**

4. **clarus** (Nielson) [**comb. nov.**]

*Taharana clara* Nielson 1982: 51 [Keyed]: 77 [new species, described, type deposition, distribution, comparative note to *ellsburyi* (Nielson)]: 78 [Illustrated, fig. 231-235]: 312 [Checklist]: 317 [Indexed]  
*Taharana clara* Nielson 1990: 447 [Keyed]  
*Taharana clara* Nielson: Knight 2010: 53 [Listed, type locality, type deposition, distribution]  
Distribution: **(Singapore, Vietnam)**

5. **concauus** (Nielson) [**comb. nov.**]

*Taharana concava* Nielson 1982: 52 [Keyed]: 79 [New species, described]: 80 [Illustrated, fig. 240-244, type deposition, distribution]: 81 [Comparative note]: 312 [Checklist]: 317 [Indexed]  
Distribution **(Myanmar)**

concauus (See *Glaberana furca* (Nielson))

6. **dentatus** (Nielson) [**comb. nov.**]

*Taharana dentata* Nielson 1990: 445 [Abstract]: 447 [Keyed]: 449 [Illustrated, fig. 16-20]: 450 [sp. n., described, type deposition, distribution, comparative note to *fortis*]  
*Taharana dentata* Nielson: Knight 2010: 53 [Listed, type locality, type deposition, distribution]  
Distribution: **(Malaysia (Kuala Lumpur))**

7. **ellsburyi** (Nielson) [**comb. nov.**]

*Taharana ellsburyi* Nielson 1982: 52 [Keyed]: 77 [new species, described]: 78 [Described, type deposition, distribution, comparative note to all species of *Taharana*]: 79 [Illustrated, fig. 236-239]: 312 [Checklist]: 317 [Indexed]  
*Taharana ellsburyi* Nielson 1990: 447 [Keyed]  
Distribution: **(Thailand)**

8. **fascianus** (Li) [**comb. nov.**]

*Taharana fasciana* Li 1991: 354 [Abstract, in Chinese]: 356 [Described, in Chinese]: 357 [Illustrated, fig. 16-20, in Chinese and English]: 358 [Type deposition, distribution, in Chinese]: 359 [Comparative note to *albopunctata*, type deposition, distribution, in English]  
*Taharana fasciana* Li: Li and Wang 1991: V. [Contents, listed]: 104 [Keyed, in Chinese]: 107 [Catalogued, described, illustrated, 5 fig.]: 244 [Indexed, in English]: 275 [Comparative distribution]  
*Taharana fasciana* Li: Zhang 1994: 51 [Keyed, in Chinese]: 70 [Catalogued, described, in Chinese]: 71 [Illustrated, 5 fig.]: 133 [Checklist, distribution, in English]: 147 [Indexed, in Chinese]: 149 [Indexed, in English]  
Distribution: **(China)**

9. **fortis** (Nielson) [**comb. nov.**]

*Taharana fortis* Nielson 1982: 51 [Keyed]: 69 [new species, described]: 70 [Described, type deposition]: 71 [Illustrated, fig. 208-213, comparative note to *spiculata*]: 312 [Checklist]: 317 [Indexed]  
*Taharana fortis* Nielson 1990: 447 [Keyed]  
Distribution: **(Thailand)**

10. **hardyi** (Nielson) [**comb. nov.**]

*Taharana hardyi* Nielson 1990: 445 [Abstract]: 447 [Keyed]: 448 [Illustrated, fig. 11-15]: 449 [sp. n., described]: 450 [Type deposition, distribution, assigned to *Taharana* with reservation, comparative note to *concava*]  
Distribution: **(India)**

11. **heidainus** (Li and Wang) [**comb. nov.**]



*Taharana heidaina* Li and Wang 1995: 35 [Abstract]: 36 [sp. nov., described, in Chinese]: 37 [Described, illustrated, 6 fig., type deposition, comparative note to *Taharana ruficinctata* Li, in Chinese]  
Distribution: **(China)**

12. ***horridus*** (Nielson) [**comb. nov.**]

*Taharana horrida* Nielson 1982: 51 [Keyed]: 75 [new species, described]: 76 [Illustrated, fig. 226-230, described, type deposition, distribution]: 77 [Comparative note to *arca*]: 312 [Checklist]: 317 [Indexed]

*Taharana horrida* Nielson 1990: 447 [Keyed]

Distribution: **(Thailand, Vietnam)**

*horridus* (See *Glaberana arca* (Nielson))

*leucostigma* Li (See *albopunctatus* Li) [Nomen nudum]

13. ***lii*** (Zhang) [**comb. nov.**]

*Taharana lii* Zhang 1994: 52 [Keyed, in Chinese]: 69 [sp. n., described, type deposition, distribution, comparative note to *schonhorsti* Nielson, *T. albopunctata* Li, in Chinese]: 70 [Illustrated, 8 fig.]: 133 [Checklist, distribution, in English]: 141 [sp. n., described, comparative note to *Taharana schonhorsti* Nielson, *T. albopunctata* Li, type deposition, distribution, in English]: 147 [Indexed, in Chinese]: 150 [Indexed, in English]

Distribution: **(China)**

14. ***prionophyllus*** (Zhang) [**comb. nov.**]

*Taharana prionophylla* Zhang 1990: 111 [n. sp., described, in Chinese, illustrated, 6 fig.]: 112 [Type deposition, distribution, comparative note to *schonhorsti*, in Chinese]

*Taharana prionophylla* Zhang 1994: 51 [Keyed, in Chinese]: 56 [Catalogued, illustrated, 6 fig., described, in Chinese]: 133 [Checklist, distribution, in English]: 147 [Indexed, in Chinese]: 151 [Indexed, in English]

Distribution: **(China)**

15. ***robustus***, sp. nov.

*Hiatusorus robustus* Nielson, sp. nov.

Distribution: **(China)**

*robusta* (See *Cladolidia hemicycla* (Nielson))

16. ***ruficinctus*** (Li) [**comb. nov.**]

*Taharana ruficincta* Li 1991: 355 [sp. nov., described, type disposition, distribution, comparative note to *trackana*, in Chinese]: 356 [Illustrated, fig. 5-10, in Chinese and English]: 359 [Comparative note to *trackana*, type disposition, distribution, in English]

*Taharana rufinctata* (sic) Li 1991: 104-105 [Described, in Chinese] [Error in spelling]

*Taharana ruficincta* Li: Zhang 1994: 10 [Distribution]: 52 [Keyed, in Chinese]: 66 [Catalogued, described, in Chinese, illustrated, 5 fig.]: 133 [Checklist, distribution, syn. n.]: 147 [Indexed, in Chinese]: 151 [Indexed, in English]

*Taharana ruficinctata* (sic) Li: Li and Wang 1991: [Contents, listed]: 104 [Keyed, in Chinese]: 105 [Catalogued, described, in Chinese]: 106 [Illustrated, 5 fig.]: 275 [Comparative note to *ruficincta* Li, distribution] [Nomen nudum]

*Taharana ruficinctata* (sic) Li: Zhang 1994: 66 [Listed]: 133 [Syn. n. (Error)]

Distribution: **(China)**

*ruficinctata* (See *ruficinctus* (Li))

17. ***schonhorsti*** (Nielson) [**comb. nov.**]

*Taharana schonhorsti* Nielson 1982: 51 [Keyed]: 69 [New species, described, type deposition, distribution, comparative note to *fortis*]: 70 [Illustrated, fig. 204-207]: 312 [Checklist]: 318 [Indexed]

*Taharana schonhorsti* Nielson 1990: 447 [Keyed]

*Taharana schonhorsti* Nielson: Zhang 1990: 109 [Catalogued]: 110 [Illustrated, 5 fig. (after Nielson)]: 194 [Indexed, in Chinese]: 200 [Indexed, in English]

Distribution: **(China, Seychelles, Thailand, Vietnam)**

*schonhorsti* (See *concavi* (Zhang), *Webbolidia webbi* (Nielson))

#### 18. *spiculatus* (Nielson) [**comb. nov.**]

*Taharana spiculata* Nielson 1982: 54 [Keyed]: 65 [Comparative note to *dubia* (Walker), new species, described]: 66 [Illustrated, fig. 194-197, described]: 67 [Type deposition, distribution, comparative note to *webbi*, n. sp.]: 312 [Checklist]: 318 [Indexed]

*Taharana spiculata* Nielson 1990: 446 [Keyed]

Distribution: **(China, Vietnam)**

*spiculata* (See *Glaberana aproboscidea* (Zhang), *Taharana dubia* (Walker), *Taharana goldi* Nielson)

#### 19. *spineus* (Zhang) [**comb. nov.**]

*Taharana spinea* Zhang 1990: 113 [sp. n., described, in Chinese, illustrated, 5 fig., type deposition, comparative note to *schonhorsti*, *aproboscidea*, *bifasciata*, in Chinese]: 134 [Indexed, in English]: 201 [Indexed, in Chinese]

*Taharana spinea* Zhang 1994: 52 [Keyed, in Chinese]: 68 [Catalogued, described, distribution, comparative note to *Taharana schonhorsti* Nielson, *T. aproboscidea* Zhang, *T. bifasciata* Zhang, in Chinese]: 69 [illustrated, 5 fig.]: 133 [Checklist, distribution, in English]: 147 [Indexed, in Chinese]: 151 [Indexed, in English]

Distribution: **(China)**

*spineus* (See *Glaberana aproboscidea* (Zhang), *Glaberana bicuspidata* (Zhang and Zhang), *bifasciatus* (Nielson), *schonhorsti* (Nielson))

#### 20. *supraspinosus*, **sp. nov.**

*Hiatusorus supraspinosus* Nielson, sp. nov.

Distribution: **(Thailand)**

### **Jenolidia** Nielson

*Jenolidia* Nielson 1982: 12 [Keyed]: 81 [new genus, type-species *Jenolidia jenniferae*, n. sp., described, key to species]

*Jenolidia* Nielson: Knight 2010: 50 [Listed, type-species]

#### 1. *inflata* Nielson

*Jenolidia inflata* Nielson 1982: 81 [new species, described]: 82 [Illustrated, fig. 245-249, type deposition, distribution, comparative note to *jenniferae*, n. sp.]: 312 [Checklist]: 317 [Indexed]

*Jenolidia inflata* Nielson: Knight 2010: 50 [Listed, type locality, type disposition, distribution]

Distribution: **(Malaysia (Sarawak))**

#### 2. *jenniferae* Nielson

*Jenolidia jenniferae* Nielson 1982: 82 [new species, described]: 83 [Illustrated, fig. 250-254, type deposition, distribution]: 84 [Comparative note to *inflata*]: 312 [Checklist]: 317 [Indexed]

*Jenolidia jenniferae* Nielson: Knight 2010: 50 [Listed, type locality, type disposition, distribution]

Distribution: **(Malaysia (Sabah))**

*jenniferae* (See *inflata* Nielson)

***Laosolidia*, gen. nov.****1. *complexa*, sp. nov.***Laosolidia complexa* Nielson, sp. nov.Distribution: (**Laos**)**2. *longiserrata*, sp. nov.***Laosolidia longiserrata* Nielson, sp. nov.Distribution: (**Laos**)**3. *tuberis*, sp. nov.***Laosolidia tuberis* Nielson, sp. nov.Distribution: (**Laos**)***Mahellus* Nielson***Mahellus* Nielson 1982: 84 [new genus, description, key to species]**1. *determinatus* (Distant)***Jassus determinatus* Distant 1917: 316 [n. sp., illustrated, distribution]*Coelidia determinata* (Distant): Metcalf 1964: 46 [New combination, catalogued, distribution]*Mahellus determinatus* (Distant): Nielson 1982: 84 [Keyed, new combination, catalogued, described]: 85 [Illustrated, fig. 255-263, described]: 86 [Distribution, type deposition, comparative note to *distanti*, n. sp.]: 312 [Checklist]: 317 [Indexed]Distribution: (**Seychelles**)*determinatus* (See *distanti* Nielson)**2. *distanti* Nielson***Mahellus distanti* Nielson 1982: 84 [Keyed]: 86 [new species, described, type deposition, distribution, comparative note to *determinatus*]: 312 [Checklist]: 317 [Indexed]Distribution: (**India**)*distanti* (See *determinatus* (Distant))***Olidiana* McKamey***Lodiana* Nielson 1982: 86 [New genus, type-species, *Lodiana alata*, n. sp., described]: 87 [Key to species]: 312 [Checklist]: 170 [Indexed]*Lodiana* Nielson: Li 1988: 87 [Taxonomy, described new species]: 88-89 [Described, new species, in Chinese]*Lodiana* Nielson: Li 1989: 1 [Cited]: 3-4 [Described new species, in Chinese]*Lodiana* Nielson: Zhang 1990: 92 [Contents]: 99 [Taxonomy]: 99-106 [Checklist, described 6 new species, in Chinese]: 199 [Indexed, in English]*Lodiana* Nielson: Li and Wang 1991: 103 [Taxonomy, key to genera]: 107 [Taxonomy]: 108 [Key to species]: 108-113 [Described new species and old species, in Chinese]: 246 [Indexed, in English]*Lodiana* Nielson: Li and He 1992: 65-66 [Taxonomy, described new species, in Chinese]*Lodiana* Nielson: Cai and Kuoh 1993: 218 [Cited, in Chinese]*Lodiana* Nielson: Zhang 1994: 8 [Map of distribution]: 11 [Key to species]: 72 [Taxonomy]: 134 [Checklist of Chinese species, in English]: 199 [Indexed, in English]*Lodiana* Nielson: Hayashi 1995: 197 [Taxonomy, new species]: 200 [Distribution]: 201 [Bionomics, checklist, new record]*Lodiana* Nielson: Yang and Zhang 1995: 107 [Described 2 new species, in Chinese]*Lodiana* Nielson: Cai and Huang 1999: 311-315 [Taxonomy, checklist, in Chinese]*Lodiana* Nielson: Cai and He 2002: 139 [Keyed, checklist, new species, in Chinese]

- Lodiana* Nielson: Cai and Kuoh 1993: 218 [Taxonomy, checklist, new species, in Chinese]: 219 [New species, in English]  
*Lodiana* Nielson: Cai, He and Zhu 1998: 70 [Checklist, in Chinese]  
*Lodiana* Nielson: Cai and Shen 1998: 42 [New species, in Chinese]  
*Lodiana* Nielson: Xu 2000: 218 [Taxonomy, described 3 new species, in English]  
*Lodiana* Nielson: Li and Zhang 2007: 147 [Taxonomy, checklist]: 148 [new species]  
*Olidiana* McKamey 2006: 502 [Abstract]: 503 [New name for *Lodiana* Nielson nec *Lodiana* Ragonot 1888]  
*Olidiana* Freytag 2010b: 362 [Nomenclature]: 363-366 [New species]: 367 [Checklist of species of Thailand]  
*Lodiana* Nielson: Knight 2010: 50 [Listed, type species, distribution]

### 1. *alvea* (Nielson)

- Lodiana alvea* Nielson 1990: 445 [Abstract]: 452 [Keyed]: 461 [sp. n., described, type deposition, distribution, comparative note to *parapectinata*]: 462 [Illustrated, fig. 69-73]  
*Olidiana alvea* (Nielson): McKamey 2006: 503 [new combination]  
*Lodiana alvea* Nielson: Knight 2010: 51 [Listed, type locality, type disposition, distribution]  
 Distribution: **(Malaysia)**

### 2. *alata* (Nielson)

- Lodiana alata* Nielson 1982: 86 [Type-species]: 89 [Keyed]: 115 [new species, described]: 116 [Illustrated, fig. 367-371, described, type deposition, distribution]: 117 [Distribution, comparative note to *bifurcata*, n. sp.]: 312 [Checklist]: 317 [Indexed]  
*Lodiana alata* Nielson: Zhang 1990: 99 [Type species]: 100 [Catalogued, illustrated, 6 fig. (after Nielson), in Chinese]: 195 [Indexed, in Chinese]: 197 [Indexed, in English]  
*Lodiana alata* Nielson: Zhang 1994: 72 [Type species, in Chinese]: 74 [Keyed, in Chinese]: 102 [Catalogued, illustrated, 6 fig. (after Nielson), described, in Chinese]: 134 [*Lodiana rufofasciana* Li and *Lodiana nigritibiana*, new synonyms of *alata* Nielson, in English]: 135 [*Lodiana nigritibiana* Li and *Lodiana rufofasciana*, new synonyms of *alata* Nielson, distribution, in English]: 148 [Indexed, in Chinese]: 149 [Indexed, in English, New synonyms: *Lodiana nigritibiana* Li and *Lodiana rufofasciana* Li, in English]  
*Lodiana alata* Nielson: Cai and Huang 1991: 311 [Catalogued, described, illustrated 6 fig. (after Nielson)]: 312 [Described]  
*Lodiana nigritibiana* Li 1988: 88 [Comparative note to *alata* Nielson]  
*Lodiana alata* Nielson: Hayashi 1995: 197 [Abstract]: 198 [Photo, fig. 3]: 201 [Catalogued, distribution]: 202 [Distribution, described]  
*Lodiana alata* Nielson: Cai and He 2002: 140 [Listed]  
*Olidiana alata* (Nielson): McKamey 2006: 503 [new combination]  
 Distribution: **(China)**

### 3. *bedardi* (Nielson)

- Lodiana bedardi* Nielson 1982: 90 [Keyed]: 128 [new species, described, type deposition, distribution, comparative note to *genista*, n. sp.]: 129 [Illustrated, fig. 414-418]: 312 [Checklist]: 317 [Indexed]  
*Olidiana bedardi* (Nielson): McKamey 2006: 503 [new combination]  
*Lodiana bedardi* Nielson: Knight 2010: 51 [Listed, type locality, type disposition, distribution]  
 Distribution: **(Malaysia)**

*bedardi* (See *tantula* (Nielson))

### 4. *bifurcata* (Nielson)

- Lodiana bifurcata* Nielson 1982: 89 [Keyed]: 110 [Comparative note to *cupraria* (Walker)]: 117 [new species, described, type deposition, distribution, comparative note to *ritcheri*, n. sp.]: 118 [Illustrated, fig. 372-376]: 312 [Checklist]: 317 [Indexed]  
*Lodiana bifurcata* Nielson: Zhang 1990: 106 [Comparative note to *bigemina* Zhang]

*Lodiana bifurcata* Nielson: Zhang 1994: 90 [Comparative note to *bigemina* Zhang]

*Olidiana bifurcata* (Nielson): McKamey 2006: 503 [new combination]

Distribution: **(Vietnam)**

bifurcata (See *alata* (Nielson), *bigemina* (Zhang), *gladia* (Nielson), *ritcheri* (Nielson), *spira* (Nielson))

### 5. *bigemina* (Zhang)

*Lodiana bigemina* Zhang 1990: 105 [sp. n., described, illustrated, 5 fig., in Chinese]: 106 [Type deposition, distribution, comparative note to *Lodiana ritcheriina*, sp. n. and *L. bifurcata*, in Chinese]: 211 [sp. n., comparative note to *ritcheriina*, sp. n. and *L. bifurcata*, type deposition, distribution, in English]: 197 [Indexed, in English]

*Lodiana bigemina* Zhang 1994: 73 [Keyed, in Chinese]: 89 [Catalogued, described, illustrated, 6 fig., in Chinese]: 90 [Comparative note to *ritcheriina* Zhang and *bifurcata* Nielson, in Chinese]: 135 [Checklist, distribution, in English]: 147 [Indexed, in Chinese]: 149 [Indexed, in English]

*Olidiana bigemina* (Zhang): McKamey 2006: 503 [new combination]

Distribution: **(China)**

bigemina (See *Cladolia trifurcata* (Cai and Kuoh), *bifurcata* (Nielson))

### 6. *bispiculata*, sp. nov.

*Olidiana bispiculata* Nielson, sp. nov.

Distribution: **(Laos)**

### 7. *boninensis* (Matsumura)

*Coelidia boninensis* Matsumura 1914b: 82 [n. sp., key]: 84 [n. sp., distribution]: 85 [Comparative note]: 90 [Listed]

*Coelidia boninensis* Matsumura: Metcalf 1964: 42-43 [Catalogued, distribution]

*Lodiana boninensis* (Matsumura): Nielson 1982: 91 [Keyed]: 134 [New combination, catalogued, new synonymy: *Coelidia ogasawarensis* Matsumura, *Coelidia nigrifrons* Matsumura, *Coelidia virescens* Matsumura]: 135 [Described]: 136 [Illustrated, fig. 440-444, described, distribution, type deposition, notes on synonymy]: 137 [Comparative note to *opulenta*, types of *boninensis*, *ogasawarensis*, *nigrifrons*, and *virescens*]

*Coelidia virescens* Matsumura 1914b: 82 [n. sp., keyed]

*Jassus virescens* (Matsumura): Esaki and Ito 1954a: 56 [New combination, catalogued]

*Coelidia virescens* Matsumura: Metcalf 1964: 80 [Catalogued, distribution]

*Olidiana boninensis* (Matsumura): McKamey 2006: 503 [new combination]

*Lodiana boninensis* (Matsumura): Knight 2010: 51 [Listed, type locality, type disposition, distribution]

*Lodiana ogasawarensis* (Matsumura): Knight 2010: 51 [Listed, type locality, type disposition, distribution, synonymy]

*Lodiana nigrifrons* (Matsumura): Knight 2010: 51 [Listed, type locality, type disposition, distribution, synonymy]

*Lodiana virescens* (Matsumura): Knight 2010: 51 [Listed, type locality, type disposition, distribution, synonymy]

Distribution: **(Japan)**

### 8. *brevis* (Walker)

*Tettigonia brevis* Walker 1851: 774 [n. sp.]

*Coelidia [brevis]* (Walker): Signoret 1853d: 178 [New combination]

*Jassus brevis* (Walker): Distant 1908f: 150 [New combination, catalogued]

*Lodiana brevis* (Walker): Nielson 1982: 90 [Keyed]: 132 [New combination, catalogued, described]: 133 [Illustrated, fig. 430-434, type disposition, distribution]: 134 [Comparative note to *indica* (Walker)]: 312 [Checklist]: 317 [Indexed]

*Lodiana brevis* (Walker): Zhang 1990: 99 [Illustrated, 7 fig., 6 after Nielson]: 100 [Catalogued, comments, in Chinese]: 195 [Indexed, in Chinese]: 197 [Indexed, in English]

*Lodiana brevis* (Walker): Li and Wang 1991: V. [Contents, listed]: 108 [Keyed, in Chinese]: 108 [Catalogued]: 243 [Indexed, in English]: 274 [Comparative distribution, in Chinese]  
*Lodiana brevis* (Walker): Zhang 1994: 10 [Citation, in Chinese]: 74 [Keyed]: 98 [Comparative note to *flavofascia* Zhang]: 99 [Comparative note to *brevisina* Zhang]: 101 [Catalogued, illustrated, 7 fig., 4 after Nielson]: 134 [Senior synonym of *Lodiana flavofasciana* Li]: 135 [Checklist, new senior synonym of *flavofasciana* Li, distribution]: 144 [Comparative note to *flavofascia*]: 148 [Indexed, in Chinese]: 149 [Indexed, in English]  
*Lodiana brevis* (Walker): Hayashi 1995: 200 [Comparative note to *uenoi* Hayashi]  
*Lodiana revis* (sic) (Walker): Cai and He 2002: 140 [Listed] [**Error for *brevis***]  
*Olidiana brevis* (Walker): McKamey 2006: 503 [New combination]  
*Olidiana brevis* (Walker): Freytag 2010b: 367 [Checklist, senior synonym of *Olidiana flavofasciana* (Li) attributed to Zhang 1994]  
 Distribution: (**China, Bangladesh, Laos, Myanmar, Thailand, Vietnam**)

*brevis* (See *brevisina* (Zhang), *flavofascia* (Zhang), *flavofasciana* (Li), *uenoi* (Hayashi))

### 9. *brevisina* (Zhang)

*Lodiana brevisina* Zhang 1990: 104 [sp. n., described, type deposition, distribution, comparative note to *Lodiana brevis*, in Chinese]: 105 [Illustrated, 8 fig.]: 211 [sp. n., comparative note to *Lodiana brevis*, type deposition, distribution, in English]: 197 [Indexed, in English]  
*Lodiana brevisina* Zhang 1994: 74 [Keyed, in Chinese]: 98 [Catalogued, described]: 99 [Described, comparative note to *Lodiana brevis* (Walker), illustrated, 8 fig., in Chinese]: 135 [Checklist, distribution, in English]: 147 [Checklist, in Chinese]: 149 [Checklist, in English]  
*Olidiana brevisina* (Zhang): McKamey 2006: 503 [new combination]  
 Distribution: (**China**)

*brevisina* (See *brevis* (Walker), *platyficiata* (Xu), *uenoi* (Hayashi))

### 10. *brevisissima* (Zhang)

*Lodiana brevisissima* Zhang 1990: 106 [n. sp., described, illustrated, 6 fig., type deposition, distribution, comparative note to *Lodiana lamina*, in Chinese]: 197 [Indexed, in English]  
*Lodiana brevisissima* Zhang 1994: 72 [Keyed, in Chinese]: 78 [Catalogued, illustrated, 6 fig., described, in Chinese]: 79 [Described, in Chinese]: 134 [Checklist, distribution, in English]: 149 [Indexed, in English]  
*Olidiana brevisissima* (Zhang): McKamey 2006: 504 [new combination]  
 Distribution: (**China**)

### 11. *caii*, nom. nov.

*Olidiana caih* Nielson, **nom. nov.** [Replacement name for *Lodiana hainana* Cai and He 2002]: 139 [Keyed, in Chinese]: 140 [sp. n., described]: 141 [Illustrated, 6 figs., type deposition, distribution, comparative note to *Lodiana nigradorsum* Cai and Shen]. [**Nomen nudum of *Taharana hainana* Zhang 1994: 132 (Nomen nudum)**].  
 Distribution: (**China**)

### 12. *corneola* (Nielson)

*Lodiana corneola* Nielson 1982: 89 [Keyed]: 114 [new species, described, type deposition, distribution, comparative note to *biungulata*]: 115 [Illustrated, fig. 362-366]: 312 [Checklist]: 317 [Indexed]  
*Lodiana corneola* Nielson: Zhang 1994: 82 [Comparative note to *curvispinata* Zhang, in Chinese]: 142 [Comparative note to *curvispinata*, in English]: 149 [Indexed, in English]  
*Olidiana corneola* (Nielson): McKamey 2006: 504 [new combination]  
*Olidiana corneola* (Nielson): Freytag 2010b: 367 [Checklist]  
 Distribution: (**Thailand**)

*corneola* (See *curvispinata* (Zhang))

13. *ctenostyla* (Nielson)

*Lodiana ctenostyla* Nielson 1990: 445 [Abstract]: 451 [Keyed]: 457 [Illustrated, fig. 46-50, sp. nov., described, type deposition, distribution]

*Olidiana ctenostyla* (Nielson): McKamey 2006: 504 [new combination]

*Lodiana ctenostyla* Nielson: Knight 2010: 51 [Listed, type locality, type deposition, distribution]

*Olidiana ctenostyla* (Nielson): Freytag 2010b: 367 [Checklist]

Distribution: **(Malaysia)**

14. *cupraria* (Walker)

*Coelidia cupraria* Walker 1857: 173 [n. sp., distribution]

*Coelidia cupraria* Walker: Distant 1908b: 148 [Synonym of *Tettigonia inclinans* Walker]

*Coelidia cupraria* Walker: Metcalf 1964: 45 [Listed]: 53 [Listed, synonym of *inclinans*]

*Jassus cupraria* (Walker): Distant 1908b: 148 [Synonym of *inclinans*]

*Lodiana cupraria* (Walker): Nielson 1982: 89 [Keyed]: 107 [Comparative note to *munda*]: 108 [New combination, reinstated from synonymy, catalogued, described]: 109 [Illustrated, fig. 341-346, described, distribution, type deposition]: 110 [Distribution, comparative note to *bifurcata*, taxonomic note to *Tettigonia inclinans* Walker]: 312 [Checklist]: 317 [Indexed]

*Olidiana cupraria* (Walker): McKamey 2006: 504 [new combination]

*Lodiana cupraria* (Walker): Knight 2010: 51 [Listed, type locality, type disposition, distribution]

Distribution: **(Malaysia)**

*cupraria* (See *Calodia inclinans* (Walker), *bifurcata* (Nielson), *Singillatus mundus* (Nielson))

15. *curvispinata* (Zhang)

*Lodiana curvispinata* Zhang 1994: 73 [Keyed, in Chinese]: 81 [sp. n., described, illustrated, 5 fig., in Chinese]: 82 [Type deposition, distribution, comparative note to *Lodiana corneola* Nielson, in Chinese]: 134 [Checklist, distribution, in English]: 142 [sp. nov., comparative note to *Lodiana corneola*, in English]: 143 [Type deposition, distribution, in English]

*Olidiana curvispinata* (Zhang): McKamey 2006: 504 [new combination]

Distribution: **(China)**

*curvispinata* (See *corneola* (Nielson))

16. *egregia* (Schumacher) [**comb. nov.**]

*Jassus egregius* Schumacher 1915b: 125 [n. sp.]

*Coelidia egregia* (Schumacher): Metcalf 1964: 48 [New combination, catalogued, distribution]

Distribution: **(Taiwan)**

17. *fasciculata* (Nielson)

*Lodiana fasciculata* Nielson 1982: 88 [Keyed]: 99 [new species, described, type deposition, distribution, comparative note to *pectita* (Distant)]: 100 [Illustrated, fig. 302-306]: 312 [Checklist]: 317 [Indexed]

*Lodiana fasciculata* Nielson: Zhang 1990: 101 [Catalogued, illustrated, 6 fig., after Nielson]: 194 [Indexed, in Chinese]: 198 [Indexed, in English]

*Lodiana fasciculata* Nielson: Zhang 1994: 73 [Keyed, in Chinese]: 91 [Catalogued, described, illustrated, in Chinese, 6 fig., after Nielson, in Chinese]: 92 [Comparative note to *signata* Zhang, in Chinese]: 135 [Checklist, distribution]: 144 [Comparative note to *signata* Zhang, type deposition, distribution, in English]

*Lodiana fasciculata* Nielson: Cai and He 2002: 139 [Keyed, in Chinese]: 140 [Listed, in Chinese]

*Olidiana fasciculata* (Nielson): McKamey 2006: 504 [new combination]

Distribution: **(China)**

*fasciculata* (See *Singillatus signatus* (Zhang), *Webbolidia acutistyla* (Li and Wang))

18. *filiata*, sp. nov.*Olidiana filiata* Nielson, sp. nov.Distribution: **(Vietnam)**19. *fissa* (Nielson)*Lodiana fissa* Nielson 1990: 445 [Abstract]: 452 [Keyed]: 460 [sp. n., described]: 461 [Illustrated, fig. 64-68, type deposition, distribution, comparative note to *ornata*]*Olidiana fissa* (Nielson): Zhang 1994: 73 [Keyed, in Chinese]: 82 [Catalogued, described, in Chinese, illustrated, 5 fig., after Nielson]: 134 [Checklist, distribution, in English]: 147 [Indexed, in Chinese]: 149 [Indexed, in English]*Olidiana fissa* (Nielson): McKamey 2006: 504 [new combination]Distribution: **(Taiwan)**20. *flavocostata* (Li and He) [**comb. nov.**]*Lodiana flavocostata* Li and He 1992: 65 [Abstract, described, type deposition, distribution, comparative note to *nocturna* (Distant), in English, sp. nov., described, in Chinese]: 66 [Described, illustrated, 5 fig., type deposition, distribution, comparative note to *Lodiana nocturna* (Distant), in Chinese]*Lodiana flavocostata* Li and He: Zhang 1994: 74 [Keyed, in Chinese]: 99 [Catalogued, described, in Chinese]: 100 [Described, in Chinese, illustrated, 5 figures]: 135 [Checklist, distribution, in English]: 148 [Indexed, in Chinese]: 149 [Indexed, in English]Distribution: **(China)**21. *flavofascia* (Zhang)*Lodiana flavofascia* Zhang 1994: 74 [Keyed, in Chinese]: 97 [sp. n., described, in Chinese]: 98 [Described, type deposition, distribution, comparative note to *Lodiana brevis* (Walker) and *spina* Zhang, illustrated, 7 fig., in Chinese]: 135 [Checklist, distribution, in English]: 144 [sp. n., comparative note to *Lodiana brevis* (Walker), *Lodiana spina* Zhang and *praetexta* (Distant), type deposition, distribution]: 147 [Indexed, in Chinese]: 149 [Indexed, in English]*Lodiana flavofascia* Zhang: Cai and He 2002: 139 [Keyed, in Chinese]: 140 [Listed]*Olidiana flavofascia* (Zhang): McKamey 2006: 504 [new combination]Distribution: **(China)***flavofascia* (See *brevis* (Walker), *spina* (Zhang))22. *flavofasciana* (Li) [**comb. nov., reinstated**]*Lodiana flavofasciana* Li 1989: 3 [n. sp., illustrated, fig. 15-19, in Chinese and English, described, type disposition, distribution, comparative note to *brevis* (Walker), in Chinese]: 5 [Comparative note to *brevis* (Walker), type disposition, in English]*Lodiana flavofasciana* Li: Li and Wang 1991: V. [Contents, listed]: 108 [Keyed, in Chinese]: 110 [Catalogued, described]: 111 [Illustrated, 5 fig.]: 244 [Indexed, in English]: 274 [*flavofasciana* (sic), comparative distribution, Chinese and English]*Lodiana flavofasciana* Li: Zhang 1994: 10 [Cited, in Chinese]: 72 [Cited, in Chinese]: 101 [Syn. nov. of *brevis* (Walker)]: 134 [New junior synonym of *brevis* (Walker)]: 135 [Checklist, new junior synonym of *brevis*]: 147 [Indexed, in Chinese]: 149 [Indexed, in English]*Lodiana flavofasciana* Li: Li, Zhang and Wang 2007: 147 [Described, in Chinese]*Olidiana flavofasciana* (Li): Freytag 2010b: 367 [Junior synonym of *brevis* (Walker)]Distribution: **(China)***flavofasciana* (See *flavofasciana* (Li and Wang)) (**Error for *flavofasciana***)*flavofasciana* (See *brevis* (Walker))*fusciculata* (See *mecistenata* Yang) (**Error for *O. fusciculata* (Nielson)**)



23. *fringa* (Zhang)

*Lodiana fringa* Zhang 1994: 74 [Keyed, in Chinese]: 104 [sp. n., described, type deposition, distribution, illustrated, 5 fig., in Chinese]: 135 [Checklist, distribution, in English]: 144 [sp. n., comparative note to *Lodiana setacea* Nielson and *L. ornata* Nielson, type deposition, distribution, in English]: 148 [Indexed, in Chinese]: 149 [Indexed, in English]

*Olidiana fringa* (Zhang): McKamey 2006: 504 [new combination]

Distribution: **(China)**

24. *genista* (Nielson)

*Lodiana genista* Nielson 1982: 90 [Keyed]: 128 [new species, described]: 129 [Illustrated, fig. 419-424, type deposition, distribution, comparative note to *perculata* (Distant)]: 312 [Checklist]: 317 [Indexed]

*Olidiana genista* (Nielson): McKamey 2006: 504 [new combination]

Distribution: **(Myanmar)**

*genista* (See *bedardi* (Nielson))

25. *gladia* (Nielson)

*Lodiana gladia* Nielson 1990: 445 [Abstract]: 451 [Keyed]: 458 [Illustrated, fig. 51-53, sp. n., described, comparative note to *bifurcata* Nielson, type deposition, distribution]

*Olidiana gladia* (Nielson): McKamey 2006: 504 [new combination]

*Lodiana gladia* Nielson: Knight 2010: 51 [Listed, type locality, type disposition, distribution]

Distribution: **(Malaysia)**

*hainana* Cai and He [**nomen nudum**] (See *caii* Nielson)

26. *halberta* (Li) [**comb. nov.**]

*Lodiana halberta* Li 1988: 88 [sp. nov., described, illustrated, 5 fig., in Chinese]: 89 [described, type deposition, distribution, comparative note to *nigritibiana* Li]

*Lodiana halberta* Li: Li and Wang 1991: V. [Contents, listed]: 108 [Keyed, in Chinese]: 109 [Catalogued]: 110 [Described, illustrated, 5 fig.]: 245 [Indexed, in English]: 274 [Comparative distribution]

*Lodiana halberta* Li: Zhang 1994: 73 [Keyed, in Chinese]: 90 [Catalogued, described, illustrated, 5 fig., after Li]: 135 [Checklist, distribution, in English]: 148 [Indexed, in Chinese]: 150 [Indexed, in English]

Distribution: **(China)**

27. *hamularis* (Xu)

*Lodiana hamularis* Xu 2000: 218 [Abstract, in English]: 219 [sp. nov., described, in English]: 220 [Illustrated, 6 fig., type deposition, distribution, comparative note to *setacea* Nielson, in English] [**Senior synonym of yangi McKamey 2006**]

*Olidiana hamularis* (Xu): McKamey 2006: 504 [new combination]

Distribution: **(China)**

28. *huangi* (Zhang)

*Lodiana huangi* Zhang 1994: 72 [Keyed, in Chinese]: 80 [sp. n., described, illustrated, 6 fig., in Chinese]: 134 [Checklist, distribution, in English]: 142 [sp. nov., described, comparative note to *pectita* (Distant), type deposition, distribution, in English]: 148 [Indexed, in Chinese]: 150 [Indexed, in English]

*Olidiana huangi* (Zhang): McKamey 2006: 504 [new combination]

Distribution: **(China)**

29. *huangmina* (Li and Wang) [**comb. nov.**]

*Lodiana huangmina* Li and Wang 1989: 2 [n. sp., described, illustrated, fig. 6-10, type disposition, distribution, in Chinese]: 4 [Comparative note to *rufofasciana* Li and Wang, type disposition, distribution, in English]

*Lodiana huangmiana* (sic) Li and Wang 1991: V. [Contents, listed]: 108 [Keyed, in Chinese]: 111 [Catalogued]: 112 [Illustrated, 5 fig.]: 145 [Indexed, in English]: 274 [Comparative distribution]  
*Lodiana huangmina* Li and Wang: Zhang 1994: 74 [Keyed, in Chinese]: 135 [Checklist, distribution, in English]: 103 [*huangmiana*, error for *huangmina* Li and Wang]: 150 [Indexed, in English]  
 Distribution: **(China)**

*huangmiana* (See *huangmina* (Li and Wang)) (**Error for *huangmina***)

30. ***huoshanensis*** (Zhang)

*Lodiana huoshanensis* Zhang 1994: 73 [Keyed, in Chinese]: 86 [sp. n., illustrated, 5 fig., described, in Chinese]: 87 [type deposition, distribution, comparative note to *Lodiana mutabilis* Nielson]: 126 [Listed]: 134 [Checklist, distribution, in English]: 143 [sp. n., comparative note to *Lodiana mutabilis* Nielson, in English]: 146 [Comparative note to *Calodia harpagota*, sp. n.]: 148 [Indexed, in Chinese]: 150 [Indexed, in English]

*Olidiana huoshanensis* (Zhang): McKamey 2006: 504 [new combination]

Distribution: **(China)**

*huoshanensis* (See *Calodia harpagota* Zhang, *scutopunctata* (Zhang))

31. ***implicata*, sp. nov.**

*Olidiana implicata* Nielson, sp. nov.

Distribution: **(Laos)**

32. ***inaequibilia*, sp. nov.**

*Olidiana inaequibilia* Nielson, sp. nov.

Distribution: **(Thailand)**

33. ***indica*** (Walker)

*Coelidia indica* Walker 1851: 855 [n. sp., distribution]

*Tettigonia jactans* (Walker) 1858c: 357 [n. sp., distribution]

*Coelidia jactans* Walker: Stål 1862: 494 [New combination]

*Jassus deplanatus* Spångberg 1878b: 23 [n. sp.]

*Jassus indicus* (Walker): Distant 1908a: 46 [New combination]

*Coelidia indica* Walker: Metcalf 1964: 53-54 [New combination, catalogued, distribution]

*Lodiana indica* (Walker): Nielson 1982: 94 [Keyed, n. comb]: 134 [Comparative note to *Lodiana brevis*]: 137 [new combination, catalogued]: 138 [Described]: 139 [Illustrated, fig. 451-455, distribution, type deposition]: 140 [Examination of types of *Coelidia indica*, *Jassus deplanatus* Spångberg, *Tettigonia jactans* Walker, new synonyms of *Coelidia indica* Walker: misidentified vector of Sandal Spike disease]: 312 [Checklist]: 317 [Indexed]

*Lodiana indica* (Walker): Zhang 1994: 10 [Listed]: 72 [Listed]

*Olidiana indica* (Walker): McKamey 2006: 504 [new combination]

*Lodiana indica* (Walker): Knight 2010: 51 [Listed, type locality, type deposition, distribution]

*Lodiana indica* var. c (Distant): Knight 2010: 51 [Listed, type locality, type deposition, distribution]

*Lodiana deplanatus* (Spångberg): Knight 2010: 51 [Listed, type locality, type deposition, distribution, synonymy]

Distribution: **(India, Nepal)**

*indicus* Walker (See *Calodia kirkaldyi* Nielson, *Olidiana brevis* (Walker), *Singillatus singularis* (Nielson))

*karenensis* (See *perculata* Distant) [Synonym]

34. ***kirkaldyi*** (Nielson) [**comb. nov.**]

*Calodia kirkaldyi* Nielson 1982: 140 [Generic misplacement to "*Lodiana kirkaldyi*, n. sp." ] [**Error**] 142 [Keyed]: 169 [New species, described, type deposition, distribution, comparative note to *trispinata*, n.

sp.]: 150 [Note on misidentified vector species, "*Jassus indicus*", new name of vector species, *Calodia kirkaldyi* Nielson]

Distribution: **(India)**

kirkaldyi (See *Trinoridia rama* (Kirkaldy), *Trinoridia trispinata* (Nielson))

35. ***knowltoni*** (Nielson)

*Lodiana knowltoni* Nielson 1982: 88 [Keyed]: 101 [new species, described]: 102 [Illustrated, fig. 312-316, described, type deposition]: 103 [Distribution, comparative note to *ventrosola*, n. sp.]: 312 [Checklist]: 317 [Indexed]

*Olidiana knowltoni* (Nielson): McKamey 2006: 504 [new combination]

*Lodiana knowltoni* Nielson: Knight 2010: 51 [Listed, type locality, type deposition, distribution]

Distribution: **(Malaysia)**

knowltoni (See *pectita* (Distant))

36. ***kodeti*** (Nielson)

*Lodiana kodeti* Nielson 1982: 90 [Keyed]: 124 [new species, described, type deposition, distribution, comparative note to *scopae*, n. sp.]: 312 [Checklist]: 317 [Indexed]

*Olidiana kodeti* (Nielson): McKamey 2006: 504 [new combination]

*Lodiana kodeti* Nielson: Knight 2010: 51 [Listed, type locality, type deposition, distribution]

Distribution: **(Philippines)**

37. ***kuohi*** (Xu)

*Lodiana kuohi* Xu 2000: 218 [Abstract]: 221 [sp. nov., described, illustrated, 7 fig., in English]: 222 [Described, type deposition, distribution, comparative note to *Lodiana huangmina* Li and Wang, catalogued, in English]

*Olidiana kuohi* (Xu): McKamey 2006: 504 [new combination]

Distribution: **(China)**

38. ***laminapellucida*** (Zhang)

*Lodiana laminapellucida* Zhang 1994: 74 [Keyed, in Chinese]: 104 [sp. n., described, in Chinese]: 105 [Described, type deposition, distribution, comparative notes to *Lodiana laminispinosa*, *L. polyspinata*, *L. zhengi*, in Chinese, illustrated, 5 fig.]: 106 [Comparative note to *laminispinosa*, in Chinese]: 107 [Comparative note to *Lodiana zhengi*, in Chinese]: 108 [Comparative note to *Lodiana polyspinata*, in Chinese]: 136 [Checklist, distribution, in English]: 144 [sp. n., distribution, in English]: 145 [Comparative note to *zhengi* and *polyspinata*, in English]: 147 [Indexed, in Chinese]: 150 [Indexed, in English]

*Olidiana laminapellucida* (Zhang): McKamey 2006: 504 [new combination]

Distribution: **(China)**

laminapellucida (See *Creberulidia yunnanensis* (Zhang), *polyspinata* (Zhang), *zhengi* (Zhang))

39. ***laminispinosa*** (Zhang)

*Lodiana laminispinosa* Zhang 1994: 74 [Keyed, in Chinese]: 105 [sp. n., described, in Chinese]: 106 [Described, type deposition, distribution, comparative note to *Lodiana laminapellucida*, illustrated, 5 fig., in Chinese]: 107 [Comparative note to *zhengi*, in Chinese]: 144 [sp. n., comparative note to *Lodiana laminapellucida* and *L. zhengi*, type deposition, distribution, in English]: 145 [Comparative note to *zhengi*]: 147 [Indexed, in Chinese]: 150 [Indexed, in English]

*Olidiana laminispinosa* (Zhang): McKamey 2006: 504 [new combination]

Distribution: **(China)**

laminispinosa (See *zhengi* (Zhang))

longilamina (See *Calodia scutopunctata* (Zhang))

40. ***lata*, sp. nov.**

*Olidiana lata* Nielson, sp. nov.

Distribution: (**Laos**)

41. ***mecistenata*** (Yang)

*Lodiana mecistenata* Yang, in Yang and Zhang 1995: 41 [Illustrated, fig. A-G, after Yang, described, type deposition, distribution, comparative note to *L. fusciculata* (sic!) Nielson, in Chinese]: 44 [Checklist, sp. nov., type deposition, distribution, described, comparative note to *L. fusciculata* (sic) Nielson]

*Lodiana mecistenata* (Yang): McKamey 2006: 505 [new combination]

Distribution: (**China**)

42. ***multispinata*** (Nielson) [**comb. nov.**]

*Calodia multispinata* Nielson 1982: 151 [new species, described]: 152 [Illustrated, fig. 481-485, described]: 153 [Type deposition, distribution, comparative note to *sparsispinulata*, n. sp.]: 313 [Checklist]: 318 [Indexed]

Distribution: (**Nepal**)

multispinata Nielson (See *multipectinata* Nielson, *sparsispinulata* Nielson)

43. ***mutabilis*** (Nielson)

*Lodiana mutabilis* Nielson 1982: 89 [Keyed]: 120 [new species, described, type deposition, distribution, comparative note to *setacea*, n. sp.]: 312 [Checklist]: 317 [Indexed]

*Lodiana mutabilis* Nielson: Zhang 1994: 4 [Cited, in Chinese]: 73 [Keyed, in Chinese]: 84 [Comparative note to *scutopunctata*, sp. n., in Chinese]: 85 [Catalogued, illustrated, 7 fig., after Nielson, in Chinese]: 86 [Described, in Chinese]: 87 [Comparative note to *Lodiana huoshanensis*, in Chinese]: 89 [Comparative note to *longilamina*, in Chinese]: 126 [Comparative note to *Calodia harpagota*, in Chinese]: 134 [Checklist, distribution, in English]: 143 [Comparative note to *Lodiana scutopunctata*, sp. n., *L. huoshanensis*, sp. n., *L. pectiniformis*, sp. n., *L. longilamina*, sp. n., distribution, in English]: 146 [Comparative note to *Calodia harpagota*, sp. n, in English]: 147 [Indexed, in Chinese]: 150 [Indexed, in English]

*Olidiana mutabilis* Nielson: McKamey 2006: 505 [new combination]

Distribution: (**China**)

mutabilis Nielson (See *Calodia harpagota* Zhang, *Lodiana scutopunctata* (Zhang), *Olidiana huoshanensis* (Zhang), *ritchieri* (Nielson), *ritchieriina* (Zhang))

44. ***nigradorsa*** (Cai and Shen)

*Lodiana nigradorsum* Cai and Shen 1998: 42 [n. sp. described]: 43 [Described, type deposition, comparative note to *Lodiana perculata* (Distant), illustrated, fig. A-G, in Chinese]: 51 [sp. nov., comparative note to *Lodiana perculata* (Distant); length, type locality, in English] [**Error for *nigradorsa*, misapplication of gender**]

*Lodiana nigradorsum* Cai and Shen: Cai and He 2002: 139 [Keyed, in Chinese]: 140 [Listed, in Chinese]

*Olidiana nigradorsum* (Cai and Shen): McKamey 2006: 505 [new combination]

Distribution: (**China**)

nigradorsum (See *hainana* (Cai and He))

45. ***nigrifaciana*** (Li and Zhang) [**comb. nov.**]

*Lodiana nigrifaciana* Li and Zhang 2007, in Li, Z., Zhang, B., and Y. Wang 2007: 148 [sp. nov., described, in Chinese, illustrated, fig. 1-6, type deposition, distribution, comparative note to *Lodiana huangmiana* (sic) Li, in Chinese]: 166 [Abstract, *Lodiana nigrifacies* (sic) Li and Zhang, sp. nov., comparative note to *Lodiana huangmiana* (sic) Li, in English]

Distribution: **(China)**

*nigrifacies* Li and Zhang (See *nigrifaciana* (Li and Zhang)) [**Error for *nigrifaciana***]

*nigrifrons* Matsumura (See *boninensis* (Matsumura)) [synonym]

*nigritibiana* Li (See *Calodia nigritibiana* (Li))

46. ***nocturna*** (Distant)

*Jassus nocturnus* Distant 1908a: 332 [n. sp.]

*Coelidia nocturna* (Distant): Metcalf 1964: 62 [New combination, catalogued]

*Lodiana nocturna* (Distant): Nielson 1982: 91 [Keyed]: 137 [New combination, catalogued, described, distribution, type deposition, comparative note to *indica* (Walker)]: 140 [Comparative note to *indica* (Walker)]: 312 [Checklist]: 318 [Indexed]

*Olidiana nocturna* (Distant): McKamey 2006: 505 [new combination]

Distribution: **(India, Nepal)**

*nocturna* (See *flavocostata* (Li and He))

*ogasawarensis* (See *boninensis* (Matsumura)) [synonym]

47. ***opulenta*** (Distant)

*Jassus opulentus* Distant 1908a: 336 [n. sp., distribution]

*Coelidia opulenta* (Distant): Metcalf 1964: 68 [New combination, catalogued]

*Lodiana opulenta* (Distant): Nielson 1982: 90 [Keyed]: 132 [Comparative note to *Lodiana perculata*]: 134 [new combination, catalogued, described, distribution, type deposition, comparative note to *boninensis* (Matsumura)]: 137 [Illustrated, fig. 435-439]: 312 [Checklist]: 318 [Indexed]

*Olidiana opulenta* (Distant): McKamey 2006: 505 [new combination]

*Olidiana opulenta* (Distant): Freytag 2010b: 367 [Checklist, distribution]

Distribution: **(Myanmar, Thailand)**

*opulenta* (See *boninensis* (Matsumura))

48. ***ornata*** (Nielson)

*Lodiana ornata* Nielson 1982: 90 [Keyed]: 127 [new species, described, illustrated, fig. 409-413]: 128 [Described, type deposition, distribution, comparative note to *bedardi*, n. sp.]: 312 [Checklist]: 318 [Indexed]

*Olidiana ornata* (Nielson): McKamey 2006: 505 [new combination]

*Lodiana ornata* Nielson: Knight 2010: 52 [Listed, type locality, type deposition, distribution]

Distribution: **(Malaysia (Sabah))**

*ornata* (See *fissa* (Nielson), *fringa* (Zhang), *scopae* (Nielson))

49. ***parafringa*, sp. nov.**

*Olidiana parafringa* Nielson, sp. nov.

Distribution: **(Laos)**

50. ***parapectinata*** (Nielson)

*Lodiana parapectinata* Nielson 1990: 445 [Abstract]: 451 [Keyed]: 456 [Illustrated, fig. 41-45, sp. n., described]: 457 [Type deposition, distribution, comparative note to *pectinata*]

*Olidiana parapectinata* (Nielson): McKamey 2006: 505 [new combination]

*Lodiana parapectinata* Nielson: Knight 2010: 52 [Listed, type locality, type deposition, distribution]

Distribution: **(Malaysia (Sarawak))**

parapectinata (See *alvea* (Nielson))

51. ***paridens*** Freytag

*Olidiana paridens* Freytag 2010b: 362 [Abstract]: 363 [Illustrated, fig. 4-6]: 364 [new species, described, type deposition, distribution]: 365 [Comparative note to *anisota*]: 367 [Checklist, distribution]

Distribution: **(Thailand)**

52. ***pectinata*** (Nielson)

*Lodiana pectinata* Nielson 1982: 89 [Keyed]: 110 [new species, described, type deposition, distribution, comparative note to *peniculata*, n. sp.]: 111 [Illustrated, fig. 347-351]: 312 [Checklist]: 318 [Indexed]

*Lodiana pectinata* Nielson: Yang and Zhang 1995: 40 [n. sp., illustrated, fig. A-F, described, type deposition, in Chinese]: 41 [Comparative note to *ritchertiina* Zhang, in Chinese]: 44 [sp. nov., type disposition, length, comparative note to *ritchertiina* Zhang, in English]

*Olidiana pectinata* (Nielson): McKamey 2006: 502 [Abstract]: 505 [new combination]: 506 [*yangi*, new name for *Lodiana pectinata* Yang and Zhang 1995 nec *Lodiana pectinata* Nielson 1982, junior homonym of *Lodiana pectinata* Nielson]

*Lodiana pectinata* Nielson: Knight 2010: 52 [Listed, type locality, type deposition, distribution]

Distribution: **(Malaysia, Singapore)**

pectinata (See *yangi* McKamey) [Replacement name]

53. ***pectiniformis*** (Zhang)

*Lodiana pectiniformis* Zhang 1994: 73 [Keyed, in Chinese]: 87 [sp. n., illustrated, 6 fig., described, in Chinese]: 88 [Type deposition, distribution, comparative note to *Lodiana mutabilis* Nielson and *L. ritchei* Nielson, in Chinese]: 135 [Checklist, distribution, in English]: 143 [sp. n., comparative note to *Lodiana mutabilis* Nielson and *L. ritchei*, distribution, in English]: 147 [Indexed, in Chinese]: 150 [Indexed, in English]

*Lodiana pectiniformis* Zhang: Cai, He and Zhu 1998a: 70 [Listed]

*Olidiana pectiniformis* (Zhang): McKamey 2006: 505 [new combination]

Distribution: **(China)**

pectiniformis (See *ritcherti* (Nielson))

54. ***pectita*** (Distant)

*Jassus pectitus* Distant 1908a: 329 [n. sp., described]

*Coelidia pectita* (Distant): Metcalf 1964: 69 [New combination, catalogued, distribution]

*Lodiana pectita* (Distant): Nielson 1982: 88 [Keyed]: 99 [new combination, catalogued, described]: 101 [Illustrated, fig. 307-311, distribution, type deposition, comparative note to *knowltoni*, n. sp.]: 312 [Checklist]: 318 [Indexed]

*Olidiana pectita* (Distant): McKamey 2006: 505 [new combination]

Distribution: **(Myanmar, Vietnam)**

pectita (See *fasciculata* (Nielson), *tongmaiensis* (Zhang), *huangi* (Zhang))

55. ***peniculata*** (Nielson)

*Lodiana peniculata* Nielson 1982: 89 [Keyed]: 111 [new species, described]: 112 [Illustrated, fig. 352-356, described, type deposition, distribution, comparative note to *biungulata*, n. sp.]: 312 [Checklist]: 318 [Indexed]

*Olidiana peniculata* (Nielson): McKamey 2006: 505 [new combination]

Distribution: **(India)**

peniculata Nielson (See *Cladolia biungulata* (Nielson))

56. ***pennata*, sp. nov.**

*Olidiana pennata* Nielson, sp. nov.

Distribution: **(Laos)**

57. ***perbrevis*** (Nielson)

*Lodiana perbrevis* Nielson 1991: 445 [Abstract]: 450 [Keyed]: 452 [Illustrated, fig. 21-25]: 453 [sp. n., described, type deposition, distribution, comparative note to *perculata*]

*Olidiana perbrevis* (Nielson): McKamey 2006: 505 [new combination]

Distribution: **(India)**

58. ***perculata*** (Distant)

*Jassus perculata* Distant 1908a: 337 [n. sp.]

*Jassus karenensis* Distant 1908a: 337 [n. sp.]

*Coelidia perculata* (Distant): Metcalf 1964: 69 [New combination, catalogued, distribution]

*Lodiana perculata* (Distant): Nielson 1982: 90 [Keyed]: 130 [Comparative note to *Lodiana genista*]: 131 [New combination, catalogued, described, illustrated, fig. 425-429]: 132 [Described, distribution, type deposition, comparative note to *opulenta* Distant, n. comb. and *karenensis* Distant]: 312 [Checklist]: 318 [Indexed]

*Jassus karenensis* Distant: Nielson 1982: 131 [new synonymy]

*Lodiana perculata* (Distant): Zhang 1994: 74 [Keyed, in Chinese]: 100 [Catalogued, described, in Chinese]: 101 [Illustrated, 6 fig., after Nielson]: 135 [Checklist, distribution, in English]: 148 [Indexed, in Chinese]: 150 [Indexed, in English]

*Olidiana perculata* (Distant): McKamey 2006: 505 [new combination]

*Olidiana perculata* (Distant): Freytag 2010b: 367 [Checklist, distribution]

*Olidiana karenensis* (Distant): Freytag 2010b: 367 [Checklist, synonym]

Distribution: **(China, Myanmar, Thailand)**

*perculata* (See *genista* (Nielson), *nigradorsum* (Cai and Shen))

59. ***platyfasciata*** (Xu)

*Lodiana platyfasciata* Xu 2000: 218 [Abstract, sp. nov., described, type deposition, distribution, comparative note to *Lodiana brevisina* Zhang]: 219 [Illustrated, 5 figures]: 222 [Summary, in Chinese]

*Olidiana platyfasciata* (Xu): McKamey 2006: 505 [new combination]

Distribution: **(China)**

60. ***praetexta*** (Distant)

*Jassus praetextus* Distant 1908a: 338 [n. sp., distribution]

*Coelidia praetexta* (Distant): Metcalf 1964: 71 [New combination, catalogued, distribution]

*Lodiana praetexta* (Distant): Nielson 1982: 122 [New combination, catalogued]: 123 [Illustrated, fig. 303-308, described, distribution, type deposition]: 124 [Comparative note to *kodeti*, n. sp.]: 312 [Checklist]: 318 [Indexed]

*Lodiana praetexta* (Distant): Nielson 1990: 452 [Keyed]

*Lodiana praetexta* (Distant): Zhang 1994: 97 [Comparative note to *spina* Zhang]: 98 [Comparative note to *flavofascia* Zhang]: 144 [Comparative note to *flavofascia*, sp. n.]: 151 [Indexed, in English]

*Olidiana praetexta* (Distant): McKamey 2006: 505 [new combination]

*Olidiana praetexta* (Distant): Freytag 2010b: 362 [Abstract, senior synonym of *spina* (Zhang)]: 367 [Checklist, distribution, senior synonym of *spina* (Zhang)]

Distribution: **(China, Myanmar)**

*praetexta* (See *flavofascia* (Zhang), *kodeti* (Nielson), *spina* (Zhang), *setacea* (Nielson), *uenoi* (Hayashi))

61. ***recurvata*** (Nielson)

*Lodiana recurvata* Nielson 1998: 129 [Abstract, sp. n., described]: 130 [Illustrated, fig. 5-9, described, type deposition, distribution, comparative note to all species of *Lodiana*]

*Olidiana recurvata* (Nielson): McKamey 2006: 505 [new combination]

Distribution: **(China)**

62. *reductusi* Xu and Ge [**Incertae sedis**]

*Lodiana reductusi* Xu and Ge 1997: [Paper unavailable]

*Lodiana reductusi* Xu and Ge: Cai, He and Zhu 1998a: 70, In Wu, Hong, Ed. [Listed, comments, in Chinese]

Distribution: **(China)**

63. *ritcheri* (Nielson)

*Lodiana ritcheri* Nielson 1982: 89 [Keyed]: 117 [Comparative note to *bifurcata*]: 118 [new species, described]: 119 [Illustrated, fig. 377-388, described, type deposition, distribution]: 120 [Comparative note to *mutabilis*, n. sp.]: 312 [Checklist]: 318 [Indexed]

*Lodiana ritcheri* Nielson: Zhang 1994: 4 [Cited, in Chinese]: 73 [Keyed, in Chinese]: 84 [Catalogued, described, in Chinese]: 85 [Illustrated, 5 fig., after Nielson]: 88 [Comparative note to *pectiniformis*, sp. n., in Chinese]: 89 [Comparative note to *longilamina*, sp. n., in Chinese]: 126 [Comparative note to *harpagota*, sp. n., in Chinese]: 134 [Checklist, distribution, in English]: 143 [Comparative note to *pectiniformis*, sp. n., in English]: 146 [Comparative note to *harpagota*, sp. n.]: 147 [Indexed, in Chinese]: 151 [Indexed, in English]

*Olidiana ritcheri* (Nielson): McKamey 2006: 505 [new combination]

Distribution: **(China)**

*ritcheri* (See *bifurcata* (Nielson), *bigemina* (Zhang), *Calodia harpagota* Zhang, *scutopunctata* Zhang, *longilamina* (Zhang))

64. *ritcheriina* (Zhang)

*Lodiana ritcheriina* Zhang 1990: 102 [sp. n., described, type deposition, distribution, in Chinese]: 103 [Comparative note to *Lodiana ritcheri*, in Chinese, illustrated, 6 fig.]: 210 [sp. n., comparative note to *Lodiana ritcheri*, type deposition, distribution, in English]: 194 [Indexed, in Chinese]: 200 [Indexed, in English]

*Lodiana ritcheriina* Zhang 1994: 5 [Cited, in Chinese]: 73 [Keyed, in Chinese]: 82 [Catalogued, described, in Chinese]: 83 [Described, in Chinese, illustrated, 6 fig.]: 89 [Comparative note to *longilamina*, sp. n., in Chinese]: 90 [Comparative note to *bigemina* Zhang, in Chinese]: 126 [Comparative note to *harpagota*, sp. n., in Chinese]: 134 [Checklist, distribution, in English]: 143 [Comparative note to *longilamina*, sp. n., in English]: 146 [Comparative note to *harpagota*, sp. n.]: 147 [Indexed, in Chinese]: 151 [Indexed, in English]

*Olidiana ritcheriina* (Zhang): McKamey 2006: 505 [new combination]

Distribution: **(China)**

*ritcheriina* (See *Calodia harpagota* (Zhang), *bigemina* (Zhang), *longilamina* (Zhang), *ritcheri* (Nielson))

*ruficinctata* (See *ruficincta* Li and Wang) (**Error for *ruficincta***)

65. *rufofasciana* (Li and Wang) [**Reinstated**]

*Lodiana rufofasciana* Li and Wang 1989: 1 [Described, illustrated, fig. 1-5, in Chinese]: 2 [Type deposition, distribution, comparative note to *flavofasciana* Li, in Chinese]: 3 [Comparative note to *flavofasciana* Li, type deposition, distribution, in English]

*Lodiana rufofasciana* Li and Wang 1991: V [Contents, listed]: 213 [Catalogued, described, illustrated, 5 fig.]: 114 [Described]: 247 [Indexed, in English]: 274 [Comparative distribution]

*Lodiana rufofasciana* Li and Wang: Zhang 1994: 72 [New synonym of *alata* Nielson, in Chinese]: 102 [Catalogued, syn. nov. of *alata* Nielson]: 134 [Synonym of *Lodiana alata* Nielson]: 135 [Syn. nov. of *alata* Nielson]: 151 [Indexed, in English]

*Olidiana rufofasciana* (Li and Wang): McKamey 2006: 505 [new combination]

Distribution: **(China)**

*rufofasciana* (See *alata* (Nielson), *huangmina* (Li and Wang), *flavofasciana* (Li))



66. *scopae* (Nielson)

*Lodiana scopae* Nielson 1982: 90 [Keyed]: 124 [new species, described]: 125 [Described]: 126 [Illustrated, fig. 404-408, type deposition, distribution, comparative note to *ornata*, n. sp.]: 312 [Checklist]: 318 [Indexed]

*Lodiana scopae* Nielson: Zhang 1994: 73 [Keyed, in Chinese]: 94 [Catalogued, described, illustrated, 6 fig., after Nielson]: 135 [Checklist, distribution, in English]: 148 [Indexed, in Chinese]: 151 [Indexed in Chinese]

*Lodiana scopae* Nielson: Cai and He 2002: 139 [Keyed, in Chinese]: 140 [Listed, in Chinese]

*Olidiana scopae* (Nielson): McKamey 2006: 506 [New combination]

Distribution: **(China)**

67. *setacea* (Nielson)

*Lodiana setacea* Nielson 1982: 90 [Keyed]: 120 [new species, described]: 121 [Illustrated, fig. 388-392, type deposition, distribution, comparative note to *praetexta* (Distant)]: 312 [Checklist]: 318 [Indexed]

*Olidiana setacea* (Nielson): McKamey 2002: 506 [new combination]

*Lodiana setacea* Nielson: Knight 2010: 52 [Listed, type locality, type deposition, distribution]

Distribution: **(Malaysia)**

*setacea* (See *fringa* (Zhang), *hamularis* (Xu))

68. *sparsispinulata* (Nielson) [**comb. nov.**]

*Calodia sparsispinulata* Nielson 1982: 141 [Keyed]: 153 [new species, described, type deposition, distribution, comparative note to *multispinata*]: 154 [Illustrated, fig. 486-492]

Distribution: **(India)**

*sparsispinulata* (See *multispinata* Nielson)

69. *spicata* Xu and Kuoh [**Incertae sedis**]

*Lodiana spicata* Xu and Kuoh 1997 [Paper unavailable]

Distribution: **(China)**

*spiculata* (See *Singillatus curtus* (Nielson))

70. *spimera* Freytag

*Olidiana spimera* Freytag 2010b: 362 [Abstract]: 365 [New species, illustrated, fig. 7-9, in legend cited *O. spirema* (sic)]: 366 [Described, type deposition, distribution, comparative note to *tantula* and *spira*]: 367 [Checklist, distribution]

Distribution: **(Thailand)**

*spirema* (See *spimera* Freytag) [**Error for *spimera***]

71. *spina* (Zhang) [**Reinstated**]

*Lodiana spina* Zhang 1990: 103 [sp. n., described]: 104 [Type deposition, distribution, illustrated, in Chinese, 5 fig.]: 201 [Indexed, in English]

*Lodiana spina* Zhang 1994: 74 [Keyed, in Chinese]: 96 [Catalogued, described, in Chinese]: 97 [Comparative note to *Lodiana praetexta* (Distant), in Chinese, illustrated, 5 fig.]: 135 [Checklist, distribution, in English]: 144 [Comparative note to *flavofascia*, sp. n.]: 147 [Indexed, in Chinese]: 151 [Indexed, in English]

*Olidiana spina* (Zhang): McKamey 2006: 506 [new combination]

*Olidiana spina* (Zhang): Freytag 2010b: 362 [Abstract, new synonym of *Olidiana praetexta* (Distant)]: 367 [Checklist, new synonym of *O. praetexta* (Distant)]  
Distribution: **(China)**

*spina* (See *flavofascia* (Zhang), *uenoi* (Hayashi))

72. ***spira*** (Nielson)

*Lodiana spira* Nielson 1990: 445 [Abstract]: 451 [Keyed]: 458 [sp. n., described, type deposition, distribution, comparative note to *bifurcata*]  
*Olidiana spira* (Nielson): McKamey 2006: 506 [new combination]  
Distribution: **(Vietnam)**

*spira* (See *spimera* Freytag)

73. ***tantula*** (Nielson)

*Lodiana tantula* Nielson 1990: 445 [Abstract]: 451 [Keyed]: 459 [sp. n., described]: 460 [Illustrated, fig. 59-63, described, type deposition, distribution, comparative note to *bedardi*]  
*Olidiana tantula* (Nielson): McKamey 2006: 506 [new combination]  
*Olidiana tantula* (Nielson): Freytag 2010b: 367 [Checklist, distribution]  
Distribution: **(Thailand)**

*tantula* (See *spimera* Freytag)

74. ***tongmaiensis*** (Zhang)

*Lodiana tongmaiensis* Zhang 1994: 73 [Keyed, in Chinese]: 79 [sp. n., described, in Chinese, illustrated, 5 fig.]: 80 [Type deposition, distribution, comparative note to *Lodiana pectita* (Distant), in Chinese]: 134 [Checklist, distribution, in English]: 142 [sp. n., comparative note to *Lodiana pectita* (Distant), type deposition, in English]: 148 [Indexed, in Chinese]: 151 [Indexed, in English]  
*Olidiana tongmaiensis* (Zhang): McKamey 2006: 506 [new combination]  
Distribution: **(China)**

75. ***tonkinensis*, sp. nov.**

*Olidiana tonkinensis* Nielson, sp. nov.  
Distribution: **(Vietnam)**

76. ***tuberis*, sp. nov.**

*Olidiana tuberis* Nielson, sp. nov.  
Distribution: **(Vietnam)**

77. ***uenoi*** (Hayashi)

*Lodiana uenoi* Hayashi 1995: 197 [Abstract, sp. n., described]: 198 [Photo, fig. 1-2, described]: 199 [Illustrated, fig. 4-9]: 200 [Illustrated, fig. 10-16, type deposition, distribution, comparative note to *L. brevis* (Walker), *L. spina* Zhang, *L. brevisina* Zhang and *L. praetexta* (Distant)]: 201 [Photo, fig. 17]  
*Olidiana uenoi* (Hayashi): McKamey 2006: 506 [new combination]  
Distribution: **(Japan)**

*uenoi* (See *brevis* (Walker))

78. ***vincula*, sp. nov.**

*Olidiana vincula* Nielson, sp. nov.  
Distribution: **(Thailand)**

*virescens* (Matsumura) (See *boninensis* (Matsumura)) [Synonym]

*yangi* McKamey [**Junior synonym of *hamularis* Xu, see *hamularis* Xu 2000**]

*Olidiana yangi* McKamey 2006: 502 [Abstract, new name for *Lodiana pectinata* Yang and Zhang 1995 nec *Lodiana pectinata* Nielson 1982]: 506 [New name for *Lodiana pectinata* Yang and Zhang]

79. ***zhengi*** (Zhang)

*Lodiana zhengi* Zhang 1994: 74 [Keyed, in Chinese]: 105 [Comparative note to *laminapellucida*, in Chinese]: 106 [sp. n., described, in Chinese]: 107 [Described, type deposition, comparative note to *Lodiana laminispinosa* and *L. laminapellucida*, in Chinese, illustrated, 4 fig.]: 136 [Checklist, distribution, in English]: 145 [sp. n., comparative note to *Lodiana laminispinosa* and *L. laminapellucida*, in English]: 147 [Indexed, in Chinese]: 151 [Indexed, in English]

*Olidiana zhengi* (Zhang): McKamey 2006: 506 [new combination]

Distribution: **(China)**

***Orbisolidia*, gen. nov.**

1. ***paracava*** (Nielson) [**comb. nov.**]

*Calodia paracava* Nielson 1982: 143 [Keyed]: 175 [new species, described]: 176 [Described, type deposition, distribution, comparative note to *spinocava*]: 180 [Illustrated, fig. 571-576]: 313 [Checklist]: 318 [Indexed]

Distribution: **(India)**

*paracava* (See *spinocava* (Nielson))

2. ***spinocava*** (Nielson) [**comb. nov.**]

*Calodia spinocava* Nielson 1982: 143 [Keyed]: 175 [new species, described, type deposition, distribution, comparative note to *paracava*, n. sp.]: 176 [Illustrated, fig. 565-570]: 313 [Checklist]: 318 [Indexed]

Distribution: **(India)**

*spinocava* (See *paracava* (Nielson), *Tripesidia warei* (Nielson))

***Singillatus*, gen. nov.**

1. ***anisotus*** (Freytag) [**comb. nov.**]

*Olidiana anisota* Freytag 2010b: 362 [Abstract, new species, described]: 363 [Illustrated, fig. 1-3]: 364 [Type deposition, distribution]: 367 [Checklist, distribution]

Distribution: **(Thailand)**

2. ***apertus*** (Nielson) [**comb. nov.**]

*Lodiana aperta* Nielson 1982: 73 [Keyed]: 103 [Comparative note to *ventrosola*, n. sp., described]: 104 [Described]: 105 [Illustrated, fig. 322-329, type deposition, distribution]: 106 [Comparative note to *reidi*, n. sp.]: 312 [Checklist]: 317 [Indexed]

*Lodiana aperta* Nielson 1991: 450 [Keyed]

*Olidiana aperta* (Nielson): McKamey 2006: 103 [new combination]

*Olidiana aperta* (Nielson): Freytag 2010b: 367 [Comparative note to *nuda* Freytag]

*Lodiana aperta* Nielson: Knight 2010 [Listed, type locality, type disposition, distribution]

Distribution: **(Indonesia, Singapore)**

*apertus* (See *nuda* Freytag, *ventrosolus* (Nielson))

3. ***curtus*** (Nielson) [**comb. nov.**]

*Lodiana curta* Nielson 1982: 88 [Keyed]: 91 [new species, described]: 92 [Described]: 93 [Illustrated, fig. 276-280, type deposition, distribution, comparative note to *spiculata*, n. sp.]: 312 [Checklist]: 317 [Indexed]

*Lodiana curta* Nielson 1990: 450 [Keyed]  
*Olidiana curta* (Nielson): McKamey 2006: 504 [new combination]  
 Distribution: **(India)**

*curtus* (See *Singillatus laminus* (Nielson))

4. ***furcatus*** (Nielson)  
*Lodiana furcata* Nielson 1990: 450 [Keyed]: 453 [Illustrated, 5 fig., n. sp.]  
*Olidiana furcata* (Nielson): McKamey 2006: 504 [new combination]  
 Distribution: **(India)**

5. ***gracilius*, sp. nov.**  
*Singillatus gracilius* Nielson, sp. nov.  
 Distribution: **(Indonesia (Sumatra))**

6. ***laminus*** (Nielson) [**comb. nov.**]  
*Lodiana lamina* Nielson 1982: 88 [Keyed]: 91 [New species, described, type deposition, distribution, comparative note to *curta*]: 92 [Illustrated, fig. 270-275]: 313 [Checklist]: 317 [Indexed]  
*Lodiana lamina* Nielson 1990: 450 [Keyed]  
*Olidiana lamina* (Nielson): McKamey 2006: 504 [new combination]  
 Distribution: **(Laos)**

*lamina* (See *Olidiana brevissima* (Zhang))

7. ***marginifrons*** (Walker) [**comb. nov.**]  
*Coelidia marginifrons* Walker 1870b: 310 [n. sp., distribution]  
*Coelidia marginifrons* Walker: Distant 1908f: 148 [Synonym of *Tettigonia inclinans* Walker]  
*Lodiana marginifrons* (Walker): Nielson 1982: 96 [New combination, resurrected from synonymy, catalogued, described, distribution, type deposition]: 97 [Illustrated, fig. 291-295, taxonomic note, comparative note to *serra*, n. sp.]: 312 [Checklist]: 318 [Indexed]  
*Lodiana marginifrons* (Walker): Nielson 1991: 450 [Keyed]  
*Olidiana marginifrons* (Walker): McKamey 2006: 505 [new combination]  
*Lodiana marginifrons* (Walker): Knight 2010: 52 [Listed, type locality, type deposition, distribution]  
 Distribution: **(Malaysia)**

*marginifrons* (See *unicus* (Nielson), *xanthopronotatus* (Zhang))

8. ***mundus*** (Nielson) [**comb. nov.**]  
*Lodiana munda* Nielson 1982: 89 [Keyed]: 107 [New species, described, type deposition, distribution, comparative note to *cupraria* (Walker)]: 108 [Illustrated, fig. 335-340]: 312 [Checklist]: 318 [Indexed]  
*Lodiana munda* Nielson 1990: 450 [Keyed]  
*Olidiana munda* (Nielson): McKamey 2006: 505 [new combination]  
*Lodiana munda* Nielson: Knight 2010: 52 [Listed, type locality, type deposition, distribution]  
 Distribution: **(Malaysia)**

*munda* (See *Olidiana cupraria* (Walker), *reidi* (Nielson), *viraktamathi* (Nielson))

9. ***nudus*** (Freytag) [**comb. nov.**]  
*Olidiana nuda* Freytag 2010b: 363 [Abstract]: 365 [Illustrated, fig. 10-12]: 366 [new species, described]: 367 [Described, comparative note to *aperta*, checklist, distribution]  
 Distribution: **(Thailand)**

*nudus* (See *Singillatus apertus* (Nielson))

10. *reidi* (Nielson) [**comb. nov.**]

*Lodiana reidi* Nielson 1982: 88 [Keyed]: 106 [new species, described, illustrated, fig. 330-334]: 107 [Described, type deposition, distribution, comparative note to *munda*, n. sp.]: 312 [Checklist]: 318 [Indexed]

*Lodiana reidi* Nielson 1990: 451 [Keyed]

*Olidiana reidi* (Nielson): McKamey 2006: 505 [new combination]

Distribution: (**Vietnam, Thailand**)

*reidi* (See *aperta* (Nielson))

11. *signatus* (Zhang) [**comb. nov.**]

*Lodiana signata* Zhang 1994: 73 [Keyed, in Chinese]: 91 [n. sp., described, in Chinese]: 92 [Type deposition, comparative note to *Lodiana fasciculata* Nielson, illustrated, 6 fig., in Chinese]: 135 [Checklist, distribution, in English]: 143-144 [sp. n., comparative note to *Lodiana fasciculata* Nielson and *L. pectita* (Distant), type deposition, in English]: 147 [Indexed, in Chinese]: 151 [Indexed, in English]

*Olidiana signata* (Zhang): Cai and He 2002: 139 [Keyed, in Chinese]: 140 [Listed, in Chinese]

*Olidiana signata* (Zhang): McKamey 2006: 506 [new combination]

Distribution: (**China**)

*signata* (See *Olidiana fasciculata* (Nielson))

12. *singularis* (Nielson) [**comb. nov.**]

*Lodiana singularis* Nielson 1990: 445 [Abstract]: 450 [Keyed]: 454 [Illustrated, Fig 31-35, sp. n., described]: 455 [Type deposition, distribution, comparative note to *indica*]

*Olidiana singularis* (Nielson): McKamey 2006: 506 [new combination]

Distribution: (**India**)

13. *unicus* (Nielson) [**comb. nov.**]

*Lodiana unica* Nielson 1982: 88 [Keyed]: 95 [new species, described, illustrated, fig. 286-290]: 96 [Described, type deposition, distribution, comparative note to *marginifrons* Walker]: 312 [Checklist]: 318 [Indexed]

*Lodiana unica* Nielson 1990: 450 [Keyed]

*Olidiana unica* (Nielson): McKamey 2006: 506 [new combination]

*Lodiana unica* Nielson: Knight 2010: 52 [Listed, type locality, type deposition, distribution]

Distribution: (**Malaysia**)

*unica* (See *Olidiana spiculata* (Nielson))

14. *ventrospinatus*, **sp. nov.**

*Singillatus ventrospinatus* Nielson, sp. nov.

Distribution: (**India**)

15. *ventrosolus* (Nielson) [**comb. nov.**]

*Lodiana ventrosola* Nielson 1982: 88 [Keyed]: 103 [new species, described, type deposition, distribution, comparative note to *aperta*, n. sp.]: 312 [Checklist]: 318 [Indexed]

*Lodiana ventrosola* Nielson 1990: 451 [Keyed]

*Olidiana ventrosola* (Nielson): McKamey 2006: 506 [new combination]

*Lodiana ventrosola* Nielson: Knight 2010: 52 [Listed, type locality, type deposition, distribution]

Distribution: (**Malaysia**)

*ventrosola* (See *aperta* (Nielson))

16. *viraktamathi* (Nielson) [**comb. nov.**]

*Lodiana viraktamathi* Nielson 1990: 445 [Abstract]: 451 [Keyed]: 455 [sp. n., illustrated, fig. 36-40, described]: 456 [Described, type deposition, distribution, comparative note to *munda*]  
*Olidiana viraktamathi* (Nielson): McKamey 2006: 506 [new combination]  
*Lodiana viraktamathi* Nielson: Knight 2010: 52 [Listed, type locality, type deposition, distribution]  
 Distribution: **(India)**

17. *xanthopronotatus* (Zhang) [**comb. nov.**]

*Lodiana xanthopronotata* Zhang 1994: 72 [Keyed, in Chinese]: 75 [Illustrated, 7 fig.]: 76 [Described, type deposition, distribution, comparative note to *Lodiana marginifrons* (Walker), in Chinese]: 134 [Checklist, distribution, in English]: 141 [sp. n., described, comparative note to *Lodiana marginifrons* (Walker), type deposition, distribution, in English]: 148 [Indexed, in Chinese]: 151 [Indexed, in English]

*Olidiana xanthopronotata* (Zhang): McKamey 2006: 506 [new combination]

Distribution: **(China)**

**Stylolidia Nielson**

*Stylolidia* Nielson 1986: 137 [Key to species, type-species, *Stylolidia pectinata* Nielson, described]

*Stylolidia* Nielson: Knight 2010: 52 [Listed, type-species, distribution]

1. *cristata* Nielson

*Stylolidia cristata* Nielson 1986: 137 [Abstract, keyed]: 138 [n. sp., described, comparative note to *pectinata*, n. sp.]: 139 [Illustrated, fig. 8-14, type deposition, distribution, comparative note to *pectinata*]

*Stylolidia cristata* Nielson: Freytag 2010a: 191 [Catalogued, keyed, distribution]

*Stylolidia cristata* Nielson: Knight 2010: 52 [Listed, type locality, type deposition, distribution]

Distribution: **(Malaysia)**

*cristata* (See *pectinata* Nielson)

2. *khaoensis* Freytag

*Stylolidia khaoensis* Freytag 2010a: 191 [Abstract, keyed, n. sp., described]: 192 [Described, illustrated, fig. 1-6]: 193 [Photographed]

Distribution: **(Thailand)**

3. *pectinata* Nielson

*Stylolidia pectinata* Nielson 1986: 137 [Abstract, keyed, type species, n. sp., described]: 138 [Illustrated, fig. 1-7, described, type deposition, distribution, comparative note to *cristata*]

*Stylolidia pectinata* Nielson: Knight 2010: 52 [Listed, type locality, type deposition, distribution]

Distribution: **(Malaysia)**

*pectinata* (See *cristata* Nielson)

**Taharana Nielson**

*Taharana* Nielson 1982: 12 [Keyed]: 50 [new genus, type species, *Coelidia sparsa* Stål, described, key to species, described, distribution, comparative note to *Lodiana*]: 312 [Checklist]: 318 [Indexed]

*Taharana* Nielson: Zhang 1990: 92 [Keyed, in Chinese]: 109 [Cited, type species, described, in Chinese]: 201 [Indexed, in English]

*Taharana* Nielson: Li 1990: 354 [Cited]

*Taharana* Nielson: Zhang 1994: 7 [Map]: 11 [Keyed]: 50-51 [Described]: 51 [Key to species of China, in Chinese]: 132 [Checklist, in English]: 151 [Indexed]

*Taharana* Nielson: Zhang and Zhang 1994: 95 [Cited, literature review, taxonomy, in Chinese]

*Taharana* Nielson: Xu 2002: 37 [Cited, taxonomy, in Chinese]

*Taharana* Nielson: Knight 2010: 52 [Listed]: 53 [Distribution]

1. *abstrusa*, sp. nov.

*Taharana abstrusa* Nielson, sp. nov.

Distribution: **(Thailand)**

2. ***angusta*, sp. nov.**

*Taharana angusta* Nielson, sp. nov.

Distribution: **(Thailand)**

3. ***biavricula*, sp. nov.**

*Taharana biavricula* Nielson, sp. nov.

Distribution: **(Thailand)**

4. ***bifurcata*** Nielson

*Taharana bifurcata* Nielson 1982: 51 [Keyed]: 59 [New species, described]: 60 [Illustrated, fig. 177-180, described, type deposition, distribution]: 61 [Comparative note to *trifurcata*, n. sp.]: 312 [Checklist]: 318 [Indexed]

*Taharana bifurcata* Nielson 1990: 446 [Keyed]

Distribution: **(Thailand, Vietnam)**

5. ***biunca*, sp. nov.**

*Taharana biunca* Nielson, sp. nov.

Distribution: **(Thailand)**

6. ***brevicutata*, sp. nov.**

*Taharana brevicutata* Nielson, sp. nov.

Distribution: **(Thailand)**

7. ***caverna*, sp. nov.**

*Taharana caverna* Nielson, sp. nov.

Distribution: **(Malaysia)**

8. ***curvata*** Nielson

*Taharana curvata* Nielson 1982: 51 [Keyed]: 56 [new species, described]: 57 [Illustrated, fig. 169-172, type deposition, distribution, comparative note to *sparsa* Stål]: 312 [Checklist]: 318 [Indexed]

*Taharana curvata* Nielson 1990: 446 [Keyed]

Distribution: **(Vietnam)**

9. ***dubia*** (Walker)

*Tettigonia dubia* Walker 1851: 781 [n. sp.]

*Coelidia dubia* (Walker): Stål 1862b: 494 [New combination]

*Jassus dubia* (Walker): Distant 1908f: 150 [New combination, catalogued]

*Taharana dubia* (Walker): Nielson 1982: 63 [New combination, catalogued]: 64 [Illustrated, fig. 189-193, catalogued, described]: 65 [Described, type deposition, distribution, comparative note to *spiculata*, n. sp. and *scrupulosa* (Spångberg)]: 312 [Checklist]: 317 [Indexed]

*Taharana dubia* (Walker): Nielson 1990: 446 [Keyed]

*Jassus scrupulosa* Spångberg 1878b: 25 [n. sp.]

*Coelidia scrupulosa* (Spångberg): Metcalf 1964: 74 [New combination, catalogued]

*Jassus scrupulosa* Spångberg: Nielson 1982: 64 [New synonymy]

*Jassus scrupulosa* Spångberg: Knight 2010: 53 [Listed, synonymy]

*Taharana dubia* (Walker): Knight 2010: 3 [Listed, type locality, type deposition, distribution]

Distribution: **(Indonesia, New Guinea, Philippines)**

*dubia* (See *goldi* Nielson)

10. ***exiquitas*, sp. nov.**

*Taharana exiquitas* Nielson, sp. nov.

Distribution: (**Thailand**)

11. ***forcipia*, sp. nov.**

*Taharana forcipia* Nielson, sp. nov.

Distribution: (**Thailand**)

12. ***goldi*** Nielson

*Taharana goldi* Nielson 1982: 51 [Keyed]: 62 [new species, described, type deposition, distribution, comparative note to *dubia* (Walker)]: 63 [Illustrated, fig. 185-188]: 312 [Checklist]: 317 [Indexed]

*Taharana goldi* Nielson 1990: 446 [Keyed]

Distribution: (**Thailand, Vietnam**)

*goldi* (See *trifurcata* Nielson)

13. ***gracilata*, sp. nov.**

*Taharana gracilata* Nielson, sp. nov.

Distribution: (**Thailand**)

*hainana* (See *Taharana hainana* Zhang 1994: 51, 132) [Nomen nudum]

*hainana* Zhang 1988 [thesis]

*hainana* Zhang 1994: 54 [*Taharana hainana* Zhang 1994: 51 [Nomen nudum, in Chinese]: 132 [Nomen nudum, unpublished name in thesis, 1988]

14. ***incisura*, sp. nov.**

*Taharana incisura* Nielson, sp. nov.

Distribution: (**Thailand**)

15. ***intimacalcara*, sp. nov.**

*Taharana intimacalcara* Nielson, sp. nov.

Distribution: (**Thailand**)

16. ***lacertosa*, sp. nov.**

*Taharana lacertosa* Nielson, sp. nov.

Distribution: (**Thailand**)

17. ***mediolata*, sp. nov.**

*Taharana mediolata* Nielson, sp. nov.

Distribution: (**Thailand**)

18. ***minutura*, sp. nov.**

*Taharana minutura* Nielson, sp. nov.

Distribution: (**Thailand**)

19. ***oblongiserrata*, sp. nov.**

*Taharana oblongiserrata* Nielson, sp. nov.

Distribution: (**Thailand**)

20. ***phetchabunensis*, sp. nov.**

*Taharana phetchabunensis* Nielson, sp. nov.

Distribution: (**Thailand**)



21. *protriangulata*, sp. nov.*Taharana protriangulata* Nielson, sp. nov.Distribution: **(Thailand)***scrupulosa* Spångberg (See *dubia* (Walker)) [Synonym]22. *serrata* Nielson*Taharana serrata* Nielson 1982: 50 [Keyed]: 53 [New species, described, type deposition, distribution]: 54 [Illustrated, fig. 157-161, comparative note to *stipulata*]: 312 [Checklist]: 318 [Indexed]*Taharana serrata* Nielson 1990: 446 [Keyed]*Taharana serrata* Nielson: Zhang 1994: 51 [Keyed, in Chinese]: 58 [Catalogued, described, in Chinese]: 59 [Illustrated, 6 fig., after Nielson]: 133 [Checklist, distribution, in English]: 148 [Indexed, in Chinese]: 151 [Indexed, in English]*Taharana serrata* Nielson: Zhang and Zhang 1994: 98 [New record in China]*Taharana serrata* Nielson: Knight 2010: 53 [Listed, type locality, type deposition, distribution]Distribution: **(China, Malaysia, Philippines, Taiwan, Thailand, Vietnam)***serrata* (See *Singillatus marginifrons* (Walker), *digitata* (Xu), *triangulata* Nielson)23. *sinuata* Xu and Kuoh [**Incertae sedis**]*Taharana sinuata* Xu and Kuoh 1997 [Original paper not available]*Taharana sinuata* Xu and Kuoh: Cai and He 2002: 141 [Listed]Distribution: **(China)**24. *sparsa* (Stål)*Coelidia sparsa* Stål 1854: 254 [n. sp., described]*Coelidia sparsa* Stål: Metcalf 1964: 76 [Catalogued, distribution]*Taharana sparsa* (Stål): Nielson 1982: 51 [Type-species of *Taharana* Nielson 1982]: 52 [Keyed]: 57 [New combination, catalogued]: 58 [Illustrated, fig. 173-176, described]: 58 [Distribution, type deposition, comparative note to *bifurcata*, taxonomic note on Stål's 1870: 735 erroneous designation of *Jassus conspersus*, new name for *sparsa*]: 312 [Checklist]: 318 [Indexed]*Taharana sparsa* (Stål): Nielson 1990: 446 [Keyed]*Taharana sparsa* (Stål): Zhang 1990: 109 [Type-species of *Taharana*, illustrated, 5 fig. (after Nielson), catalogued]: 198 [Indexed, in Chinese]: 200 [Indexed, in English]*Taharana sparsa* (Stål): Zhang 1994: 51 [Keyed]: 57 [Catalogued, described, in Chinese, illustrated, 5 fig., after Nielson]: 133 [Checklist, distribution]: 148 [Indexed, in Chinese]: 151 [Indexed, in English]*Taharana sparsa* (Stål): Cai and He 2002: 141 [Listed]*Taharana trackana* Li 1991: 354 [n. sp., described, type disposition, distribution]: 355 [Illustrated, fig. 1-5, in English and Chinese, comparative note to *Taharana dubia* (Walker), in Chinese]: 358 [Comparative note to *Taharana dubia* (Walker), type disposition, distribution, in English] [**New synonymy**]*Taharana trackana* Li: Li and Zhang 1991: V. [Contents, listed]: 104 [Keyed, in Chinese, catalogued, described, in Chinese]: 105 [Illustrated, 5 fig.]: 248 [Indexed, in Chinese]: 275 [Comparative distribution]*Taharana trackana* Li: Zhang 1994: 10 [Distribution, in Chinese]: 51 [Keyed, in Chinese]: 59 [Catalogued, described, in Chinese]: 60 [Illustrated, 5 fig. (after Li)]: 133 [Checklist, distribution, in English]: 148 [Indexed, in Chinese]: 151 [Indexed, in English]*Taharana yinggenensis* Zhang and Zhang 1994: 95 [Abstract, in Chinese]: 96 [sp. n., described, type deposition, distribution, comparative note to *T. sparsa*, *T. curvata*, in Chinese]: 97 [Illustrated, 6 fig.]: 98 [Abstract, sp. n., description, comparative note to *T. sparsa* and *T. curvata*, type deposition, in English] [**New synonymy**]*Taharana yinggenensis* Zhang and Zhang: Zhang 1994: 51 [Keyed, in Chinese]: 58 [Catalogued, described, illustrated, 6 fig.]: 133 [Checklist, distribution, in English]: 147 [Indexed, in Chinese]: 151

[Indexed, in English]

*Taharana sparsa* (Stål): Knight 2010: 53 [Listed, type locality, type deposition, distribution]

Distribution: (**China, Malaysia, Philippines, Thailand, Vietnam**)

*sparsa* (See *Glaberana humulosa* (Li and Du), *curvata* (Nielson))

25. ***stipulata*** Nielson

*Taharana stipulata* Nielson 1982: 50 [Keyed]: 54 [Comparative note to *serrata*]: 55 [new species, described, illustrated, fig. 162-168]: 56 [Type deposition, distribution, comparative note to *curvata*]

*Taharana stipulata* Nielson 1990: 446 [Keyed]

Distribution: (**Laos, Vietnam**)

*stipulata* (See *serrata* Nielson)

26. ***sublamina*, sp. nov.**

*Taharana sublamina* Nielson, sp. nov.

Distribution: (**Thailand**)

27. ***subspinata*, sp. nov.**

*Taharana subspinata* Nielson, sp. nov.

Distribution: (**Thailand**)

28. ***subtumida*, sp. nov.**

*Taharana subtumida* Nielson, sp. nov.

Distribution: (**Thailand**)

*trackana* Li (See *sparsa* (Stål)) [**New synonymy**]

29. ***triangulata*** Nielson

*Taharana triangulata* Nielson 1982: 50 [Keyed]: 52 [New species, described, illustrated, fig. 153-156]: 53 [Described, type deposition, distribution, comparative note to *serrata*, n. sp.]: 312 [Checklist]: 318 [Indexed]

*Taharana triangulata* Nielson 1990: 446 [Keyed]

Distribution: (**Thailand**)

30. ***trifurcata*** Nielson

*Taharana trifurcata* Nielson 1982: 51 [Keyed]: 61 [New species, described, illustrated, fig. 181-184]: 62 [Described, type deposition, distribution, comparative note to *goldi*, n. sp.]: 312 [Checklist]: 318 [Indexed]

*Taharana trifurcata* Nielson 1990: 446 [Keyed]

Distribution: (**Vietnam**)

*trifurcata* (See *bifurcata* Nielson)

31. ***truncata*, sp. nov.**

*Taharana truncata* Nielson, sp. nov.

Distribution: (**Thailand**)

*yinggenensis* Zhang and Zhang (See *sparsa* (Stål)) [**New synonymy**]

***Trinoridia*, gen. nov.**

*albororatus* Distant (See *rama* (Kirkaldy))

**1. *calcaris*, sp. nov.***Trinoridia calcaris* Nielson, sp. nov.Distribution: **(India)***elegans* Distant (See *rama* (Kirkaldy))*elegans* Spångberg (See *rama* (Kirkaldy))*longistyla* (See *rama* (Kirkaldy))*obliqua* (See *rama* (Kirkaldy))**2. *rama* (Kirkaldy) [comb. nov.]***Jassus elegans* Distant 1908f: 329 [n. sp.]*Jassus rama* Kirkaldy 1910b: 63 [New name for *Jassus elegans* Distant nec *Jassus elegans* Spångberg 1878]*Coelidia rama* (Kirkaldy): Metcalf 1964: 72 [New combination, catalogued, distribution]*Jassus albororatus* Distant 1918: 48 [n. sp.]*Calodia rama* (Kirkaldy): Nielson 1982: 142 [Keyed]: 163 [Comparative note to *obliqua*]: 166 [Comparative note to *longistyla*]: 167 [New combination, catalogued, described]: 168 [Illustrated, fig. 540-544, described]: 169 [Distribution, types examined, *Jassus elegans* Distant, *Jassus albororatus* Distant, type deposition, distribution, comparative note to *kirkaldyi*, suppression of *albororatus*, new synonym]: 313 [Checklist]: 318 [Indexed]*Jassus elegans* Distant: Nielson 1982: 167 [Type examined]*Calodia albororatus* (Distant): Knight 2010: 50 [Listed]*Calodia elegans* (Distant): Knight 2010: 50 [Listed]*Calodia rama* (Kirkaldy): Knight 2010: 50 [Listed, type locality, type disposition, distribution]Distribution: **(India)****3. *trifida*, sp. nov.***Trinoridia trifida* Nielson, sp. nov.Distribution: **(Malaysia)****4. *tripectinata* (Nielson) [comb. nov.]***Calodia tripectinata* Nielson 1982: 143 [Keyed]: 172 [New species, described, type deposition, comparative note to *trispinata*]: 173 [Illustrated, fig. 555-559]: 313 [Checklist]: 318 [Indexed]Distribution: **(Thailand)***tripectinata* (See *trispinata* (Nielson))**5. *trispinata* (Nielson) [comb. nov.]***Calodia trispinata* Nielson 1982: 142 [Keyed]: 169 [Comparative note to *kirkaldyi*]: 170 [New species, described]: 171 [Illustrated, fig. 550-554, described]: 172 [Type deposition, distribution, comparative note to *tripectinata*, n. sp.]: 313 [Checklist]: 318 [Indexed]*Calodia trispinata* Nielson: Knight 2010: 50 [Listed, type locality, type disposition, distribution]Distribution: **(Malaysia (Pahang, Penang, Sarawak); Thailand)*****Tripesidia*, gen. nov.****1. *kubani*, sp. nov.***Tripesidia kubani* Nielson, sp. nov.Distribution: **(Laos)****2. *longistyla* (Nielson) [comb. nov.]**

*Calodia longistyla* Nielson 1982: 51 [Keyed]: 71 [New species, described]: 72 [Illustrated, fig. 214-217, described, type deposition]: 73 [Distribution, comparative note to *aperta*, n. sp.]: 312 [Checklist]: 317 [Indexed]

*Calodia longistyla* Nielson: Knight 2010: 166 [Listed, type locality, type deposition, distribution]  
Distribution: **(Malaysia (Sarawak); Indonesia (Irian); Papua New Guinea (Karamu, New Ireland))**

longistyla (See *Trinoridia rama* (Kirkaldy), *vicina* (Nielson))

### 3. *obscura* (Stål) [**comb. nov.**]

*Jassus obscura* Stål 1870c: 735 [n. sp.]

*Coelidia obscura* (Stål): Metcalf 1964: 63 [New combination, catalogued, distribution]

*Calodia obscura* (Stål): Nielson 1982: 142 [Keyed]: 146 [Comparative note to *inclinans* (Walker)]: 164 [New combination, catalogued, described]: 165 [Illustrated, fig. 530-534, described, distribution, type deposition]: 166 [Comparative note to *obliqua*]: 313 [Checklist]: 318 [Indexed]

*Calodia obscura* (Stål): Knight 2010: 49 [Listed, type locality, type disposition, distribution]

Distribution: **(Philippines, Indonesia (Irian))**

obscura (Stål) (See *Calodia paraobscura* Nielson)

### 4. *vicina* (Nielson) [**comb. nov.**]

*Calodia vicina* Nielson 1990: 445 [Abstract]: 463 [Keyed]: 472 [Illustrated, fig. 114-126]: 473 [sp. n., described, type deposition, distribution, comparative note to *longistyla*]

*Calodia vicina* Nielson: Knight 2010: 50 [Listed, type locality, type disposition, distribution]

Distribution: **(Malaysia)**

### 5. *warei* (Nielson) [**comb. nov.**]

*Calodia warei* Nielson 1982: 143 [Keyed]: 172 [n. sp., description]: 173 [Illustrated, fig. 555-559, description]: 174 [Type deposition, distribution]: 175 [Comparative note to *spinocava* Nielson]: 313 [Checklist]: 318 [Indexed]

*Calodia warei* Nielson: Zhang 1990: 107 [Catalogued, illustrated, 6 fig., after Nielson]: 201 [Indexed]

*Calodia warei* Nielson: Li and Wang 1991: V. [Contents, listed]: 114 [Keyed, in Chinese]: 115 [Catalogued, described, in Chinese]: 116 [Type deposition, distribution, in Chinese, illustrated, 4 fig.]: 273 [Comparative distribution]

*Calodia warei* Nielson: Zhang 1994: 109 [Keyed]: 110 [Catalogued, description]: 111 [Illustrated, 7 fig., after Nielson, description, in Chinese]: 112 [Cited]: 136 [Checklist]: 151 [Indexed, distribution]: 145 [Comparative note to *yunnanensis*, n. sp.]: 148 [Checklist, in Chinese]

*Calodia warei* Nielson: Cai and Huang 1999: 315 [Described, illustrated, 6 fig., in Chinese]

Distribution: **(China, Vietnam)**

warei (See *Creberulidia yunnanensis* (Zhang))

### *Tumidorus*, gen. nov.

#### 1. *nielsoni* (Zhang) [**comb. nov.**]

*Lodiana nielsoni* Zhang 1994: 72 [Keyed]: 76 [n. sp., described, type deposition, distribution, in Chinese]: 77 [Illustrated, 6 Fig]: 134 [Checklist, distribution, in English]: 141-142 [n. sp., described, type deposition, distribution, comparative note, in English]: 151 [Indexed, in English]

Distribution: **(China)**

### *Webboldia*, gen. nov.

#### 1. *acutistyla* (Li and Wang) [**comb. nov.**]

*Lodiana acutistyla* Li and Wang 1989: 2 [Illustrated, fig. 11-15, sp. n., described, in Chinese]: 3 [Type deposition, distribution, comparative note to *Lodiana fasciculata* Nielson, in Chinese]

*Lodiana acutistyla* Li and Wang 1991: V. [Contents, listed]: 108 [Keyed, in Chinese]: 112 [Catalogued, described]: 113 [Illustrated, 5 fig.]: 243 [Indexed, in English]: 273 [Comparative distribution]

*Lodiana acutistyla* Li and Wang: Zhang 1994: 51 [Senior synonym of *Taharana uniaristata* Zhang]: 72 [Keyed, in Chinese]: 74 [Catalogued, senior synonym of *Taharana uniaristata* Zhang 1990]: 75 [Illustrated, 6 fig.]: 132 [Senior synonym of *Taharana uniaristata* Zhang 1990: 114]: 134 [Syn. n., distribution, in English]: 147 [Indexed, in Chinese]: 149 [Indexed, in English]

Distribution: **(China)**

## 2. *kristenseni*, sp. nov.

*Webbolidia kristenseni* Nielson, sp. nov.

Distribution: **(Thailand)**

## 3. *magna*, sp. nov.

*Webbolidia magna* Nielson, sp. nov.

Distribution: **(Laos)**

## 4. *obliqua* (Nielson) [comb. nov.]

*Calodia obliqua* Nielson 1982: 142 [Keyed]: 163 [New species, described, type deposition, distribution, comparative note to *rama* Kirkaldy]: 166 [Comparative note to *obscura*]: 313 [Checklist]: 318 [Indexed]

*Calodia obliqua* Nielson: Zhang 1994: 109 [Keyed, in Chinese]: 114 [Comparative note to *obliquasimilaris*]: 115 [Catalogued, described, in Chinese, illustrated, 6 fig., after Nielson]: 136 [Checklist, distribution, in English]: 148 [Indexed, in Chinese]: 150 [Indexed, in English]

Distribution: **(China, Vietnam)**

## 5. *obliquasimilaris* (Zhang) [comb. nov.]

*Calodia obliquasimilaris* Zhang 1990: 107 [New species, described, type deposition, distribution, in Chinese]: 108 [Comparative note to *obliqua* Nielson, illustrated, 5 fig., after Nielson]: 194 [Indexed, in Chinese]: 199 [Indexed, in English]: 211 [sp. n., host, described, type deposition, distribution]

*Calodia obliquasimilaris* Zhang: Li and Wang 1991: V. [Contents, listed *obliquasimilaris* (sic)]: 114 [Keyed, *obliquasimilaris* (sic), in Chinese]: 116 [*obliquasimilaris* (sic), catalogued, *obliquasimilaris* (sic), described, type deposition, distribution, in Chinese]: 273 [*obliquasimilaris* (sic), comparative distribution]

*Calodia obliquasimilaris* Zhang 1994: 10 [Cited in distribution, in Chinese]: 109 [Keyed, in Chinese]: 114 [Catalogued, described, illustrated, 6 fig.]: 115 [Type deposition, distribution]: 136 [Checklist, distribution, in English]: 147 [Indexed, in Chinese]: 150 [Indexed, in English]

*Calodia obliquasimilaris* Zhang: Cai and He 2002: 139 [Keyed, in Chinese]: 140 [Listed, in Chinese]

Distribution: **(China)**

*obliquasimilaris* (See *Calodia patricia* (Jacobi))

*obliquasimilaris* (See *obliquasimilaris* Zhang) [**Error for *obliquasimilaris***]

## 6. *uniaristata* (Zhang) [comb. nov., reinstated]

*Taharana uniaristata* Zhang 1990: 114 [n. sp., described, in Chinese]: 115 [Type deposition, distribution, comparative note to *webbi*, in Chinese, illustrated, 6 fig.]: 213 [Comparative note to *webbi* and *horrida*, type deposition, in English]

*Taharana uniaristata* Zhang 1994: 51 [Keyed, in Chinese]: 74 [Catalogued, junior synonym of *Lodiana acutistyla* Li and Wang 1989, described, comparative note to *acutistyla*]: 132 [Junior synonym of *Lodiana acutistyla* Li and Wang, in English]: 134 [Checklist, distribution, junior synonym of *Lodiana acutistyla* Li and Wang, in English]: 147 [Indexed, in Chinese]: 151 [Indexed, in English]

Distribution: **(China)**

uniaristata (See *acutistyla* (Li and Wang)) [Synonym]

7. ***webbi*** (Nielson) [**comb. nov.**]

*Taharana webbi* Nielson 1982: 51 [Keyed]: 69 [New species, described, type deposition, distribution]: 68 [Illustrated, fig. 198-203, comparative note to *schonhorsti*]: 312 [Checklist]: 318 [Indexed]

*Taharana webbi* Nielson 1990: 447 [Keyed]

*Calodia webbi* (Nielson): Zhang 1994: 51 [Taxonomic note]: 108 [Keyed]: 109 [New combination, described, distribution, in Chinese]: 110 [Illustrated, 7 fig., after Nielson]: 132 [Transferred to genus *Calodia*]: 136 [Comb. n., distribution]: 151 [Indexed, in English]

Distribution: (**Cambodia, China, Laos, Seychelles, Thailand, Vietnam**)

***Zhangolidia*, gen. nov.**

1. ***polyspinata*** (Zhang) [**comb. nov.**]

*Lodiana polyspinata* Zhang 1994: 74 [Keyed, in Chinese]: 105 [Comparative note to *Lodiana laminapellucida*]: 107 [sp. n., described]: 108: [Type deposition, distribution, comparative note to *L. laminapellucida*, illustrated, 6 fig.]: 136 [Checklist, distribution, in English]: 145 [sp. n., comparative note to *Lodiana setacea* Nielson and *L. laminapellucida*, sp. n.]: 147 [Indexed, in Chinese]: 151 [Indexed, in English]

*Olidiana polyspinata* (Zhang): McKamey 2006: 505 [new combination]

*Olidiana polyspinata* (Zhang): Freytag 2010b: 367 [Checklist, distribution]

Distribution: (**China**)

2. ***spiculata*** (Nielson) [**comb. nov.**]

*Lodiana spiculata* Nielson 1982: 88 [Keyed]: 93 [New species, described]: 94 [Illustrated, fig. 282-285, described]: 95 [Type deposition, distribution, comparative note to *unica*, n. sp.]

*Lodiana spiculata* Nielson: Zhang 1994: 73 [Keyed, in Chinese]: 92 [Catalogued, described, type deposition, distribution, in Chinese]: 93 [Illustrated, 5 fig.]: 135 [Checklist, distribution, in English]: 148 [Indexed, in Chinese]: 151 [Indexed, in English]

*Olidiana spiculata* (Nielson): McKamey 2006: 506 [new combination]

*Olidiana spiculata* (Nielson): Freytag 2010b: 367 [Checklist, distribution]

Distribution: (**China, Thailand**)

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New names are indicated by **bold face** type, invalid names by *italics*

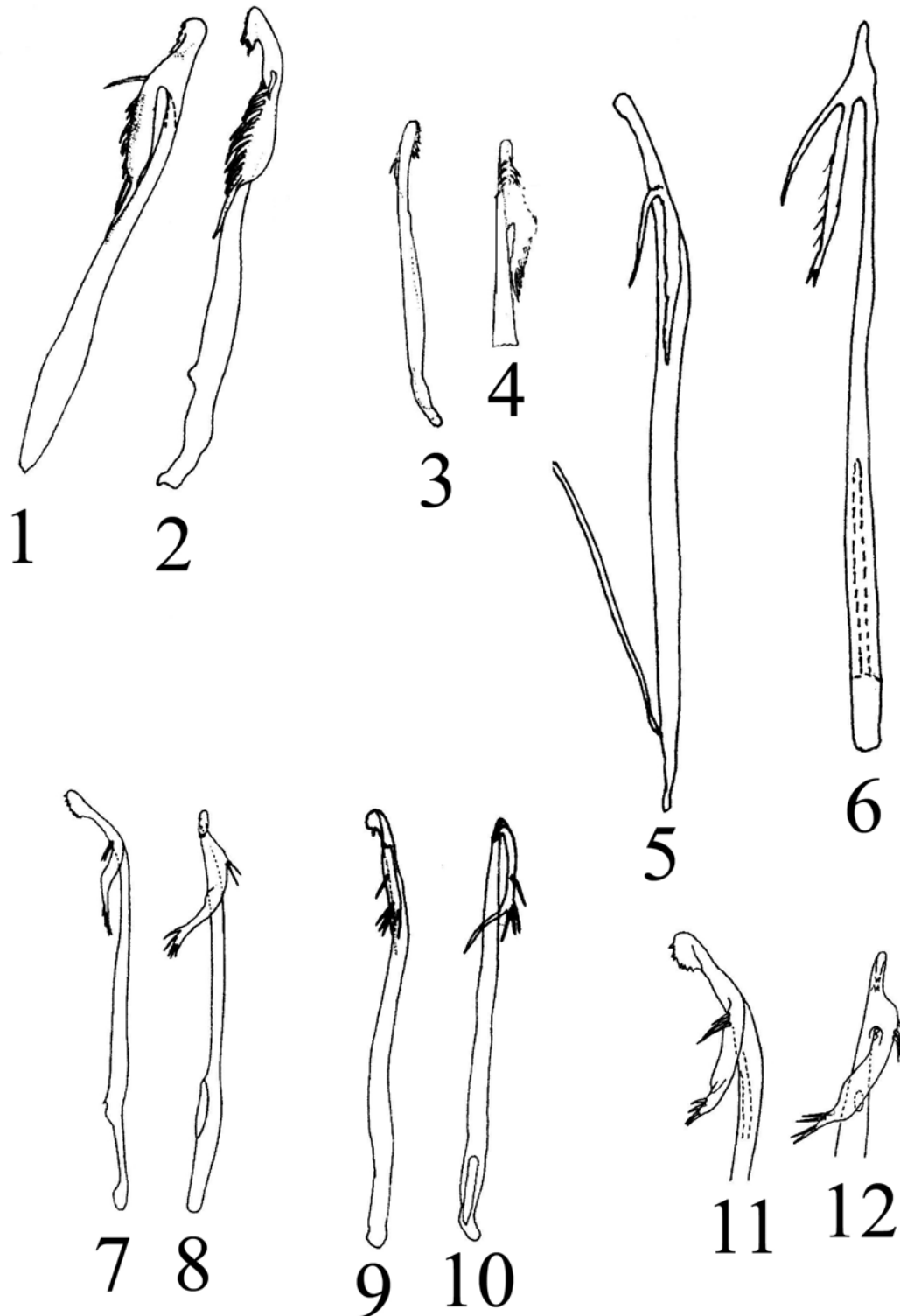
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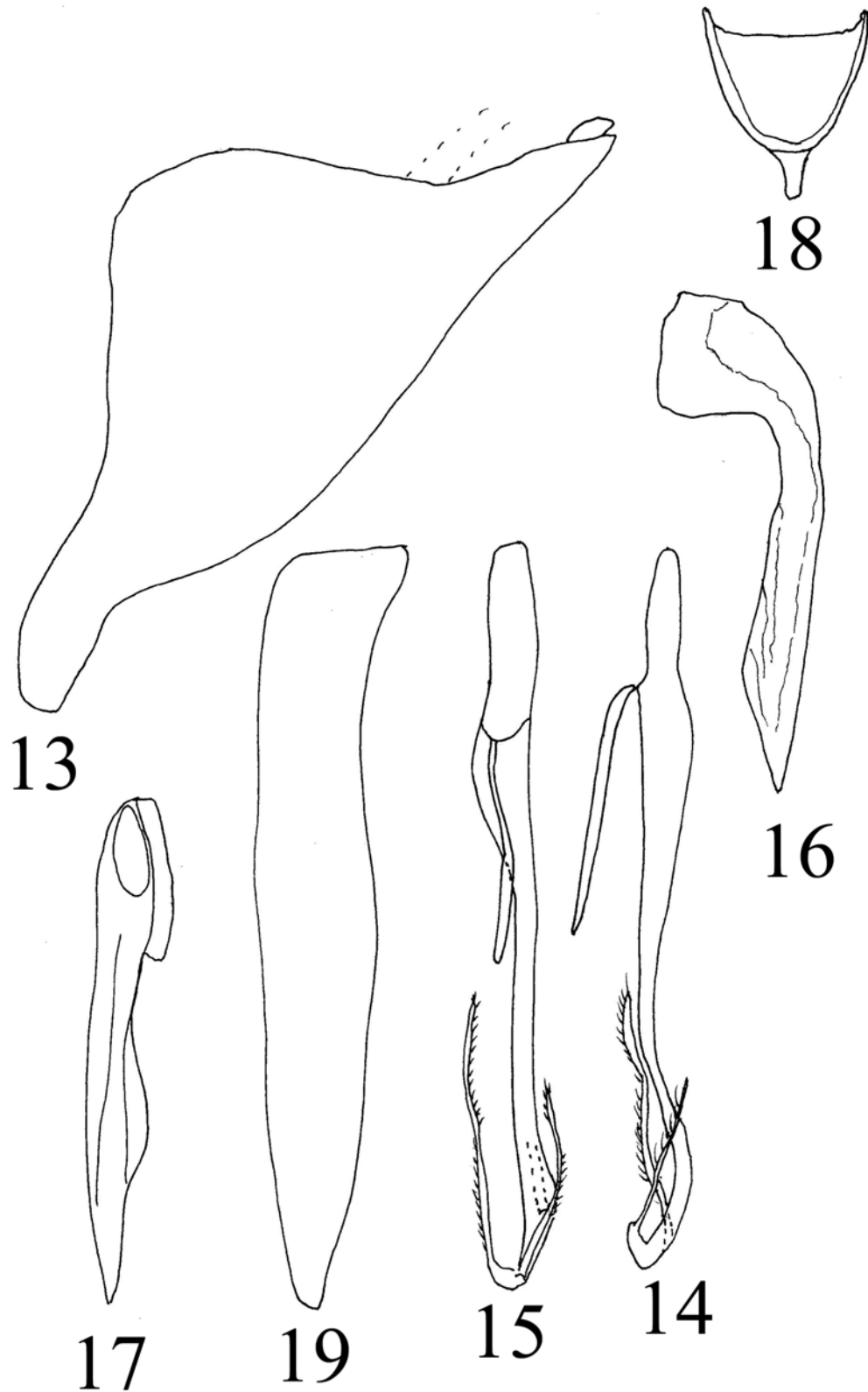
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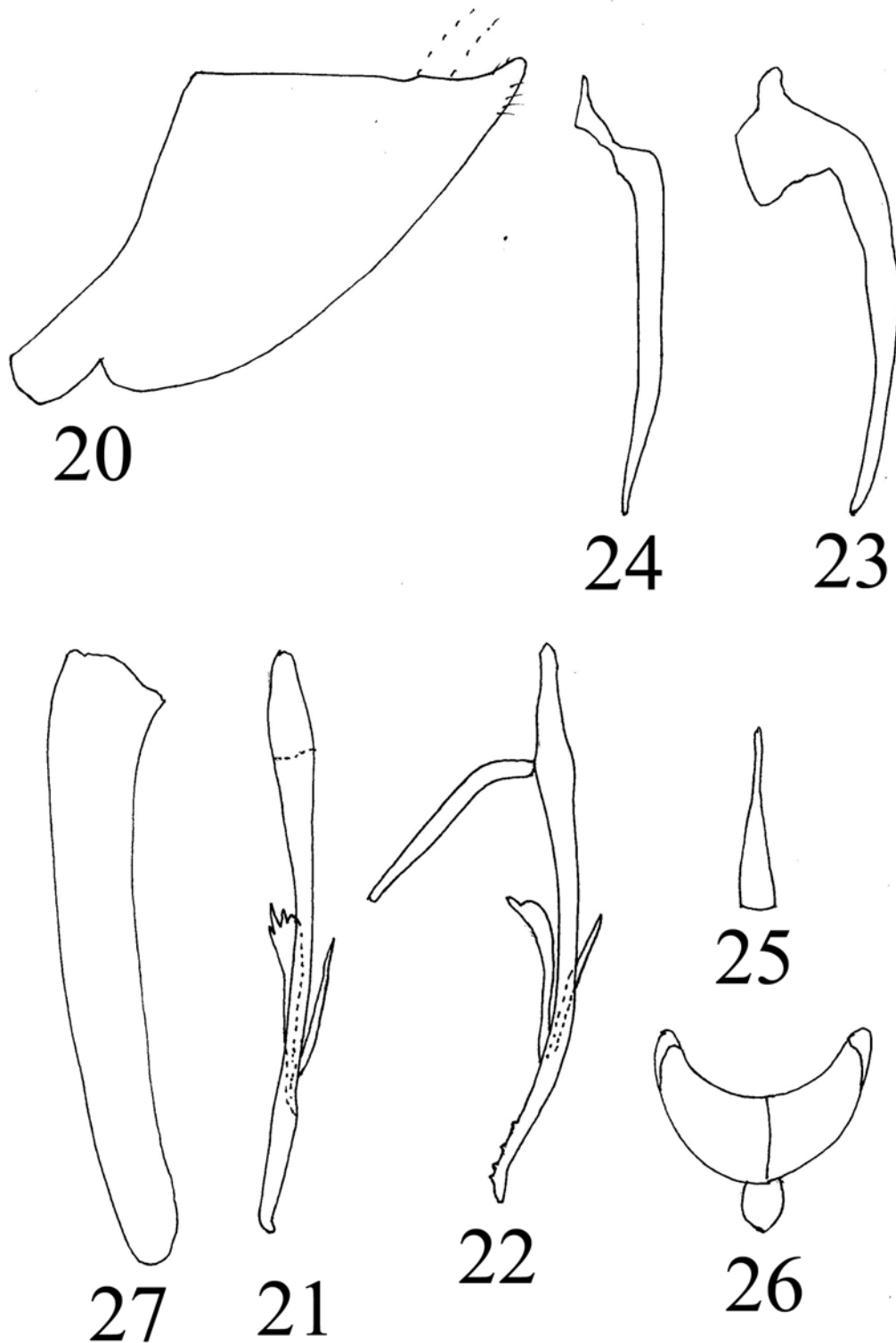
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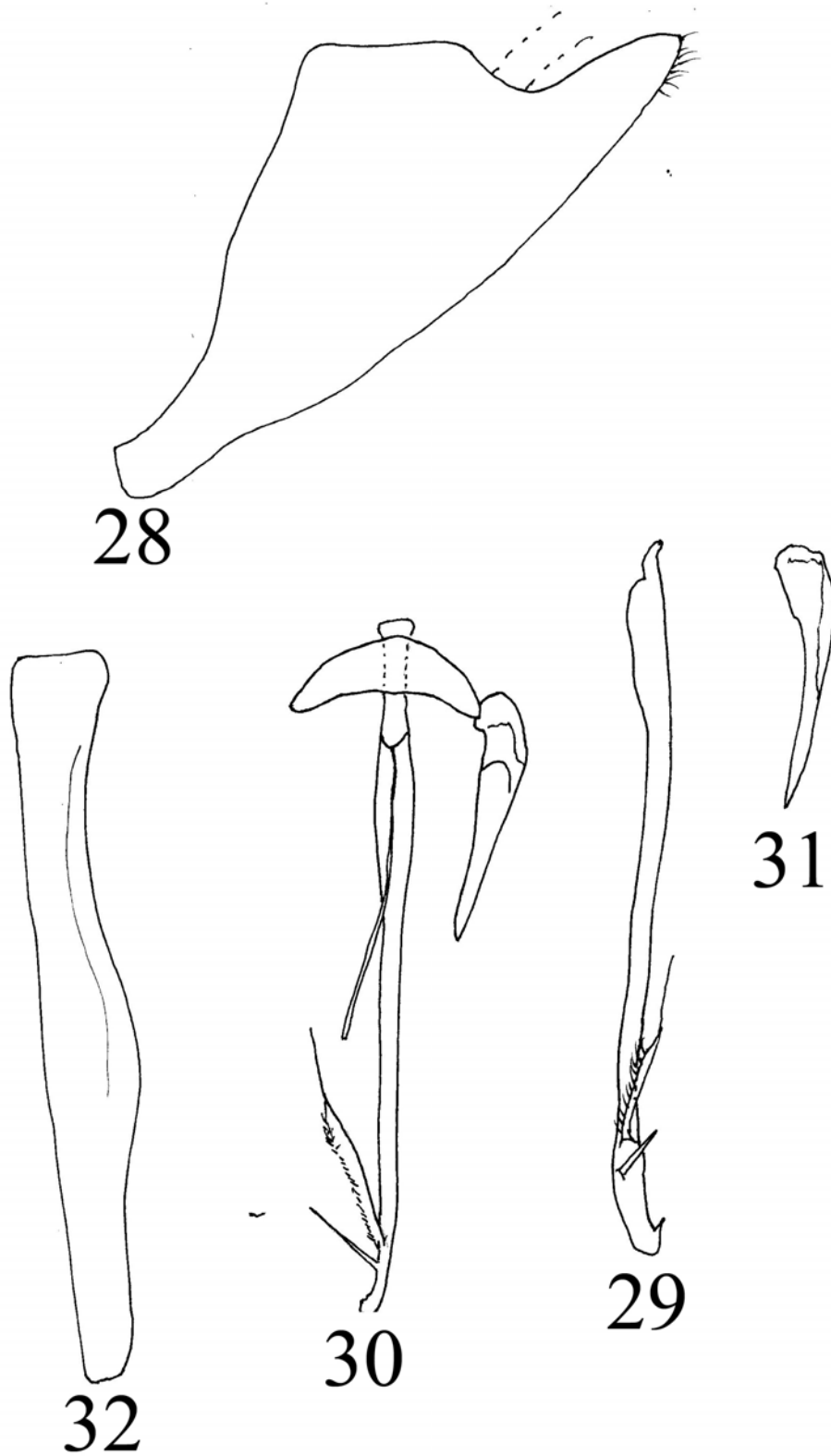


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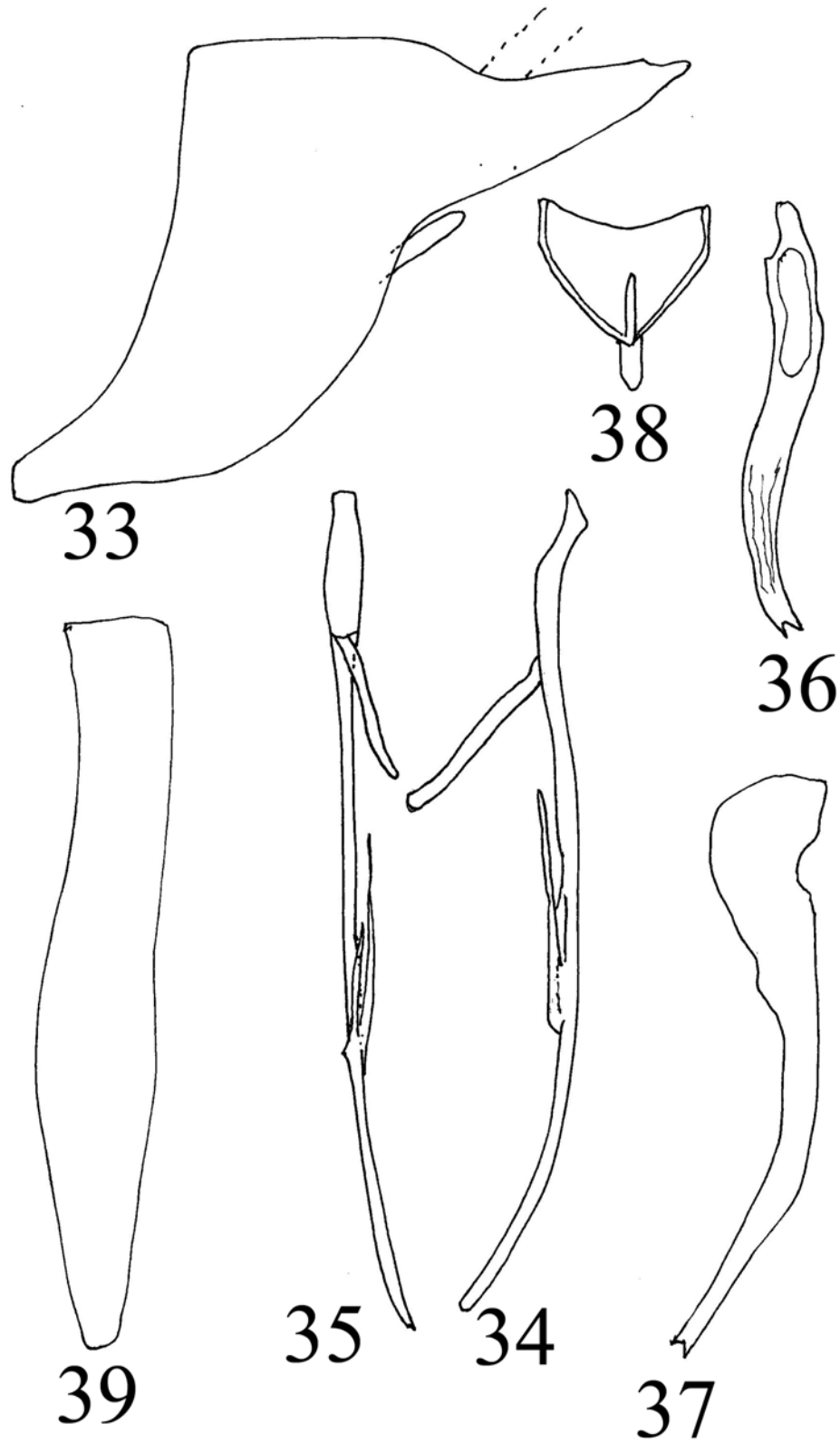


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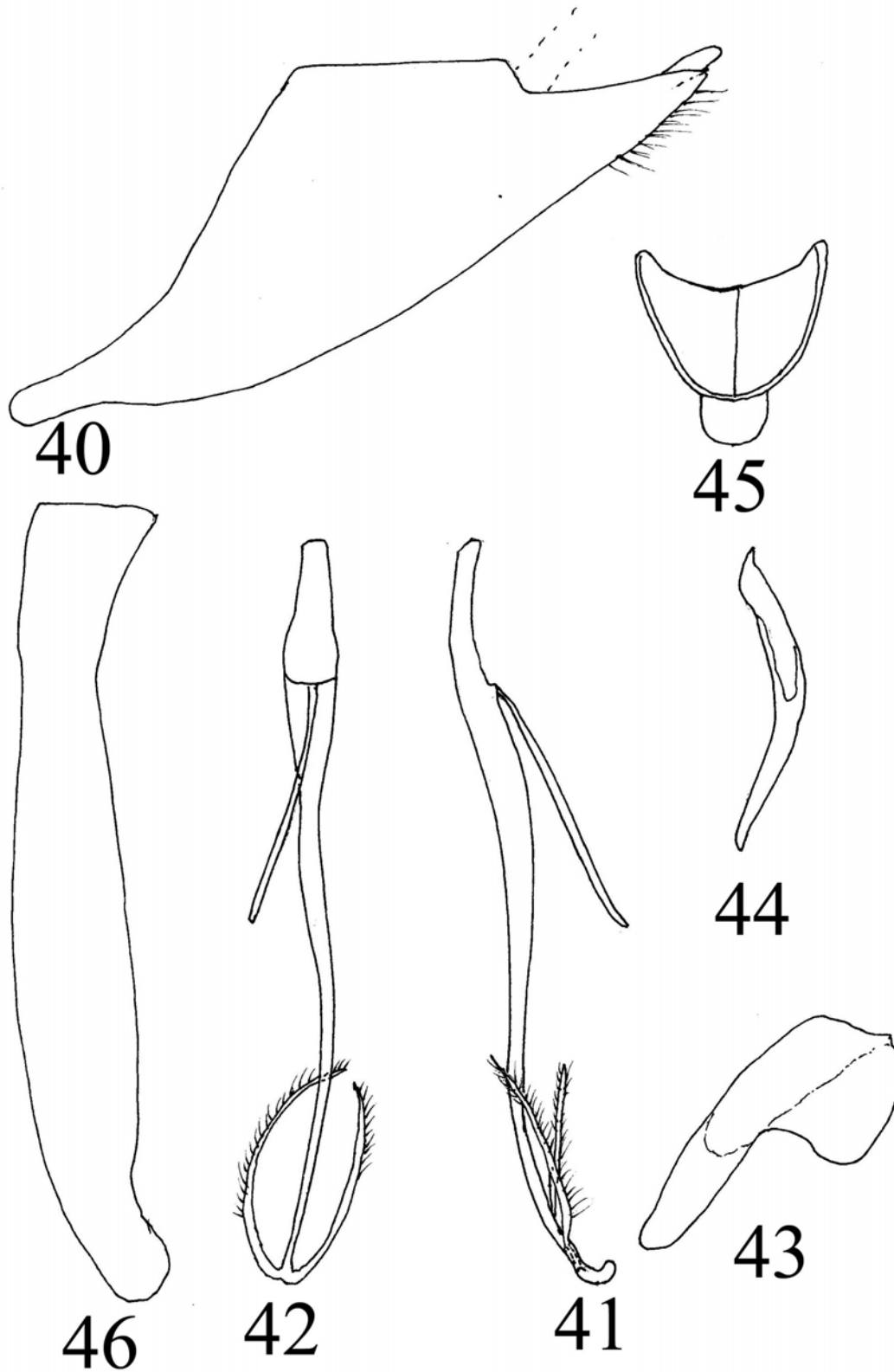




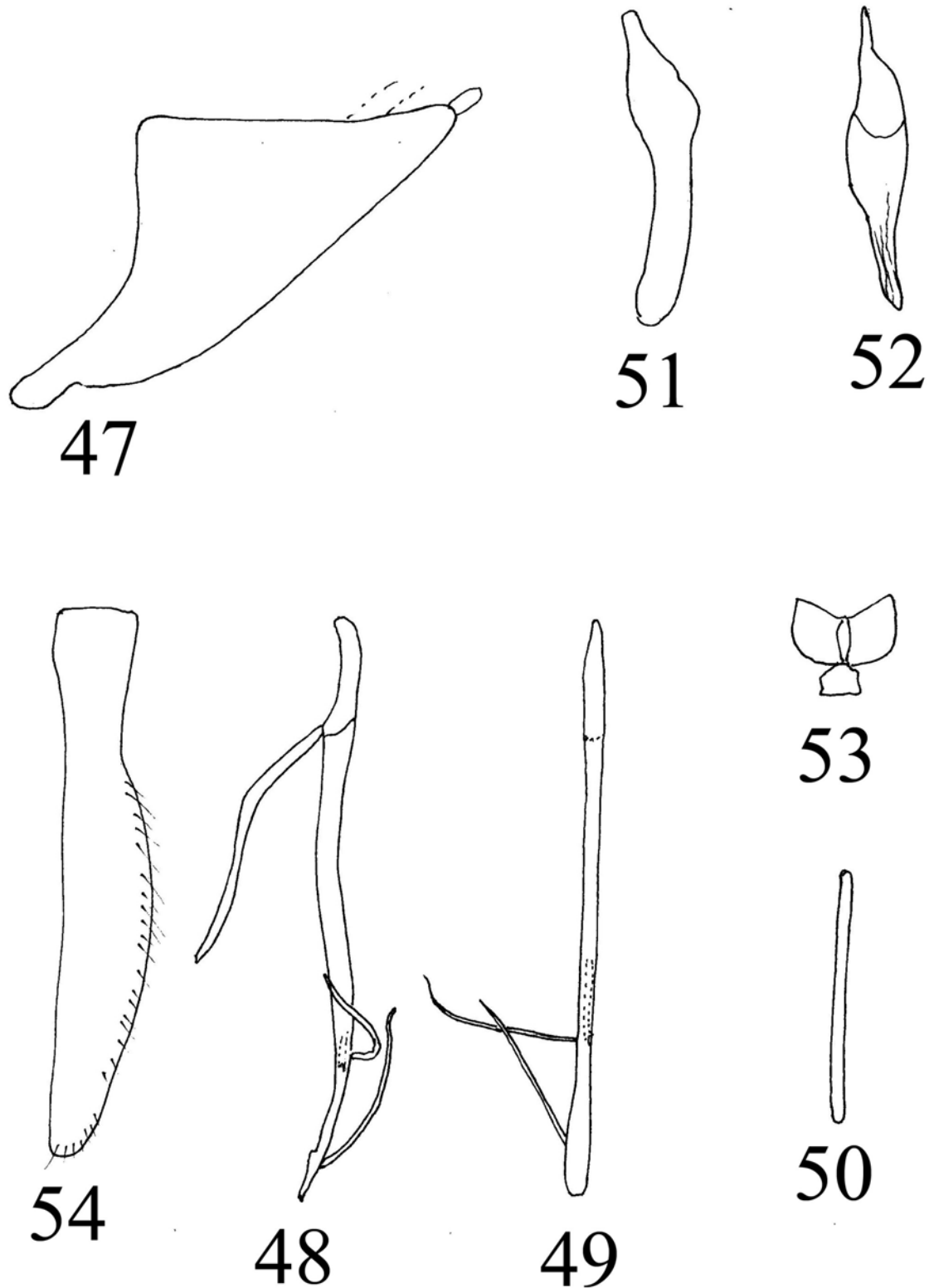
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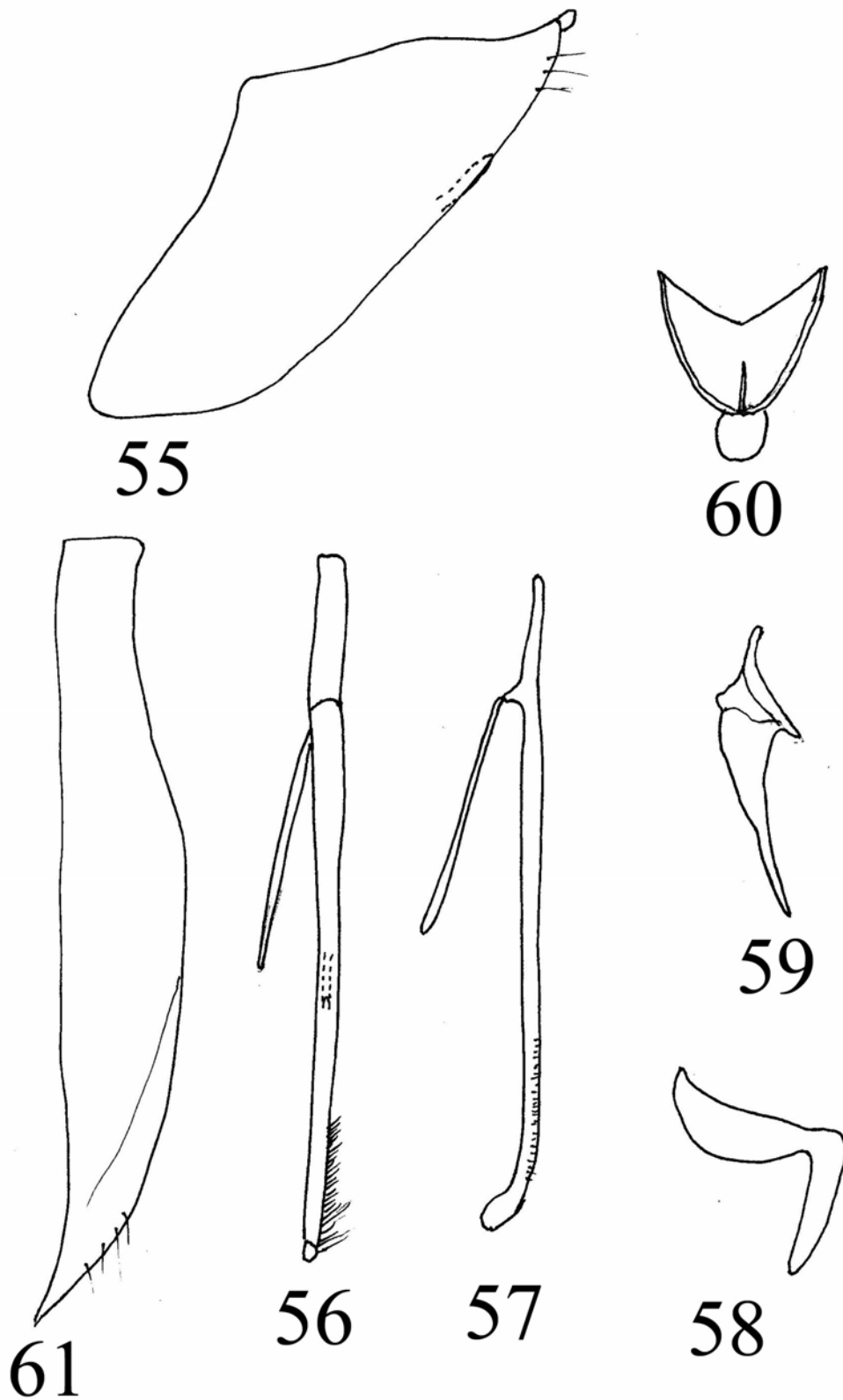
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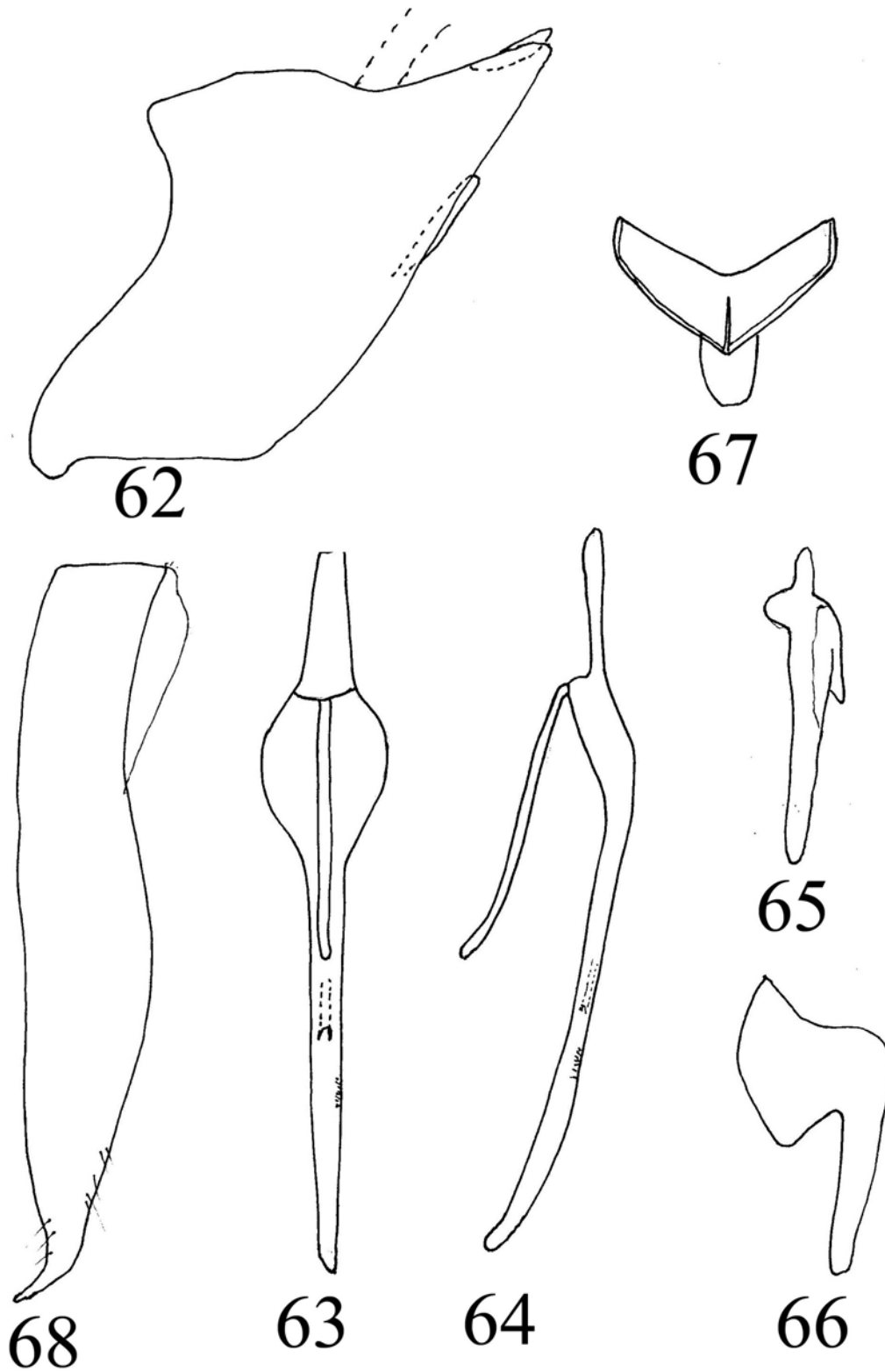
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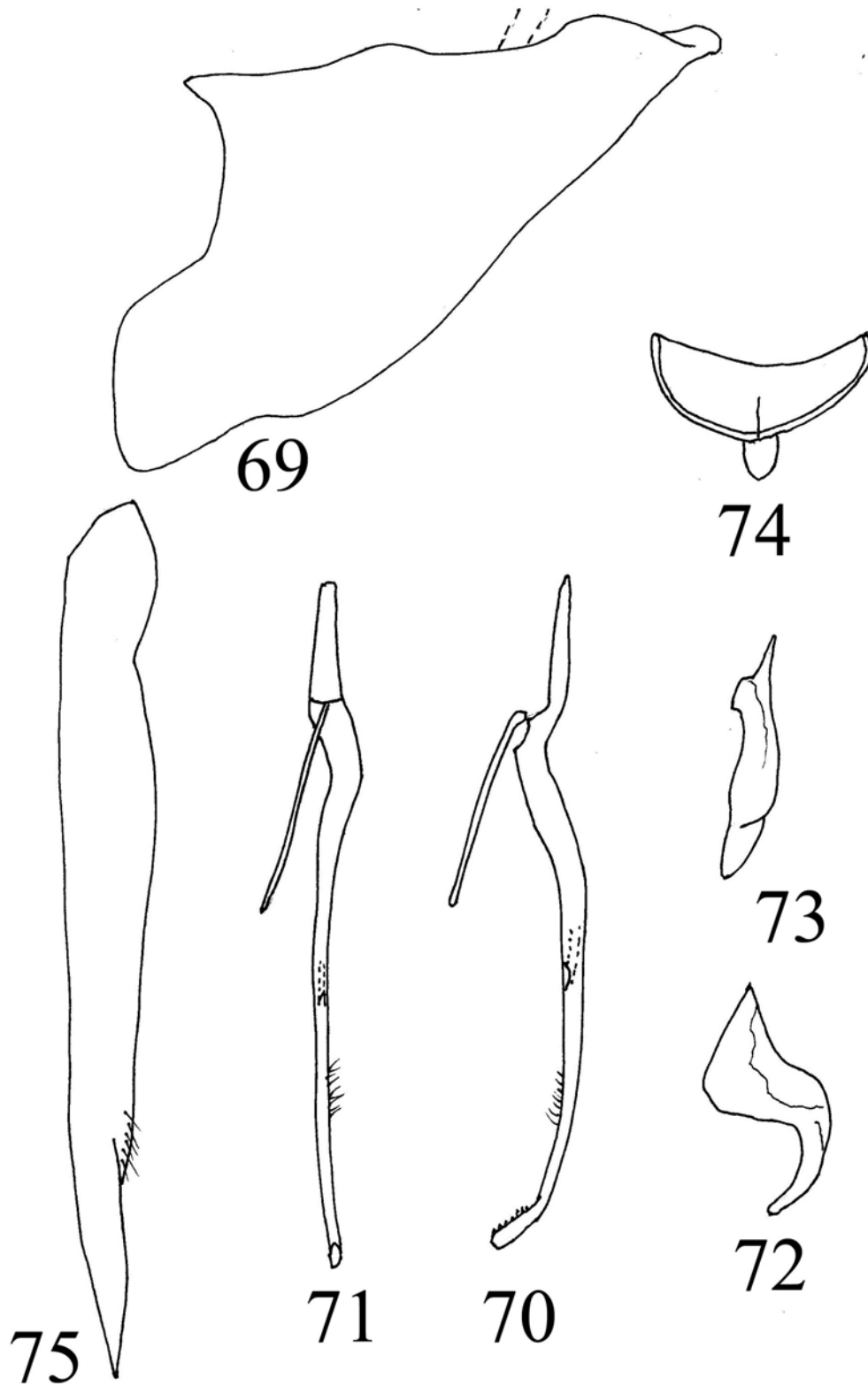
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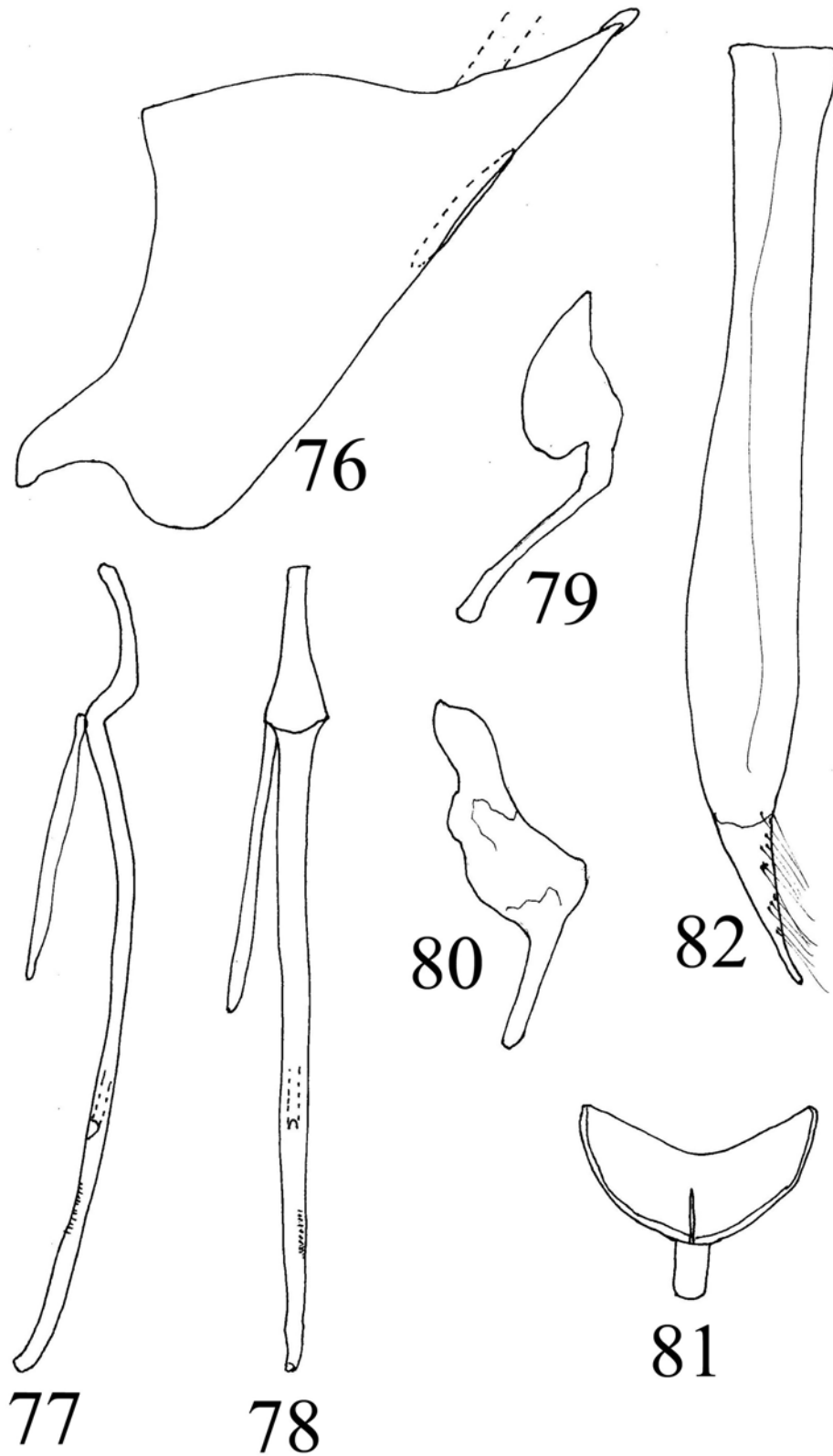
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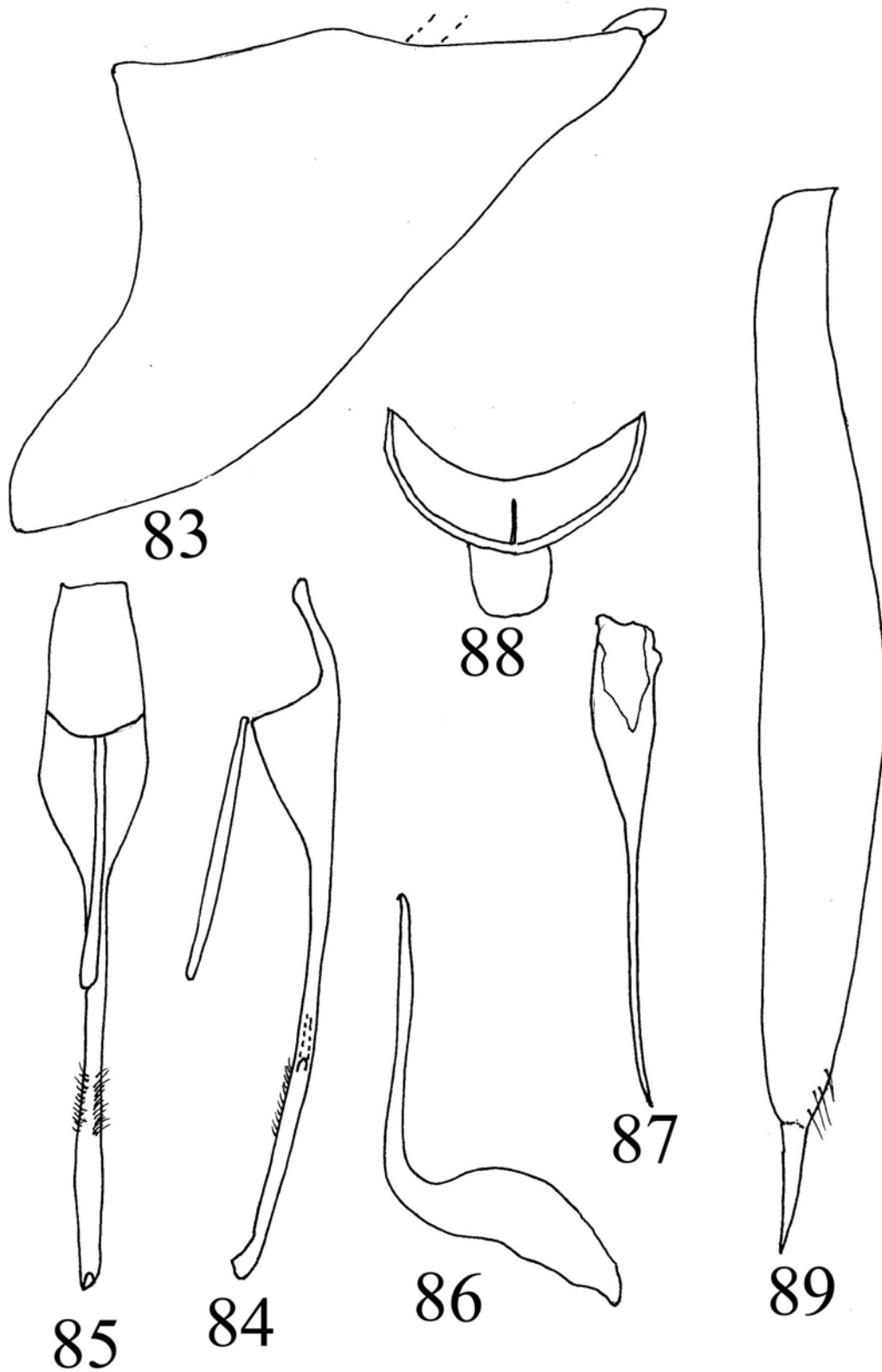


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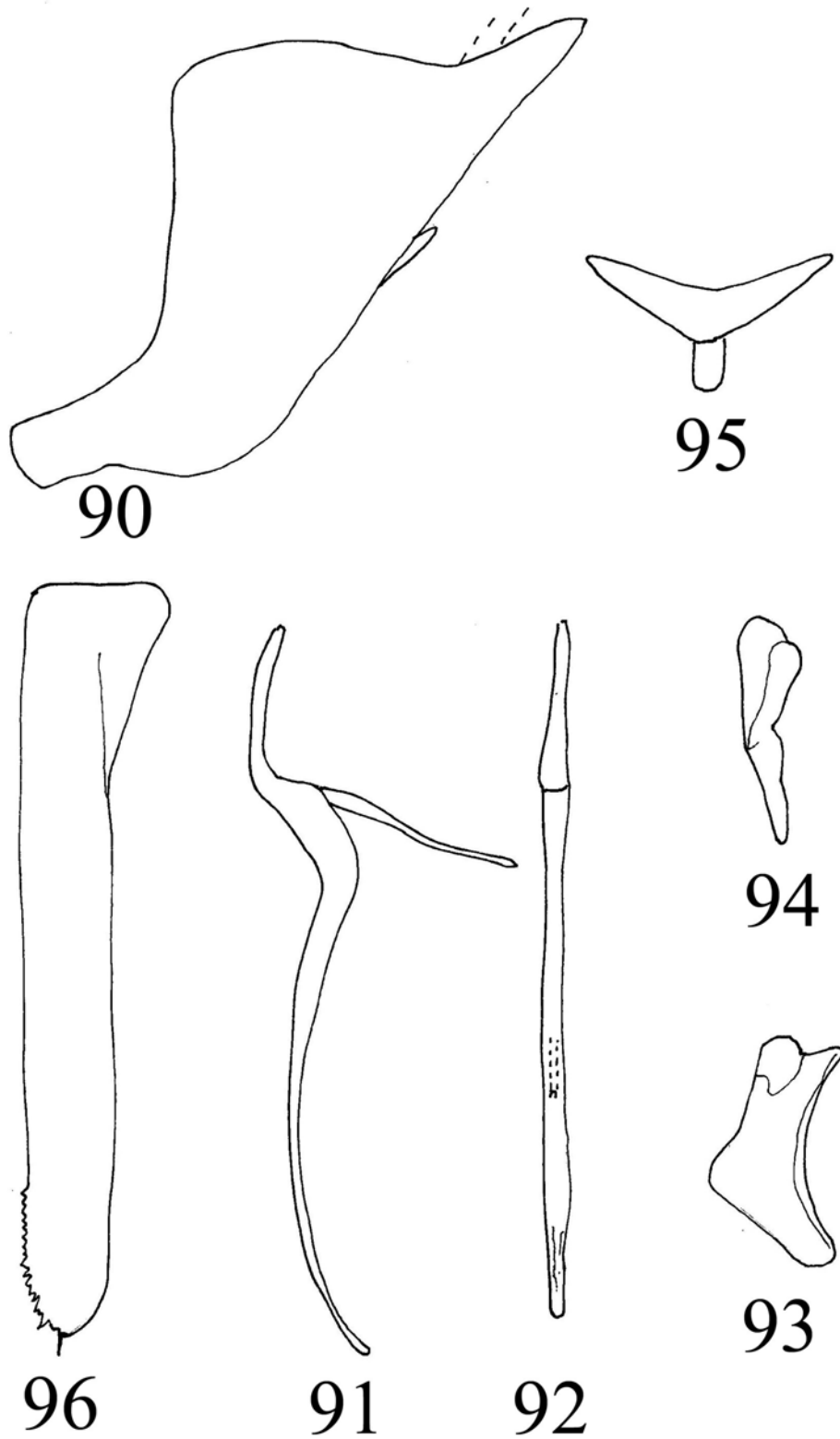


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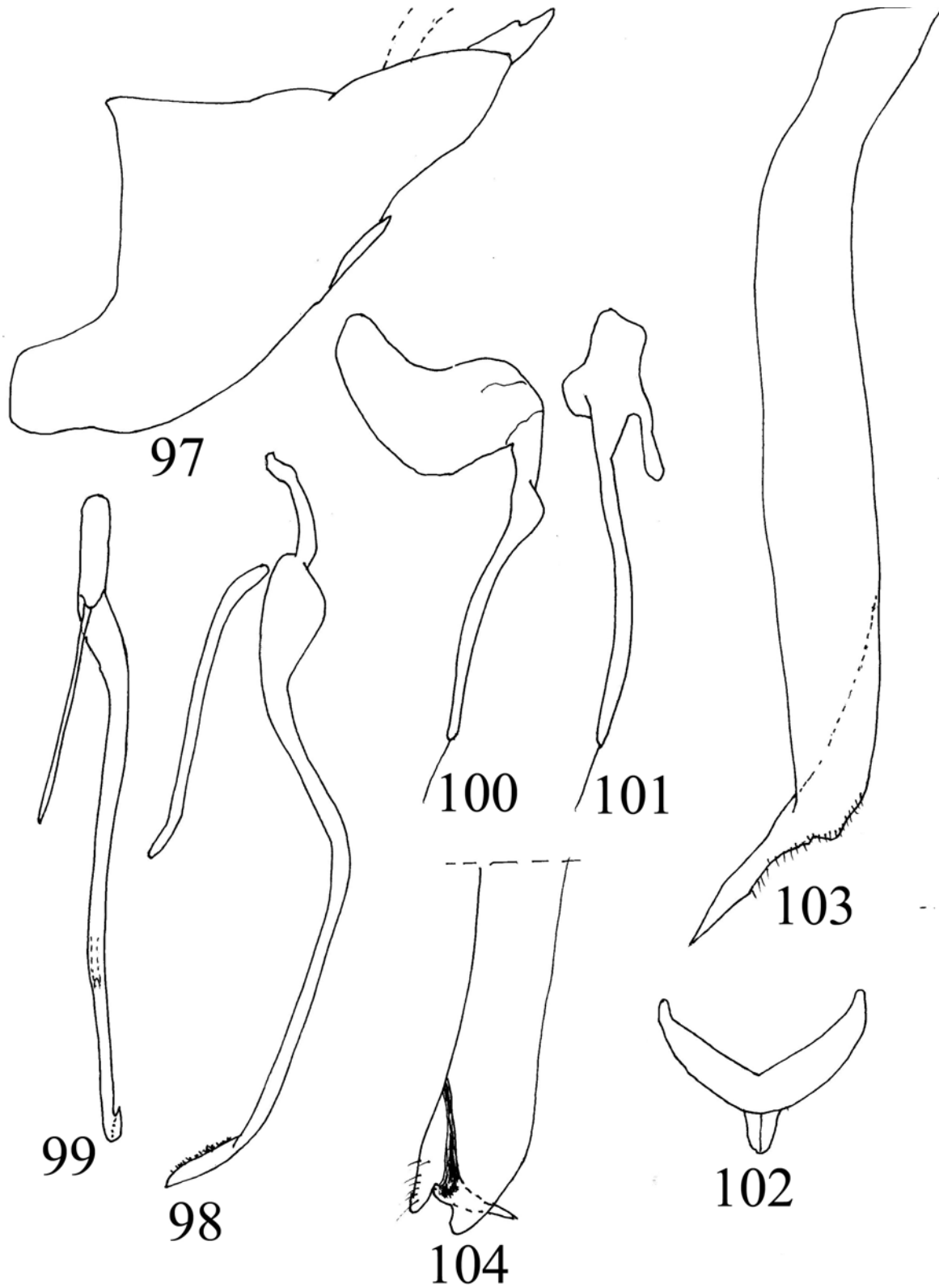




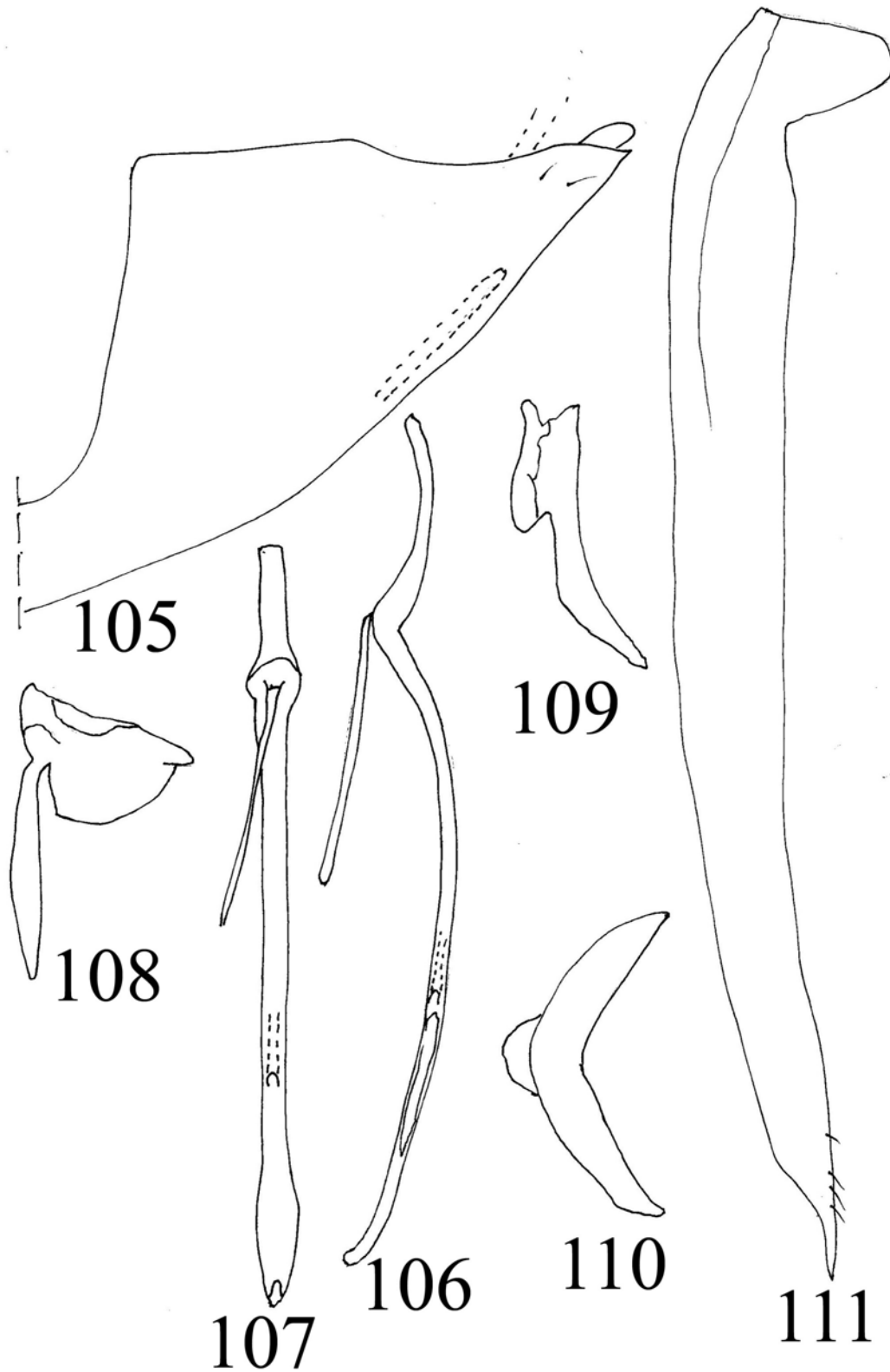
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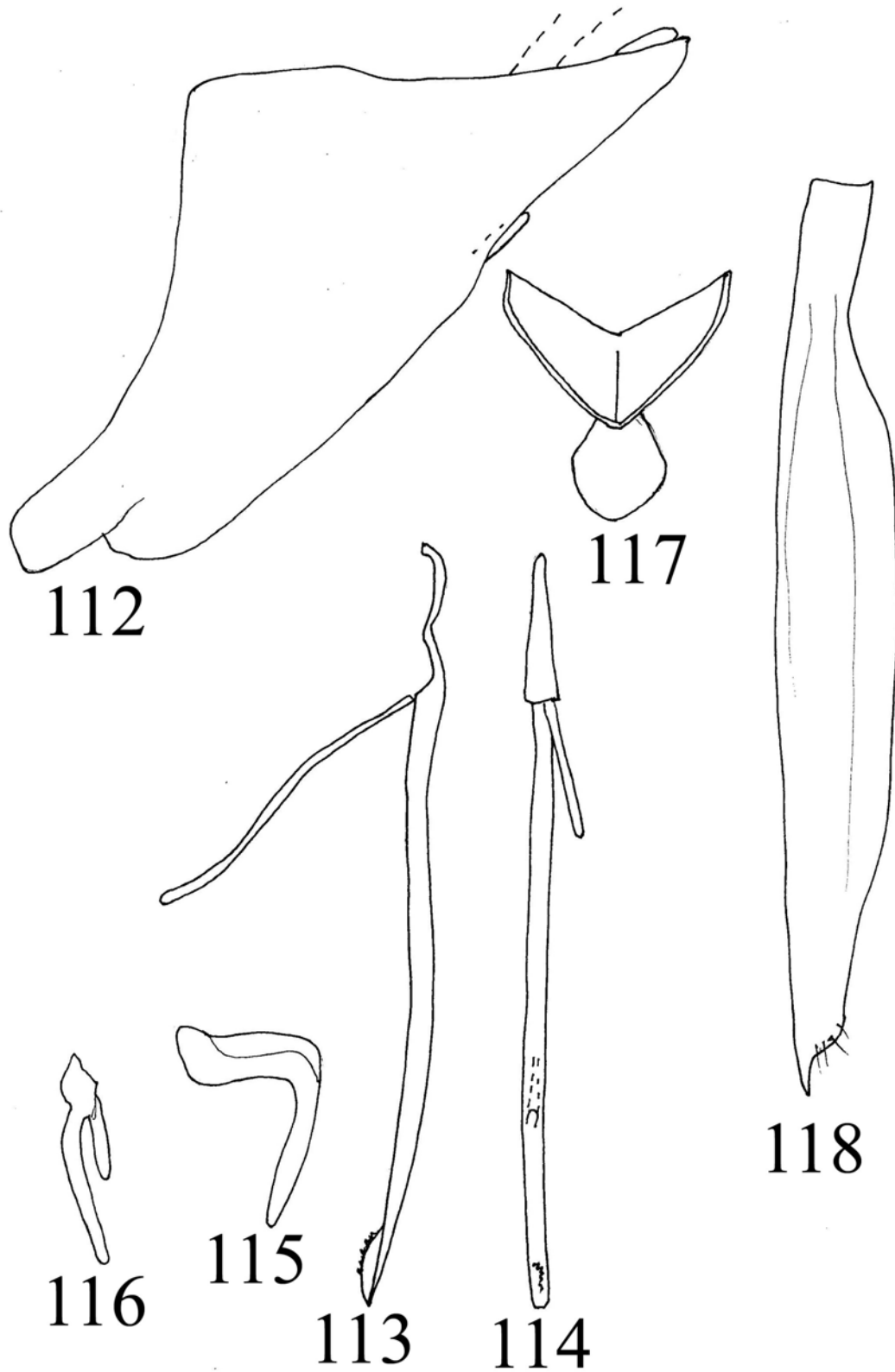
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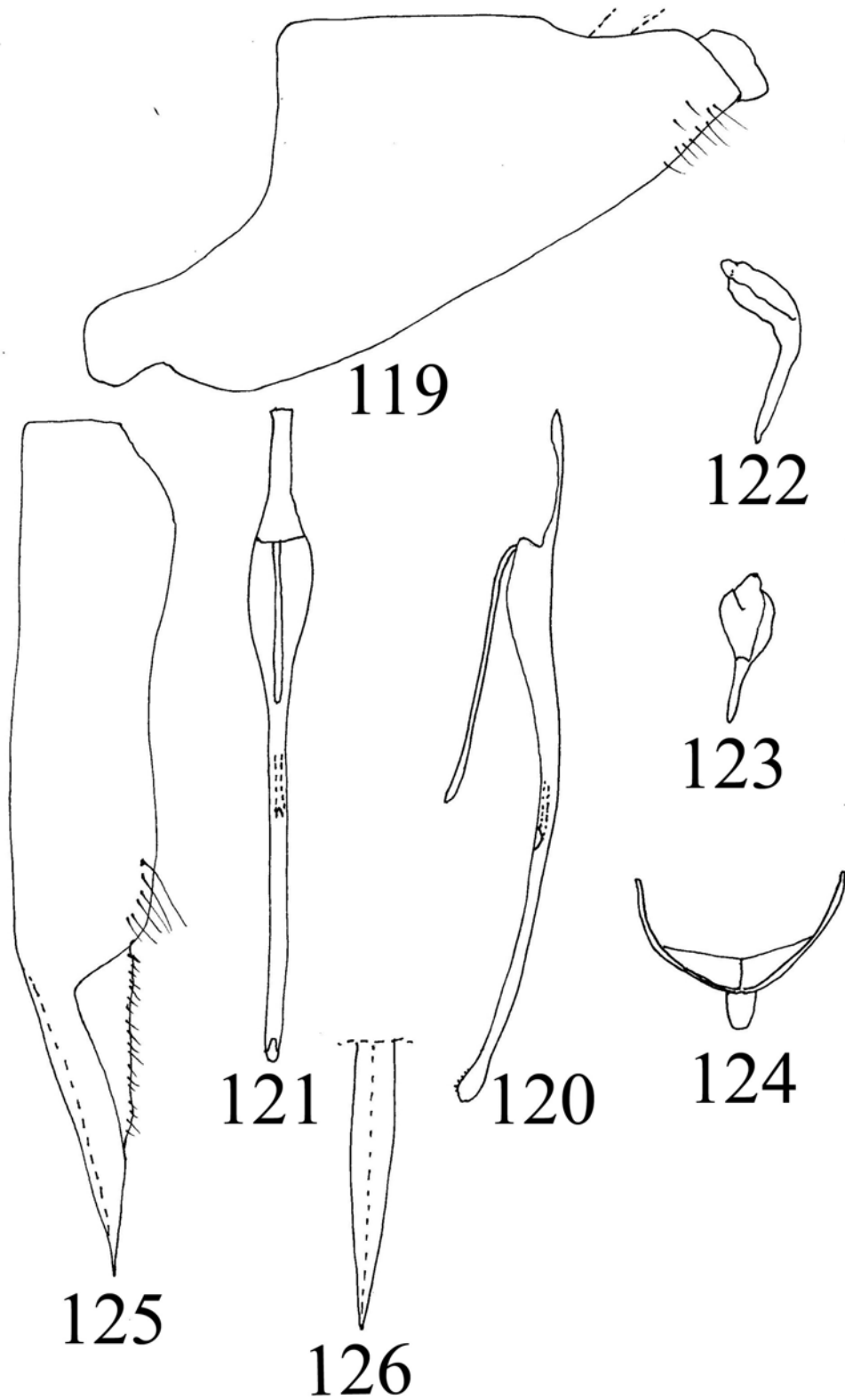
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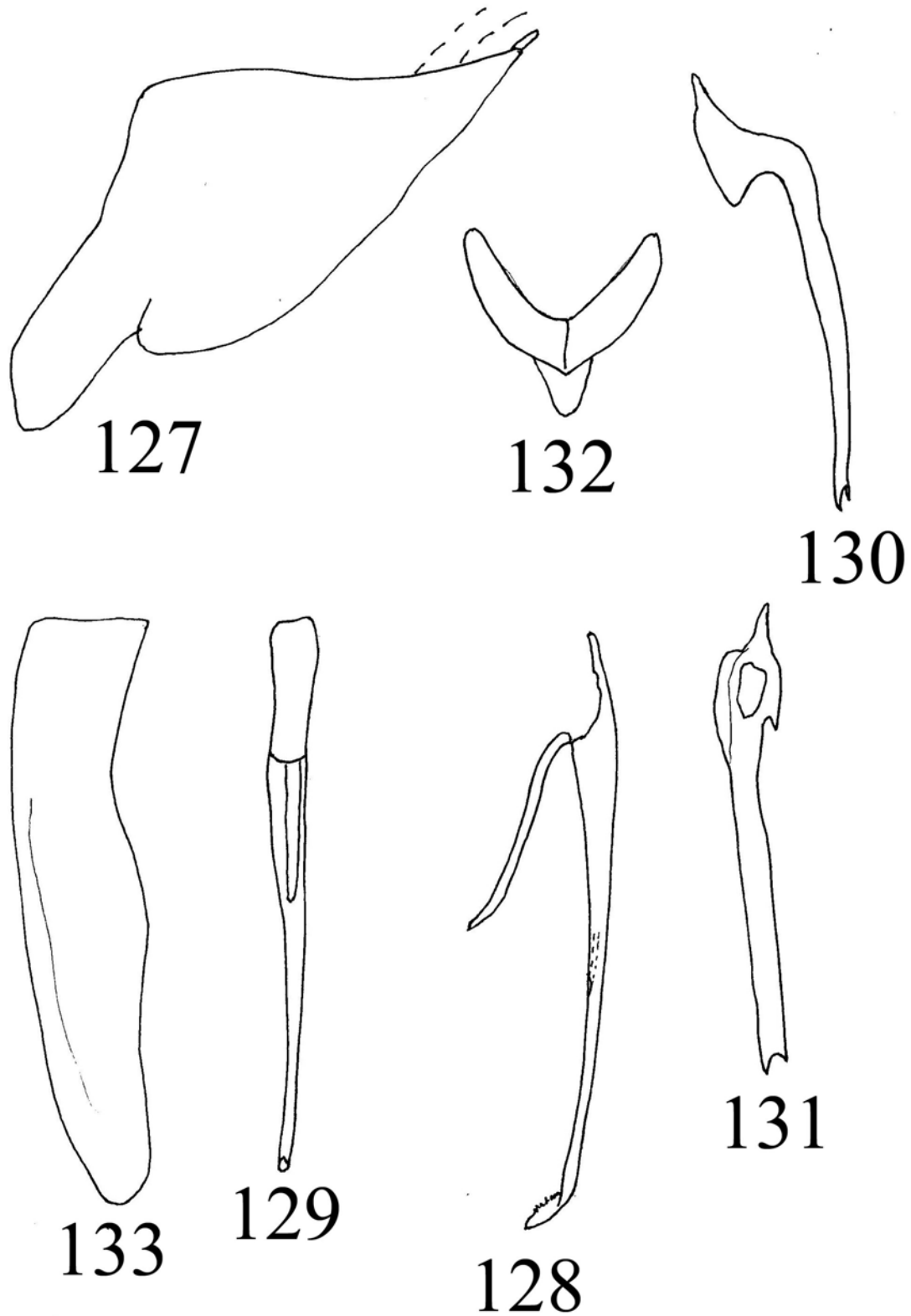
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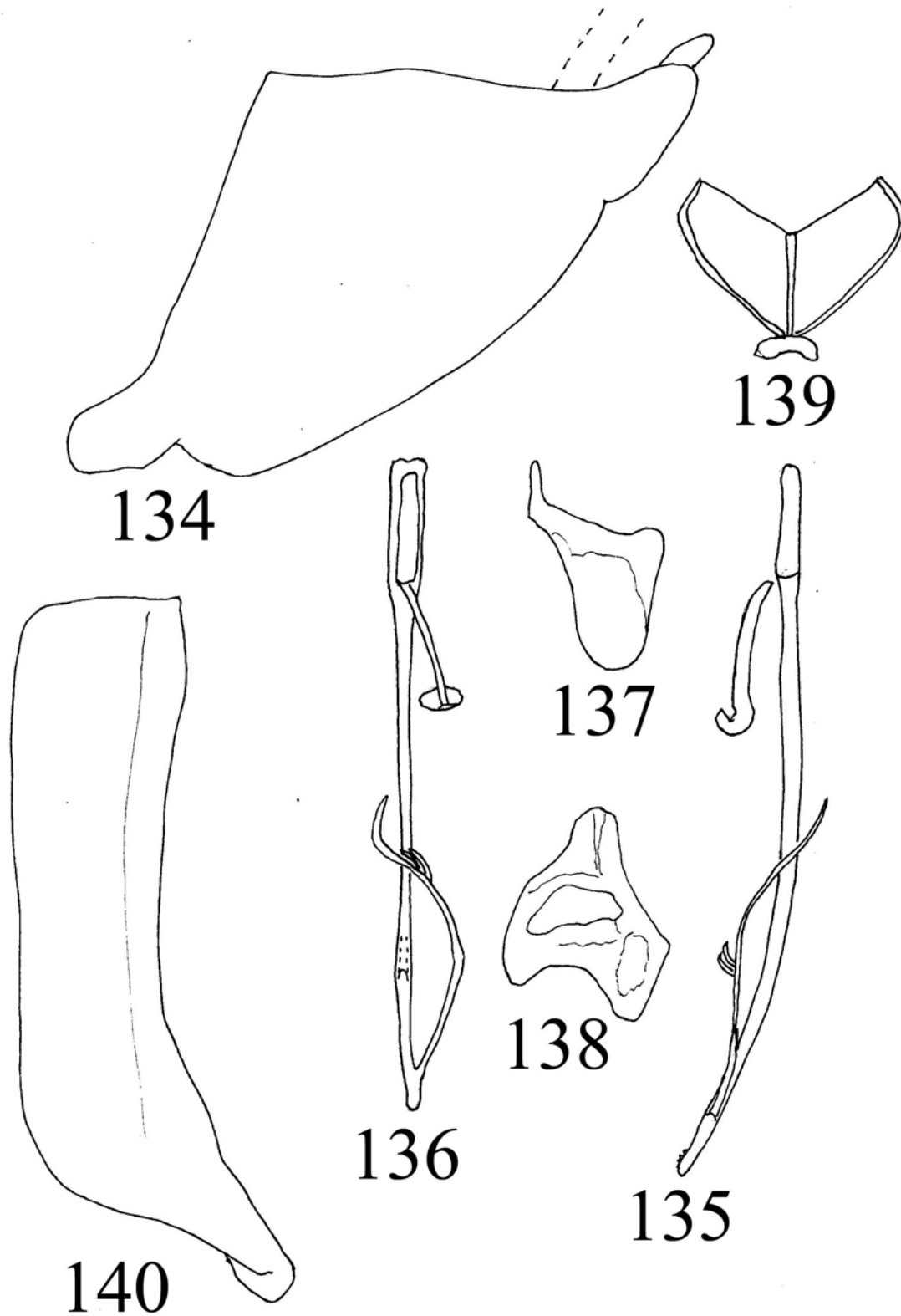
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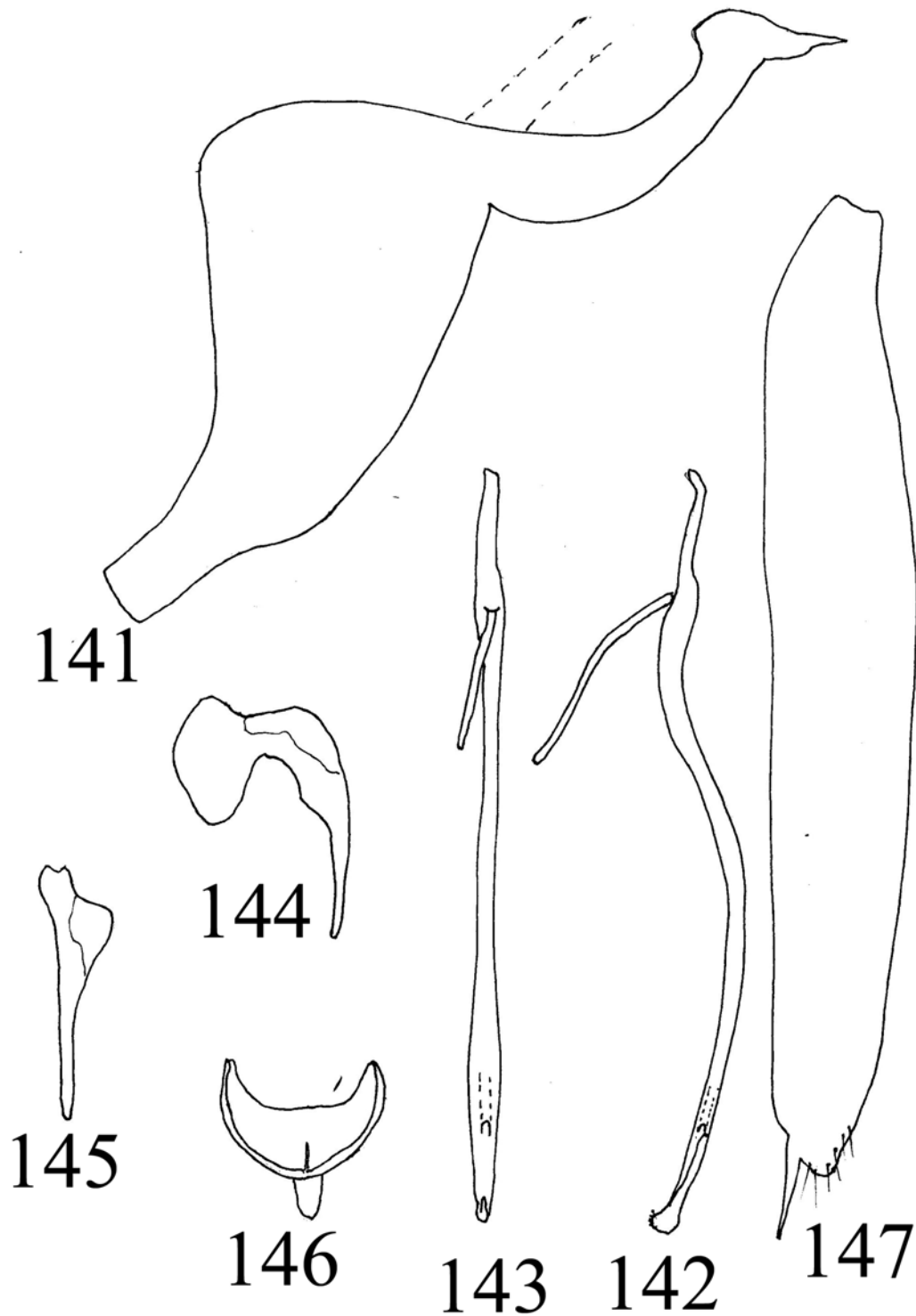


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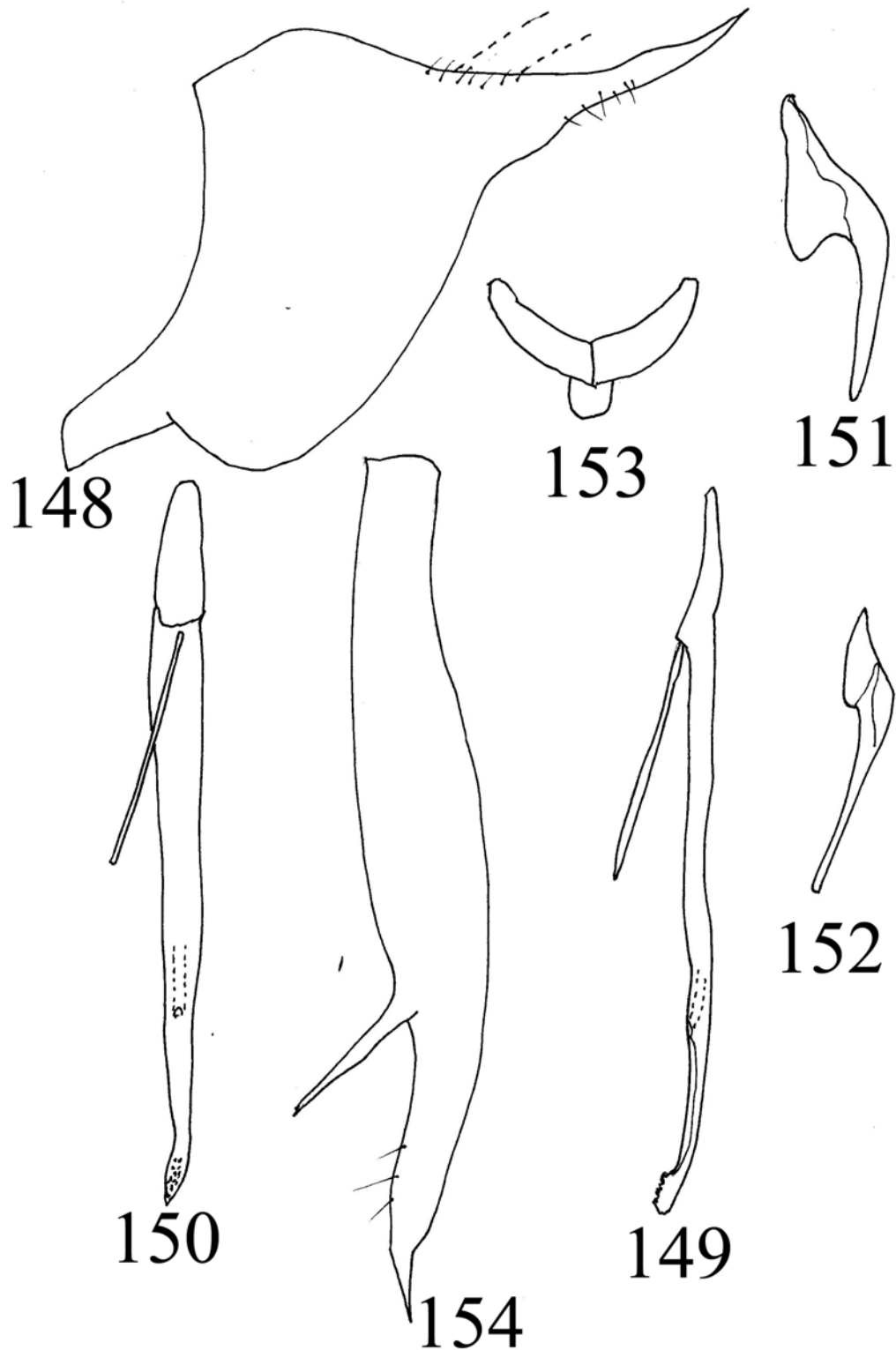


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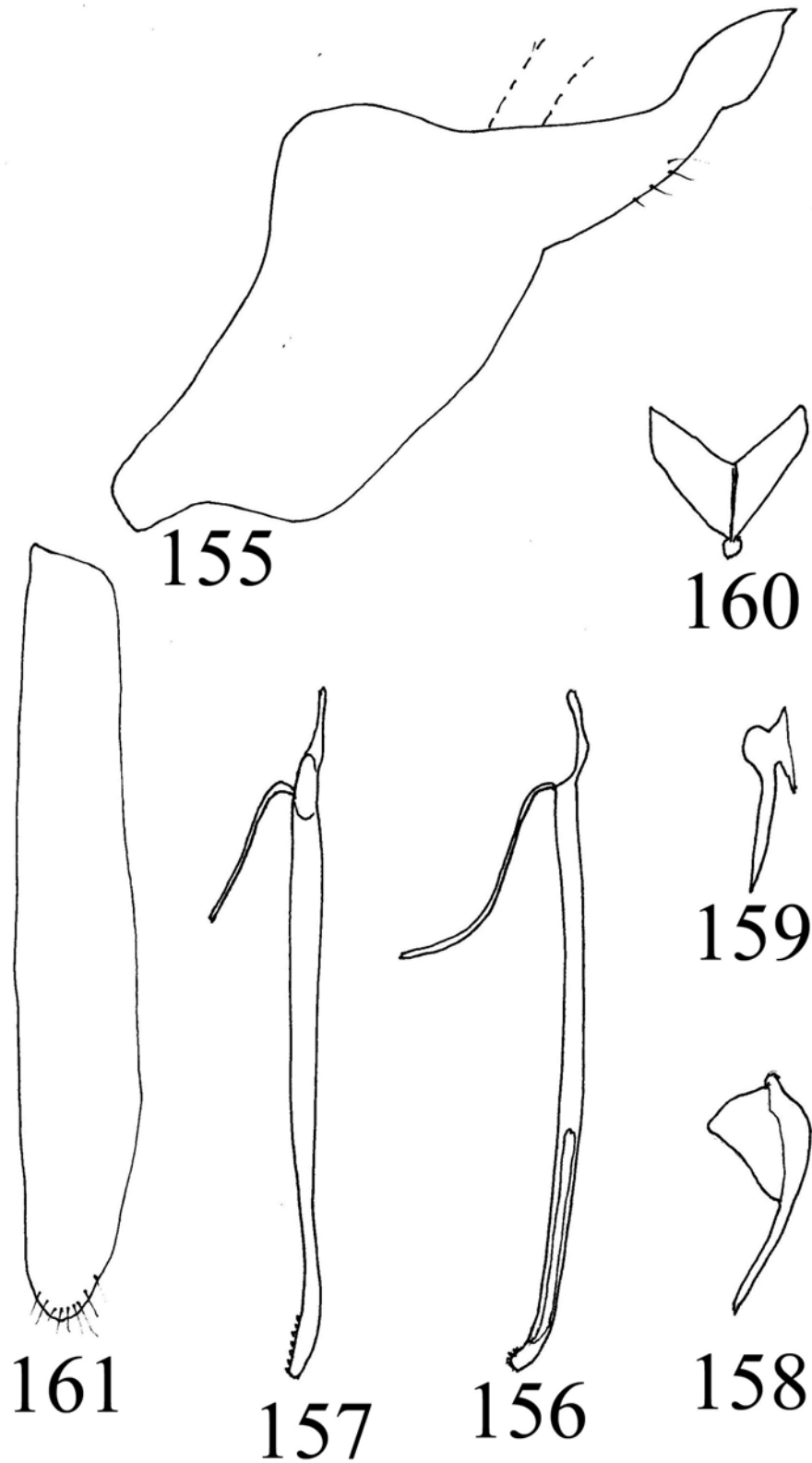




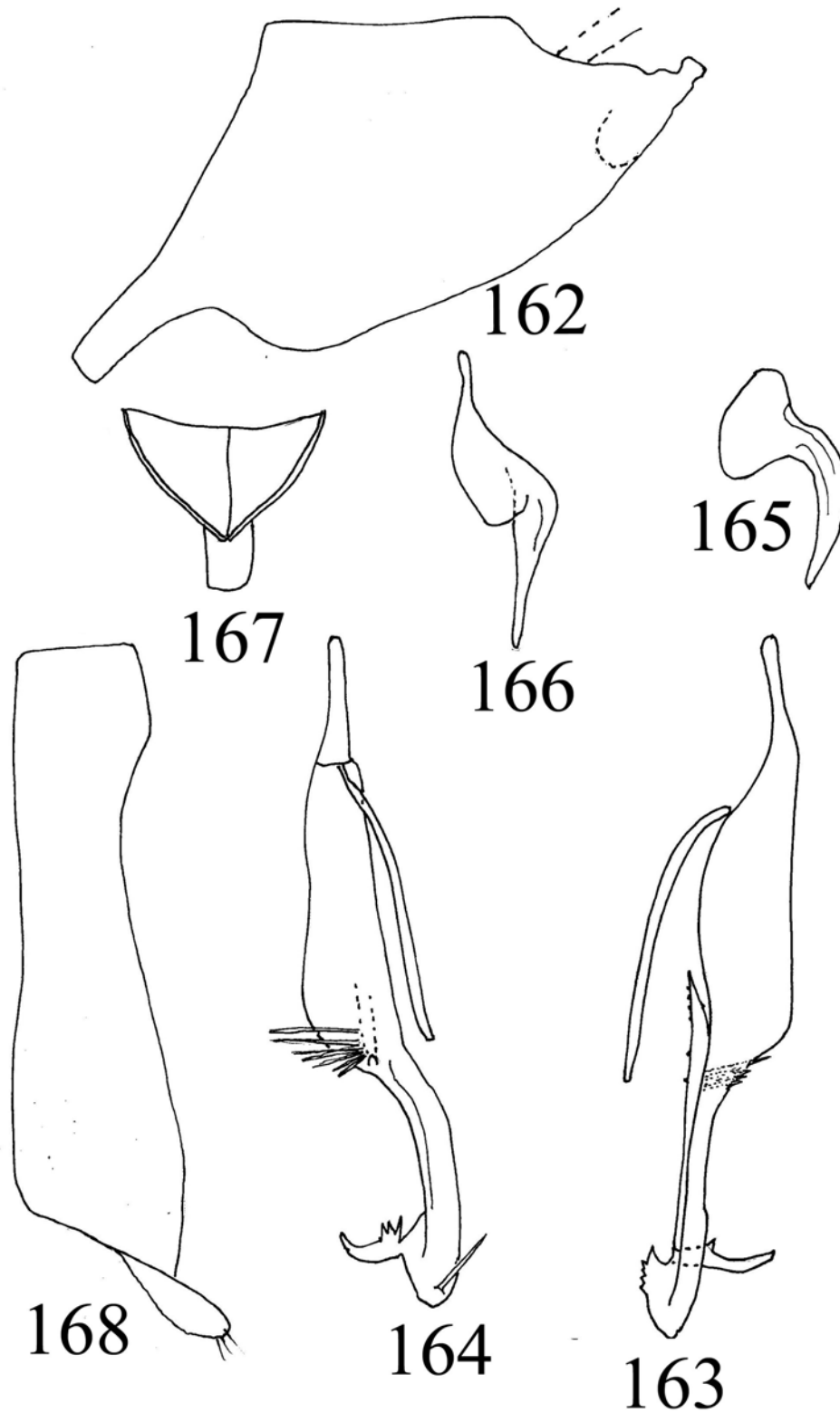
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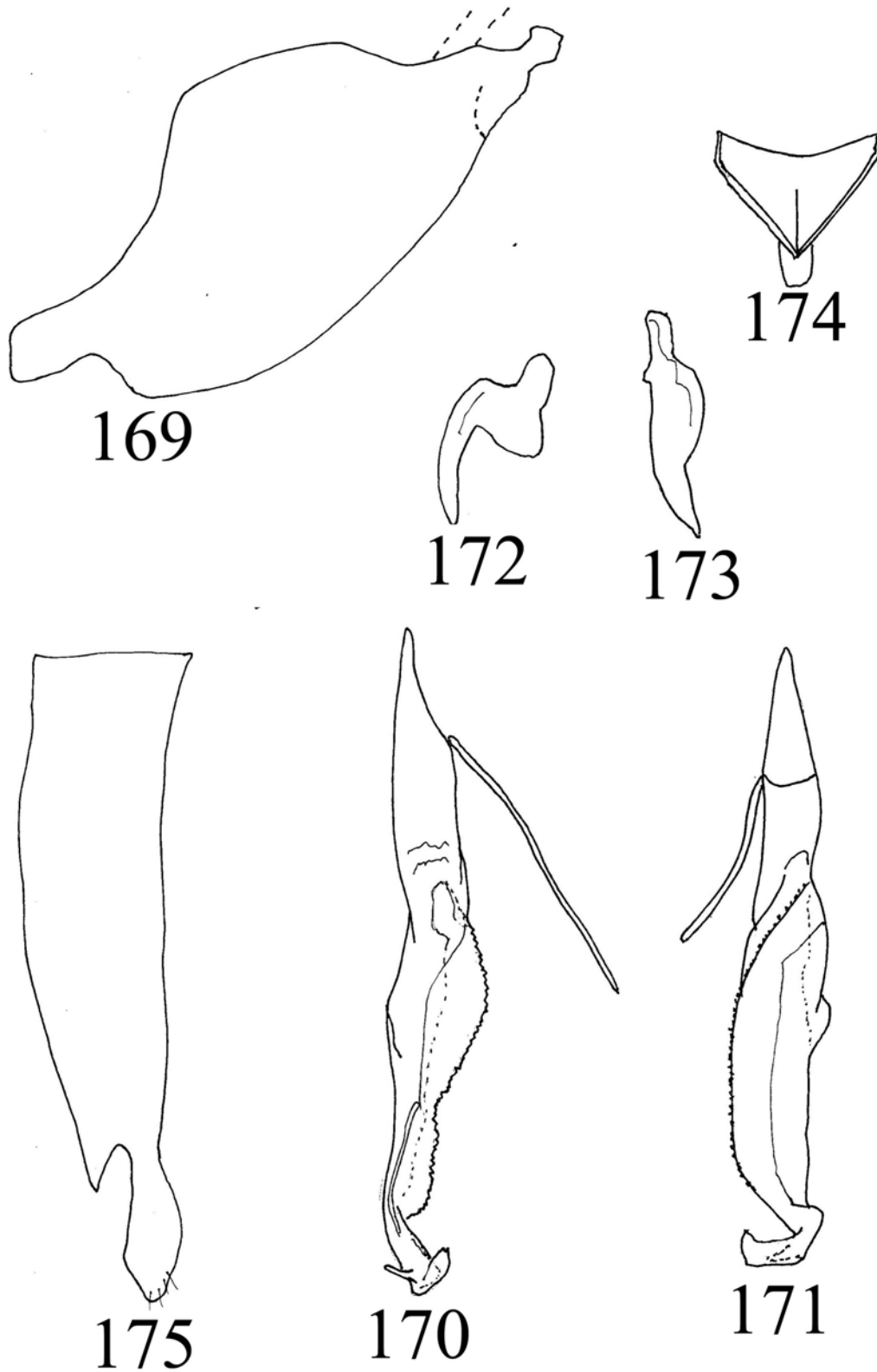
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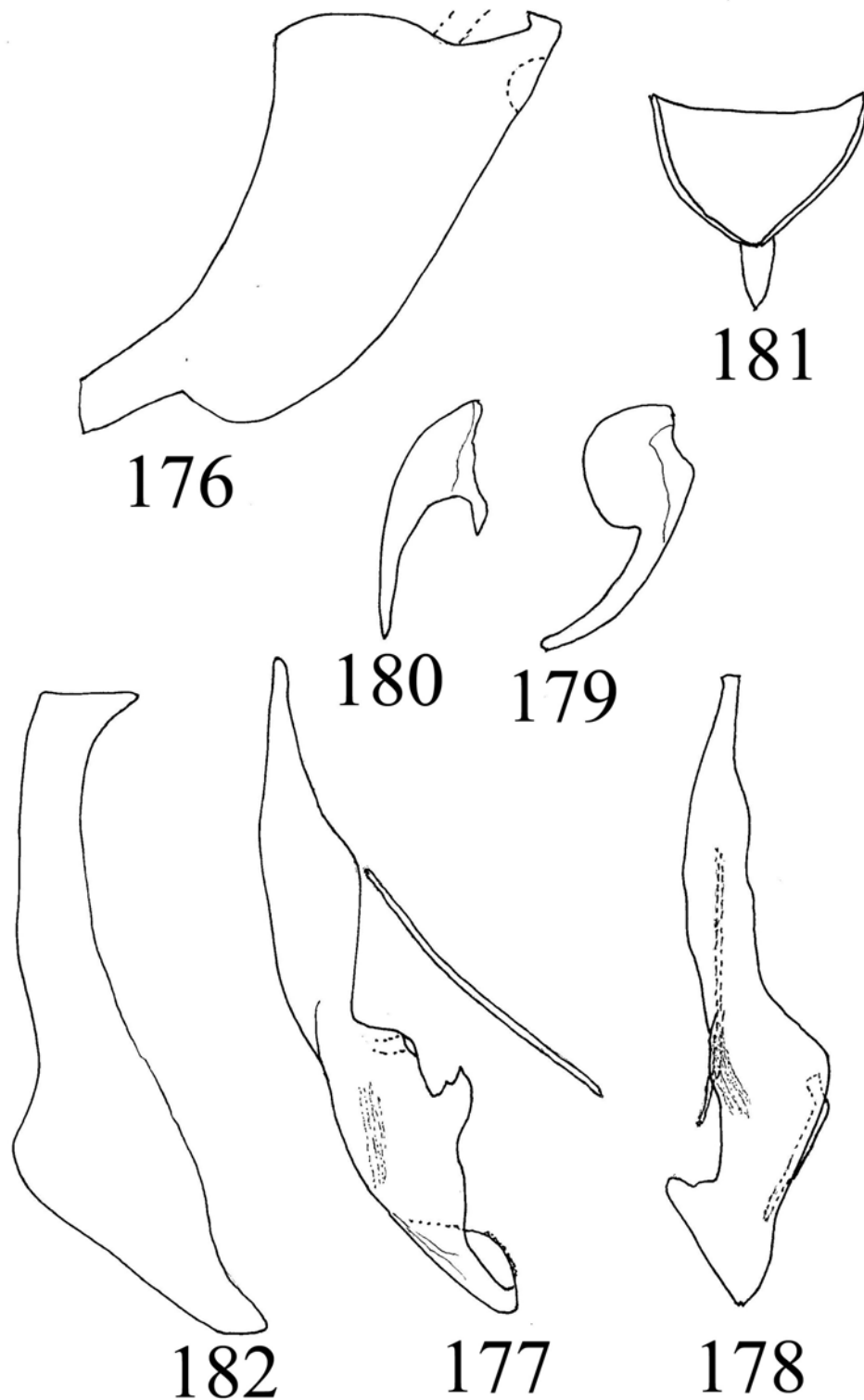
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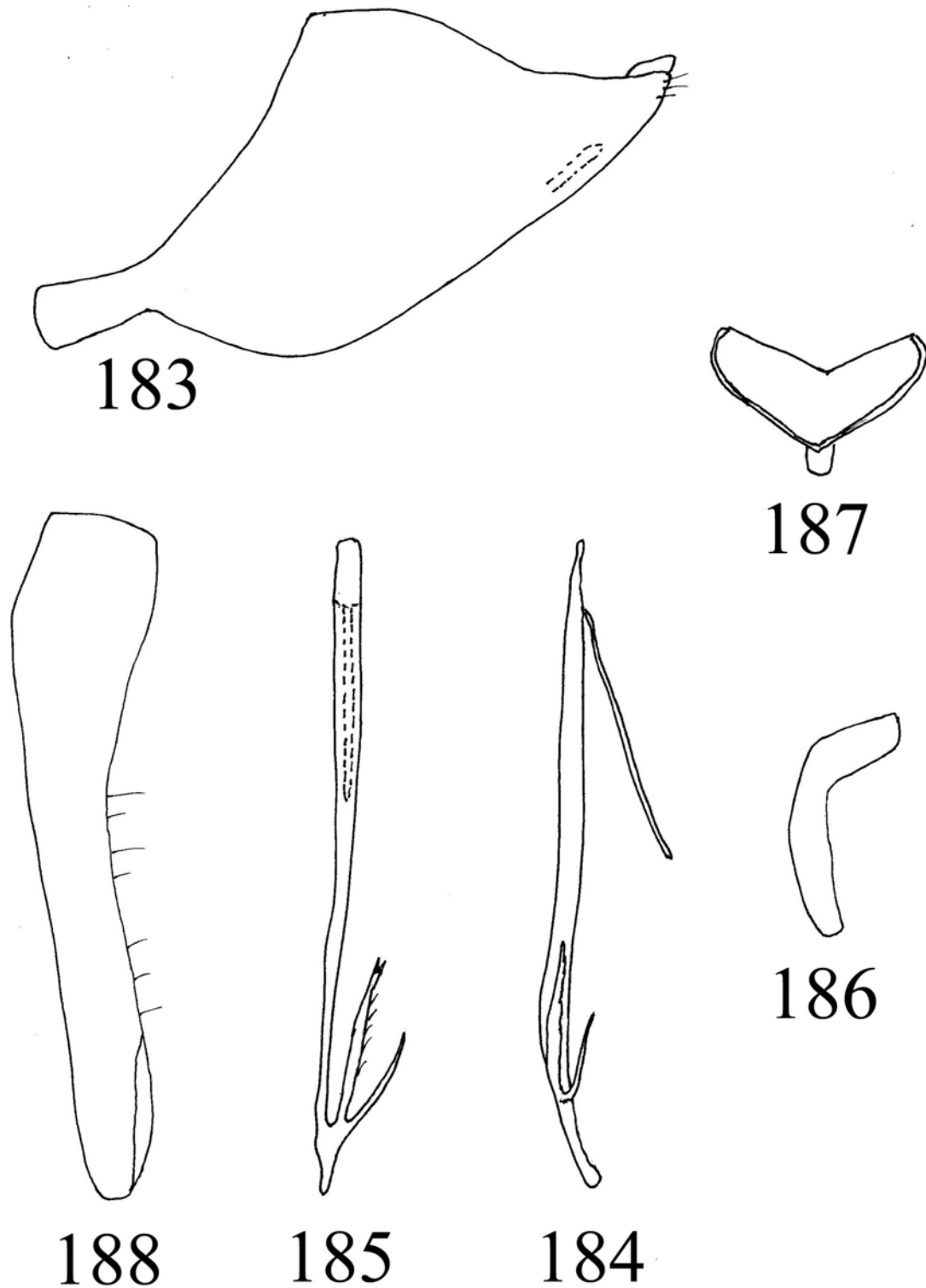
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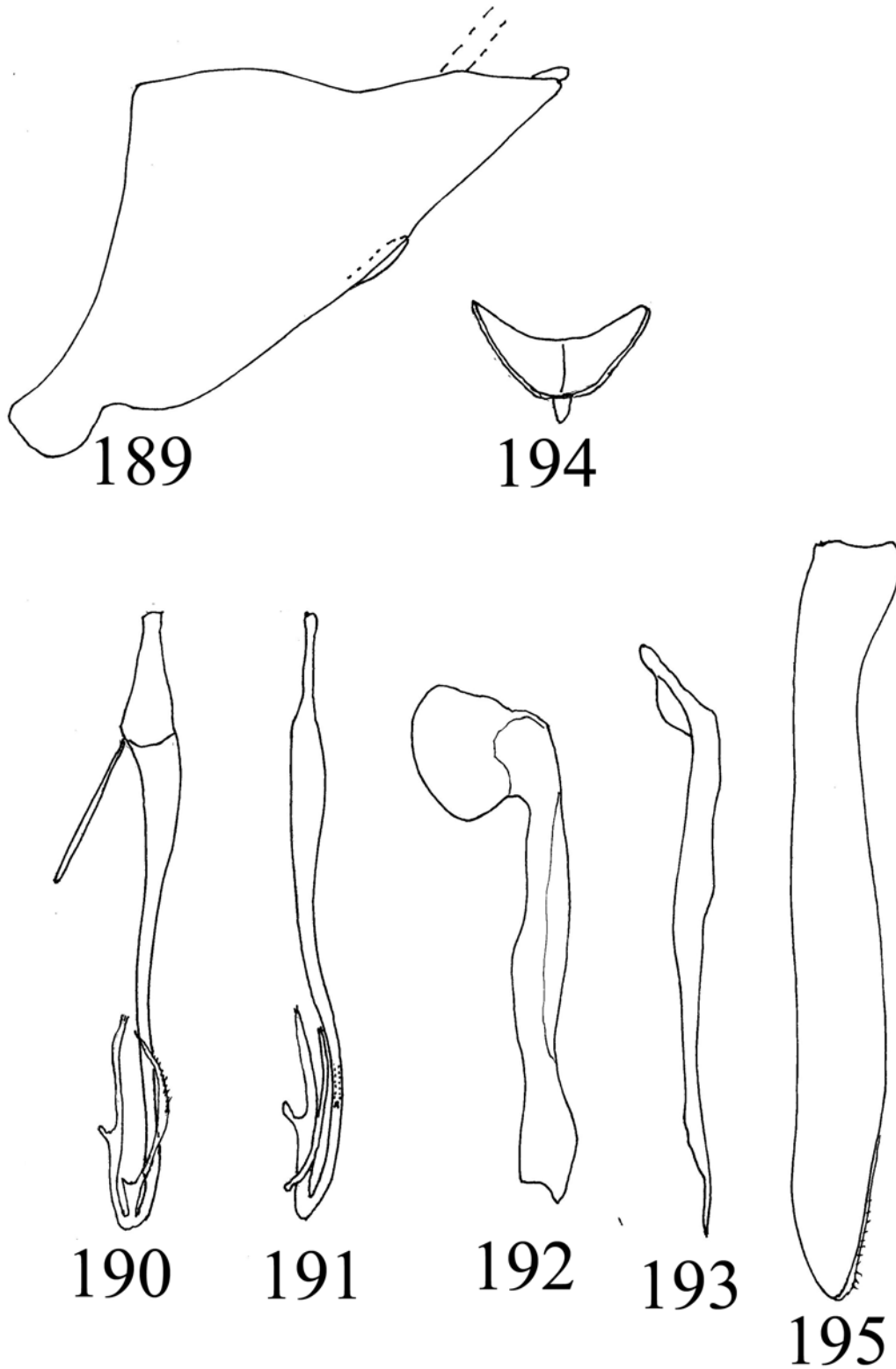
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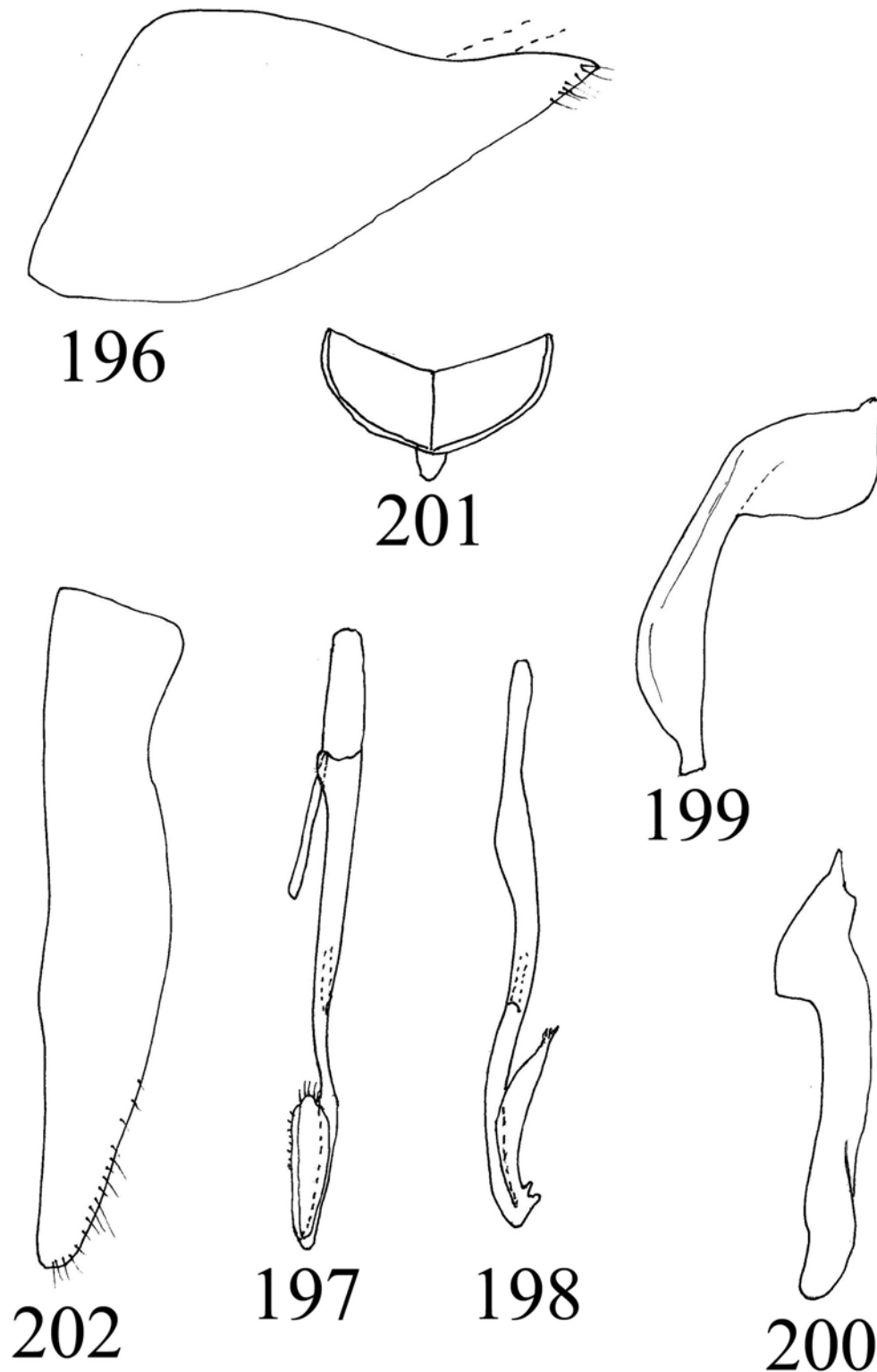


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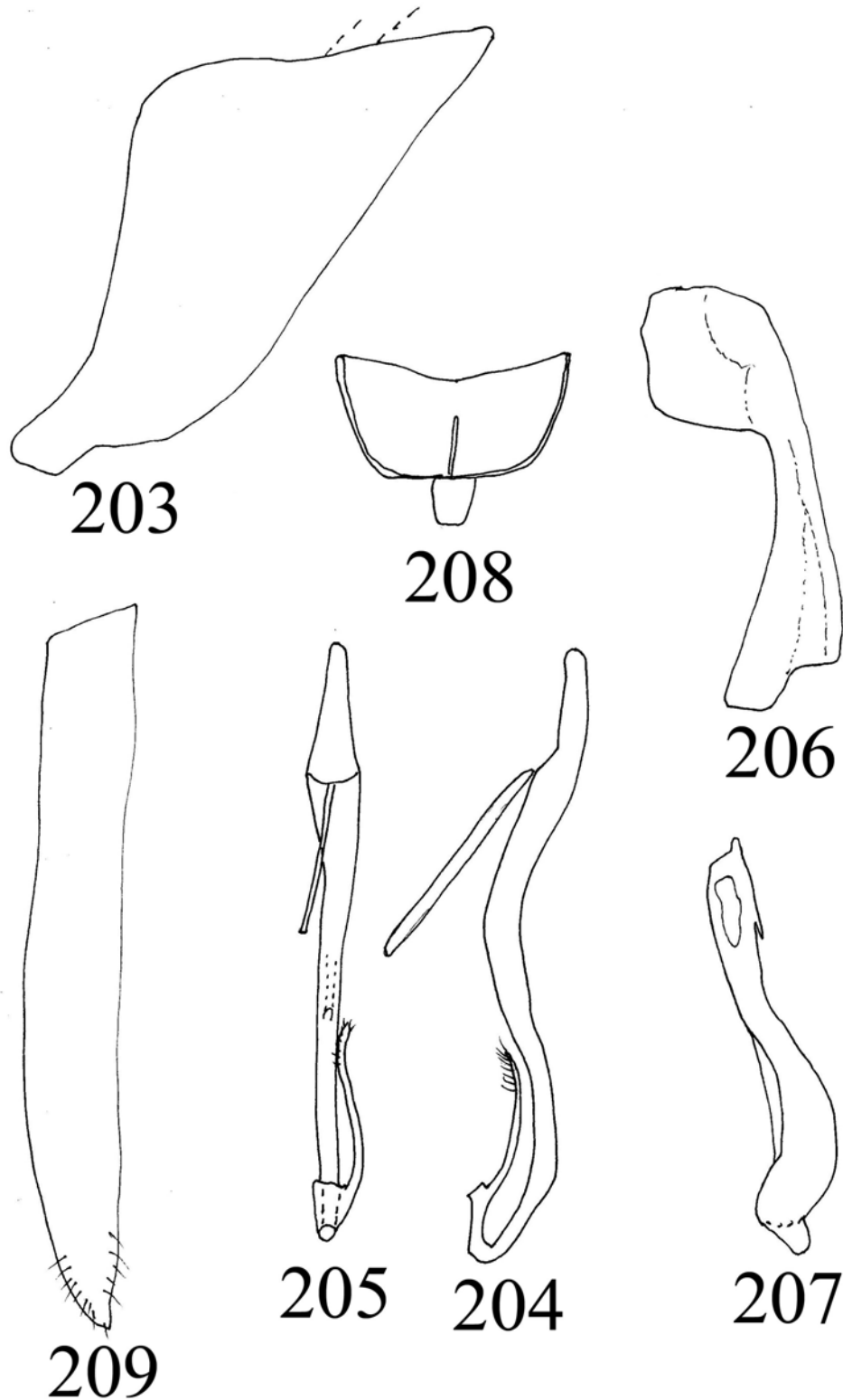


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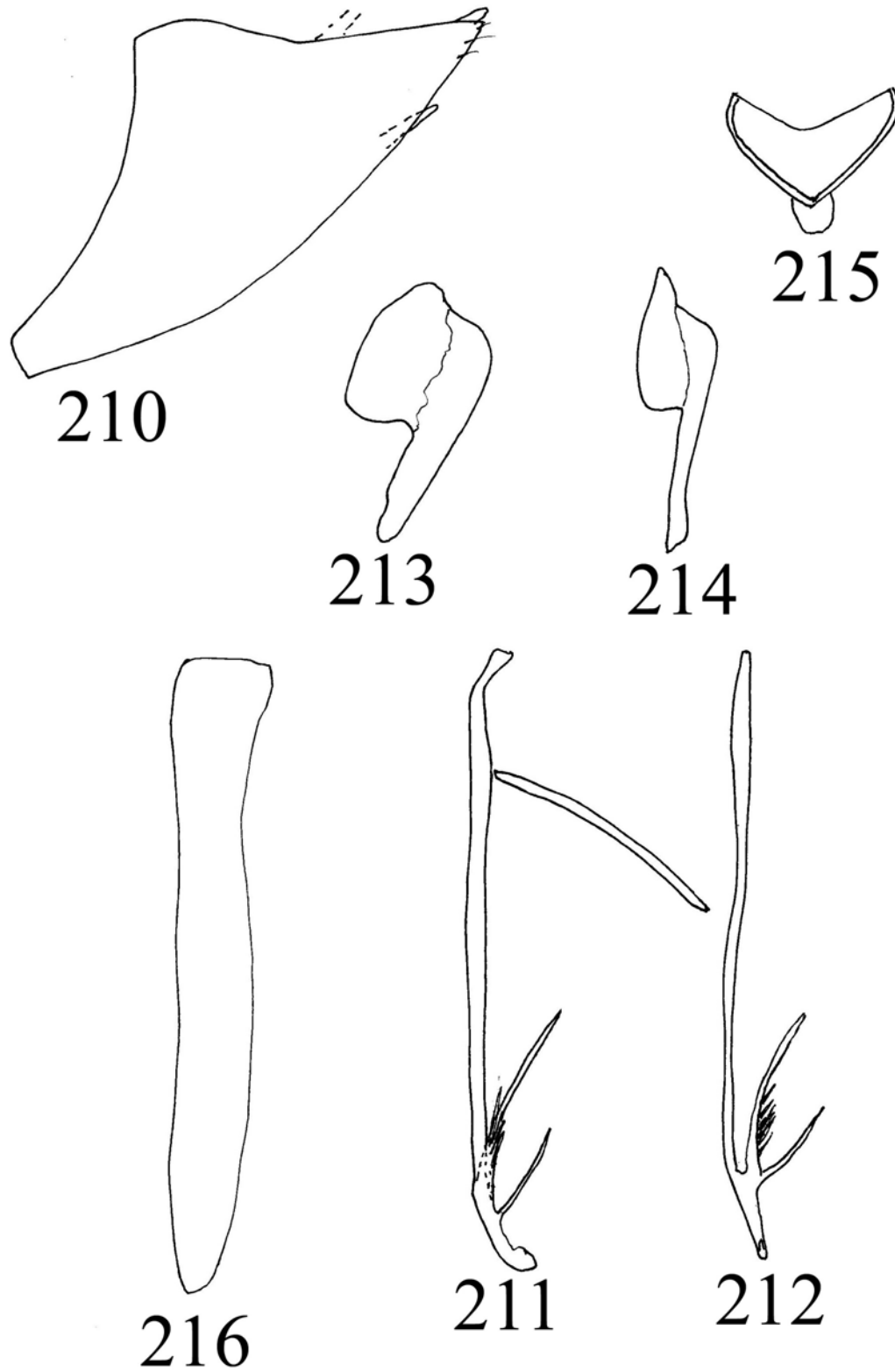




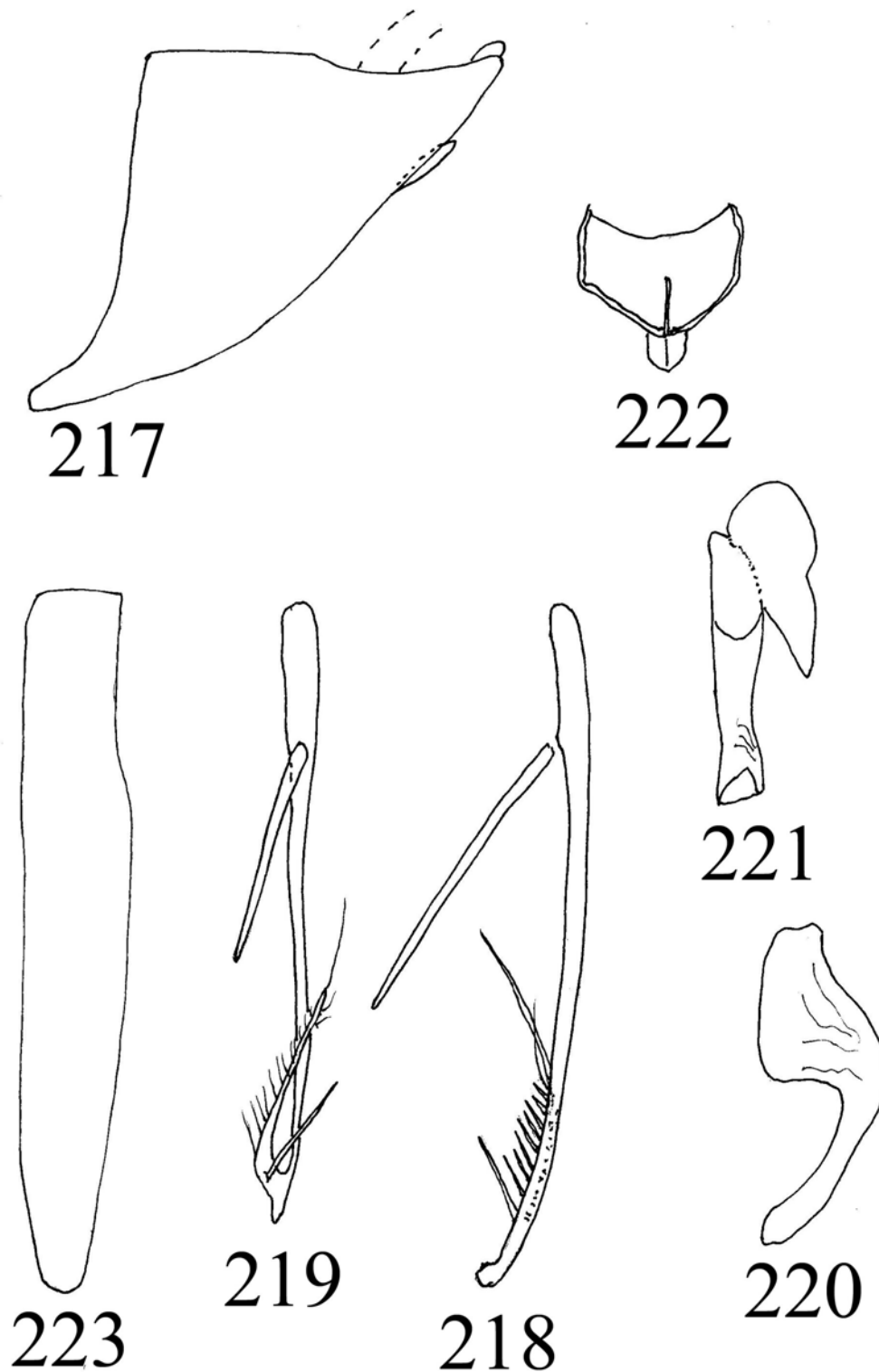
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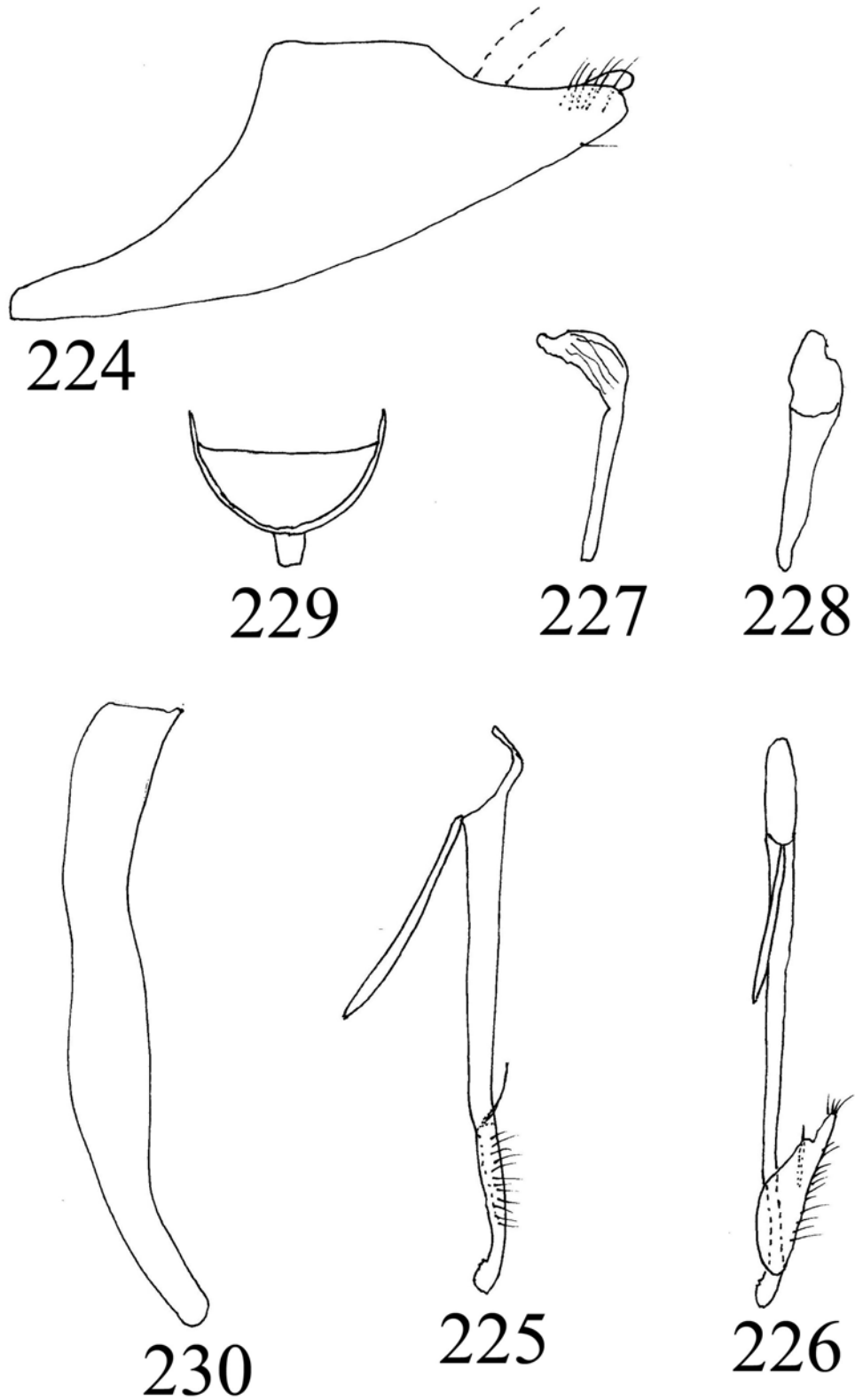
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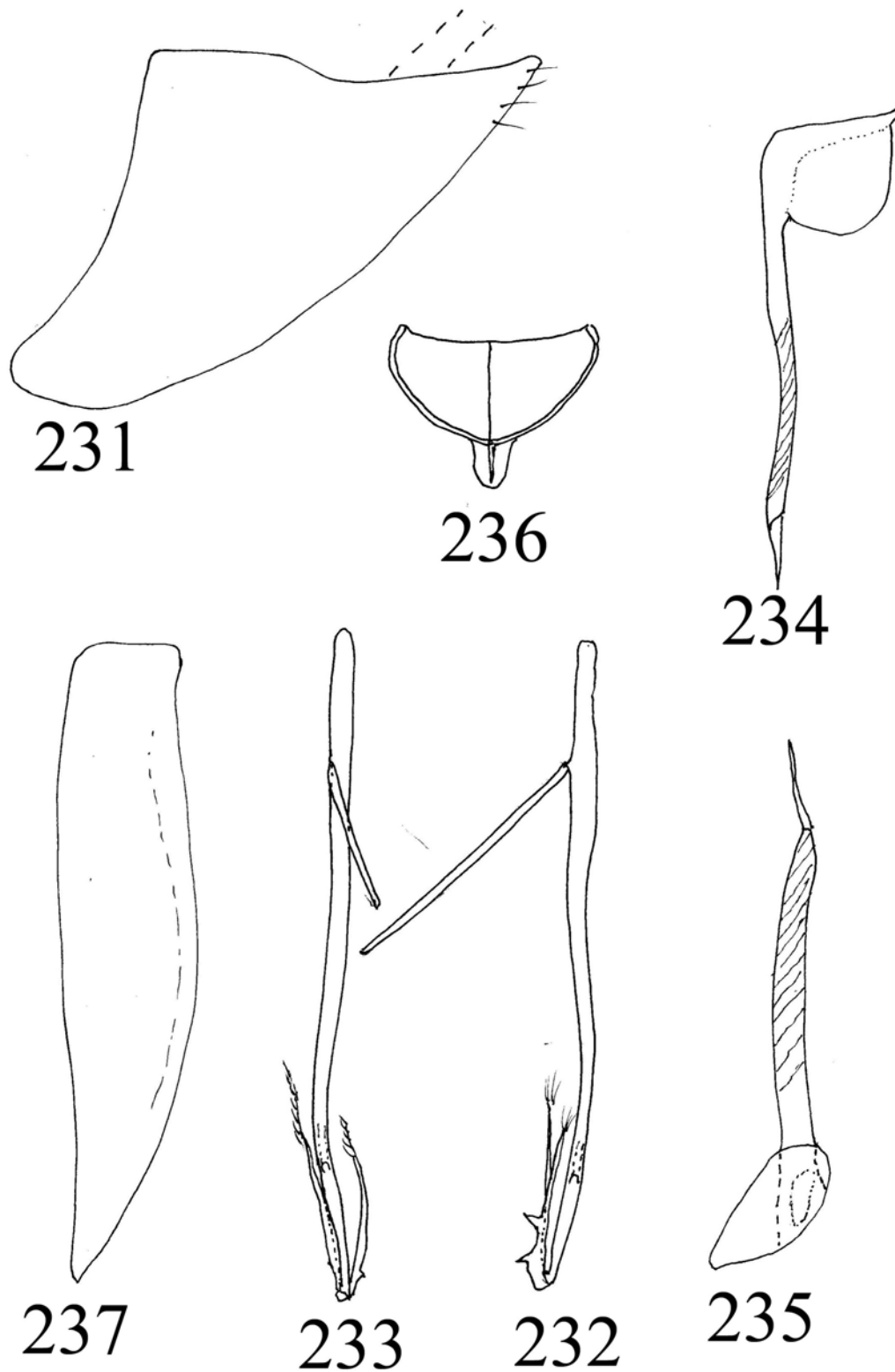
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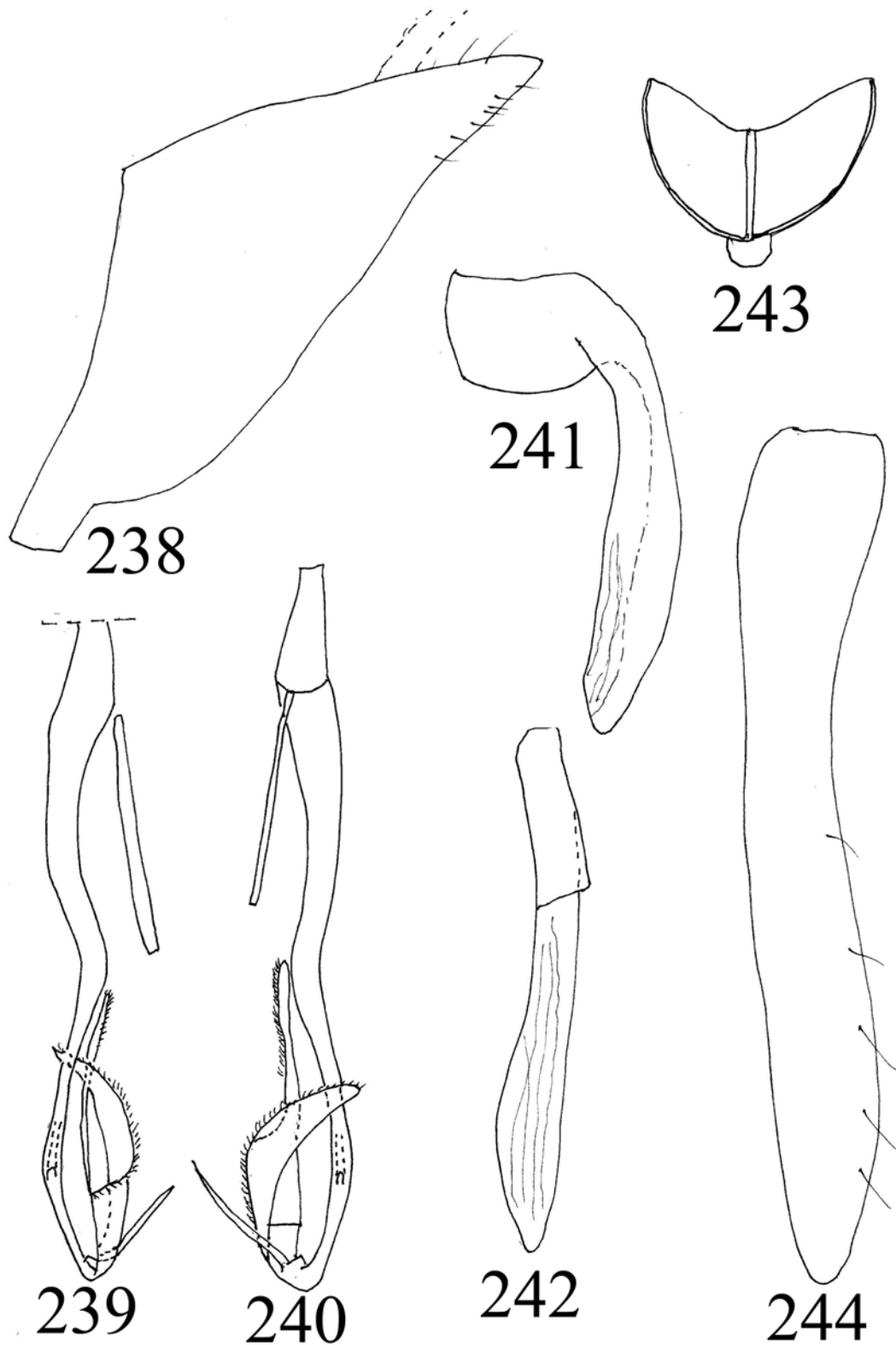
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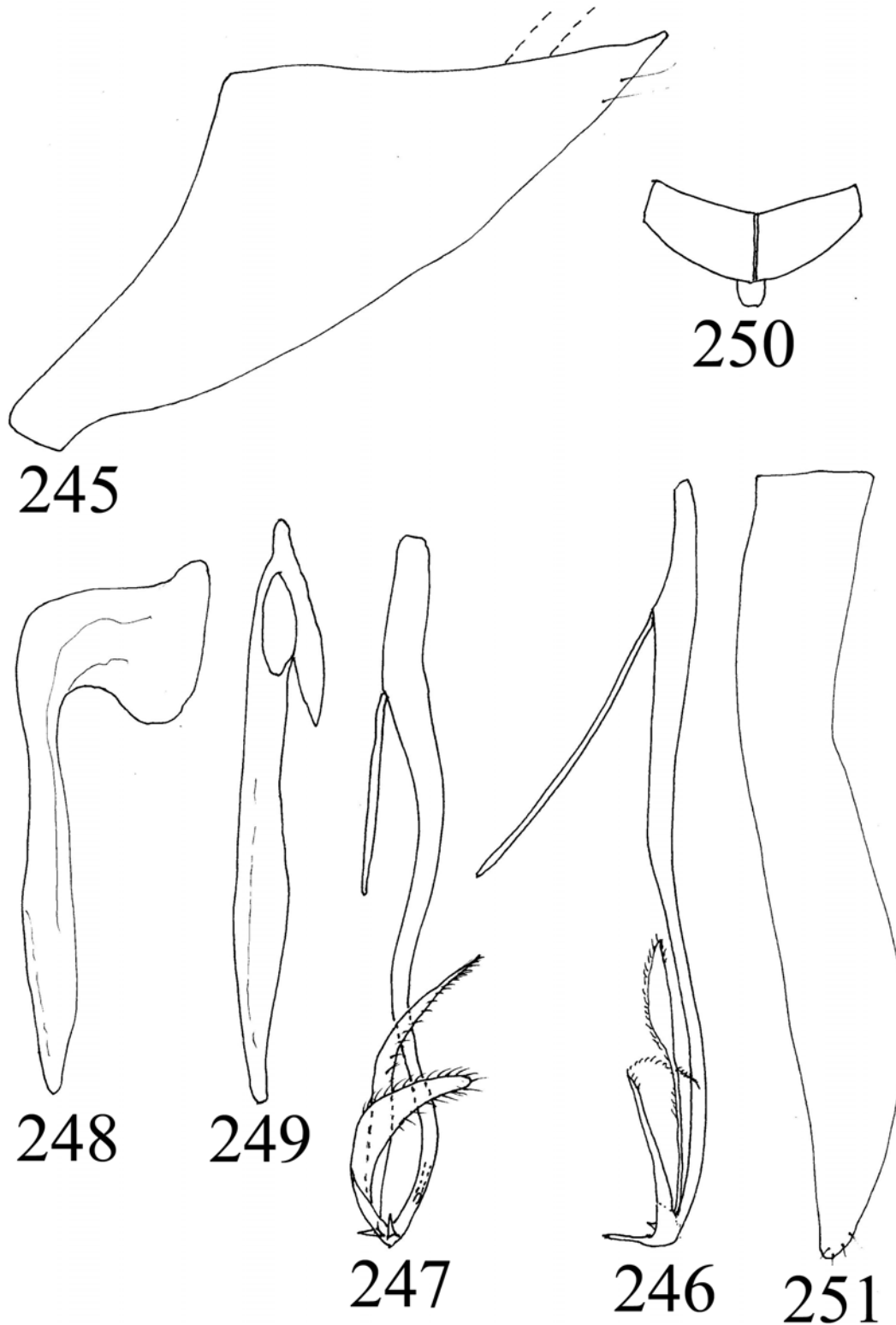
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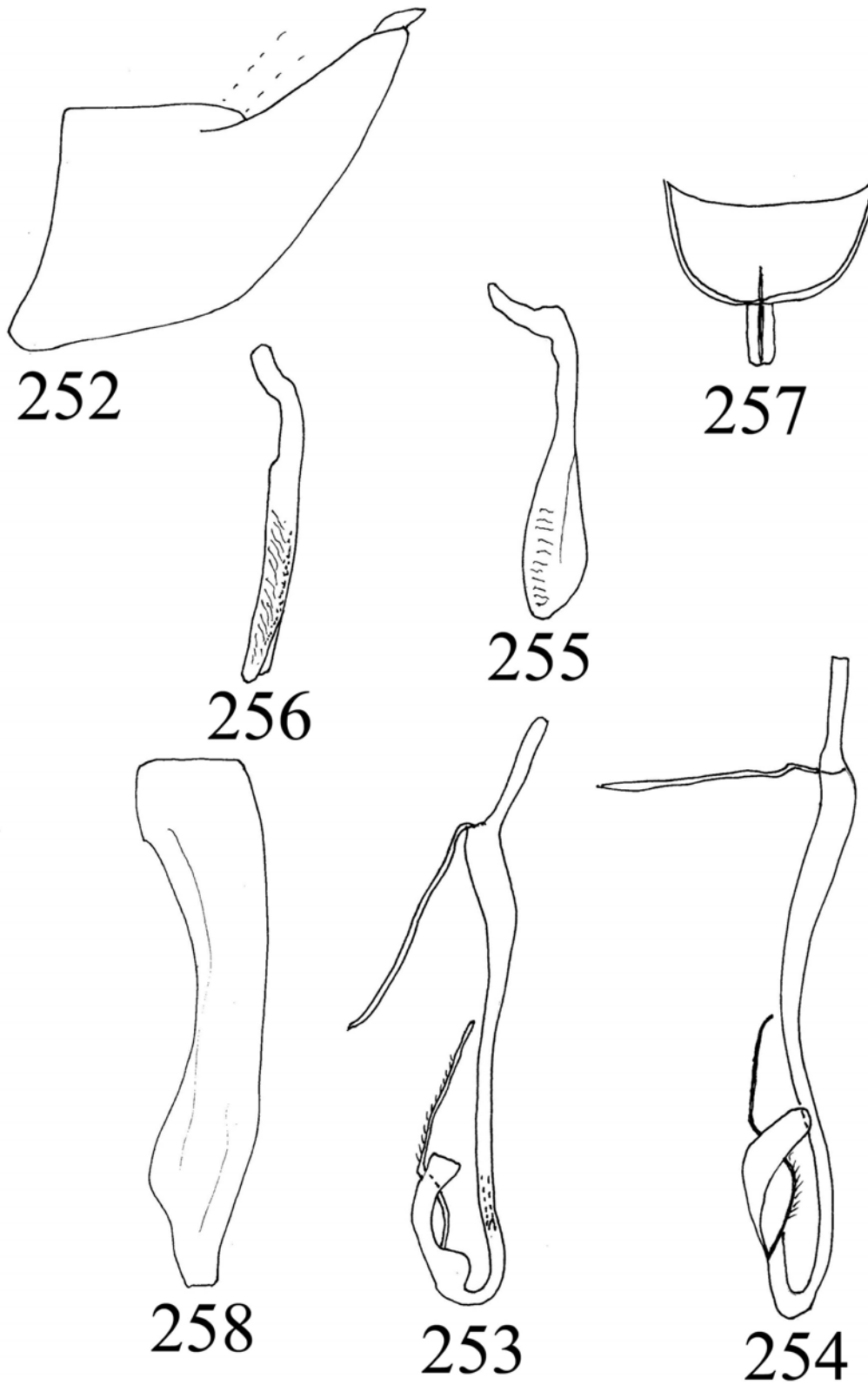


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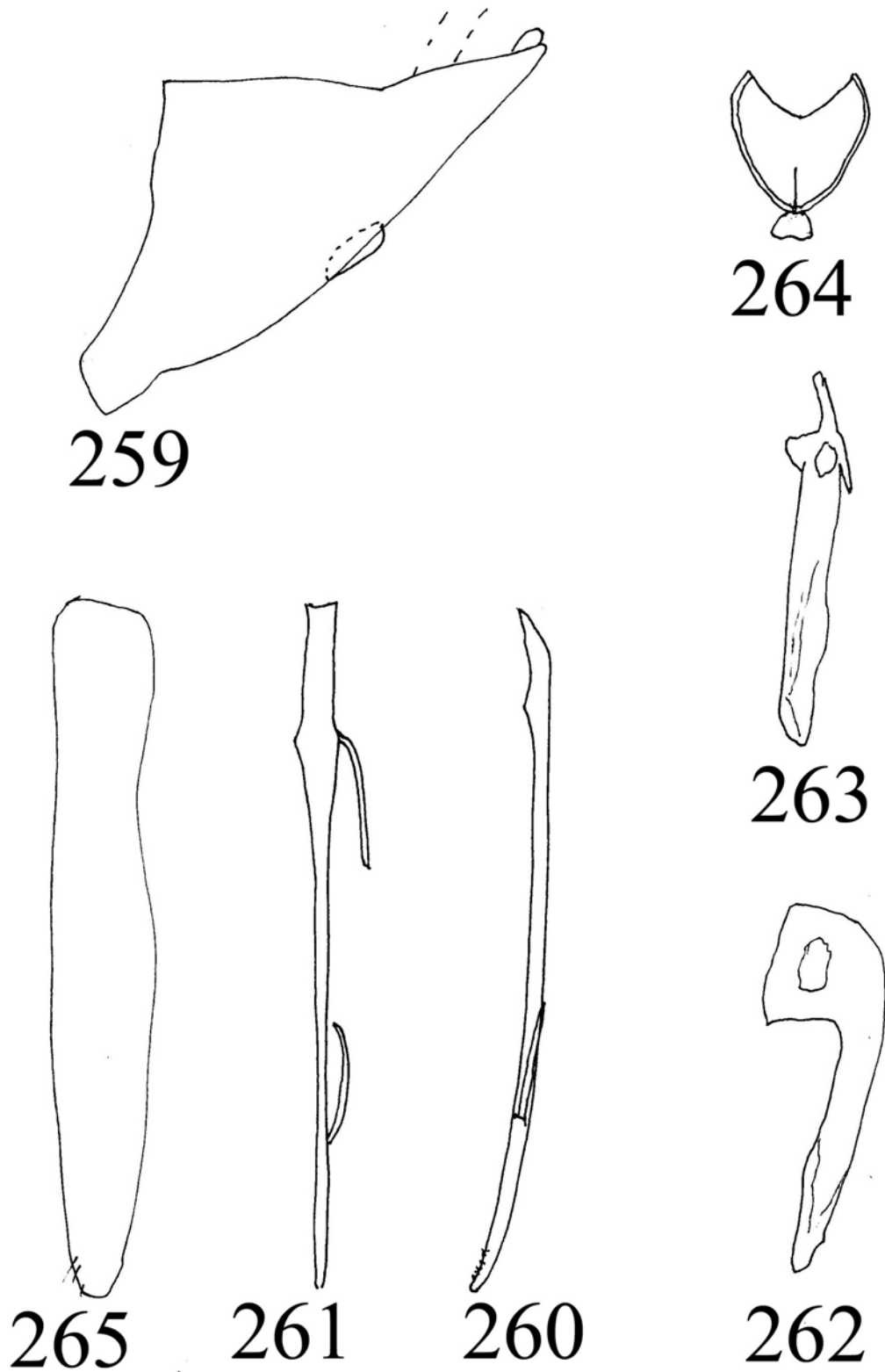


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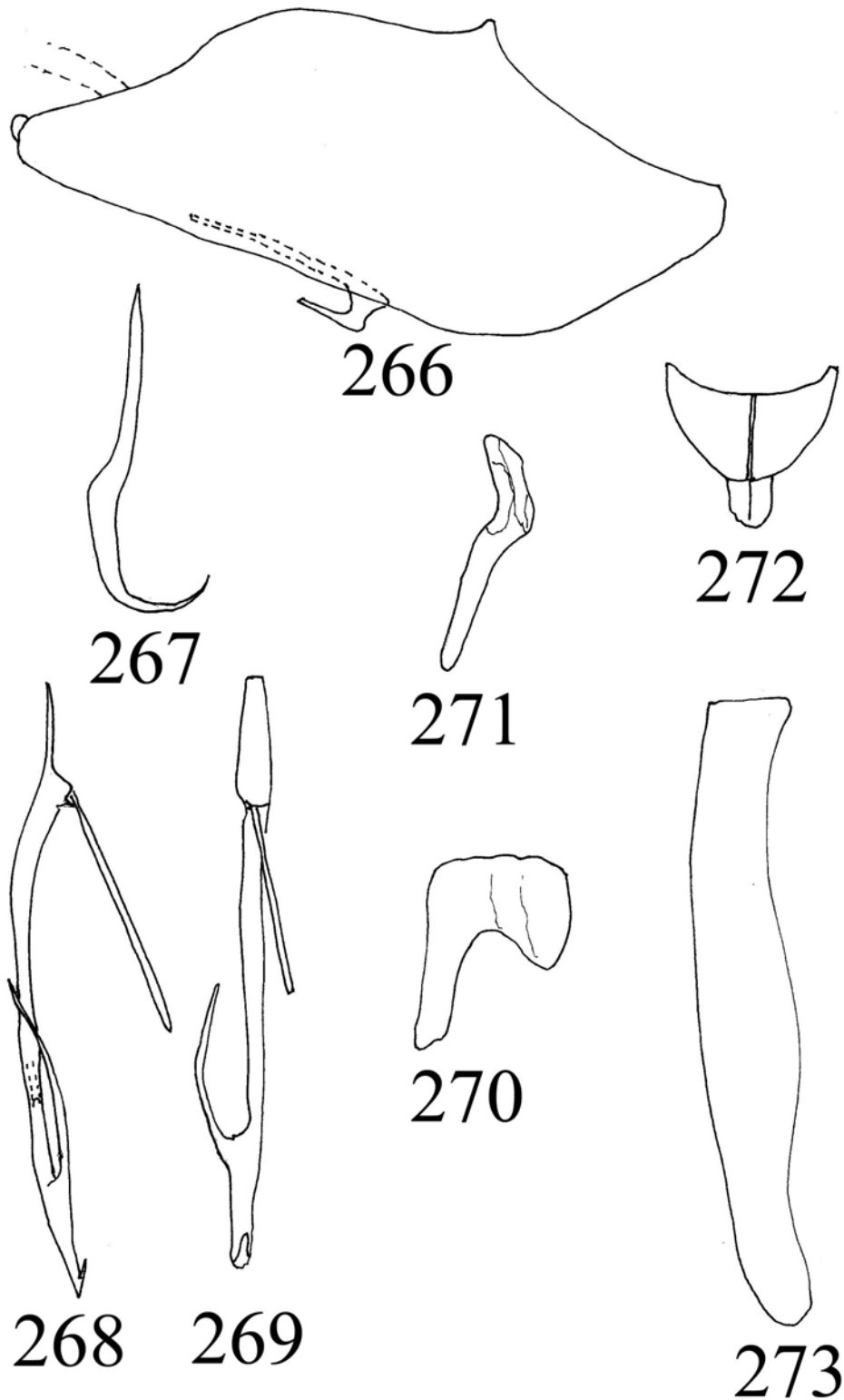




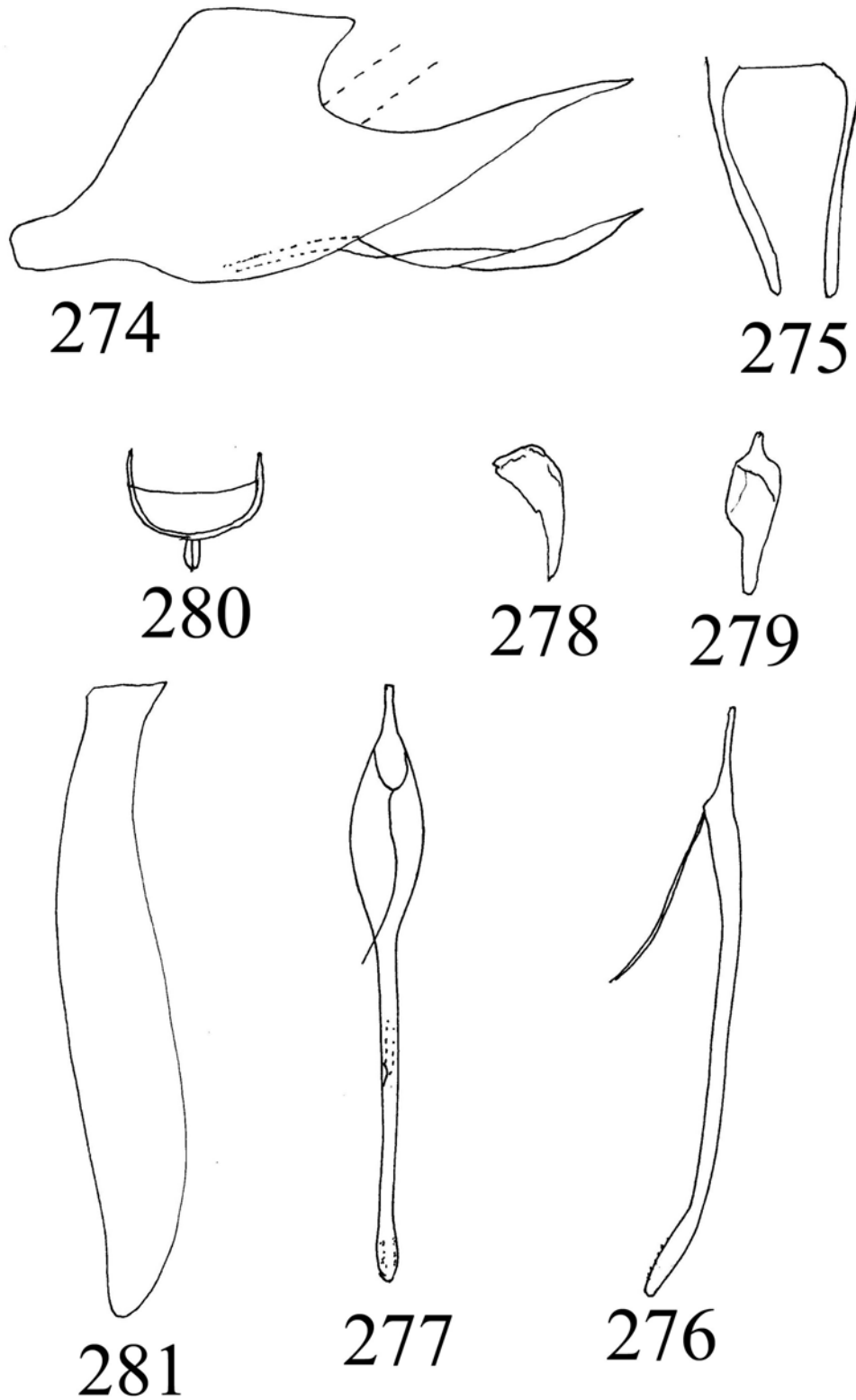
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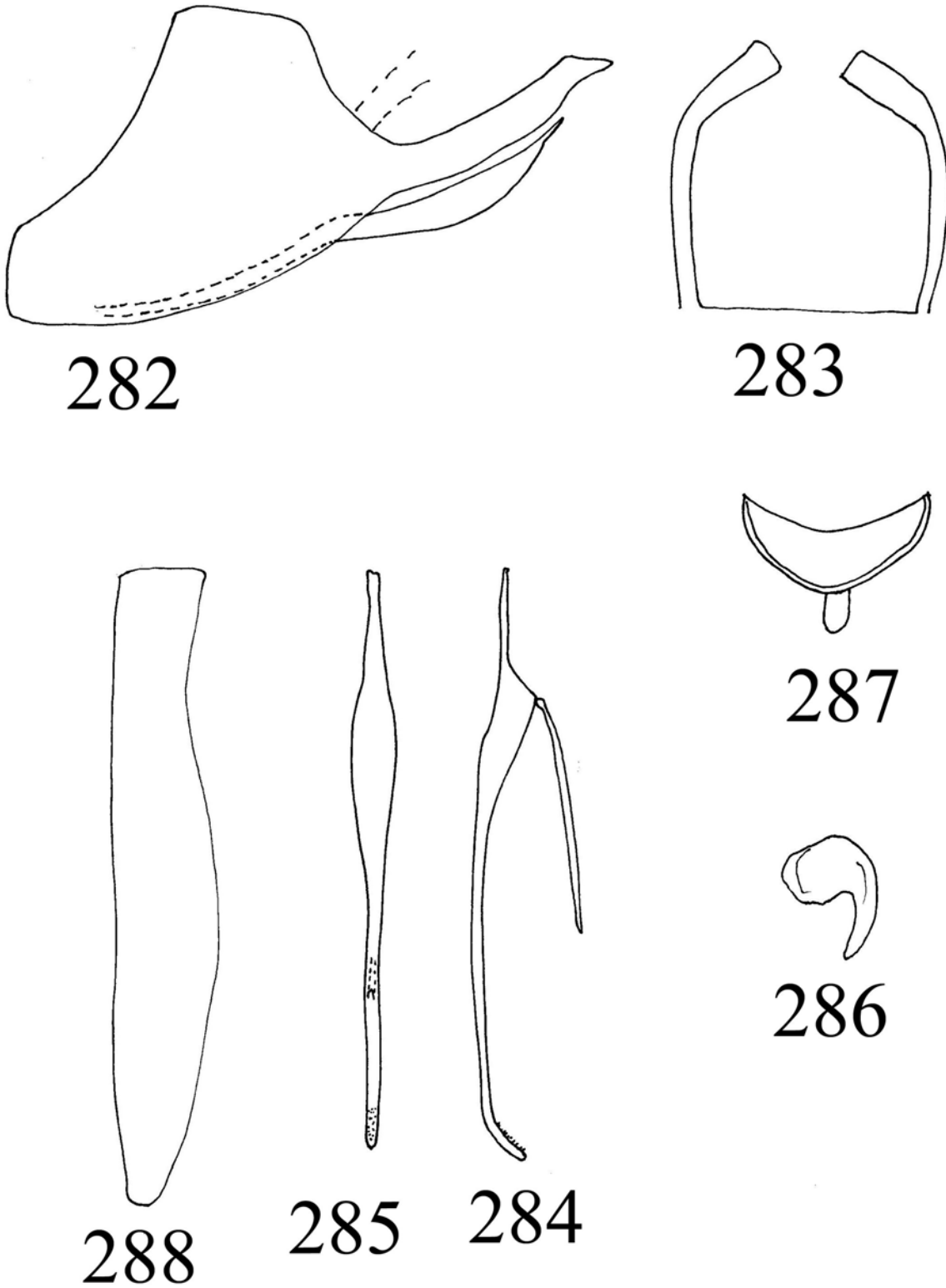
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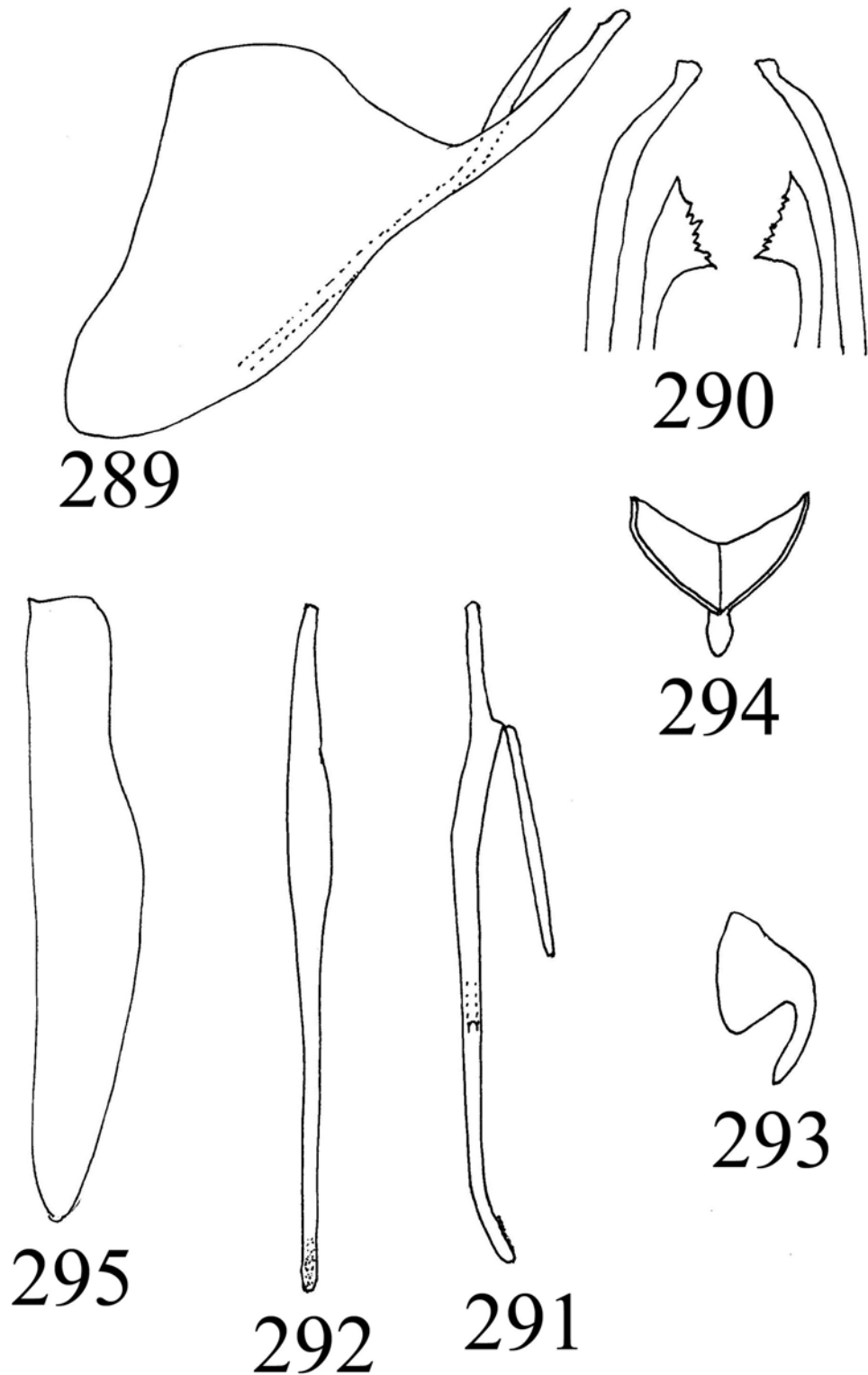
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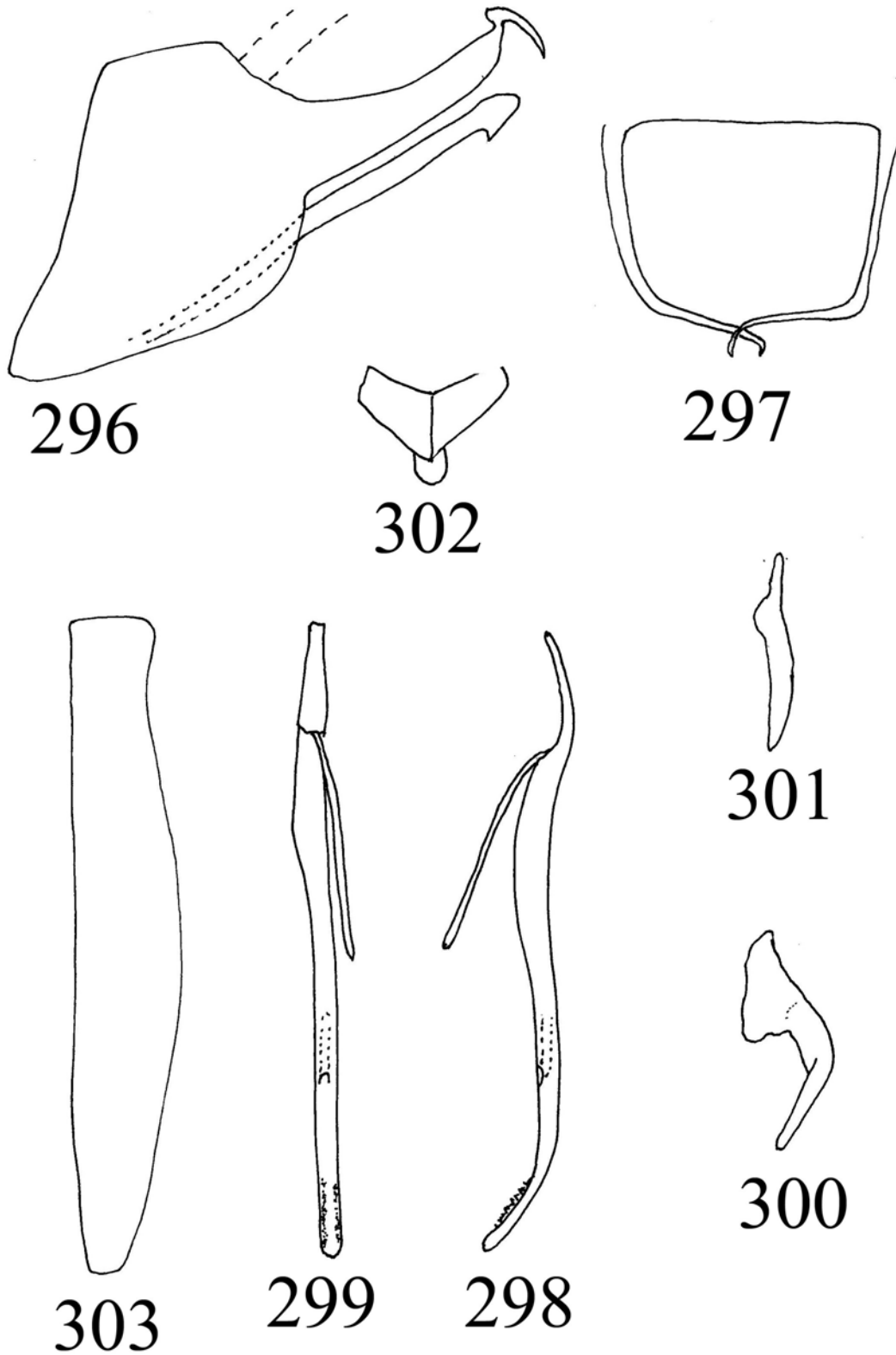
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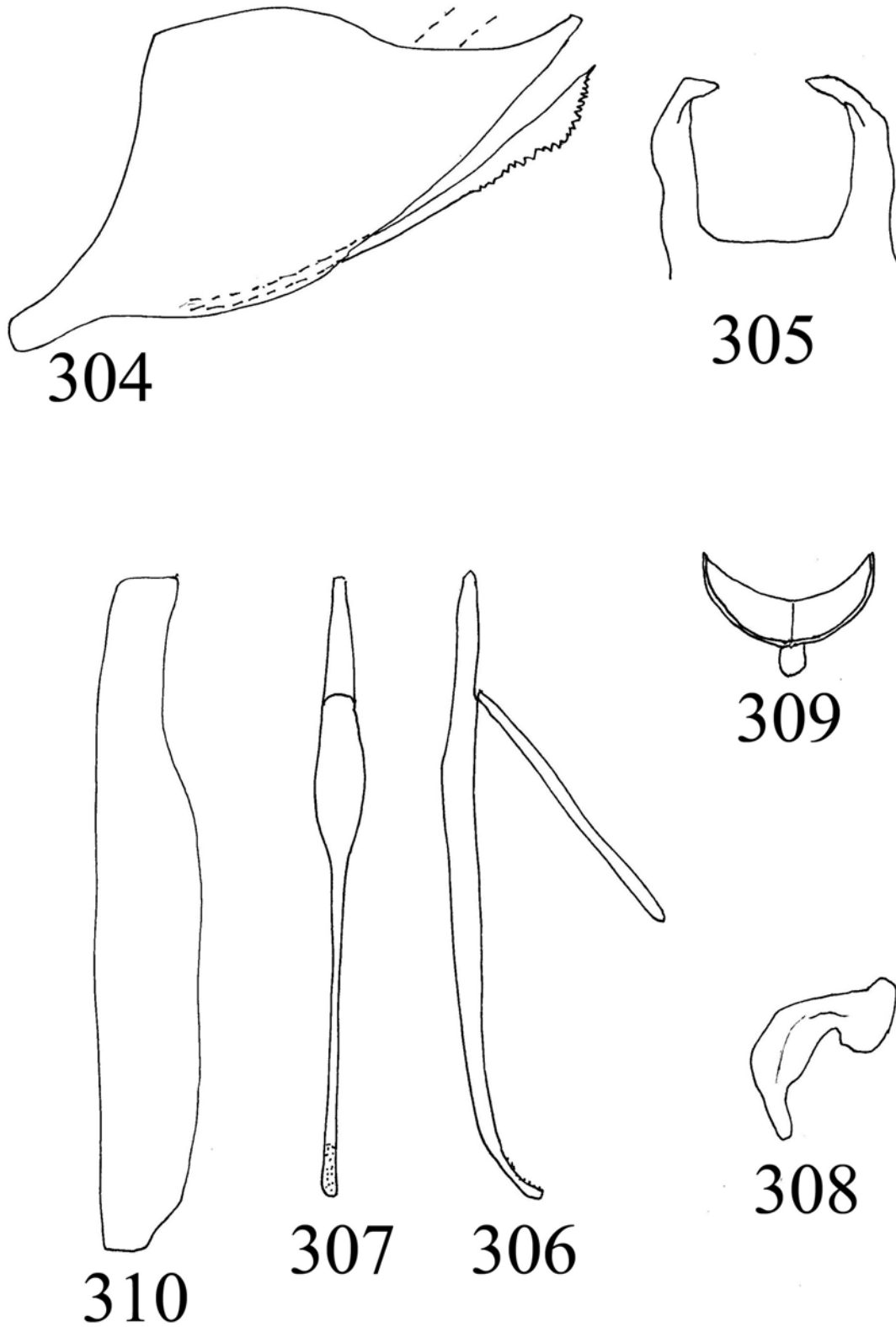
**Figures 282-288.** Genitalia, *Taharana sublamina*, sp. nov. **282)** Male pygofer, lateral view. **283)** Pygofer caudodorsal processes, dorsal view. **284)** Aedeagus and dorsal connective, lateral view. **285)** Aedeagus, dorsal view. **286)** Style, lateral view. **287)** Connective, caudal view. **288)** Subgenital plate, ventral view.



**Figures 289-295.** Genitalia, *Taharana abstrusa*, **sp. nov.** **289)** Male pygofer, lateral view. **290)** Pygofer caudoventral and caudodorsal processes, dorsal view. **291)** Aedeagus and dorsal connective, lateral view. **292)** Aedeagus, dorsal view. **293)** Style, lateral view. **294)** Connective, caudal view. **295)** Subgenital plate, ventral view.

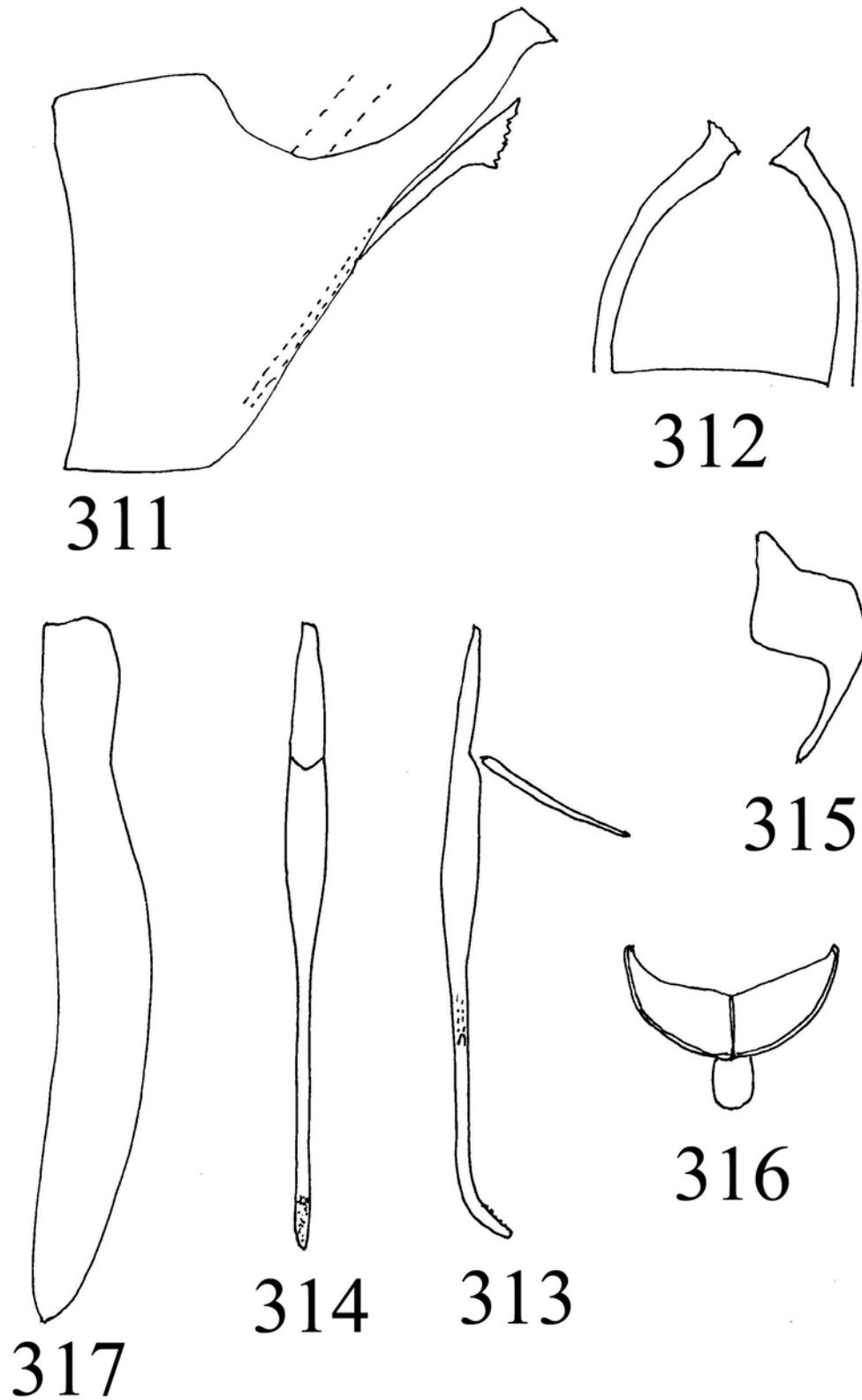


**Figures 296-303.** Genitalia, *Taharana biunca*, **sp. nov.** **296)** Male pygofer, lateral view. **297)** Pygofer caudodorsal processes, dorsal view. **298)** Aedeagus and dorsal connective, lateral view. **299)** Aedeagus and dorsal connective, dorsal view. **300)** Style, lateral view. **301)** Style, dorsal view. **302)** Connective, caudal view. **303)** Subgenital plate, ventral view.

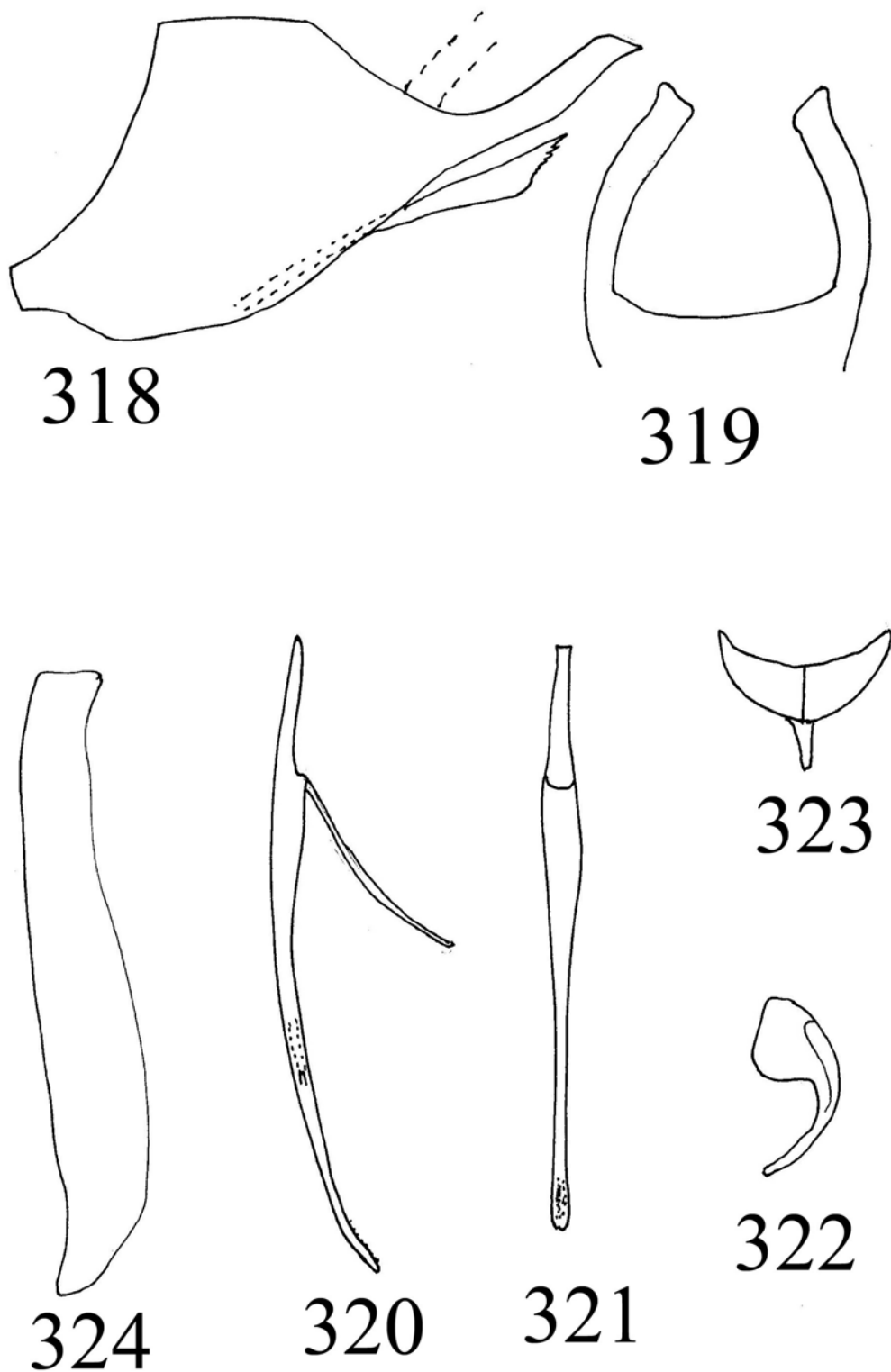


**Figures 304-310.** Genitalia, *Taharana lacertosa*, **sp. nov.** **304)** Male pygofer, lateral view. **305)** Pygofer caudodorsal processes, dorsal view. **306)** Aedeagus and dorsal connective, lateral view. **307)** Aedeagus, dorsal view. **308)** Style, lateral view. **309)** Connective, caudal view. **310)** Subgenital plate, ventral view.

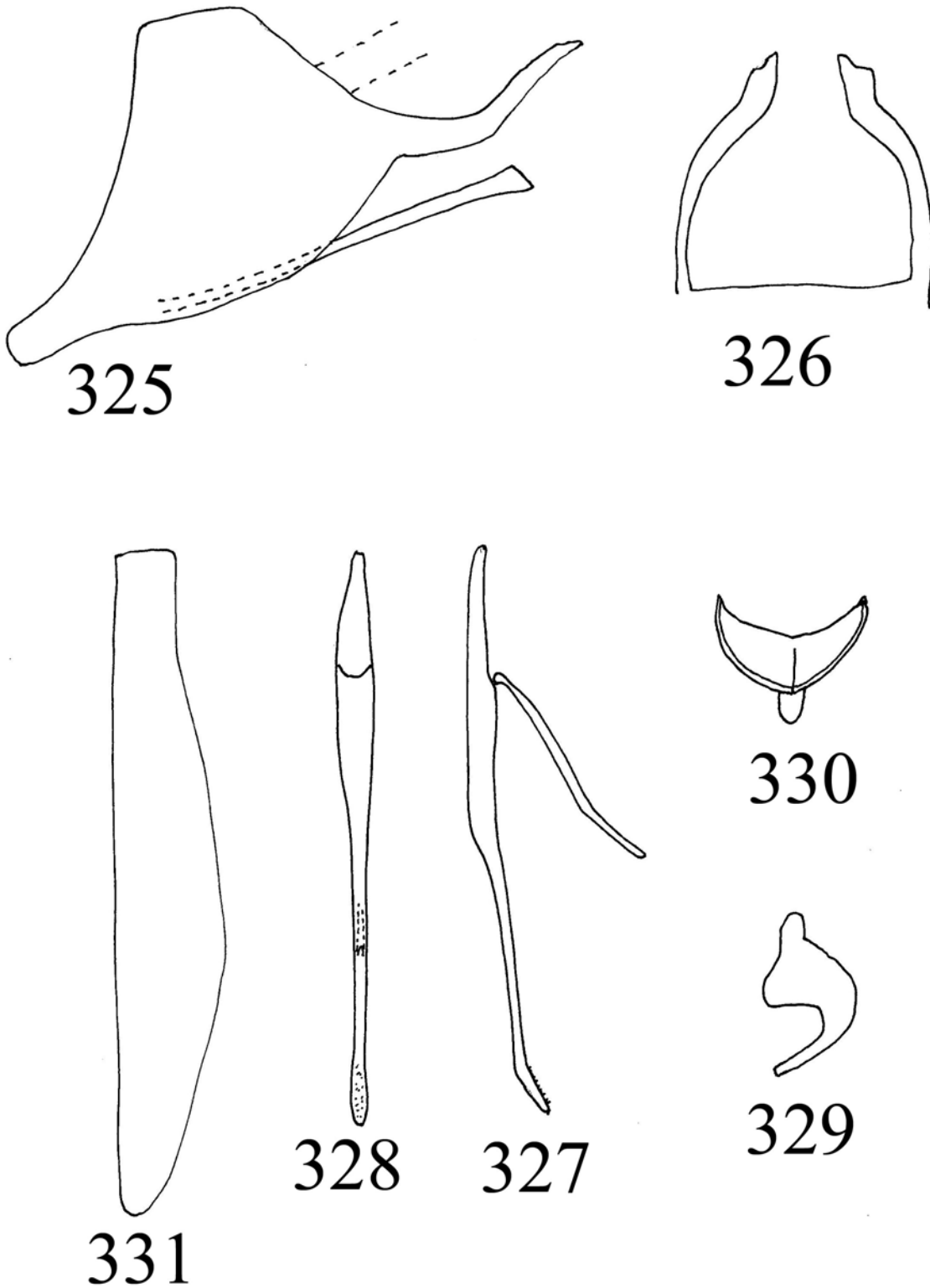




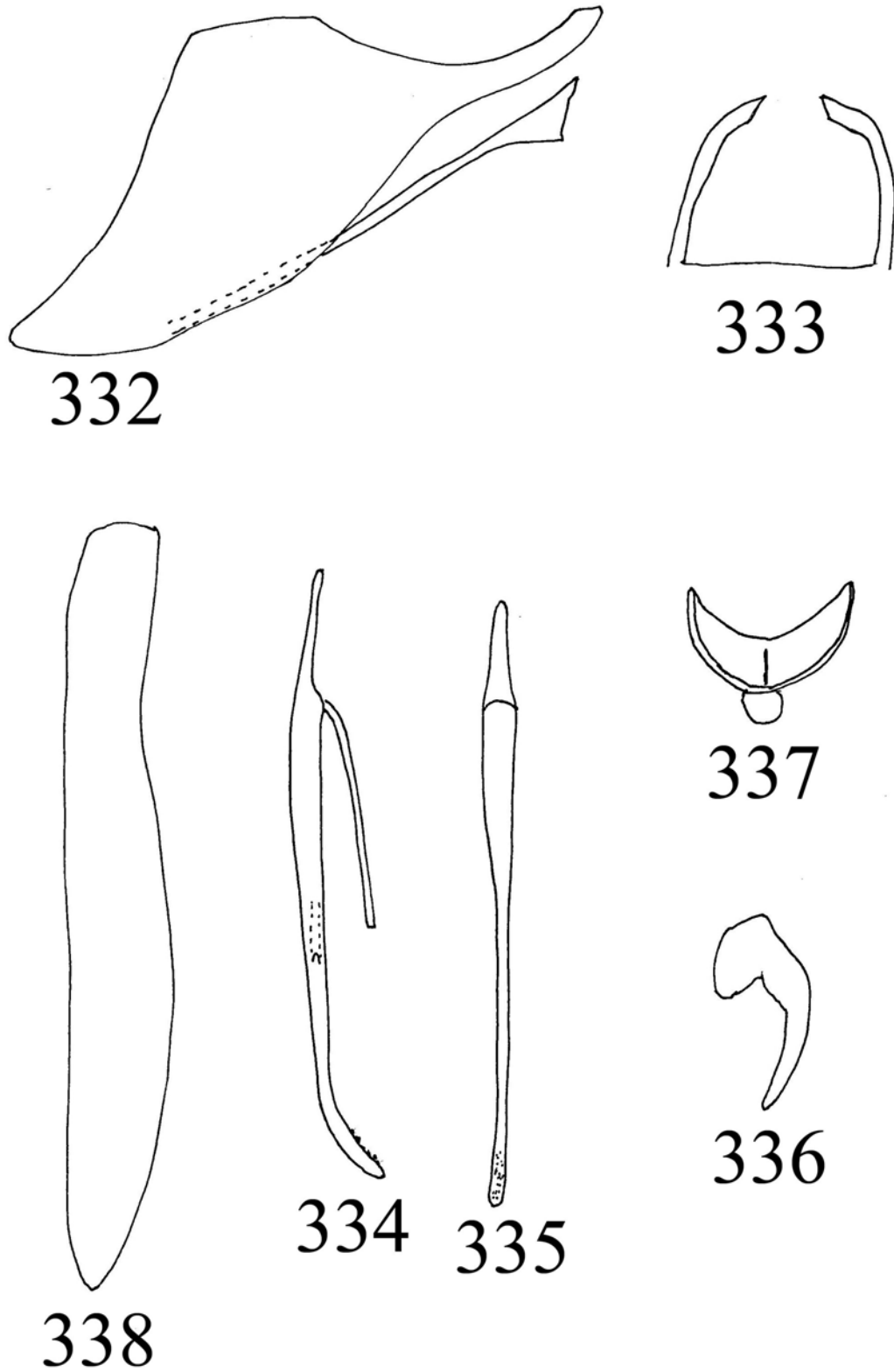
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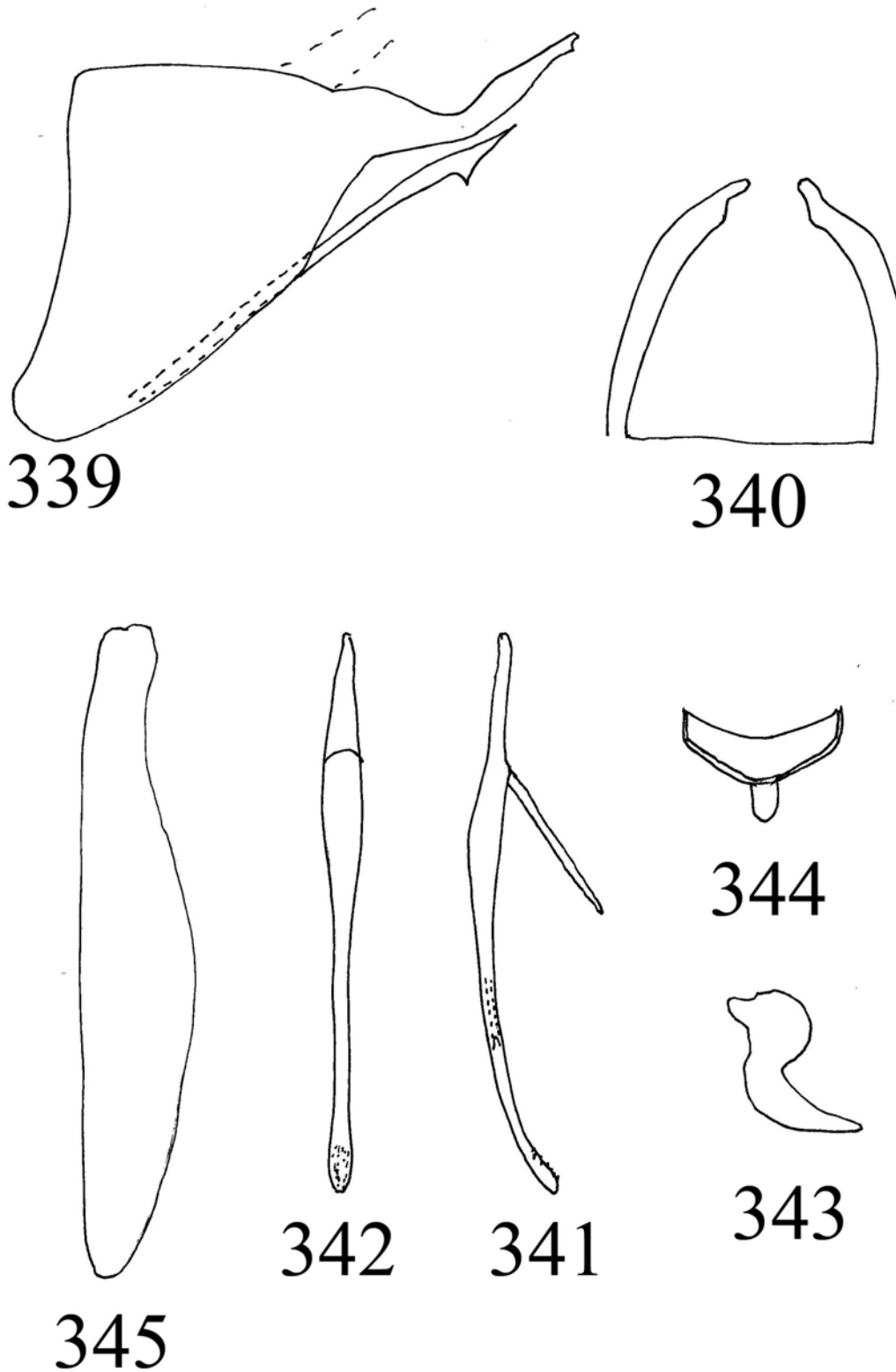
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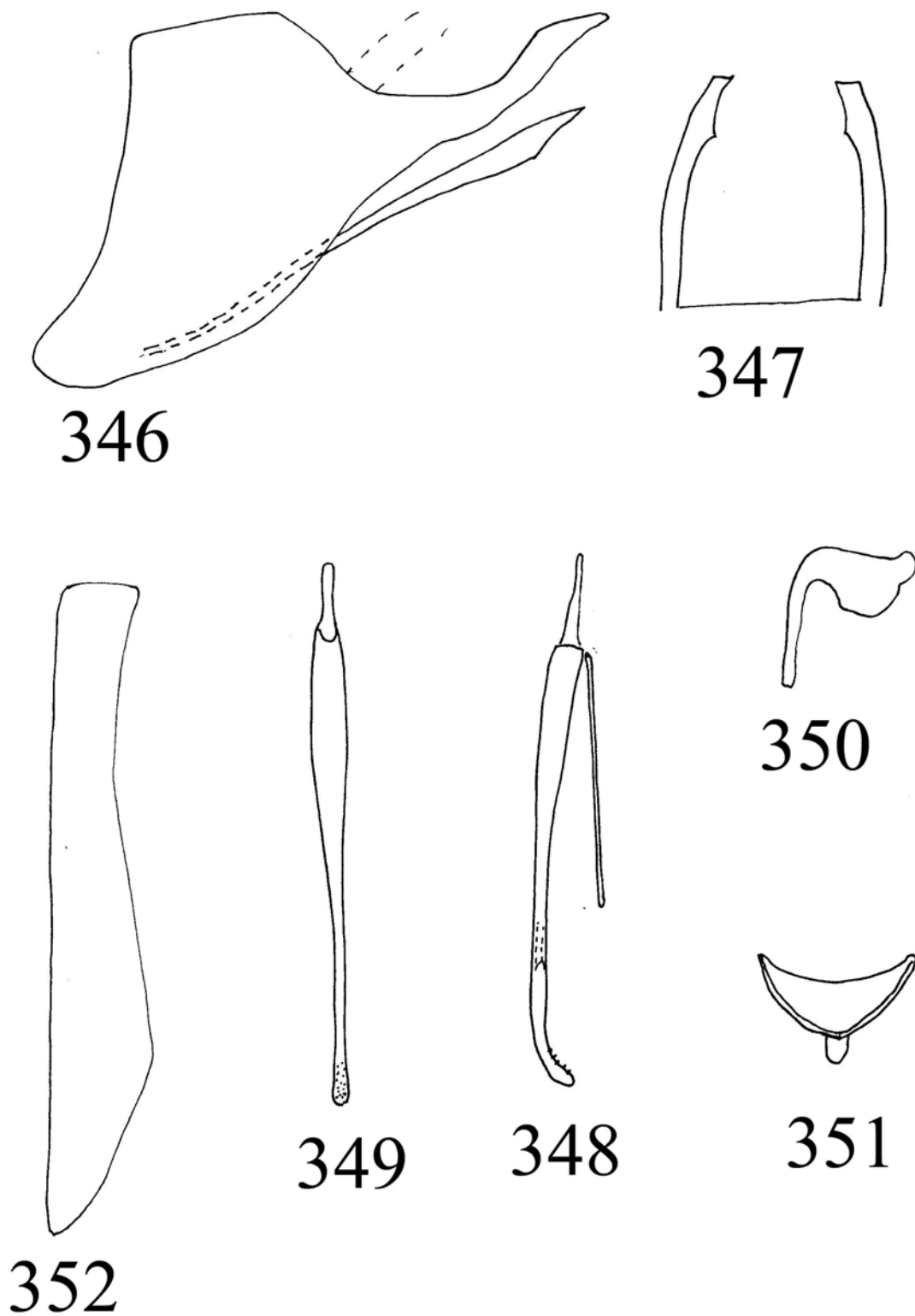
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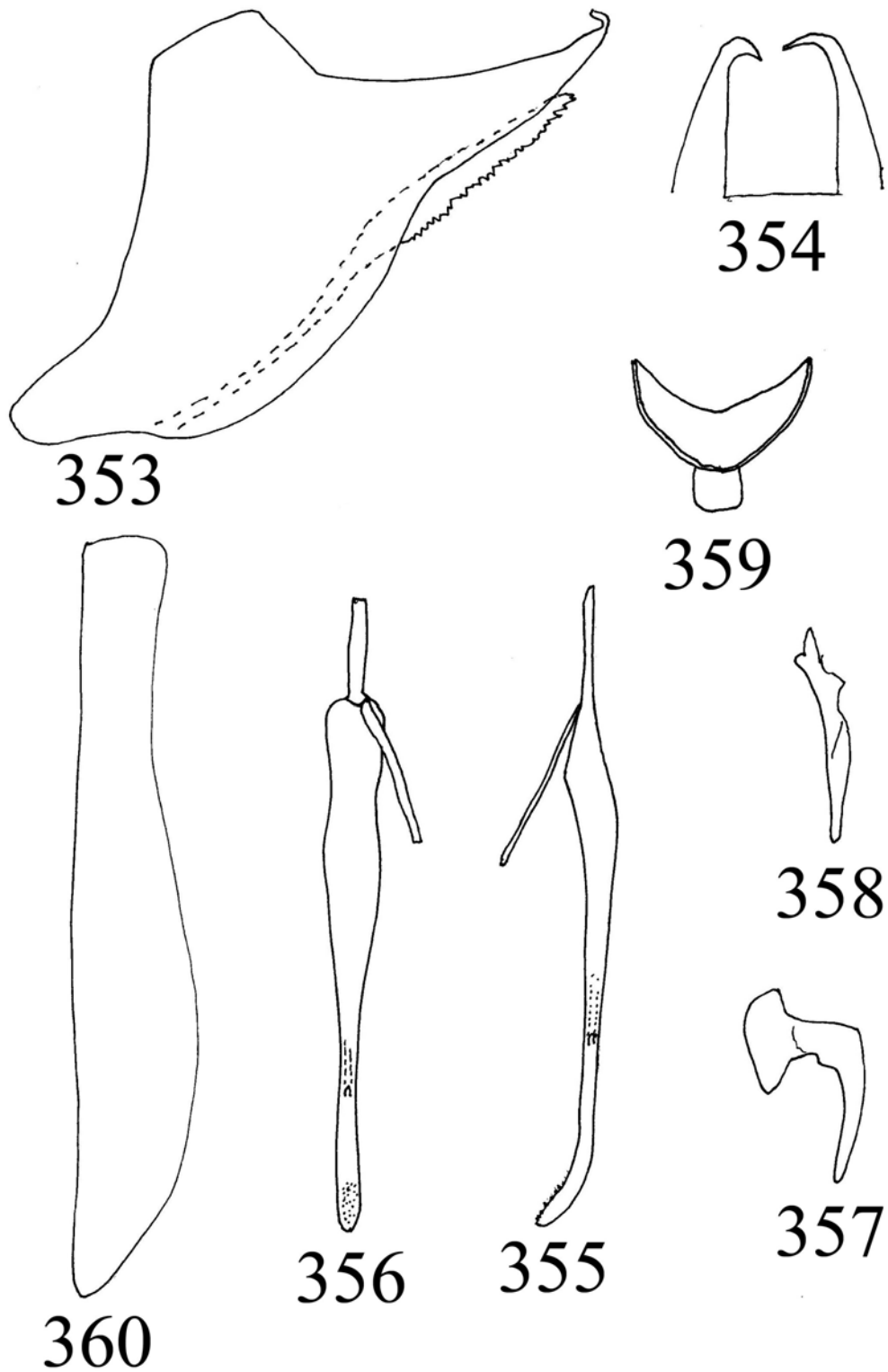
**Figures 332-338.** Genitalia, *Taharana angusta*, **sp. nov.** **332)** Male pygofer, lateral view. **333)** Pygofer caudodorsal processes, dorsal view. **334)** Aedeagus and dorsal connective, dorsal view. **335)** Aedeagus, dorsal view. **336)** Style, lateral view. **337)** Connective, caudal view. **338)** Subgenital plate, ventral view.



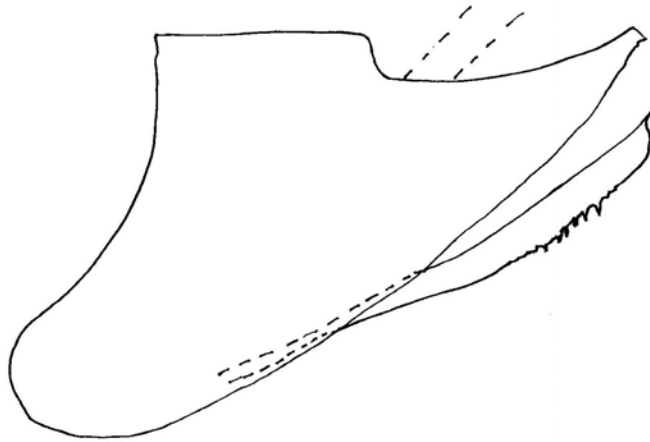
**Figures 339-345.** Genitalia, *Taharana exiguitas*, **sp. nov.** **339)** Male pygofer, lateral view. **340)** Pygofer caudodorsal processes, dorsal view. **341)** Aedeagus and dorsal connective, lateral view. **342)** Aedeagus, dorsal view. **343)** Style, lateral view. **344)** Connective, caudal view. **345)** Subgenital plate, ventral view.



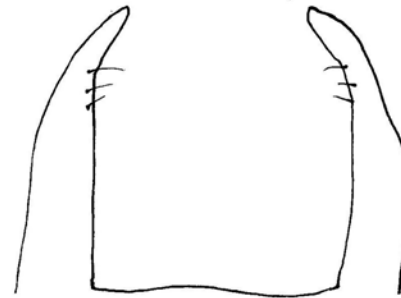
**Figures 346-352.** Genitalia, *Taharana intimacalcara*, **sp. nov.** **346)** Male pygofer, lateral view. **347)** Pygofer caudodorsal processes, dorsal view. **348)** Aedeagus and dorsal connective, lateral view. **349)** Aedeagus, dorsal view. **350)** Style, lateral view. **351)** Connective, caudal view. **352)** Subgenital plate, ventral view.



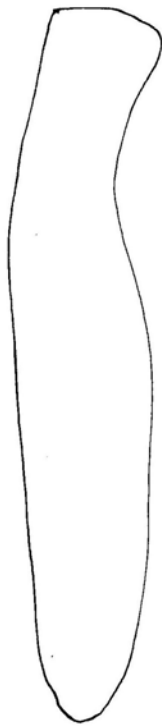
**Figures 353-360.** Genitalia, *Taharana incisura*, **sp. nov.** **353)** Male pygofer, lateral view. **354)** Pygofer caudodorsal process, dorsal view. **355)** Aedeagus and dorsal connective, lateral view. **356)** Aedeagus and dorsal connective, dorsal view. **357)** Style, lateral view. **358)** Style, dorsal view. **359)** Connective, caudal view. **360)** Subgenital plate, ventral view.



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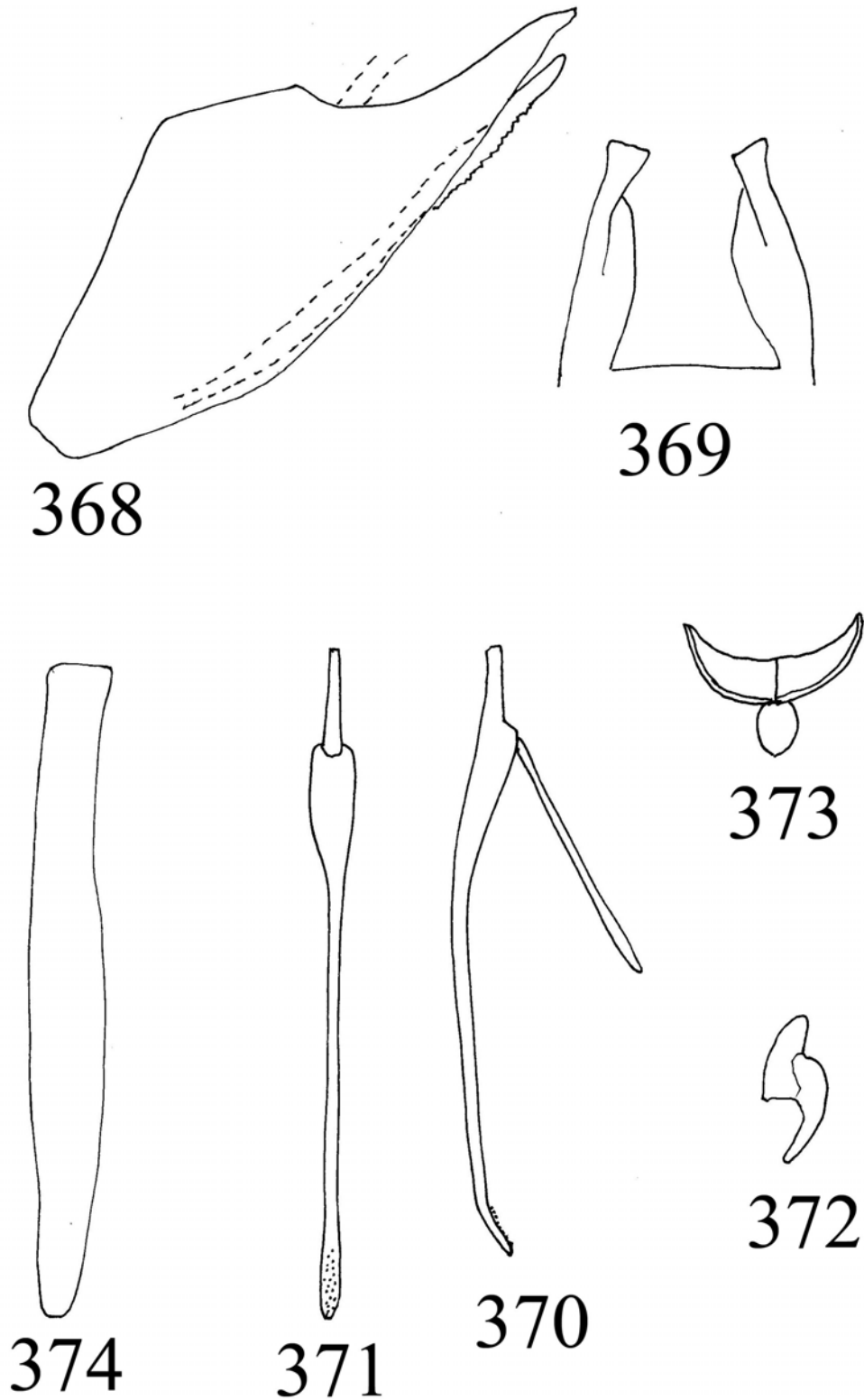
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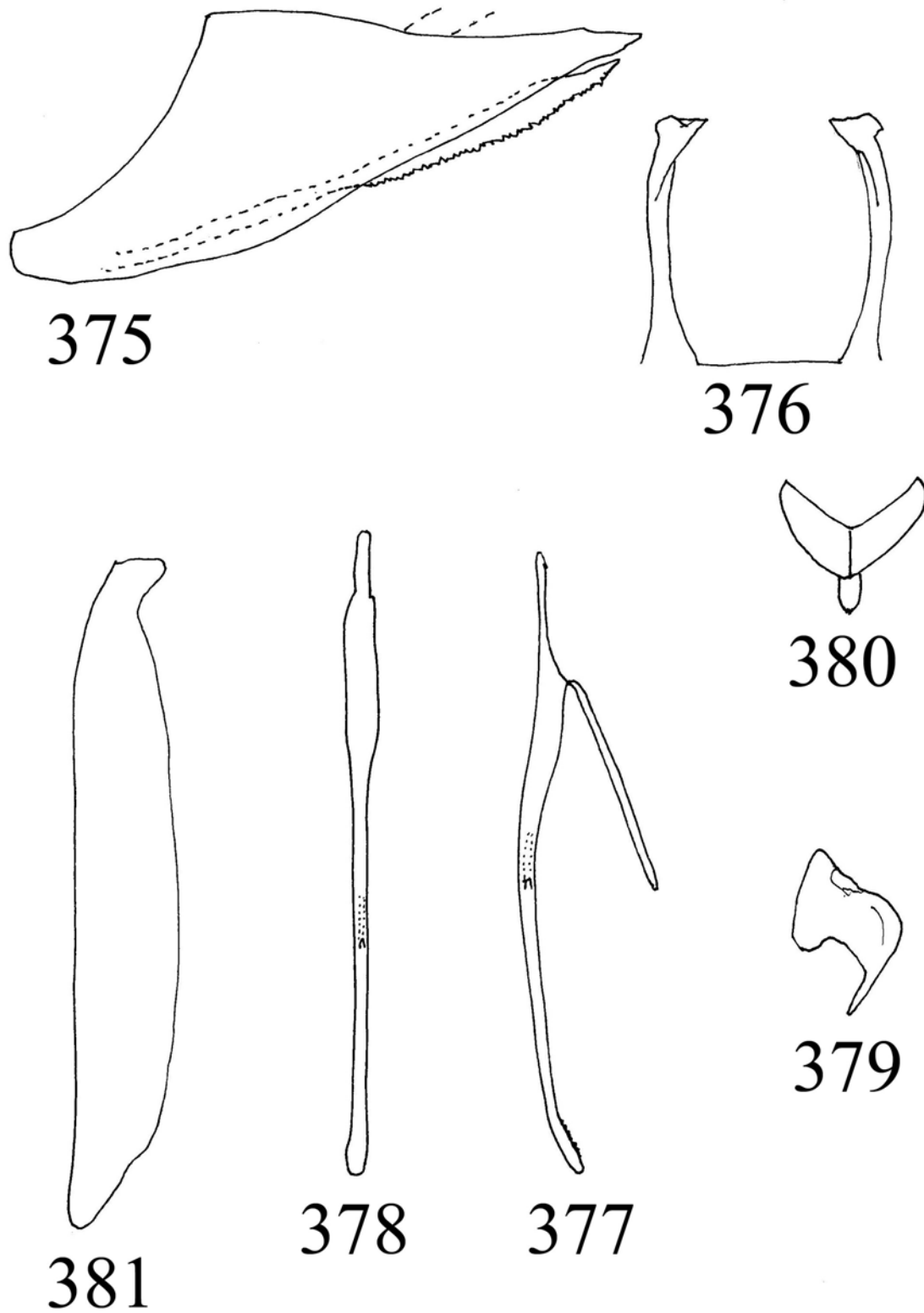
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**Figures 361-367.** Genitalia, *Taharana phetchabunensis*, sp. nov. **361)** Male pygofer, lateral view. **362)** Pygofer caudodorsal processes, dorsal view. **363)** Aedeagus and dorsal connective, lateral view. **364)** Aedeagus, dorsal view. **365)** Style, lateral view. **366)** Connective, caudal view. **367)** Subgenital plate, ventral view.

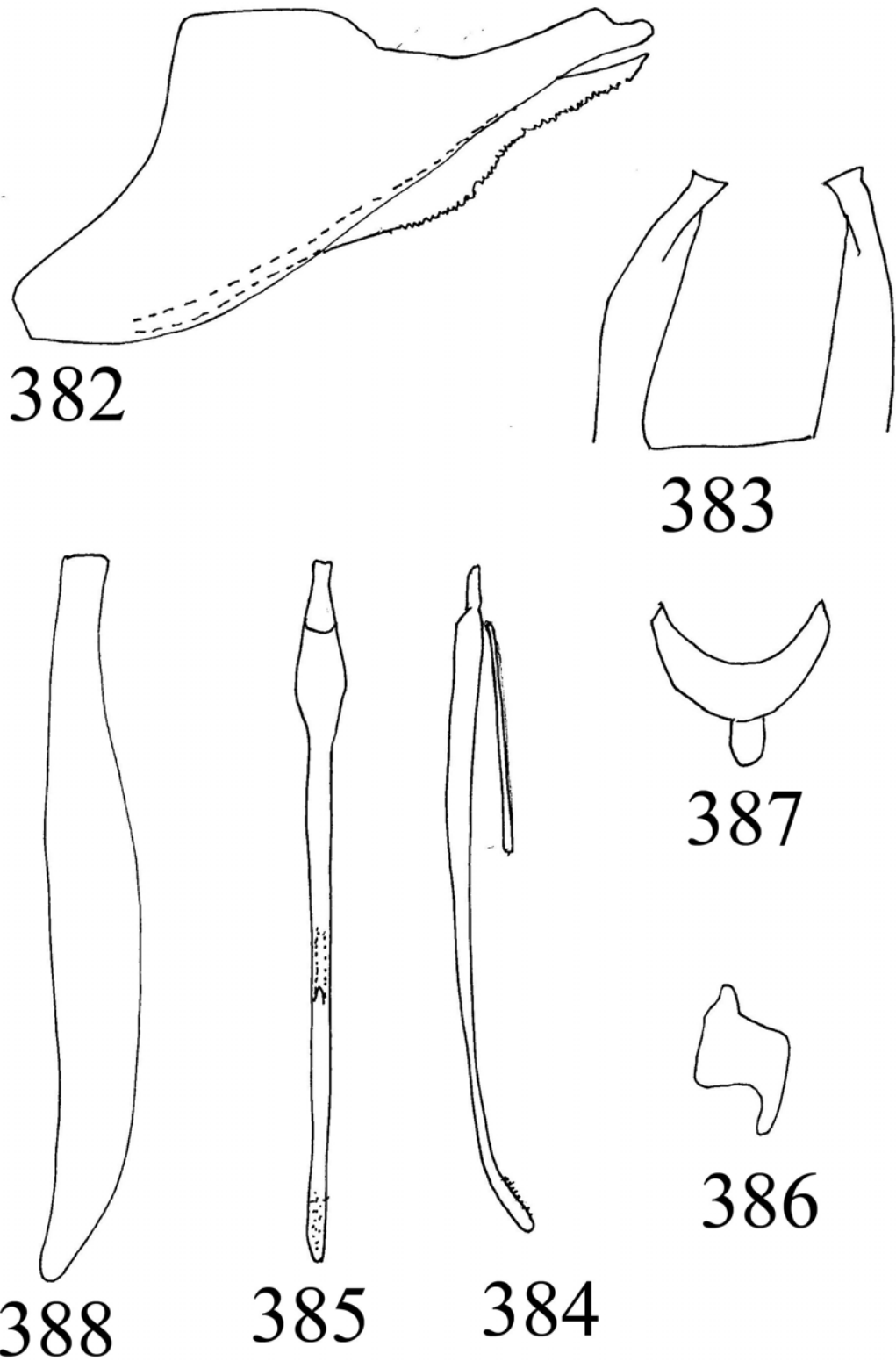




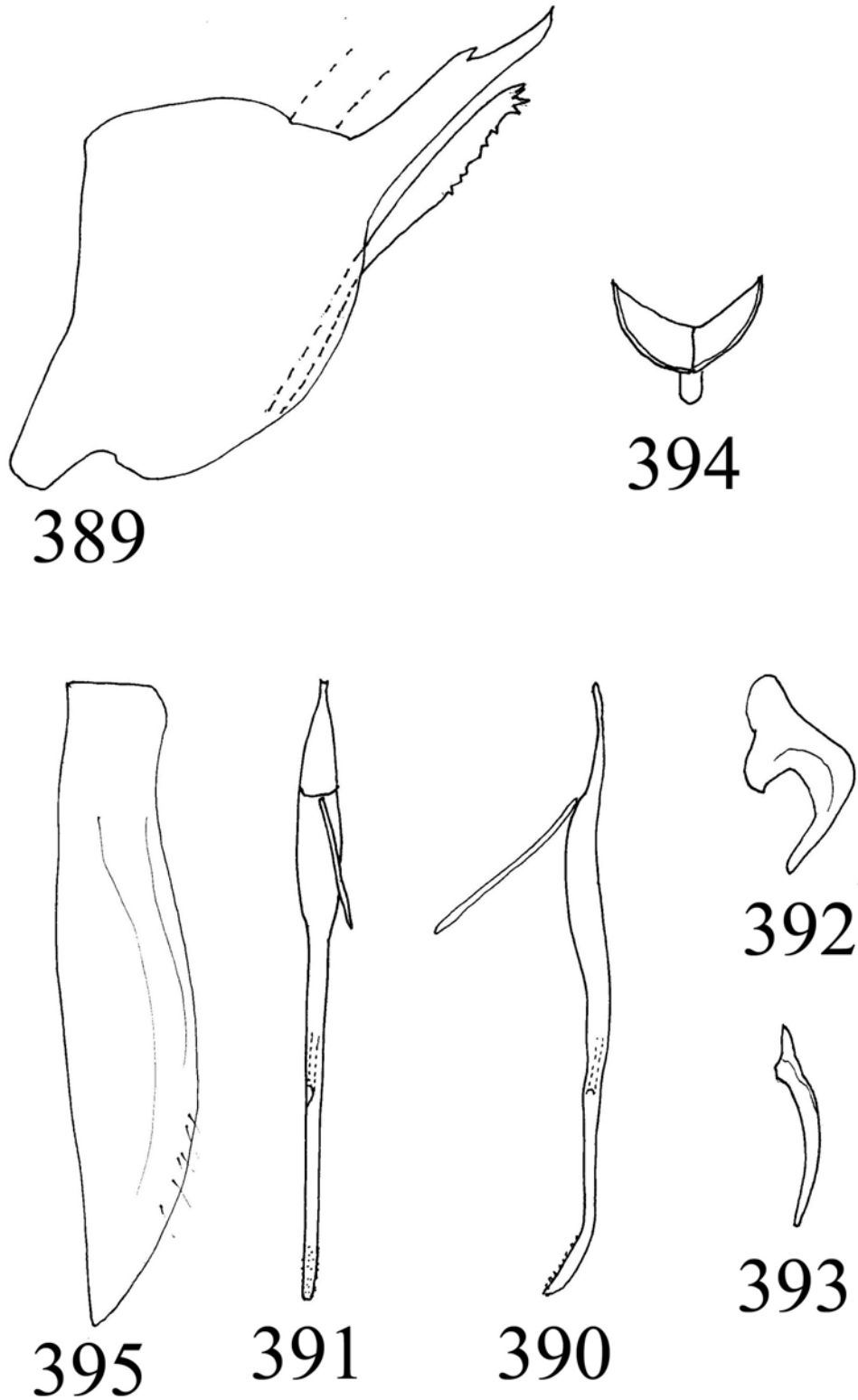
**Figures 368-374.** Genitalia, *Taharana subtumida*, **sp. nov.** **368)** Male pygofer, lateral view. **369)** Pygofer caudodorsal processes, dorsal view. **370)** Aedeagus and dorsal connective, lateral view. **371)** Aedeagus, dorsal view. **372)** Style, lateral view. **373)** Connective, caudal view. **374)** Subgenital plate, ventral view.



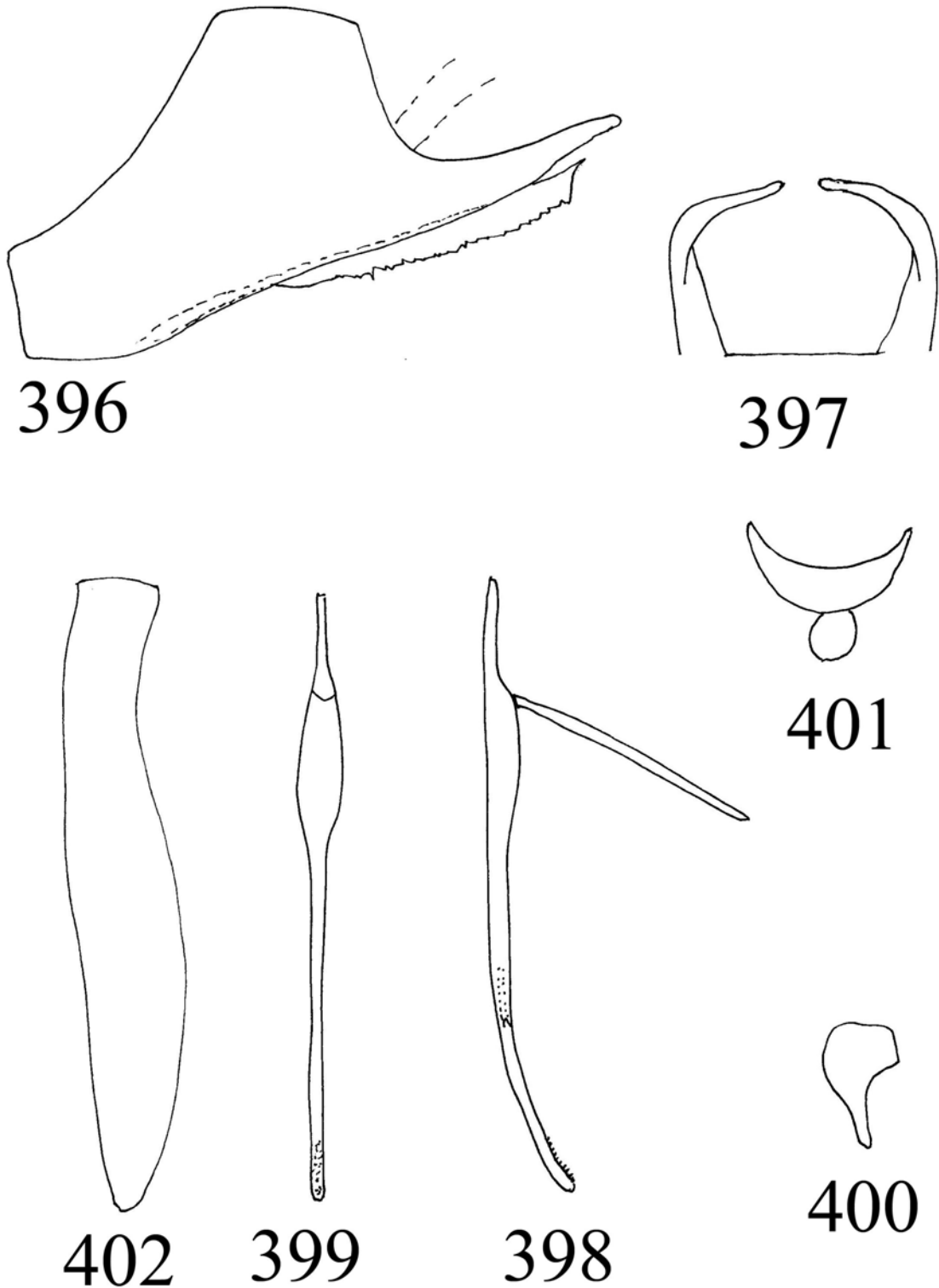
**Figures 375-381.** Genitalia, *Taharana protriangulata*, **sp. nov.** **375)** Male pygofer, lateral view. **376)** Pygofer caudodorsal processes, lateral view. **377)** Aedeagus and dorsal connective, lateral view. **378)** Aedeagus, dorsal view. **379)** Style, lateral view. **380)** Connective, caudal view. **381)** Subgenital plate, ventral view.



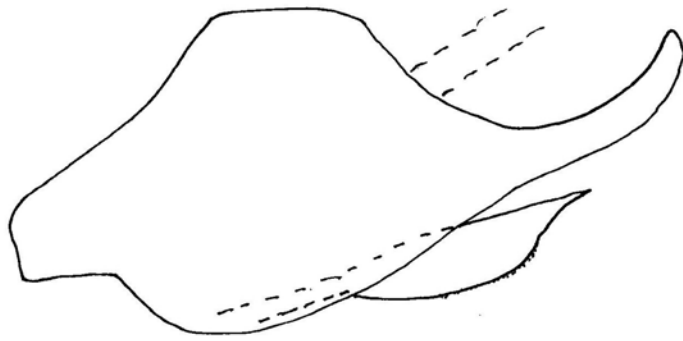
**Figures 382-388.** Genitalia, *Taharana mediolata*, **sp. nov.** **382)** Male pygofer, lateral view. **383)** Pygofer caudodorsal processes, dorsal view. **384)** Aedeagus and dorsal connective, lateral view. **385)** Aedeagus, dorsal view. **386)** Style, lateral view. **387)** Connective, caudal view **388)** Subgenital plate, ventral view.



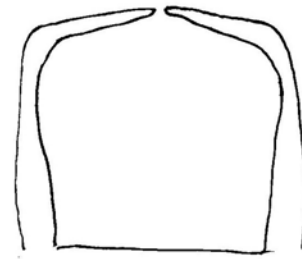
**Figures 389-395.** Genitalia, *Taharana subspinata*, **sp. nov.** **389)** Male pygofer, lateral view. **390)** Aedeagus and dorsal connective, lateral view. **391)** Aedeagus and dorsal connective, dorsal view. **392)** Style, lateral view. **393)** Style, dorsal view. **394)** Connective, caudal view. **395)** Subgenital plate, ventral view.



**Figures 396-402.** Genitalia, *Taharana minutura*, **sp. nov.** **396)** Male pygofer, lateral view. **397)** Pygofer caudodorsal processes, dorsal view. **398)** Aedeagus and dorsal connective, lateral view. **399)** Aedeagus, dorsal view. **400)** Style, lateral view. **401)** Connective, caudal view. **402)** Subgenital plate, ventral view.



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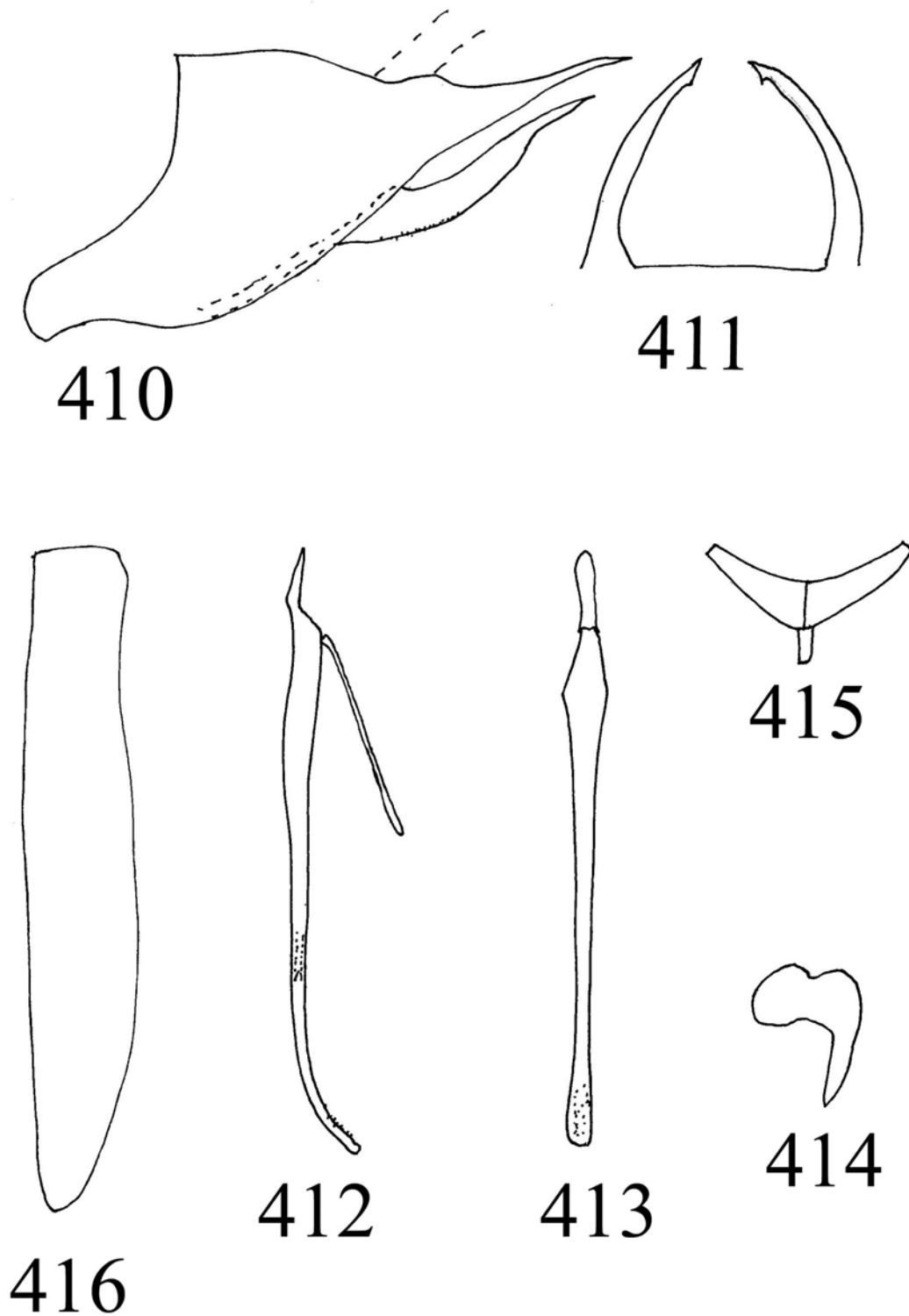


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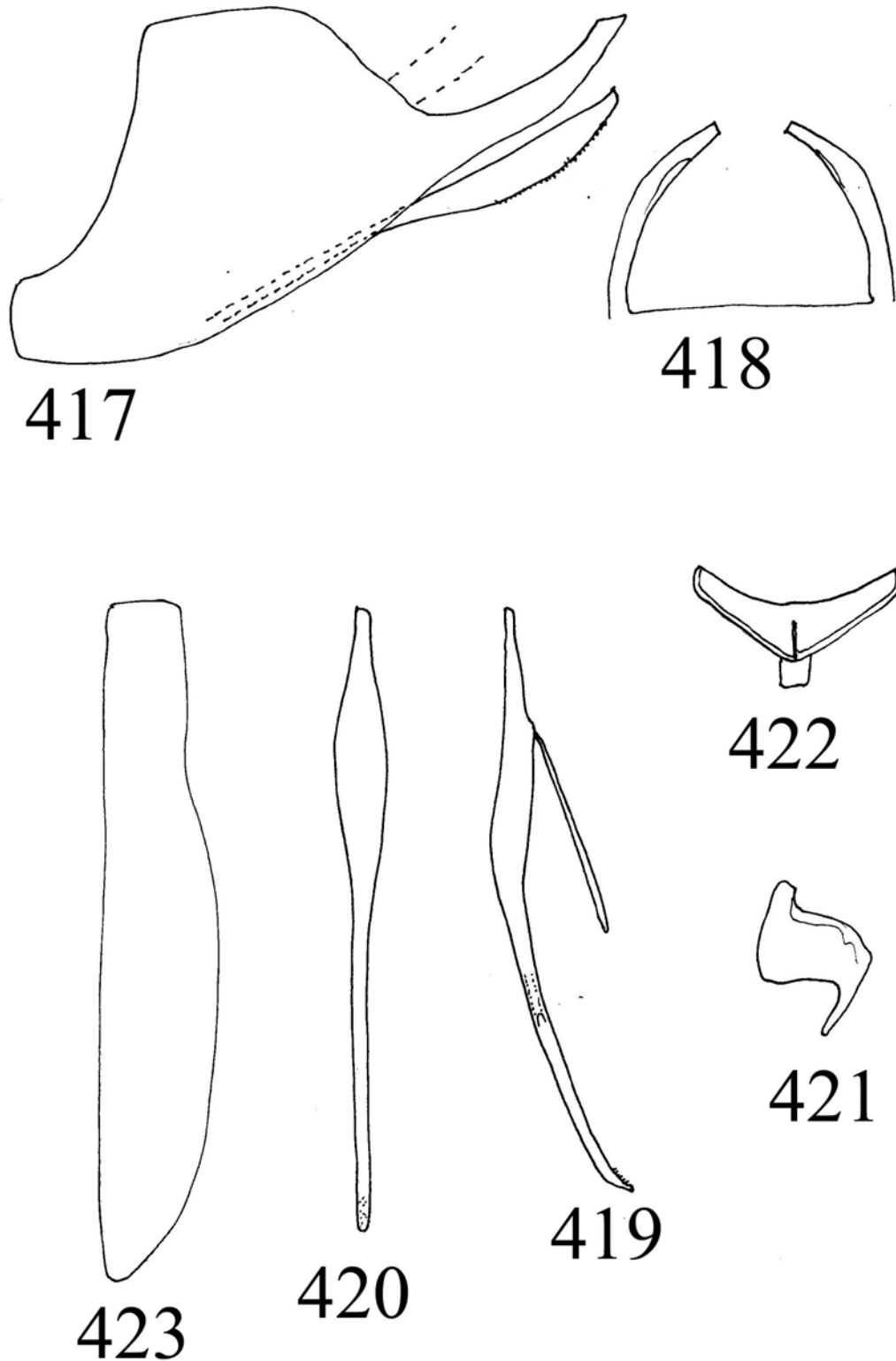


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**Figures 403-409.** Genitalia, *Taharana forcipia*, **sp. nov.** (403) Male pygofer, lateral view. (404) Pygofer caudodorsal processes, dorsal view. (405) Aedeagus and dorsal connective, lateral view. (406) Aedeagus, dorsal view. (407) Style, lateral view. (408) Connective, caudal view. (409) Subgenital plate, ventral view.

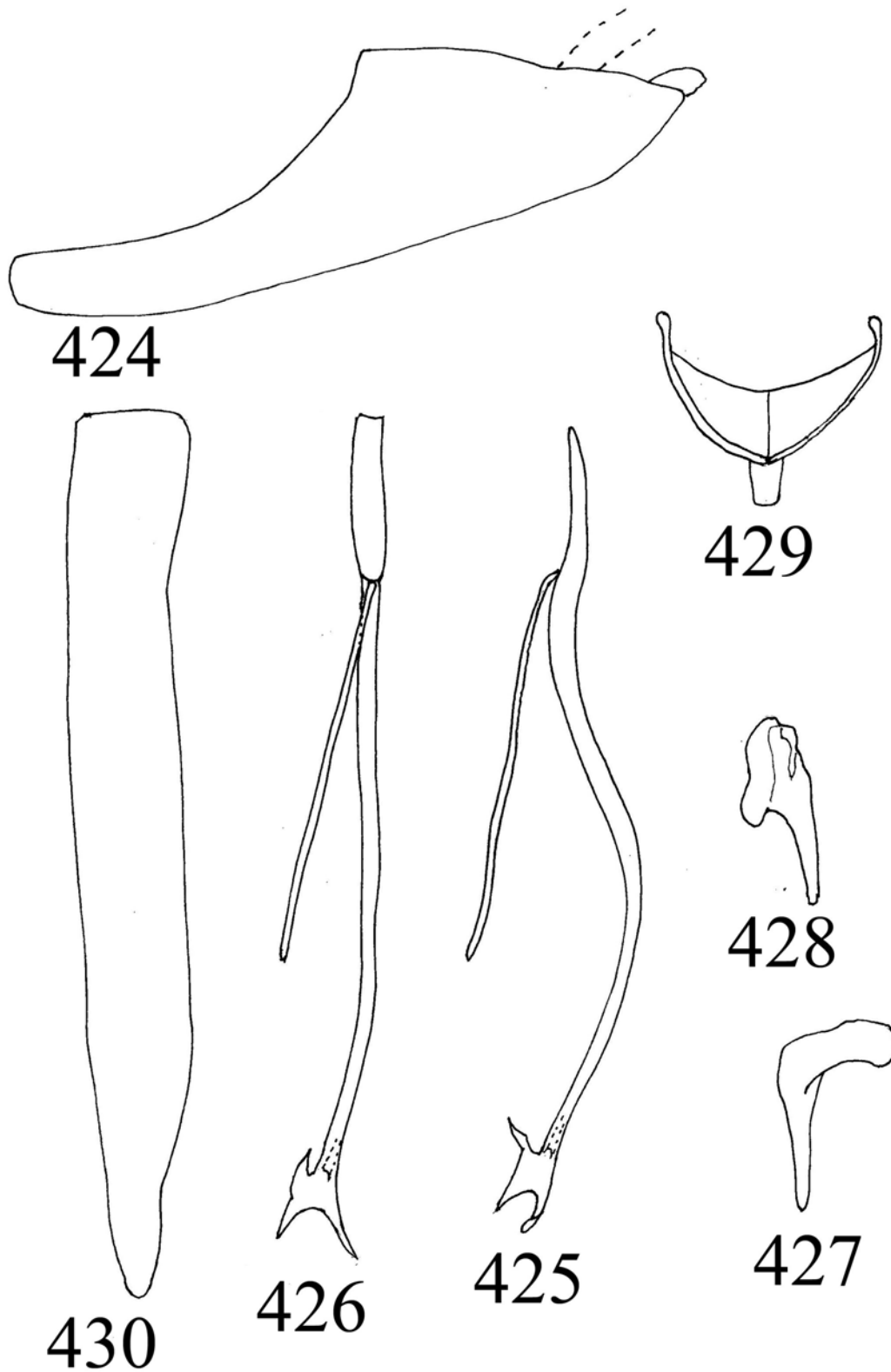


**Figures 410-416.** Genitalia, *Taharana gracilata*, **sp. nov.** **410)** Male pygofer, lateral view. **411)** Pygofer caudodorsal processes, dorsal view. **412)** Aedeagus and dorsal connective, lateral view. **413)** Aedeagus, dorsal view. **414)** Style, lateral view. **415)** Connective, caudal view. **416)** Subgenital plate, ventral view.

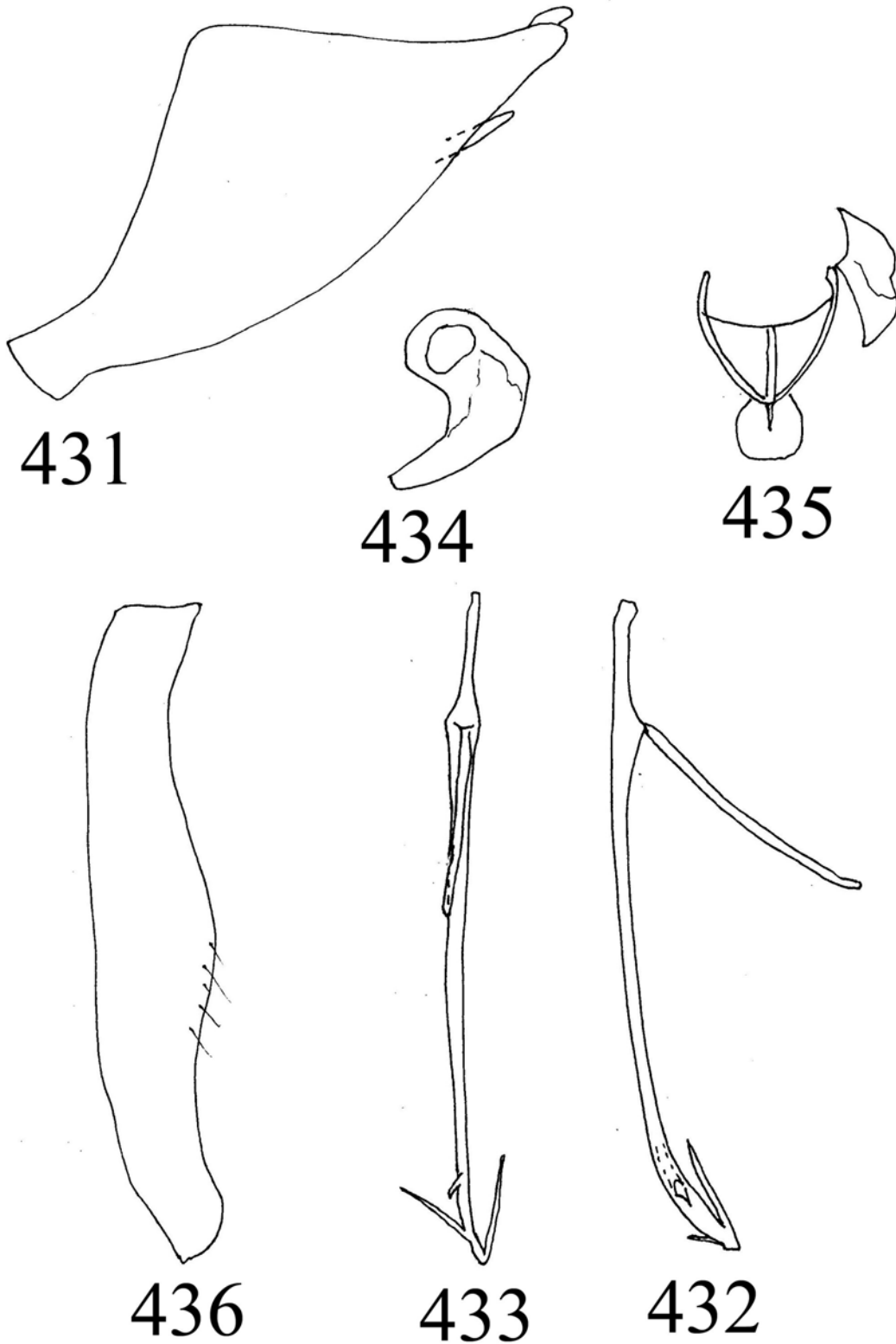


**Figures 417-423.** Genitalia, *Taharana oblongiserrata*, sp. nov. **417)** Male pygofer, lateral view. **418)** Pygofer caudodorsal processes, dorsal view. **419)** Aedeagus and dorsal connective, lateral view. **420)** Aedeagus, dorsal view. **421)** Style, lateral view. **422)** Connective, caudal view. **423)** Subgenital plate, ventral view.

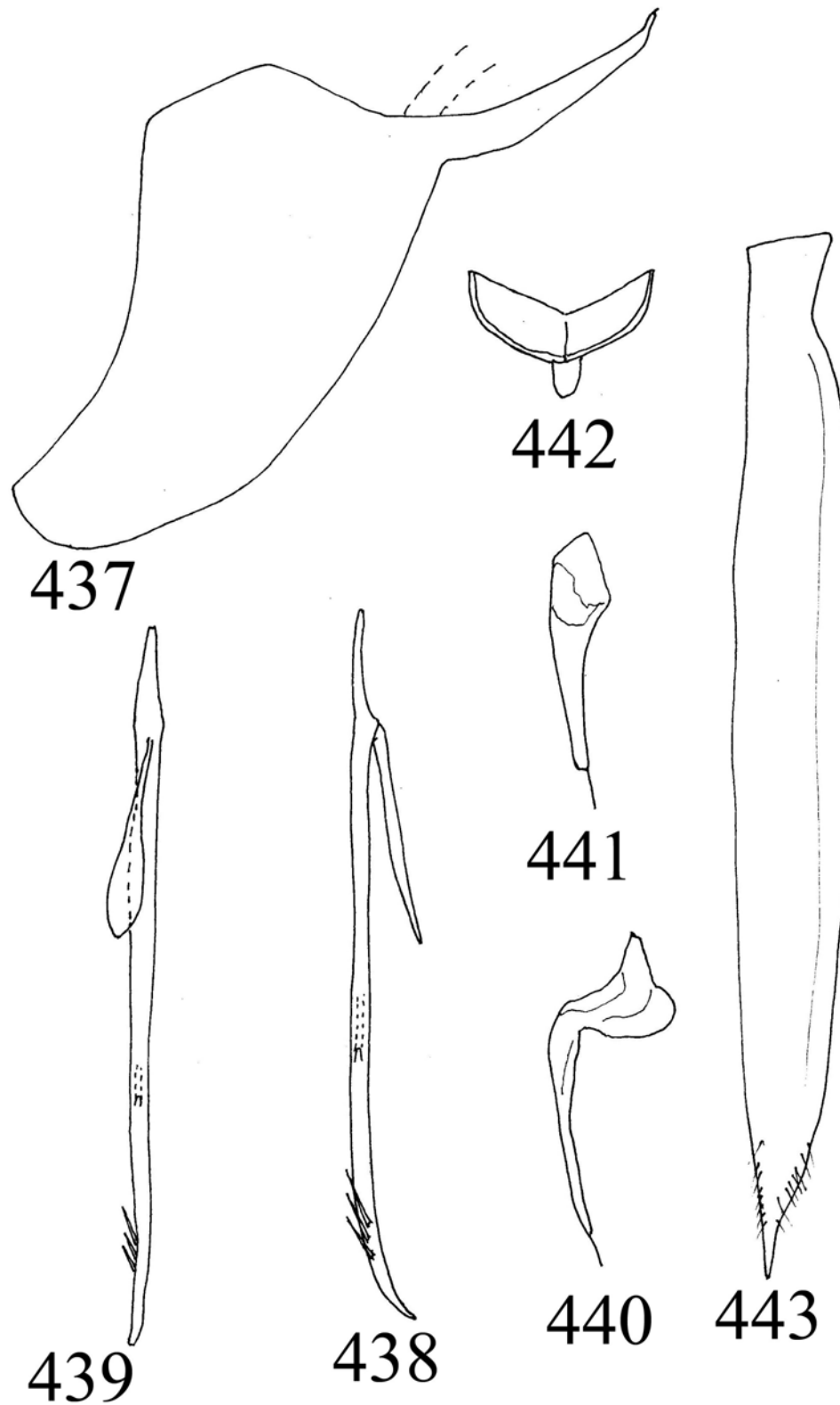




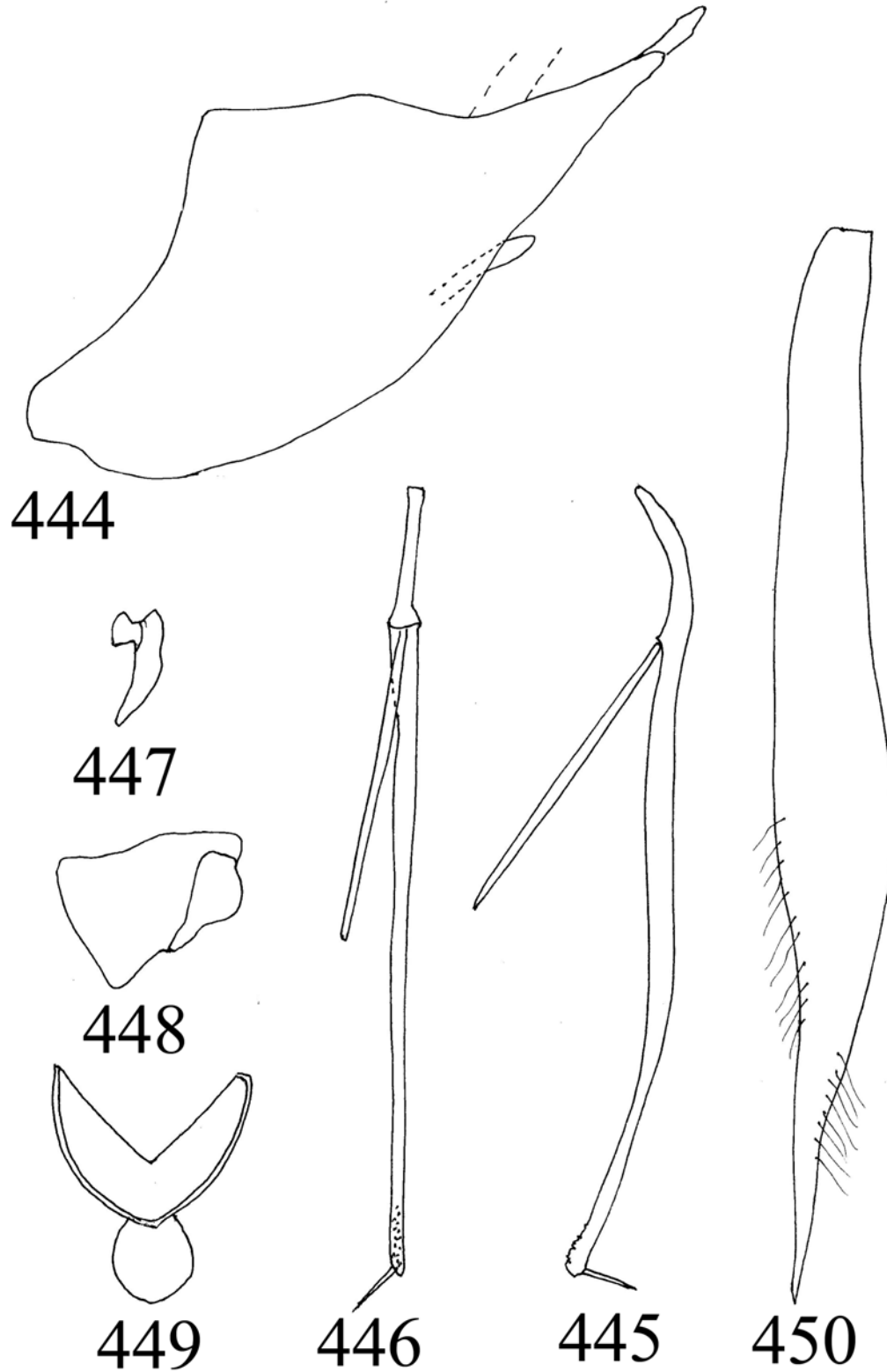
**Figures 424-430.** Genitalia, *Trinoridia trifida*, **sp. nov.** **424)** Male pygofer, lateral view. **425)** Aedeagus and dorsal connective, lateral view. **426)** Aedeagus and dorsal connective, dorsal view. **427)** Style, lateral view. **428)** Style, dorsal view. **429)** Connective, caudal view. **430)** Subgenital plate, ventral view.



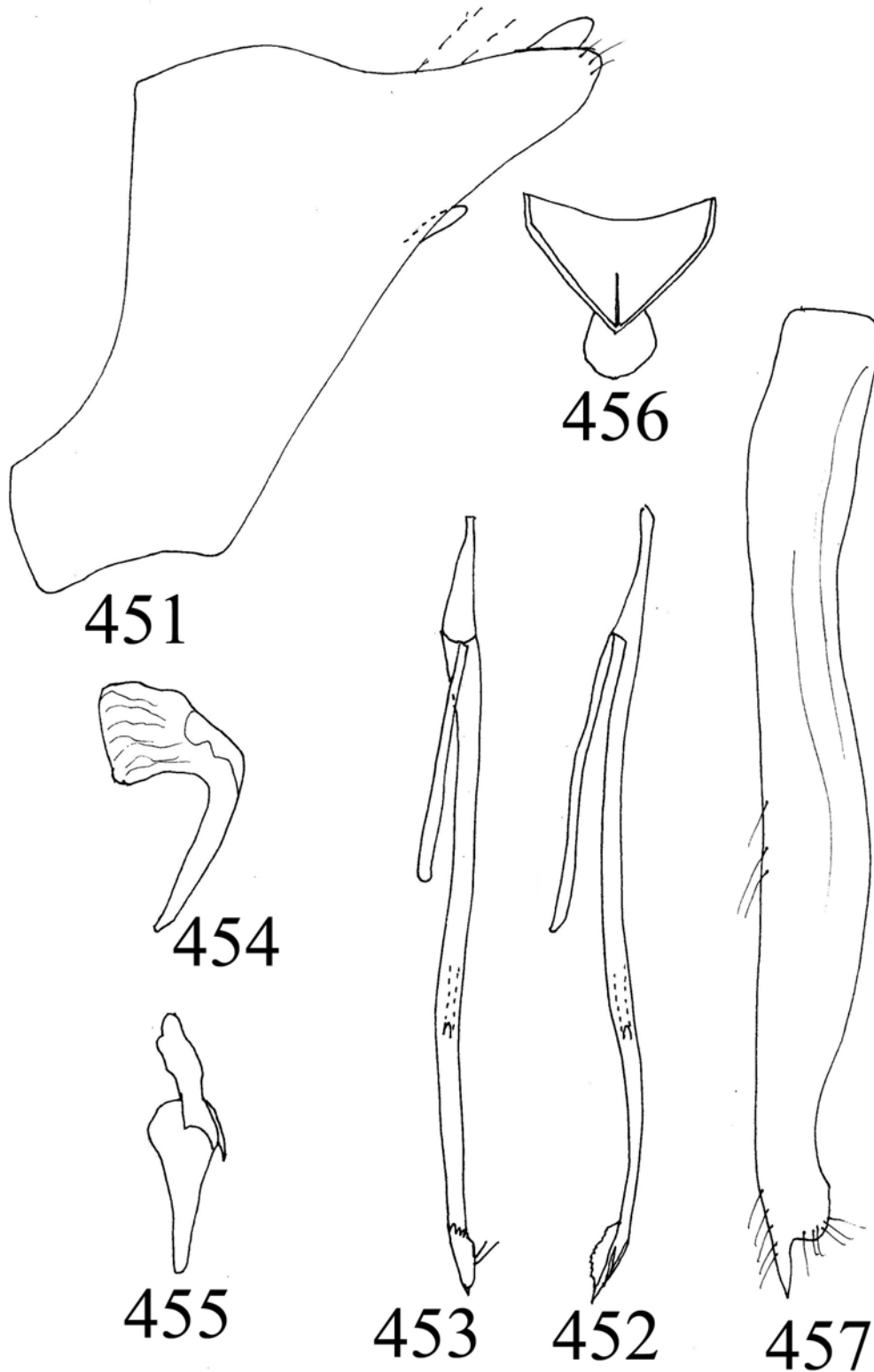
**Figures 431-436.** Genitalia, *Trinoridia calcaris*, **sp. nov.** **431)** Male pygofer, lateral view. **432)** Aedeagus and dorsal connective, lateral view. **433)** Aedeagus and dorsal connective, dorsal view. **434)** Style, lateral view. **435)** Connective and style, caudal view. **436)** Subgenital plate, ventral view.



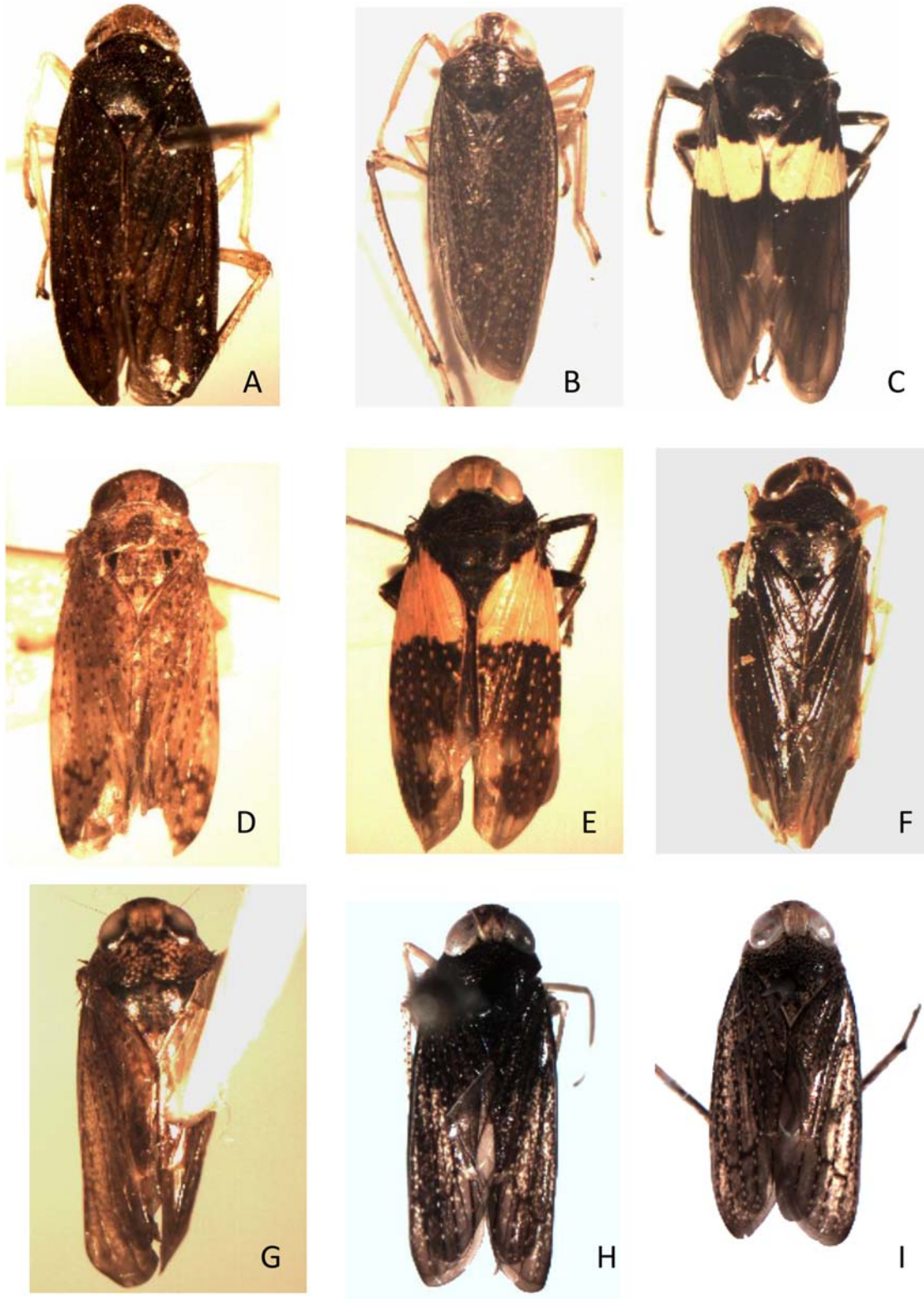
**Figures 437-443.** Genitalia, *Tripesidia kubani*, **sp. nov.** **437)** Male pygofer, lateral view. **438)** Aedeagus and dorsal connective, lateral view. **439)** Aedeagus and dorsal connective, dorsal view. **440)** Style, lateral view. **441)** Style, dorsal view. **442)** Connective, caudal view. **443)** Subgenital plate, ventral view.



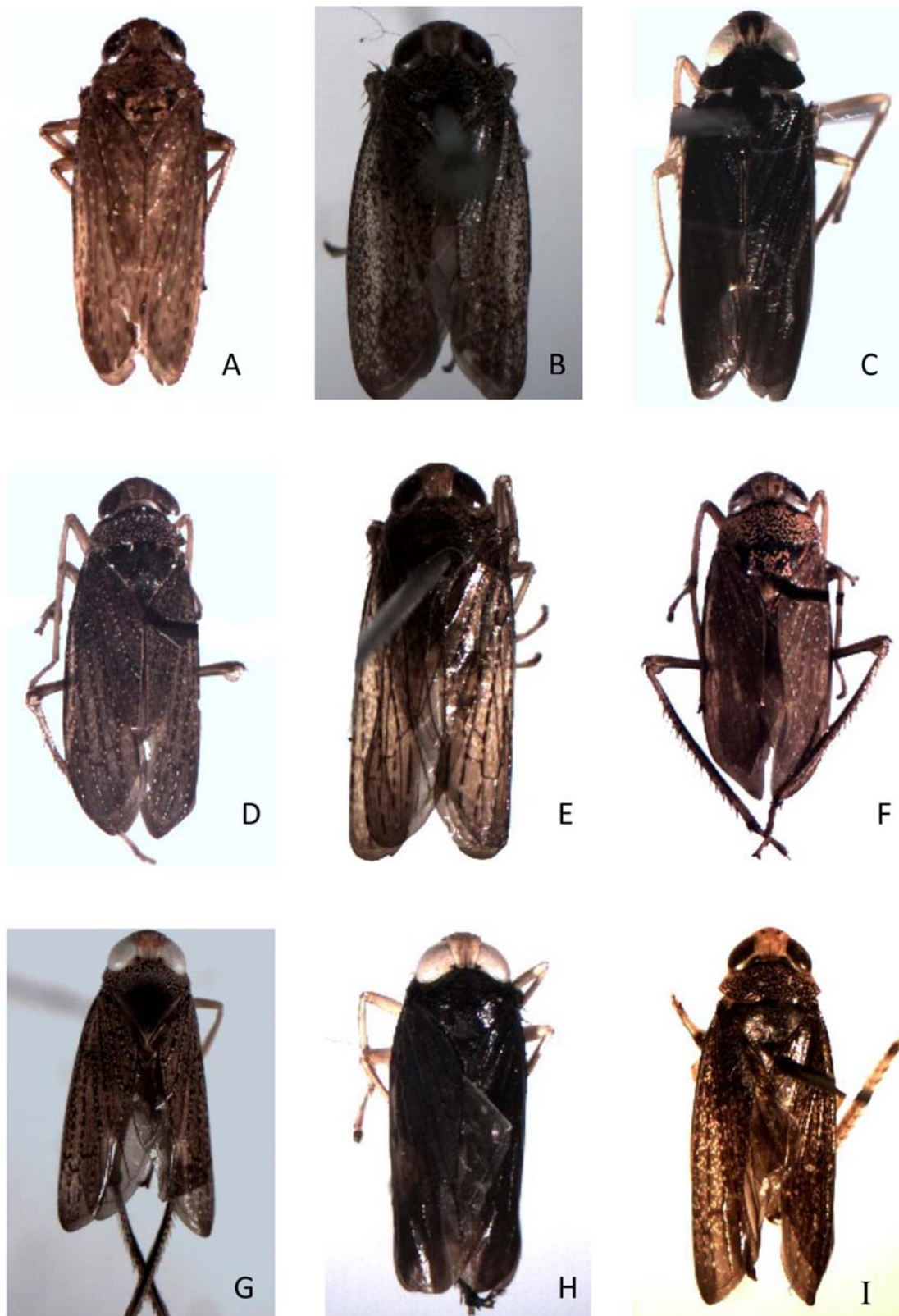
**Figures 444-450.** Genitalia, *Webbolidia magna*, **sp. nov.** 444) Male pygofer, lateral view. 445) Aedeagus and dorsal connective, lateral view 446) Aedeagus and dorsal connective, dorsal view. 447) Style, lateral view. 448) Style, dorsal view. 449) Connective, caudal view. 450) Subgenital plate, ventral view.



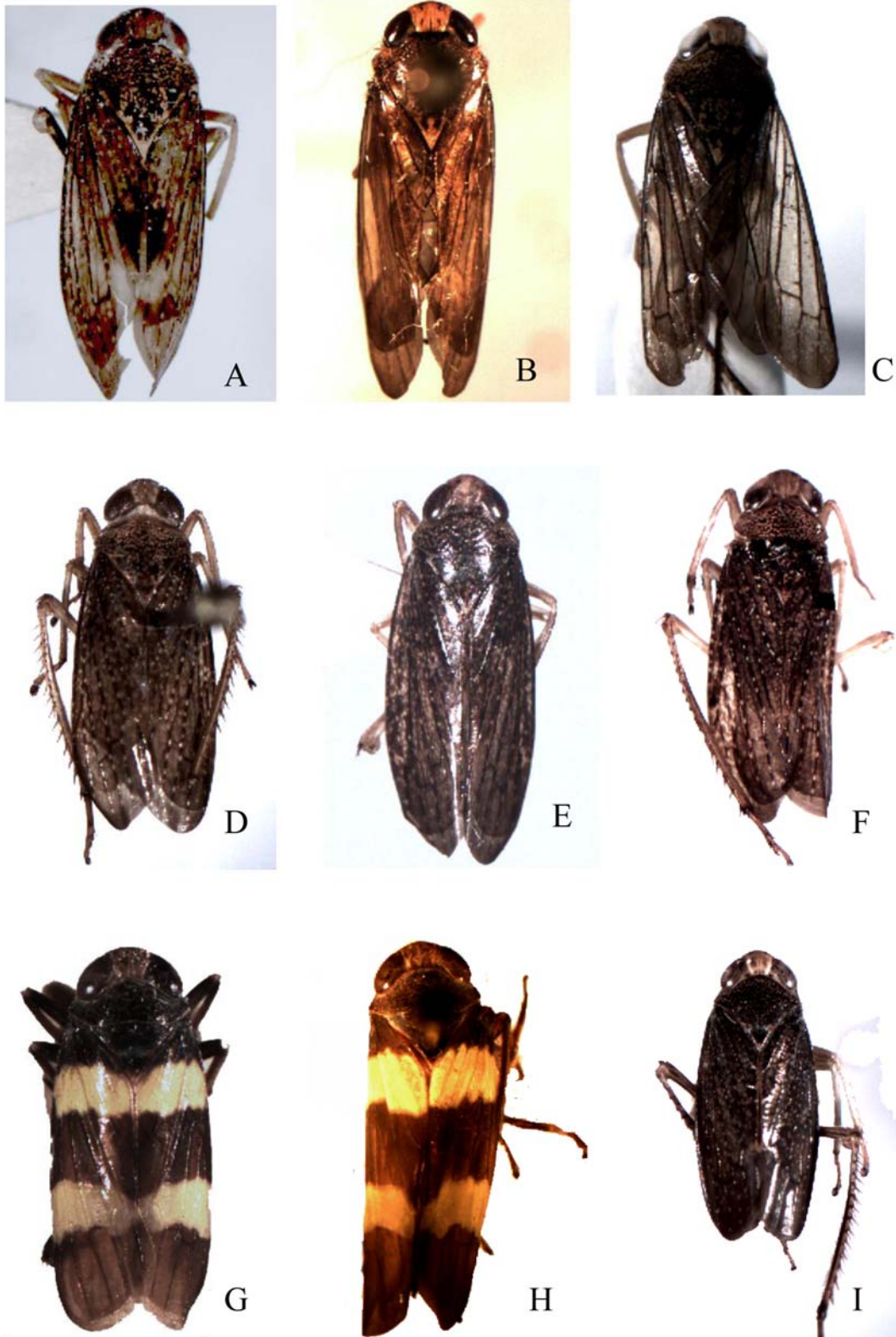
**Figures 451-457.** Genitalia, *Webbolidia kristenseni*, sp. nov. **451)** Male pygofer, lateral view. **452)** Aedeagus and dorsal connective, lateral view. **453)** Aedeagus and dorsal connective, dorsal view. **454)** Style, lateral view. **455)** Style, dorsal view. **456)** Connective, caudal view. **457)** Subgenital plate, ventral view.



**PLATE 1. A-I.** Dorsal habitus. (A) *Calodia sinuata*, **sp. nov.**; (B) *Calodia sichuanensis*, **sp. nov.**; (C) *Calodia vincula*, **sp. nov.**; (D) *Calodia bicompressa*, **sp. nov.**; (E) *Calodia propennata*, **sp. nov.**; (F) *Calodia birama*, **sp. nov.**; (G) *Creberulidia multipenicula*, **sp. nov.**; (H) *Creberulidia inflata*, **sp. nov.**; (I) *Creberulidia ordospinosa*, **sp. nov.**



**PLATE 2. A-I.** Dorsal habitus. (A) *Creberulidia corniger*, **sp. nov.**; (B) *Creberulidia penicula*, **sp. nov.**; (C) *Glaberana dentilamina*, **sp. nov.**; (D) *Glaberana penita*, **sp. nov.**; (E) *Glaberana longilamina*, **sp. nov.**; (F) *Glaberana spadix*, **sp. nov.**; (G) *Glaberana ampla*, **sp. nov.**; (H) *Glaberana stylafurcata*, **sp. nov.**; (I) *Hamusolidia introrsa*, **sp. nov.**



**PLATE 3. A-I.** Dorsal habitus. (A) *Hiatusorus aviformis*, **sp. nov.**; (B) *Hiatusorus supraspinosus*, **sp. nov.**; (C) *Hiatusorus robustus*, **sp. nov.**; (D) *Laosolidia tuberis*, **sp. nov.**; (E) *Laosolidia complexa*, **sp. nov.**; (F) *Laosolidia longiserrata*, **sp. nov.**; (G) *Olidiana egregia* (Schumacher) (male); (H) *Olidiana egregia* (Schumacher) (female); (I) *Olidiana tuberis*, **sp. nov.**



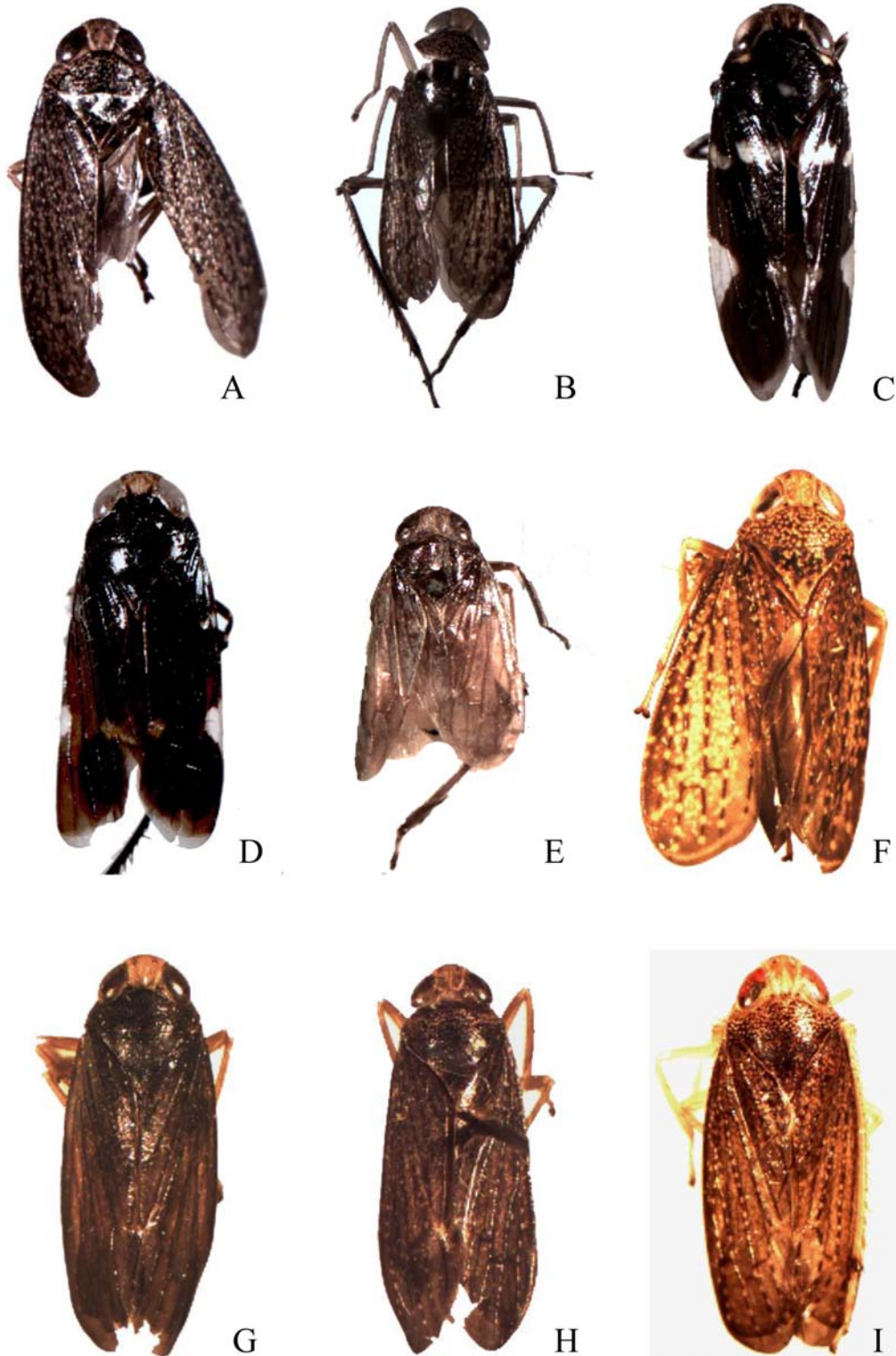
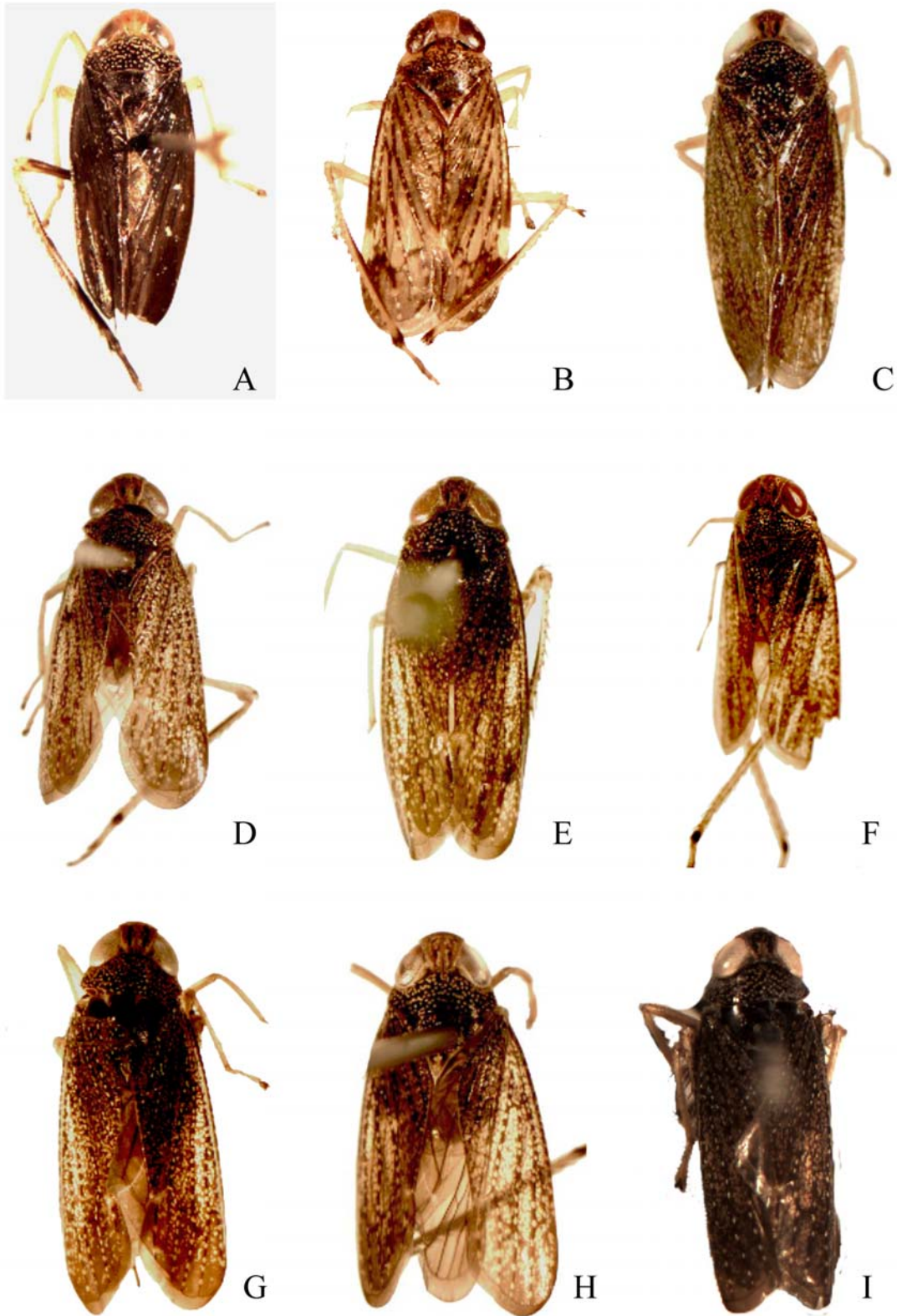
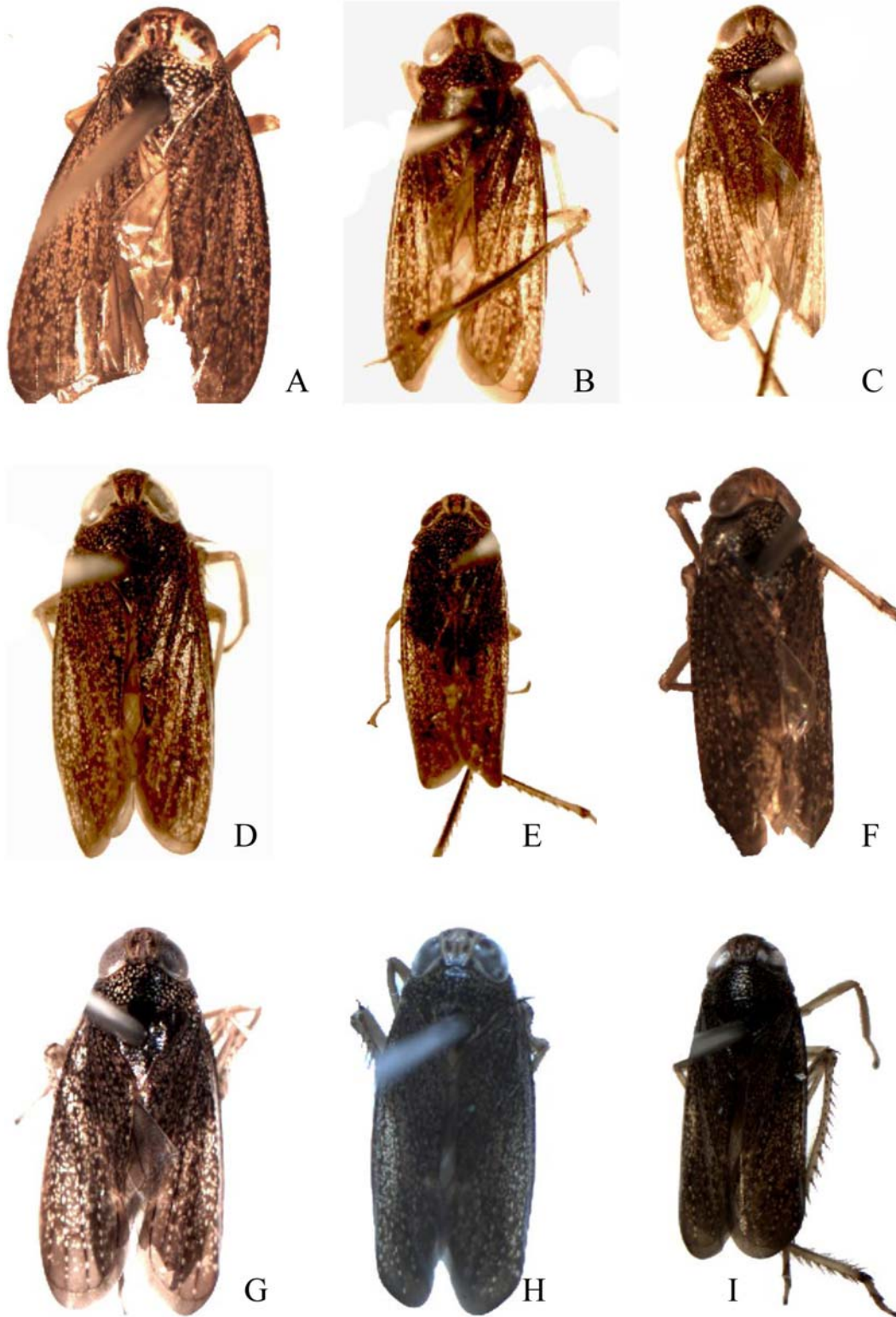


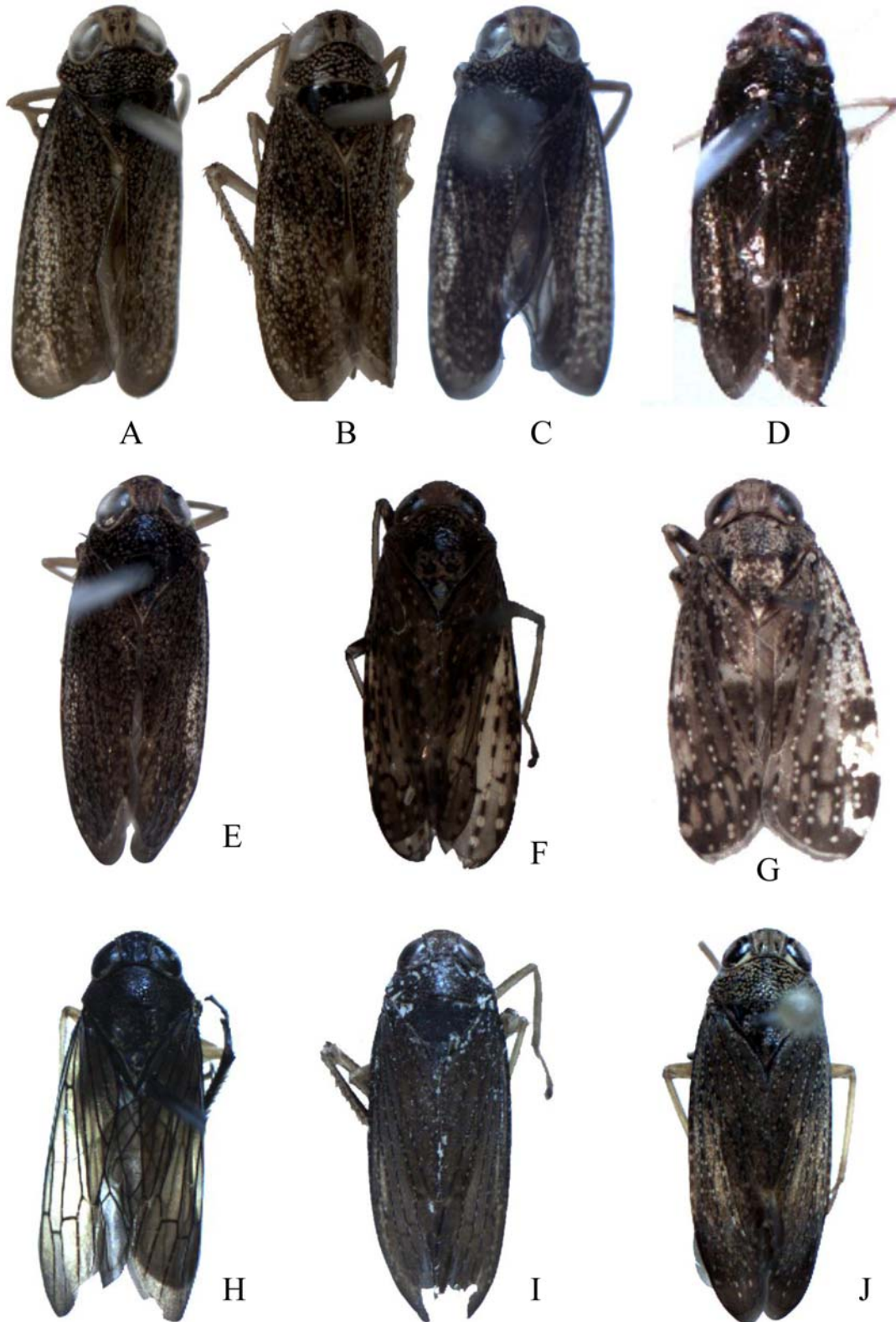
PLATE 4. A-I. Dorsal habitus. (A) *Olidiana parafringa*, **sp. nov.**; (B) *Olidiana lata*, **sp. nov.**; (C) *Olidiana vincula*, **sp. nov.**; (D) *Olidiana inaequabilis*, **sp. nov.**; (E) *Olidiana tonkinensis*, **sp. nov.**; (F) *Olidiana bispiculata*, **sp. nov.**; (G) *Olidiana implicata*, **sp. nov.**; (H) *Olidiana pennata*, **sp. nov.**; (I) *Olidiana filiata*, **sp. nov.**



**PLATE 5. A-I.** Dorsal habitus. (A) *Singillatus gracilis*, **sp. nov.**; (B) *Singillatus ventrospinatus*, **sp. nov.**; (C) *Taharana caverna*, **sp. nov.**; (D) *Taharana sublamina*, **sp. nov.**; (E) *Taharana abstrusa*, **sp. nov.**; (F) *Taharana biunca*, **sp. nov.**; (G) *Taharana lacertosa*, **sp. nov.**; (H) *Taharana biavicula*, **sp. nov.**; (I) *Taharana brevicutata*, **sp. nov.**



**PLATE 6. A-I.** Dorsal habitus. (A) *Taharana truncata*, **sp. nov.**; (B) *Taharana angusta*, **sp. nov.**; (C) *Taharana exiguitas*, **sp. nov.**; (D) *Taharana intimacalcara*, **sp. nov.**; (E) *Taharana incisura*, **sp. nov.**; (F) *Taharana phetchabunensis*, **sp. nov.**; (G) *Taharana subtumida*, **sp. nov.**; (H) *Taharana protriangulata*, **sp. nov.**; (I) *Taharana mediolata*, **sp. nov.**



**Plate 7. A-J.** Dorsal habitus. (A) *Taharana subspinata*, **sp. nov.**; (B) *Taharana minutura*, **sp. nov.**; (C) *Taharana forcipia*, **sp. nov.**; (D) *Taharana gracilata*, **sp. nov.**; (E) *Taharana oblongiserrata*, **sp. nov.**; (F) *Trinoridia trifida*, **sp. nov.**; (G) *Trinoridia calcaris*, **sp. nov.**; (H) *Tripesidia kubani*, **sp. nov.**; (I) *Webbolidia magna*, **sp. nov.**; (J) *Webbolidia kristenseni*, **sp. nov.**