

SUBTRIBAL, GENERIC AND SUBGENERIC COMPOSITION
OF DARKLING BEETLES OF THE TRIBE HELOPINI
(COLEOPTERA: TENEBRIONIDAE)
IN THE EASTERN PALAEARCTIC REGION

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A review of the following Eastern Palaearctic (China, Russian Far East, Korean Peninsula, Japan and Taiwan) genera of the tribe Helopini (Coleoptera: Tenebrionidae) is given: subtribe Helopina: *Nipponohelops* Masumoto, Ando et Akita, 2006, *Apterotarpela* Kaszab, 1954, *Catomus* Allard, 1876, *Stenohelops* Reitter, 1922; subtribe Cyldrinetina: *Nalassus* Mulsant, 1854, and *Asialassus* **gen. n.** (type species *Helops cordicollis* Marseul, 1876). As a result the following combinations and synonymy are proposed (all from the genus *Tarpela* Bates, 1870): *Apterotarpela clypealis* (Kaszab, 1954), **comb. nov.**, *Apterotarpela subasperipennis* (Kaszab, 1954), **comb. nov.**, *Nalassus (Nalassus) brunneus brunneus* (Marseul, 1876), **comb. n.**, *Nalassus (Nalassus) brunneus konoii* (Nakane, 1963), **comb. n.**, *Nalassus (Nalassus) elegantulus* (Lewis, 1894), **comb. n.**, *Nalassus (Nalassus) formosanus* (Masumoto, 1981), **comb. n.**, *Nalassus (Nalassus) akitai* (Masumoto, 1998), **comb. n.**, *Nalassus (Nalassus) kawabatai* (Akita et Masumoto, 2012), **comb. n.**, *Nalassus (Nalassus) zoltani* (Masumoto, 1981), **comb. n.**, *Nalassus (Nalassus) pilushenmuus* (Masumoto, Akita and Lee, 2017), **comb. n.**, *Nalassus (Nalassus) yuanfengus* (Masumoto, Akita et Lee, 2017), **comb. n.**, *Nalassus (Nalassus) xiaoxueshanus* (Masumoto, Akita et Lee, 2017), **comb. n.**, *Nalassus (Nalassus) dongurii* (Masumoto, Akita et Lee, 2017), **comb. n.**, *Nalassus (Nalassus) merkli* (Masumoto, Akita and Lee, 2017), **comb. n.**, *Nalassus (Nipponalassus) andoi* (Masumoto, 1993), **comb. n.**, *Nalassus (Nipponalassus) lewisi* (Masumoto, 1993), **comb. n.**, *Asialassus cordicollis* (Marseul, 1876), **comb. n.**, *Asialassus amamiensis* (Kaszab, 1964), **comb. n.**, *Asialassus kimurai* (Masumoto, 1996), **comb. n.** (= *Tarpela tokunoshimana* Masumoto et Akita, 2001: 20, **syn. n.**), *Asialassus tsushmanus* (Nakane, 1979), **comb. n.**, *Asialassus todai* (Ando, 2006), **comb. n.**, *Asialassus adachii* (Akita et Masumoto, 2009), **comb. n.** A new subgenus of the genus *Nalassus* is proposed: *Nipponalassus* **subgen. n.** (type species *Tarpela andoi* Masumoto, 1993). Two new species are described from China: *Catomus (Sinocatomus) stanislavi* **sp. n.** and *Stenohelops (Stenomaleis) chinensis* **sp. n.** Morphological diagnoses and keys are given to subtribes, genera and species.

Key words: darkling beetles, Helopini, Eastern Palaearctic region, taxonomy.

INTRODUCTION

Darkling beetles of the tribe Helopini are widespread in the Holarctic region, in part of the Neotropical and the Oriental regions, and some species

are known from the Afrotropical region (Ethiopia, Kenya, Mozambique and Seychelles). Species of the tribe Helopini occur mainly in the Palaearctic part of Eastern Asia (NABOZHENKO & LÖBL 2008), four species were described from Vietnam (FAIRMAIRE 1888, PIC 1925, KASZAB 1980) and one from Thailand (MASUMOTO 1998). To date twenty species of four genera are known in the Eastern Palaearctic region: *Nalassus* Mulsant, 1854, *Tarpela* Bates, 1870, *Apterotarpela* Kaszab, 1954 and *Nipponohelops* Masumoto, Ando et Akita, 2006. The most diverse genus is *Tarpela*, which is widespread in Japan, Taiwan and Korea.

ANTOINE (1949) was the first specialist who developed a classification of the tribe Helopini based on the structure of male genitalia and separated two groups of genera with 'nalassoid' and 'helopioid' types of genitalia. ESPAÑOL (1956) gave names for these groups, tribes Helopini and Cylindrinotini, which are recently interpreted into two subtribes within the tribe Helopini (NABOZHENKO & LÖBL 2008). The modified classification based on Antoine's investigations has been followed by most specialists (ARDOIN 1958, ESPAÑOL 1961, NABOZHENKO 2005, NABOZHENKO & LÖBL 2008, etc.). Nabozhenko and co-authors (NABOZHENKO 2005, NABOZHENKO & GURGENIDZE 2006, PURCHART & NABOZHENKO 2012) additionally provided support for this classification based on the structure of female genital tubes and structures of larvae. Partial improvement of the classification of American species of Helopini (some species were transferred from the genus *Helops* Fabricius, 1775 s. l. of the subtribe Helopina to the genus *Nalassus* of the subtribe Cylindrinotina) was also made using structures of the head, male genitalia, terminalia and female genital tubes (NABOZHENKO *et al.* 2016). Some East Asian species were transferred from the genera *Tarpela* and *Cylindronotus* Faldermann, 1837 to the genus *Nalassus* based on these structures (NABOZHENKO 2012, NABOZHENKO & IVANOV 2015). Thus, the genus *Nalassus*, which was previously considered as Western Palaearctic group (REITTER 1922, MEDVEDEV 1987), has the Holarctic range as well as the subtribe Cylindrinotina.

The subtribe Helopina is distributed in the Holarctic, Afrotropical, and partially in the Oriental and Neotropical regions. The taxonomic position of some African genera is unclear (SCHAWALLER 2012). Position of the genus *Afrohelops* Schawaller, 2012 with two species from Kenya and Mozambique is also unclear because male genitalia were not described, and they were figured schematically and only dorsally and laterally; female genital tubes were also not figured. It is likely that *Afrohelops* belongs to the subtribe Cylindrinotina since the parameres of species in this genus are separated by a distinct suture.

We established that the most species of Asian Helopini belong to the different genera, and not to *Tarpela*, based on the structure of head, male genitalia, terminalia and female genital tubes. The range of the genus *Tarpela* comprises North and Central America. The type species of the genus *Tarpela*

brownii Bates, 1870 was described from Nicaragua. This species belongs to the subtribe Helopina and has 'helopoid' male genitalia, terminalia and female genital tubes, while the most of Palaearctic "*Tarpela*" have 'nalassoid' ones and belong to the subtribe Cylindrinotina. Polyphyly of the genus *Tarpela* was partly shown in the papers of CIFUENTES-RUIZ *et al.* (2014) and NABOZHENKO and IVANOV (2015). At the first time, a species *Tarpela cordicollis* (Marseul, 1876) was interpreted as a member of the subtribe Cylindrinotina. Within the Eastern Palaearctic Helopini only the genera *Apterotarpela*, *Nipponohelops*, *Catomus* and *Stenohelops* belong to the subtribe Helopina. Position and differences of Asian '*Tarpela*' from the real American genus *Tarpela* are discussed below.

In the present work, morphological characteristics of subtribes and genera of the tribe Helopini (except for some recently described species) are given for taxa distributed in the Eastern Palaearctic region.

The Oriental species *Tarpela asperipennis* Fairmaire, 1888, *T. regularis* Pic, 1925 (= *T. semirufescens* Pic, 1929), *T. helopioides* Kaszab, 1980, *T. vietnamica* Kaszab, 1980, *T. becvari* Masumoto, 1996 will be revised in a separate work.

MATERIAL AND METHODS

The depositories of the specimens and its abbreviations used in this study are as follows: MNHP, Muséum National d'Histoire Naturelle (Paris, France); CKA, private collection of Kiyoshi Ando (Osaka, Japan); CN, private collection of Maxim Nabozhenko (Makhachkala, Russia); ZIN, Zoological Institute of the Russian Academy of Science (St Petersburg, Russia); BNHM, Natural History Museum (London, Great Britain); HNHM, Department of Zoology, Hungarian Natural History Museum (Budapest, Hungary); EUM, Ehime University Museum (Matsuyama, Japan); Osaka Museum of Natural History (Osaka, Japan); NMNS, National Museum of Nature and Science, Tsukuba (Japan); NHMB, Natural History Museum of Basel (Switzerland); MHU, Hokkaido University Museum, Hokkaido University (Sapporo, Japan); SNMS, Staatliches Museum für Naturkunde (Stuttgart, Germany); CSB, private collection of Stanislav Bečvář (Prague, Czech Republic).

RESULTS AND DISCUSSION

Tribe Helopini Latreille, 1802 Subtribe Helopina Latreille, 1802 (Figs 1–6)

General differential morphology. Adult. Head always without posterior grooves beginning at lower aspect of the eyes. Labrofrontoclypeal membrane exposed (labrofrontoclypeal membrane originate under the anterior edge of the frontoclypeus) in Palaearctic species and hidden (labrofrontoclypeal membrane originates from inner side of the frontoclypeus) in many Nearctic species. Abdominal ventrite 5 is beaded dorsally and along margin.

Male genitalia. Apical piece with strong spines or setae directed toward the base (Figs 4A,B,G,H,L,M). Alae of apical piece are very long, merged, completely concealing median lobe, reaching base of basal piece (Figs 4A,G,L). Basal piece separated from alae by connecting membrane along whole length. Median lobe acuminate or rounded apically, often with two apices, with sclerotized baculi, which are connected in basal third (Figs 4C,I,N).

Female genital tubes. Spermatheca has two or more long branches. Some genera have the one-way valve between spermathecal and accessory gland ducts (NABOZHENKO *et al.* 2016).

Larva. Abdominal segment IX without small cylindrical or conical protuberances at base of urogomphi. Abdominal tergite VIII often with one or two protuberances.

Comments. We didn't use characters of ovipositor and defensive glands, which are important in higher classification of Tenebrionidae (KENDALL 1974, MATTHEWS *et al.* 2010 etc.). The ovipositor is very similar within different genera of Helopini. Some differences can be found in a size and form of gonostyli, but these characters are variable even in a one genus (NABOZHENKO 2002, CIFUENTES-RUIZ *et al.* 2014). Only psammobiotic *Xanthohelops karacumicus* Nabozhenko et Medvedev, 2006 has unusual within Heloini fossorial ovipositor, with reduced gonostyli and strongly sclerotized and acute apical coxites (NABOZHENKO 2006). Defensive glands were not study, but KENDALL (1974) indicated close similarity of glands in *Nalassus laevioctostriatus* (Goeze, 1777) (subtribe Cyldrinitina) and *Helops caeruleus* (Fabricius, 1775) (subtribe Helopina).

Key to genera of the subtribe Helopina of Eastern Palaearctic

1. Base of elytra without short vertical border, humeral angles indistinct (Figs 5A–E) *Catomus*
- Base of elytra with distinct vertical border, humeral angles distinct (Figs 3A,C, 6A,B) 2
2. Eighth elytral interval connected with elytral margin apically (Figs 3D,E). Male protarsi not widened. Apical piece of aedeagus acute apically (Figs 4A,B). Male antennae short, not reaching half of elytral length *Apterotarpela*
- Eighth elytral interval connected with third or second interval apically. Male protarsi widened (Fig. 6A). Apical piece of aedeagus wide, widely rounded apically (Figs 4G,H,L,M). Male antennae long, reaching half of elytral length 3
3. Body smaller (8–11 mm), shiny, brown, with weak bronze shade (Fig. 6) *Stenohelops*
- Body larger (more than 12 mm), head and pronotum dull, elytra weakly shiny, black (Figs 1A,B) *Nipponohelops*

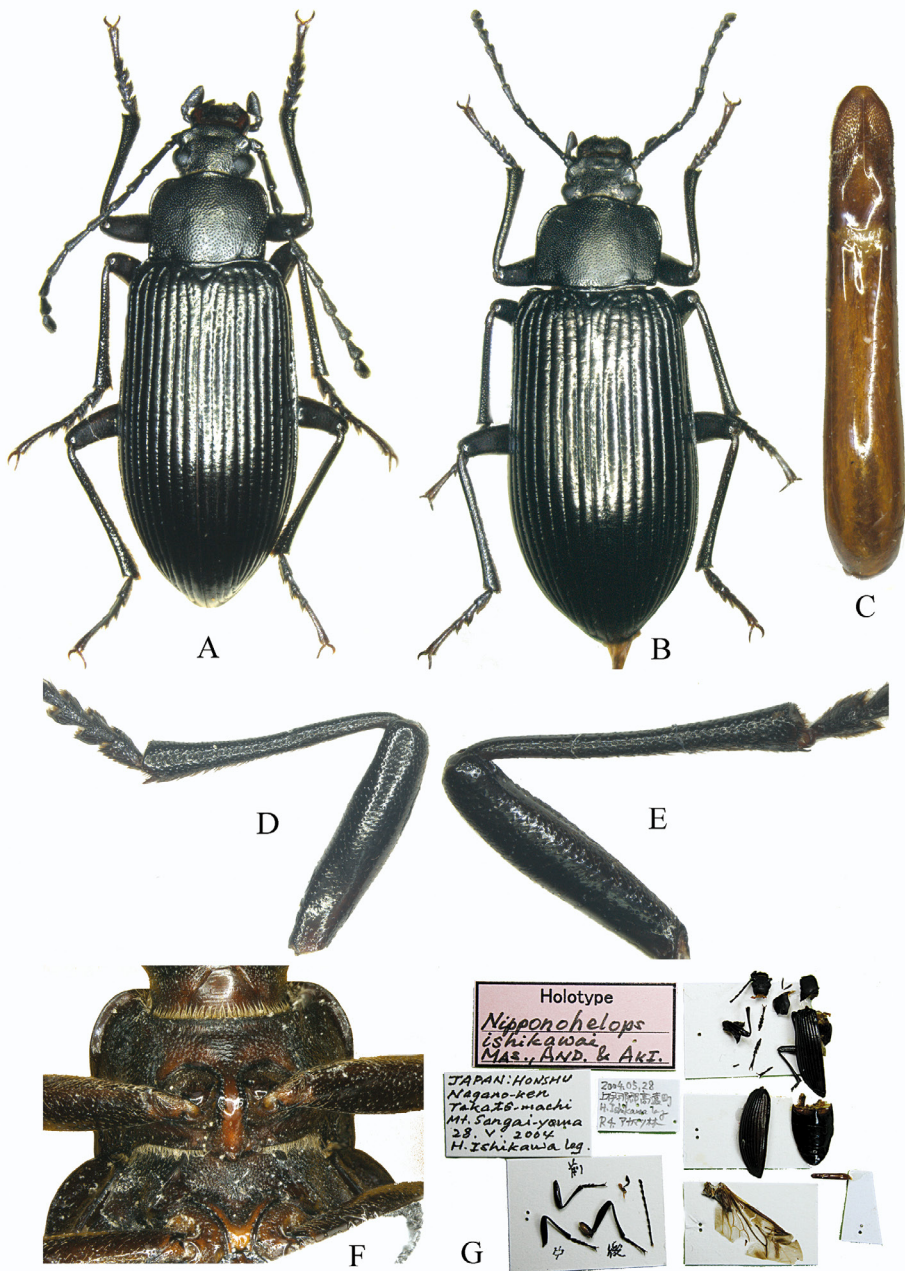


Fig. 1. *Nipponhelops ishikawai*: A = male, habitus, B = female, habitus, C = aedeagus, dorsal view, D = fore leg of male, E = middle leg of male, F = prothorax, ventral view, G = holotype and its labels

Nipponohelops Masumoto, Ando et Akita, 2006

Type species *Nipponohelops ishikawai* Masumoto, Ando et Akita, 2006, by original designation. Masumoto *et al.*, 2006: 33; Nabozhenko & Löbl, 2008: 253.

The detailed species description was given in the description of the genus.

Nipponohelops ishikawai Masumoto, Ando et Akita, 2006
(Fig. 1)

Masumoto *et al.*, 2006: 33, figs 1–9; Nabozhenko & Löbl, 2008: 253.

Type material examined. Holotype: ♂ (NMNS) (separated specimen, placed on 5 plates) with labels: "Holotype *Nipponohelops ishikawai* Ms., And. & Aki.", "Japan, Honshu, Nagano-ken, Takatô-machi, Mt. Sangai-yama, 28.V.2004, H. Ishikawa leg.", "2004.05.28 上伊那郡高遠町 H. Ishikawa leg. R4. アカマツ林".

Material examined. 1 ♂ (CKA), Mt. Mitsugai-san, Takatô, Ina City, Nagano, 15.V.2010 (leg. Kiyoshi Ando).

Distribution. Japan: Honshu (Central districts).

Apterotarpela Kaszab, 1954

Type species *Apterotarpela klapperichi* Kaszab, 1954, by monotypy.
Kaszab 1954: 262; Nabozhenko & Löbl, 2008: 247.

General morphology of adults. Body usually slender, strongly shiny, without or with weak metallic shade (Figs 3A–C). Head punctured by elongate punctures dorsally, with large convex eyes. Mentum without strong elevation at middle. Pronotum transverse; disc weakly depressed at each side near base, with elongate punctures; anterior angles not strongly projected. Prothoracic hypomera with fine dense wrinkles. Prosternal process weakly convex and weakly projected. Elytra with visible coeloconic sensilla in deep round small microfoveae, which are sometimes located in large tubercles on interstriae (Figs 3A,C); striae with furrows or elongate not connected foveae; eighth interstria carinate or weakly elevated apically, connected with elytral edge; epipleura not reaching sutural angles. Winged or wingless. Winged species have humeral elevation near base of elytra (Figs 3B,C). Mesoventrite simple, not strongly depressed at middle; lateral margins of mesocoxal process not strongly elevated and laterally flattened. Abdominal ventrite 5 completely beaded along apical surface, pubescent apically. Male pro- and mesotarsi not widened.

Male genitalia and terminalia. Aedeagus 'helopoid'; apical piece acute apically; median lobe with widely rounded apex (Figs 4A–C). Inner sternite VIII weakly sclerotized, without additional sclerotized armature (Fig. 4E). Gastral spicula with straight branches, lobes without lateral teeth (Fig. 4D).

Female genital tubes. Spermatheca without basal duct, without short common duct basally and with multiple long branches (Fig. 4F).

Comments and comparison. KASZAB (1954) compared this genus with Asian *Tarpela* and distinguished *Apterotarpela* by the absence of wings. STEINER (2009) indicated (by citation of HORN 1870) that the American *Tarpela* species are fully winged, whereas the majority of *Helops* species are flightless. ESPAÑOL

(1956) and recently NABOZHENKO with co-authors (KESKIN *et al.* 2017, NABOZHENKO *et al.* 2017) indicated that the presence, reduction or absence of hind wings in Helopini can be used as differential character only for species level. Comparative length of metaventrite, which relates with development of wings and often different even in closely related species. American *Tarpela*, *Helops* and *Nautes* are polyphyletic groups and the differential characters between these genera are not clear (CIFUENTES-RUIZ *et al.* 2014). Species of all three genera would be fully winged, species of Nearctic and Neotropic *Helops* have entire wings, reduced wings or wingless. The main and indistinct differences between *Nautes–Tarpela* and the New World *Helops* are in the structure of prosternal process and mesoventrite. *Tarpela* and *Nautes* Pascoe, 1876 have projected prosternal process and very deeply depressed mesoventrite with strongly elevate and flat or weakly convex lateral margins of mesocoxal process (Fig. 2D).

Apterotarpela can be compared with the New World *Helops*, from which it differs in the structure of eighth elytral interstriae connecting with elytral margin (American *Helops* and *Tarpela* have eighth interstria not connecting with elytral margin (Fig. 2F)), elytra with dorsal epipleural carina not reaching apex (but reaching eighth interstria) (Figs 3D, E) and surface of prothoracic hypomera with fine wrinkles, (not coarse punctures or deep and coarse not interrupted ribs as in the genera *Helops*, *Tarpela* (Fig. 2E) and *Nautes*). In addition, *Apterotarpela* differs from New World *Tarpela* in the structure of mesoventrite (see general morphology of *Apterotarpela*). See difference of *Apterotarpela* from *Nipponohelops* in the key.

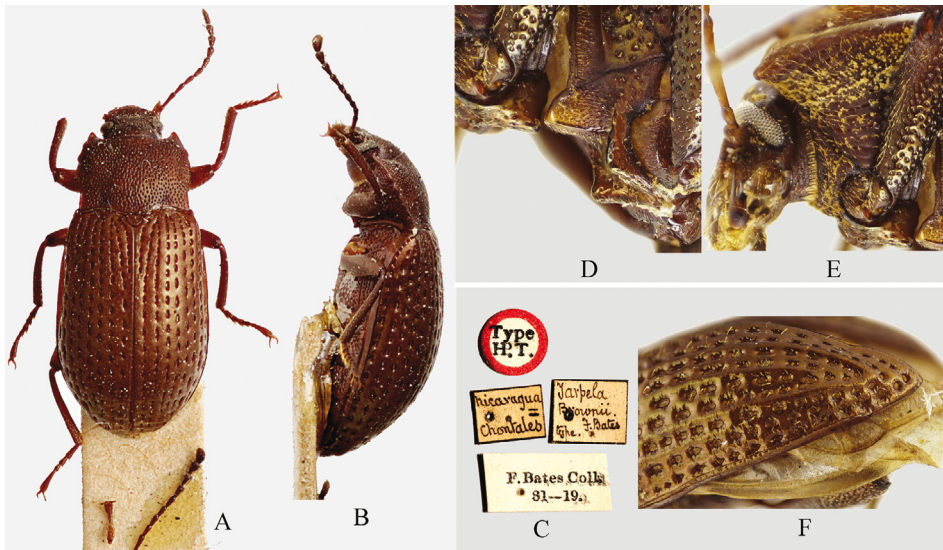


Fig. 2. New World species of the genus *Tarpela*: A = *T. brownii* Bates, holotype, dorsal view, B = The same, lateral view, C = *T. brownii*, labels of the holotype, D = *T. costata* Champion, mesoventrite, ventro-lateral view, E = the same, hypomera and head, F = the same, apex of elytron

Two Chinese species of *Tarpela* described by KASZAB (1954), *T. clypealis* and *T. subasperipennis*, have all characters of *Apterotarpela* excluding presence of fully developed wings and must be transferred to this genus. All three species of *Apterotarpela* externally similar to *Nalassus*.

Comparative material examined: *Tarpela brownii* Bates, 1870 (Fig. 2A–C) (type species of the genus *Tarpela*), holotype (BNHM) with labels: "Type H.T." (circle), "nicaragua = Chontales", "*Tarpela Brownii* F. Bates type.", "F. Bates Coll. 81–19"

Tarpela costata Champion, 1887 (Fig. 2D–F) (CN): 1 ♂, Mexico, Salcocotan, Nayant., 30.vii.1984 (leg. Barrera).

Distribution: The Eastern Palaearctic. China (Fujian).



Fig. 3. The genus *Apterotarpela*: A = *A. klapperichi*, habitus, B = *A. clypealis*, habitus, C = *A. subasperipennis*, habitus, D = *A. clypealis*, apices of elytra, E = *A. subasperipennis*, apices of elytra

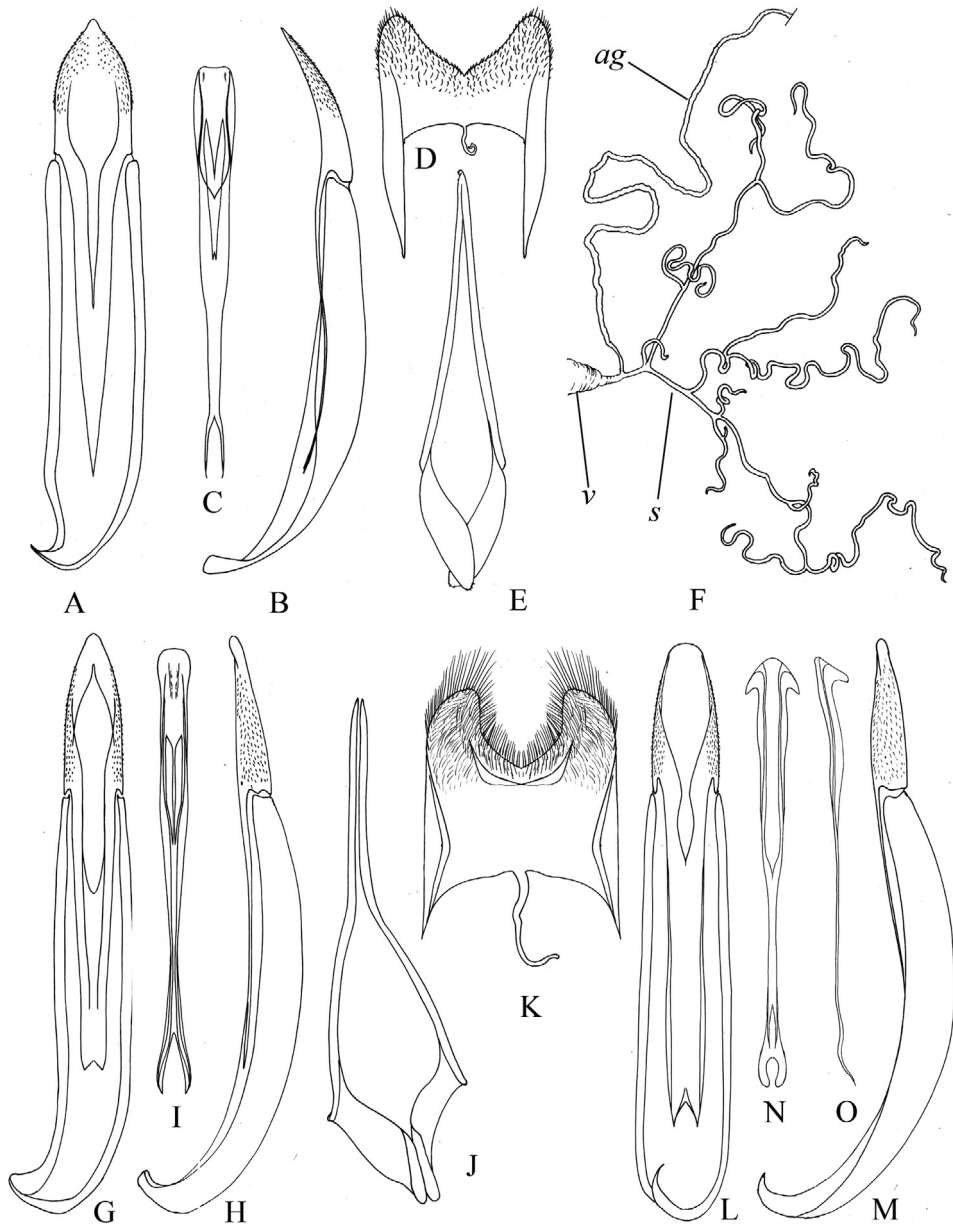


Fig. 4. Asiatic species of the subtribe Helopina (Tenebrionidae: Helopini), details of structure. *Apterotarpela clypealis* (A–F), *Catomus solitarius* (G–K), *Stenohelops chinensis* (L–O): A, G, L = aedeagus, ventral view, B, H, M = aedeagus, lateral view, C, I, N, O = median lobe of aedeagus (penis), D, K = gastral spicula, E, J = male inner sternite VIII, F = female genital tubes (*ag* – accessory gland of spermatheca, *v* – vagina, *s* – spermatheca)

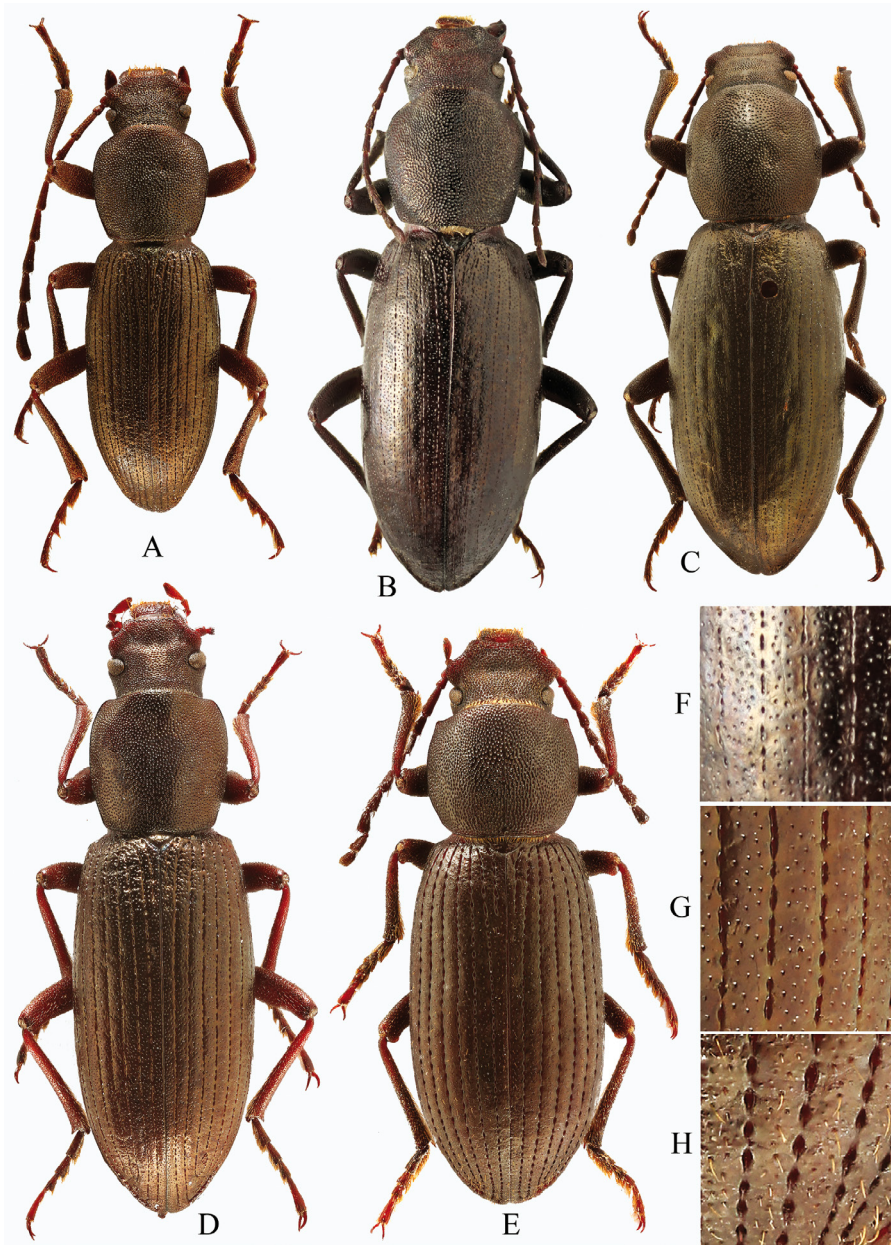


Fig. 5. Species of the genus *Catomus*, subgenus *Sinocatomus*. A = *C. solitarius*, male, Gansu (Wenxian), B = *C. solitarius*, female from Sichuan (Venchuan), C = *C. solitarius*, holotype, Sichuan (Nanping), D = *C. interruptus*, female from Gansu (Wudu), E = *C. stanislavi* sp. n., holotype, female, Yunnan, F = *C. solitarius*, elytral intervals, female, G = *C. interruptus*, elytral intervals, female. H = *C. stanislavi* sp. n., elytral intervals, female

Apterotarpela klapperichi Kaszab, 1954
(Fig. 3A)

Kaszab, 1954: 262; Nabozhenko & Löbl, 2008: 247.

Type material examined. Paratype, ♀ (HNHM): "Kuatun (2300m) 27,40 n Br. 117.40ö L. J. Klapperich. 22.3.1938 (Fukien)", "Paratypus 1954 *Apterotarpela Klapperichi* Kaszab"
Distribution. China (Fujian).

Apterotarpela clypealis (Kaszab, 1954), **comb. nov.**
(Figs 3B, D; 4A–F)

Kaszab, 1954: 260 (*Tarpela*); Nabozhenko & Löbl, 2008: 256 (*Tarpela*).

Material examined. 1 ♂, 1 ♀ (HNHM): China, Fukien, Kuatun, 20–26.v.1946. leg. Tsung-sen / *clypealis* Kasz. det. Kaszab.
Distribution. China (Fujian).

Apterotarpela subasperipennis (Kaszab, 1954), **comb. nov.**
(Figs 3C, E)

Kaszab, 1954: 261 (*Tarpela*); Nabozhenko & Löbl, 2008: 257 (*Tarpela*).

Type material examined. Paratypes, ♀ (HNHM): "Kuatun, Fukien China 22.10.46 (Tschung-sen)", "Paratypus 1954 *Tarpela subasperipennis* Kaszab".
Distribution: China (Fujian).

Key to Palaearctic species of the genus *Apterotarpela*

- 1 Anterior margin of frontoclypeus widely emarginate. Elytral intervals without tubercles (Fig. 3B), coeloconic sensilla located on flattened surface of interstriae *A. clypealis*
- Anterior margin of frontoclypeus straight. Elytral intervals bearing tubercles with coeloconic sensilla (Figs 3A,C) 2
- 2 Elytral interval VIII strongly convex, keel-shaped. Elytra with rounded lateral margins. Wings strongly reduced *A. klapperichi*
- Elytral interval VIII flat. Elytra parallel-sided. Fully winged *A. subasperipennis*

Catomus Allard, 1876

Type species *Catomus persicus* Allard, 1876, by subsequent designation (GEBIEN, 1943).

The Asian species of the genus were partly revised by NABOZHENKO (2006, 2007, 2015a) with detailed descriptions and diagnoses of subgenera. Only two species of the subgenus *Sinocatomus* Nabozhenko, 2006 are known from Sichuan Province of China (NABOZHENKO 2006, LIU & REN 2010). This subgenus differs from other subgenera of *Catomus* by having the strongly convex keel-shaped eight interstria near apex.

Subgenus *Sinocatomus* Nabozhenko, 2006

Type species *Catomus solitarius* Nabozhenko, 2006, by original designation.

Catomus (Sinocatomus) solitarius Nabozhenko, 2006 (Figs 4G–K; 5A–C, F)

Nabozhenko, 2006: 852; Nabozhenko & Löbl, 2008: 249.

Type material examined: Holotype, ♀ (ZIN): China, North Sichuan, Nanping, 19.vi.2002 (leg. I. V. Shokhin).

Material examined. 1 ♂ (SNMS): China, S. Gansu, Wenxian, 32°58'N, 107°46'E, 31.v.–2.vi.1996 (leg. V. Beneš & Štěpař); 1 ♀ (SNMS): China, Centr. Sichuan, near Venchuan, 27–29.v.1995 (leg. V. Beneš).

Distribution. China (Sichuan, Gansu).

Catomus (Sinocatomus) interruptus Liu et Ren, 2010 (Fig. 5D, G)

Liu & Ren, 2010: 71.

Material examined. 1 ♀ (CSB): China, Gansu, Wudu, 2–7.vi.1996 (leg. E. Kučera).

Distribution. China (Gansu).

***Catomus (Sinocatomus) stanislavi* sp. n.** (Figs 5E, H)

Type material: Holotype, ♀ (CSB): China, Yunnan, Daju, 7–10.vi.1995 (leg. E. Kučera).

Description. Body elongate, cylindrical, brown, without bronze shade. Head and pronotum moderately shiny, elytra matt. Head widest at genal level, covered with short recumbent hairs, widely deeply emarginate at anterior margin, elevated at genae and lateral margins of frontoclypeus; frontoclypeus depressed on surface; eyes oblique, transverse, convex; lateral margins with deep rounded emargination between genae and frontoclypeus; genae strongly protrudent, rounded; temples coarsely and sparsely punctured; vertex with very coarse punctation along laryngeal emargination and with coarse transverse wrinkles in gular area; ratio of the width at eyes to distance between eyes 1.34; ratio at the genal level to interocular distance at eye level 1.06; punctation very coarse and dense,

punctures round, connected with each other. Mentum, cardo and stipes with dense pubescence. Antennae short, with two distal antennomeres extended beyond base of pronotum; antennomere XI shorter than X, trapezoidal.

Pronotum transverse (1.17 times as wide as long), widest at middle, with base narrower than anterior margin, 1.36 times as wide as head; lateral margins moderately rounded, weakly sinuate near anterior angles; anterior margin widely rounded, widely sinuate near anterior angles; base evenly rounded; anterior angles projected, acute, posterior angles not expressed; all margins finely beaded; the bead of anterior margin not clear at middle; disc strongly evenly convex; punctures coarse and dense, weakly longitudinal, rounded near margins, and merged in anterior half of disc. Prothoracic hypomera with coarse transverse wrinkles. Prosternum before coxae with coarse and dense foveae; prosternal process broadened to apex, weakly convex.

Scutellum transverse, evenly rounded. Elytra elongate (1.90 times as long as wide), widest at middle, 1.70 times as wide as head, 1.27 times as wide as and 2.87 times as long as pronotum, covered with suberect short hairs; striae punctures deep, large, lanceolate, connected by fine furrows; inerstriae very weakly convex with fine and sparse rasp-shaped punctation.

Mesoventrite devoid of V-shaped depression, with very coarse and dense punctation. Mes- and metepisterna and metaventrite with coarse and sparse punctation. Abdominal ventrite 1 with coarse and sparse punctation (diameter of puncture subequal to interpuncture distance); ventrites 2–5 with denser punctation (diameter of puncture a little longer than interpuncture distance); ventrite 5 with wide bead and very coarse suberect hairs.

Legs slender; tibiae straight. Femora with subrecumbent hairs. Tibiae on inner side and tarsi on plantar surface with dense pubescence.

Body length 12.5 mm, width 4.2 mm.

Etymology. The new species is named in honour of Mr Stanislav Bečvář (Prague, Czech Republic), who provided us an interesting material from his nice collection of Tenebrionidae.

Differential diagnosis. See in the key to the species.

Key to species of the Eastern Palaearctic *Catomus*

1. Anterior angles of pronotum projected and acute (Fig. 5E). Elytra with rasp-shaped punctures and suberect hairs (Fig. 5H) *C. stanislavi* sp. n.
- Anterior angles of pronotum not projected and widely rounded (Figs 5A–D). Elytra glabrous (Figs 5F,G) 2
2. Head widest at eye level (Fig. 5D). Abdominal ventrite 5 without dense hair brush apically, only with simple recumbent setae *C. interruptus*
- Head widest at eye and genal level, otherwise only at genal level (Figs 5A–C). Abdominal ventrite 5 with dense brush of suberect hairs *C. solitarius*

Stenohelops Reitter, 1922

Type species: *Isopedus plicatulus* Kraatz, 1880, by subsequent designation (GEBIEN, 1943).

General morphology of adults. Body small or moderate in size (body length 3.5–11 mm), slender, convex, brown or rarely black, shiny, sometimes with bronze shade. Eyes weakly transverse, oval or rarely almost round (subgenus *Gunarellus* Reitter, 1922). Anterior margin of frontoclypeus straight. Male antennae long, with 4–5 apical antennomeres extending beyond base of pronotum, male with elongate banana-shaped ultimate antennomere (Fig. 6A). Pronotum always more or less cordiform (Fig. 6). Prothoracic hypomera with transverse wrinkles (subgenus *Stenomaleis* Español, 1957), with punctures (*Stenohelops* s. str., *Gunarellus*) or with combined wrinkles and punctures (some *Gunarellus*, *Stenomaleis*). Prosternal process weakly convex, not protrudent. Base of elytra with clear vertical border (pronotum rest against this border) and rounded, produced humeral angles. Elytra convex; interstriae sometimes with small granules, eighth interstria neither convex nor keel-shaped, connected with II–III interstriae apically and not connected with elytral margin; epipleura not reaching elytral apex, regularly narrowed to elytral sutural angles, with dorsal carina usually invisible dorsally. Legs slender, male protarsi widened.

Male genitalia (Figs 4L–O). Aedeagus ‘helopoid’; apical piece acute or rounded apically; median lobe with rounded bifurcate apex.

Female genital tubes. Spermatheca without basal duct, with short common duct basally and multiple branches.

Larvae unknown.

Composition. The genus contains 24 species (NABOZHENKO & LÖBL 2008, NABOZHENKO 2016) and is divided into three subgenera: s. str., *Stenomaleis* and *Gunarellus*. Differences between these subgenera are not distinct. *Gunarellus* differs from other subgenera by not beaded elytral suture at apex (not clear character within genus) and usually pubescent head or all body dorsally. *Stenomaleis* differs from nominotypical subgenus in the wrinkled (punctured in *Stenohelops* s. str.) prohypomera, but this character is constantly variable (combined, with punctures and wrinkles or with only punctures or with only wrinkles) even in different populations of one species (NABOZHENKO & KESKIN 2009). No clear differences are recognized between Iberian and Moroccan species of the genus *Helopelius* Reitter, 1922 and *Stenohelops* (NABOZHENKO 2015b). One Chinese species can be formally placed to the subgenus *Stenomaleis* based on wrinkled prohypomera.

Distribution. The genus has disjunctive range as *Nalassus*: the main exclave occurs in the West Mediterranean region, the Balkans, Turkey and the Caucasus. The small generic exclave with a single species *S. chinensis* sp. n. is located in Southern China.

Subgenus *Stenomaleis* Español, 1957

Type species *Stenohelops ardoini* Español, 1957, by original designation.

***Stenohelops (Stenomaleis) chinensis* sp. n.**
(Figs 4L–O; 6)

Type material. Holotype (♂) and one paratype (♀) (CSB): China, Sichuan Pr., Abazhou: Nanping: Jizhaigou, 2000 m, 8–13.vi.1991 (leg. C. Holzschuh).

Male. Body slender, shiny, brown, with weak bronze tinge. Head straight at anterior margin of frontoclypeus; lateral margins distinctly emarginate between genae and frontoclypeus; genae with lateral margin angulate, strongly rounded at middle; eyes large, convex, obliquely transverse, with projected lower side; punctures on head coarse and dense, round and connected with each other at middle of frons; vertex very coarsely and densely punctured; gular area with transverse wrinkles and recumbent short setae; ratio of the width at eye level to interocular distance 1.52; ratio of the width at eye level to genal

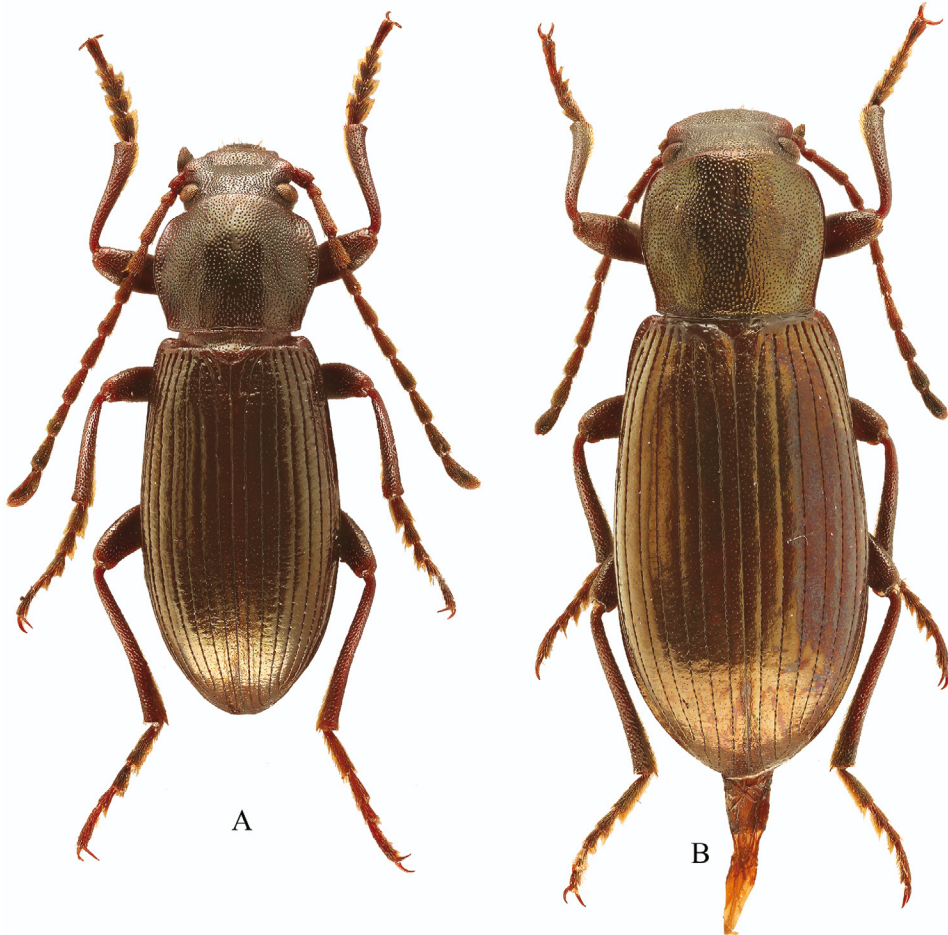


Fig. 6. *Stenohelops chinensis* sp.n., habitus: A = male, holotype, B = female, paratype

level 1.09. Mentum with small longitudinal convexity in anterior part of middle. Antennae long, with five apical antennomeres extending beyond base of pronotum, reaching middle of elytra. Comparative length of antennomeres II–XI as following: 0.8 : 2.8 : 1.9 : 1.8 : 2.1 : 2.1 : 2.3 : 2.1 : 2.1 : 2.6; ultimate antennomere weakly banana-shaped.

Pronotum cordate, weakly transverse (1.16 times as wide as long), 1.4 times as wide as head; lateral margins weakly rounded, emarginate just before base; anterior margin widely weakly rounded; base also weakly rounded and sinuate at middle; all margins finely beaded except for middle of anterior margin; disc moderately convex, with flattened lateral sides, with punctures coarse and dense as on head, elongate on sides. Prosternum before procoxae with coarse and sparse punctures (diameter of the puncture subequal to interpuncture distance); prosternal process weakly convex, beaded. Prothoracic hypomera with longitudinal wrinkles.

Scutellum strongly transverse, with rounded margins. Elytra elongate, widest at middle, twice as long as pronotum, 1.68 times as wide as head, 1.2 times as wide as and 2.88 times as long as pronotum; striae punctures merged in entire deep furrows; interstriae convex, transversely wrinkled in basal two-thirds and flattened in apical third, with very fine and sparse punctures.

Mesepimera, mes- and metepisterna and metaventrite with coarse, moderately dense punctures, diameter of the puncture 1.5 times as long as interpuncture distance. Abdominal ventrites with coarse and dense punctures such as on metaventrite, but a little smaller. Abdominal ventrite 5 with recumbent hairs apically.

Legs slender; pro- and mesotibiae straight; metatibiae weakly curved. Protarsomeres I–IV moderately widened; mesotarsi weakly widened; metatarsi not widened.

Body length 8.4 mm, width 3.0 mm.

Female. Body with stronger bronze tinge. Antennae shorter, only four apical antennomeres extending beyond base of pronotum, reaching basal one-fourth of elytral length. Pronotum more convex, weakly flattened at sides. Elytra wider in base, with all interstriae flat. Tarsi not widened. Body length 10.9 mm, width 4.2 mm.

Etymology. Named after the country of China.

Differential diagnosis. This species differs from all known *Stenohelops* by flattened lateral sides of pronotal disc.

Subtribe Cylindrinotina Español, 1956 (Figs 7–26)

General differential morphology. Adult. Head with (Figs 14A, 18A) or rarely without posterior grooves (Figs 20A, 23A) or with deep wrinkle (Figs 8B, 16A) beginning at lower aspect of the eyes. Labrofrontoclypeal membrane always exposed. Abdominal ventrite 5 not beaded along outer margin in most of all taxa excluding *Microdocnemis* Nabozhenko et Keskin, 2010 (but often with finely beaded posterior end).

Male genitalia. Apical piece flattened laterally at apex (Figs 7B,F, 17B,G,L), with punctation, each puncture with very small seta directed toward the apex ('nalassoid' type of genitalia) or apical piece flattened dorso-ventrally at apex (Figs 7G), neither punctured nor setiferous ('cylindrinotoid' type of genitalia). Alae of apical piece moderately long, merged, concealed only half of median lobe, not reaching base of basal piece (Figs 7A,E,I,O, 17A,F,K). Basal piece separated from alae by connecting membrane only in apical half, with connecting membrane between margins in basal half. Median lobe acute

apically, only with one apex, with weakly sclerotized baculi, which are not connected at base. Female genital tubes. Spermatheca composed of single long tube and short accessory gland (Figs 7M, 17P). Only the subgenus *Caucasohelops* Nabozhenko, 2006 of the genus *Eustenomacidius* Nabozhenko, 2006 has multibranching spermatheca (NABOZHENKO 2006). Valve between spermathecal and accessory gland ducts is absent.

Larva. Abdominal segment IX with small cylindrical or conical protuberances at base of urogomphi. Abdominal tergite VIII without protuberances.

Key to genera of the subtribe Cylindrinotina of the Eastern Palaearctic region

1. Prosternum punctured before procoxae (Figs 8C, 10F,H, 13F, 14A) or with smooth wrinkles and punctation (Fig. 11H). Prosternal process slightly convex in male and female, with not projected apex, and without teeth (Figs 8A,D, 10F,H, 11H, 13F, 14B). Male tibiae simple, without teeth (Figs 8A, 10C,D, 11D,E,F, 13C,D). Female procoxae not elevated at sides

Nalassus

- Prosternum with long transverse wrinkles before procoxae (Figs 18B, 19C, 20B,C, 21F,G, 22C, 23B, 24F, 25B, 26E). Male prosternal process strongly projected, tooth-shaped at apex with two strong teeth at sides (Figs 18C, 20C,D, 21F,G,I, 22C,D, 23C, 24H, 25B,C, 26E,F); male protibiae modified, ladle-shaped, curved and widened and flattened apically, often with one or two teeth before apex; mesotibiae sometimes with line of strong teeth on inner side (Figs 18G,H, 21C,D, 22E,F, 23D, 24B–D, 25D,E, 26B,C,D). Female prosternal process depressed at middle, without teeth (Figs 18E,F, 19C); tibiae not modified; procoxae with elevated sides near trochanters (Fig. 18F)

***Asialassus* gen. n.**

Nalassus Mulsant, 1854

(Figs 7–16)

Type species: *Helops* (*Nalassus*) *dryadophilus* Mulsant, 1854, by subsequent designation (Nabozhenko, 2001).

General morphology of adults. Body medial in size (length 5–12 mm), brown or rarely black, usually shiny, rarely with metallic luster, but sometimes dull, moderately flattened. Head with posterior grooves beginning at lower aspect of eyes. This character is, sometimes, not clear and head with posterior longitudinal depression instead of the grooves. East Asian species mainly without these grooves. Eyes moderately large or small (subgenus *Caucasonotus* Nabozhenko, 2001), not strongly transverse. Antennae of male often with weakly or strongly thickened in each antennomere, rarely (in Japanese and Taiwanese species) male and female antennomeres not thickened. Anterior margin of frontoclypeus straight (excluding deeply emarginate in *N. melchiades* (REITTER, 1922)).

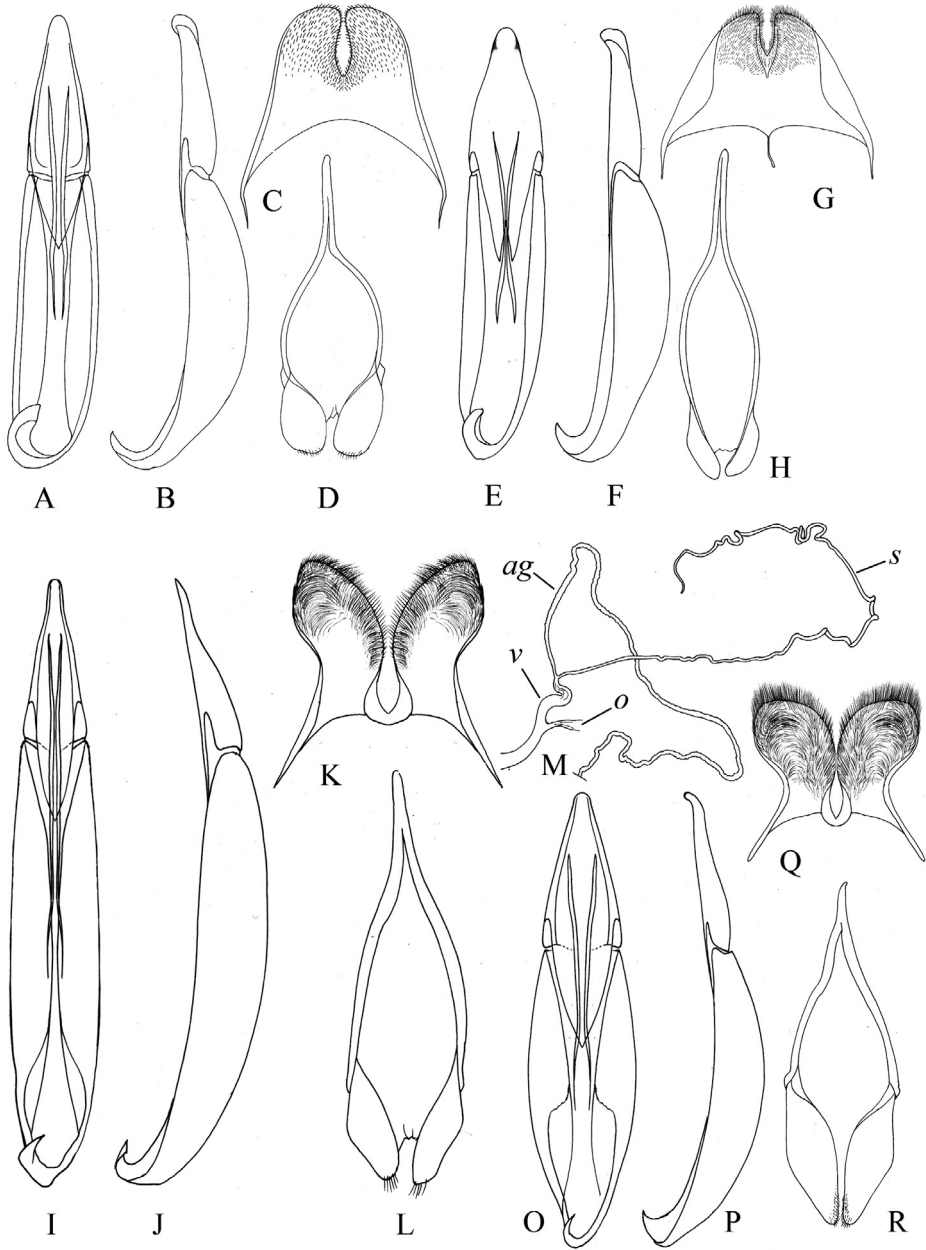


Fig. 7. The genus *Nalassus*, genital structure: *N.* (s. str.) *pilushenmuus* (A–D), *N.* (s. str.) *zoltani* (E–H), *N.* (*Nipponalassus*) *andoi* (I–M), *N.* (*Nipponalassus*) *lewisi* (O–R): A, E, I, O = aedeagus, ventral view, B, F, J, P = aedeagus, lateral view, C, G, K, Q = male inner sternite VIII, D, H, L, R = gastral spicula, M = female genital tubes (*ag* – accessory gland of spermatheca, *v* – vagina, *s* – spermatheca, *o* – oviduct)

Pronotum usually weakly convex. Prothoracic hypomera with longitudinal or irregular (*Caucasonotus*) wrinkles. Prosternum punctured, sometimes with smooth irregular wrinkles before procoxae. Prosternal process weakly convex, not projected apically, without teeth. Each elytron devoid of humeral callosity, with clear striae; punctures in striae normally confluent or connected (by furrow) with each other, often free from each other; interstriae with simple coeloconic sensilla, but without tubercles, eighth interstria apically more convex than other ones, connected with elytral margin; dorsal epipleural carina reaching eighth interval at apex; epipleura not reaching elytral apex and finished at level of abdominal ventrites 4 and 5. Hind wings completely developed or absent. The most of species are flightless, but some Japanese and probably Taiwanese species can fly (observations of junior author, K. A). Mesoventrite slightly depressed at middle. Metaventrite transverse, glabrous or rarely densely pubescent (subgenus *Nipponalassus* subgen. n.). Male abdominal ventrites 1, 2 and sometimes 5 often with dense or sparse (*Caucasonotus*) hair brushes. Legs moderately slender, tibiae simple, without teeth, not flattened nor curved. Male tarsi not widened or protarsomeres II–III slightly widened. Trochanters with single long seta, rarely (*Nipponalassus*) with dense hair brush.

Aedeagus 'nalassoid' (Figs 7A–D, E–H) (subgenera *Nalassus*, *Caucasonotus*, *Nipponalassus* in part) or 'cylindrinotoid' (Fig. 7I, J) (subgenus *Helopondrus* Reitter, 1922, one species of *Nipponalassus*, one species of the nominotypical subgenus).

Female genital tubes (Fig. 7M). Spermatheca consists of only one non-branched tube (the most of all subgenera) or the tube with several very short branches at the base. Accessory gland short, a little longer than spermatheca or subequal to spermathecal length. Basal duct of spermatheca present or short.

Comments. The genus is divided into four subgenera: nominotypical, *Helopondrus*, *Caucasonotus* and *Nipponalassus* subgen. n. The subgenus *Helopocerodes* Reitter, 1922 was recently placed in the junior synonym of the nominotypical subgenus (KESKIN *et al.* 2017). Species of the subgenus *Helopondrus* have 'cylindrinotoid' male genitalia and female genital tubes but clearly belong to the genus *Nalassus* on larval morphology (NABOZHENKO & ARTOKHIN 2017).

Composition. The genus contains recent species and subspecies: ten species and one subspecies in the Pacific Palaeartic region (China, Japan, Korean Peninsula, Taiwan, and the Russian Far East), three species in the Nearctic region (NABOZHENKO *et al.* 2016) and 68 species and subspecies in the Central and Western Palaeartic.

Key to the subgenera of the genus *Nalassus*

1. Abdominal ventrite 5 impressed at middle of apical half, emarginate at apex (Figs 13G, 14D, 16B,D). Trochanters with dense hair brushes (Figs 14B–D, 16C). Male profemora with projected and flattened margin dorsally and pubescent inner anterior margin (Figs 13C,D, 16E,F); metaventrite and abdominal ventrites partly with dense pubescence (Figs 14D,

16C,D). Male inner sternite VIII divergent at apex, very strongly and densely pubescent with long hairs (Figs 7K,Q)

Nipponalassus subgen. n.

- Abdominal ventrite 5 not impressed, with rounded apical margin. Trochanters with only one long sensillum (Fig. 8D, 10F,H, 11H). Male pro-femora simple (Figs 8A, 10E, 11G); metaventrite not pubescent. Male inner sternite VIII convergent at apex, with short, moderately dense hairs (Figs 7C,G) 2
- 2. Anterior angles of pronotum strongly projected, often with acute apex. Male abdominal ventrite 1 and sometimes 2 with coarse and sparse punctation of elongate punctures and sparse V-shaped hair brushes
Caucasonotus Nabozhenko, 2001
- Anterior angles of pronotum not projected, with widely rounded apex. Male abdominal ventrite 1, sometimes 2 and 5 with fine and dense punctation of round punctures and dense oval hair brushes 3
- 3. Aedeagus ‘cylindrinotoid’, flattened dorso-ventrally, without suture between parameres and punctation. Spermatheca with very short branches in basal third. Pronotum usually with elongate punctures laterally. Male antennomeres not thickened *Helopondrus* Reitter, 1922
- Aedeagus ‘nalassoid’, sparsely punctured, laterally with flattened keel at apex, and with apical suture between parameres; each puncture with very short seta directed apicad. Spermatheca without short branches. Pronotum with round punctures on sides. Male antennomeres often weakly to strongly thickened *Nalassus* (s. str.) Mulsant, 1854

Subgenus *Nalassus* Mulsant, 1854

Nalassus (*Nalassus*) *brunneus brunneus* (Marseul, 1876), **comb. n.**

(Fig. 8)

Marseul, 1876: 140 (*Helops*); Chûjô, 1975: 22 (*Tarpela*); Masumoto, 1993: 129, figs 1, 7 (*Tarpela*); Nabozhenko & Löbl, 2008: 256 (*Tarpela*); Jung, 2012: 44, fig. 22 in plates II, V, X, XIII (*Tarpela*).

= *Lamperos japonica* Allard, 1876: 46 (Type locality: “Japon”).

Material examined. 1 ♂ (CKA): Japan, Kagoshima Pref., Yakushima, Malaise trap, 250 m, 1–30.xii.2007 (leg. Takeo Yamauchi et al.); 1 ♂, 2 ♀ (CKA): Japan, Ohkawa Rindô, Yakushima, Satsuma, 3.v.2008 (leg. Kiyoshi Ando); 3 exs. (CKA), Dazaifu, Fukuoka, 3.vi.1974 (leg. Y. Kitsuki); 1 ♂, 1 ♀ (CKA), Suwa Temple, Nagasaki, 14.vi.1986 (leg. K. Ando); 1 ex. (CKA), Oshima, Kii, 29.iv.1959 (leg. Y. Kimura); 1 ♂ (CKA), Ashyû, Kyoto, 27.vi.1976 (leg. K. Ando); 3 exs. (CKA), Vill. of Four Seasons, Kyokushi, Kikuchi City, Kumamoto (Higo), 21.iii.2011 (leg. K. Ando); 2 exs. (CKA), ditto, 18.iii.2012 (leg. K. Ando);

2 exs. (CKA), Yukawa, Nachikatsuura, Kii, 21.iii.1994 (leg. M. Yoshida); 1 ♀ (CKA), Mt. Tara-dake, Nagasaki, 3.v.2006 (leg. K. Ando); 3 exs. (CKA), Yosakoe-Pass, Kikawamura Vill., Tosa, 25.ix.1999 (leg. S. Nagashima); 2 ♀ (CKA), Anbô, Yakushima, Satsuma, 6.v.2008 (leg. K. Ando); 2 exs. (CKA), Ohkawa Rindô, Yakushima, Satsuma, 3.v.2008 (leg. K. Ando); 1 ex. (CKA), Mt. Ukidake, Nanatsu Vill., Karatsu, Saga, 26.v.2007 (leg. K. Ando); 7 exs. (CKA), Japan, Kagoshima Pref., Hanyama, Yakushima Is., Malaise trap (H1 & H2), 250 m alt., 1–30.xii.2007, 25–28.xii.2006, and 2–29.iii.2008 (leg. T. Yamauchi et al.); 4 exs. (CKA), Japan, Kagoshima Pref., Yakushima Is., Mt. Aiko-dake, Malaise trap (AN3), 170 m alt., 2–30.iii.2008 (leg. T. Yamauchi et al.); 1 ex. (CKA), Japan, Kagoshima Pref., Yakushima Is., Mt. Aiko-dake, Malaise trap (AC2), 150 m alt., 26–29.i.2007 (leg. T. Yamauchi et al.); 1 ex. (CKA), Japan, Kagoshima Pref., Yakushima Is., Kankakei, Malaise trap (K1), 220 m alt., 27.II.–2.iii.2007 (leg. T. Yamauchi et al.).

Distribution. Japan: Honshu (Southwestern districts), Shikoku, Kyushu, Izu-Ôshima Is., Nii-jima Is., Hachijô-jima Is., Hirado-jima Is., Tsushima Is., Yakushima Is.; Korea? The species was listed for Korea only by HEYDEN (1887) and probably by misidentification.

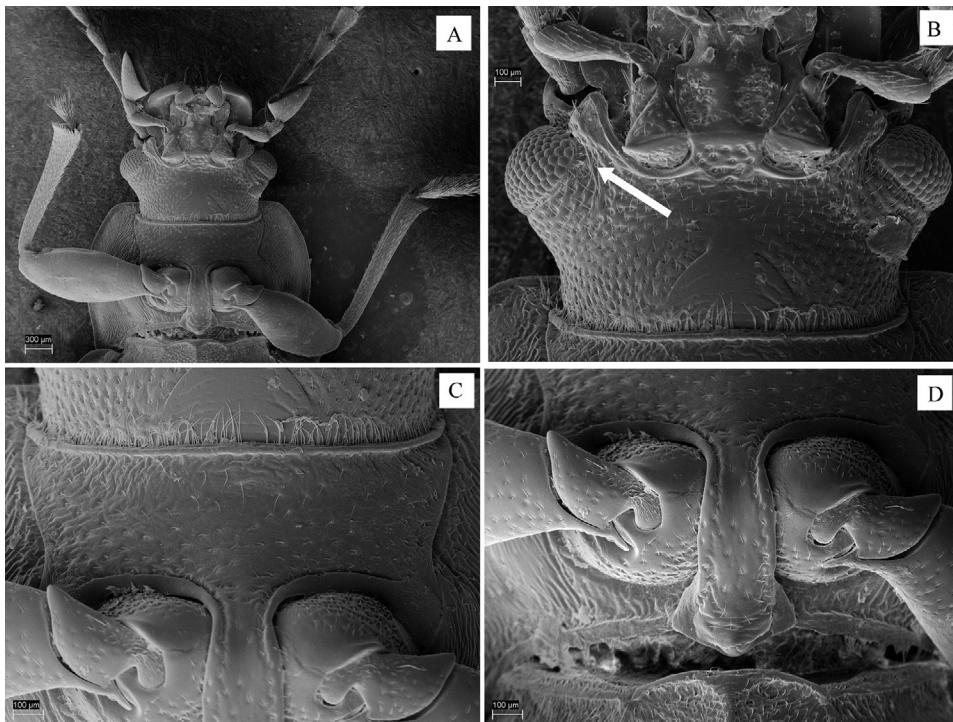


Fig. 8. *Nalassus* (s. str.) *brunneus brunneus*, details of structure: A = head and prothorax, ventral view, B = head, ventral view (arrow shows weakly developed posterior grooves beginning at lower aspect of eyes), C = prosternum, D = prosternal process, procoxae and protochanters

Nalassus (Nalassus) brunneus konoii (Nakane, 1963), **comb. n.**
(Fig. 9)

Nakane, 1963: 28 (*Tarpela*); Chûjô, 1977: 4; Chûjô, 1978a: 75 (*Tarpela*); Chûjô, 1978b: 15 (*Tarpela*); Masumoto, 1993: 129 (*Tarpela*); Nabozhenko & Löbl, 2008: 256 (*Tarpela*).

Type material examined. Holotype (MHU), ♂ with labels: "Holotype", "Naka-no-Shima, Iss. Tokara, S. Japan, IV.3-13.1953. Coll. Hiroshi Kono", "*Tarpela brunnea konoii* Nak. Det. T. Nakane. 1963", "115-21b", "Nakane Coll. SEHU Japan 1999".

Material examined. 1 ♂ (CKA): Japan, Sokobaru, Ishigaki Is., Yaeyama, 20.i.2012 (leg. T. Nakata).

Comments. This subspecies was interpreted as the junior synonym of the nominotypical subspecies by Jung (2012) without any arguments. We consider *N. brunneus konoii* as a good subspecies (see differences in the key to the species).

Distribution. Japan: Tokara Nakanoshima Is., Amami-Ôshima Is., Okinawa-jima Is., Ishigaki-jima Is., and Iriomote-jima Is.

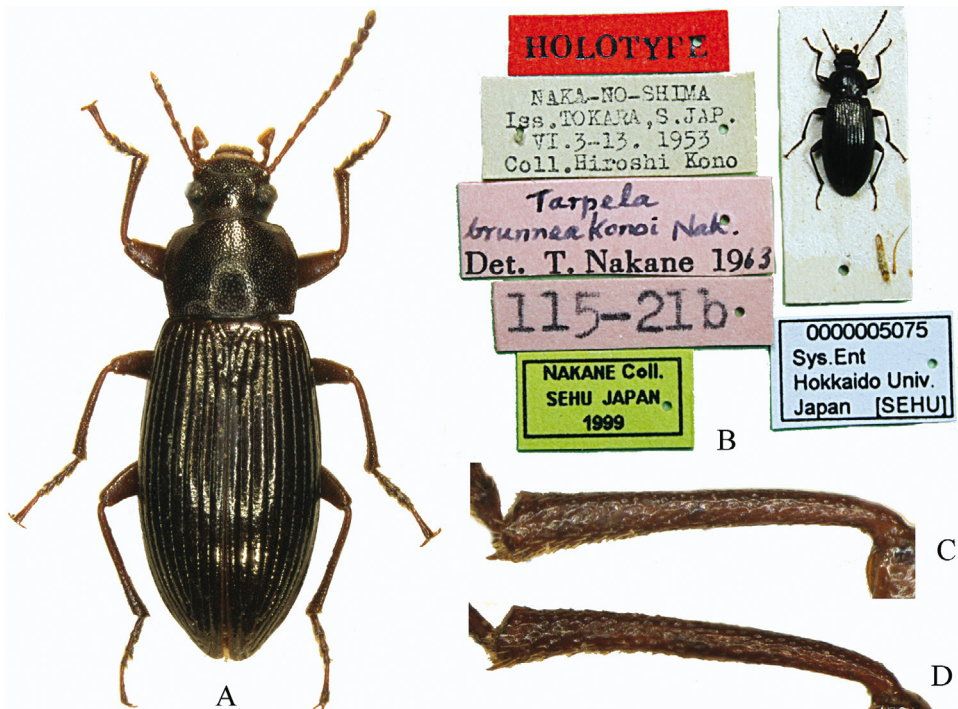


Fig. 9. *Nalassus brunneus konoii*, holotype, female: A = habitus, B = labels, C = protibia, D = mesotibia

Nalassus (Nalassus) pekinensis (Fairmaire, 1888)

Fairmaire, 1888: 130 (*Helops*); Gebien, 1911: 549 (*Helops*); Gebien, 1943: 427 (806) (*Cylindronotus insertae sedis*); Nabozhenko & Löbl, 2008: 241 (*Cylindrinotus*, insertae sedis); Nabozhenko, 2012: 35, figs 1, 2 (*Nalassus* (s. str.), new combination from *Cylindrinotus*).

Type material examined. Lectotype (designated by NABOZHENKO 2012), ♀ (MNHP), with labels: "Pekin", "*Helops pekinensis* Fairm. Pekin", "Muséum Paris Coll. L. Fairmaire", "Syntype" (curator's label).

Distribution. China (Beijing).

Nalassus (Nalassus) elegantulus (Lewis, 1894), **comb. n.**

Lewis, 1894: 478 (*Lamperos*); Kim & Kim, 1972: 79 (*Tarpela*); Kwon & Choi, 1986: 109 (*Tarpela*); Chûjô & Lee, 1993: 119 (*Tarpela*); Masumoto, 1993: 130, figs 2, 8 (*Tarpela*); Kim et al., 1994: 177 (*Tarpela*); Shin et al., 2000: 76 (*Tarpela*); Nabozhenko & Löbl, 2008: 257 (*Tarpela*); Akita & Masumoto, 2012: 279, figs 1, 13–16 (*Tarpela*); Jung, 2012: 46, fig. 24 in plates II, V, X, XIII; Ando et al., 2016: 72, fig. 40 (*Tarpela*).

Type material examined. Lectotype, ♂ (BNHM) with labels: "Lectotype" (circle), "Syntype" (circle), "*Tarpela elegantula* type ♂ Lewis", "Japan, G. Lewis, 1910–320" (designated by MASUMOTO 1993).

Material examined. 1 ♀ (CKA), Japan: Kanagawa, Zushi-shi, Junmu-ji, 18.iv.2012 (leg. Haruki Suenaga).

Distribution. Japan (Central Honshu); Taiwan? This species was recorded from Taiwan only by GEBIEN (1914: 40) from Kosempo and Koshun.

Nalassus (Nalassus) magyari (Kaszab, 1968)

Kaszab, 1968: 12 (*Tarpela*); Kwon & Choi, 1986: 109 (*Tarpela*); Kim et al., 1994: 177 (*Tarpela*); Nabozhenko & Löbl, 2008: 257 (*Tarpela*); Jung, 2012: 46, fig. 25 in pls. II, VI, X, IV, XVIII (*Tarpela*); Nabozhenko & Ivanov, 2015: 137 (*Nalassus (Helopocerodes)*).

Material examined. 2 ♂ (ZIN): South Korea, Gyeonggi-do province, Goyang city, Mt. Bukhan, temple Heungguk, 31.iii.2006 (leg. Taewoo Kim).

Distribution. Korean Peninsula; Japan?

Nalassus (Nalassus) akitai (Masumoto, 1998), **comb. n.**
(Fig. 10)

Masumoto, 1998: 317, figs 10, 33–34 (*Tarpela*); Nabozhenko & Löbl, 2008: 256 (*Tarpela*).

Type material examined. Holotype, ♂ (NMNS) with labels: "Holotype *Tarpela akitai* Masumoto", "Ryukyû: Iriomote Is. Maryûdo F. 22.XII.1995 Mas. Kimura", "Coll. Masumoto 2001".

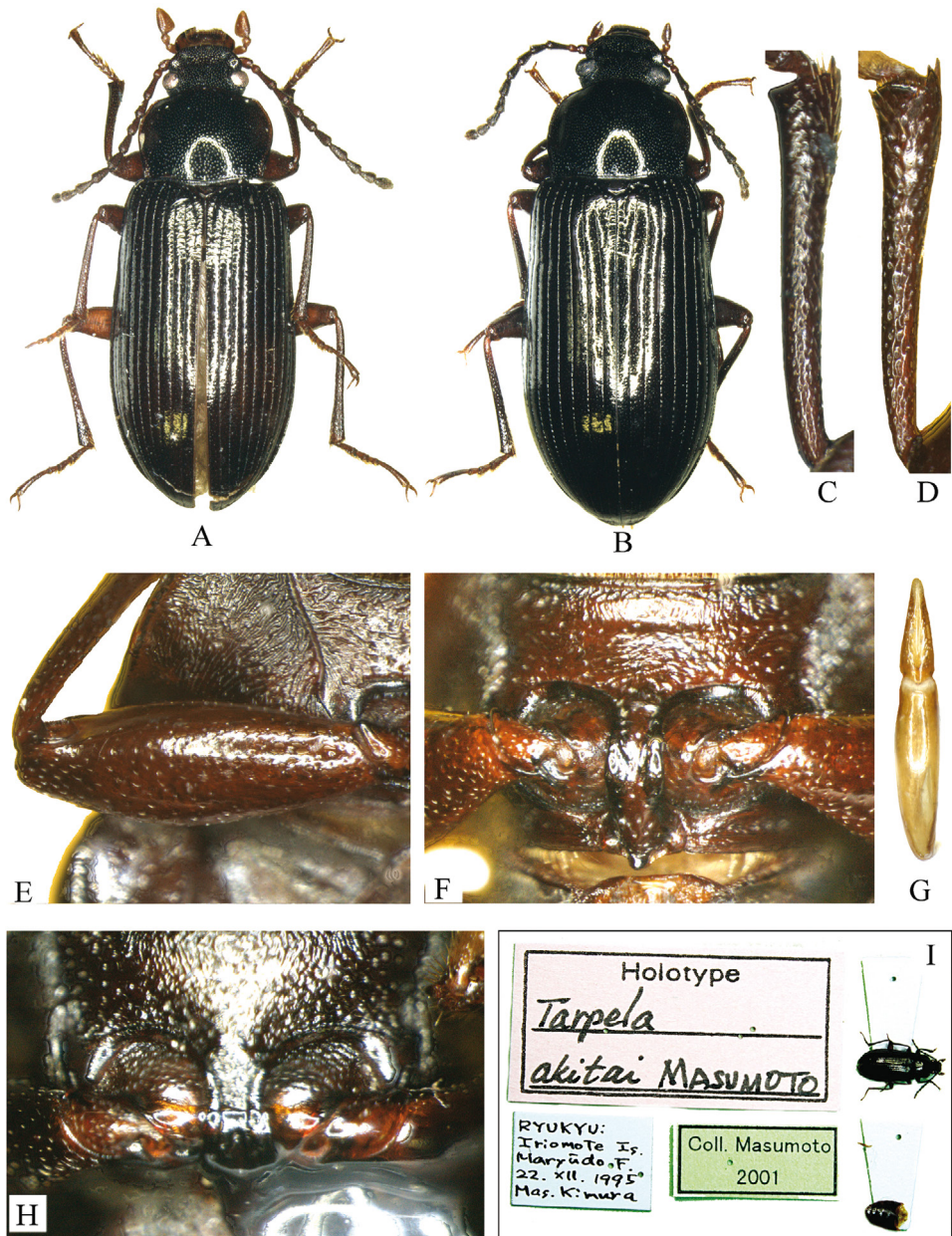


Fig. 10. *Nalassus* (s. str.) *akitai*, holotype and paratype: A = male, holotype, habitus, B = female paratype, habitus, C = male protibia, D = male mesotibia, E = male profemur, F = male prothorax, ventral view, G = aedeagus, dorsal view, H = female prothorax, ventral view, I = labels of the holotype

Material examined. 5 ♂, 2 ♀ (CKA), Ishigakijima Is.: Sokobaru, Okinawa, 20.i.2012 (leg. T. Nakata); 1 ♂, 1 ♀ (CKA), ditto, 14.i.2012 (leg. T. Nakata); 2 ♀ (CKA), [Ryukyu] Mt. Omoto-dake, Ishigaki-shi, 17.iii.2000 (leg. T. Kurihara).

Distribution. Japan (Yaeyama islands: Iriomote-jima Is., Ishigaki-jima Is., Yonaguni-jima Is.).

Nalassus (Nalassus) kawabatai (Akita et Masumoto, 2012), **comb. n.**
(Fig. 11)

Akita & Masumoto, 2012: 276, figs 3–2, 7–20 (*Tarpela*).

Material examined. 1 ♂, 3 ♀ (CKA), Nakanogô, Hachijo Is., 1.v.1967 (leg. S. Tsuyuki); 1 ♀ (CKA), Kurosaki-takaoyama, Mikurajima Is., 7.vi.1972, no Collectors data; 1 ♀ (CKA), Mikurajima Is., Izu islands, 28–30.v.2003 (leg. I. Tanaka); 1 ♀ (CKA), Miyake Is., Tsubota,

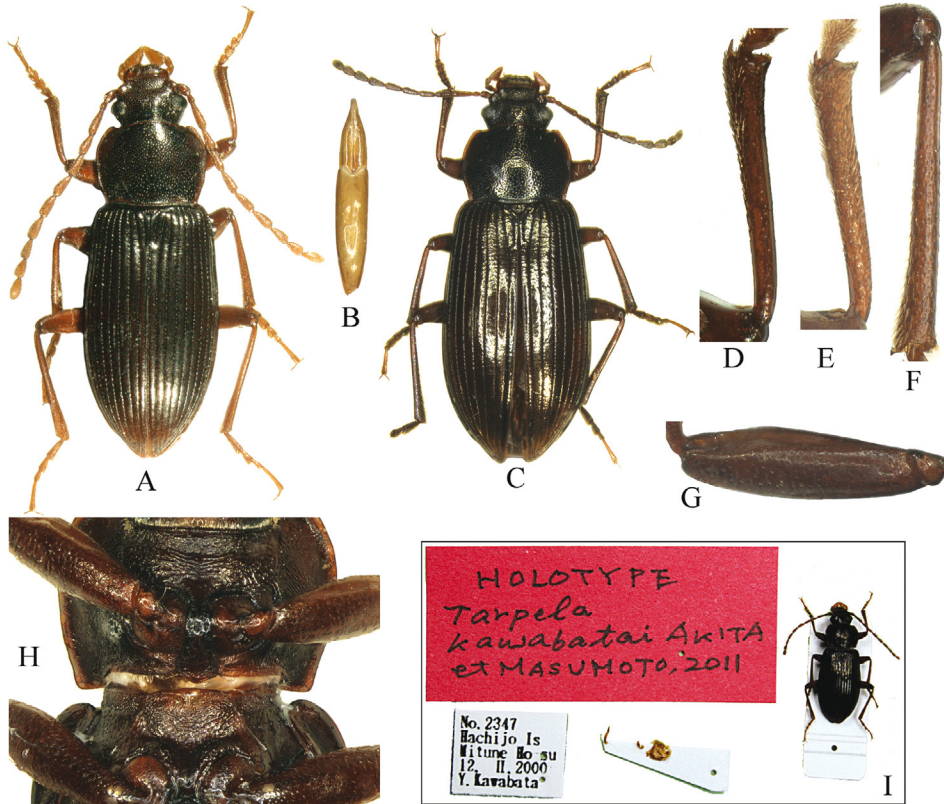


Fig. 11. *Nalassus* (s. str.) *kawabatai*, holotype and paratype. A = male, holotype, habitus, B = aedeagus, dorsal view, C = female paratype, habitus, D = male protibia, E = male mesotibia, F = male metatibia, G = male profemur, inner side, H = male prothorax, ventral view, I = labels of the holotype

15.vi.1971 (leg. M. Miyahara); 1 ♀ (CKA), Oshima, Izu, Tokyo, 4.vii.1971 (leg. M. Takakuwa).

Distribution. Japan: Izu Islands (Izu-Ôshima Is., Nii-jima Is., To-shima Is., Miyakejima Is., Mikura-jima Is., Hachijo-jima Is.).

Nalassus (Nalassus) olgae Nabozhenko et Ivanov, 2015

Nabozhenko & Ivanov, 2015: 138, figs 1–12 (*Nalassus (Helopocerodes)*).

Type material examined. Holotype, ♂ (ZIN) and 42 paratypes (21 ♂, 21 ♀) (ZIN and private collections of M. Nabozhenko and S. Ivanov) with label: “Russia, Primorsky kray, Oktyabrsky District, near Chernyatino, Sinelovka Mt., 17.05.–28.06.2014 (leg. S.N. Ivanov)”.

Distribution. Russia (Far East, Primorsky kray).

Nalassus (Nalassus) formosanus (Masumoto, 1981), **comb. n.**
(Fig. 12A)

Masumoto, 1981: 35, photo 15 (*Tarpela*); Masumoto et Kondo, 1984: 23 (*Tarpela*); Nabozhenko & Löbl, 2008: 257 (*Tarpela*); Ando et al., 2016: 24 (*Tarpela*); Masumoto et al., 2017: 2, figs 6, 18–19 (*Tarpela*).

Material examined. 1 ♀ (EUM): Taiwan: Taichung, Mt. Anmashan, alt. ca. 2275 m, 3.vii.2005 (leg. Hisamatsu S-T.).

Distribution. Taiwan.

Notes. MASUMOTO *et al.* (2017) indicated that punctuation of pronotum of this species is very dense, with sometimes connected elongate punctures. They studied the specimen from the same locality (Mt. Anmashan) in their series. The specimen examined by us has moderately dense punctuation of round not connected punctures. Length of beetles from the type series are 7–13 mm (MASUMOTO 1981), and in the recent key are 10.5–16 mm in contrast with all other smaller species (MASUMOTO *et al.* 2017, p. 10).

Nalassus (Nalassus) zoltani (Masumoto, 1981), **comb. n.**
(Fig. 12B)

Masumoto, 1981: 34, photo 14 (*Tarpela*); Masumoto & Kondo, 1984: 23; Nabozhenko & Löbl, 2008: 257 (*Tarpela*); Ando et al., 2016: 24 (*Tarpela*); Masumoto et al., 2017: 2, fig. 7 (*Tarpela*).

Material examined. 2 ♂ (CKA): Taiwan, Iylan, Tatung Township, alt. 1950 m, 30.iii.2004 (leg. T. Kurihara); 1 ♀ (CKA): Taiwan, Chia Hsien near Fenchifu, 10–11.iv.1995 (leg. H. Kojima)

Distribution. Taiwan.

Notes. The male of this species has been unknown. In our examination, the male differs from female in the deeply depressed strial punctures in the basal half of elytra, and very fine not depressed punctures in the apical half; protarsomeres I–IV are weakly widened, longitudinal; antennae are longer (fourth apical antennomeres extending beyond the base of pronotum, antennae reaching basal third of elytra), and pronotum is narrower (1.3 times as wide as long).

Nalassus (Nalassus) pilushenmuus (Masumoto, Akita et Lee, 2017), **comb. n.**
(Fig. 12C)

Masumoto et al., 2017: 2, figs 1, 8–9 (*Tarpela pilushenmuu*).

Material examined. 1 ♂ (CKA): Taiwan, Iylan, Tatung Township, alt. 1950 m, 30.iii.2004 (leg. T. Kurihara).

Distribution. Taiwan.

Notes. Masumoto *et al.* (2017) indicated in the description that male pronotum in this species is 1.2 times as wide as long. These measurements were used by the authors in the key: 9(10) "... width/length = ca 1.20 (♂)" and 10(9) "...

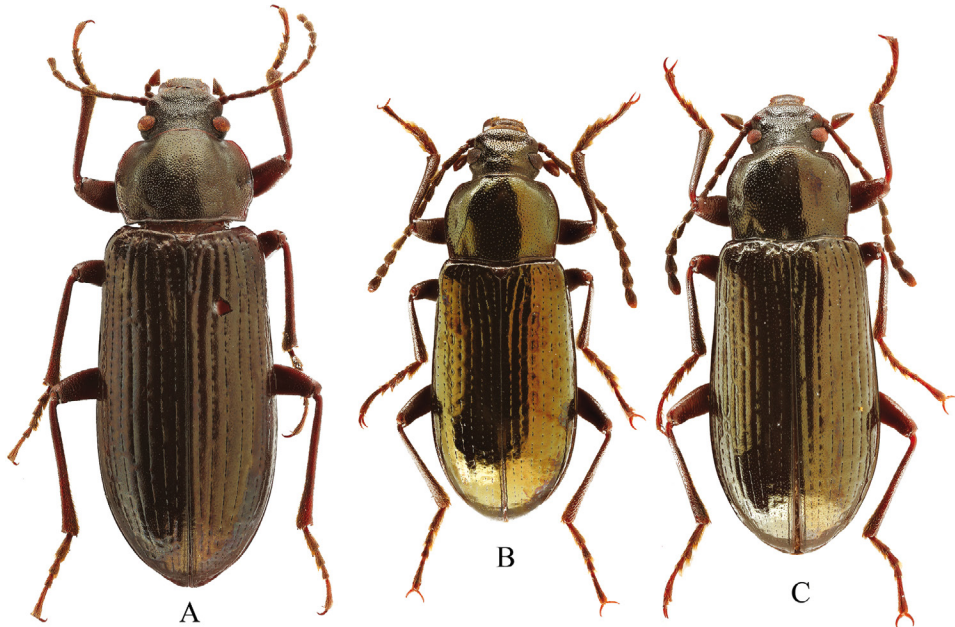


Fig. 12. *Nalassus* (s. str.) from Taiwan, habitus. A = *N. formosanus*, female, B = *N. zoltani*, male, C = *N. pilushenmuus*, male

width/length = 1.25–1.50 (♂)'. Measurements of pronotum on the photo of the holotype (Masumoto et al., 2017, fig. 1) clearly show that the pronotum is 1.28 times as wide as long. Our specimen has pronotum 1.27 times as wide as long. As a result, this character is not suitable for identification. It has much more distinct differential character such as external morphology of male protarsi, which are not widened in *Nalassus pilushenmuus* and distinctly widened in compared species *N. xiaoxueshanus* (Masumoto, Akita and Lee, 2017) and *N. dongurii* (Masumoto, Akita and Lee, 2017) (see MASUMOTO *et al.* 2017: figs 1, 3, 4).

Nalassus (Nalassus) yuanfengus (Masumoto, Akita et Lee, 2017), **comb. n.**

Masumoto et al., 2017: 4, figs 2, 10–11 (*Tarpela yuanfenga*).

Distribution. Taiwan.

Note. This species clearly belongs to the genus *Nalassus* based on the description, figures of male genitalia and the photograph of the holotype.

Nalassus (Nalassus) xiaoxueshanus (Masumoto, Akita et Lee, 2017), **comb. n.**

Masumoto et al., 2017: 6, figs 3, 12–13 (*Tarpela xiaoxueshana*).

Distribution. Taiwan.

Note. This species clearly belongs to the genus *Nalassus* based on the description, figures of male genitalia and the photograph of the holotype.

Nalassus (Nalassus) dongurii (Masumoto, Akita et Lee, 2017), **comb. n.**

Masumoto et al., 2017: 6, figs 4, 14–15 (*Tarpela*).

Distribution. Taiwan.

Note. This species clearly belongs to the genus *Nalassus* based on the description, figures of male genitalia and the photograph of the holotype.

Nalassus (Nalassus) merkli (Masumoto, Akita et Lee, 2017), **comb. n.**

Masumoto et al., 2017: 9, figs 5, 16–17 (*Tarpela*).

Distribution. Taiwan.

Note. This species clearly belongs to the genus *Nalassus* based on the description, figures of male genitalia and the photograph of the holotype.

Key to the species of the nominotypical subgenus
of the genus *Nalassus* of Eastern Palaeartic
(without Taiwan; for Taiwanese species see newest key in MASUMOTO *et al.* (2017))

1. Outer apex of prothrochanters acute, elevate above femoral level (Fig. 8D) *N. brunneus*
- Outer apex of prothrochanters rounded, not elevate above femoral level (Fig. 10H) 3
2. Elytra subparallel at sides. Male mesotibiae straight *N. brunneus brunneus*
- Elytra elongate-oval (Fig. 9A). Male mesotibiae curved (Fig. 9D) *N. brunneus konoii*
3. Elytral interstriae with punctures coarse and dense, subequal in width to distance between them.
- Elytral interstriae with fine and sparse punctures, whose interpuncture distance 2–4 times as wide as a diameter of puncture) 6
4. Elytral striae consist of round punctures connected by furrows. Abdominal ventrite 5 not beaded apically *N. pekinensis*
- Elytral striae consist of only deep furrows. Abdominal ventrite 5 completely beaded 5
5. Male metaventrite convex in anterior half, with smooth tubercle, and with T-shaped deep depression near base. Female metaventrite with weak convexity, divided by arcuate transverse wrinkles *N. olgae*
- Metaventrite in both sexes without convexity, tubercle and transverse wrinkles *N. magyari*
6. Body completely dull dorsally. Pronotum without two oblique deep or weak impressions near base *N. elegantulus*
- Body shiny dorsally at least head and pronotum. Pronotum often with two oblique deep or weak impressions near base 7
7. Male antennae slightly thicker than those in female, strongly elongate, with five distal antennomeres extended beyond base of pronotum, reaching middle of elytra. Pronotum in both sexes not cordate *N. kawabatai*
- Male antennae not thicker than in female, shorter, with three distal antennomeres extended beyond base of pronotum, reaching basal third or basal fourth of elytra. Pronotum in both sexes distinctly cordate *N. akittai*

Subgenus **Nipponalassus** subgen. n.
(Figs 13–16)

Type species: *Tarpela andoi* Masumoto, 1993

Diagnosis. Body slender, shiny, brown. Head with posterior grooves (Fig. 14A) or with single deep wrinkle (Fig. 16A) beginning at lower aspect of eyes. Eyes large, close with each other dorsally. Male antennae thin, not thicker than in female. Hind wings developed. Abdominal ventrite 5 thickened and depressed at middle of apical half, with apical margin emarginate,

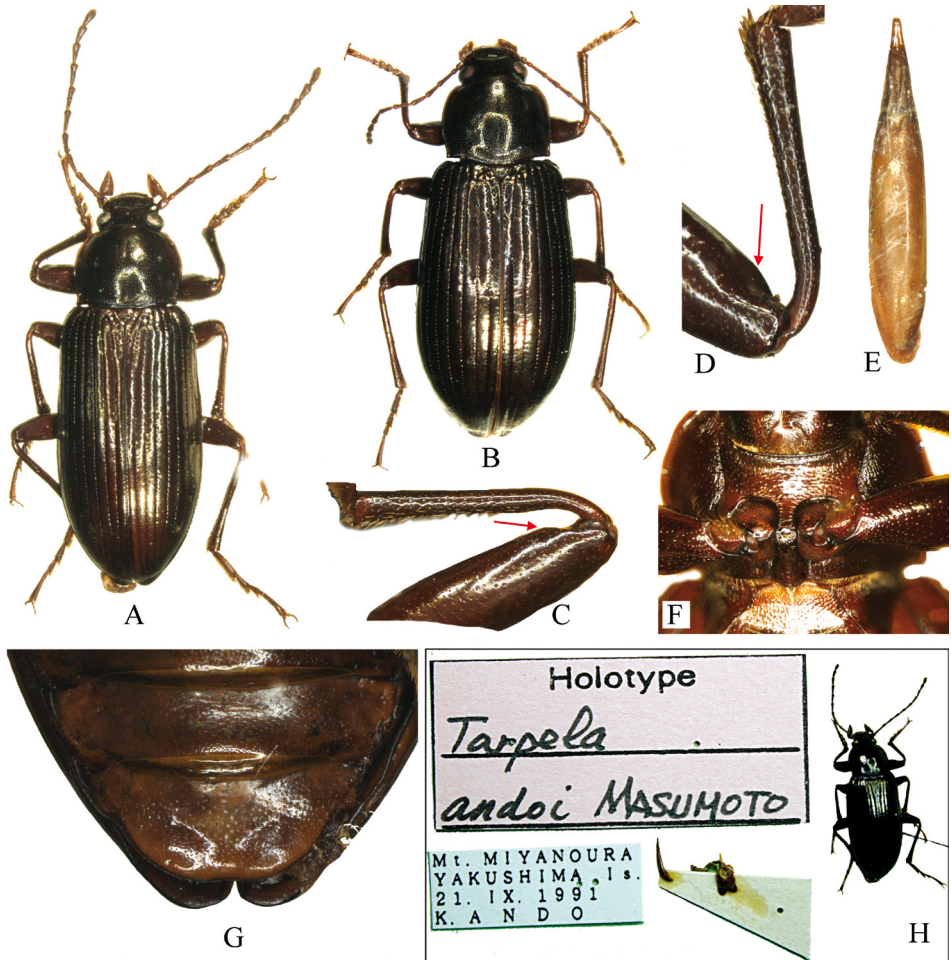


Fig. 13. *Nalassus* (*Nipponalassus*) *andoi*, holotype and paratype. A = male, holotype, habitus, B = female paratype, habitus, C = male fore leg, dorsal margin, D = male profemur, inner side, E = aedeagus, dorsal view, F = prothorax, ventral view, G = abdominal ventrite 5, H = labels of the holotype

and not beaded (Figs 13G, 14D, 16B, D). Trochanters with dense hair brushes (Figs 13F, 14B, C, 16C).

Additional characters of male. Mesoventrite covered with short setae and sparse long hairs along mesocoxae. Metaventrite densely pubescent at middle. Outer margin of prothorax slightly elevated. Inner dorsal margin of profemora protrudent, flattened, often with pubescence near apex. Abdominal ventrites 1 and 2 with dense pubescence at each middle.

Comparison. See key to subgenera of the genus *Nalassus*.

Composition. The subgenus includes only two Japanese species.

Nalassus (*Nipponalassus*) *andoi* (Masumoto, 1993), **comb. n.**
(Figs 7I–M, 13, 14)

Masumoto, 1993: 134, figs 4, 10 (*Tarpela*); Nabozhenko & Löbl, 2008: 256 (*Tarpela*).

Type material examined. Holotype, ♂ (EUM) with labels: "Holotype *Tarpela andoi* Masumoto", "Mt. Miyanoura, Yakushima Is. 21.IX.1991, K. Ando". Paratypes: 4 ♂, 2 ♀ (CKA), Mt. Miyamoura, Yakushima Is., 22.ix.1991, leg. K. Ando.

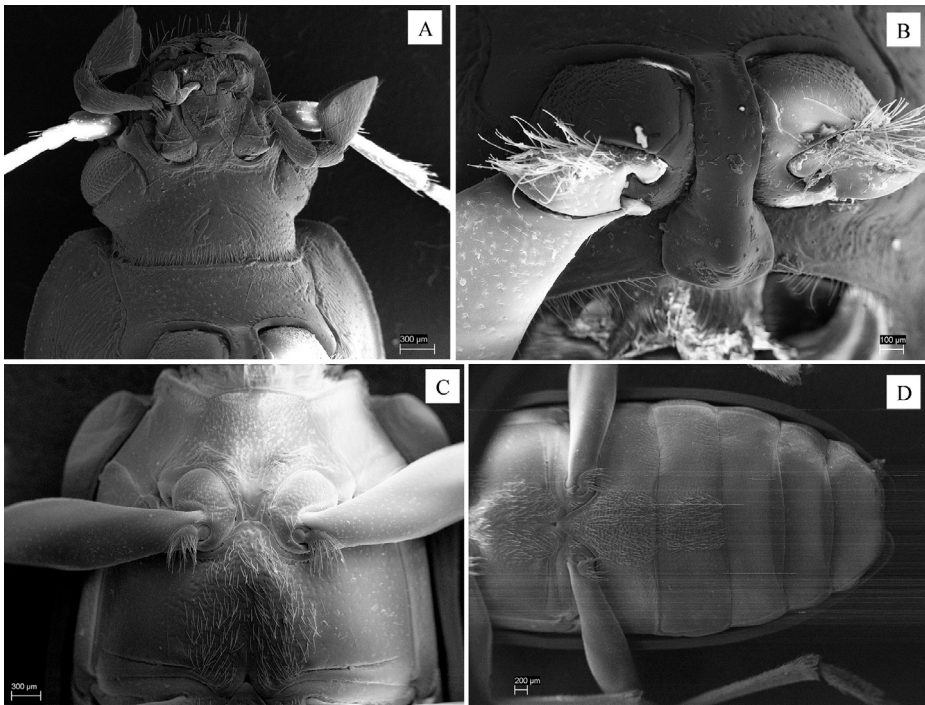


Fig. 14. *Nalassus* (*Nipponalassus*) *andoi*, details of structure. A = Head, ventral view, B = prothorax and base of fore legs, ventral side, C = male meso- and metaventrite, middle legs basally, D = male abdominal ventrites

Material examined. 1 ♂, 1 ♀ (CKA): Japan, Yakushima Is., Satsuma, Onoma-pass (Yodogawa), 1400 m, 13.ix.2002 (leg. N. Ohbayashi); 8 exs. (CKA), Onoma-pass (Yodogawa), Yakushima Is., Satsuma, alt. ca. 1,400 m, 14–15.ix.2002 (leg. N. Ohbayashi).

Distribution. Japan (Ōsumi Islands: Yakushima Island).

Nalassus (Nipponalassus) lewisi (Masumoto, 1993), **comb. n.**
(Figs 7O–R, 15, 16)

Masumoto, 1993: 132, figs 3. 9 (*Tarpela*); Nabozhenko & Löbl, 2008: 257 (*Tarpela*).

Type material examined. Holotype, ♂ (NMNS) with labels: “Holotype *Tarpela lewisi* Masumoto”, “Komagatake Hakone Date: 1-X-1966 Y. Miyake leg.”. Paratypes, 1 ♀ (CKA), Sasari Pass, Kyoto, 6.vii.1985, leg. K. Ando; 1 ♂ (CKA), Komagatake, Hakone, 1.x.1966, leg. Y. Miyake; 1 ♀ (CKA), Mt. Hira, Shiga, 3.vi.1957, leg. T. Shibata; 1 ♀ (CKA), Mt. Daihi, Kyoto, 16.vi.1957, leg. T. Shibata.

Material examined. 1 ♂ (CKA): Japan, Tokushima, Kayō town, Unagitodoroki Mt., 900–1040 m, 18.x.2008 (leg. Takashi Kurihara); 1 ♂, 2 ♀ (CKA): Japan, Tosa, Kikawamura vill., Yosakoegote pass, 25.ix.1999 (leg. S. Nagashima); 1 ♂, 3 ♀ (CKA), [Ehime-Pref.: Japan] Mt. Onigajyō, alt. 1,000–1,150 m, Uwajima City, 1–2.x.2008 (leg. T. Kurihara); 1 ♀ (CKA), Kuroson, Tosa, 22–23.v.1999 (leg. K. Ando).

Distribution. Japan: Honshu, Shikoku, Kyushu; S. Korea.

Key to species of the subgenus *Nipponalassus* subgen. n. (genus *Nalassus*)

1. Vertex with distinct deep posterior grooves beginning at lower aspect of eyes (Fig. 14A). Male without dense brush of goldish hairs at apex of ven-

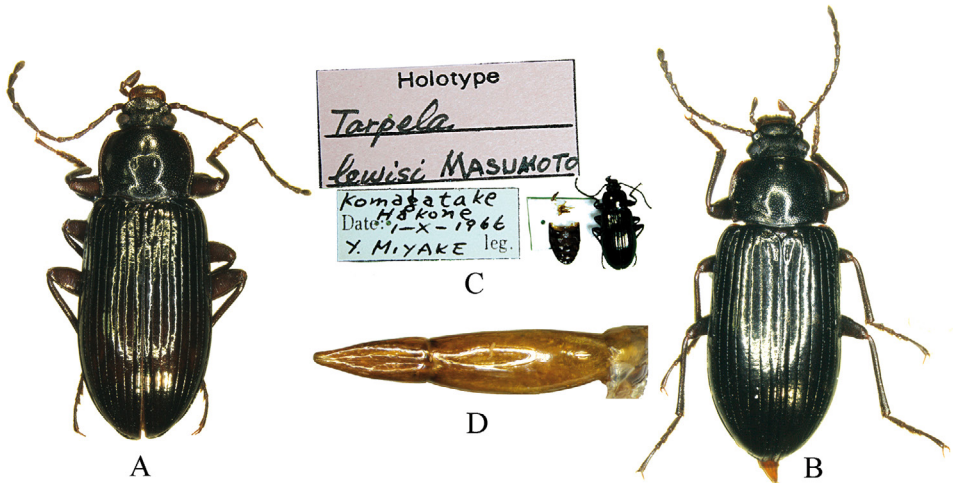


Fig. 15. *Nalassus (Nipponalassus) lewisi*, holotype and paratype. A = male, holotype, habitus, B = female paratype, habitus, C = labels of the holotype, D = aedeagus, dorsal view

- tral side of profemora and without dense pubescence at apex (sometimes only with sparse hairs) of abdominal ventrite 5 (Fig. 16B) *N. andoi*
- Vertex with only wrinkle beginning at lower aspect of eyes (Fig. 16A). Male with dense brush of goldish hairs at apex of ventral side of profemora and with dense pubescence at apex of abdominal ventrite 5 (Fig. 16D) *N. lewisi*

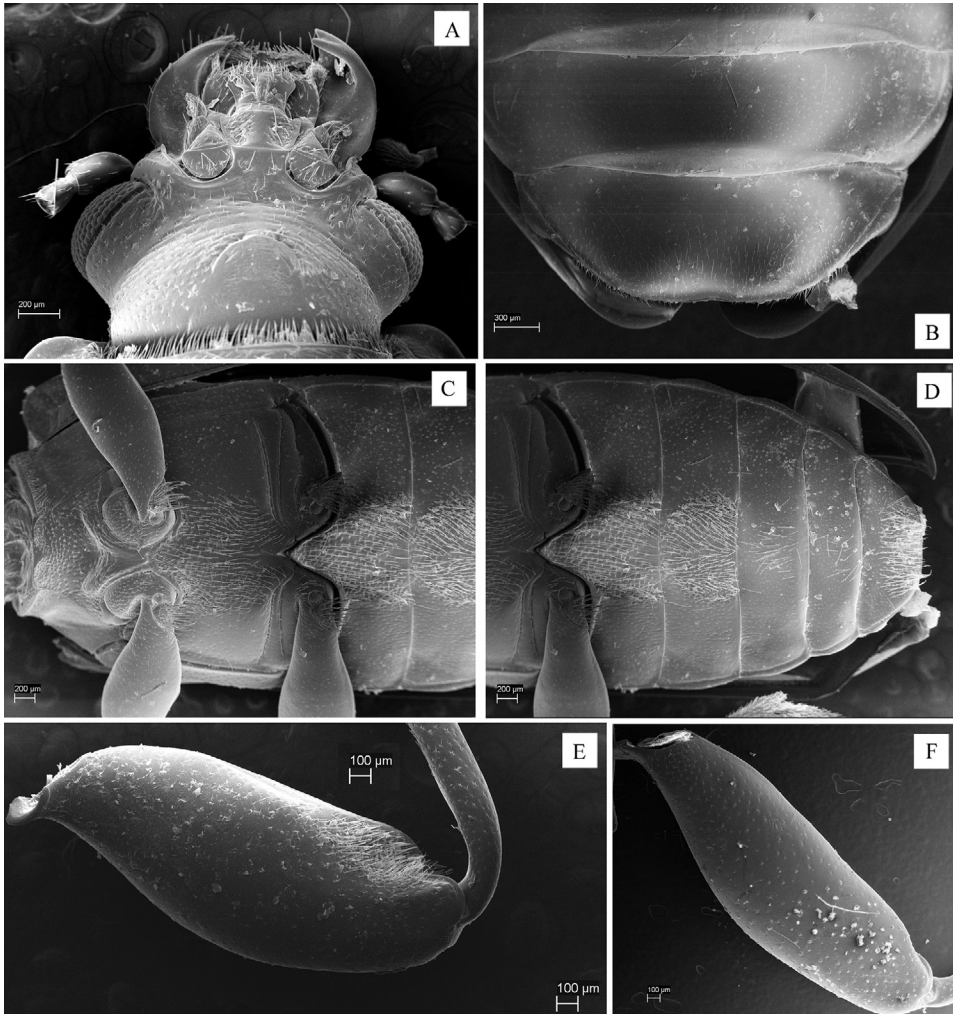


Fig. 16. *Nalassus (Nipponalassus) lewisi* (A, C–F) and *N. (Nipponalassus) andoi* (B), details of structure: A = head, ventral view, B = male abdominal ventrite 5, C = male meso- and metaventrite, middle legs basally, D = male abdominal ventrites, E = male profemur, inner side, F = male profemur dorsally

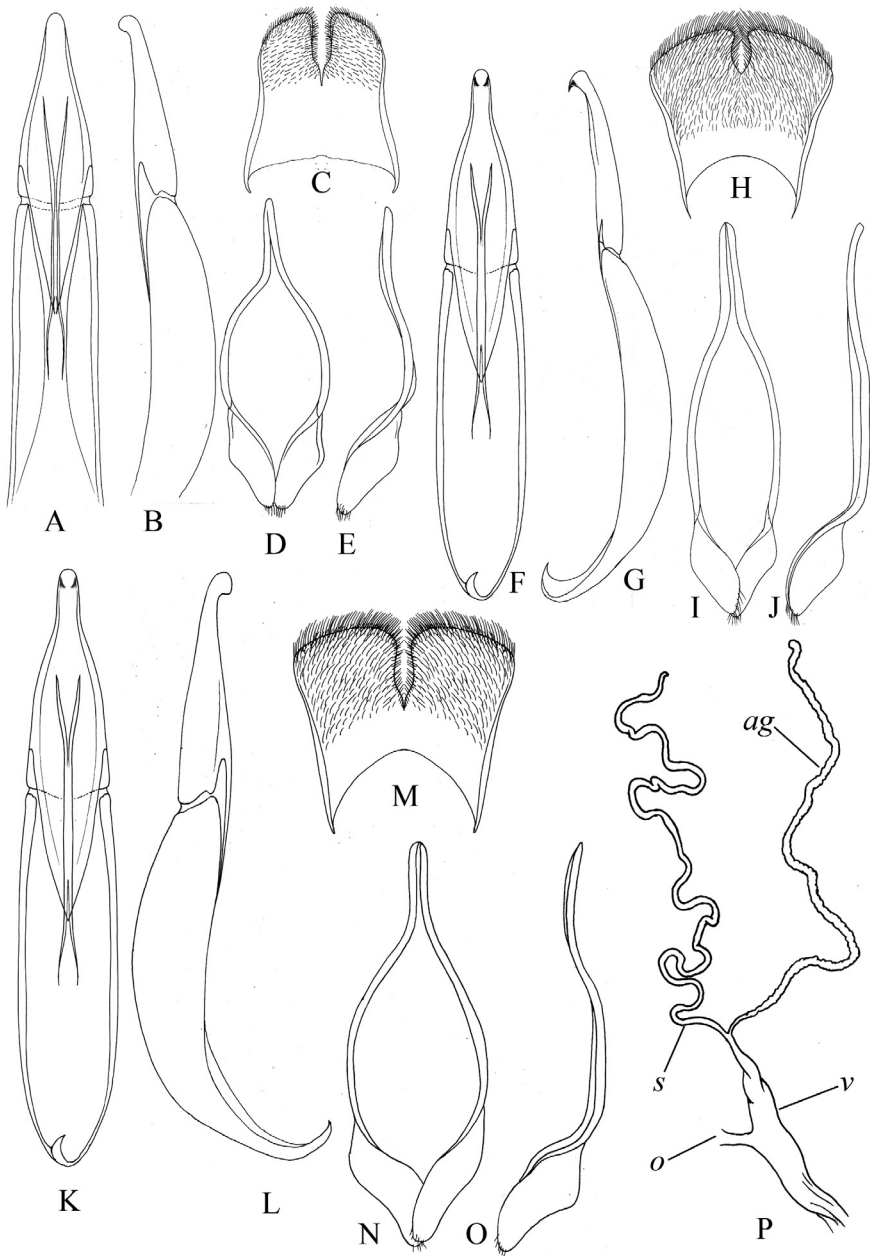


Fig. 17. *Asialassus* spp., genital structures: A. *cordicollis* (A–E), A. *amamiensis* (F–J, P), A. *kimurai* (K–O). A, F, K = aedeagus, ventral view, B, G, L = aedeagus, lateral view, C, H, M = male inner sternite VIII, D, I, N = gastral spicula, dorsal view, E, J, O = gastral spicula, lateral view, P = female genital tubes (*ag* – accessory gland of spermatheca, *v* – vagina, *s* – spermatheca, *o* – oviduct)

Asialassus gen. n.
(Figs 17–26)

Type species: *Helops cordicollis* Marseul, 1876

Diagnosis. Male. Body slender, shiny, brown, sometimes with metallic glance. Eyes large, convex. Head with or without posterior grooves beginning at lower aspect of eyes. Male antennae constantly thin, antennomeres not more thickened than in female. Anterior margin of frontoclypeus straight. Pronotum large, usually moderately convex. Prothoracic hypomera with longitudinal or irregular wrinkles. Prosternum clearly flattened, with distinct transverse wrinkles before procoxae (Figs 18B, D, 19C, 20B, 21F, G, 22C, 23B, 24F, 25C, 26E). Prosternal process with large acute teeth laterally, depressed at middle, strongly projected apically (Figs 18C, 20C, D, 21F, G, 22C, D, 23C, 24F, H, 25B, C, 26E, F). Elytra without humeral calli, with clear striae, punctures in striae connected with each other. Interstriae without tubercles, but with simple coeloconic sensilla. Eighth interstria apically more convex than the rest, connected with elytral margin. Dorsal epipleural carina reaching eighth interval at apex. Elytral epipleura not reaching elytral apex and terminate at level of 4th and 5th abdominal ventrites. Hind wings developed (the ability to fly is unknown to us). Mesoventrite slightly depressed at middle. Metaventrite transverse, glabrous. Abdominal ventrites without hair brushes. Male protibiae curved, ladle-shape, widened and flattened apically, often with one or two teeth before apex (Figs 18G, 19B, 21C, D, 22E, F, 24B, C, 25D, E, 26B, C); mesotibiae sometimes with line of large (Fig. 18H) or small granules (Figs 22H, 25F) on ventral side. Male tarsi not widened. Trochanters with single long seta.

Aedeagus 'nalassoid', weakly sclerotized, apical piece with flattened keel at apex (Figs 17A–O).

Female. Body robuster than male, antennae shorter. Prosternal process simple, without teeth (Figs 18E, 19C). Tibiae not modified (Fig. 19B). Procoxae with elevated portion near trochanters, prosternal process depressed at middle between procoxae (Fig. 18F). Genital tubes (Fig. 17P). Spermatheca consists of only one non-branched tube, with clear basal duct. Accessory gland short, a little longer than spermatheca or subequal to spermathecal length.

Comparison. The genus differs from all known Helopini in the structure of toothed and depressed male prosternal process, transverse wrinkles of flattened prosternum before procoxae and elevated outer sides of female procoxae. *Asialassus gen. n.* is the most close to the genus *Nalassus*. See differences between these two genera in the key above.

Composition. The new genus contains six species from Japan and Korean Peninsula.

Etymology. The name derives from compound word of "Asia" and generic name "Nalassus".

Gender. Masculine.

Asialassus cordicollis (Marseul, 1876), **comb. n.**
(Fig. 18)

Marseul, 1876: 141 (*Helops*); Kwon & Choi, 1986: 109 (*Tarpela*); Kim et al., 1990: 181 (*Tarpela*); Masumoto, 1993: 135, figs 5. 11 (*Tarpela*); Chûjô & Lee, 1994: 189 (*Tarpela*); Kim et al., 1994: 177 (*Tarpela*); Nabozhenko & Löbl, 2008: 257 (*Tarpela*); Jung, 2012: 45 (*Tarpela*), fig. 23 in plates II, V, X, XIII, XVIII.

Material examined. 2 ♂ (CKA): Japan, Hôki, Daisen Mt., 14.v.2005 (leg. K. Ando); 1 ♀ (CKA) Japan, Nagasaki, Ôfunakoshi, Mitsushima-chô, 22.vi.2002 (leg. T. Kurihara); 1 ♂ (CKA), Daisen, Tottori, 28.v.1957 (leg. H. Yokoyama); 2 ♀ (CKA), Ashyû, Kyoto, 27.vi.1976 (leg. K. Ando); 1 ♂ (CKA), Mt. Hikosan, Fukuoka, 1.v.1970 (leg. E. Matsunaga); 1 ♀ (CKA), Odamiyama, 900 m, Ehime Pref., Japan, 27.v.1970 (leg. H. Kan); 1 ♂ (CKA), Sugitoge-Pass, Kyoto, 18.vi.1986 (leg. M. Hirano); 1 ♂ (CKA), Kasuga, Yamato, 15.iv.1984 (leg. K. Ando); 1 ♀ (CKA), ditto, 28.v.1989 (leg. K. Ando); 1 ♀ (CKA), Mt. Ishizuchi, Ehime, 25.vii.1971 (leg. H. Kan); 1 ♀ (CKA), Mt. Tsurugi, Tokushima, 10.viii.1971 (leg. H. Kan); 1 ♀ (CKA), Kosugidani, Yakushima, Kagoshima, Japan, 31.VII–2.viii.1999 (leg. K. & M. Ando); 1 ♀ (CKA), Kibune, Kyoto, 29.iv.1957 (leg. T. Shibata); 1 ♀ (CKA), Miike-Lake, Miyazaki, 4.vii.2009 (leg. K. Ando); 1 ♀ (CKA), Mt. Mikusa-yama, Nose, Osaka, Japan, 31.v.2012 (leg. K. Ando); 1 ♀ (CKA), Nomozaki Cape, Nagasaki, 5–6.vii.2003 (leg. K. Ando); 1 ♀ (CKA), Mt. Taradake, Nagasaki, 4.vi.2006 (leg. K. Ando); 2 ♀ (CKA), Mt. Ukidake, Nanatsu Vill., Karatsu, Saga, 26.v.2007 (leg. K. Ando); 1 ♀ (CKA), Kuroson, Tosa, 22–23.v.1999 (leg. K. Ando); 1 ♀ (CKA), Mt. O-dake, Shimokoshiki Is., 15.v.1972 (leg. M. Miyahara).

Distribution. Korea (central and southern parts of Korean Peninsula); Japan (Honshu, Shikoku, Kyushu, Awajishima Is., Hirado-shima Is., Koshiki-jima Is.).

Asialassus amamiensis (Kaszab, 1964), **comb. n.**
(Figs 19, 20)

Kaszab, 1964: 7 (*Tarpela*); Chûjô, 1978a: 75 (*Tarpela*); Chûjô, 1978b: 14 (*Tarpela*); Masumoto, 1993: 136, figs 6. 12 (*Tarpela*); Nabozhenko & Löbl, 2008: 256 (*Tarpela*).

Type material examined. Holotype, ♀ (OMNH) with labels: "Ikari, Amami Is. 6.V.1960 T. Shibata", "Holotypus 1963 ♀ *Tarpela amamiensis* Kaszab", "*Tarpela amamiensis* Kasz. Dr Z. Kaszab det., 1963". Paratypes, 1 ♀ (HNHM) with labels: "Ikari, Amami Is. 12.V.1960 T. Shibata", "Paratypus 1963 ♀ *Tarpela amamiensis* Kaszab"; 3 ♀ (OMNH) with labels: "Ikari, Amami Is. 6.V.1960 T. Shibata", "Paratype", "♀ *Tarpela amamiensis* Kaszab Det. M. Chujo 1963"; 1 ♀ (OMNH) with labels: "Ikari, Amami Is. 22.V.1960 T. Shibata", "Paratype", "♀ *Tarpela amamiensis* Kaszab Det. M. Chujo 1963".

Material examined. 2 ♂ (CKA): Japan, Amami-Ôshima, Yuwan-dake Mt., 13.iii.1988 (leg. S. Saitô); 1 ♂ (CKA), Mt. Yuwan, Amami Is., 26.iv.1964 (leg. K. Sako); 1 ♂ (CKA), Nishinakama, Amami Is., 7.iv.1969 (leg. Y. Maeda); 2 ♂ (CKA), Mt. Yuwan-dake, Amami-

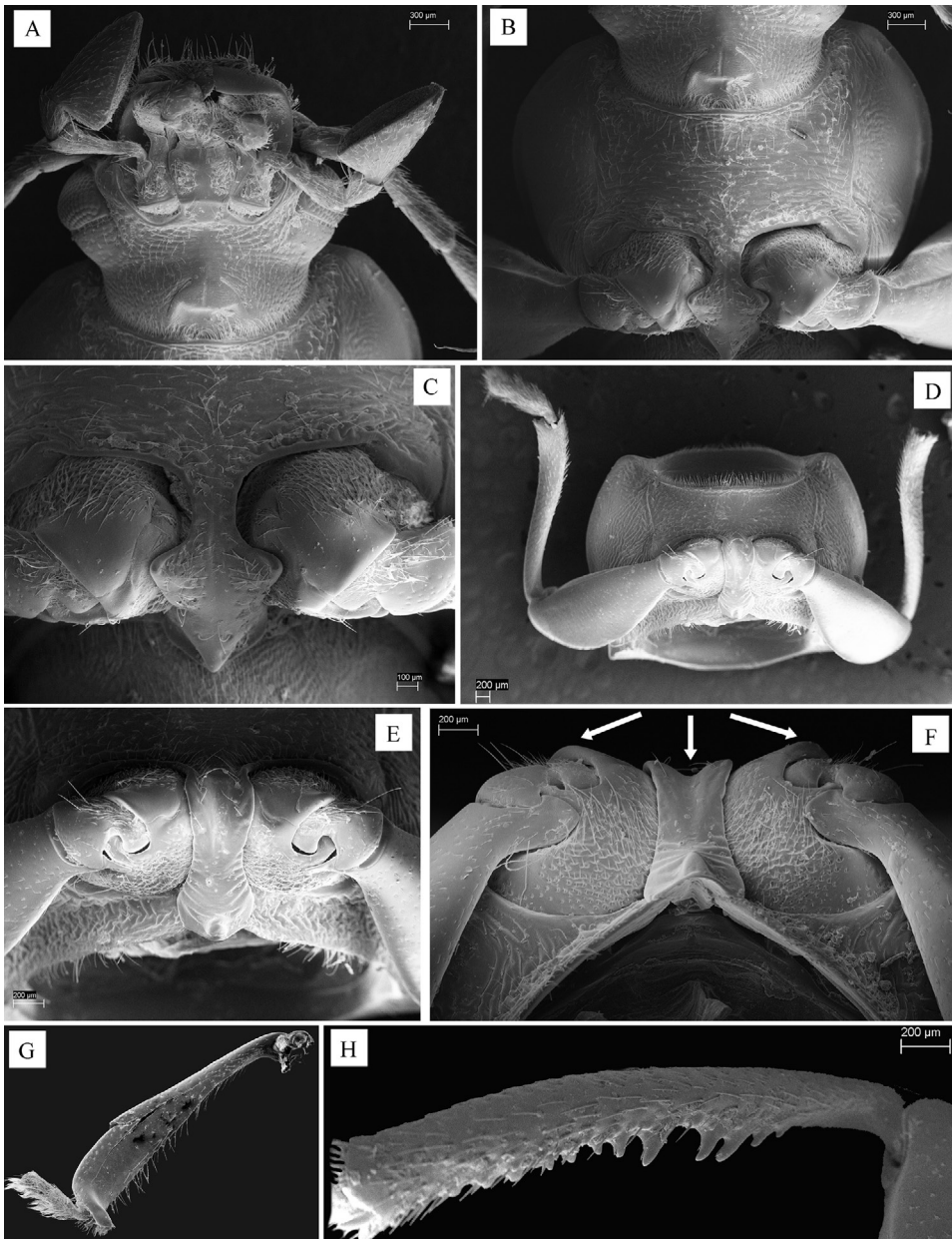


Fig. 18. *Asialassus cordicollis*, details of structure: A = head, ventral view, B = male prosternum, C = male prosternal process, D = female prothorax and fore legs, ventral view, E = female prosternal process, ventral view, F = female prothorax, posterior transverse view (lateral arrows show elevate margin of procoxae, middle arrow shows depressed prosternal process between procoxae), G = male protibia, H = male mesotibia

Oshima, 13.iii.1988 (leg. T. Yamasaki); 1 ♂ (CKA), Kikaijima Is., Nakanishi-Park, Amami islands, 4.iii.2012 (leg. Junichi Aoki); 2 ♀ (CKA), Hatsuno, Amami Is., 2.iv.1966 (leg. T. Ito); 1 ♀ (CKA), Amami Oshima, Hatsumo, 30.iii.1999 (leg. N. Ohbayashi); 1 ♀ (CKA), Japan: Amami-Oshima Is., Mt. Yuwan-dake (outside SPZ, alt. ca. 400 m), Yamato-son (beating: dead twigs), 8.iii.2010 (leg. M. Nishikawa).

Distribution. Japan (The Ryukyus: Amami-Ōshima Is., Okinoerabu-jima Is., Okinawa-jima Is., Kikai-jima Is., and Ishigaki-jima Is.).

Asialassus kimurai (Masumoto, 1996), **comb. n.**
(Figs 21, 22, 23)

Masumoto, 1996: 213, figs 2–3 (*Tarpela*); Nabozhenko & Löbl, 2008: 257 (*Tarpela*); Akita & Masumoto, 2011: 280 (*Tarpela*).
= *Tarpela tokunoshimana* Masumoto et Akita, 2001: 20, **syn. n.**

Type material examined. *Tarpela kimurai* (NMNS) (Fig. 21). Holotype, ♂ with labels: "Holotype *Tarpela kimurai* Masumoto", "Mt. Ueshiro-dake, (宇江城岳) Gashikami Y., Kume Is. Japan 28.XII.1993 M. Kimura leg.", "K. Akita Collection KAC 62288".

Tarpela tokunoshimana (NMNS) (Fig. 22). Holotype, ♂ with labels: "Holotype *Tarpela tokunoshimana* M&A.", "Japan: Ryukyus Tokuno-shima Is. Amagi-cho, Hagi-dake, 23.II.1998, M. Kimura", "Katsumi Akita Collection KAC 10445", "Coll. Masumoto 2001".

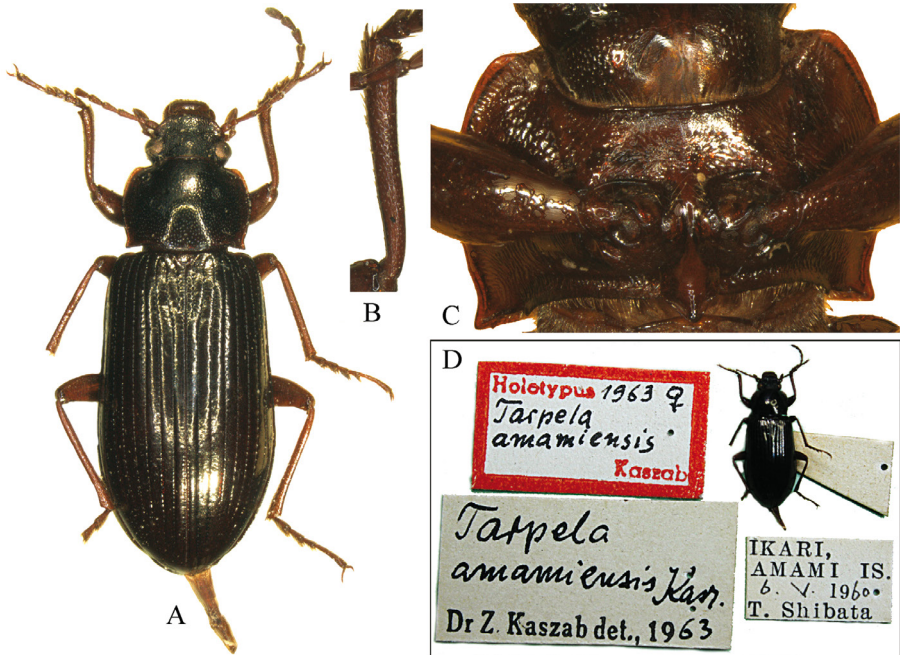


Fig. 19. *Asialassus amamiensis*, holotype, female: A = habitus, B = protibia, C = prothorax, ventral view, D = labels of the holotype

Material examined. 1 ♂ (CKA), [Kagoshima: Japan] Yamakubiri-rindô, alt. ca. 200 m, Tokunoshima Town, Is. Tokunoshima, 14.iii.2009 (leg. Ta. Kurihara); 2 ♂, 3 ♀ (CKA), [Kagoshima: Japan] Mt. Amagi, alt. 500–530 m, Tokunoshima Town, Is. Tokunoshima, 16.iii.2009 (leg. Ta. Kurihara); 3 ♂ (CKA), ditto, 18.iii.2009 (leg. Ta. Kurihara); 1 ♂ (CKA), ditto, 500–560 m, 13.iii.2009 (leg. Ta. Kurihara); 1 ♂, 2 ♀ (CKA), [Kagoshima: Japan] Tete, Tokunoshima Town, Is. Tokunoshima, 16.iii.2009 (leg. Ta. Kurihara); 1 ♂, 1 ♀ (CKA), ditto, 17.iii.2009 (leg. Ta. Kurihara); 1 ♂, 1 ♀ (CKA), ditto, 18.iii.2009 (leg. Ta. Kurihara); 1 ♂ (CKA), Arakawa Higashi, Okinawa Pref., 19.iii.2014 (leg. Y. Tamaki); 1 ♀ (CKA), Tamatsujiyama, Higashi, Okinawa Pref., 20.iii.2010 (leg. M. Matsumura); 1 ♀ (CKA), Takae, Higashi-Son, Okinawa Is., 20.iv.2017 (leg. K. Ueda).

Distribution. Japan (The Ryukyus: Okinawa-jima Island, Kume-jima Is., Tokashiki-jima Is., Tokuno-shima Is.).

Notes. Both taxa (*tokunoshimana* and *kimurai*) are conspecific (including structures of male genitalia and terminalia) after the study of the holotypes and addition material. MASUMOTO and AKITA (2001: 20) distinguished *T. tokunoshimana* from *T. kimurai* in the “smaller body, interocular space with a pair of

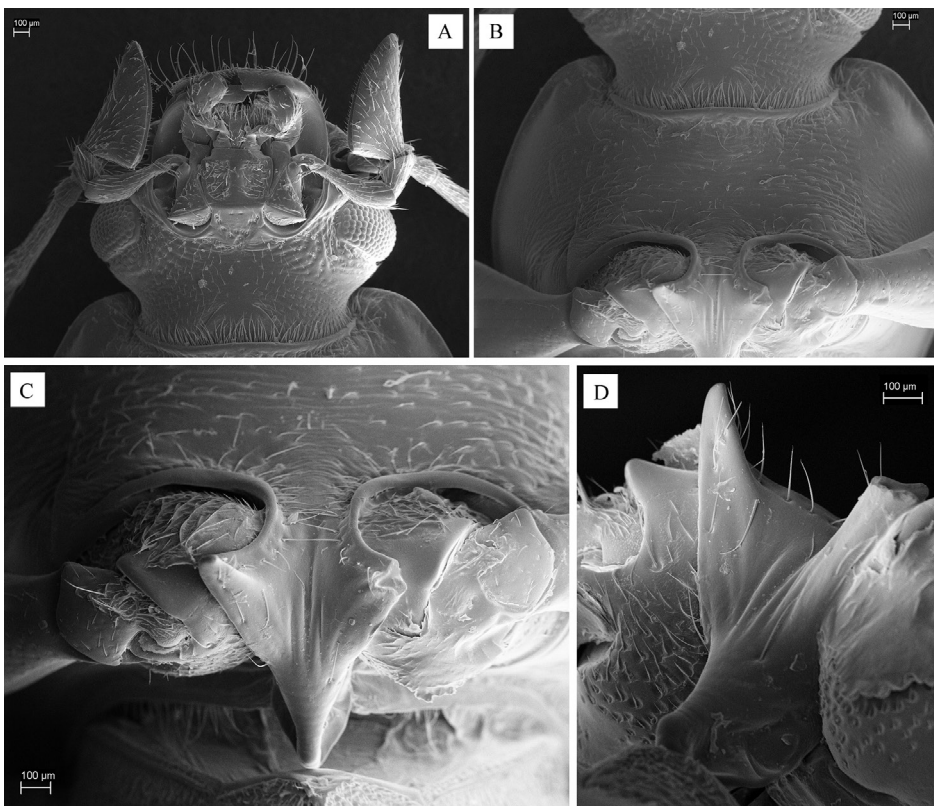


Fig. 20. *Asialassus amamiensis*, male, details of structure: A = head, B = prosternum, C = prosternal process, ventral view, D = prosternal process, lateral view

impressions, narrower diatone (three times the width in *T. kimurai*), and different ratios of the lengths of antennal and tarsal segments". All these characters are variable in different populations. As a result a new synonymy is proposed.

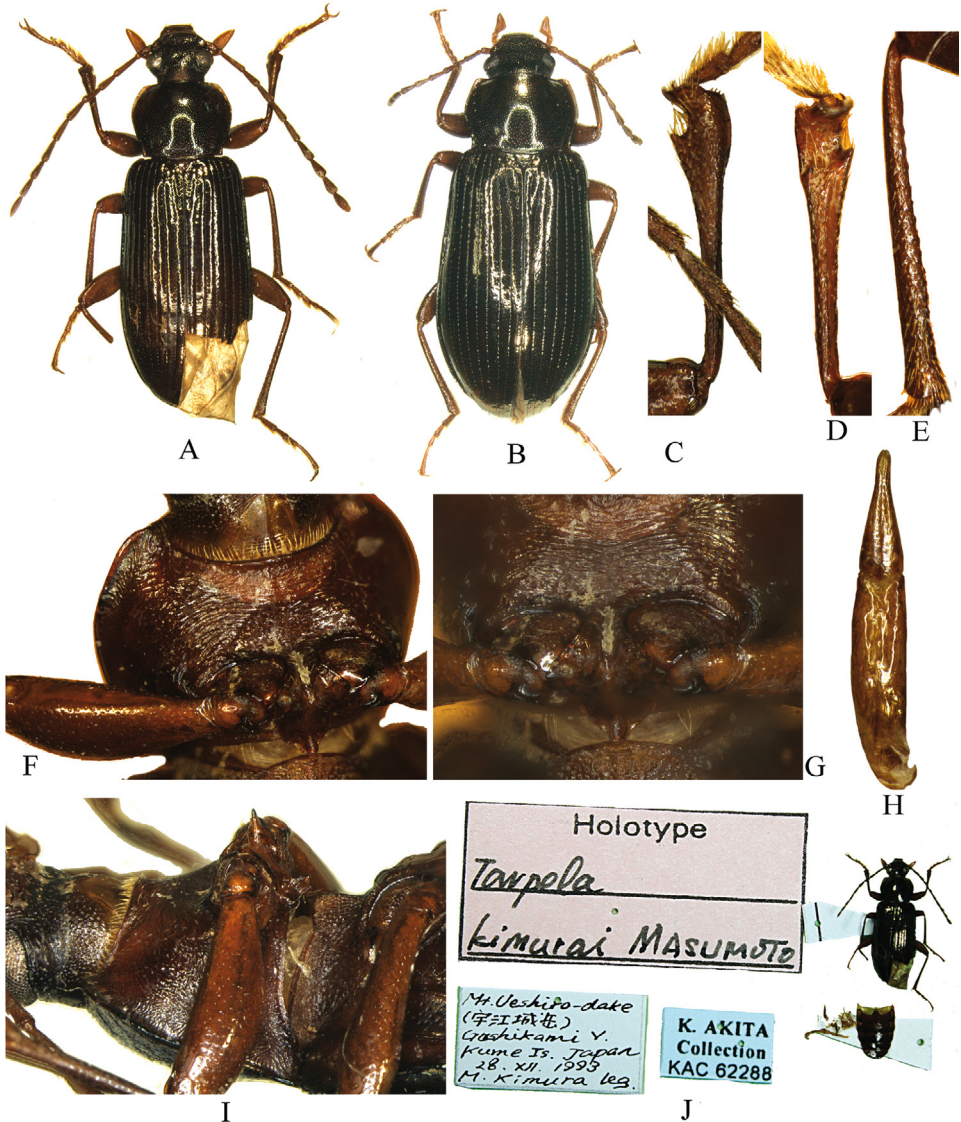


Fig. 21. *Asialassus kimurai*, holotype and paratype: A = holotype, male, habitus, B = paratype, female, habitus, C = male protibia, dorsally, D = male protibia, ventrally, E = male mesotibia, F = male prothorax ventro-laterally, G = male prothorax, ventrally, H = aedeagus, dorsal view, I = male prothorax, laterally, J = labels of the holotype

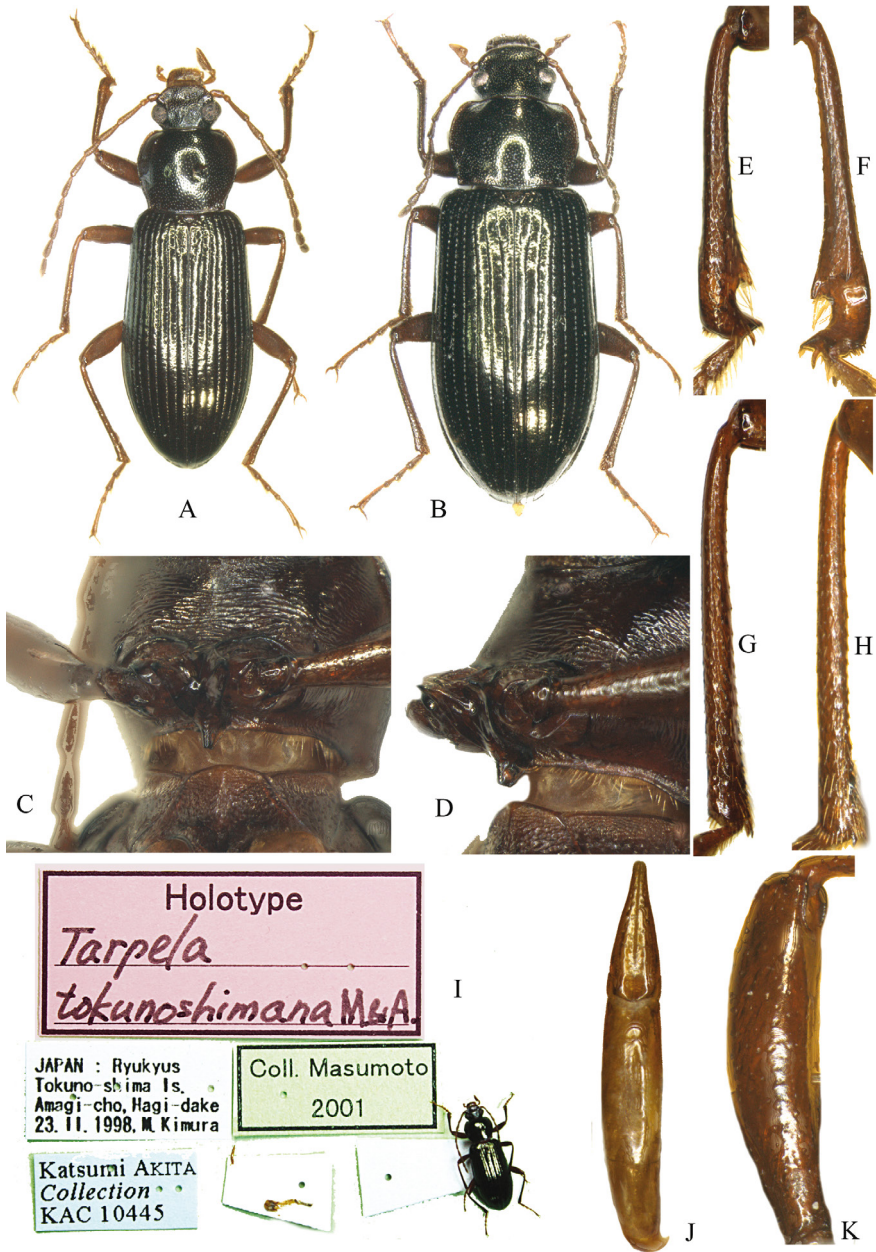


Fig. 22. *Asialassus kimurai*, holotype and paratype of the new junior synonym *Tarpela tokunoshimana*: A = holotype, male, habitus, B = paratype, female, habitus, C = male prothorax, ventrally, D = male prothorax, laterally, E = male protibia, dorsally, F = male protibia, ventrally, G = male mesotibia, dorsally, H = male mesotibia, ventrally, I = labels of the holotype, J = aedeagus, dorsal view, K = male profemur, inner side

Asialassus tsushmanus (Nakane, 1979), **comb. n.**
(Fig. 24)

Nakane, 1979: 114, figs 5–6 (*Tarpela*); Masumoto, 1993: 136, fig. 13 (*Tarpela*); Nabozhenko & Löbl, 2008: 257 (*Tarpela*).

Type material examined. Holotype, ♂ (MHU) with labels: “Holotype”, “Mt. Furisode Tsushima Is., 14–III-1960, Coll. S. Tsuyuki”, “*Tarpela tsushimana* Nak. Det. T. Nakane”, “Nakane coll. SEHU Japan 1999”, “0000004454 Sys. Ent Hokkaido Univ. Japan [SEHU]”, “クロ-H 07689”.

Material examined. 1 ♀ (CKA), Mt. Yatate, Tsushima, 3.v.1968 (leg. Y. Kiyoyama); 1 ♀ (CKA), Tsushima, Nagasaki Pref., v.1972 (leg. S. Fukuda); 1 ♂ (CKA), Funashinouchi-Higashizato; Kamiagata, Tsushima, Nagasaki, 2.iv.2006 (leg. Y. Utsunomiya); 1 ♂, 2 ♀ (CKA), Mt. Tatera, Tsushima Is., Nagasaki, 22–23.iv.2006 (leg. K. Ando); 1 ♀ (CKA), Mt. Yatateyama, Tsushima Is., Nagasaki, 22–23.IV.2006 (leg. K. Ando); 1 ♂ (CKA), Uemizaka, Izuohara, Tsushima Is., 23.iv.2006 (leg. K. Ando).

Distribution. Japan (Tsushima Is., Gotô islands (Fukue-jima Is.)).

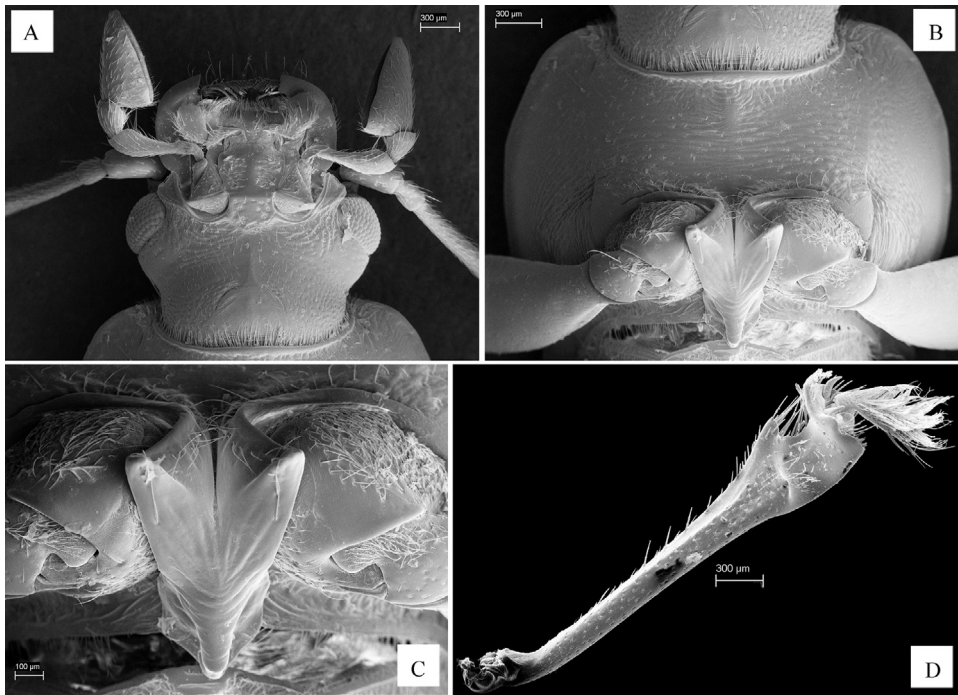


Fig. 23. *Asialassus kimurai*, details of structure, male: A = head, ventral view, B = prothorax, ventral view, C = prosternal process, D = protibia, ventrally

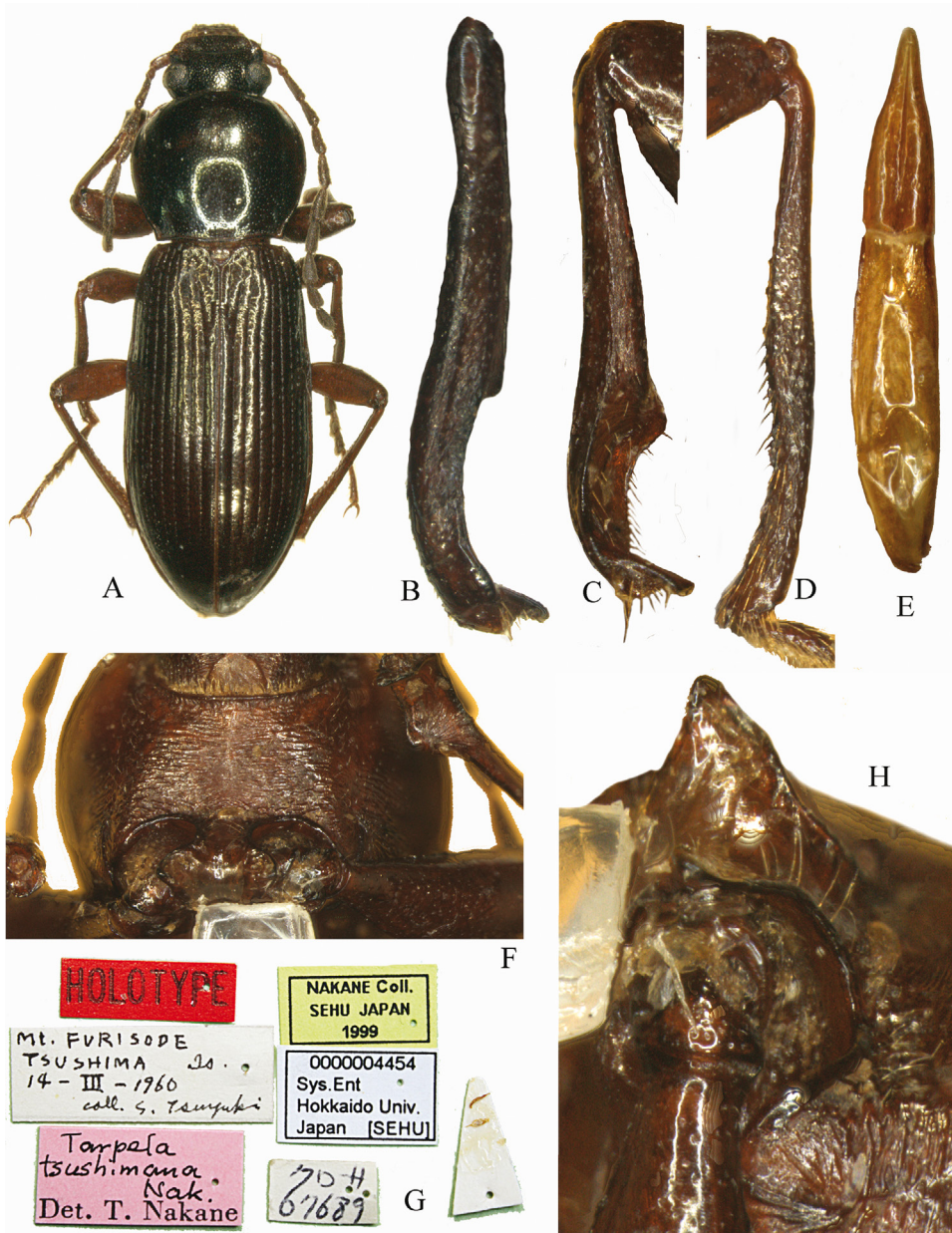


Fig. 24. *Asialassus tsushmanus*, male, holotype: A = habitus, B = protibia, laterally, C = protibia, ventrally, D = mesotibia, E = aedeagus, dorsal view, F = prothorax, ventral view, G = labels of the holotype, H = prothorax, lateral view

Asialassus todai (Ando, 2006), **comb. n.**
(Fig. 25)

Ando, 2006: 29, figs 1–3 (*Tarpela*); Nabozhenko & Löbl, 2008: 257 (*Tarpela*).

Type material examined. Holotype, ♂ (EUM) with labels: “Holotype *Tarpela todai* Ando n. sp.”, “[石垣] 川平石崎 沖縄県石垣市 1. I. 2004 leg. 戸田尚希” (Japanese label: [Ishigaki] Kabiraishizaki, Ishigaki city, Okinawa Pref., 1.i.2004, leg. Naoki Toda). Paratypes (CKA), ♀ with labels: “[Ryûkyû: Japan] Mt. Omoto Ishigaki-shi 29.iii.1999 (石垣島) T. Kurihara leg.”, “Paratype *Tarpela todai* Ando, 2006”; 1 ♂, Omoto-dake, Okinawa Pref., Ishigaki-city, 19.iii.1999, leg. Takashi Kurihara (オモト岳, 沖縄県・石垣市, 1999年3月19日, 栗原隆採集).

Material examined. 1 ♂, 2 ♀♀ (CKA), Ishigakijima Is., Nagura, Okinawa, 17.I.2006 (T. Nakata leg.).

Distribution. Japan (Yaeyama Islands: Ishigaki-jima Is.).

Asialassus adachii (Akita et Masumoto, 2009), **comb. n.**
(Fig. 26)

Akita & Masumoto, 2009: 77, figs 1–8 (*Tarpela*).

Type material examined. Holotype, ♂ (NMNS) with labels: “Holotype *Tarpela adachii* Akita et Masumoto, 2009”, “Oshima Is., Danjyo Isls. Nagasaki Japan. 4.v.2005 Kazuo Adachi leg.”, “K. Akita Collection KAC 32714”.

Distribution. Japan (Danjo Islands: Oshima Is.).

Key to the species of the genus *Asialassus* based on structures of male

1. Protibiae strongly flattened and bent down apically, without additional processes or teeth (Fig. 18G). Mesotibiae with strong and large 10–12 teeth on inner margin (Fig. 18A) *A. cordicollis*
- Protibiae ladle-shaped, bent down at apex, with additional one or two teeth or tooth-shaped process apically (Figs 21C,D, 22E,F, 23D, 24B,C, 25D,E, 26B,C). Mesotibiae without teeth or with several very small teeth on inner side near apex 2
2. Protibiae with two acute distinct teeth before apex (Figs 21C,D, 22E,F, 23D) *A. kimurai*
- Protibiae with a rounded or angulate inner process on inner margin (Figs 24B,C, 25S,E, 26D,C) 3
3. Mesotibiae almost straight (not thickened at middle, with several small acute teeth on inner margin near apex) (Fig. 25F) *A. todai*

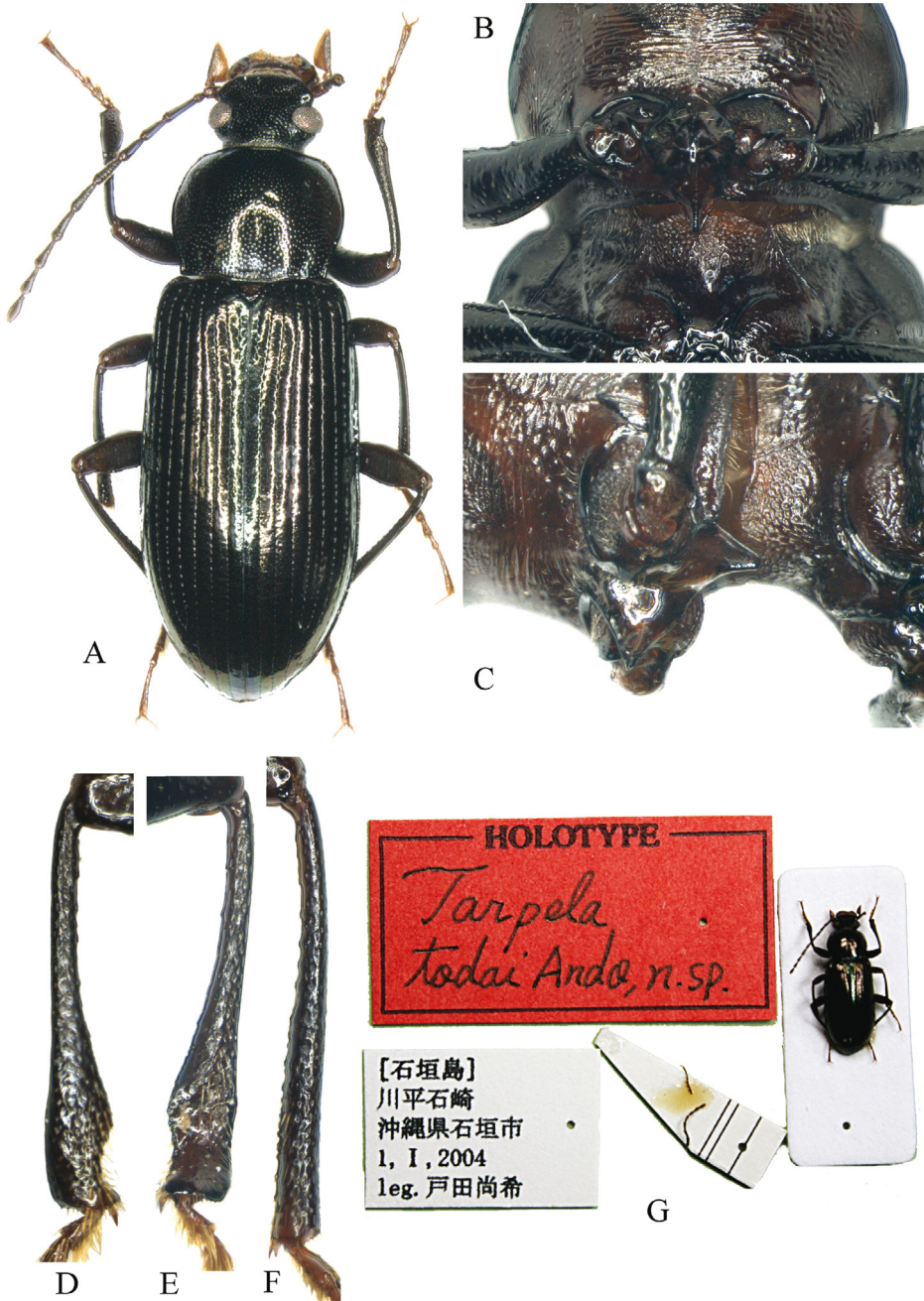


Fig. 25. *Asialassus todai*, male, holotype: A = habitus, B = prothorax, ventral view, C = prothorax, lateral view, D = protibia, dorsal view, E = protibia, ventral view, F = mesotibia, G = labels of the holotype

- Mesotibiae distinctly bent (Figs 24A,D, 26A,D) 4
- 4. Mesotibiae not thickened at middle. Pronotum moderate in size, narrower than elytra at base *A. amamiensis*
- Mesotibiae thickened at middle (Figs 24D, 26D). Pronotum very large, wider than elytra at base (Figs 24A, 26A) 5

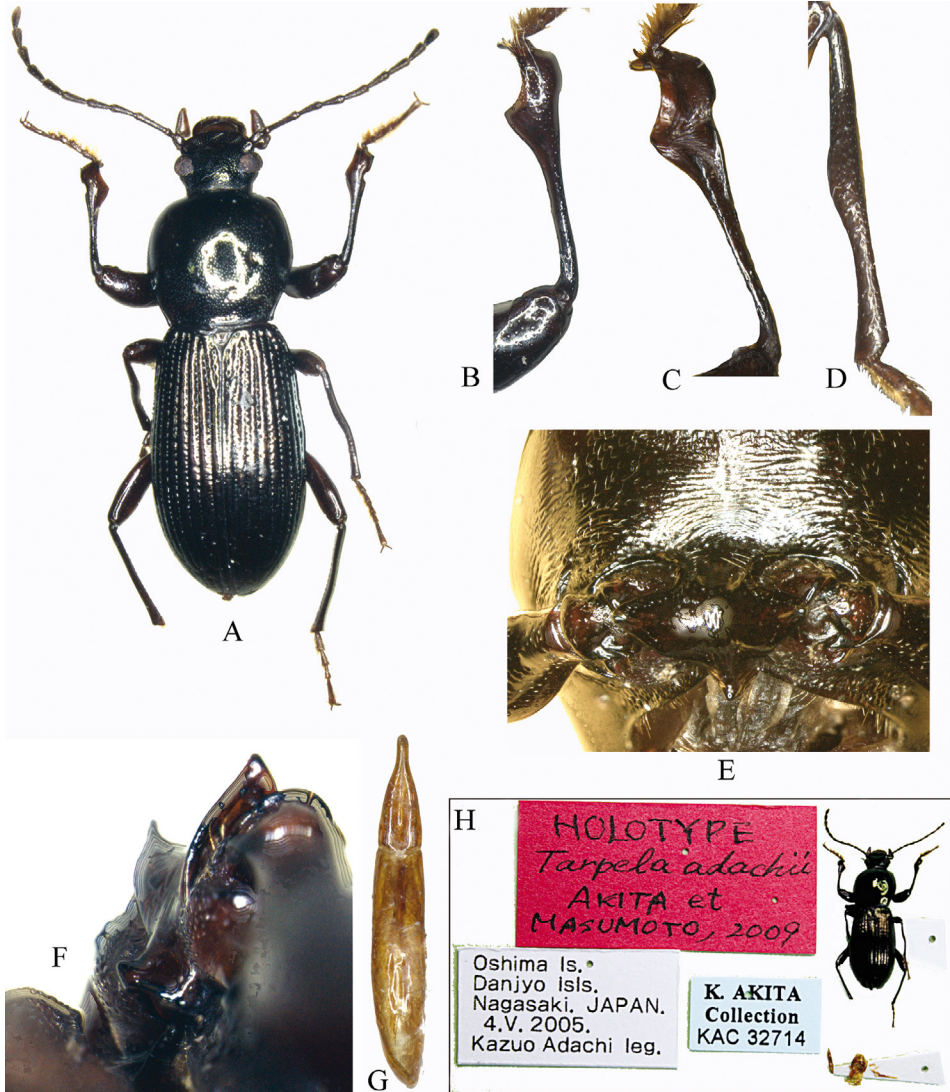


Fig. 26. *Asialassus adachii*, male, holotype: A = habitus, B = protibia dorsally, C = protibia ventrally, D = mesotibia, E = prothorax, ventral view, F = prosternal process, lateral view, G = aedeagus, H = labels of the holotype

5. Protibiae with clear large triangular inner process on inner margin and distinct emargination on outer margin near apex (dorsal or ventral view) (Figs 26B,C) *A. adachii*
- Protibiae with simple inner rounded process on inner margin and not emarginate outer margin near apex (dorsal or ventral view) (Figs 24A,F) *A. tsushmanus*

*

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*A Magyar Természettudományi Múzeum gyászbogártípusainak
(Tenebrionidae) katalógusa*
*Type catalogue of darkling beetles (Tenebrionidae) preserved in the
Hungarian Natural History Museum*

by Ottó MERKL, Aranka GRABANT & Zoltán SOLTÉSZ

The Hungarian Natural History Museum (HNHM) houses one of the largest and most complete Tenebrionidae collections of the world, thanks to Zoltán Kaszab (1915–1986), the Museum's former General Director and the most prominent figure of Hungarian coleopterology. The book is a commemoration of the centenary of his birthday.

The introduction summarises the history of the Hungarian Natural History Museum, its Coleoptera Collection and the scientific activity of Zoltán Kaszab.

Type specimens constitute the scientifically most valuable assets of the collection. The catalogue contains types of all the species, subspecies, variations and aberrations which have ever been described in the family Tenebrionidae, and kept in the HNHM, including those already assigned to other families, as well as those which were described in different families but are now members of Tenebrionidae. A total of 21,313 type specimens belonging to 5,941 names are listed herein, including 1,222 holotypes, 4 neotypes, 88 lectotypes, 4,914 syntypes, 86 allotypes, 248 paralectotypes and 14,751 paratypes. The list of the names is followed by a complete list of the 1,212 publications containing the original descriptions.



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