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**TAXONOMIC REVISION OF THE SUBFAMILY HISTERINAE IN THE
PHILIPPINE ARCHIPELAGO AND THE GENUS *Atholus* IN FAR EASTERN ASIA
AND ORIENTAL REGION (Coleoptera, Histeridae)**

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属の分類学的再検討

Hokkaido University Graduate School of Agriculture
Frontiers in Environmental Sciences Doctor Course

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A B S T R A C T

Insects play a crucial role in most ecological processes and may serve as key components in ecosystem structure and its function. Beetles (Coleoptera) have been considered appropriate tools for ecological studies. Among these beetles, those of the family Histeridae (histerid beetles) are known as generalist predators, occupying a wide range of habitats, including heterotrophic systems. They generally prey on the eggs and larvae of most flies and other beetles, and their voracious appetite has helped reduce the number of agricultural pests. They have been employed as successful biological control agents that limit dipteran populations. However, despite their ecological importance, the taxonomy and systematics of Histeridae in the Oriental Region remain poor, despite rich diversity. To date, the current level of understanding of the diversity of many histerid beetles is still deficient, particularly in the Philippine archipelago. This study focuses on reviewing the subfamily Histerinae (Histeridae) from the Philippines and the genus *Atholus* from both the Oriental Region and Far Eastern Asia. The main goal of this research is to generate a comprehensive taxonomic resource that can be utilized for a better systematic understanding in histerid beetles occurring in the Oriental realm, including extralimital areas such as the Far Eastern Asia.

New records of three genera – gen. *Notodoma*, gen. *Mesostrix*, and gen. *Kanaarister* in the Philippines have been determined here for the first time. Seven new species from the Philippines were also originally described: *Notodoma* sp. 1, *Platylister* sp. 1, *Platylister* sp. 2, *Platylister* sp. 3, *Kanaarister* sp. 1, *Eurylister* sp. 1 and *Platysoma* sp. 1. Additionally, two new species of the genus *Atholus* – *Atholus* sp. 1 from Thailand and *Atholus* sp. 2 from Tibet are also presented here. To date, 56 species of Philippine Histerinae are recorded, and 79 species of *Atholus* worldwide. Twenty-three species of Histerinae from the Philippines are re-described here. Similarly, eleven species of the Oriental *Atholus* are re-described in this study for the first time. In addition, seven species of Philippine Histerinae and nine species of *Atholus* occurring in the Oriental and Far Eastern Asia are provided here with supplemented illustrations of the structures of their male genitalia. SEM micrographs are also presented for better resolution of the external morphology. Some of the taxonomic revisions of Philippine Histerinae presented here include the following: 1) re-assigning *Platysoma* (*Platysoma*) *dufali* into *Platysoma* subgenus (*Cylister*) *dufali* (n. comb.); and 2) re-considering the importance of the number of lateral stria in the pronotum of *Platylister* subgenus (*Platylister*) as a good character-state in discriminating species among them. The study of the Oriental and Far Eastern Palearctic *Atholus* has yielded novel insights and works, including: 1) detailing the structure of its mouthparts and antennae; and 2) distinguishing two types in the gonocoxite structures of the female genitalia, which might become a useful tool for morphological diagnosis among *Atholus* in the future.

All Histerinae listed in the Philippines are also distributed in the Oriental Region, except for the 18 species that are endemic to the archipelago. Nonetheless, several species found in the Philippines also occurs in the Indonesian archipelago and other neighboring islands such as Taiwan and the Ryukyus of Japan. Additionally, cosmopolitan species are more widespread and can occur in Continental Asia and eastward towards Australia and the Pacific, implying that the Philippine archipelago may have become an intermediary spot for the biodiversity of these beetles within the Oriental region.

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CHAPTER I

GENERAL INTRODUCTION

Overview

Ecological integrity is a key concept in natural resource management, and researchers have been working to enhance public understanding of this concept by employing basic scientific measures known as ecological indicators (Andreasen *et al.*, 2001). Indeed, ecological integrity can be assessed and interpreted through changes in the abundance, diversity and composition of groups of indicator organisms that ultimately rely on system resources and conditions. Among the various indicators, terrestrial invertebrates, particularly insects, play a crucial role in most ecological process and serve as key components of ecosystem structure and function (Bicknell *et al.*, 2014; Viegas *et al.*, 2014; Cajaiba *et al.*, 2015). Since insect abundance and richness are correlated with other taxa, as well as climate, they make excellent potential indicators of environmental changes.

Beetles possess characteristics that render them suitable for ecological studies (Vasquez-Velez *et al.*, 2010; Cajaiba & Silva, 2015), monitoring various compartments of the system (Marinoni, 2001). Within the beetle family Histeridae (Histerid beetles), they are recognized as generalist predators, thriving in a wide range of habitats, including decaying organic matter and decomposing vegetation. Furthermore, they play a vital role as predators of eggs and larvae, particularly of Diptera and other beetles. Certain groups of histerid beetles also exhibit associations with other animals, notably social insects such as ants and termites.

Despite their ecological significance, the systematics of Histeridae distributed in the Oriental realm remains insufficiently studied. While some taxonomic investigations of various groups in the region have been undertaken, the number of research efforts dedicated to their taxonomy is limited, despite their rich diversity. Presently, our understanding of the diversity of many histerid beetles, especially those occurring or confined to localized areas in the Indo-Malayan region, is still deficient, particularly in the Philippine archipelago. Consequently, improving our comprehension of the taxonomy of these beetles can lead to more comprehensive ecological and diversity inventories, serving as an essential tool for environmental management.

Taxonomy and Phylogeny

Histeridae presents an intriguing system for examining the interaction between ecological differentiation and diversity. This beetle group (Coleoptera) belongs to the polyphagan superfamily Histeroidea, which includes four families – the extinct Cretohisteridae, the species-poor Synteliidae and Sphaeritidae, and the highly diverse Histeridae. Within the diverse family of Histeridae, there are nine extant subfamilies encompassing more than 4,500 species (Mazur, 2011; Zhou *et al.*, 2020; Pražák *et al.*, 2023). The first cladistic study of histerid relationships was conducted by Ôhara (1994), utilizing a 16-character data set, later expanded to 29 characters by Ślipiński & Mazur (1999), which included representatives from almost subfamilies. Subsequent comprehensive phylogenetic studies (Caterino & Vogler, 2002; McKenna *et al.*, 2015) revealed new cladistic relationships among the subfamilies. More recently, Zhou *et al.* (2020) and Pražák *et al.* (2023)

published the latest phylogeny of Histeridae, utilizing combined morphological and molecular datasets, including morphological data from extinct representatives. These studies have resolved the phylogeny of the group, highlighting the monophyletic status of Abraeinae and Saprinae. Conversely, subfamilies Onthophilinae and Dendrophilinae were found to be paraphyletic, and the position of Niponiinae remains unresolved due to the unavailability of molecular data for this group. Nevertheless, the extinct subfamily Antigracilinae has been recovered as the sister to all extant histerid beetles.

Ecology and Life History Strategies

Histeridae inhabits an extensive variety of habitats, covering a wide range of heterotrophic ecosystems in all zoogeographical regions. While the majority of species are predatory beetles, a few adults in various lineages feed on fungal spores. However, the larvae of all representative species are predatory and prefer to feed on prey with low mobility (Kovarik, 1994). Before pupation, the final stage of the instar does not feed but instead creates a pupal chamber. In some Histerinae species, simple courtship rituals are performed, with the male clinging onto the female's metatibia and following as the female moves around. Successful copulation occurs when the female stops and allows the male to mate; otherwise, the female continues moving until the male eventually releases it (Beutel *et al.*, 2016; Lindner, 1967).

While a few histerid lineages have transitioned to spore-feeding, however, the vast majority have maintained their predatory lifestyle, preferring to feed on soft-bodied larvae, and occasionally on eggs or pupae. Their typical targets include dipteran larvae, but they also prey on a wide variety of immature stages from other insect groups. Myrmecophile species of Histeridae feed on ant eggs and larvae (Caterino & Dégallier, 2007; Tishechkin, 2007). Dung-associated histerid beetles can consume scarabaeoid larvae in addition to dipteran maggots (Beutel *et al.*, 2016). Psammophiles prey on larvae of tenebrionid beetles (Olexa, 1990), while subcortical species hunt on scolytine and bostrichid beetles (Kanaar, 2003; Mazur, 1973). Moreover, some large species in the tropics prey on curculionid larvae, while others have diets that include various soft-bodied insects, such as lepidopteran and hymenopteran larvae.

Most histerids utilize chemical signals from decomposing materials to locate their prey, employing complex sensory structures on their antennae (Kovarik, 1994; Lackner, 2010). On the other hand, representatives that are sporophagous primarily feed on fungal spores. These beetles have modified mouthparts with comb-like setae, which serve to gather spores (Beutel *et al.*, 2016) or even filter particles of microbiota coating on the liquid surface of fresh dung (Kovarik, 1994).

The lifestyle and biology of Histeridae vary, ranging from generalists found in various ecosystems to extreme specialists that live and breed exclusively in very specific environmental conditions. Typically, they are located in places where their prey also occurs. Microhabitats such as decaying organic materials, including animal feces and carcasses, serve as ideal environments for these predatory beetles. Given that rotting material provides an optimal substrate for larval development, such as maggots, Histeridae are found attracted to and feed on their prey in these habitats.

While most members of the subfamilies Histerinae, Abraeinae and Onthophilinae are the first to colonize the early phases of decomposing material, a few have adapted to specialize in later stages, where they feed on trogid larvae that prefer dry carcasses (Ramos *et al.*, 2009; Verdugo Páez, 2012). Interestingly, some

histerid species are attracted to blossoms of plants that mimic decaying carcasses to lure fly pollinators, but they end up confused by the plant's volatiles (Beutel *et al.*, 2016). Species that prefer rotting vegetation are also generalists, found in composts, dung, and other fecal materials (Ôhara, 1993; Mazur, 1973), while others are known to occur regularly in forest litter (Beutel *et al.*, 2016).

On the other hand, certain species specialize in particular habitats, such as those found exclusively on rotting cacti and succulents in desert and arid areas of the Americas (Bravo-Avilez *et al.*, 2019), decaying banana and bamboo stumps in the Indo-Malayan regions (dela Cruz & Ohara, 2023; Caterino & Tishechkin, 2013a), and rotting palms and sugar canes in the Neotropics. Cycads also host several histerid species that feed on lepidopteran and hymenopteran larvae, while others inhabit various decaying plant roots, rhizospheres and fungi.

The space under the bark of dead or dying trees is a habitat with rich biodiversity and a high abundance of various arthropods and other invertebrates. This environment retains moisture from the decomposing cambium and phloem (Birkemoe *et al.*, 2018), providing an ideal venue for subcortical histerid beetles. These beetles, including dorsoventrally flattened and cylindrical species, are adapted to tight spaces within the subcortical areas.

Social insect inquilinism has played a crucial role in the evolution of Histeridae, involving groups that are myrmecophilous and termitophilous – closely associated with ants and termites (Maruyama *et al.*, 2013; Navarette-Heredia, 2001). In one subfamily, Chlamydopsinae, beetles have evolved elongated legs for grasping the host for phoresy (Caterino & Dégallier, 2007). Additionally, some species have been reported from honey bee hives (Kruger *et al.*, 2017). Vertebrate inquilinism is also observed among histerid beetles in various habitats, including rodent burrows, bird nests, bat guanos and lizard hollows. Some Sapriniinae lineages have adapted to a psammophilous lifestyle, living in sand with unique adaptations for digging (Lackner *et al.*, 2019). They can be found in rotting materials on sand dunes or beaches along the coast (Kikuchi & Ôhara, 2023; Yélamos, 1989). Although troglobionts are rare in Histeridae, several records describe them in caves in Mexico, usually found in association with bat colonies (Vomero, 1973a).

Socio-Economic Importance and Utility

Importance to Agriculture

Earlier efforts to identify natural enemies of the banana weevil, a pest affecting most banana plantations in Asia, were primarily focused on investigating predatory groups. These groups included the histerid beetle *Plaesius javanus* Erichson, as well as *P. laevigatus* Marseul and some *Hololepta*. Abera-Kalibata *et al.* (2006) conducted a study revealing that histerid beetles, particularly the larvae, are the most significant predators. Field observations indicated that *Plaesius* larvae frequently entered banana weevil larvae tunnels within plant corms to hunt for prey. It was also demonstrated that the larvae of Histeridae were more efficient predators than the adults. The shape and soft bodies of the larvae allowed them to easily maneuver through the weevil tunnels, enabling them to consume a substantial number of banana weevil immatures compared to adults.

The histerid beetle *Carcinops pumilio* Erichson is a natural predator of the pestiferous housefly, making it crucial component in biological control efforts. Its effectiveness in limiting house fly populations in

poultry production settings has prompted extensive studies, positioning it as a potential augmentative biological control agent (Bills, 1973; Kaufman *et al.*, 2002a, 2002b; Achiano & Giliomee, 2005). Given its wide global distribution, the association of these beetles with domestic poultry, such as chickens and turkeys, likely contributed to their widespread presence across the globe (Legner & Olton, 1970). As a biological control agent, *Carcinops pumilio* has garnered research attention due to its voracious appetite for fly pests in poultry production. Depending on temperature, a single individual can consume over 100 fly eggs and maggots per day (Geden & Axtell, 1988). These beetles are considered highly effective in the biological control of flies in poultry production, primarily due to their high rate of fly predation.

The current focus on developing management regime for beetle pests necessitates comprehensive information on their natural enemies and their roles in regulating pest populations. Bark beetles (Scolytinae) form a diverse group capable of inflicting serious damage to forest resources (Knizek & Beaver, 2007). These beetles are fairly known to damage conifer forests and deciduous trees in the temperate regions. The taxonomic spectrum of predators targeting bark beetles includes histerid beetles from subfamilies Niponiinae, such as *Niponius canalicollis* Lewis, and Histerinae (Platysomatini) *Platysoma rimarium* Erichson, 1834 (Khanday *et al.*, 2018). In Holarctic region, the most common Histeridae associated with bark beetles belong to the *Platysoma* (Histerinae) and *Plegaderus* (Abraeinae) genera. These beetles are attracted to bark beetle pheromones and plant volatiles (Schroeder & Weslein, 1994; Shepherd, 2004). Such information is pivotal for the development of effective management strategies against bark beetles, considering the ecological interplay between these beetles and their natural predators.

Importance to Forensic Science

Since Histeridae are predatory beetles that inhabit carrion and feed on other insects, they have proven to be important in certain forensic investigations (Ozdemir & Osman, 2009). These beetles assist in estimating a person's time of death by examining them beetles on the corpse and determining the time of colonization (Kulshrestha & Satpathy, 2001). This information is crucial in determining the time since death or post-mortem interval (PMI) and obtaining qualitative information about the location of the crime (Matuszweski *et al.*, 2008; Byrd & Castner, 2009).

Developing Taxonomic Resources

The taxonomy of this diverse family has been fragmented until recently. Perhaps most ecologists considered this aspect as a supplementary tool to the entirety of their study, or it may be due to the challenging nature of scrutinizing and resolving taxonomic relationships within certain groups of histerid beetles. In the realm of describing species and understanding the higher taxonomic relationships of Asian Histeridae, the extensive and coherent works of Ôhara (1982–present) as a pioneer in histerid research of Asian and Pacific fauna, especially the Japanese Histeridae, have accelerated the development of histerid taxonomy in these regions. Despite meticulous revisions of the world catalogue from the early 1900s to 2011 (Lewis, 1910; Bickhardt, 1910; 1917; Mazur, 1984; 1997; 2011) revamping our systematic understanding of various complex groups in Histeridae, species determination often remains difficult for both experts and non-experts alike. The

absence of comprehensive keys and corresponding illustrations means that accurate species identification and validation require extensive inquiry into various literatures, often written many years ago in different languages without images and illustrations. This poses a reasonable hindrance to ecologists and other researchers who are not experts in the taxonomy of the group. Consequently, groups lacking detailed diagnostic materials are generally falsely represented and misutilized in ecological research and surveys. While the description of new species is significantly important for understanding the extent of biodiversity in a system, illustrated diagnostic tools are vital for the application of taxonomic work in ecological, biomonitoring and conservations studies.

Dissertation Overview

The principal objective of this study is to provide and enhance taxonomic resources for the Philippine fauna of Histeridae, with a focus on the large subfamily group of Histerinae (including the tribes Exosternini, Histerini, Hololeptini and Platysomatini). Additionally, the study aims to contribute to the taxonomic knowledge of the Oriental and Far Eastern Asian fauna, specifically focusing on the genus *Atholus* Thomson, 1859 (Histerini, Histerinae). The second chapter comprehensively reviews the taxonomy of all the Histerinae fauna in the Philippine archipelago, while the third chapter concentrates on reviewing the group *Atholus* belonging to tribe Histerini, in a larger-scale distribution.

CHAPTER II

TAXONOMY OF HISTERINAE Gyllenhal, 1808 (Coleoptera: Histeridae) IN THE PHILIPPINE ARCHIPELAGO

INTRODUCTION

The Philippines, an archipelago of approximately 7,000 islands in the Western Pacific, holds a unique position with respect to Wallace (Dickerson *et al.*, 1928). This archipelago is considered a faunal transition zone that, while largely limiting Asian and Australian representatives (Wallace, 1880; Mayr, 1976), is characterized by a significant degree of diversity and endemism. The major islands, Luzon and Mindanao, are essential components of the Philippines' biodiversity "hotspot" (Heaney & Regalado, 1998). These islands formed their respective Greater islands during the Pleistocene, while the remaining islands are oceanic, except for Palawan, which is a fragment of continental crust. Palawan was separated during the formation of the South China Sea basin and was connected to Borneo for a time. Earlier biogeographical researches on the Philippine archipelago suggests a consensus that Greater Palawan served as an Asian corridor to the Philippines and has a significant Sundaland biotic component.

Histerinae is a large group of histerid beetles constituting approximately 40% of all Histeridae species among the nine extant subfamilies, making it the most species-rich subfamily within Histeridae. According to most recent phylogenetic studies of Histeridae, integrating morphological, molecular and fossil data of early histerids (Zhou *et al.*, 2020; Pražák *et al.*, 2023), Histerinae members are among the groups that have recently evolved. This subfamily is divided into five tribes – Exosternini, Hololeptini, Platysomatini, Histerini and Omalodini – and shares transverse antennal cavities situated anteriorly on their prosternum. Among them, only Omalodini is not reported in the Philippines, as this group is mostly confined to the Neotropical region (Mazur, 2011). In the Philippines, the tribes Exosternini and Platysomatini Bickhardt, 1914, Hololeptini Hope, 1840, and Histerini Gyllenhal, 1808 are distributed across the archipelago.

Among the oldest described species of Histerinae found in the Philippines in later years are credited to the efforts of G. F. Erichson. He documented a few members of Platysomatini and Hololeptini, which are ubiquitous in the Oriental realm. Notably, Erichson described one of the oldest Philippine Histerinae species, *Platylister luzonicum* Erichson, 1834, a type species formerly assigned under the genus *Platysoma* (Platysomatini) and collected from Luzon island. This marked the beginning of a pioneering series of taxonomical works of several Philippine Histerinae by S. A. Marseul and G. Lewis. They worked extensively with vast collection of specimens gathered from various European expeditions to the Oriental Region during the mid-17th to the late 18th centuries.

Most of the type species described in the early 20th century was described by H. Bickhardt and H. Desbordes in their respective papers – "Philippinische Histeriden" by Bickhardt, 1914 published in the Philippine Journal of Science, and "Description de trois Histerides nouveaux des îles Philippines" by Desbordes, 1925. Many species were subsequently newly recorded in the Philippines during the revisions of Histeridae catalogues generated by G. Lewis, H. Bickhardt, and S. Mazur. According to the most recent catalogue as of 2011 by Mazur, there are 44 species of Histerinae reported in the Philippines.

To better understand the biodiversity and species composition of Histeridae in the archipelago, the subfamily Histerinae serves as a good representative group, encompassing two-thirds of all recorded species in the Philippines to date. Other than being the most species-rich group, Histerinae also represents a huge portion of histerid beetles in the Oriental region. This study aims to review Philippine Histerinae deposited in various museum collections by providing a comprehensive taxonomic literature for each available species. The review involves re-description and the provision of additional details for some species that are new records, as well as the description of putative new species from the archipelago.

HISTORICAL TIMELINE OF PHILIPPINE HISTERINAE

- 1808 Gyllenhal erected the name Histerinae based from the obsolete taxa Histeroides established by himself of the same year.
- 1834 Erichson described *Platysoma luzonicum* from Luzon Island.
- 1853 Marseul described *Platysoma lucifugum*, *Platysoma luzonicum* [different from Erichson's] and *Hololepta manillensis* from the Philippines.
- 1854 Marseul described *Hister philippinensis*.
- 1861 Marseul described *Hister faldermanni* from Luzon Island.
- 1868 Gemminger & Harold described *Hister manillensis* (nom. nod.).
- 1889 Schmidt described *Platysoma decipiens*, and synonymized it with *Platysoma luzonicum* described by Marseul.
- 1905 Lewis catalogued *Platysoma confucii* in the Philippines
- 1906 Lewis re-assigned *Hister philippinensis*, *H. torquatus* and *H. pirthous* into genus *Atholus*.
- 1914 Bickhardt published the Philippinische Histeriden, describing *Platysoma corticinus*, *Atholus bakeri* and *Santalus philippinarum*.
Bickhardt recorded four species of *Platysoma* (subgen. *Platylister*) from the Philippines – *P. (P.) abruptus*, *P. (P.) charrali*, *P. (P.) ovatus* and *P. (P.) striatiderum* from the Philippines.
Bickhardt recorded three species of *Apobletes* – *A. tener*, *A. feriatus* and *A. fictitius*.
Bickhardt recorded few Histerinae from other genera for the first time from the Philippines including *Hololepta elongata*, *Apobletes diopsipygus*, *Platysoma (Platysoma s. str.) uniforme*, and (*Cylistosoma dufali*.
- 1917 Desbordes synonymized *Hololepta manillensis* as *Hololepta indica*.
- 1919 Desbordes re-assigned *Platysoma (Cylistosoma) dufali* under the subgenus (*Platysoma*).
- 1920 Bickhardt erected the genus *Eurylister* and re-assigned *Platysoma uniforme* as *Eurylister uniforme*.
- 1925 Desbordes described *Platysoma philippinicola*, *Cylistosoma ineditum* and *Atholus nitidissimus* from the Philippines.
- 1932 Reitter synonymized *Apobletes tener* with *A. schaumei*.
- 1941 Cooman re-assigned *Cylistosoma ineditum* into genus *Cylista*.
- 1968 Théron described *Pachycraerus philippinensis* from the Philippines.
- 1981 Mazur re-assigned *Hister faldermanni* into *Margarinotus (Ptomister) faldermanni*.
- 1984 Mazur synonymized *Hister manillensis* (nom. nod.) into *Margarinotus (Ptomister) faldermanni*.
Mazur catalogued *Platysoma (Platysoma) dahdah* and *Merohister jekeli* in the Philippines.
Mazur re-assigned *Cylista* as a subgenus of *Platysoma*.
- 1997 Mazur catalogued *Hololepta higoniae*, *Apobletes cavatus*, *Platysoma (Platysoma) persimilis* and *Zabromorphus salebrosus* in the Philippines.
Mazur re-assigned *Platysoma (Cylista) ineditum* under the subgenus (*Cylistix*), and *Platysoma (Cylista) dufali* back to subgenus (*Platysoma) dufali*.
Mazur re-assigned some species of *Platysoma* including *P. abruptus*, *P. charrali*, *P. corticinus*, *P. densatus*, *P. lucifugus*, *P. ovatus* and *P. striatiderum* into the subgenus (*Platylister*).
- 1999 Kapler described *Asiaster duostriatus* from Leyte Island.
Mazur proposed the subgenus (*Popinus*) under the genus *Platylister* and re-assigned some species of *Platysoma (Platylister)* including *P. (P.) confucii*, *P. (P.) dahdah*, *P. (P.) decipiens*, *P. (P.) luzonicus*, *P. (P.) persimilis*, and *P. (P.) philippinicola* under *Platylister (Popinus)*.

- 2000 Ôhara and Mazur recorded *Plaesius (Hyposolenus) laevigatus* from the Philippines.
- 2008 Mazur erected the genus *Nasaltus*, re-assigning *Pachylister chinensis* as *Nasaltus chinensis* and *Santalus philippinarum* as *Nasaltus philippinarum*.
Gomy & Vienna erected the new genus *Sabahister*, and re-assigned *Pachycraerus philippinensis* as *Sabahister philippinensis*.
- 2011 Mazur re-assigned *Platysoma (Cylistix) ineditum* under the subgenus (*Cylistus*).
Mazur catalogued two species of *Apobletes* – *A. corticalis* and *A. marginicollis* in the Philippines.
- 2015 Mazur, Shavrin, Anichtchenko & Barševskis recorded *Hololepta laevigata*, *Anaglymma circularis*, *Plaesius (Plaesius) javanus*, *Eblisia lunatica*, *Eurylister silvestris*, *Apobletes gestroi*, *Platylister (Platylister) densatus*, *Nasaltus chinensis* and *Atholus coelestis* from the Philippines.
- 2023 dela Cruz & Ôhara recorded *Atholus torquatus* and *A. pirthous* from the Philippines.
- ~ dela Cruz recorded *Mesostrix bimaculata* from Palawan, and *Eblisia hobbyi* from Mindanao for the first time.
dela Cruz reported the first record of the genus *Notodoma* in the Philippines, and described the new species *N. sp. 1* from Luzon.
dela Cruz described three new species of *Platylister (Platylister)* – *P. (P.) sp. 1*, *P. (P.) sp. 2*, and *P. (P.) sp. 3*.
dela Cruz described two new species of *Platysoma* – *P. (Platysoma s. str.) sp. 1*.
dela Cruz described a new species of *Eurylister* – *E. sp. 1*, and a new species of *Kanaarister* – *K. sp. 1*.

MATERIALS AND METHODS

All museum specimens, except for those housed in the Systematic Entomology Laboratory of Hokkaido University Museum, were loaned. Additionally, several specimens were collected from decaying banana stumps on Mindanao Island, Philippines, in 2021. All collected materials were preserved in either ethyl acetate or 80% ethanol. The specimens were subsequently mounted and morphologically examined under stereo microscopes. Body measurements follow Ôhara (1994) guidelines and are indicated as follows: PEL (length between anterior angles of pronotum and apices of elytra), APW (width between anterior angles of pronotum), PPW (width between posterior angles of pronotum), EL (length of elytron along sutural line), and EW (maximal width between outer margins of elytra).

The dissections of male genitalia were carried out under stereo microscopes (Nikon SMZ800, Nikon SMZ745T with Nikon Digital Sight DS-Fi2 and Nikon Eclipse E800). Materials of interest were prepared by relaxing specimens in boiled water for several hours or overnight and were subsequently utilized for close examination. The genitalia underwent treatment in 10% KOH at 60°C for an hour, followed by washing in 80% ethyl alcohol. They were then soaked in acid fuchsin at 60°C for 3 hours, re-treated in a glacial acetic acid and methyl salicylate (1:1) mixture for 15 minutes, washed in xylene for 15 seconds, and finally observed in α -terpineol. The genitalia were preserved in Canada balsam resin on a small glass slide and then pinned.

Detailed observations of several structures were conducted using scanning electron microscopy (SEM) JEOL JSM-6301F. Image processing was performed using Adobe Photoshop CS6 for habitus and SEM files, Procreate for line-arts, and Image-J for measurements.

Museums and institution I got some of the loan specimens [*former curator], except from SEHU:

EUM Laboratory of Environmental Entomology, Ehime University Museum, Matsuyama; Drs. Sadanari Hisamatsu*, Nobuo Ohbayashi*, Masahiro Sakai*, Kazuhiko Konishi, Hiroyuki Yoshitomi.

SYSTEMATICS

Key to occurring tribes of the subfamily Histerinae from the Philippine archipelago, adapted from the Japanese Histerinae, Ôhara (1994)

- 1 Protarsal cavity on the anterior surface of protibia straight ----- 2.
- Protarsal cavity on the anterior surface of protibia sinuate ----- 3.

- 2 Anterior margin of mesoventrite bisinuate ----- Tribe Exosternini Bickhardt, 1917.
- Anterior margin of mesoventrite non-bisinuate ----- Tribe Histerini Gyllenhal, 1808.

- 3 Head horizontal in repose ----- Tribe Hololeptini Lacordaire, 1854.
- Head vertical in repose ----- Tribe Platysomatini Bickhardt, 1917.

Tribe **EXOSTERNINI** Bickhardt, 1914

Type genus *Exosternus* Lewis, 1902.

Key to the Genera of Philippine Exosternini Bickhardt, 1914

- 1 Anterior margin of mesoventrite bisinuate, obtuse medially ----- 2.
- Anterior margin of mesoventrite bisinuate, acuminate in the middle -----
----- Genus *Sabahister* Gomy & Vienna, 2008.

- 2 Metaventral intercoxal disk without any striae, except for lateral metaventral stria on the lateral sides
separating the lateral metaventral disk ----- Genus *Anaglymma* Lewis, 1894.
- Metaventral intercoxal disk impressed with either or both transverse and median striae, except for
lateral metaventral stria ----- Genus *Notodoma* Lacordaire, 1854.

Genus *Anaglymma* Lewis, 1894

The genus *Anaglymma* Lewis, 1894 comprises of ten species distributed only in the Afrotropical and Oriental regions. In the Philippines, one species is recorded – *A. circularis* Marseul, 1864.

Anaglymma circularis (Marseul, 1864)

(Figs. 2A, 16, 17).

Macrosternus circularis Marseul, 1864: 286.

Anaglymma circularis: Lewis, 1905d: 49 [catalogued]; Bickhardt, 1910: 69 [catalogued]; 1917: 221 [catalogued]; Mazur, 1984: 289 [catalogued]; 1997: 31 [catalogued]; 2011 [catalogued]; Mazur *et al.*, 2015: 1453, f. 9, p. 1462.

Specimens examined. [Mindanao] 1 ♀, Mt. Talemo, 10.VI.1977, M. Satô leg. (SEHU)

Re-description. Body length: PEL: 2.17 mm; APW: 0.75 mm; PPW: 1.40 mm; EL: 1.35 mm; EW: 1.77 mm. Body (Figs. 2A, 16A–B) oval, subconvex, black to slightly rufous; tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface of head (Fig. 16C) slightly depressed anteriorly, punctate with dense, ocelloid punctures. Anterior margin of clypeus straight; frontal stria short, impressed only on lateral sides above the eyes; the anterolateral margin feebly crenate. Mandible stout, prominent, the surface of the outer margin finely punctate, apical tip impunctate. Labrum transversely elongated, with short seta-hair like denticle on each lateral side. Eyes well visible dorsally.

Pronotum. Pronotum (Fig. 16A) trapezoidal, widest at base, arched at the sides, convergent forward; the apical angle sharp, anterior margin bisinuous. Marginal stria close to lateral margin; the anterior stria complete, moderately crenate. Surface of pronotum (Fig. 16D) clothed with dense punctures, the anterolateral portion covered coarse punctures, becoming finer towards mediobasal, interspersed with microscopic punctation.

Elytra. Elytra (Fig. 16A) widest on basal fourth. Epipleural and elytral marginal striae (Fig. 17B) complete, carinate. Outer subhumeral stria (Fig. 16E) impressed on apical half. Inner subhumeral stria almost complete, slightly shortened on both basal and apical ends. Elytral dorsal striae 1–3 (Fig. 16E) complete, the apical ends replaced by row of coarse punctures; dorsal striae 4 and 5 on basal 3/4, the apical ends similar to the apex of dorsal striae 1–3, sometimes carinate; sutural stria abbreviated on basal fourth, the posterior end replaced by punctures. Disk of elytra covered with conspicuous punctures on apical half, becoming denser near the posterior margin; entire surface clothed with fine punctations.

Propygidium and pygidium. Punctures in propygidium (Fig. 16F) dense, round, slightly deep, separated by their diameter, intermingled with sparse, microscopic punctures. Punctations in pygidium (Fig. 16F) almost similar to that of propygidium; the posterolateral margin slightly elevated.

Prosternum. Anterior margin of prosternal lobe (Fig. 17A) round. Marginal stria deeply impressed, carinate; the posterior end almost attaining the prosternal suture; lateral disk with even punctations, the lateral portion appearing as ocelloid. Prosternal keel with carinal stria on both sides; surface of disk finely punctate; posterior margin strongly sinuate.

Meso-metaventricle and abdomen. Anterior area margin of mesoventrite (Fig. 17B) bisinuate. Marginal stria arcuate, acute anteriorly, clearly impressed. Posterior mesocoxal stria strongly impressed, long, almost attaining the metacoxa. Lateral metaventral stria (Fig. 16B, 17B) extending posteriorly along with the post-mesocoxal stria, the apical end briefly abbreviated close to inner edge of metacoxa. Intercoxal disk of metaventricle finely punctate on basal 3/4, the posterolateral portion with coarse punctation. Lateral metaventral disk (Fig. 17B) covered with large, shallow, semi-circular punctures, interspace among large punctures intermingled with fine punctation. Intercoxal disk of first abdominal coarsely punctate. Surface of second to fourth abdominal ventrites clothed with fine punctation.

Legs. Protibia narrowly elongate. Anterior surface of protibia (Fig. 17C) with strigose sculpture. Inner margin with row of short, seta-like hair; inner marginal stria impressed on basal 3/4. Outer lateral margin generally with three teeth. Row of short denticles present on the inner side of protarsal groove; near tarsal insertion of protarsal groove with two short denticles. Posterior surface of protibia (Fig. 17D) finely punctate,

lightly strigate. Number of denticles on the outer margin around five, one on inner apical angle. Median posterior stria complete; the inner marginal stria lightly impressed with row of small, seta-like denticles.

Male genitalia. Not available in this study.

Distribution. Singapore, Malaysia: Sarawak, Indonesia: Sumatra, Vietnam, Taiwan, Philippines.

Genus *Notodoma* Lacordaire, 1854

The genus *Notodoma* Lacordaire, 1854 comprises of six species to date, in which five species occur in the Oriental region. In this manuscript, I have described a putative new species from the Philippines.

Notodoma sp. 1

(Figs. 2B, 18, 19).

Specimens examined. [Luzon] 2 ♀♀, Ifugao, Mt. Polis, 1900 masl, 4–5.VI.1977, M. Satô leg.

Description. Body length: PEL: 2.00 mm; APW: 0.60 mm; PPW: 1.40 mm; EL: 1.25 mm; EW: 1.73 mm. Body (Figs. 2B, 18A–B) globose, convex, light rufous to orange, eyes and middle area of elytra black; tarsi, maxillary palpi and antennae yellow-orange.

Head. Surface of head (Fig. 18C) feebly depressed on the anterior portion, punctate with coarse, ocelloid punctures. Anterior margin of clypeus straight; frontal stria deeply impressed laterally above the eyes, the apical end strongly curved towards the inner side, but not united. Mandible short, stout. Labrum transversely elongated, arcuate on anterior margin. Eyes well visible dorsally.

Pronotum. Pronotum (Fig. 18A) widest at the base, the basal margin obtuse; the anterior margin straight. Marginal stria fine, close to lateral margin; the anterior stria complete. Surface of pronotum (Fig. 18F) covered with round, shallow, coarse punctation, more visible near the margins, becoming sparser on the middle, interspersed with microscopic punctation.

Elytra. Epipleural and elytral marginal striae (Fig. 19D) complete, lightly impressed. Outer subhumeral stria (Fig. 18E) impressed on apical half. Inner subhumeral stria complete, the basal tip moderately curved inwards. Outer subhumeral stria shortened on basal fourth, the apical tip joined the posterior stria along the posterior margin. Elytral dorsal striae 1–2 (Fig. 18E) carinated, the basal half of dorsal stria 1 distant from the basal tip of outer subhumeral stria; dorsal stria 3 absent; dorsal stria 4 complete, strongly carinate; dorsal stria 5 none; sutural stria impressed on apical half, bent, extending outwardly towards the apical tip of outer subhumeral stria, united. Disk of elytra microscopically punctate, almost smooth.

Propygidium and pygidium. Propygidium (Fig. 19A) sparsely and finely punctate. Punctations in pygidium (Fig. 19B) almost similar to that of propygidium; becoming finer towards the apex.

Prosternum. Anterior margin of prosternal lobe (Fig. 19C) round, raised. Marginal stria complete, clearly impressed; prosternal suture well-visible; lateral disk with large punctation. Prosternal keel with carinal stria on both sides; surface of disk coarsely punctate, sparse; posterior margin strongly sinuate.

Meso-metaventricle and abdomen. Anterior area margin of mesoventrite (Fig. 19C) broadly bisinuate. Marginal stria interrupted in the middle. Transverse stria strongly carinate, both lateral ends shortened. Posterior

mesocoxal stria wanting. Lateral metaventral stria (Fig. 18B, 19D) deeply impressed, extending posteriorly and obliquely towards the inner edge of metacoxa. Median stria of metaventricle (Fig. 19C) arched, crenulate. Intercoxal disk of metaventricle clothed with sparse, fine punctation. Lateral metaventral disk (Fig. 19D) covered with large, shallow, ocelloid punctures, interspace among large punctures intermingled with fine punctation. Intercoxal disk of first abdominal sparsely punctate with fine punctures, the apical half becoming inconspicuous.

Legs. Protibia narrowly elongate. Anterior surface of protibia (Fig. 19E) lightly strigate. Inner margin with row of short, seta-like hair. Outer lateral margin spinose, with seven conspicuous, short teeth. Row of short denticles present on the inner side of protarsal groove. Posterior surface of protibia (Fig. 19F) microscopically punctate, lightly strigate. Number of denticles on the outer margin around nine to ten, one on inner apical angle, very small. Median posterior stria impressed on basal half; the inner marginal stria lightly impressed with row seta-like denticles, becoming shorter towards the base.

Male genitalia. Not available in this study.

Distribution. Philippines.

Genus *Sabahister* Gomy et Vienna, 2008

The genus *Sabahister* was erected by Gomy & Vienna, 2008 and only consists of two species, *S. philippinensis* Théron, 1963 and *S. esmeraldae* Gomy et Vienna, 2008, in which the latter was designated as the type species for the genus after it was described as a new species on 2008. A single species is recorded from the Philippines.

Sabahister philippinensis (Théron, 1963)

Pachycaerus philippinensis Théron, 1963e: 111; Mazur, 1984: 295 [catalogued]; 1997: 46 [catalogued].

Sabahister philippinensis: Gomy & Vienna, 2008: 184; Mazur, 2011: 42 [catalogued].

Specimens examined. Not available in this study.

Distribution. Philippines: Luzon.

Tribe **HISTERINI** Gyllenhal, 1808

Type genus: *Hister* Linnaeus, 1758.

Key to the Genera and Sub-genera of Philippine Histerini Gyllenhal, 1808

- 1 Anterior margin of mesoventrite straight or truncate ----- 2.
– Anterior margin of mesoventrite emarginate ----- 3.
- 2 Protibia with short, robust spines near the apical angle ----- Genus *Asiaster* Cooman, 2008.
– Protibia without remarkable short, robust spines near the apical angle – Genus *Atholus* Thomson, 1859.
- 3 External subhumeral stria of elytron not complete ----- 4.
– External subhumeral stria of elytron complete ----- Genus *Margarinotus* Marseul, 1854.
- 4 Pronotum with two lateral striae ----- 5.
– Pronotum with one lateral stria ----- Genus *Merohister* Reitter, 1909.
- 5 Apex of the inner lateral pronotal stria very distant from the margin; elytra always with coriaceous sculpture ----- Genus *Nasaltus* Mazur *et* Węgrzynowicz, 2008.
– Apex of the inner lateral pronotal not so distant from the margin; elytra with coriaceous sculpture, sometimes densely punctate ----- Genus *Hister* Linnaeus, 1758.

Genus *Margarinotus* Marseul, 1854

The genus *Margarinotus* Marseul, 1854 is subdivided into nine subgenera comprising of 109 species, one of the highest number of species within the tribe Histerini. In the Philippines, only one species is reported under the subgenus *Ptomister*, and is also an endemic – *Margarinotus (Ptomister) faldermanni* Marseul, 1861.

Margarinotus (Ptomister) faldermanni (Marseul, 1861)

Hister faldermanni Marseul, 1861c: 529.

Hister (Hister) faldermanni: Bickhardt, 1910: 43 [catalogued]; 1917: 181 [catalogued].

Margarinotus (Ptomister) faldermanni: Mazur, 1984: 165 [catalogued]; 1997: 93 [catalogued]; 2011: 78 [catalogued].

Margarinotus faldermanni: Wenzel, 1944: 126.

Hister manillensis: Gemminger & Harold, 1868: 768 (nom. nod.).

Diagnosis. This Philippine endemic *Margarinotus* is generally determined for its flat head and complete frontal stria, which is slightly curved posteriorly. The prosternum bears two lateral striae, and the subhumerus is impressed with outer subhumeral stria. The elytra are also impressed with dorsal striae 1–4,

dorsal stria 5 and sutural stria is on the apex. Propygidium and pygidium densely punctate. The prosternal lobe is flat, and the anterior margin of mesoventrite is emarginated.

Specimens examined. Not available for this study.

Distribution. Philippines: Luzon.

Genus *Nasaltus* Mazur *et* Węgrzynowicz, 2008

Nasaltus Mazur *et* Węgrzynowicz, 2008: 187; Mazur, 2011: 86 [catalogued]; Lackner *et al.*, 2015: 102.

Type species: *Hister orientalis* Paykull, 1811: 17.

Diagnosis. Body more or less elongate and convex. Labrum transverse, rounded or expanded anteriorly. Frontal stria complete, prolonged along the eyes. Pronotal sides arcuate apically, the epipleura ciliate. Inner lateral pronotal stria very distant from the lateral margin, more distant anteriorly. Elytral striae 1–4 complete, sutural stria absent. Inner subhumeral stria present. Elytral surface with coriaceous microsculpture. Pygidium more or less completely margined basally. Mesoventrite deeply emarginate anteriorly. Protibia with three large teeth on the outer margin. Aedeagus long, slightly dilated in the apical portion. Basal piece relatively short.

Nasaltus chinensis (Quensel, 1806)

(Figs. 3, 20, 21).

Hister chinensis Quensel, 1806: 588.

Hister (Pachylister) chinensis: Bickhardt, 1910: 38 [catalogued].

Pachylister chinensis: Lewis, 1904: 146; Bickhardt, 1917: 174 [catalogued]; Mazur, 1997: 105 [catalogued]; Ôhara, 1999a: 106 [re-description]; 1999b: 41 [additional description].

Pactolinus (Pactolinus) chinensis: Mazur, 1984: 180 [catalogued].

Nasaltus chinensis: Mazur & Węgrzynowicz, 2008: 185; Mazur, 2011: 86 [catalogued].

Hister distorsus Marseul, 1854: 195.

Hister incisus Erichson, 1834: 34, synonymized by Marseul, 1861: 512.

Hister major Herbst, 1792: 48, synonymized by Lewis, 1905d: 23.

Hister mandibularis Guérin-Ménéville, 1837: 59, synonymized by Dejean, 1837: 140.

Specimens examined. [Luzon] 5 exs. 1 ♂, Nueva Vizcaya, IV.2005, no collector's name indicated; 2 exs., Camarines Sur, Bicol National Park near Daet City, Alanao, 8–9.VIII.1988, T. Ito leg.

Re-description. Body length: PEL: 7.20 mm; APW: 2.72 mm; PPW: 5.44 mm; EL: 4.00 mm; EW: 6.15 mm. Body (Figs. 3, 20A–B) oval, convex, black; tarsi, maxillary palpi and antennae dark rufopiceous.

Head. Apical margin of head (Fig. 20C) short, entire and slightly forward, but anterolateral margin widely crenate; frontal stria of head round, lightly impressed, widely interrupted in the middle; disk almost impunctate; occipital fovea absent; labrum forward, apical portion ovate; mandible large, robust, surface slightly coriaceous

with rounded outer margin curved inwardly; sub-apical teeth on left mandible two, weak; mandibular apex acutely pointed; eyes well-visible dorsally.

Pronotum. Pronotum with marginal stria visible on the sides; outer lateral pronotal stria (Fig. 20E) lightly impressed on apical half, the apical tip hamate; inner lateral pronotal stria clearly impressed, abbreviated on apical 8th, the apical portion becoming more distant from the lateral margin; anterior pronotal stria rudimentary, sometimes inconspicuous; disk almost impunctate, with coriaceous microsculpture, similar to that of the head; posterior margin slightly forward towards the scutellum, without row of coarse punctures.

Elytra. Epipleural fossette (Fig. 21B) smooth; epipleural marginal stria feebly impressed medio-apical portion; elytral marginal stria complete, closer to epipleural suture than the edge of elytra; external subhumeral stria absent; internal subhumeral stria (Fig. 20F) straight, deeply impressed on apical third; oblique stria lightly impressed on basal fourth; dorsal striae 1–4 (Fig. 20F) complete, the basal tip of stria 4 briefly shortened; dorsal stria 5 present on apical half; sutural stria wanting; disk coriaceous.

Propygidium and pygidium. Propygidium (Fig. 21C) densely covered with fine, round punctures, separated by 2–3 times their diameter; near the posterior margin almost impunctate; pygidial punctations (Fig. 21C) similar to those of propygidium, but denser and more compact.

Prosternum. Prosternal lobe (Fig. 21A) with anterior margin round; medio-apical end ascending; marginal stria lightly impressed, becoming more distant from the margin posteriorly; lobe with ocelloid, coarse punctures on the lateral sides, the middle of the disk smooth; prosternal suture lightly impressed; prosternal process narrowed posteriorly, becoming a little wider on the base; the lateral sides descending; lateral disk with coarse, setiferous punctures; the posterior margin of basal lobe ovate towards the mesoventral margin.

Meso-metaventricle and abdomen. Anterior margin of mesoventrite (Fig. 21A) strongly emarginate; marginal stria impressed, broadly interrupted medially along the emargination; mesoventral disk feebly coriaceous, almost impunctate; meso-metaventral suture clearly impressed, complete, feebly angulated at the middle; lateral metaventral stria (Fig. 21B) deeply impressed, extending obliquely, the apical half transversely united with oblique stria which inwardly extends from middle of metaventro-metepisternal suture; post-mesocoxal stria extending posteriorly and strongly curved along the posterior margin of mesocoxa; surface of intercoxal disk in metaventricle similar to that of mesoventrite; longitudinal suture of metaventricle lightly impressed; lateral disk of metaventricle (Fig. 21B) divided by the slightly elevated oblique stria, the basal half moderately covered with setiferous, large punctures, with long seta-like hairs on the basal portion; the apical half with large ocelloid punctations; the interspace among the large punctures clothed with sparse, coarse to fine punctations; metepisternum with moderately punctate on apical half, with few seta-like hairs; apical half punctations in mesepimeron, metepimeron and lateral disk of first abdominal ventrite covered with densely setiferous, large punctures, sometimes appearing as rugae; the interspaces covered with few, coarse to fine punctations; punctation of intercoxal disk of first abdominal ventrite similar to that of metaventricle; lateral stria impressed, shortened on the basal end.

Legs. Anterior surface of protibia (Fig. 21E) flattened, dilated and clothed with few, fine ocelloid punctures; the basal area near the outer margin with row of six, short denticles; protarsal groove slightly deep; near tarsal insertion with two long, spine-like tarsal denticles present; another one more distant, located at inner anterior angle; protibial spur moderately long, tapering from basal margin, about half the length of protarsus;

posterior surface of protibia (Fig. 21F) sparsely punctate, coriaceous; number of denticles on lateral outer margin five; median posterior stria complete; inner posterior stria with row of sharp, sclerotized setae.

Male genitalia. Aedeagus (Figs. 78A–B) of male genitalia elongated, the apical half moderately broadened, appearing as lobed; apically moderately curved ventrad; parameres are relatively longer, about as almost as thrice the length of the basal piece, slightly fused on apical third; median lobe strongly sclerotized; posterior margin of eighth tergite (Fig. 78E–F) widely emarginate; ninth tergite (Figs 78C–D) wider anteriorly; spiculum gastrale almost as same length with ninth tergite, widely bifurcate on the middle towards the anterior portion.

Distribution. China, East India, Japan, Taiwan, Oriental Region including the Philippine archipelago. Introduced to Pacific Islands: Fiji, Samoa, Vanuatu, Solomon Islands, USA: Hawaii, Trinidad, French Guyana.

Nasaltus philippinarus (Bickhardt, 1914)

Santalus philippinarum Bickhardt, 1914a: 588; 1917: 172 [catalogued].

Santalus (Pactolinus) philippinarum: Mazur, 1984: 180 [catalogued].

Pachylister (Santalus) philippinarum: Mazur, 1997: 107 [catalogued]; Degallier *et* Mazur, 1989: 84.

Nasaltus philippinarus: Mazur & Węgrzynowicz, 2008: 189; Mazur, 2011: 86 [catalogued].

Diagnosis. This endemic *Nasaltus* from the Philippines is mark with an entire frontal stria, while the pronotum is impressed with two lateral striae. Internal subhumeral stria is on the apical half. The elytra are also impressed with complete dorsal striae 1–4, the dorsal 5 is shortened at the base. Both propygidium and pygidium densely punctate. Among all the species of *Nasaltus*, this endemic is relatively more elongated on its body size.

Specimens examined. Not available in this study.

Distribution. Philippines: Luzon.

Genus *Hister* Linnaeus, 1758

Hister Linnaeus, 1758 is the most numerous Histerini comprising of 191 species, which is still considered a complex group that needs more attention for revision. One species is recorded in the Philippines – *Hister salebrosus* Schleicher, 1930. This species was re-described by Ôhara (1994) based from Japanese specimens, and was still placed under the genus *Zabromorphus* Lewis, 1906, as *Z. punctulatus*.

Hister salebrosus Schleicher, 1930

Hister (Zabromorphus) salebrosus Schleicher, 1930: 132.

Zabromorphus salebrosus: Bickhardt, 1917: 177 [catalogued]; Mazur, 1984: 204 [catalogued]; 1997: 123 [catalogued].

Hister salebrosus: Mazur, 2011: 95 [catalogued].

Zabromorphus salebrosus subsolanus Newton, 1991: 13

Zabromorphus punctulatus Wiedemann, 1819: 162; Ôhara, 1994: 132; synonymized by Newton, 1991: 13.

Diagnosis. This species of *Hister* is distinctive of its dense, large and deep punctures on its pronotum and elytra. The head is also heavily punctured, bearing a complete frontal stria. Both lateral pronotal striae (outer and inner) is entirely impressed, while both subhumeral striae are also present (external on basal half, internal on apical 2/3). The elytral dorsal striae 1–4 are complete, dorsal 5 is on apical third, and the sutural stria on apical fourth. Both propygidium and pygidium are also densely punctate, but distinct on their apical tips which are impunctate.

Specimen examined. Not available in this study.

Distribution. Japan, Taiwan, Indochina, Indonesia: Java, Philippines.

Genus *Merohister* Reitter, 1909

Merohister Reitter, 1909 includes seven species, which is distributed the Holarctic and Oriental Regions. In the Philippines, one species – *Merohister jekeli* (Marseul, 1857), which also occurs Russian Far East and Japan, including south towards India, which is also possible to exist across the Indo-Malayan region. This species has been re-described by Ôhara, 1992: 378, provided with illustrations on male genitalia and spermatheca of the female.

Merohister jekeli (Marseul, 1857)

Hister jekeli Marseul, 1857: 417.

Hister (Hister) jekeli: Bickhardt, 1910: 44 [catalogued]

Hister (Merohister) jekeli: Bickhardt, 1917: 188 [catalogued].

Merohister jekeli: Lewis, 1915: 15; Mazur, 1984: 201 [catalogued]; 1997: 120 [catalogued]; 2011: 97 [catalogued]; Ôhara, 1994: 136.

Pactolinus jamatus: Motschulsky, 1866: 169, synonymized by Harold, 1877: 345.

Hister aino: Lewis, 1884: 134, synonymized by Bickhardt, 1918: 230.

Diagnosis. *Merohister jekeli* (Marseul, 1857) is characterized for its complete frontal stria, but sometime narrowly interrupted in the middle. The surface of pronotum is generally coriaceo-reticulate, with a complete lateral stria; the punctuation behind the anterolateral angle is also prominent. Elytral dorsal surface is impressed with complete striae 1–4, although the dorsal stria 4 quite variable on its length. The subhumerus is also marked with external stria on basal half, and internal one on the apical half, but usually reduced. Both propygidium and pygidium of this species is densely punctate, while the anterior margin of mesoventrite is strongly emarginated.

Specimens examined. Not available in this study.

Distribution. Northeast China, Russia: Far East, Kuril Islands, Korea, Japan, India, Philippines.

Genus *Atholus* Thomson, 1859
(Figs. 4, 113–114, 121–122, 147, 149–152, 159–160).

The genus *Atholus* Thomson, 1859 includes 77 species, representing the third highest number of species, after *Hister* Linnaeus, 1758, and *Margarinotus* Marseul, 1854. The majority of the members of this group is previously treated as species of *Hister*, but regarded as an independent genus years later for its exclusive non-emarginate marginal stria along the anterior margin of its mesoventrite. All *Atholus* species recorded to date were all examined in this paper, subsequently adding two more new records – *A. torquatus* (Marseul, 1854) (given here with re-description), and *A. pirithous* (Marseul, 1854) in the Philippines. Currently, six species of *Atholus* occurs in the archipelago.

Diagnoses. (see Chapter III of this manuscript.)

Key to the Species of Philippine *Atholus* Thomson, 1859

- 1 Dorsal elytral stria 4 incomplete, present only in basal half or shorter ----- 2.
– Dorsal elytral stria 4 complete ----- 3.
- 2 External subhumeral stria absent ----- *A. nitidissimus* Desbordes, 1925.
– External subhumeral stria almost complete ----- *A. philippinensis* (Marseul, 1854).
- 3 Apical end of elytral dorsal stria 3 strongly bent inwards; anterior margin of mesoventrite slightly emarginated ----- *A. coelestis* (Marseul, 1857).
– Apical end of elytral dorsal stria 3 stria normal; anterior margin of mesoventrite without emargination ----- 4.
- 4 Lateral pronotal stria not interrupted, connected to anterior marginal stria behind head -----
----- *A. pirithous* (Marseul, 1873).
– Lateral pronotal stria broadly interrupted on anterolateral angle ----- 5.
- 5 Propygidium punctate, the punctures becoming finer on pygidium; protibial teeth conspicuous, stronger apically ----- *A. torquatus* (Marseul, 1854).
– Both propygidium and pygidium strongly punctate; protibial teeth weak and less conspicuous, protibia almost paddle-shaped ----- *A. bakeri* (Bickhardt, 1914).

Genus *Asiaster* Cooman, 1948

The genus *Asiaster* Cooman, 1948 is a small group of Histerini comprising of only seven species confined mostly in the Oriental Region, and eastern parts of China, including Taiwan. One species endemic to the Philippines was also described by Kapler (1999) – *Asiaster duostriatus*.

Diagnosis. The genus *Asiaster* differs from other genera of Histerini its characteristic brush of short, robust spines on ventral side of their tibiae, particularly more expressed on the protibiae.

Asiaster duostriatus Kapler, 1999

Asiaster duostriatus Kapler, 1999b: 286; Mazur, 2011: 107 [catalogued].

Specimens examined. Not available in this study.

Diagnosis. *Asiaster duostriatus* is discriminated from other *Asiaster* for its unimpressed elytral dorsal striae 4 and sutural stria, and by the reduced dorsal stria 3 of its elytra.

Distribution. Philippines: Leyte.

Tribe **HOLEPTINI** Hope, 1840

Type genus *Hololepta* Paykull, 1811.

Genus *Hololepta* Paykull, 1811

Hololepta Paykull, 1811; Erichson, 1834: 87; Marseul, 1853: 135; 1857: 135, 155; Lacordaire, 1854: 249; Jacquelin-Duval, 1858: 98; Schmidt, 1885b: 281, 284; 1889: 72; Ganglbauer, 1899: 353; Reitter, 1909: 280; Jakobson, 1911: 638, 642; Kuhnt, 1913: 365; Bickhardt, 1916: 25; 1921: 45; Carnochan, 1917: 378; Desbordes, 1917c: 297–301; 1917b: 165–168; Cooman, 1939: 61; Witzgall, 1971: 178; Kryzhanovskij & Reichardt, 1976: 403; Vienna, 1980: 340; Mazur, 1973: 50; 1984: 249; Hisamatsu, 1985: 221, Ôhara, 1991a: 101–110; 1991b: 235–242; 1994: 91.

Type species: *Hololepta humilis* Paykull, 1811. Designated by Leach, 1817: 79.

Diagnosis of adult. Ôhara, 1991a: 102–103.

Larva and pupa. Hayashi, 1986 & Mamayev, 1974 (*H. amurensis*).

The genus *Hololepta* is divided into two subgenera by the following characters:

- 1 Prosternum generally large, flat or elevated, its anterior margin truncate or arcuate. Posterior tibia weakly dentate. Mentum without groove ----- *Hololepta*.
- 2 Prosternum narrow, elevated, its anterior margin acute. Posterior tibia usually dentate. Groove of mentum M-shaped ----- *Leionata*.

The subgenus *Hololepta* is distributed all over the world and well-represented in the Neotropical region, while *Leionata* is found in the Nearctic, Neotropical and Ethiopian Regions.

Subgenus *Hololepta* Paykull, 1811

This subgenus includes 76 species in the world (Mazur, 2011). There are four species recorded in the Philippine archipelago, and two species are available in this study.

Key to the Philippine Species of *Hololepta* Paykull, 1811

Two species are not available in this study, however the diagnosis of *H. higoniae* is based from the re-description of a Japanese material (Ôhara, 1991), and *H. laevigata* is based from a photo of a Philippine material (Mazur et al., 2015).

- 1 Head with a remarkable protuberance at the middle portion ----- 2.
- Head smooth, without protuberance ----- 3.
- 2 Anterolateral portion of propygidium impunctate ----- *H. elongata* Erichson, 1834.
- Anterolateral portion of propygidium punctate ----- *H. laevigata* Guérin-Ménéville, 1833.
- 3 Propygidium with half-circular stria on each side ----- *H. higoniae* Lewis, 1894.
- Propygidium with punctations, without striae ----- *H. indica* Erichson, 1834.

***Hololepta elongata* Erichson, 1834**

(Figs. 5A, 22–23, 79).

Hololepta elongata Erichson, 1834a: 92 [Java]; Bickhardt, 1910: 5 [catalogued]; 1914: 423 [Luzon]; Bickhardt, 1916: 27 [catalogued].

Hololepta (Hololepta) elongata: Mazur, 1984: 261 [catalogued]; 1997: 55 [catalogued]; 2011: 49 [catalogued]; Mazur *et al.*, 2015: 1455 [Philippines]; Lackner *et al.*, 2015: 104 [catalogued].

Specimens examined. [Luzon Island] 1 ex. (EUM), Mt. Makiling, 19–20.VI.1978, N. Ohbayashi. [Negros Island] 1 ex., Mt. Canla-on, 5.VIII.1988, (sem & hab), D. Mohagan leg; 2 ♂♂, same data label; 1 ♀, same data label; 3 exs., same data label.

Diagnosis. *Hololepta elongata* Erichson, 1834 is distinguished with the combination of its protuberance of head and impunctate propygidium.

Re-description. Body length: PEL: 4.40 mm; APW: 1.65 mm; PPW: 2.90 mm; EL: 1.70 mm; EW: 2.82 mm. Body (Figs. 5A, 22A–B) extremely depressed, dorsoventrally flattened, oblong, black and shining; tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface of head (Fig.22C) sparsely clothed with fine punctures, separated by 4–6 times their diameters; middle area of head with remarkable protuberance. Anterolateral margin crenate, and roundly depressed on each side behind the eye. Mandible well-developed; surface covered with sparse, fine punctures similar to surface of the head. Labrum with a deep impression on mid-line.

Pronotum. Pronotal sides (Fig. 22E) arcuate and convergent anteriorly and posteriorly. Anterior angles round. Marginal pronotal stria laterally complete, interrupted on the apical angle. Surface of pronotum sparsely clothed with microscopic punctures, sometimes fine punctures close to the lateral side.

Elytra. Epipleura of elytron (Fig. 23B) slightly depressed along with epipleural marginal stria. Marginal epipleural stria complete. Margin of elytron (Fig. 22F) with a longitudinal fossa occupying the medio-basal area. Rudimentary second present on basal eighth; third shorter, sometimes inconspicuous. Surface almost smooth, with few and sparse microscopic punctures.

Propygidium and pygidium. Propygidium (Fig. 23C) pentagonal, flat and smooth. Basolateral stria semi-circular and moderately impressed, interrupted on the basal tip. Pygidium (Fig. 23C) sparsely clothed with microscopic punctures.

Prosternum. Anterior margin of prosternal lobe (Fig. 23A) straight. Prosternal lobe short, transverse and microscopically punctulate. Prosternal keel flat, rather broad, narrowest at middle, becoming broader posteriorly, without stria separating the lobe from the keel; posterior margin of the keel obtusely and outwardly angulate. Prosternal keel overhanging the anterior portion of mesosternum.

Meso-metaventricle and abdomen. Anterior area of mesoventrite (Fig. 23A) covered with prosternal keel. Marginal stria of mesoventrite separated onto each side of anterior margin, laterally absent. Meso-metaventral suture complete, obtusely angulate at middle. Lateral metaventral stria (Fig. 23B) extending laterally and obliquely, the apical end attaining but not united to the basal fourth of metaventro-metepisternal suture. Punctures of mesoventral disk microscopically punctulate, sparser on metaventral disk. Lateral metaventral disk (Fig. 23B) with shallow lateral stria, abbreviated towards metaventro-metepisternal suture. Intercoxal disk of first abdominal ventrite microscopically punctulate, with complete lateral stria on each side. Surface of second to fourth abdominal ventrites (Fig. 23D) microscopically punctulate; transverse stria of second abdominal ventrite almost complete, third abdominal ventrite widely interrupted on the middle.

Legs. Anterior surface of protibia (Fig. 23E) strigate, covered with sparse, fine to coarse punctures, and short setae on the apical area. Outer lateral margin with four teeth, the basal tooth weak, becoming stronger and apparent apically. Inner lateral margin with remarkable single tooth on basal end. Protarsal groove S-shaped and deeply impressed; near tarsal insertion with two spine-like tarsal denticles, another one little distant; protibial spur normal, approximately a quarter-length of protarsus. Posterior surface of protibia (Fig. 23F) with two remarkable elevated ridges on the middle and near on the outer lateral margin. No distinct denticles on the protibial teeth. Femoral stria almost complete, shortened on apical end.

Male genitalia. Aedeagus (Figs. 79A–B) slightly plump and sclerotized, apically curved ventrad; parameres relatively longer, about as twice the length of phallobase, fused on basal half; eighth tergite (Fig. 79E) entire, with slender and long protuberance connecting from the basolateral angles of each side; eighth sternite (Fig. 79F) with dense, long hairs on caudal margin; ninth tergite (Figs. 79C–D) with lateral folds; spiculum gastrale T-shaped almost as same length as ninth tergite.

Distribution. Indonesia, Philippines: Luzon, Mindoro, Negros, Samar, Mindanao.

Hololepta higoniae Lewis, 1894

Hololepta parallela Lewis, 1884: 132 (nec Sturm, 1868) [Kyushu].

Hololepta higoniae Lewis, 1894: 174; 1914: 239 [Tonkin; Laos]; Desbordes, 1919: 342; Miwa, 1938: 84–85; Cooman, 1939: 65 [Tonkin]; Kurosawa, 1952: 24 [Honshu]; Nakane, 1963: 69, pl. 35, fig. 1 [noted; photo]; Kryzhanovskij & Reichardt, 1976: 404 [key; figured]; Hisamatsu, 1985: 230, pl. 41, fig. 34 [noted; photo].

Hololepta (Hololepta) higoniae: Bickhardt, 1910: 5 [catalogued]; 1916: 28 [catalogued]; Mazur, 1984: 258 [catalogued]; Ôhara, 1991b: 238 [redescribed; SEM photo; line art]; Kurosawa, 1992: 7; Mazur, 1997: 55 [catalogued]; Mazur, 2011: 50 [catalogued]; Lackner *et al.*, 2015: 104 [catalogued].

Specimens examined. No available specimen in this study.

Diagnosis. *Hololepta higoniae* Lewis, 1894 has no protuberance on its head, while the propygidium bears half-circular stria along each lateral margin.

Distribution. Japan: Kyushu and Honshu, Taiwan, China: Yunnan, Laos, Vietnam, Philippines.

***Hololepta indica* Erichson, 1834**

(Figs. 5B, 24–25, 80).

Hololepta indica Erichson, 1834a: 90 [Java]; Bickhardt, 1916: 27 [catalogued].

Hololepta (Hololepta) indica: Mazur, 1984: 262 [catalogued]; 1997: 56 [catalogued]; 2011: 50 [catalogued]; Mazur *et al.*, 2015: 1455 [Philippines]; Lackner *et al.*, 2015: 104 [catalogued].

Hololepta aequa Lewis, 1885c: 204, synonymized by Lewis, 1905d: 3 [Assam].

Hololepta batchiana Marseul, 1860: 588, synonymized by Lewis 1888b: 631 [Bacan].

Hololepta manillensis Marseul, 1853: 145, synonymized by Desbordes, 1917c: 298 [Luzon].

Hololepta menadia Marseul, 1864: 279, synonymized by Desbordes, 1917c: 299 [Sulawesi].

Specimens examined. [Luzon Island] 1 ♂, Mt. Makiling, 2.VIII.1981, K. Sugino leg; 1 ex., same data label; 1 ex., 26.V.1980, T. Fujisawa leg; 1 ex., Bicol Nat. Par., Camarines Norte, 8.II.1985, A. Kato leg. [Marinduque Island] 5 exs (1 ex. from EUH), Boac, IX.1973, (sem & hab), no collector's name indicated; 1 ex., VIII.1973, same data label 1 ♀, VII.1973, same data label; 1 ex., Gasan, VIII.1973, no collector's name indicated.

Diagnosis. *Hololepta indica* Erichson, 1834 is distinguished with its combination of its smooth head, without protuberance, and propygidium without any striae, only punctations on the anterolateral area.

Re-description. Body length: PEL: 6.05 mm; APW: 2.28 mm; PPW: 4.40 mm; EL: 2.64 mm; EW: 4.65 mm. Body (Figs 5B, 24A–B) depressed, dorsoventrally flattened but slightly convex, oblong, black and shining; tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface of head (Fig. 24C) smooth and impunctate. Anterolateral margin crenate, and roundly depressed on each side behind the eye. Mandible well-developed. Labrum with a deep impression on mid-line.

Pronotum. Pronotal sides (Fig. 24E) arcuate and convergent anteriorly and posteriorly. Anterior angles round. Marginal pronotal stria laterally complete, moderately impressed, interrupted on the apical angle. Surface of pronotum impunctate.

Elytra. Epipleura of elytron (Fig. 25B) moderately depressed along with epipleural marginal stria. Marginal epipleural stria complete. Margin of elytron (Fig. 25F) with deep longitudinal fossa occupying the medial area. Rudimentary second present on basal and apical fourth. Surface almost smooth, impunctate.

Propygidium and pygidium. Propygidium (Fig. 25C) covered with coarse punctures intermingled laterally, separated by one to three times their diameters. Pygidium (Fig. 25C) densely covered with coarse punctation.

Prosternum. Prosternal lobe (Fig. 25A) rounded at apex, disk impunctate medially, and with longitudinal depressions laterally. Prosternal keel flat, narrowest at middle, becoming broader posteriorly; posterior margin of the keel feebly and posteriorly arcuate, the margin slightly overhanging the anterior margin of mesosternum, disk impunctate.

Meso-metaventrite and abdomen. Marginal stria of mesoventrite (Fig. 25A) separated onto each side of anterior margin, laterally absent. Meso-metaventral suture lightly impressed, inconspicuous, complete and obtusely angulate at middle. Lateral metaventral stria (Fig. 25B) extending laterally and obliquely, the apical end attaining and united to the middle of metaventro-metepisternal suture. Punctures of meso- and metaventral disk impunctate. Lateral metaventral disk (Fig. 25B) slightly rugose with short seta on basal half, apical half almost smooth. Intercoxal disk of first abdominal ventrite similar to meso- and metaventral disks, with complete lateral stria on each side. Surface of second to fourth abdominal ventrites (Fig. 25D) smooth medially, large punctures on lateral sides apparent; transverse striae absent.

Legs. Anterior surface of protibia (Fig. 25E) lightly strigate, almost smooth. Outer lateral margin with four teeth, the basal tooth weak, becoming stronger and apparent apically. Inner lateral margin with remarkable single tooth on basal end. Protarsal groove S-shaped and deeply impressed; near tarsal insertion with two spine-like tarsal denticles, another one little distant; protibial spur long, approximately one-third or half the length of protarsus. Posterior protibial stria lightly impressed medially. Posterior surface of protibia (Fig. 25F) elevated on the middle and near on outer lateral margin. Femoral stria almost complete, shortened on apical end.

Male genitalia. Aedeagus (Figs. 80A–B) slightly plump and sclerotized, apically curved ventrad; parameres relatively longer, about as three times the length of phallobase; eighth tergite (Fig. 80E) with slender and long protuberance connecting from the basolateral angles of each side; eighth sternite (Fig. 80F) with long hairs on caudal margin; ninth tergite (Figs. 80C–D) with lateral folds; spiculum gastrale T-shaped, about two-thirds the length of ninth tergite.

Distribution. Indonesia: Sumatra, Java, Sulawesi, Bacan, East India: Assam, Laos, Philippines: Luzon, Mindoro, Marinduque, Samar, Mindanao.

Hololepta laevigata Guérin-Ménéville, 1833

Hololepta laevigata Guérin-Ménéville, 1833: 482 [East India]; Bickhardt, 1916: 27 [catalogued].

Hololepta (Hololepta) laevigata: Mazur & Zhou, 2001; Mazur, 1997: 56 [catalogued]; Mazur, 1984: 262; [catalogued]; Mazur, 2011: 50 [catalogued]; Mazur *et al.*, 2015: 1455 [recorded; photo]; Lackner *et al.*, 2015: 104 [catalogued].

Specimens examined. No available specimen in this study.

Diagnosis. Similar with *Hololepta elongata*, *H. laevigata* Guérin-Ménéville, 1833 is remarkable with its protuberance on its head, but with punctures on the anterolateral area of its propygidium.

Distribution. East India, Laos, Philippines: Luzon, Palawan, Samar, Mindanao [Mazur *et al.*, 2015].

Tribe **PLATYSOMATINI** Bickhardt, 1914

Type genus: *Platysoma* Leach, 1817.

**Key to the Genera and Sub-genera of Philippine Platysomatini Bickhardt, 1914,
adapted from Ôhara & Mazur, 2009.**

- 1 Prosternum with two lateral striae ----- 2.
– Prosternum with a single lateral stria ----- *Plaesius* Erichson, 1834.
- 2 Mesocoxa without cariniform stria [*Eblisia* group] ----- 3.
– Mesocoxa with a distinct cariniform stria [*Platysoma* section] ----- 4.
- 3 Lateral pronotal stria impressed close to margin; apical tip of lateral metasternal stria arcuate inwardly
----- *Eurylister* Bickhardt, 1920.
– Lateral pronotal stria impressed distant from margin; apical tip of lateral metasternal stria straight ---
----- *Eblisia* Lewis, 1889.
- 4 Outer subhumeral stria absent ----- 5.
– Outer subhumeral stria present ----- *Apobletes* Marseul, 1860.
- 5 Lateral pronotal stria interrupted behind the head, replaced by an apical stria; posterior mesocoxal stria
long, almost parallel to lateral metasternal stria ----- 6.
– Not such a combination ----- 7.
- 6 Prosternal base triangularly incised; marginal stria of mesoventrite arcuate or straight -----
----- *Mesostrix* Mazur, 1994.
– Prosternal base flat; marginal stria of mesoventrite emarginate ----- *Platysoma* Leach, 1817.
a) mesoventrite wide, twice as wide as long ----- subgen. *Platysoma* s. str.
b) mesoventrite narrower, at most 1.5 times as wide as long ----- subgen. *Cylister* Cooman, 1941.
c) mesoventrite nearly as wide as long ----- subgen. *Cylistus* Dejean, 1833.
- 7 Pygidium punctate, without any excavations on the surface ----- 8.
– Pygidium almost impunctate, with two large and deep excavations near the lateral sides -----
----- *Liopygus* Lewis, 1891.
- 8 Pronotum smooth or indistinctly punctulate, sometimes with irregular row of elongate punctures;
anterior margin of mesoventrite deeply emarginate or bisinuate ----- *Platylister* Lewis, 1892.
a) posterolateral edge of pygidium elevated and carinate ----- subgen. *Platylister* s. str.
b) posterolateral edge of pygidium smooth, not carinated ----- subgen. *Popinus* Mazur, 1999.
– Pronotum distinctly punctured laterally; anterior margin of mesoventrite feebly, widely sinuate
anteriorly ----- *Kanaarister* Mazur, 1999.

Genus *Plaesius* Erichson, 1834

Plaesius Erichson, 1834: 101; Lewis, 1905d: 10; Bickhardt, 1910: 14; 1917: 148; Desbordes, 1919: 342; Mazur, 1984: 255; 1997: 84; 2011: 54; Lackner *et al.*, 2015: 107; Ôhara & Mazur, 2000: 22; Mazur & Ôhara, 2009: 246.

Type species: *Plaesius (Plaesius) javanus* Erichson, 1834: 102.

The genus *Plaesius* comprises a moderately huge hister beetles characterizing two large dents and spines on the outer margin of its protibia. It includes 15 species (Mazur, 2011) and is divided into two subgenera – *Plaesius* and *Hyposolenus*. The species presented here can be primarily discriminated from other members of Platysomatini by the following characteristics: 1) large body size, 2) presence of two large denticles on the outer margin of protibia, and 3) the absence of a large tooth located in the apical angle of the meso- and metatibiae (Ôhara and Mazur, 2000). According to Bickhardt (1917), the two subgenera are distinguished by the following key:

- 1 Marginal mesosternal stria complete ----- *Plaesius (Hyposolenus)*.
– Marginal mesosternal stria broadly interrupted in the middle ----- *Plaesius (Plaesius)*.

Moreover, the distribution of the two subgenera are only confined to the Oriental region but records of few species of the subgenus *Plaesius* also occurs in the Pacific Islands such as Fiji and the Solomon Islands, and one species – *P. (P.) javanus* is reportedly introduced in the Central America. In the Philippines, there are two species recorded: *Plaesius (Plaesius) javanus* and *Plaesius (Hyposolenus) laevigatus*.

Subgenus *Plaesius* Erichson, 1834

The subgenus *Plaesius* is represented by 11 species. The marginal stria of the mesosternum is generally broadly interrupted medially. Representative species are distributed in Southeast Asia including Indochina, Nicobar Islands, Indonesian and Philippine archipelago, Papua New Guinea and Solomon Islands [introduced to Mauritius, Taiwan, Fiji, Haiti, Trinidad and Jamaica].

Plaesius (Plaesius) javanus Erichson, 1834

(Figs. 6A, 26–27).

Plaesius (Plaesius) javanus Erichson, 1834a: 102 [Java]; Bickhardt, 1910: 15 [catalogued]; Desbordes, 1919a: 343 [keyed]; 346 [catalogued]; Mazur, 1984: 256 [catalogued]; 1997: 84 [catalogued]; 2011: 54 [catalogued]; Mazur *et al.*, 2015: 1456, f. 26, p. 1465; Lackner *et al.*, 2015: 106 [catalogued]; Ôhara and Mazur, 2000: 23.

Plaesius javanus: Marseul, 1853: 226; Lewis, 1905d: 10 [catalogued]; Bickhardt, 1917: 149.

Platysoma orthogonium Dejean, 1837: 143 (nom. nod.), synonymized by Marseul, 1857: 471.

Specimens examined. [Mindanao] 1 ex., Agusan del Norte, Butuan, Taligaman, 08.56894N 125.38534E, 60 masl, 03.V.2021, [AN-21-IDC-002], banana stumps, I.N. dela Cruz leg.; 1 ♀, 07.VI.2021; 1 ♀, 11.VI.2021; 1 ex., 24.V.2021; 1 ex., 01.VI.2021; 1 ex., 28.V.2021, same data but different collecting dates; 1 ex., Mt. Busa, 20.III.2005, no collector's name indicated; 1 ex. (EUM), Mainit-Masara, 25 km NE from Tagum, 400 masl, 12.X.1978, S. Nagai leg.

Diagnosis. Clypeus (Fig. 26C) flat. Frontal stria of head widely interrupted in the middle and sinuate in the anterolateral angle. Pronotal lateral stria (Fig. 26E) complete and well-impressed. External subhumeral stria deeply impressed and sinuate on basal third. Internal subhumeral stria marked on the apical third, the apical portion curved inwardly. The first dorsal stria of elytra (Fig. 26F) complete; dorsal stria 2 on apical half; dorsal stria 3 impressed on apical fourth; dorsal stria 4 on apical eighth; dorsal stria 5 wanting; sutural stria present on apical half. Propygidium (Fig. 27C) densely covered with large, shallow punctures. Punctuation of pygidium almost similar to propygidium. Prosternal lobe (Fig. 27A) broad, the marginal stria complete. Anterior margin of mesosternum strongly emarginate in the middle; the marginal stria broadly interrupted medially and shortened laterally. Protibia with two large denticles on the outer margin. Anterior surface of protibia (Fig. 27E) with sinuate and deep tarsal groove. Posterior surface (Fig. 27F) densely and coarsely punctate; the apico-lateral margin with 55–60 short, robust spines.

Re-description. Ôhara and Mazur, 2000: 23–26.

Body length: PEL: 9.96 mm; APW: 3.90 mm; PPW: 6.00 mm; EL: 6.00 mm; EW: 6.00 mm. Body (Figs. 6A, 26A–B) oblong-oval, moderately convex and pitched-black.

Subgenus *Hyposolenus* Lewis, 1907

Type species: *Plaesius laevigatus* Marseul, 1854.

The subgenus *Hyposolenus* only includes four species distributed in the Indo-Malayan region. The marginal stria of the mesosternum is completely impressed.

***Plaesius (Hyposolenus) laevigatus* Marseul, 1853**

(Figs. 6B, 28–29).

Plaesius laevigatus Marseul, 1853a: 228 [Java]; Lewis, 1904: 141; 1905d: 10 [catalogued]; Bickhardt, 1917: 150.

Plaesius (Hyposolenus) laevigatus: Bickhardt, 1910: 15 [catalogued]; Desbordes, 1919a: 345 [keyed]; 346 [catalogued]; Mazur, 1984: 256 [catalogued]; 1997: 85 [catalogued]; 2011: 55 [catalogued]; Ôhara & Mazur, 2000: 27; Mazur & Ôhara, 2009: f. 6–9, p. 238.

Plaesius pretiosus Marseul, 1857: 472, synonymized by Mazur, 1984: 256.

Hyposolenus laevigatus: Lewis, 1907b: 97, synonymized by Mazur, 1984: 256.

Specimens examined. [Palawan] 1 ♂, Puerto Princesa, Talabigan, 24.III.1979, K. Wada leg.; 1 ex., 1991, no collector's name indicated.

Diagnosis. Clypeus (Fig. 28C) slightly depressed. Frontal stria of head shortly interrupted in the middle and sinuate in the anterolateral angle. Pronotal lateral stria (Fig. 28E) complete and deeply incised. External subhumeral stria almost complete, shortly interrupted on posterior sixth, coarsely crenate medially and sinuate on basal third. Internal subhumeral stria mark on apical half, coarsely crenate. First dorsal stria of elytra (Fig. 28F) almost complete, sometimes distinctly incised on basal half, but represented by longitudinal punctures on the apical half; dorsal stria 2 marked by seven or six longitudinal punctures on apical third; dorsal stria 3 short, represented by longitudinal punctures on apical sixth; dorsal striae 4 and 5 absent; sutural stria usually absent, sometimes very short on apical eighth. Propygidium (Fig. 29C) densely covered with round punctures. Punctuation of pygidium almost similar to propygidium, but coarser punctures. Prosternal lobe (Fig. 29A) broad and feebly convex medially; the marginal stria well-impressed, but interrupted medially. Anterior margin of mesosternum deeply emarginate in the medially; the marginal stria usually complete and abbreviated laterally, shortly interrupted in the middle. Protibia with two large denticles on the outer margin. Anterior surface of protibia (Fig. 29E) with deep, sinuate tarsal groove. Posterior surface (Fig. 29F) with several rugae-like sculpture on its basal half; the anterior margin with approximately 50 short, robust spines, the lateral margin close to basal half with 10–12 short denticles.

Re-description. Ôhara and Mazur, 2000: 27–31.

Body length: PEL: 9.30 mm; APW: 3.00 mm; PPW: 5.58 mm; EL: 5.65 mm; EW: 6.50 mm. Body (Figs. 29B, 28A–B) almost similar with *P. (Plaesius) javanus* – oblong-oval, moderately convex and pitched-black.

Genus *Eblisia* Lewis, 1889

Lewis, 1889: 280; 1905: 18–19; Schmidt, 1897: 292; Bickhardt, 1910: 28–29; 1912: 124; 1912d: 224; 1917: 156; Desbordes, 1919: 377; Cooman, 1941: 319–320; Mazur, 1990b: 748–750; 1997: 73.

Type genus: *Phelister lunaticus* Marseul, 1864: 346. Designated by Bickhardt, 1917: 136.

Diagnosis. Body generally oval-shaped, typically of *Platysoma* members. Frontal stria present. Pronotum usually without marginal stria, although with some weak traces; pronotal base not margined; lateral pronotal stria distant from the margin. Prosternum with two lateral striae. Carinal striae absent or abbreviated apically. Mesocoxa without cariniform stria, mainly distinguishing it from *Platysoma* species. Anterior margin of mesoventrite more or less margined; with anterolateral stria on the apical angle. Marginal mesosternal stria connected with the basal ends of the lateral metasternal striae. Lateral metasternal stria usually straight, terminating at a point about midway between inner edge of metacoxa and metepisternal suture. Second abdominal sternite without lateral transverse stria. Base of elytra without any transverse line. Protibia generally enlarged and irregularly toothed (Mazur & Ôhara, 2009: 246). This genus is divided into two subgenera – *Eblisia* and *Chronus* Lewis, 1914. The former subgenus possesses a sulcate or foveolate pygidium, sometimes coarsely punctate, while the latter is covered by minute and dense punctulation on its pygidium.

There are 24 species of *Eblisia* (*Eblisia*) and nine species of *E. (Chronus)* and only confined to the Oriental Region (Mazur, 2011). Presently, there are no reported species of the subgenus *Chronus* in the Philippine archipelago.

Key to the Philippine Species of *Eblisia* (*Eblisia*)

There are only one *Eblisia* species in the Philippines previously recorded. In this study, another species is newly reported to the archipelago.

- 1 Pygidium smooth and almost impunctate without large punctures; elytral dorsal stria 3 widely interrupted medially; sutural stria present ----- *E. lunatica* (Marseul, 1864).
– Pygidium with large punctures; elytral dorsal stria 3 complete; sutural stria wanting -----
----- *E. hobbyi* (Cooman, 1937).

Eblisia (*Eblisia*) *lunatica* (Marseul, 1864)

(Figs. 7A, 30–31, 81).

Phelister lunaticus Marseul, 1864: 316; 314 [keyed].

Eblisia lunatica: Lewis, 1905d: 19 [catalogued]; Mazur, 1984: 220 [catalogued]; 1997: 79 [catalogued].

Phelister (Eblisia) lunatica: Bickhardt, 1910: 29 [catalogued].

Eblisia (Eblisia) lunatica: Mazur, 2011: 59 [catalogued]; Mazur *et al.*, 2015: 1454, f. 14, p. 1463.

Nikotikis lunatica: Bickhardt, 1917: 162 [catalogued]; Desbordes, 1919a: 370 [keyed].

Platysoma steinheili Marseul, 1870: 68, synonymized by Cooman, 1941: 320.

Phelister steinheili: Schmidt, 1897: 292.

Eblisia steinheili: Lewis, 1905d: 19.

Nikotikis steinheili: Bickhardt, 1917: 162.

Specimens examined. [Palawan] 1 ex. [EUM], Mainit, 10 km W from Brookes Point Island, 300 masl, 6.X.1979, S. Nagai leg. [Mindanao] 1 ♂, Mt. Apo, 11.VI.2008; 4 exs., Mindanao, 25.IV.2015, Y.-T. Wang leg. [TARI].

Diagnosis. Between the two species of Philippine *Eblisia*, *Eblisia* (*E.*) *lunatica* is primarily characterized with its smooth and impunctate surface of the pygidium, between the large, foveolate pits on each anterior corners. This species has sutural stria, as compared to *E. (E.) hobbyi* which has none.

Re-description. Body length: PEL: 3.23 mm; APW: 0.95 mm; PPW: 1.97 mm; EL: 2.01 mm; EW: 2.24 mm. Body (Figs. 7A, 30A–B) oblong-oval, moderately convex, black; tarsi, maxillary palpi and antennae rufopiceous in color.

Head. Surface of head (Fig. 30C) smooth and impunctate. Clypeus slightly impressed including the anterior area of the frontal stria. Frontal stria complete, straight anteriorly towards the lateral margin. The

anterolateral margin feebly crenate. Mandible short and stout; surface covered with fine punctures on the outer side. Labrum transversely elongated. Eyes well visible dorsally.

Pronotum. Pronotum (Fig. 30A) quadrangular, pronotal sides (Fig. 20D) convergent forward, arcuate on apical 5/6. Marginal stria absent. Pronotal lateral stria deeply marked, laterally complete, shortened on basal tip, rounded on the apical angle, united with anterior stria behind the head. Surface of pronotum smooth.

Elytra. Epipleural and elytral marginal striae (Fig. 31B) carinate, sinuous and complete. Epipleura with shallow, transverse grooves along with the striae; microscopically punctate, slightly excavate on the apical half. Subhumeral striae (Fig. 30E) none. Oblique stria feebly impressed on basal third. Elytral dorsal striae 1 and 2 complete, dorsal stria 3 widely interrupted on the middle, dorsal striae 4 and 5 on apical fourth, sometimes shorter, the sutural stria impressed on apical half. Disk of elytra almost smooth.

Propygidium and pygidium. Propygidium (Fig. 30F) with large, round, shallow punctures on the anterior half portion, separated by 0.3 times their diameter, intermingled with sparse, microscopic punctures; the basal half without large punctation. Pygidium (Fig. 30F) deeply foveolate on the anterolateral corners, the basal line of foveola points interrupted anteromedially, the foveola posteriorly connected as submarginal furrow. Surface without large punctures, sparsely clothed with microscopic punctation.

Prosternum. Anterior margin of prosternal lobe (Fig. 31A) round. Marginal stria complete and clearly impressed; lateral disk with even punctations resembling pit holes, the middle portion with fine punctures. Prosternal keel without carinal stria; lateral prosternal stria curved inwardly on the apex, lateral marginal stria short; disk of keel smooth; posterior margin slightly arcuate.

Meso-metaventricle and abdomen. Anterior area margin of mesoventrite (Fig. 31A) slightly trisinate, the middle portion emarginate; the basal angle anterolaterally forward and produced. Marginal stria slightly emarginate in the middle, complete, almost united to the basal end of lateral metasternal stria. Anterolateral stria short. Posterior mesocoxal stria straight, parallel to lateral metaventral stria, extending posteriorly and obliquely. Lateral metaventral stria (Fig. 31B) extending posteriorly along with the post-mesocoxal stria, the apical end briefly abbreviated close between the inner edge of metacoxa and metepisternal suture. Meso- metaventral suture inconspicuous; intercoxal disk of metaventricle smooth and broader posteriorly. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 31B) covered with large, shallow, semi-circular punctures, interspace among large punctures intermingled with fine punctation. Intercoxal disk of first abdominal ventricle similar to that of metaventral disk, the lateral sides with one stria on each side. Surface of second to fourth abdominal ventricles microscopically punctate, with large punctations on the lateral sides.

Legs. Anterior surface of protibia (Fig. 31C) with few, ocelloid punctures on the inner basal portion of the leg. Inner margin with row of short, seta-like hair; inner marginal stria present on basal half, inconspicuous. Outer lateral margin generally with 4–5 teeth, between the third and fourth teeth from the base strongly grooved. Protarsal groove S-shaped. Row of seta-like denticles present on the middle, along the inner side of the groove; near tarsal insertion with two short denticles, another one little distant; protibial spur short and plump. Posterior surface of protibia (Fig. 31D) lightly strigate, with transverse, elevated ridge from the base towards apical fourth of the leg, the apical end with small denticle. Number of denticles on the outer margin around five, one on inner apical angle. Median posterior stria complete; inner marginal stria with row of small, seta-like denticles. Femoral stria almost complete, abbreviated on apical end.

Male genitalia. Aedeagus (Figs. 81A–B) moderately sclerotized and long; the length of parameres almost the same with its phallobase, slightly shorter, fused on basal half; the apical portion with triangular folds on the inner margin of each paramere, resembling an attached membrane, basolateral sides strongly sclerotized; eighth tergite (Figs. 81E–F) emarginate posteriorly, the sides with lateral folds; ninth tergite and spiculum gastrale (Figs. 81C–D) almost the same length; spiculum gastrale broad and plump, widely bifurcate from the middle.

Distribution. Malaysia: Malacca, Indonesia: Java, Sumatra, Borneo, Philippines: Mindanao, Palawan.

Eblisia (Eblisia) hobbyi (Cooman, 1937)

(Figs. 7B, 32–33).

Nikotikis hobbyi Cooman, 1937b: 29; 1941: 324.

Eblisia hobbyi: Mazur, 1984: 219; 1997: 79 [catalogued].

Eblisia (Eblisia) hobbyi: Mazur, 2011: 59 [catalogued].

Specimens examined. [Mindanao] 1 ♀ [TARI], Davao Oriental, Tumulite, 24.IV.2015, Y.-T. Wang leg.

Diagnosis. *Eblisia (E.) hobbyi* is differentiated with its large punctures in its pygidium, as compared with *E. (E.) lunatica* bearing no large punctation. This species has a complete third dorsal stria on its elytra. Also, the punctures on both second and third abdominal ventrites of *Eblisia (E.) hobbyi* are united in the middle.

Re-description. Body length: PEL: 2.96 mm; APW: 0.81 mm; PPW: 1.85 mm; EL: 1.82 mm; EW: 2.11 mm. Body (Figs. 7B, 32A–B) oblong-oval, moderately convex, black; tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface of head (Fig. 32C) smooth and impunctate. Clypeus impressed anteriorly. Frontal stria complete, straight and transverse anteriorly extending towards the lateral margin above the eyes. Anterolateral margin feebly crenate. Mandible stout; surface covered with fine, ocelloid punctures on the basal half. Labrum with ocelloid punctures, transversely elongated. Eyes well visible dorsally.

Pronotum. Pronotum (Fig. 32A) quadrangular, pronotal sides (Fig. 32D) convergent forward, arcuate on apical 5/6. Marginal stria absent. Pronotal lateral stria well-marked, laterally complete, briefly shortened on basal end, rounded on the apical angle, united with anterior stria behind the head; anterior stria slightly crenate. Surface of pronotal disk smooth.

Elytra. Epipleural and elytral marginal striae (Fig. 33B) carinate, sinuous and complete. Epipleura with shallow, transverse grooves along with the striae; microscopically punctate, slightly excavate on the apical half. Subhumeral striae (Fig. 32E) wanting. Oblique stria slightly impressed on basal third. Elytral dorsal striae 1–3 complete, dorsal stria 4 impressed on apical third, dorsal stria 5 very short on the apex, sutural stria absent. Disk of elytra almost smooth.

Propygidium and pygidium. Propygidium (Fig. 32F) with large, round, shallow punctures on the middle portion, separated by 0.3 times their diameter, intermingled with sparse, microscopic punctures. Pygidium (Fig. 32F) deeply foveolate on the anterolateral corners, the basal line of foveola points widely interrupted anteromedially, the foveola posteriorly connected as submarginal furrow. Surface large punctures, resembling pits, sparsely clothed with microscopic punctation.

Prosternum. Anterior margin of prosternal lobe (Fig. 33A) round. Marginal stria complete and clearly impressed; lateral disk with few, even punctations resembling pit holes, the middle portion with microscopic punctures. Prosternal keel without carinal stria; lateral prosternal stria curved inwardly on the apex, lateral marginal stria short; disk of keel smooth; posterior margin slightly arcuate.

Meso-metaventricle and abdomen. Anterior margin of mesoventrite (Fig. 33A) slightly trisinate, the middle area widely emarginate; the basal angle anterolaterally forward and produced. Marginal stria complete, slightly emarginate in the middle portion, almost united to the basal end of lateral metasternal stria. Anterolateral stria short. Posterior mesocoxal stria straight, parallel to lateral metaventral stria but shorter, extending posteriorly and obliquely. Lateral metaventral stria (Fig. 33B) extending posteriorly along with the post-mesocoxal stria, the apical end briefly abbreviated close between the inner edge of metacoxa and metepisternal suture. Meso-metaventral suture inconspicuous; intercoxal disk of metaventricle smooth and broader posteriorly. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 33B) covered with large, shallow, semi-circular punctures, interspace among large punctures intermingled with fine punctation. Intercoxal disk of first abdominal ventricle similar to that of metaventral disk, the lateral sides with one stria on each side. Surface of second and third abdominal ventricles transversely punctated.

Legs. Anterior surface of protibia (Fig. 33C) lightly strigate, with sparse, microscopic punctures. Inner margin with row of short, seta-like hair; the inner marginal stria present on basal 3/4. Outer lateral margin generally with 4–5 teeth, between the third and fourth teeth from the base strongly grooved. Protarsal groove S-shaped. Row of seta-like denticles present on the middle, along the inner side of the groove; protibial spur short and plump. Posterior surface of protibia (Fig. 33D) clothed with sparse, ocelloid, microscopic punctures; the middle with transverse, elevated ridge from the base towards apical fourth of the leg, the apical end with small denticle. Number of denticles on the outer margin around six, one on inner apical angle. Median posterior stria complete; inner marginal stria with row of small, seta-like denticles. Femoral stria almost complete, abbreviated on apical end.

Male genitalia. Not available in this study.

Distribution. Malaysia: Sarawak, Sabah, Thailand, Philippines: Mindanao.

Genus *Eurylister* Bickhardt, 1920

Eurylister Bickhardt, 1920: 214; Mazur, 2011: 57; Mazur & Ôhara, 2009: 246.

Type species: *Platysoma sincerum* Schmidt, 1892: 20, originally designated.

Diagnosis. Body typical of *Platysoma* and *Eblisia*, oval shaped, convex. Frontal stria usually transverse anteriorly and complete. Lateral pronotal stria lying close to the lateral margin; the pronotal base without stria. Prosternum with two lateral striae; carinal striae abbreviated apically, usually in a form of row of round punctures. Mesocoxa without cariniform stria. Mesosternum with marginal stria; marginal mesosternal stria connected with the basal ends of the lateral metasternal striae; the lateral metasternal stria arcuate inwardly, terminating at a point on a line with outer edge of metacoxa, so that its end is closer to metepisternum than to

the inner edge of metacoxa. Second abdominal ventrite without transverse stria laterally. Protibia not modified, the protibial teeth strong and prominent (Mazur & Ôhara, 2009: 246).

All species of *Eurylistera* were previously assigned under the *Platysoma* group, and has 39 species recorded in the catalogue of Mazur (2011) to date. Most species are widely distributed across the Indo-Malayan regions, including the Ryukyus of Japan and Taiwan, extending to Papua New Guinea. Few species are also reported in Continental Australia and the Nearctic Region. Nonetheless, two species are recorded in the Philippines from the recent catalogue of Histeridae.

Key to the Species of Philippine *Eurylistera* Bickhardt, 1920

Three species of *Eurylistera* is reported in the Philippines, one of which is newly described in this paper – *Eurylistera* sp. 1.

- 1 Elytral dorsal stria 3 complete ----- *E. silvestris* (Schmidt, 1897).
- Elytral dorsal stria 3 incomplete, interrupted medially ----- 2.
- 2 Dorsal stria 5 of the elytra impressed on the apical ----- *E. uniformis* (Lewis, 1894).
- Dorsal stria 5 of the elytra absent ----- *E. sp. 1.*

Eurylistera sp. 1

(Figs. 8C, 34–35, 82).

Specimens examined. Holotype: [Negros] 1 ♂, Mt. Canladog, 1–15.XII.1988, D. Mohagan leg.

Diagnosis. *Eurylistera* sp. 1 is distinctive with the combination of these characters – widely interrupted dorsal stria 3, and absence of dorsal stria 5 of its elytra. The elytral marginal stria of this species interrupted in the middle, similar to *E. uniformis*, however the abbreviated ends in *E. sp. 1* is bend away from each other. The apical tip of the lateral metaventral stria of this species extends a little longer, making the posterior width of the metaventrite wider among the other Philippine *Eurylistera*.

Description. Body length: PEL: 3.10 mm; APW: 0.88 mm; PPW: 1.89 mm; EL: 1.92 mm; EW: 2.18 mm. Body (Figs. 8C, 34A–B) oblong-oval, convex, black; tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface of head (Fig. 34C) almost smooth, medio-anterior portion with fine, conspicuous punctures. Clypeus forward, the anterior margin slightly emarginate. Frontal stria complete, straight and transverse anteriorly towards the lateral margin. Anterolateral margin feebly sinuous, almost straight. Mandible robust, prominent, the apical tip acute. Labrum transversely elongated. Eyes well-visible dorsally.

Pronotum. Pronotal sides (Fig. 34D) convergent forward. Pronotal lateral stria deeply impressed, complete, close to the pronotal margin, continued behind the head. Surface of pronotum smooth, lateral portion and the apical angle clothed with microscopic punctation.

Elytra. Epipleura (Fig. 35B) covered with sparse, microscopic punctures; epipleural marginal stria complete, the elytral marginal stria remarkably interrupted in the middle, both abbreviated ends bent away from

each other. Subhumeral striae wanting. Oblique stria feebly impressed on basal third. Elytral dorsal striae 1–2 (Fig. 34E) complete, clearly impressed; dorsal stria 3 interrupted in the middle; dorsal striae 4 short, on apical 1/8. Dorsal stria 5 and sutural stria none. Disk of elytra smooth.

Propygidium and pygidium. Propygidium (Fig. 34F) with round, coarse punctures, separated by twice of their own diameter; the coarse punctures transversely on the middle area, the basal and apical portions with microscopic punctures. Posterolateral margin of pygidium (Fig. 34F) feebly carinated; pygidial punctures smaller to that of the propygidium.

Prosternum. Anterior margin of prosternal lobe (Fig. 35A) round. Marginal stria complete, clearly impressed close to margin; surface with dense, fine punctures. Carinal striae inconspicuous, lightly impressed with row of shallow, round punctures, resembling stria, diverging towards the apical area. Lateral prosternal striae short and impressed; disk of keel almost impunctate, with few, microscopic punctation; posterior margin round towards the base.

Meso-metaventricle and abdomen. Anterior margin of mesoventrite (Fig. 35A) strongly emarginated in the middle; marginal stria impressed, emarginate medially along the margin, joined with the basal end of lateral metaventral stria. Anterolateral stria short near the apical angle. Posterior mesocoxal stria straight, short, almost half the length of lateral metaventral stria. Lateral metaventral stria (Fig. 35B) extending obliquely and posteriorly, the apex moderately widens the posterior area of metaventricle, the apical tip arcuate inwardly. Meso- metaventral suture and longitudinal suture of metaventricle lightly impressed, inconspicuous; intercoxal disk similar to that of mesoventrite. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 35B) covered with large, ocelloid punctation. Intercoxal disk of first abdominal ventrite similar to that of metaventral disk, the lateral sides with one stria on each side. Surface of second to fourth abdominal ventrites microscopically punctate, with coarse punctations on each lateral side.

Legs. Protibia dilated; the teeth prominent. Anterior surface of protibia (Fig. 35C) entirely and moderately strigate, few ocelloid punctures on anterolateral area. Inner margin with few, short, seta-like hairs; inner marginal stria present on basal 3/4 of protibia. Outer lateral margin generally with four remarkable teeth. Protarsal groove S-shaped. Few and sparse seta-like denticles present on the inner side of the groove; near tarsal insertion with two, long and sharp denticles; protibial spur short and plump. Entire posterior surface of protibia (Fig. 35D) finely punctate, with transverse, elevated ridge from the base towards the middle, the apical end with small denticle. Number of denticles on the outer margin around six, one on inner apical angle. Both median posterior and inner marginal striae complete, the apical half of inner marginal stria with small denticles.

Male genitalia. Aedeagus (Figs. 82A–B) sclerotized, moderately long, slightly wider towards the apex; the parameres twice the length with its phallobase, fused on apical third, the inner margin of the apical end becoming narrower; the apical tip slightly curved ventrad; eighth tergite (Figs. 82E–F) slightly emarginate posteriorly; ninth tergite and spiculum gastrale (Figs. 82C–D) almost the same length; spiculum gastrale bifurcate on the apical tip, the margin of the basal end straight.

Distribution. Philippines: Negros.

Eurylisters silvestris (Schmidt, 1897)

(Figs. 8B, 36–37).

Platysoma silvestris Schmidt, 1897: 291.

Platysoma (Platysoma) silvestre: Lewis, 1905d: 17 [catalogued]; Bickhardt, 1910: 24 [catalogued]; 1917: 142 [catalogued]; Desbordes, 1919a: 371 [keyed].

Eurylisters silvestre: Bickhardt, 1920: 214.

Platysoma (Eurylisters) silvestre: Mazur, 1984: 237.

Eblisia silvestre: Mazur, 1997: 81 [catalogued].

Eurylisters silvestris: Mazur, 2011: 58; Mazur *et al.*, 2015: 1454, f. 15, p. 1463; Lackner *et al.*, 2015: 106 [catalogued].

Platysoma bonifacyi Desbordes, 1919: 360, synonymized by Cooman, 1948: 132.

Specimens examined. [Mindanao] 1 ex. [EUM], 25 Northeast from Tagum, Mainit, Masara, 400 masl, 13.X.1978, S. Nagai leg. [Palawan] 1 ex., Ramos Island, 15.IV.1998, K. Mizota leg.

Diagnosis. Among the four Philippine species of *Eurylisters*, *E. silvestris* is determined for its complete striation of dorsal stria 3 in its elytra.

Re-description. Body length: PEL: 3.52 mm; APW: 2.00 mm; PPW: 2.11 mm; EL: 2.14 mm; EW: 2.44 mm. Body (Figs. 8B, 36A–B) oblong-oval, convex, black; tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface of head (Fig. 36C) smooth. Clypeus feebly depressed, anterior margin slightly emarginate. Frontal stria complete, straight and transverse anteriorly towards the lateral margin above the eye. Anterolateral margin almost straight, feebly sinuous. Mandible robust, apex acute, subapical tooth prominent. short and stout. Labrum transversely elongated. Eyes well-visible dorsally.

Pronotum. Pronotal sides (Fig. 36D) convergent forward. Marginal pronotal stria visible on the apical angle. Pronotal lateral stria complete, strongly impressed close to pronotal margin, uninterrupted behind the head. Surface of pronotum smooth.

Elytra. Epipleura (Fig. 37B) sparsely punctate with microscopic punctures, basal half slightly depressed; epipleural marginal stria complete, elytral marginal stria briefly shortened in the middle. Subhumerus smooth, without striation. Oblique stria feebly impressed on basal third. Dorsal striae 1–3 (Fig. 36E) of elytra complete, clearly impressed; dorsal striae 4 and 5 apical, the fifth stria longer, almost half the length of elytra. Sutural stria absent. Disk of elytra clothed with microscopic punctation.

Propygidium and pygidium. Propygidium (Fig. 36F) with round, coarse punctures, separated by their own diameter, intermingled with microscopic punctation; the coarse punctures transversely bore medially on the middle portion. Posterolateral margin of pygidium (Fig. 36F) with high rim, carinated; pygidial punctations slightly dense as to propygidium.

Prosternum. Anterior margin of prosternal lobe (Fig. 37A) round. Marginal stria complete, clearly impressed near the margin; surface with fine punctures. Carinal striae impressed with row of shallow, round punctures, resembling stria, diverging towards the apex. Lateral prosternal striae short and impressed; disk of keel almost impunctate; posterior margin round towards the base.

Meso-metaventricle and abdomen. Anterior margin of mesoventrite (Fig. 37A) strongly emarginate in the middle; the marginal stria clearly impressed, emarginate, united with the basal tip of lateral metaventral stria. Anterolateral stria short. Posterior mesocoxal stria straight, half the length of lateral metaventral stria. Lateral metaventral stria (Fig. 37B) extending obliquely and posteriorly, the apical portion widens the posterior area of metaventrite, the apical tip arcuate inwardly. Meso- metaventral suture inconspicuous; intercoxal disk of metaventrite smooth. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 37B) covered with large, ocelloid punctures. Intercoxal disk of first abdominal ventrite similar to that of metaventral disk, the lateral sides with one stria on each side. Surface of second to fourth abdominal ventrites microscopically punctate, with coarse punctations on the lateral sides.

Legs. Protibia dilated; teeth remarkable. Anterior surface of protibia (Fig. 37C) slightly strigate, with few punctures. Inner margin with row of short, seta-like hairs; inner marginal stria present on basal half, inconspicuous. Outer lateral margin generally with four teeth. Protarsal groove S-shaped. Row of seta-like denticles present along the inner side of the groove; near tarsal insertion with two, long and sharp denticles; protibial spur short and plump. Posterior surface of protibia (Fig. 37D) lightly strigate, with transverse, elevated ridge from the base towards apical fourth of the leg, the apical end sometimes with small denticle. Number of denticles on the outer margin around six, one on inner apical angle. Median posterior stria complete; inner marginal stria impressed.

Male genitalia. Not available in this study.

Distribution. Indonesia: Sumatra, Malay Peninsula, Bhutan, India, Vietnam, Taiwan

Eurylistera uniformis (Lewis, 1894)

(Figs. 8A, 38–39, 83).

Platysoma uniforme Lewis, 1894: 176.

Platysoma (Platysoma) uniforme: Lewis, 1905d: 17 [catalogued]; Bickhardt, 1910: 24 [catalogued]; 1914: 426; 1917: 142 [catalogued]; Desbordes, 1919a: 369 [keyed].

Eurylistera uniforme: Bickhardt, 1920: 214.

Platysoma (Eurylistera) uniforme: Mazur, 1984: 237.

Eblisia uniforme: Mazur, 1997: 82 (comb. nov.) [catalogued].

Eurylistera uniformis: Mazur, 2011: 58 [catalogued].

Specimens examined. [Luzon] 1 ex., Mt. Makiling, 11.V.1969, S. Hisamatsu leg. [Mindoro] 1 ♂, Mt. Halkon, 2–18.I.1989, D. Mohagan leg.; 1 ex., Victoria, 1–2.IV.1974, S. Ueda leg. [Mindanao] 1 ex., Davao Oriental, Tumulite, 24.IV.2015, Y.-T. Wang leg. [TARI]

Diagnosis. The elytral dorsal stria three of *Eurylistera uniformis* is widely interrupted on the middle portion, which is entirely complete in *E. silvestris*. Also, this species possesses elytral dorsal stria 5, but none in *E. sp. 1*.

Re-description. Body length: PEL: 3.28 mm; APW: 0.93 mm; PPW: 2.04 mm; EL: 2.00 mm; EW: 2.33 mm. Body (Figs. 8A, 38A–B) oblong-oval, convex, black; tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface of head (Fig. 38C) impunctate. Clypeus forward, slightly depressed, the anterior margin slightly emarginate. Frontal stria complete, straight and transverse anteriorly towards the lateral margin above the eye. Anterolateral margin almost straight. Mandible short, the apex acute. Labrum transversely elongated, feebly emarginate. Eyes well-visible dorsally.

Pronotum. Pronotal sides (Fig. 38D) convergent forward. Marginal pronotal stria visible on the apical angle. Pronotal lateral stria complete, deeply impressed, close to the pronotal margin, continued behind the head. Surface of pronotum smooth, apical angle clothed with fine punctation.

Elytra. Epipleura (Fig. 39B) sparsely punctate with microscopic punctures; epipleural marginal stria complete, elytral marginal stria interrupted in the middle. Subhumeral striae absent. Oblique stria weakly impressed on basal third. Elytral dorsal striae 1–2 (Fig. 38E) complete; dorsal stria 3 widely interrupted medially; dorsal striae 4 and 5 apical, about a quarter of the elytral length. Sutural stria none. Disk of elytra smooth, almost impunctate.

Propygidium and pygidium. Propygidium (Fig. 38F) with round, coarse punctures, separated by their own diameter; the coarse punctures transversely on the middle area, both basal and apical portions with sparse, microscopic punctures. Posterolateral margin of pygidium (Fig. 38F) slightly elevated, carinated; pygidial punctations moderately dense.

Prosternum. Anterior margin of prosternal lobe (Fig. 39A) round. Marginal stria impressed near the margin, complete; surface with dense, fine punctures. Carinal striae conspicuous, impressed with row of shallow, round punctures, resembling stria, diverging towards the apical portion. Lateral prosternal striae short and impressed; disk of keel with few, microscopic punctation; posterior margin round towards the base.

Meso-metaventricle and abdomen. Anterior margin of mesoventrite (Fig. 39A) strongly emarginate medially; the marginal stria clearly impressed, slightly emarginate in the middle along the margin, joined with the basal end of lateral metaventral stria. Anterolateral stria short near the apical angle. Posterior mesocoxal stria straight, short, almost half the length of lateral metaventral stria. Lateral metaventral stria (Fig. 39B) extending obliquely and posteriorly, the apex widens the posterior area of metaventricle, the apical tip arcuate inwardly. Meso-metaventral suture and longitudinal suture of metaventricle feebly impressed; intercoxal disk similar to that of mesoventrite. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 29B) covered with large, ocelloid punctation. Intercoxal disk of first abdominal ventrite similar to that of metaventral disk, the lateral sides with one stria on each side. Surface of second to fourth abdominal ventrites microscopically punctate, with coarse punctations on each lateral portion.

Legs. Protibia dilated; teeth strong, prominent. Anterior surface of protibia (Fig. 39C) moderately strigate on outer basal portion, few ocelloid punctures on anterolateral area. Inner margin with row of short, seta-like hairs; inner marginal stria present on basal 3/4 of protibia. Outer lateral margin generally with four prominent teeth. Protarsal groove S-shaped. Row of seta-like denticles present along the inner side of the groove; near tarsal insertion with two, long and sharp denticles; protibial spur short and plump. Posterior surface of protibia (Fig. 39D) finely punctate on medio-basal half, with transverse, elevated ridge from the base towards the middle of the leg, the apical end with small denticle. Number of denticles on the outer margin around six, one on inner apical angle. Median posterior stria and inner marginal stria complete.

Male genitalia. Aedeagus (Figs. 83A–B) sclerotized, moderately long; the parameres twice the length with its phallobase, fused on basal half; the apical tip curved ventrad; eighth tergite (Figs. 83E–F) strongly

emarginate posteriorly; ninth tergite and spiculum gastrale (Figs. 83C–D) almost the same length, the latter slightly longer; spiculum gastrale widely bifurcate from the apical fourth.

Distribution. Indonesia: Buru, Papua New Guinea, Philippines: Luzon, Mindoro, Mindanao.

Genus *Apobletes* Marseul, 1861

Apobletes Marseul, 1861: 852; Bickhardt, 1910: 16; 1917: 136; Mazur, 1984: 232; 1997: 67; 2011: 60; Mazur & Ôhara, 2009: 246; Ôhara, 1994, 92.

Type species: *Apobletes tener* Marseul, 1860: 859. Designated by Bickhardt, 1917: 136.

Diagnosis. Body is extremely dorsoventrally flattened. Labrum is transversely long. Pronotal sides generally convergent forward, apical angle strongly arcuate. Outer subhumeral stria deeply impressed, elytral dorsal stria 5 and sutural stria wanting. Pygidium densely and coarsely punctate. Prosternum with two lateral striae, moderately broad, rounded anteriorly and flattened; basal margin of prosternal keel moderately wide. Mesocoxa with a distinct cariniform stria, belonging to the *Platysoma* section (Mazur & Ôhara, 2009: 246). This genus includes 23 species in the world (Mazur, 2011). There are six species recorded in the Philippine archipelago. Two species are available in this study.

Key to the Species of Philippine *Apobletes* Marseul, 1861

Three Philippine *Apobletes* species are not available in this study. Morphological diagnoses of unavailable species are merely based on original descriptions.

- 1 Anterior marginal striae of both prosternum and mesoventrite absent ----- *A. feratius* Lewis, 1902.
- Anterior marginal stria of prosternum or of the mesoventrite at least present ----- 2.
- 2 Elytral dorsal striae 1–3 complete ----- *A. cavifrons* Lewis, 1900.
- Elytral dorsal striae 1–2 complete, dorsal stria 3 broadly interrupted in the middle ----- 3.
- 3 Marginal stria of mesoventrite intact, complete ----- *A. fictitius* Lewis, 1885.
- Marginal stria of mesoventrite incomplete, interrupted medially ----- 4.
- 4 Propygidium bifoveolate ----- *A. corticalis* Lewis, 1891.
- Propygidium non-bifoveolate ----- 5.
- 5 Frontal stria complete; head covered with fine, ocelloid punctures; around 2.5–3.0 mm in length -----
----- *A. marginicollis* Lewis, 1888.
- Frontal stria interrupted at each apical angle; head almost smooth with sparse, microscopic punctures;
around 3.5–4.0 mm in length ----- *A. schauemei* Marseul, 1861.

***Apobletes cavifrons* Lewis, 1900**

Apobletes cavifrons Lewis, 1900: 269 [India: Assam]; Bickhardt, 1917: 136 [catalogued]; Mazur, 2011: 60 [catalogued: India: Meghalaya, Kerala, Myanmar: Taninthari]; Lackner *et al.*, 2015: 105.

Apobletes (Apobletes) cavifrons: Bickhardt, 1910: 16 [catalogued].

Platysoma (Apobletes) cavifrons: Mazur, 1984: 233 [catalogued: Tenasserim, comb. n.]; 1997: 67 [catalogued: Nepal, Thailand, Philippines], synonymized with *A. (A.) cavifrons*.

Specimens examined. No available specimen in this study.

Diagnosis. *Apobletes cavifrons* Lewis, 1900 is determined with its complete dorsal 1–3 stria of its elytra.

Distribution. India: Assam, Meghalaya, Kerala, Nepal, Myanmar: Taninthari, Thailand, Philippines.

***Apobletes corticalis* Lewis, 1891**

Apobletes corticalis Lewis, 1891: 383 [Malaysia: Perak]; Bickhardt, 1917: 136 [catalogued]. Mazur, 2011: 60 [catalogued: Philippines].

Apobletes (Apobletes) corticalis: Bickhardt, 1910: 16 [catalogued].

Platysoma (Apobletes) corticale: Mazur, 1984: 233 [catalogued]; 1997: 67 [catalogued: Enggano Island], synonymized with *A. (A.) corticalis*.

Specimens examined. No available specimen in this study.

Diagnosis. The propygidium of *Apobletes corticalis* Lewis, 1891 is bifoveolate, and the lateral borders its pronotum are rugosely and densely punctured.

Distribution. Malaysia: Perak, Indonesia: Enggano Island, Philippines.

***Apobletes feratius* Lewis, 1902**

Apobletes feratius Lewis, 1902: 224 [Timor]; Bickhardt, 1914: 423; 1917: 136 [catalogued]; Mazur, 2011: 60 [catalogued].

Apobletes (Apobletes) feratius: Bickhardt, 1910: 16 [catalogued].

Platysoma (Apobletes) feratium: Mazur, 1984: 233 [catalogued: Sumatra]; 1997: 67 [catalogued: Borneo].

Specimens examined. No available specimen in this study.

Diagnosis. *Apobletes feratius* Lewis, 1902 can be easily distinguished by its anterior margin of prosternum and mesoventrite wherein both margins do not possess any marginal stria.

Distribution. Timor, Philippines: Luzon.

Apobletes fictitius Lewis, 1885

Apobletes fictitius Lewis, 1885: 206 [Indonesia: Gilolo = Halmahera]; Bickhardt, 1917: 136 [catalogued]; Mazur, 2011: 60 [catalogued: Philippines].

Apobletes (Apobletes) fictitius: Bickhardt, 1910: 16 [catalogued].

Platysoma (Apobletes) fictitium: Mazur, 1984: 233 [catalogued: Sumatra]; 1997: 67 [catalogued: Borneo], synonymized with *A. (A.) fictitius*.

Platysoma difficile Schmidt, 1889: 334, synonymized by Lewis, 1905d: 11.

Apobletes platysomoides Lewis, 1891: 382 [Tenasserim = Taninthari], synonymized by Lewis, 1905: 11.

Apobletes semperi Lewis, 1891: 382 [Philippine Islands], synonymized by Lewis, 1905d: 11.

Specimens examined. No available specimen in this study.

Diagnosis. The marginal stria of *Apobletes fictitius* Lewis, 1885 in its mesoventrite is intact, which sets apart this species from other Philippine *Apobletes* with interrupted marginal stria medially.

Distribution. Indonesia: Halmahera, Sumatra, Borneo, Myanmar: Taninthari, Philippines.

Apobletes marginicollis Lewis, 1888

(Figs. 9A, 40–41, 84).

Apobletes marginicollis Lewis, 1888b: 633 [Birmaniam = Myanmar]; Bickhardt, 1917: 137 [catalogued]; Mazur, 2011: 60 [catalogued: India: West Bengal, Arunachal Pradesh, Namdapha, Indonesia: Kalimantan, Malaysia: Kedah, Pahang, Philippines]; Mazur *et al.*, 2015: 1453; Lackner *et al.*, 2015: 105.

Apobletes (Apobletes) marginicollis: Bickhardt, 1910: 17 [catalogued].

Platysoma (Apobletes) marginicollis: Mazur, 1984: 234 [catalogued: Borneo, Laos]; 1997: 68 [catalogued: Indochina, India, Celebes, Malaysia, China: Hainan].

Specimens examined. [Luzon] 1 ex. (EUM), Mt. Makiling, No. 3 Tilig, 7.IV.1959, J.J. Murayama leg. [Mindoro] 3 exs., Oriental Mindoro, Dulangan, 11–13.IX.1983, no collector's name indicated. [Palawan] 1 ♂, 2 ♀♀, 1 ex. 24 exs., Ramos Island, 14.IV.1998, K. Mizota leg.; 3 ♂♂, 2 ♀♀, 15 exs., 15.IV.1998, same location and collector but different collection date; 2 ♀♀, 2 ♂♂, 1 ex., Puerto Princesa, Olangwan, 27.XII.1977, N. Nishikawa leg.; 1 ex. (EUM), Iwahin River Valley, 16.VII.1977, M. Sato leg. [Negros] 2 exs., Mt. Handalagan, 2–10.I.1989, D. Mohagan leg.; 1 ex., Mt. Canla-dog, 1–15.XII.1988, D. Mohagan leg.; 1 ex., Negros Occidental, Pandanon, 29–30.IX.1983, N. Nishikawa leg. [Mindanao] 1 ex., Surigao del Sur, Castillo S. Miguel, 12–15.IV.1983, N. Nishikawa leg.; 1 ex., Davao Oriental, 22.IV.2015, Y.-T. Wang leg.; 1 ex., Baracatan, 1500 masl, 27–29.VI.1977, M. Satô leg.

Diagnosis. *Apobletes marginicollis* Lewis, 1888 possess a complete frontal stria, while its head is also covered with fine, ocelloid punctures.

Re-description. Body length: PEL: 2.80 mm; APW: 0.94 mm; PPW: 1.88 mm; EL: 1.46 mm; EW: 1.90 mm. Body (Figs. 9A, 40A–B) extremely depressed, dorsoventrally flattened, oblong, black; tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface of head (Fig. 40C) moderately covered with fine, ocelloid punctures, resembling a short seta inside punctures, separated by 3–4 times their diameters. Frontal stria impressed and complete. Anterior margin slightly retuse, anterolateral margin feebly crenate; eyes on the sides inconspicuous dorsally. Mandible short and stout; surface covered fine, ocelloid punctures similar to surface of the head. Labrum transverse oblong, its anterior margin emarginate medially.

Pronotum. Pronotal sides (Fig. 40D) convergent forward, strongly arcuate on apical 5/6. Marginal stria complete, abbreviated on the apical angle. Pronotal lateral stria deeply impressed, laterally complete, united with anterior stria but interrupted behind the eye. Surface of pronotum sparsely clothed with fine punctures, becoming coarse on the anterolateral half portion, and posterobasal fourth close to the basal angle.

Elytra. Epipleural and elytral marginal striae (Fig. 41B) moderately carinate and complete. Epipleura slightly excavate medially. Subhumeral stria (Fig. 40E) strongly depressed on basal half. Oblique stria present on basal third, sometimes inconspicuous. First dorsal stria complete, second stria interrupted on basal fourth, third stria broadly interrupted medially, fourth shortly present on apex, fifth and sutural striae absent. Disk of elytra almost smooth, sometimes clothed with microscopic punctures near lateral sides; few large punctures present along apical margin.

Propygidium and pygidium. Propygidium (Fig. 40F) with large ocelloid punctures on anterolateral area, separated by 0.3 times their diameter; medio-basal area with sparse, microscopic punctations; surface feebly convex on lateral area. Pygidium (Fig. 40F) coarsely and deeply punctate, separated by their own diameter; surface feebly depressed on anterolateral sides.

Prosternum. Anterior margin of prosternal lobe (Fig. 41A) round. Prosternal lobe broad and even. Marginal stria complete, the posterior end inwardly extending on basal half; disk sparsely clothed with microscopic punctures. Prosternal keel even and broad, without carinal stria; lateral stria and lateral marginal stria clearly impressed; disk of keel with punctation similar to that of the lobe; posterior margin almost straight. Meso-metaventricle and abdomen. Anterior area margin of mesoventrite (Fig. 41A) feebly bisinuate; marginal stria incomplete, broadly interrupted medially, and abbreviated on each basal end; surface of disk similar to that of prosternal keel. Meso-metaventral suture complete, obtusely angulate at middle; longitudinal suture of metaventricle lightly impressed; intercoxal disk of metaventricle broad, evenly clothed with microscopic punctures. Lateral metaventral stria (Fig. 41B) extending obliquely and posteriorly, the apical end attaining but not united to the basal third of metavento-metepisternal suture. Posterior mesocoxal stria wanting. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 41B) covered with large, shallow, semi-circular punctures, interspace among large punctures intermingled with fine punctation. Intercoxal disk of first abdominal ventrite sparsely covered with microscopic punctures, almost similar to that of metaventral disk, the lateral sides with one stria on each side, with complete lateral stria on each side. Surface of second to fourth abdominal ventrites microscopically punctulate, clothed with large punctations on the lateral areas.

Legs. Anterior surface of protibia (Fig. 41C) strigate, covered with sparse, fine punctures, sometimes with few, short setae on the medio-apical area. Outer lateral margin with four teeth. Inner margin with row of

short, seta-like hair; inner marginal stria on basal half. Protarsal groove S-shaped and deeply impressed; near tarsal insertion with two spine-like tarsal denticles, another one little distant; protibial spur normal, about a quarter-length of protarsus. Posterior surface of protibia (Fig. 41D) with transverse, elevated ridge on the middle; surface covered fine, ocelloid punctation, becoming sparse on the apical portion. Number of denticles on outer margin five, one on inner apical angle. Inner posterior stria shortly abbreviated on basal end. Femoral stria almost complete, shortened on apical end.

Male genitalia. Aedeagus (Figs. 84A–B) slender, sclerotized, apically curved ventrad; parameres slightly shorter, about a third of the length of phallobase, fused on basal half, the basolateral fourth moderately narrowed, the basal half slightly wider in lateral view; ninth tergite and spiculum gastrale (Figs 84C–D) almost the same length.

Distribution. Myanmar, Laos, India: West Bengal, Arunchal Pradesh, Namdapha, China: Hainan, Indonesia: Borneo, Sulawesi, Malaysia: Kedah, Pahang, Philippines.

***Apobletes schaumei* Marseul, 1860**

(Figs. 9B, 42–43, 85).

Apobletes schaumei Marseul, 1860: 857 [Birmaniam = Myanmar]; Mazur, 2011: 60 [catalogued]; Mazur *et al.*, 2015: 1453; Lackner *et al.*, 2015: 105.

Apobletes schaumi (sic): Bickhardt, 1917: 137 [catalogued]; Marseul, 1864: 290.

Apobletes (Apobletes) schaumi (sic): Bickhardt, 1910: 17 [catalogued].

Apobletes schaumi (sic): *Apobletes schaumi* (sic) var. *tener*: Cooman, 1932b: 99.

Platysoma (Apobletes) schaumei: Mazur, 1984: 235 [catalogued: Oriental Region]; 1997: 68 [catalogued]; Ôhara, 1994: 109.

Apobletes tener: Marseul, 1860: 859 [Java, Philippines]; Hisamatsu, 1985b: 229 [Japan: Nansei Islands] synonymized by Reichardt, 1932b: 114.

Specimens examined. [Luzon] 1 ex., Quezon Province, Atimonan, 8.VIII.1981, K. Sugino leg.; 1 ex., Bicol National Park, 26–27.III.1983, N. Nishikawa leg. [Palawan] 1 ♂, 11 exs., Ramos Island, 15.IV.1998, K. Mizota leg; 1 ♂, 6 exs., 14.IV.1998, same location and collector but different collection date; 1 ♂, Puerto Princesa, Balsahan, 19.XII.1977, Nishikawa leg. [Negros] 2 exs., Mt. Canla-dog, 1–15.XII.1988, D. Mohagan leg. [Bohol] 2 exs. (EUM), Bilar, 22.VII.1970, M. Satô leg. [Mindanao] 1 ex., Surigao del Sur, 15 km S of Bislig, 6–7.VII.1977, M. Satô leg.; 1 ex., Surigao del Sur, Castillo S. Miguel, 12–15.IV.1983, N. Nishikawa leg.

Diagnosis. The surface of the head of *Apobletes schaumei* Marseul, 1860 is almost smooth, compared with *A. marginicollis*, while its frontal stria is narrowly interrupted at each side near the apical angle

Re-description. (Ôhara, 1994: 109).

Addition description. Body length: PEL: 3.66 mm; APW: 1.26 mm; PPW: 2.52 mm; EL: 2.08 mm; EW: 2.5 mm. Body (Figs. 9B, 42A–B) extremely depressed, dorsoventrally flattened, oblong, black; tarsi, maxillary palpi and antennae rufopiceous. Anterior margin of head (Fig. 42C) slightly retuse, anterolateral margin slightly crenate; eyes on the sides inconspicuous dorsally. Surface of pronotum (Fig. 42D) sparsely clothed with fine punctures, becoming coarse near the apical and basal angles. Longitudinal suture of

metaventricle lightly impressed; intercoxal disk of metaventricle broad, evenly clothed with microscopic punctures. Lateral metaventral stria (Fig. 43B) extending obliquely and posteriorly, the apical end attaining but not united to the middle of metaventro-metepisternal suture. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Surface of second to fourth abdominal ventrites microscopically punctulate, clothed with large punctations on the lateral areas. Anterior surface of protibia (Fig. 43C) strigate, covered with sparse, fine punctures, sometimes with few, short setae on the medio-apical area. Outer lateral margin with four teeth. Inner margin with row of short, seta-like hair; inner marginal stria on basal half. Protarsal groove S-shaped, impressed; near tarsal insertion with two, tarsal denticles, another one little distant; protibial spur normal, about a quarter-length of protarsus. Posterior surface of protibia (Fig. 43D) with transverse, elevated ridge on the middle; surface covered fine, ocelloid punctation, becoming sparse on the apical portion. Number of denticles on outer margin five, one on inner apical angle. Inner posterior stria shortly abbreviated on basal end. Femoral stria almost complete, shortened on apical end.

Male genitalia. Aedeagus (Figs. 85A–B) slender, sclerotized, apically curved ventrad; parameres slightly shorter, about a third of the length of phallobase, fused on basal half, the basolateral fourth notched and narrowed, the basal half slightly wider in lateral view; ninth tergite and spiculum gastrale (Figs. 85C–D) almost the same length.

Distribution. Myanmar, Indonesia: Java, Japan: Nansei Islands, Philippines.

Genus *Mesostrix* Mazur, 1994

Mesostrix Mazur, 1994: 45; Mazur & Ôhara, 2009: 247.

Type species: *Mesostrix bimaculata* Mazur & Mokrzycki, 2014: 197.

Diagnosis. Body is elongate-oval, similar to *Platysoma* species. Lateral pronotal stria complete, replaced by more crenulated anterior stria behind the head. Subhumeral striae absent. Elytra with feeble red macula on the medio-basal portion. Elytral dorsal striae 1–3 complete, usually sinuous in pattern; dorsal striae 4 and 5 abbreviated on basal end; sutural stria sometimes present. Both propygidium and pygidium covered with dense and round punctures. Prosternal process with triangularly incised mark between the procoxae.

This genus includes three species, and is endemic in the Sulawesi Island of Indonesia. This is the first record in the Philippines.

Mesostrix bimaculata Mazur & Mokrzycki, 2014

(Figs. 10A, 44–45, 86).

Mesostrix bimaculata Mazur and Mokrzycki, 2014: 197.

Specimens examined. [Palawan] 1 ♂, 2 exs., Olanguan, 25.VIII.1992, K. Sugino leg.; 1 ♂, 1 ex. (EUM), 20 km W of Puerto Princesa, Balsahan, Iwahig Penal Colony, Balsahan, 100 masl, 19.XI.1978, S. Nagai leg.

Diagnosis. This species is the only representative species of this new erected genus of the tribe Platysomatini. Distinctive characterization includes the triangular-shaped incision in its prosternal keel, and the red maculation from the apex of its elytra extending laterally towards the mediobasal area.

Additional description. Body length: PEL: 3.21 mm; APW: 1.09 mm; PPW: 2.19 mm; EL: 1.96 mm; EW: 2.44 mm. Body (Figs. 10A, 44A–B) oblong-oval, generally black but rufopiceous on the anterolateral angle of pronotum; the outer longitudinal half portion of the elytra with red macula; the tarsi, maxillary palpi and antennae rufopiceous. Clypeus (Fig. 44C) depressed; the frontal stria slightly emarginate at the middle. Sutural stria in the elytra (Fig. 44E) short and impressed on the medio-apical half, about 1/8 the length of the elytra, abbreviated on the apical end. Apex of the elytra with conspicuous, fine punctations. Prosternal lobe (Fig. 45A) finely punctate, prosternal process smooth. Lateral metaventral stria (Fig. 45B) extending obliquely and posteriorly, but not reaching the basal third of metaventro-metepisternal suture. Posterior mesocoxal stria rugose along the lateral metaventral stria. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 45B) with large, shallow, round punctures close to mesocoxa. Surface of second to fourth abdominal ventrites microscopically punctulate, but with large punctations on each lateral sides. Anterior surface of protibia (Fig. 45C) feebly strigate. Outer lateral margin with four teeth. Inner margin with row of short, seta-like hair, becoming longer on the apical end; inner marginal stria shortened on apical fourth. Outer margin with short, seta-like hairs. Protarsal groove deeply impressed; near tarsal insertion with two spine-like tarsal denticles; inner side of the groove with few, longer spines. Protibial spur about 1/4 the length of protarsus. Posterior surface of protibia (Fig. 45D) with transverse, elevated ridge, shortened on the apical fourth; surface covered with fine, ocelloid punctations. Number of denticles on outer margin five, one on inner apical angle. Median posterior and inner posterior striae complete. Femoral stria almost complete, shortened on apical end; posterior margin with conspicuous rugose-like sculpture.

Male genitalia. Aedeagus (Figs. 86A–B) long and sclerotized, almost the same width entirely. Parameres mediobasally united, the apical portion moderately narrowed from the inner sides towards the tip; apically curved ventrad, appearing slender on the apical tip, when viewed laterally. Phallobase short, approximately half the length of the paramere. Ninth tergite and spiculum gastrale (Figs. 86C–D) almost the same length; spiculum gastrale shortly bifurcate on the apical tip.

Distribution. Indonesia: Sulawesi, Philippines: Palawan.

Remarks. The determination of *Mesostrix bimaculata* is apparently distinguished from two of the Sulawesi species – *M. pentatoma* and *M. nigropyga* based from key of Mazur and Mokrzycki (2014) for bearing red maculae on its elytra and carinated pygidium. The occurrence of *M. bimaculata* in the Philippines is more likely possible as it is first discovered in Sarawak in Borneo Island.

Genus *Platysoma* Leach, 1817

Platysoma Leach, 1817: 77; Marseul, 1864: 292; Lewis, 1905d: 14; Bickhardt, 1910:19; 1917: 138; Desbordes, 1919: 355; Mazur, 1984: 227; 1997: 69; 2011: 62; Mazur & Ôhara, 2009: 247.

Abbotia Leach, 1830: 155, type species: *Hister compressus* Herbst, 1783.

Platysomum Gistel, 1856: 363.

Type species: *Hister depressus* Fabricius, 1787: 32, designated by Westwood, 1840: 22.

Diagnosis. Body is oval-oblong or cylindrical. Lateral pronotal stria interrupted behind the head, replaced by an apical stria. The elytra without any subhumeral striae, and at least one dorsal stria is complete. Prosternal base flat. Prosternal lobe and mesoventrite more or less margined. Mesoventrite without arcuate mesoventral stria. Mesocoxa with a distinct cariniform stria. Lateral metasternal stria complete. Post-mesocoxal stria long, almost parallel to lateral metasternal stria. Second abdominal sternite without stria (Mazur & Ôhara, 2009: 246).

This genus includes 62 species worldwide (Mazur, 2011) from the three subgenera – *Platysoma*, *Cylister*, and *Cylistus* wherein they are all primarily categorized according to the length-width ratio of their mesoventrites: 1) mesoventrite wide, twice as wide as long (subgen. *Platysoma*); 2) mesoventrite narrower, at most 1.5 times as wide as long (subgen. *Cylister* Cooman, 1941); and 3) mesoventrite nearly as wide as long (subgen. *Cylistus* Dejean, 1833) appearing as the most cylindrical among the three subgenera. Since the large group *Platysoma* have undergone series of meticulous systematic works and taxonomic re-examinations, most members have already been re-assigned to *Platylister* Marseul, 1861, to date, only two species were left under *Platysoma*. However, a new species is proposed in this study under the subgenera *Platysoma* s. str.

Subgenus *Platysoma* Leach, 1817

Platysoma Leach, 1817: 77; Mazur, 1997: 63 [catalogued]; 2011: 62 [catalogued].

The subgenus *Platysoma* consists of 40 species to date, in which one species is reported in the Philippines. In this manuscript, a putative new species is proposed.

***Platysoma (Platysoma)* sp. 1**

(Figs. 11B, 46–47).

Specimens examined. [Palawan] Holotype: 1 ♀, Olanguan, 25.VIII.1992, K. Sugino leg.

Diagnosis. *Platysoma (Platysoma)* sp. 1 is distinctive from *P. (P.) dufali* as the sutural stria in *P. (P.)* sp. 1 is unimpressed. Also, the pygidial punctures of the new species are densely and coarsely punctate while in *P. (P.) dufali* the punctations are sparse and fine.

Description. Body length: PEL: 2.60 mm; APW: 0.87 mm; PPW: 1.67 mm; EL: 1.56 mm; EW: 1.79 mm. Body (Figs. 11B, 46A–B) oblong-oval, subconvex, black; the tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface of head covered finely punctate, the posterior area with sparse punctures, bigger than the rest of the surface. Clypeus (Fig. 46C) widely emarginate on the anterior region, deeply impressed. Frontal stria deeply impressed, transverse towards the lateral sides above the eyes. Anterolateral margin sinuous. Mandible

short, apical tip acute. Labrum transversely elongated, the apical angles acute, appearing as rectangular. Eyes well-visible dorsally.

Pronotum. Pronotal sides (Fig. 46D) convergent forward; apical angle slightly depressed, the anterior margin bisinuate. Pronotal lateral stria present, strongly impressed on the sides and apical angles, shortened behind the head; the lateral stria abbreviated behind the eyes, the tip joined the outer tip of anterior stria behind the head. Anterior stria impressed anteriorly, interrupted in the middle, crenate. Surface of pronotum covered with fine punctation; the lateral portion coarsely punctate, a little distant from the lateral pronotal stria.

Elytra. Epipleura (Fig. 47B) finely punctate; both epipleural and elytral marginal striae complete. Subhumeral striae absent. Oblique stria almost inconspicuous on basal third. Elytral dorsal striae 1–3 (Fig. 46E) strongly impressed, complete; dorsal stria 4 on apical fourth; dorsal stria 5 and sutural stria none. Disk of elytra finely punctate, posterior margin with conspicuous, row of fine to coarse punctures.

Propygidium and pygidium. Propygidium (Fig. 46F) clothed with dense, coarse punctures, separated by half their own diameter, intermingled with fine punctation. Surface of pygidium (Fig. 46F) smaller to that of the propygidium, punctures more compact; posterolateral margin finely punctate, not carinate.

Prosternum. Anterior margin of prosternal lobe (Fig. 47A) round. Marginal stria clearly impressed along the margin, shortened on the middle, short basolateral stria present on each side; the surface smooth. Lateral prosternal striae short and impressed; disk of keel almost impunctate, similar to that of the prosternal lobe; posterior margin slightly arcuate towards the base, almost straight.

Meso-metaventrite and abdomen. Anterior margin of mesoventrite (Fig. 47A) broadly emarginated medially; marginal stria impressed, emarginate on the middle along the anterior margin; disk sparsely punctate, inconspicuous. Posterior mesocoxal stria long, extending posteriorly and obliquely, almost attaining the metaventral-metepisternal suture. Lateral metaventral stria (Fig. 47B) impressed along the posterior mesocoxal stria, almost the same length, shortened near the inner margin of metacoxa. Meso-metaventral suture and longitudinal suture of metaventrite inconspicuously impressed; intercoxal disk of metaventrite similar to that of mesoventrite. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 47B) covered with large, ocelloid punctation; the inner portion becoming finer. Intercoxal disk of first abdominal ventrite similar to that of metaventral disk; lateral striae short on each side. Surface of second to fourth abdominal ventrites microscopically punctate, the lateral sides with row of coarse to fine punctations.

Legs. Protibia moderately dilated. Anterior surface of protibia (Fig. 47C) strigate, with sparse, ocelloid punctures. Inner marginal stria on basal 3/4. Protarsal groove deep, S-shaped, the inner portion of the groove with few short, seta-like denticles. Protibial spur short, about 1/3 the length of protarsus. Outer lateral margin with four teeth. Posterior surface of protibia (Fig. 47D) with strigate sculpture, finely punctate, with elevated ridge on the basal half. Number of denticles on the outer margin five, one on inner apical angle. Both median posterior and inner marginal striae complete, the apical tips shortened apically.

Male genitalia. Not available in this study.

Distribution. Philippines: Palawan.

Subgenus *Cylister* Cooman, 1941

Cylister Cooman, 1941: 307; Mazur, 2011: 64 [catalogued].

Type species: *Platysoma filiforme* Erichson, 1834.

Remarks. *Platysoma (Platysoma) dufali* is proposed to be re-assigned as *Platysoma (Cylister) dufali*. This is the first record of *Cylister* in the Philippines, making the total number of species in this subgenus 13.

***Platysoma (Cylister) dufali* Marseul, 1864**

(Figs. 11A, 48–49, 87).

Platysoma dufali Marseul, 1864a: 297 [keyed], 310.

Cylistosoma dufali: Lewis, 1905d: 18 [catalogued].

Platysoma (Cylistosoma) dufali: Bickhardt, 1910: 25; 1914: 426; 1917: 145.

Platysoma (Cylister) dufali: Mazur, 1984: 244.

Cylister dufali: Cooman, 1948: 133.

Platysoma (Platysoma) dufali: Desbordes, 1919: 374; Mazur, 1997: 71 [catalogued]; 2011: 63; Lackner *et al.*, 2015: 108 [catalogued].

Platysoma scitullum Lewis, 1889: 280, synonymized by Lewis, 1905d: 18.

Platysoma (Cylister) dufali: dela Cruz, 2024: xx. new com.

Specimens examined. [Luzon] 2 exs., Benguet, Itogon, 20.IX.1975, G. B. Viado leg.; 1 ex., Nueva Vizcaya, Sta. Fe, 12.VIII.1975, G. B. Viado leg.; 1 ex., 20.IX.1975, same collector. [Palawan] 1 ♂, Olangan, 25.VII.1992, K. Sugino leg.

Diagnosis. *Platysoma (Cylister) dufali* Marseul, 1864 is characterized with its entire elytral dorsal striae 1–3 and short dorsal striae 4–5 on its apex. The sutural stria is also impressed on the apical half of its elytra.

Re-description. Body length: PEL: 4.00 mm; APW: 1.47 mm; PPW: 2.32 mm; EL: 2.18 mm; EW: 2.40 mm. Body (Figs. 11A, 48A–B) cylindrically elongated, subconvex, black; the tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface of head covered with punctation. Clypeus (Fig. 48C) widely emarginate anteriorly, deeply impressed. Frontal stria transverse, strongly impressed towards the lateral sides above the eyes. Short transverse stria marked posteriorly. Anterolateral margin slightly sinuous. Mandible short, apical tip acute. Labrum transversely elongated, the apical angles acute. Eyes well-visible dorsally.

Pronotum. Pronotal sides (Fig. 48D) straight, slightly curved on the apical angle; the anterolateral margin robust; anterior margin straight. Both marginal and lateral striae present on apical angle; the lateral stria abbreviated behind the eyes, replaced by anterior stria, shortened in the middle, crenate. Surface of pronotum covered with fine punctation; the anterolateral area and basal angle coarsely punctate.

Elytra. Epipleura (Fig. 49B) finely punctate; epipleural marginal stria complete, impressed medially, the elytral marginal stria complete, close to edge of elytra. Subhumeral striae absent. Oblique stria feebly

impressed on basal third. Elytral dorsal striae 1–3 (Fig. 48E) strongly impressed, complete; dorsal stria 4 on apical third; dorsal stria 5 discal posteriorly, very short; sutural stria on apical half, the apical tip a little shortened. Disk of elytra finely punctate, posterior margin with conspicuous, row of fine punctures.

Propygidium and pygidium. Propygidium (Fig. 48F) with few, round, coarse punctures, separated by twice or of their own diameter, interspersed with fine punctation; the middle portion slightly impunctate. Pygidium (Fig. 48F) clothed with coarse punctures smaller to that of the propygidium, sparsely punctate, separated by 3–4 times their own diameter; posterolateral margin and posterior tip finely punctate.

Prosternum. Anterior margin of prosternal lobe (Fig. 49A) round. Marginal stria deeply impressed along the margin, slightly curved inwardly, shortened on the middle of the lobe, short basolateral stria present on each side; the surface finely punctate. Lateral prosternal striae short and impressed, divergent towards the apex; disk of keel almost impunctate; posterior margin feebly arcuate towards the base, the basal angles acute.

Meso-metaventricle and abdomen. Anterior margin of mesoventrite (Fig. 48A) emarginated medially; marginal stria clearly impressed, emarginate on the middle along the anterior margin; disk sparsely punctate, inconspicuous. Posterior mesocoxal stria long, extending posteriorly and obliquely, almost attaining the metaventral-metepisternal suture. Lateral metaventral stria (Fig. 49B) impressed along the posterior mesocoxal stria, almost the same length, shortened near the inner margin of metacoxa. Meso- metaventral suture and longitudinal suture of metaventricle feebly impressed; intercoxal disk of metaventricle similar to that of mesoventrite. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 49B) covered with large, ocelloid punctation; the inner portion becoming finer. Intercoxal disk of first abdominal ventrite similar to that of metaventral disk; lateral striae short on each side. Surface of second to fourth abdominal ventrites microscopically punctate, the lateral sides with row of coarse to fine punctations.

Legs. Protibia moderately dilated. Anterior surface of protibia (Fig. 49C) strigate, with sparse, ocelloid punctures. Inner marginal stria complete, the middle portion more distant from the inner margin. Outer lateral margin typically with four teeth. Posterior surface of protibia (Fig. 49D) similar to that of the anterior surface, with elevated ridge on the basal half, extended towards the basal 3/4, obliquely. Number of denticles on the outer margin five, one on inner apical angle. Median posterior stria complete; the inner marginal stria shortened on basal fourth, basal tip near the median posterior stria.

Male genitalia. Aedeagus (Figs. 87A–B) moderately sclerotized, long; the apex of parameres slightly convergent anteriorly, fused in the middle; phallobase narrow on basal half, 1/3 the length of parameres; eighth tergite (Figs. 87E–F) emarginate posteriorly; ninth tergite and spiculum gastrale (Figs. 87C–D) almost the same length; spiculum gastrale slender, narrowest on its medio-apical portion.

Distribution. Malaysia: Malacca, Sri Lanka, China, Myanmar, Vietnam, Indonesia: Sumatra, Borneo, Philippines: Luzon, Palawan.

Remarks. Based from the differential characterization among the three subgenera of *Platysoma*, the ratio of length and width in the mesoventrite of *P. (Platysoma) dufali* is categorized under the subgenus (*Cylister*) and not under (*Platysoma* s. str.). This can also be observed from the illustration of the ventral side of the type species *Platysoma (Cylister) filiforme* in Mazur & Ôhara, 2009: 243, figs. 55–57, thus I propose to re-assign *P. (Platysoma) dufali* as *Platysoma (Cylister) dufali*.

Subgenus *Cylistus* Dejean, 1833

Cylistus Dejean, 1833: 129; Mazur, 2011: 64 [catalogued].

Cylistix Marseul, 1857: 474.

Type species: *Hister cylindricus* Paykull, 1811.

The subgenus *Cylistus* is comprised of ten species. In the Philippines, a single species is reported.

***Platysoma (Cylistus) ineditum* (Desbordes, 1925)**

Cylistosoma ineditum Desbordes, 1925c: 86.

Cylister ineditum: Cooman, 1941: 310.

Platysoma (Cylister) ineditum: Mazur, 1984: 245.

Platysoma (Cylistix) inedita: Mazur, 1997: 75.

Platysoma (Cylistus) ineditum: Mazur, 2011: 65.

Specimens examined. Not available in this study.

Diagnosis. *Platysoma (Cylistus) ineditum* is characterized with no frontal stria on its head. In addition, the basal portion of its prosternum is impressed with two converging striae.

Distribution. Philippines.

Genus *Liopygus* Lewis, 1891

Liopygus Lewis, 1891: 385; Bickhardt, 1910: 18; 1917: 137; Mazur, 1984: 254; 1997: 76; 2011: 66; Mazur & Ôhara, 2009: 247.

Type species: *Platysoma decemstriatum* Motschulsky, 1863: 454. Designated by Bickhardt, 1917: 137.

Diagnosis. Body is parallel-sided and flattened, slightly convex. Prosternum with two lateral striae. Mesocoxa with a distinct cariniform stria, belonging to *Platysoma* section. Elytra without any subhumeral striae, at least one dorsal stria complete. Prosternal lobe and mesosternum more or less margined. Second abdominal sternite without stria. Lateral pronotal stria uninterrupted and continuous behind the head. Post mesocoxal stria short, almost half the length of the lateral metasternal stria. Prosternum without carinal striae. Pygidium almost impunctate, with two large and deep excavations near the outer edge (Mazur & Ôhara, 2009: 246).

This genus includes 16 species worldwide (Mazur, 2011). There are three species recorded in the Philippine archipelago. Two species are available in this study.

Key to Species of Philippine *Liopygus* Lewis, 1891

One *Liopygus* species – *L. cavatus* (Lewis, 1885) from the Philippines is not available in this study, hence morphological diagnosis of this species is based on original descriptions.

- 1 Elytral dorsal striae 1–3 complete ----- *L. cavatus* (Lewis, 1885).
- Elytral dorsal striae 1–2 complete, dorsal stria 3 interrupted in the middle ----- 2.
- 2 Frontal stria of the head straight and complete towards the lateral sides near the eyes -----
----- *L. diopsipygus* (Marseul, 1879).
- Frontal stria of the head straight, shortened and interrupted anterolaterally, a little bent inwardly; the lateral stria near the eyes present ----- *L. gestroi* (Lewis, 1888).

Liopygus cavatus (Lewis, 1885)

Apobletes cavatus Lewis, 1885: 459 [Java].

Liopygus cavatus: Lewis, 1891: 386; Bickhardt, 1910: 18 [catalogued]; 1917: 138 [catalogued]; Mazur, 1984: 254 [catalogued]; 1997: 77 [catalogued]; 2011: 66 [catalogued]; Mazur *et al.*, 2015: 1456, [f. 21, p. 1464].

Specimens examined. No available specimens in this study.

Diagnosis. This species has a similar fossettes in its pygidium with *L. diopsipygus* Marseul, 1879 however, *L. cavatus* (Lewis, 1885) is usually broader on its body size. Generally, it is characterized by its complete dorsal striae 1 – 3 on its elytra, along with its short apical stria.

Distribution. India: Kerala, Thailand, Indonesia: Java, Borneo, Philippines.

Liopygus diopsipygus (Marseul, 1879)

(Figs. 12B, 50–51, 88).

Apobletes diopsipygus Marseul, 1879: 259 [Java].

Liopygus diopsipygus: Lewis, 1891: 386; Bickhardt, 1910: 18 [catalogued]; 1914: 426 [Philippines]; 1917: 138 [catalogued]; Mazur, 1984: 254 [catalogued]; 1997: 77 [catalogued]; 2011: 66.

Specimens examined. [Mindanao] 1 ♂, 1 ex. [EUM], Baracatan, north slope Mt. Apo, 1100 masl, Eagle Centre, 4.VIII.1985, M. Sakai leg.; 1 ex., Baracatan, 1500 masl, 27–29.VI.1977, M. Sakai leg.

Diagnosis. *Liopygus diopsipygus* (Marseul, 1879) is characterized with its straight and complete frontal stria on the head, extending towards the lateral sides near the eyes, which is interrupted in the anterolateral portion in *L. gestroi* (Lewis, 1888). The surface of the head in *L. diopsipygus* is also sparsely punctate compared to *L. gestroi*, as well as the elevated ridge in the posterior surface of protibia is almost complete in *L. diopsipygus*.

Re-description. Body length: PEL: 2.16 mm; APW: 0.64 mm; PPW: 1.25 mm; EL: 1.30 mm; EW: 1.38 mm. Body (Figs. 12B, 50A–B) dorsoventrally flattened, oblong, rufopiceous to black; the tarsi, maxillary palpi and antennae more rufopiceous to dark red in color.

Head. Surface of head (Fig. 50C) moderately and evenly covered with almost fine, ocelloid punctures, separated by 4–5 times their diameters. Anterior margin slightly emarginate medially. Frontal stria straight, continuous towards the lateral sides near the eyes. Clypeus slightly depressed, including behind the frontal stria. Anterolateral margin feebly crenate, the eyes on the sides inconspicuous dorsally. Mandible short and stout; surface covered fine, ocelloid punctures similar to surface of the head. Labrum transverse oblong.

Pronotum. Pronotal sides (Fig. 50D) convergent forward, strongly arcuate on apical 5/6. Marginal stria complete, shortened on the apical angle. Pronotal lateral stria strongly impressed close to the margin and laterally complete, united with the anterior stria behind the head. Surface of pronotum clothed with fine, ocelloid punctures similar to surface of head, becoming more remarkable near the anterolateral area.

Elytra. Epipleural and elytral marginal striae (Fig. 51B) impressed and complete, slightly distant from each other. Epipleura almost impunctate. Subhumeral striae absent. Oblique stria feebly impressed present on basal fourth, sometimes inconspicuous. Elytral dorsal striae 1 and 2 (Fig. 50E) complete, the base of the second stria a little bent from the first. Dorsal stria 3 widely interrupted on the middle, sometimes the basal portion weakly impressed. Dorsal stria 4 impressed on apical fourth, stria very short and inconspicuous in apical 1/6, sutural stria none. Disk of elytra almost smooth, sometimes clothed with microscopic punctures near lateral sides; few large punctures present along apical margin.

Propygidium and pygidium. Propygidium (Fig. 50F) with few punctations on basal half, usually around 10–15 large, ocelloid punctures, separated by 0.3–0.5 times their diameter; the apical half with fine punctation. Pygidium (Fig. 50F) has similar surface with apical half of propygidium, almost impunctate, with large, transverse and deep fossettes near the outer edge of each sides.

Prosternum. Anterior margin of prosternal lobe (Fig. 51A) broadly round. Prosternal lobe wide. Marginal stria complete, abbreviating close to prosternal suture; the disk evenly clothed with fine, ocelloid punctures. Prosternal keel broad, without carinal stria; lateral stria and lateral marginal stria moderately impressed; the disk of keel with punctation sparser than that of the lobe; posterior margin almost straight.

Meso-metaventricle and abdomen. Mesoventrite (Fig. 51A) slightly bisinuate on the anterior margin; marginal stria complete, shortly interrupted on both ends; surface of disk similar to that of prosternal keel. Meso-metaventral suture complete, obtusely angulate at middle; longitudinal suture of metaventricle lightly impressed; intercoxal disk of metaventricle broad, evenly clothed with microscopic punctures. Lateral metaventral stria (Fig. 51B) strongly extending obliquely and posteriorly, leaving almost no space for lateral disk of metaventricle, the apical end reaching near the basal third of metaventro-metepisternal suture, and bent inwardly. Posterior mesocoxal stria short, almost 1/3 the length of lateral metaventral stria. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 51B) with large, shallow, rugose-shaped punctures close to mesocoxa. Intercoxal disk of first abdominal ventrite rounded on basal angles, sparsely covered with microscopic punctures, almost similar to that of metaventral disk, the sides impressed with lateral stria. Surface of second to fourth abdominal ventrites microscopically punctulate, but with large punctations on each lateral sides.

Legs. Anterior surface of protibia (Fig. 51C) feebly strigate, with microscopic punctures. Outer lateral margin with four teeth. Inner margin with row of short, seta-like hair; inner marginal stria impressed on basal half. Protarsal groove deeply impressed; near tarsal insertion with two spine-like tarsal denticles, another one little distant; protibial spur normal, about 1/3 the length of protarsus. Posterior surface of protibia (Fig. 51D) with transverse, elevated ridge towards the apex; surface covered with fine, ocelloid punctations. Number of denticles on outer margin five, one on inner apical angle. Median posterior and inner posterior striae complete. Femoral stria almost complete, shortened on apical end; posterior margin with conspicuous short striations.

Male genitalia. Aedeagus (Figs. 88A–B) short, plump and sclerotized, broader towards the basal half. The parameres and phallobase apically curved ventrad, appearing as curved from the basal margin; parameres almost same length as to phallobase; ninth tergite and spiculum gastrale (Figs. 88C–D) almost the same length; spiculum gastrale shortly bifurcate on the apical tip.

Distribution. Indonesia: Java, Malaysia Sabah, Pahang, Philippines.

***Liopygus gestroi* (Lewis, 1888)**

(Figs. 12A, 52–53, 89).

Apobletes gestroi Lewis, 1888b: 632 [Tenasserim].

Liopygus gestroi: Lewis, 1891: 386; Bickhardt, 1910: 18 [catalogued]; 1917: 138 [catalogued]; Mazur, 1984: 254 [catalogued]; 1997: 77 [catalogued]; 2011: 66 [catalogued]; Mazur *et al.*, 2015: 1456, [f. 22, p. 1464].

Liopygus quadratus Desbordes, 1913b: 274, synonymized by Mazur, 1984: 254.

Specimens examined. [Luzon] 2 exs., Ifugao, Mt. Polis, 1900 masl, 4–5.VI.1977, M. Sato leg.; 3 exs. [EUM], Quezon Province, Atimonan, Quezon National Forest Park, VI.1964, A. C. Concepcion; 1 ex., Mt. Maquiling, 11.V.1969, S. Hisamatsu leg.; 1 ex., Camarines Norte, Bicol National Park, 8.II.1985; A. Kato leg.; 1 ex., 7.II.1985; 1 ex., 6.II.1985, same data except the collection dates; 1 ex. [EUM], Riv. Mapating, Tagkawayan (white lauan), 2.IV.1959, J. Murayama leg. [Palawan] 1 ♀, 8 exs., Ramos Island, 14.IV.1998, K. Mizota leg.; 1 ex., Sabang, north of Mt. St. Paul, 11–13.VII.1977, M. Sato leg. [Negros] 1 ex., Mt. Handalagan, 2–10.I.1989, D. Mohagan leg. [Leyte] 1 ♂, 23 exs., Mt. Balo cave, IV.2006, D. Mohagan leg. [Mindanao] 1 ex. [EUM], Todaya, 29.VII.1970, M. Sato leg.; 1 ex. [EUM], 30.VII.1970, same collector but different dates; 1 ex., 1 ex., Waterfall, 8 km NW of Bislig, 5.VII.1977, M. Sato leg.; 1 ♀, 2 exs. [EUM], Tagurano, 1000 masl, 25–26.VI.1977, Sato leg.

Diagnosis. The frontal stria on the head of *Liopygus gestroi* (Lewis, 1888) is determined as interrupted anterolaterally, compared to *L. diopsipygus* (Marseul, 1879) which is uninterrupted towards the sides lateral side of the eyes. The apical portion in the parameres of *L. gestroi* is also wider than its base, which is the other way around in *L. diopsipygus*.

Re-description. Body length: PEL: 2.25 mm; APW: 0.70 mm; PPW: 1.38 mm; EL: 1.34 mm; EW: 1.42 mm. Body (Figs. 12A, 52A–B) dorsoventrally flattened, oblong, rufopiceous to black; the tarsi, maxillary palpi and antennae more rufopiceous in color.

Head. Surface of head (Fig. 52C) moderately and evenly covered with almost fine, ocelloid punctures, separated by 3–4 times their diameters. Anterior margin slightly emarginate medially. Frontal stria is straight,

but shortened on both ends towards the lateral sides, the stria a little bent inwardly. Lateral stria shortly impressed near the eyes. Clypeus depressed, including the area of frontal stria. Anterolateral margin feebly crenate, the eyes on the sides inconspicuous dorsally. Mandible short and stout; surface covered fine, ocelloid punctures similar to surface of the head. Labrum transverse oblong, its anterior margin emarginate medially.

Pronotum. Pronotal sides (Fig. 52D) convergent forward, strongly arcuate on apical 5/6. Marginal stria complete, shortened on the apical angle. Pronotal lateral stria deeply impressed close to the margin and laterally complete, united with the anterior stria behind the head. Surface of pronotum clothed with fine, ocelloid punctures similar to surface of head.

Elytra. Epipleural and elytral marginal striae (Fig. 53B) impressed and complete, slightly distant from each other. Epipleura almost impunctate. Subhumeral striae absent. Oblique stria feebly impressed, sometimes inconspicuous. Elytral dorsal striae 1 and 2 (Fig. 52E) complete, the base of the second stria a little distant from the first. Dorsal stria 3 widely interrupted on the middle, sometimes the basal portion weakly impressed and inconspicuous. Dorsal striae 4 and 5 impressed on apical fourth, sutural stria absent. Disk of elytra almost smooth, sometimes clothed with microscopic punctures near lateral sides; conspicuous, fine punctures present along apical margin.

Propygidium and pygidium. Propygidium (Fig. 52F) with few punctations on basal half, usually around 15–20 large, ocelloid punctures, separated by 0.3–0.5 times their diameter; the apical half with fine punctation. Pygidium (Fig. 52F) has similar surface with the apical half of propygidium, but with fine punctures on the mediobasal portion; the basolateral angles with large, transverse and deep fossette on each sides.

Prosternum. Anterior margin of prosternal lobe (Fig. 53A) broadly round. Prosternal lobe wide. Marginal stria complete, abbreviating close to prosternal suture; the disk covered with fine, ocelloid punctures on the apical half. Prosternal keel broad, without carinal stria; lateral stria and lateral marginal stria moderately impressed; the disk of keel with punctation sparser than that of the apical portion of the lobe; posterior margin almost straight.

Meso-metaventricle and abdomen. Mesoventrite (Fig. 53A) slightly bisinuate on the anterior margin; marginal stria complete, shortly interrupted on both ends; surface of disk similar to that of prosternal keel. Meso-metaventral and longitudinal sutures unremarkable, intercoxal disk of metaventricle broad, evenly clothed with microscopic punctures. Lateral metaventral stria (Fig. 53B) strongly extending obliquely and posteriorly, leaving almost no space for lateral disk of metaventricle, the apical end attaining but not united to the basal third of metavento-metepisternal suture. Posterior mesocoxal stria short, almost half the length of lateral metaventral stria. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 53B) with large, shallow, rugose punctures. Intercoxal disk of first abdominal ventrite rounded on basal angles, sparsely covered with microscopic punctures, almost similar to that of metaventral disk, the sides impressed with lateral stria. Surface of second to fourth abdominal ventrites microscopically punctulate, clothed with large punctations on the lateral areas.

Legs. Anterior surface of protibia (Fig. 53C) slightly strigate, covered with sparse, fine punctures. Outer lateral margin with four teeth. Inner margin with row of short, seta-like hair; inner marginal stria impressed on basal half. Protarsal groove deeply impressed; near tarsal insertion with two spine-like tarsal denticles, another one little distant; protibial spur normal, about 1/3 the length of protarsus. Posterior surface of protibia (Fig. 53D) with transverse, elevated ridge on basal half; surface covered with sparse, fine, ocelloid

punctations. Number of denticles on outer margin four, one on inner apical angle. Median posterior and inner posterior striae complete. Femoral stria almost complete, shortened on apical end; posterior margin with conspicuous short striations.

Male genitalia. Aedeagus (Figs. 89A–B) short, plump and moderately sclerotized, slightly broader towards the apex, a little narrowed on the medio-apical portion. Both parameres and phallobase apically curved ventrad from the base; parameres almost same length as to phallobase, fused on basal fourth; ninth tergite and spiculum gastrale (Figs. 89C–D) almost the same length; spiculum gastrale moderately bifurcate on the apical tip.

Distribution. North India, Laos, Myanmar: Tenasserim, Thailand, Malaysia: Perak, Philippines.

Genus *Kanaarister* Mazur, 1999

Kanaarister Mazur, 1999: 10; Mazur & Ôhara, 2009: 247.

Type species: *Platysoma latisternum* Marseul, 1853: 262.

Diagnosis. Body generally oval, oval-oblong; flat or subconvex. Pronotum distinctly punctures at its sides. Elytra without any subhumeral striae. Prosternum impressed with two lateral striae; carinal stria unimpressed. Prosternal lobe and mesoventrite more or less margined. Mesoventrite feebly and widely sinuate anteriorly. Mesocoxa with a distinct cariniform stria, belonging to *Platysoma* section. Second abdominal ventrite without stria. Pygidium at least punctate; the surface without any deep excavation (Mazur & Ôhara, 2009: 246).

This genus consists of seven species, mostly of either *Platysoma* or *Apobletes* origin, until Mazur (1999) has erected this group as a separate genus, characterizing its distinctive punctuation on the lateral sides of its pronotum and the broadly sinuous anterior margin of its mesoventrite, which sets it apart from the large group of *Platylister*. In this study, one new species is introduced from the Philippines. This new species is also the first record of *Kanaarister* occurring from the archipelago.

Kanaarister sp. 1

(Figs. 10B, 54–55, 90).

Specimens examined. [Leyte] 1 ♂, Mt. Balocau, Hilosig, Mahapiag, 11.VI.2004, no collector's name indicated.

Diagnosis. *Kanaarister* sp. 1 is differentially diagnosed from other species of *Kanaarister* by the combination of the following characters: 1) elytral dorsal striae 1–2 complete, but the dorsal stria 3 is interrupted in the middle portion, and 2) complete, uninterrupted anterior marginal stria of its mesoventrite.

Description. Body length: PEL: 3.56 mm; APW: 1.10 mm; PPW: 2.16 mm; EL: 2.17 mm; EW: 2.54 mm. Body (Figs. 10B, 54A–B) oblong, convex, black; apical angle of pronotum light rufous; the tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface finely punctate. Anterior margin of clypeus (Fig. 54C) wide, feebly emarginate; the anterolateral margin sinuous, apical angle before eyes moderately notched. Frontal stria straight, slightly arcuate, deeply impressed, shortly interrupted on both lateral sides. Mandible short, finely punctate, the outer portion become denser. Labrum transversely elongated, the anterior margin similar to that of clypeus. Eyes slightly visible dorsally.

Pronotum. Pronotal sides (Fig. 54D) convergent forward, bisinuate anteriorly, apical angle slightly acute. Pronotal lateral stria complete, moderately impressed along the lateral margin towards the apical angle, interrupted behind the head. Surface of pronotum with fine punctation; the lateral portion with dense, fine punctures.

Elytra. Epipleura (Fig. 55B) clothed with microscopic punctures; the epipleural marginal stria and elytral marginal stria clearly impressed, complete. Subhumeral striae absent. Oblique stria lightly impressed on basal third. Elytral dorsal striae 1–2 (Fig. 54E) moderately impressed, complete; dorsal stria 3 broadly interrupted medially; dorsal striae 4, 5 and sutural stria absent. Elytral disk finely punctate, similar to that of pronotum.

Propygidium and pygidium. Propygidium (Fig. 54F) covered with round, coarse, dense punctation, separated by their own diameter; punctures near the basal margin slightly finer. (Fig. 54F) Surface of pygidium similar to that of propygidium, punctation more compact.

Prosternum. Anterior margin of prosternal lobe (Fig. 55A) round, broad. Marginal stria deeply impressed along the margin, abbreviated in the middle; short basolateral stria present on each side; the surface sparse, finely punctate. Lateral prosternal striae short and strongly impressed; disk of keel slightly broad; surface similar to that prosternal lobe; posterior margin feebly arcuate, almost straight towards the base.

Meso-metaventricle and abdomen. Anterior margin of mesoventrite (Fig. 55A) widely emarginate medially, emargination a little weak; the marginal stria clearly impressed along the margin; disk finely punctate. Posterior mesocoxal absent. Lateral metaventral stria (Fig. 55B) extending obliquely and posteriorly, almost attaining the metaventral-metepisternal suture, the apical tip arcuate inwardly. Meso-metaventral suture and longitudinal suture of metaventricle almost inconspicuous; intercoxal disk of metaventricle similar to that of mesoventrite. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 55B) covered with large, ocelloid punctures, becoming finer posteriorly. Intercoxal disk of first abdominal ventricle similar to that of metaventral disk; lateral striae short on each side. Surface of second to fourth abdominal ventricles microscopically almost impunctate medially, the lateral sides with rows of coarse to fine punctures.

Legs. Protibia dilated. Anterior surface of protibia (Fig. 55C) lightly strigate, with sparse, ocelloid punctations on the outer margin close to the teeth. Apical portion of the inner margin with few, tapering, seta-like denticles; the inner marginal stria impressed on basal 3/4 of protibia. Outer lateral margin with four teeth. Protarsal groove deep, S-shaped. Posterior surface of protibia (Fig. 55D) with transverse, elevated ridge from the base, almost attaining the apex; the surface with sparse, ocelloid punctations along the elevated ridge. Number of denticles on the outer margin five, one on inner apical angle. Both median posterior and inner marginal striae complete, the former a little shortened on the base.

Male genitalia. Aedeagus (Figs. 90A–B) sclerotized, narrowed on basal third; the apical portion of parameres convergent, inner margin of apical 1/5 narrowed, fused on the middle; phallobase almost the same

length and width of parameres; the posterior margin of eighth tergite (Figs. 90E–F) broadly arcuate; ninth tergite and spiculum gastrale (Figs. 90C–D) almost the same length.

Distribution. Philippines: Leyte.

Genus *Platylister* Lewis, 1892

Platylister Lewis, 1892e: 103; 1905d: 13; Bickhardt, 1910: 19; 1917: 143; Mazur, 1984: 228; 1997: 63; 2011: 68; Mazur & Ôhara, 2009: 247.

Type species: *Platysoma ovatum* Erichson, 1834: 108. Original designation.

Diagnosis. Body is oval-oblong, subconvex. Mandible with one simple dent at the inner margin. Pronotum smooth, or indistinctly punctulate; pronotal base not margined. Elytra without any subhumeral striae. Prosternum impressed with two lateral striae; carinal stria none. Prosternal lobe and mesoventrite more or less margined. Mesoventrite deeply emarginate or slightly bisinuate. Mesocoxa with a distinct cariniform stria, belonging to *Platysoma* section. Second abdominal ventrite without stria. Pygidium at least punctate; surface without deep excavation on both lateral sides (Mazur & Ôhara, 2009: 246).

This genus includes 115 species worldwide (Mazur, 2011) from three subgenera. Two subgenera occur in the Philippines – *Platylister*, which is assigned for all *Platylister* with pygidium that have more or less incision laterally; and the posterolateral margin is elevated or carinated; and *Popinus*, which characterize a flat or convex pygidium, as well as do not have any elevated margin on the posterolateral edge of their pygidium. Currently in the world checklist of Histeridae, there are 13 species of *Platylister* in the Philippines. In this paper, three new species are proposed for addition.

Key to Species of the subgenus *Platylister* Lewis, 1892 in the Philippines

Currently, there are seven species of the subgenus *Platylister* in the Philippines which are primarily divided by the occurrence of the inner marginal stria in the pronotum of some species. In this manuscript, three species are considered here as new species.

- 1 Pronotum with one lateral stria ----- 2.
- Pronotum with two lateral striae ----- 8.

- 2 Lateral pronotal stria interrupted behind the head ----- 3.
- Lateral pronotal stria continued along the anterior margin behind the head -----
----- *P. abruptus* (Erichson, 1834).

- 3 Elytral dorsal striae 5 absent; sutural stria absent ----- 4.
- Elytral dorsal striae 5 impressed on the apex; sutural stria absent ----- *P. charrali* (Marseul, 1861).

- 4 Marginal stria of the anterior margin of mesoventrite complete ----- 5.

- Marginal stria of the anterior margin of mesoventrite widely interrupted in the middle ----- 6.
- 5 Clypeus convex, not depressed ----- *P. lucifugus* (Marseul, 1853).
- Clypeus completely depressed ----- *P. corticinus* (Bickhardt, 1914).
- 6 Propygidium entirely punctate; body length about 2–4 mm ----- 7.
- Propygidium with longitudinal impunctation on the middle; body length about 5–6 mm -----
----- *P. ovatus* (Erichson, 1834).
- 7 Anterior margin of prosternal lobe elongated and horizontal ----- *P. densatus* (Schmidt, 1894).
- Anterior margin of prosternal lobe strongly retuse, resembling bi----- *P. sp. 2.*
- 8 Sutural stria impressed; inner lateral stria of pronotum complete ----- 9.
- Sutural stria absent; inner lateral stria of pronotum shorter, impressed on mediobasal portion -----
----- *P. sp. 1.*
- 9 Elytral dorsal stria 3 complete; pygidial punctures dense, slightly coarser; body oblong -----
----- *P. striatiderum* (Marseul, 1853).
- Elytral dorsal stria 3 interrupted medially; pygidial punctures fine, sparse; body oval -----
----- *P. sp. 3.*

Platylister (Platylister) abruptus (Erichson, 1834)

(Figs. 13A, 56–57, 91).

Platysoma abruptum Erichson, 1834: 109; Marseul, 1853: 255 [keyed], 257; 1861: 142, pl. 3, f. 2; 1864, 294 [keyed], 299; Lewis, 1892d: 22.

Platylister abruptus: Lewis, 1905d: 13 [catalogued].

Platysoma (Platylister) abruptum: Bickhardt, 1910: 19 [catalogued]; 1914: 425; 1917: 143 [catalogued]; Mazur, 1984: 228 [catalogued]; 1997: 63 [catalogued].

Platylister (Platylister) abruptus: Mazur, 2011: 68; Mazur *et al.*, 2015: 1457, f. 28, p. 1465.

Platysoma cavifrons Marseul, 1857: 472.

Platysoma gorhami Lewis, 1889: 278, synonymized by Bickhardt, 1914: 425.

Platylister gorhami Lewis, 1893: 418.

Specimens examined. [Luzon] 1 ex. [EUM], Mountain Province, Mt. Data, 2250 masl, 25.VII.1985, M. Sakai leg.; 2 exs., 1 ♀, Mt. Dolores, near Lucena, Kinabuhayan, 10–20.VII.1992, M. Monreal leg.; 8 exs., Kinabuhayan, near Lucena, II.1989; 2 exs., V–VII.1994, N. Monreal leg.; 1 ♂, 1 ex., Dolores, Quezon near Tiaong, Mt. Banahao, Kinabuhayan, 600 masl, 1–6.VIII.1988, T. Ito leg.; 3 exs., Mt. Makiling, 25.V.1980, T. Fujisawa leg.; 1 ex. [EUM], sap of palm, 18-.III.1981, S. Nagai leg.; Tagaytay, 1 ex. [EUM], 12.VII.1970, M. Sato leg. [Mindoro] 1 ex. [EUM], Victoria, 1–2.IV.1974, S. Ueda leg. [Palawan] 12 exs., Puerto Princesa, Barrio Talabigan, 24.III.1979, K. Wada leg.; 1 ex., Mt. Pagoda, 10.IV.1998, K. Mizota leg.; 1 ex. [EUM], Sabang, Mt. St. Paul, 11–13.VII.1977, M. Sato leg. [Negros] 2 exs., 31.VI.1990, no collector's name indicated; 1 ex., Mt. Handalagan, 2–10.I.1989, D. Mohagan leg.; 1 ex., Mt. Canlaon, 5.VIII.1988; 1 ex., 3–10.X.1992, D.

Mohagan leg. [Biliran] 1 ex. [TARI], Eastern Visayas, Mt. Capinyayan, 450 masl, 13.III.2017, Y.-T. Wang leg., FIT. [Leyte] 7 exs., Mt. Balocaue, Hilosig, Mahapiag, 1.V.2004; 13 exs., 11.VI.2004; 4 exs., 14.VI.2004, no collector's name indicated; 9 exs., Mt. Balocaue, 16.VI.2004, no collector's name indicated; 14 exs., Mt. Balo Cave, IV.2006, D. Mohagan leg. [Mindanao] 11 ♂♂, 4 ♀♀, 11 exs., 21.V.2021; 16 ♂♂, 5 ♀♀, 14 exs., 22.V.2021; 3 ♂♂, 2 ♀♀, 6 exs., 24.V.2021; 11 ♂♂, 4 ♀♀, 8 exs., 25.V.2021; 16 ♂♂, 13 exs., 26.V.2021; 16 ♂♂, 3 ♀♀, 10 exs., 27.V.2021; 11 ♂♂, 6 ♀♀, 8 exs., 28.V.2021; 10 ♂♂, 6 ♀♀, 6 exs., 29.V.2021; 10 ♂♂, 10 ♀♀, 6 exs., 31.V.2021; 16 ♂♂, 5 ♀♀, 5 exs., 1.VI.2021; 9 ♂♂, 1 ♀, 10 exs., 2.VI.2021; 13 ♂♂, 5 ♀♀, 19 exs., 3.VI.2021; 10 ♂♂, 7 ♀♀, 11 exs., 4.VI.2021; 8 ♂♂, 5 ♀♀, 16 exs., 5-VI.2021; 14 ♂♂, 1 ♀, 15 exs., 7.VI.2021; 13 ♂♂, 4 ♀♀, 22 exs., 8.VI.2021; 9 ♂♂, 5 ♀♀, 13 exs., 9.VI.2021; 14 ♂♂, 5 ♀♀, 9 exs., 10.VI.2021; 5 ♂♂, 7 exs., 11.VI.2021 Agusan del Norte, Butuan, Taligaman, 08.86894N 125.38534E, 60 masl, [AN-21-IDC-002], banana stumps, I. dela Cruz leg.; 1 ex. [TARI], Loreto, 200–300 masl, 22.III.2017, FIT, Y.-T. Wang leg.; 7 exs. [1 ex. EUM], Mt. Talemo, 30.VI.1977, M. Sato leg.; 8 exs., VI.1977, no collector's name indicated; 10 exs. [EUM], South Cotabato, Maitum, Gasy, 700 masl, 13.VIII.1985, M. Sakai leg.

Diagnosis. *Platylister (P.) abruptus* (Erichson, 1834) is distinctively determined for its uninterrupted pronotal lateral stria which continues and joined with the other side along the anterior margin of its pronotum. The clypeus of this species is not depressed, as well as its frontal stria is not interrupted, which continuously impressed towards the lateral margin of its head.

Re-description. Body length: PEL: 5.15 mm; APW: 1.44 mm; PPW: 2.82 mm; EL: 3.00 mm; EW: 2.98 mm. Body (Figs. 13A, 56A–B) oblong, convex, black; the tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface of head smooth. Clypeus (Fig. 56C) forward; anterior margin slightly emarginate. Frontal stria transversely straight anteriorly, slightly sinuous on the apical angle, complete towards the lateral side above the eyes. Anterolateral margin sinuous. Mandible short. Labrum transversely elongated, a little retuse. Eyes well-visible dorsally.

Pronotum. Pronotal sides (Fig. 56D) convergent forward. Pronotal lateral stria complete, clearly impressed on the side close to lateral margin, uninterrupted anteriorly behind the head. Surface of pronotum almost impunctate, lateral side with few, microscopic punctures.

Elytra. Epipleura (Fig. 57B) feebly depressed on apical half; epipleural marginal stria complete, the elytral marginal stria slightly distant from epipleural marginal stria, complete. Subhumeral striae absent. Oblique stria inconspicuous on basal third. Elytral dorsal striae 1–2 (Fig. 56E) clearly impressed, complete; dorsal stria 3 interrupted in the middle; dorsal striae 4 short, on apical 1/8, sometimes rudimentary. Dorsal stria 5 and sutural stria none. Disk of elytra smooth.

Propygidium and pygidium. Propygidium (Fig. 56F) with round, coarse punctures, separated by twice or of their own diameter, the middle portion slightly impunctate. Posterolateral margin of pygidium (Fig. 56F) elevated, carinated; the pygidial punctures denser to that of the propygidium.

Prosternum. Anterior margin of prosternal lobe (Fig. 57A) round. Marginal stria impressed along the margin, slightly curved inwardly, shortened on the apical fourth of the lobe, short basolateral stria present on each side; the surface impunctate. Lateral prosternal striae short and impressed; disk of keel smooth; posterior margin round towards the base.

Meso-metaventricle and abdomen. Anterior margin of mesoventrite (Fig. 57A) widely emarginated medially; marginal stria impressed, emarginate on the middle along the margin; disk almost smooth. Posterior

mesocoxal wanting. Lateral metaventral stria (Fig. 57B) extending obliquely and posteriorly, almost attaining the metaventral-metepisternal suture, the apical tip arcuate inwardly. Meso-metaventral suture and longitudinal suture of metaventrite inconspicuous; intercoxal disk of metaventrite similar to that of mesoventrite. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 57B) covered with large, ocelloid punctation; the inner portion almost impunctate. Intercoxal disk of first abdominal ventrite similar to that of metaventral disk; lateral striae short on each side. Surface of second to fourth abdominal ventrites microscopically punctate.

Legs. Protibia dilated; the teeth prominent. Anterior surface of protibia (Fig. 57C) with few, ocelloid punctures. Inner marginal stria present on basal 3/4 of protibia, shortened apically. Outer lateral margin typically with four teeth. Protarsal groove deep, S-shaped. Protibial spur short, about 1/3 the length of protarsus. Posterior surface of protibia (Fig. 57D) finely punctate, with transverse, elevated ridge from the base, shortened on the apical fourth of protibia. Number of denticles on the outer margin around six, one on inner apical angle. Both median posterior and inner marginal striae impressed, the basal tips a little shortened.

Male genitalia. Aedeagus (Figs. 91A–B) moderately sclerotized, plump, widest on the middle portion of its length; the apex of parameres convergent anteriorly, fused medially; phallobase plump, almost half the length of parameres, wider on its apical portion; eighth tergite (Figs. 91E–F) with sparse, fine ocelloid markings, slightly emarginate posteriorly; ninth tergite and spiculum gastrale (Figs. 91C–D) almost the same length; spiculum gastrale plump, wider on its middle portion.

Distribution. Myanmar, Laos, Indonesia: Java, Sumatra, Malaysia: Borneo, New Guinea, Philippines: Luzon, Mindoro, Palawan, Negros, Biliran, Leyte, Mindanao.

Platylister (Platylister) charrali (Marseul, 1861)

(Figs. 13C, 58–59, 92).

Platysoma charrali Marseul, 1861: 146, pl. 3, f. 6; 1864, 293 [keyed], 301.

Platylister charrali: Lewis, 1905d: 13 [catalogued].

Platysoma (Platylister) charrali: Bickhardt, 1910: 19 [catalogued]; 1914: 424; 1917: 143 [catalogued]; Mazur, 1984: 228 [catalogued]; 1997: 64 [catalogued].

Platylister (Platylister) charrali: Mazur, 2011: 68; Mazur *et al.*, 2015: 1457, f. 29, p. 1465.

Specimens examined. [Luzon] 4 exs., 2 ♂♂ [EUM], Mt. Makiling, 11.V.1969, S. Hisamatsu leg.

Diagnosis. The clypeus, including the anterior portion of the frons in *Platylister (P.) charrali* is moderately depressed, while the frontal stria is complete anteriorly, but shortened near the apical angle. All elytral dorsal striae of this species are at least impressed, but only the dorsal striae 4 and 5 are incomplete, impressed on the apical portions. The prosternal stria of *Platylister (P.) charrali* (Marseul, 1861) is widely interrupted in the middle.

Re-description. Body length: PEL: 4.37 mm; APW: 1.60 mm; PPW: 2.77 mm; EL: 2.50 mm; EW: 2.79 mm. Body (Figs. 13C, 58A–B) oblong, convex, black; the tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface with sparse, microscopic punctures. Clypeus (Fig. 58C) moderately depressed, with microscopic punctation; anterior margin emarginate. Frontal stria deep anteriorly, shortened on the apical angle,

the lateral stria above the eyes deeply impressed. Anterolateral margin slightly sinuous. Mandible prominent, covered with fine punctures on the inner side. Labrum transversely short, retuse anteriorly, resembling as bean-shaped. Eyes well-visible dorsally.

Pronotum. Pronotal sides (Fig. 58D) convergent forward. Pronotal lateral stria complete, impressed sublaterally along the margin; the apical tip impressed towards the angle, shortened behind the head. Surface of pronotum smooth.

Elytra. Epipleura (Fig. 59B) clothed with fine punctation, the apical half slightly depressed; epipleural marginal stria and elytral marginal stria complete, a little distant from each other on basal half. Subhumeral striae wanting. Oblique stria feebly impressed on basal third, almost inconspicuous. Elytral dorsal striae 1–3 (Fig. 59E) clearly impressed, complete, the basal end of dorsal stria 3 slightly bent inwardly; dorsal stria 4 on apical third; dorsal stria 5 on apical fourth, sometimes rudimentarily impressed; dorsal stria 5 and sutural stria none. Elytral disk smooth.

Propygidium and pygidium. Propygidium (Fig. 58F) clothed with round, coarse punctures, separated by twice or of their own diameter, near the basal and apical margins almost impunctate, but with microscopic punctures. Posterolateral margin of pygidium (Fig. 58F) carinated; the pygidium with ocelloid punctures denser to that of the propygidium.

Prosternum. Anterior margin of prosternal lobe (Fig. 59A) round, broad, slightly retuse on the middle. Marginal stria impressed on the lateral margin, widely interrupted anteriorly, curved posteriorly inward, abbreviated on the basal fourth of the lobe, short basolateral stria present on each side; the surface microscopically punctate. Lateral prosternal striae short and impressed; disk of keel with microscopic punctures, similar to that of the lobe; posterior margin round towards the base.

Meso-metaventrite and abdomen. Anterior margin of mesoventrite (Fig. 59A) widely emarginate in the middle; marginal stria along the margin clearly impressed, emarginate medially; disk microscopically punctate. Posterior mesocoxal absent. Lateral metaventral stria (Fig. 59B) extending obliquely and posteriorly, almost attaining the metaventral-metepisternal suture, the apical tip arcuate inwardly. Meso-metaventral suture and longitudinal suture of metaventrite slightly impressed; intercoxal disk of metaventrite similar to that of mesoventrite. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 59B) covered with large, ocelloid punctation close to the mesocoxa, the basal area with elongated, rugae marks, appearing as short striae. Intercoxal disk of first abdominal ventrite similar to that of metaventral disk; lateral striae short on each side. Surface of second to fourth abdominal ventrites microscopically punctate, with rows of fine punctations present on each lateral side.

Legs. Protibia dilated towards the apex. Anterior surface of protibia (Fig. 59C) lightly strigose, with few, sparse, ocelloid punctation. Inner margin with row of seta-hair like denticles on apical half; inner marginal stria present on basal 3/4 of the protibial length. Outer lateral margin typically bears four teeth. Protarsal groove deep, S-shaped. Protibial spur tapering, about 1/3 the length of protarsus. Posterior surface of protibia (Fig. 59D) with transverse, elevated ridge from the base, abbreviated on the apical tip. Number of denticles on the outer margin five, one on inner apical angle. Both median posterior and inner marginal striae impressed.

Male genitalia. Aedeagus (Figs. 92A–B) sclerotized, plump, wider on the middle; the apical portion of parameres convergent anteriorly, fused in the middle, the inner margin narrowed on the apical fourth; phallobase approximately half the length of parameres, wider on its apex; eighth tergite (Figs. 92E–F) with few, ocelloid

markings, the posterior margin straight; ninth tergite and spiculum gastrale (Figs. 92C–D) almost the same length; spiculum gastrale long, slender, bifurcate on the basal tip.

Distribution. New Guinea, Malaysia: Borneo, Pahang, Philippines: Luzon, Mindanao.

***Platylister (Platylister) corticinus* (Bickhardt, 1914)**

Platysoma (Platylister) corticinus Bickhardt, 1914: 424; 1917: 143 [catalogued].

Platysoma (Platylister) corticinum: Mazur, 1984: 229 [catalogued]; 1997: 64 [catalogued].

Platylister (Platylister) corticinus: Mazur, 2011: 68; Mazur *et al.*, 2015: 1457, f. 30, p. 1465.

Specimens examined. Not available in this study.

Diagnosis. *Platylister (P.) corticinus* (Bickhardt, 1914) is similar to *Platylister (P.) lucifugus* (Marseul, 1853) since both species bear a marginal stria of their mesoventrite which is broadly interrupted in the middle, and interrupted lateral pronotal stria behind the head. However, the clypeus in *P. (P.) corticinus* (Bickhardt, 1914) is described as completely concave, which is not in the case of *P. (P.) lucifugus* (Marseul, 1853).

Distribution. Philippines: Luzon, Mindanao.

***Platylister (Platylister) densatus* (Schmidt, 1894)**

Platysoma densatum Schmidt, 1894a: 542.

Platylister densatus: Lewis, 1905d: 13 [catalogued].

Platysoma (Platylister) densatum: Bickhardt, 1910: 19 [catalogued]; 1917: 143 [catalogued]; Mazur, 1984: 229 [catalogued]; 1997: 64 [catalogued].

Platylister (Platylister) densatus: Mazur, 2011: 68; Mazur *et al.*, 2015: 1457, f. 31, p. 1466.

Specimens examined. Not available in this study.

Diagnosis. *Platylister (P.) densatus* is described as very similar to another Oriental species – *Platylister (P.) humilis* (Erichson, 1834) possessing a broadly bisinuated anterior margin of pronotum, interrupted lateral pronotal stria behind the head, elytral dorsal striae 1–3 complete, sometimes the third stria lightly impressed on the middle. The prosternal lobe of *P. (P.) densatus* is also distinctly elongated and horizontal, as described by Erichson, 1834. Schmidt (1894) differentiated the two species by the punctation of their pygidium which is smaller, not ocelloid and the punctures on the middle and the apex are evenly finer than the punctures on the lateral sides in *P. (P.) densatus*.

Distribution. Indonesia: Enggano Island, Philippines: Luzon, Samar, Mindanao.

Platylister (Platylister) sp. 1

(Figs. 14A, 60–61, 93).

Specimens examined. [Mindanao] Holotype, 1 ♂, Mt. Talemo, 30.VI.1977, M. Satô leg.

Diagnosis. *Platylister* (*P.*) sp. 1 is distinguished for its incomplete inner lateral pronotal stria, compared with *P. (P.) striatiderum* and *P. (P.)* sp. 3. This species is also characterized with its absence of dorsal striae 4, 5 and sutural stria on its elytra. Also, the punctations on its pygidium is relatively smaller, but denser, bearing elongated or sometimes triangularly-shaped punctures as compared to other *Platylister*.

Description. Body length: PEL: 4.10 mm; APW: 1.37 mm; PPW: 2.65 mm; EL: 2.50 mm; EW: 2.86 mm. Body (Figs. 14A, 60A–B) oblong-oval, convex, black; the tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface covered with microscopic to fine punctations. Clypeus (Fig. 60C) strongly depressed; the anterior margin widely emarginate. Frontal stria clearly impressed, transverse towards the lateral sides above the eyes. Mandible robust, prominent, the surface covered with dense fine punctures. Labrum transversely elongated, finely punctate. Eyes well-visible dorsally.

Pronotum. Pronotal sides (Fig. 60D) convergent forward. Pronotal lateral striae complete. Inner pronotal stria deeply shortly impressed, the basal tip on the basal third, the apical end on the apical fourth. Outer pronotal stria complete, clearly impressed along the pronotal margin, continuous towards the apical tip and the anterior portion behind the head. Surface of pronotum clothed with microscopic punctation, more conspicuous near the lateral margin.

Elytra. Epipleura (Fig. 61B) covered entirely with fine punctures; both epipleural marginal and elytral marginal striae complete. Subhumeral striae absent. Oblique stria lightly impressed on basal third. Elytral dorsal striae 1–3 (Fig. 60E) complete; dorsal striae 4, 5 and sutural stria none. Disk of elytra with microscopic punctation, similar to that of pronotum.

Propygidium and pygidium. Propygidium (Fig. 60F) with round, coarse punctures, separated by twice or of their own diameter. Pygidium similar to that of propygidium, few punctures elongated or triangular; the posterolateral margin of pygidium (Fig. 60F) carinated.

Prosternum. Anterior margin of prosternal lobe (Fig. 61A) round, broad; the surface clothed with fine punctation. Marginal stria clearly impressed along the margin of prosternal lobe, slightly retuse, shortened at the middle, basolateral stria short. Lateral prosternal striae deeply impressed, short; disk of keel with microscopic punctation, similar to that of the prosternal lobe; the posterior margin slightly arcuate towards the base.

Meso-metaventrite and abdomen. Anterior margin of mesoventrite (Fig. 61A) widely emarginated medially, feebly sinuated before the apical angle, appearing as bisinuate; marginal stria clearly impressed, weakly emarginated, almost straight; the disk finely punctate. Posterior mesocoxal wanting. Lateral metaventral stria (Fig. 61B) extending obliquely and posteriorly, almost attaining the metaventral-metepisternal suture, the apical tip strongly arcuate inwardly. Suture of meso- metaventrite and longitudinal suture inconspicuous; intercoxal disk of metaventrite similar to that of mesoventrite, broadest on its posterior portion. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 61B) clothed with large, ocelloid punctures, the posterior area becoming sparse. Intercoxal disk of first abdominal ventrite similar to that of metaventral disk; lateral striae short on each side. Surface of second to fourth abdominal ventrites almost impunctate, rows of fine to coarse punctures on each lateral side.

Legs. Protibia dilated. Anterior surface of protibia (Fig. 61C) slightly strigose, with sparse, microscopic, ocelloid punctation. Inner margin with row of seta-hair like denticles on apical half; inner marginal stria on the basal 3/4. Outer lateral margin with three, remarkable teeth. Protarsal groove deep, S-shaped; along the inner side of protarsal groove with remnants of short denticles. Posterior surface of protibia (Fig. 61D) with

transverse, elevated ridge on the basal half; the surface with sparse, fine, ocelloid punctures. Number of denticles on the outer margin four, one on inner apical angle. Median posterior stria and inner marginal stria complete, clearly marked.

Male genitalia. Aedeagus (Figs. 93A–B) long, sclerotized, slightly wider towards the apex; the apical tip of parameres convergent anteriorly, fused near its base, apically curved ventrad; phallobase about 3/4 the length of its parameres; eighth tergite (Figs. 93E–F) with sparse, round, microscopic markings, the posterior margin emarginate; ninth tergite and spiculum gastrale (Figs. 93C–D) almost the same length, the latter a little longer; spiculum gastrale moderately slender, widely bifurcate on the basal tip.

Distribution. Philippines: Mindanao.

Platylister (Platylister) lucifugus (Marseul, 1853)

(Figs. 13D, 62–63, 94).

Platysoma lucifugum Marseul, 1853: 259; 254 [keyed]; 1864: 293 [keyed], 300.

Platylister lucifugus: Lewis, 1905d: 14 [catalogued].

Platysoma (Platylister) lucifugum: Bickhardt, 1910: 19 [catalogued]; 1917: 143 [catalogued]; Mazur, 1984: 230 [catalogued]; 1997: 65 [catalogued].

Platylister (Platylister) lucifugus: Mazur, 2011: 69; Mazur *et al.*, 2015: 1458, f. 33, p. 1466.

Specimens examined. 26 exs., 1 ♂, [EUM], [Negros] Mt. Canlaon, VII.1990, S. Hisamatsu leg.

Diagnosis. *Platylister (P.) lucifugus* (Marseul, 1853) is characterized with its widely interrupted marginal stria of its mesoventrite, similarly described in *Platylister (P.) corticinus* (Bickhardt, 1914). However, the anterior portion of the head in *P. (P.) corticinus* is completely concave, wherein the head of *P. (P.) lucifugus* is not depressed, nor concave.

Re-description. Body length: PEL: 4.68 mm; APW: 1.43 mm; PPW: 2.73 mm; EL: 2.84 mm; EW: 2.95 mm. Body (Figs. 13D, 62A–B) oblong, convex, black; the tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface with sparse, microscopic punctures. Clypeus (Fig. 62C) forward, with sparse, microscopic punctation; anterior margin slightly emarginate. Frontal stria straight, impressed, shortened on the apical angle, the lateral stria above the eyes deeply well-impressed. Anterolateral margin sinuous. Mandible short. Labrum transversely elongated. Eyes well-visible dorsally.

Pronotum. Pronotal sides (Fig. 62D) convergent forward. Pronotal lateral stria complete, moderately impressed along the lateral margin; the apical tip impressed towards the angle, interrupted behind the head. Surface of pronotal disk smooth.

Elytra. Epipleura (Fig. 63B) clothed with fine punctures on the surface; epipleural marginal stria and elytral marginal stria clearly impressed, a little distant from each other in the middle. Subhumeral striae absent. Oblique stria inconspicuous on basal third. Elytral dorsal striae 1–2 (Fig. 62E) impressed, complete; dorsal stria 3 interrupted medially, the basal portion lightly impressed; dorsal stria 4 absent, sometimes discal on apical end; dorsal stria 5 and sutural stria absent. Elytral disk smooth.

Propygidium and pygidium. Propygidium (Fig. 62F) covered with round, coarse punctures, separated by their own diameter. Posterolateral margin of pygidium (Fig. 62F) carinated; the pygidium with punctures denser to that of the propygidium.

Prosternum. Anterior margin of prosternal lobe (Fig. 63A) round. Marginal stria impressed anteriorly along the margin, abbreviated in the middle, short basolateral stria present on each side; the surface microscopically punctate. Lateral prosternal striae short and impressed; disk of keel smooth; posterior margin round towards the base.

Meso-metaventricle and abdomen. Anterior margin of mesoventrite (Fig. 63A) widely emarginate in the middle; the marginal stria along the margin impressed, widely interrupted in the middle; disk almost impunctate. Posterior mesocoxal absent. Lateral metaventral stria (Fig. 63B) extending obliquely and posteriorly, almost attaining the metaventral-metepisternal suture, the apical tip arcuate inwardly. Meso-metaventral suture and longitudinal suture of metaventricle almost inconspicuous; intercoxal disk of metaventricle similar to that of mesoventrite. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 63B) covered with large, ocelloid punctation intermingled with sparse punctures. Intercoxal disk of first abdominal ventrite similar to that of metaventral disk; lateral striae short on each side. Surface of second to fourth abdominal ventrites microscopically punctate, the lateral sides with rows of large punctures.

Legs. Protibia moderately dilated. Anterior surface of protibia (Fig. 63C) strigose, with sparse, ocelloid punctation and few, minute denticles. Inner margin with row of seta-hair like denticles; the inner marginal stria impressed on basal 3/4 of the protibial length. Outer lateral margin with four teeth. Protarsal groove deep, S-shaped. Posterior surface of protibia (Fig. 63D) with transverse, elevated ridge from the base, almost complete; the surface with microscopic, ocelloid punctation. Number of denticles on the outer margin five, one on inner apical angle. Both median posterior and inner marginal striae impressed.

Male genitalia. Aedeagus (Figs. 94A–B) sclerotized, plump, wider on its basal half; the apical portion of parameres becoming narrower, convergent anteriorly, fused on the basal 1/3, the inner margin narrowed on the apical fourth, slender on the apical end; phallobase almost half the length of parameres, wider on the apical portion; the posterior margin of eighth tergite (Figs. 94E–F) widely emarginate; ninth tergite and spiculum gastrale (Figs. 94C–D) almost the same length; spiculum gastrale becoming slender towards the apical tip, shortly bifurcate on the basal end.

Distribution. Philippines: Luzon, Negros, Samar, Mindanao.

Platylister (Platylister) sp. 2

(Figs. 13E, 64–65, 95).

Specimens examined. [Mindanao] Holotype. 1 ex. [EUM], Todaya, 29.VII.1970, M. Satô leg.; 1 ♂, Mt. Talemo, 30.VI.1977, M. Satô leg.

Diagnosis. This new species can be easily identified with the retuse anterior margin of its prosternal lobe, resembling bilobed in shape. The marginal stria along its prosternal lobe is also retuse, and briefly interrupted in the middle. *Platylister (Platylister) sp. 2* also has a labrum that is retuse, coarsely punctated and is

resembling a bean-shape, as well as the mesoventral marginal stria along the anterior margin of mesoventrite is complete, but is shortly abbreviated near the apical angles.

Description. Body length: PEL: 3.54 mm; APW: 1.19 mm; PPW: 2.10 mm; EL: 2.53 mm; EW: 2.28 mm. Body (Figs. 13E, 64A–B) oblong, convex, black; the tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface with sparse, microscopic punctation. Clypeus (Fig. 64C) strongly depressed, with fine punctures on both lateral portions; anterior margin moderately emarginate, strong apical angles; the anterolateral margin obliquely straight. Frontal stria straight deeply impressed, interrupted on the side, the lateral stria above the eyes clearly impressed. Mandible robust, with coarse punctures on the inner side, the outer portion with dense microscopic punctation. Labrum transversely elongated, a retuse, resembling a bean-shaped, with coarse punctation. Eyes well-visible dorsally.

Pronotum. Pronotal sides (Fig. 64D) convergent forward. Pronotal lateral stria complete, moderately impressed along the lateral margin, the apical 1/4 slightly more strongly depressed, interrupted behind the head. Surface of pronotum smooth.

Elytra. Epipleura (Fig. 65B) with microscopic punctures on the surface; the epipleural marginal stria and elytral marginal stria clearly impressed. Subhumeral striae none. Oblique stria lightly impressed on basal third. Elytral dorsal striae 1–3 (Fig. 64E) moderately impressed, complete; dorsal stria 4 on apical fourth, a little shorter; dorsal stria 5 and sutural stria wanting. Elytral disk impunctate.

Propygidium and pygidium. Propygidium (Fig. 64F) covered with round, large to coarse, uneven punctures, separated by twice or their own diameter, both anterior and posterior portions becoming fewer of punctures. Posterolateral margin of pygidium (Fig. 64F) elevated, carinated; the pygidium with punctures round and slightly denser and compact to that of the propygidium.

Prosternum. Anterior margin of prosternal lobe (Fig. 65A) strongly retuse, emarginate in the middle, resembling bilobed. Marginal stria impressed along the retuse margin, shortly abbreviated in the middle, extending obliquely and posteriorly almost reaching the prosternal suture; short basolateral stria present on each side; the surface microscopically punctate. Lateral prosternal striae short and clearly impressed; disk of keel smooth; posterior margin feebly arcuate towards the base.

Meso-metaventricle and abdomen. Anterior margin of mesoventrite (Fig. 65A) widely emarginate medially; the marginal stria along the margin complete, clearly impressed, shortly abbreviated near the apical angles; disk almost impunctate. Posterior mesocoxal absent. Lateral metaventral stria (Fig. 65B) extending obliquely and posteriorly, almost attaining the metaventral-metepisternal suture, the apical tip moderately arcuate inwardly. Meso-metaventral suture and longitudinal suture of metaventricle almost inconspicuous; intercoxal disk of metaventricle similar to that of mesoventrite. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 65B) covered with rugae-like striae. Intercoxal disk of first abdominal ventrite similar to that of metaventral disk; lateral striae short on each side. Surface of second to fourth abdominal ventrites microscopically almost impunctate medially, the lateral sides with rows of coarse to fine punctures.

Legs. Protibia dilated. Anterior surface of protibia (Fig. 65C) with sparse, ocelloid punctations. Apical portion of the inner margin with row of short, seta-hair like denticles; the inner marginal stria impressed on basal 3/4 of protibia. Outer lateral margin with four teeth. Protarsal groove deep, S-shaped. Posterior surface of protibia (Fig. 65D) with transverse, elevated ridge from the base, almost attaining the apex; the surface with

microscopic, ocelloid punctation. Number of denticles on the outer margin five, one on inner apical angle. Both median posterior and inner marginal striae well-marked.

Male genitalia. Aedeagus (Figs. 95A–B) sclerotized, plump, widest on the apical half; the apical portion of parameres becoming broad, fused on the middle; phallobase almost the same length of parameres, a little shorter, wider on its apex; the posterior margin of eighth tergite (Figs. 95E–F) emarginate; ninth tergite and spiculum gastrale (Figs. 95C–D) almost the same length, the latter a little shorter; spiculum gastrale shortly bifurcate on the basal tip.

Distribution. Philippines: Mindanao.

Platylister (Platylister) sp. 3

(Figs. 14B, 66–67).

Specimens examined. [Luzon] Holotype, 1 ex., Bicol, 5–8.II.1985, H. Arimoto leg.

Diagnosis. Few of the diagnostic characters of *Platylister (P.) sp. 3* are the complete inner lateral stria of pronotum, widely interrupted dorsal stria 3 and absence of dorsal stria 5 on its elytra. The propygidial punctures of this species are also somewhat sparser and smaller, compared to *Platylister (P.) striatiderum* (Marseul, 1853) and *P. (P.) sp. 1*.

Description. Body length: PEL: 3.43 mm; APW: 1.19 mm; PPW: 2.13 mm; EL: 1.92 mm; EW: 2.19 mm. Body (Figs. 14B, 66A–B) oblong-oval, convex, slightly rufous to black; the tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface of head covered with microscopic punctures. Clypeus (Fig. 66C) depressed; anterior margin widely emarginate. Frontal stria transversely impressed towards the lateral sides above the eyes. Mandible prominent, the surface covered with microscopic punctures, inner margin becoming finer. Labrum elongated, slightly oval. Eyes well-visible dorsally.

Pronotum. Pronotal sides (Fig. 66D) convergent forward. Pronotal lateral striae complete. Inner pronotal stria abbreviated on basal 1/8, the apical tip on the apical angle, feebly curved inward. Outer pronotal stria impressed along the pronotal margin, the basal tip bent inwardly, the anterior end continuous to the apical angle and bent towards the anterior margin. Surface of pronotum smooth, with light, microscopic punctations close to lateral margin.

Elytra. Epipleura (Fig. 67B) clothed with deep, fine punctures; the epipleural marginal and elytral marginal striae complete, lightly impressed. Subhumeral striae none. Oblique stria almost inconspicuous on basal third. Elytral dorsal striae 1–2 (Fig. 66E) complete; dorsal stria 3 widely interrupted in the middle; dorsal striae 4 very short on the apex; dorsal stria 5 absent; sutural stria impressed on the apical half portion, shorter, posterior tip shortened on the same level of the basal end of dorsal stria 3, the anterior tip almost reaching the middle. Disk of elytra similar to that of pronotum.

Propygidium and pygidium. Propygidium (Fig. 66F) covered with sparsely round punctures, separated by 3–4 times of their diameter. Punctations in pygidium similar to that of propygidium; the posterolateral margin of (Fig. 66F) elevated, carinated.

Prosternum. Anterior margin of prosternal lobe (Fig. 67A) round, broad; the surface with few, fine punctations. Marginal stria impressed along the margin of prosternal lobe, the basal end slightly curved inward, abbreviated in the middle; basolateral stria short. Lateral prosternal striae deeply impressed, short; disk of keel similar to that of the prosternal lobe; the posterior margin slightly arcuate towards the base.

Meso-metaventricle and abdomen. Anterior margin of mesoventrite (Fig. 67A) widely emarginated medially, feebly sinuated before the apical angle, appearing as slightly bisinuate; the marginal stria clearly impressed, weakly emarginated; disk finely punctate. Posterior mesocoxal very short. Lateral metaventral stria (Fig. 67B) extending obliquely and posteriorly, a little distant from the metaventral-metepisternal suture, the apical tip slightly arcuate inwardly. Suture of meso-metaventricle and longitudinal suture feebly impressed; intercoxal disk of metaventricle similar to that of mesoventrite. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 67B) with large, round punctures, along the outer side of lateral metaventral stria almost impunctate. Intercoxal disk of first abdominal ventrite similar to that of metaventral disk; lateral striae short on each side. Surface of second to fourth abdominal ventrites almost impunctate, rows of fine punctation present on each lateral side.

Legs. Protibia dilated. Anterior surface of protibia (Fig. 67C) lightly strigose, with sparse, microscopic, ocelloid punctures. Inner margin with row of seta-hair like denticles on apical half; inner marginal stria impressed on the basal 3/4. Outer lateral margin with three, remarkable, tapering teeth. Protarsal groove deep, S-shaped; along the inner side of protarsal groove with few, short denticles. Posterior surface of protibia (Fig. 67D) with transverse, elevated ridge on the basal half; the surface with sparse, microscopic punctures. Number of denticles on the outer margin four, one on inner apical angle. Both median posterior and inner marginal striae complete, the inner marginal stria shorter on basal 1/8.

Male genitalia. Not available in this study.

Distribution. Philippines: Luzon.

Platylister (Platylister) ovatus (Erichson, 1834)

(Figs. 13B, 68–69, 96).

Platysoma ovatum Erichson, 1834: 108; Marseul, 1853: 254 [keyed], 257; 1864, 292 [keyed], 297.

Platylister ovatum: Lewis, 1892e: 103 [type designation].

Platylister ovatus: Lewis, 1905d: 14 [catalogued].

Platysoma (Platylister) ovatum: Bickhardt, 1910: 20 [catalogued]; 1914: 425; 1917: 144 [catalogued]; Mazur, 1984: 231 [catalogued]; 1997: 65 [catalogued].

Platylister (Platylister) ovatus: Mazur, 2011: 69; Mazur *et al.*, 2015: 1457, f. 27, p. 1465; Lackner *et al.*, 2015: 107.

Hololepta trisculata Sturm, 1826: 153, (nom. nod.) synonymized by Dejean, 1837: 143.

Hister ovatus Cristofori *et.* Jan, 1832: 27, (nom. nod.).

Platysoma planatum Dejean, 1837: 143, (nom. nod.).

Specimens examined. [Luzon] 5 exs., 1 ♀, Dolores, Quezon near Tiaong, Mt. Banahao, Kinabuhayan, 600 masl, 1–6.VIII.1988, T. Ito leg.; 1 ex., Dolores, near Lucena, Kinabuhayan, 10–20.VII.1992, M. Monreal

leg.; 1 ex., Mt. Makiling, 25.V.1980, T. Fujisawa leg.; 2 exs. [EUM], Quezon N.F. Park, 21.VI.1978, N. Ohbayashi leg. [Mindoro] 7 exs., Dulangan, 11–13.IX.1983, N. Nishikawa leg. [Palawan] 4 exs., Mt. Pagoda, 10.IV.1998, K. Mizota leg.; 4 exs., Saban-saban Falls, 7.IV.1998, K. Mizota leg.; [Negros] 13 exs., 2 ♂♂, 2 ♀♀, Mt. Canladog, 1–15.XII.1988, D. Mohagan leg.; 22 exs., Mt. Canlaon, 5.VIII.1988; 5 exs., 3–10.X.1992; 4 exs., 11–30.IV.1988, D. Mohagan leg.; 1 ex., Mt. Canlaon, VII.1990, S. Hisamatsu leg. [EUM]. [Leyte] 1 ex., Mt. Balo Cave, IV.2006, D. Mohagan leg. [Mindanao] 1 ex., Mt. Apo, Tudava, 26.VII.1970, M. Satô leg.; 3 exs. [EUM], South Cotabato, Maitum, Gasy, 700 masl, 13.VIII.1985, M. Sakai leg.

Diagnosis. *Platylister (P.) ovatus* (Erichson, 1834) is relatively large in its size, compared with other Philippine *Platylister*. This species is impunctate on the middle area of its propygidium, appearing as if the coarse punctation is divided into two portions. The clypeus is strongly depressed in this species, and the inner marginal stria in the anterior surface of its protibia is short and only impressed medially.

Re-description. Body length: PEL: 6.03 mm; APW: 2.10 mm; PPW: 3.56 mm; EL: 3.43 mm; EW: 3.85 mm. Body (Figs. 13B, 68A–B) oblong, convex, black; the tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface clothed with dense, microscopic punctures on the anterior half of head. Clypeus (Fig. 68C) strongly depressed, with microscopic punctation; anterior margin widely emarginate. Frontal stria deeply impressed, straight anteriorly, feebly sinuous towards the side, abbreviated on the apical angle, lateral stria above the eyes well-marked. Anterolateral margin slightly sinuous. Mandible robust, covered with fine punctures on the inner side, the outer portion with dense microscopic punctation. Labrum transversely elongated, a little retuse, similar to that of anterior margin of clypeus. Eyes well-visible dorsally.

Pronotum. Pronotal sides (Fig. 68D) convergent forward, the apical angle moderately depressed. Pronotal lateral stria complete, deeply impressed, slightly curved inwardly on the basal tip; the apical tip continuous towards the angle, shortened behind the eyes. Surface of pronotum almost impunctate, the lateral side with few, microscopic punctures.

Elytra. Epipleura (Fig. 69B) covered with fine punctures on the outer portion; the epipleural marginal stria complete, the inner portion of epipleural marginal stria with less punctures; the elytral marginal stria complete. Subhumeral striae none. Oblique stria feebly impressed on basal third. Elytral dorsal striae 1–2 (Fig. 68E) moderately impressed, complete; dorsal stria 3 interrupted in the middle, the apex a little shortened, basal end weakly marked, sometime inconspicuous; dorsal striae 4, 5 and sutural stria absent. Disk of elytra smooth.

Propygidium and pygidium. Propygidium (Fig. 68F) with round, coarse punctures, separated by twice or of their own diameter, the middle portion remarkably impunctate. Posterolateral margin of pygidium (Fig. 68F) elevated, carinated; the pygidial punctures denser to that of the propygidium.

Prosternum. Anterior margin of prosternal lobe (Fig. 69A) round, broad, slightly retuse on the middle. Marginal stria clearly impressed, strongly curved inwardly, abbreviated on the basal fourth of the lobe, short basolateral stria present on each side. Lateral prosternal striae short and impressed; disk of keel with microscopic punctures, similar to that of the lobe; posterior margin round towards the base.

Meso-metaventricle and abdomen. Anterior margin of mesoventrite (Fig. 69A) widely emarginated medially; marginal stria impressed, emarginate on the middle along the margin; disk microscopically punctate. Posterior mesocoxal wanting. Lateral metaventral stria (Fig. 69B) extending obliquely and posteriorly, almost attaining the metaventral-metepisternal suture, the apical tip arcuate inwardly, few, coarse punctures the tip. Meso-metaventral suture and longitudinal suture of metaventricle inconspicuous; intercoxal disk of metaventricle

similar to that of mesoventrite. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 69B) covered with large, ocelloid punctation close to the mesocoxa. Intercoxal disk of first abdominal ventrite similar to that of metaventral disk; lateral striae short on each side. Surface of second to fourth abdominal ventrites microscopically punctate, rows of fine punctations present on each lateral side.

Legs. Protibia dilated. Anterior surface of protibia (Fig. 69C) with few, sparse, microscopic punctures. Inner margin with row of seta-hair like denticles on apical half; inner marginal stria short, impressed medially. Outer lateral margin typically with four teeth, the tooth near the base weak. Protarsal groove deep, S-shaped. Protibial spur short, about 1/3 the length of protarsus. Posterior surface of protibia (Fig. 69D) with transverse, elevated ridge from the base, shortened on the apical fourth, sometimes rudimentary on the apical end; along the basal half of the ridge with conspicuous fine punctures. Number of denticles on the outer margin generally six, one on inner apical angle. Both median posterior and inner marginal striae impressed, the basal tips a little shortened; the outer margin with sparse, fine punctation.

Male genitalia. Aedeagus (Figs. 96A–B) moderately sclerotized, plump, wider on the base; the apex of parameres convergent anteriorly, fused in the middle, the inner margin slightly narrow medially; phallobase plump, about half the length of parameres, wider on its apex; eighth tergite (Fig. 96E–F) with sparse, fine ocelloid markings, the posterior margin straight; ninth tergite and spiculum gastrale (Figs. 96C–D) almost the same length; spiculum gastrale plump, shortly bifurcate on the basal 1/8.

Distribution. Indonesia: Java: Sumatra, Sulawesi, Philippines: Luzon, Palawan, Marinduque, Negros, Leyte, Samar, Mindanao.

***Platylister (Platylister) striatiderum* (Marseul, 1853)**

(Figs. 14C, 70–71, 97).

Platysoma striatiderum Marseul, 1853: 270; Lewis, 1905d: 17 [catalogued].

Platysoma (Platysoma) striatiderum: Bickhardt, 1910: 24; Desbordes, 1919: 366.

Platysoma (Platylister) striatiderus: Bickhardt, 1917: 144 [catalogued].

Platysoma (Platylister) striatiderum: Bickhardt, 1914: 425; Mazur, 1984: 232 [catalogued]; 1997: 66 [catalogued].

Platylister (Platylister) striatiderum: Mazur, 2011: 70.

Platysoma striaticolle Marseul, 1853: 256, (emend.).

Specimens examined. [Luzon] 1 ex., 1 ♂ [EUM], Baguio, Asin Hot Spring, 7.VII.1970, M. Sato leg.; 1 ex., Asin Hot Spring, 21.VIII.1976, T. Ochi leg.

Diagnosis. The inner lateral pronotal stria of *Platylister (P.) striatiderum* (Marseul, 1853) is complete, as well as the frontal stria on its moderately depressed anterior portion of the head. Among the three species of the subgenus *Platylister* in the Philippines with two pronotal lateral stria, *P. (P.) striatiderum* (Marseul, 1853) is easily distinguished for the striation of all the dorsal striae in its elytra, including the sutural stria.

Re-description. Body length: PEL: 3.65 mm; APW: 1.23 mm; PPW: 2.16 mm; EL: 2.21 mm; EW: 2.25 mm. Body (Figs. 14C, 70A–B) elongate-oblong, convex, black; the tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface covered with sparse microscopic punctation. Clypeus (Fig. 70C) moderately depressed; the anterior margin widely emarginate. Frontal stria clearly impressed, straight towards the lateral sides above the eyes. Anterolateral margin feebly sinuous. Mandible prominent. Labrum transversely elongated. Eyes well-visible dorsally.

Pronotum. Pronotal sides (Fig. 70D) convergent forward. Pronotal lateral striae complete. Inner pronotal stria deeply impressed, a little distant from the outer pronotal stria, curved inwardly towards the apex, abbreviated behind the apical angle. Outer pronotal stria continuous towards the apical tip and anteriorly. Surface of pronotum almost impunctate, the lateral side with few, microscopic punctures.

Elytra. Epipleura (Fig. 71B) with fine punctures; both epipleural marginal and elytral marginal striae complete, lightly impressed. Subhumeral striae wanting. Oblique stria lightly impressed on basal third. Elytral dorsal striae 1–3 (Fig. 70E) moderately impressed, complete; dorsal stria 4 on the apical third, dorsal stria 5 marked on apical fourth, sutural stria impressed on apical half, the posterior tip shortened, almost the same level of the basal end of dorsal stria 5. Disk of elytra almost similar to that of pronotum.

Propygidium and pygidium. Propygidium (Fig. 70F) with coarse, ocelloid punctures, separated by twice or of their own diameter, both anterior and posterior portions almost impunctate. Posterolateral margin of pygidium (Fig. 70F) carinated; the pygidial punctures almost similar to that of propygidium.

Prosternum. Anterior margin of prosternal lobe (Fig. 71A) round, broad; the surface with microscopic punctures. Marginal stria impressed along the margin of prosternal lobe, feebly retuse medially, basolateral stria present on each side. Lateral prosternal striae short, well-impressed; disk of keel with microscopic punctation, similar to that of the lobe; posterior margin slightly arcuate towards the base.

Meso-metaventrite and abdomen. Anterior margin of mesoventrite (Fig. 71A) widely emarginated medially; marginal stria clearly impressed, emarginate on the middle along the margin, almost united with the base of lateral metaventral stria; disk microscopically punctate. Posterior mesocoxal short, shortened, almost reaching the middle of lateral metaventral disk. Lateral metaventral stria (Fig. 71B) extending obliquely and posteriorly, almost attaining the metaventral-metepisternal suture, the apical tip strongly arcuate inwardly. Suture of meso- metaventrite and longitudinal suture inconspicuous; intercoxal disk of metaventrite similar to that of mesoventrite. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 71B) covered with large, ocelloid punctation close to the mesocoxa. Intercoxal disk of first abdominal ventrite similar to that of metaventral disk; lateral striae short on each side. Surface of second to fourth abdominal ventrites microscopically punctate, rows of fine to coarse punctures present on each lateral side, almost united on the middle.

Legs. Protibia dilated. Anterior surface of protibia (Fig. 71C) strigose, with sparse, microscopic, ocelloid punctures. Inner margin with row of seta-hair like denticles on apical half; inner marginal stria impressed on the basal 3/4. Outer lateral margin typically with three, remarkable teeth. Protarsal groove deep, S-shaped; along the inner side of protarsal groove with very few, short denticles. Posterior surface of protibia (Fig. 71D) with transverse, elevated ridge on the basal half; the surface with microscopic punctation. Number of

denticles on the outer margin four, one on inner apical angle. Both median posterior and inner marginal striae complete, along the inner marginal stria with row of short denticles.

Male genitalia. Aedeagus (Figs. 97A–B) long, sclerotized; the apical tip of parameres convergent anteriorly, inner margin moderately narrowed on apical 1/5, becoming wider again on the apical tip, apically curved ventrad; phallobase about 3/4 the length of its parameres; eighth tergite (Figs. 97E–F) with sparse, microscopic marks, the posterior margin moderately emarginate; ninth tergite and spiculum gastrale (Figs. 97C–D) almost the same length, the latter a little longer; spiculum gastrale moderately slender, becoming wider on apical tip, resembling a lobe, widely bifurcate on the basal end.

Distribution. Philippines: Luzon.

Key to the Species of the subgenus *Popinus* Mazur, 1999 in the Philippines

For the subgenus *Popinus*, there are six species recorded in the Philippines to date, in which three species are available in this study for examination.

- 1 Marginal stria on the anterior margin of mesoventrite at least impressed ----- 2.
- No marginal stria on the anterior margin ----- *P. (Po.) philippinicola* (Desbordes, 1925).

- 2 Pygidium finely or coarsely punctated ----- 3.
- Pygidium smooth, almost impunctate ----- *P. (Po.) persimilis* (Lewis, 1893).

- 3 Anterior margin of pronotum bisinuate ----- *P. (Po.) decipiens* (Schmidt, 1889).
- Anterior margin of pronotum non-bisinuate ----- 4.

- 4 Lateral pronotal stria interrupted behind the head ----- 5.
- Lateral pronotal stria continuous anteriorly ----- *P. (Po.) luzonicus* (Erichson, 1834).

- 5 Surface of lateral metaventral disk rugose; marginal mesoventral stria widely interrupted -----
- *P. (Po.) confucii* (Marseul, 1857).
- Surface of lateral metaventral disk ocelloid; marginal mesoventral stria complete, uninterrupted medially ----- *P. (Po.) dahdah* (Marseul, 1861).

Platylister (Popinus) confucii (Marseul, 1857)

(Figs. 15A, 72–73, 98).

Platysoma confucii Marseul, 1857: 404; 1864: 293 [keyed]; Schmidt, 1894: 543; Lewis, 1905d: 15 [catalogued].

Platysoma (Platysoma) confucii: Bickhardt, 1910: 21 [catalogued]; 1917: 140; Desbordes, 1919: 365 [keyed], 372; Mazur, 1984: 239 [catalogued]; 1997: 70 [catalogued].

Platylister (Popinus) confucii: Mazur, 2011: 71.

Platysoma quinquestriatum Motschulsky, 1863: 454, synonymized by Lewis, 1888b: 635.

Platysoma hageni Marseul, 1884: 161, synonymized by Schmidt, 1890c: 13.

Specimens examined. [Palawan] 3 exs., Mainit, 10 km W from Brookes Point, 300 masl, 30.IX.1979; 1 ex., 2.X.1979, S. Nagai leg. [EUM]; Ramos Island, 15 exs., 14.IV.1998, K. Mizota leg. [Negros] 7 exs., 1 ♂, Mt. Canlaon, 11–30.IV.1988; 1 ex., 3–10.X.1992, D. Mohagan leg.; 1 ex. [EUM], Negros Oriental, 30 km N from Siaton, Mantiguil, 12.XI.1978, S. Nagai leg. [Mindanao] 3 exs., South Cotabato, Maitum, 150 masl; 1 ex., Gasy, 700 masl, 12.VIII.1985, M. Sakai leg. [EUM]; 1 ex. [EUM], Borong, 28.I–9.II.1981, no collector's name indicated; 1 exs., Baracatan, 1500 masl, 27–29.VI.1977, M. Satô leg.

Diagnosis. *Popinus (Popinus) confucii* (Marseul, 1857) is remarkable for the rugose pattern of its lateral metasternal disk, impression of sinuous anterior striae of propygidium, and presence of short, transverse stria on each lateral side of its second abdominal ventrite. This species also possesses complete elytral dorsal striae, except for sutural stria, wherein only the dorsal striae 4 and 5 are on apical half. The marginal stria of the mesoventrite is widely interrupted in the middle in this species, as well as the lateral pronotal stria is abbreviated behind its head.

Re-description. Body length: PEL: 3.78 mm; APW: 1.28 mm; PPW: 2.33 mm; EL: 2.28 mm; EW: 2.40 mm. Body (Figs. 15A, 72A–B) nearly oblong, subconvex, black; the tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface of head almost smooth, with microscopic punctation. Clypeus (Fig. 72C) slightly forward and depressed; anterior margin broadly emarginate. Frontal stria straight, clearly impressed anteriorly, transverse towards the lateral side above the eyes. Anterolateral margin sinuous. Mandible short. Labrum transversely elongated, widely emarginate similar to that of anterior margin of clypeus. Eyes well-visible dorsally.

Pronotum. Pronotal sides (Fig. 72D) convergent forward. Pronotal lateral stria deeply impressed close to the lateral margin, complete, shortened behind the head. Surface of pronotum almost impunctate.

Elytra. Epipleural marginal stria (Fig. 73B) complete, almost in the middle of epipleura; the elytral marginal stria close the edge of the elytra, complete. Subhumeral striae wanting. Oblique stria inconspicuous on basal third. Elytral dorsal striae 1–3 (Fig. 72E) complete, strongly impressed; dorsal striae 4 and 5 impressed on the apical half, almost the same length; sutural stria absent. Disk of elytra with microscopic punctures, sometimes inconspicuous.

Propygidium and pygidium. Propygidium (Fig. 72F) with sinuous anterior stria interrupted on the middle; the surface covered with very few, coarse punctures, located mostly on the middle area. Pygidial punctation (Fig. 72F) similar to that of propygidium, very few near the anterior margin; the apical 3/4 completely smooth. Posterolateral margin smooth, not carinated.

Prosternum. Anterior margin of prosternal lobe (Fig. 73A) entirely round. Marginal stria deeply impressed along the margin, widely interrupted in the middle, apical end slightly curved inwardly, almost attaining the prosternal suture, short basolateral stria present on each side; the surface with microscopic punctures. Lateral prosternal striae short, impressed; disk of keel smooth, similar to that of prosternal lobe; posterior margin round towards the base.

Meso-metaventrite and abdomen. Anterior margin of mesoventrite (Fig. 73A) widely emarginated medially; the marginal stria impressed, broadly interrupted in the middle; disk clothed with fine punctures. Posterior mesocoxal none. Lateral metaventral stria (Fig. 73B) extending obliquely and posteriorly, almost

attaining the metaventral-metepisternal suture, the apical tip arcuate inwardly. Meso-metaventral suture and longitudinal suture of metaventricle almost inconspicuous; intercoxal disk of metaventricle similar to that of mesoventricle. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 73B) impressed with short, fragmented striation, appearing as rugose. Intercoxal disk of first abdominal ventricle similar to that of metaventral disk; lateral striae short on each side. Surface of second to fourth abdominal ventricles microscopically punctate; the second abdominal ventricle with short, transverse stria on each lateral side.

Legs. Protibia dilated; teeth prominent. Anterior surface of protibia (Fig. 73C) lightly strigose, clothed with few, short denticles, more conspicuous near the inner side of protarsal groove. Inner margin with row of seta-hair like denticulation. Inner marginal stria lightly impressed on the basal half. Outer lateral margin typically with four teeth. Protarsal groove deep, S-shaped. Protibial spur about 1/3 the length of protarsus. Posterior surface of protibia (Fig. 73D) with few, microscopic, ocelloid punctures; the middle with transverse, elevated ridge on the basal 3/4 of protibia. Number of denticles on the outer margin five, one on inner apical angle. Both median posterior and inner marginal striae impressed, the inner marginal stria with a single row of short, seta-hair like denticles.

Male genitalia. Aedeagus (Figs. 98A–B) sclerotized, long, becoming wider towards the apical end; the apex of parameres convergent anteriorly, the inner margin moderately narrowed on the apical fourth, fused in the middle; phallobase 1/3 the length and almost the same width of the basal half of the parameres; eighth tergite (Figs. 98E–F) wider posteriorly, with conspicuous, fine to coarse ocelloid markings, slightly arcuate posteriorly; ninth tergite and spiculum gastrale (Figs. 98C–D) almost the same length; spiculum gastrale slender, becoming slightly wider towards the apical end.

Distribution. China, Philippines: Palawan, Negros, Mindanao. This species is reportedly distributed in the Oriental Region.

Platylister (Popinus) dahdah (Marseul, 1861)

(Figs. 15C, 74–75, 99).

Platysoma dahdah Marseul, 1861: 148; 1864: 293 [keyed], 304; Lewis, 1905d: 16 [catalogued].

Platysoma (Platysoma) dahdah: Bickhardt, 1910: 22 [catalogued]; 1917: 140; Desbordes, 1919: 365 [keyed]; Mazur, 1984: 240 [catalogued]; 1997: 70 [catalogued].

Platylister (Popinus) dahdah: Mazur, 2011: 71; Mazur *et al.*, 2015: 1458, f. 34, p. 1466.

Platysoma mirandum Marseul, 1864: 305, synonymized by Desbordes, 1919: 365.

Platysoma cribropygus Marseul, 1864: 302.

Specimens examined. [Mindanao] 1 ♂, Tawan-tawan, Baguio District, 1.VI.1978, no collector's name indicated.

Diagnosis. The elytral dorsal stria of *Platylister (Popinus) dahdah* (Marseul, 1861) is broadly interrupted in the middle, and its dorsal stria 5 is unimpressed. Although its dorsal stria 4 is originally described as short and impressed posteriorly, the specimen examined here bears a brief mark located medially on the apex of dorsal stria 3. This species is uniquely distinguished for its finely punctate of both propygidium and

pygidium, appearing as dots. *P. (Po.) dahdah* (Marseul, 1861) has interrupted lateral pronotal stria along the anterior margin, but its marginal stria of the mesoventrite is completely impressed.

Re-description. Body length: PEL: 3.06 mm; APW: 0.90 mm; PPW: 1.89 mm; EL: 1.76 mm; EW: 2.03 mm. Body (Figs. 15C, 74A–B) nearly oblong, subconvex, slightly rufous to black; the tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface clothed with fine punctation. Clypeus (Fig. 74C) forward; the anterior margin feebly emarginate, almost straight. Frontal stria straight impressed on the anterior portion, transverse towards the lateral side above the eyes. Anterolateral margin slightly sinuous. Mandible short, surface covered with fine punctures. Labrum transversely elongated, broadly emarginate anteriorly. Eyes well-visible dorsally. **Pronotum.** Pronotal sides (Fig. 74D) convergent forward. Pronotal lateral stria close to the margin, lightly impressed the basal half, becoming strong towards the apex, interrupted behind the head. Surface of pronotum finely punctate, almost inconspicuous.

Elytra. Epipleura (Fig. 75B) with short, shallow excavations, surface finely punctate; epipleural marginal stria impressed close to epipleural suture; the elytral marginal complete, impressed on the middle. Subhumeral striae wanting. Oblique stria lightly impressed on basal third. Elytral dorsal striae 1–2 (Fig. 74E) complete; dorsal stria 3 broadly interrupted in the middle; dorsal striae 4 very short on the apex; dorsal stria 5 and sutural stria absent. Disk of elytra with fine punctures.

Propygidium and pygidium. Propygidium (Fig. 74F) with finely punctate, appearing as dots, punctations separated by 3–4 times their own diameter. Pygidial punctation (Fig. 74F) similar to that of propygidium, becoming finer towards the apical portion to the apical tip. Posterolateral margin finely punctate, not carinated.

Prosternum. Anterior margin of prosternal lobe (Fig. 75A) round. Marginal stria impressed close to the margin extending towards the prosternal suture, short basolateral stria present on each side; the surface with sparse, fine punctures. Lateral prosternal striae short, impressed; disk of keel microscopically punctate; posterior margin arcuate towards the base, almost straight.

Meso-metaventricle and abdomen. Anterior margin of mesoventrite (Fig. 75A) broadly emarginated in the middle; marginal stria clearly impressed along the margin, emarginate medially; disk clothed with microscopic punctures. Posterior mesocoxal stria absent. Lateral metaventral stria (Fig. 75B) extending obliquely and posteriorly, almost attaining the metaventral-metepisternal suture, the apical tip arcuate inwardly. Meso-metaventral suture and longitudinal suture of metaventricle feebly impressed; intercoxal disk of metaventricle similar to that of mesoventrite. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 75B) covered with ocelloid punctures, becoming finer posteriorly. Intercoxal disk of first abdominal ventrite similar to that of metaventral disk; lateral striae short on each side. Surface of second to fourth abdominal ventrites microscopically punctate, with coarse to fine punctures on each lateral side.

Legs. Protibia dilated; the teeth prominent. Anterior surface of protibia (Fig. 75C) strigose, with few, short denticles near the inner side of protarsal groove. Inner margin with row of seta-hair like denticles. Inner marginal stria almost complete, shortened on the apical fourth of protibia. Outer lateral margin typically with four teeth. Protarsal groove deep, S-shaped. Protibial spur about 1/3 the length of protarsus. Posterior surface of protibia (Fig. 75D) with transverse, elevated ridge on the basal 1/3 of protibia, finely punctate along the ridge.

Number of denticles on the outer margin five, one on inner apical angle. Median posterior stria well-marked, abbreviated on basal third. Inner marginal stria complete.

Male genitalia. Aedeagus (Figs. 99A–B) sclerotized, long; the parameres fused medio-basally; length and width of phallobase similar to that of parameres; eighth tergite (Figs. 99E–F) moderately emarginated in the middle, clothed with sparse, fine, ocelloid markings; ninth tergite and spiculum gastrale (Figs. 99C–D) almost the same length; spiculum gastrale slender.

Distribution. New Guinea, Indonesia: Sumatra, Sulawesi, Lombok, Moluccas, Irian Jaya, Papua New Guinea, Solomon Islands, Malay Peninsula, Philippines: Luzon, Negros, Mindanao.

***Platylister (Popinus) decipiens* (Schmidt, 1889)**

Platysoma decipiens Schmidt, 1889c: 333; Lewis, 1905d: 16 [catalogued].

Platysoma (Platysoma) decipiens: Bickhardt, 1910: 22 [catalogued]; 1917: 140; Desbordes, 1919: 370 [keyed]; Mazur, 1984: 240 [catalogued]; 1997: 71 [catalogued].

Platylister (Popinus) decipiens: Mazur, 2011: 71.

Platysoma luzonicum Marseul, 1853: 256, synonymized by Schmidt, 1889c: 333.

Specimens examined. Not available in this study.

Diagnosis. *Platylister (Popinus) decipiens* (Schmidt, 1889) is described as closely related to *Platylister (Popinus) luzonicum* (Erichson, 1834), however, *P. (Po.) decipiens* (Schmidt, 1889) is bisinuate on the anterior margin of its pronotum (also keyed in Desbordes, 1919), as well as finer and sparser punctations of its propygidium and pygidium. Nonetheless, this species is characterized with its complete frontal stria, elytral dorsal striae 1–3 complete, dorsal striae 4 and 5 impressed on the apical portion, and complete marginal stria along the anterior margin of its mesoventrite.

Distribution. Sri Lanka, Philippines.

***Platylister (Popinus) luzonicus* (Erichson, 1834)**

(Figs. 15B, 76–77, 100).

Platysoma luzonicum Erichson, 1834: 111; Marseul, 1853: 265; 1864: 295 [keyed], 306; Lewis, 1905d: 16 [catalogued].

Platysoma (Platysoma) luzonicum: Bickhardt, 1910: 23 [catalogued]; 1917: 141; Desbordes, 1919: 371 [keyed], 373; Mazur, 1984: 241 [catalogued]; 1997: 72 [catalogued].

Platysoma (Platylister) luzonicum: Bickhardt, 1914: 425.

Platylister (Popinus) luzonicus: Mazur, 2011: 71; Mazur *et al.*, 2015: 1457, f. 35, p. 1466.

Platysoma restoratum Walker, 1858: 207, synonymized by Desbordes, 1919: 371.

Platysoma dohrni Marseul, 1864: 306, synonymized by Schmidt, 1884c: 158.

Specimens examined. [Luzon] 2 exs., Mt. Makiling, 2.VIII.1981, K. Sugino leg.; Laguna, Mt. Makiling, 350–450 masl, 1 ex., 13.IX.1985, M. Sakai leg. [EUM]. [Palawan] 1 ex., Ramos Island, 14.IV.1998,

K. Mizota leg. [Negros] 1 ex., V.2005, D. Mohagan leg; 6 exs. [EUM], Negros Oriental, 30 km N from Siaton, Mantiguil, 12.XI.1978, S. Nagai leg. [Leyte] 1 ♂, Mt. Balocau, Hilosig, Mahapiag, 11.VI.2004, no collector's name indicated.

Diagnosis. The lateral pronotal stria of *Platylister (Popinus) luzonicus* (Erichson, 1834) is uninterrupted and marks towards anterior margin behind the head. In addition, the marginal stria of the mesoventrite is uninterrupted in this species. Other diagnostic characters include the complete dorsal striae 1–3 and apical 4 and 5 striations on its elytra, and the round and coarse pygidial punctures without any striations on its propygidium.

Re-description. Body length: PEL: 3.66 mm; APW: 1.08 mm; PPW: 2.10 mm; EL: 2.35 mm; EW: 2.31 mm. Body (Figs. 15B, 76A–B) nearly oblong, subconvex, black; the tarsi, maxillary palpi and antennae rufopiceous.

Head. Surface microscopically punctate, almost inconspicuous. Clypeus (Fig. 76C) slightly forward and depressed; anterior margin weakly emarginate. Frontal stria straight, moderately impressed anteriorly, transverse towards the lateral side above the eyes. Anterolateral margin feebly sinuous. Mandible short. Labrum transversely elongated, widely emarginate similar to that of anterior margin of clypeus. Eyes well-visible dorsally.

Pronotum. Pronotal sides (Fig. 76D) convergent forward. Pronotal lateral stria sublateral to the margin, strongly impressed, complete towards the anterior margin, the stria behind the head carinate. Surface of pronotum finely punctate on the lateral portion.

Elytra. Epipleura (Fig. 77B) clothed with fine punctures; epipleural marginal stria clearly impressed, complete; the elytral marginal stria close the edge of the elytra, complete. Subhumeral striae none. Oblique stria feebly impressed on basal third. Elytral dorsal striae 1–3 (Fig. 76E) complete, well-impressed; dorsal striae 4 on apical third; dorsal stria 5 a little longer, almost reaching the middle; sutural stria wanting. Disk of elytra with microscopic punctures, similar to that of lateral sides of pronotum.

Propygidium and pygidium. Propygidium (Fig. 76F) with round, coarse punctures, separated by their own diameter, intermingled with fine to finer punctations. Pygidial punctation (Fig. 76F) similar to that of propygidium, becoming finer towards the apex. Posterolateral margin finely punctate, not carinated.

Prosternum. Anterior margin of prosternal lobe (Fig. 77A) entirely round. Marginal stria strongly marked, a little distant from the margin extending posteriorly, but not attaining the prosternal suture, almost attaining the prosternal suture, short basolateral stria present on each side; the surface with microscopic to fine punctures, becoming sparser on basal half. Lateral prosternal striae short, impressed; disk of keel microscopically punctate; posterior margin arcuate towards the base.

Meso-metaventricle and abdomen. Anterior margin of mesoventrite (Fig. 77A) widely emarginated medially, feebly sinuous before the apical angle, appearing as bisinuate anteriorly; the marginal stria clearly impressed, emarginate medially; disk clothed with fine punctures. Posterior mesocoxal stria absent. Lateral metaventral stria (Fig. 77B) extending obliquely and posteriorly, almost attaining the metaventral-metepisternal suture, the apical tip arcuate inwardly, deeply marked. Meso-metaventral suture and longitudinal suture of metaventricle almost inconspicuous; intercoxal disk of metaventricle similar to that of mesoventrite. Metaventral-metepisternal suture united to the apical fourth of metaventral-mesepimeral suture. Lateral metaventral disk (Fig. 77B) impressed with very short, fragmented striation, appearing as rugose, the posterior portion becoming ocelloid. Intercoxal disk of first abdominal ventrite similar to that of metaventral disk; lateral striae short on

each side. Surface of second to fourth abdominal ventrites microscopically punctate, with coarse to fine punctations on each lateral side.

Legs. Protibia dilated; the teeth prominent. Anterior surface of protibia (Fig. 77C) slightly strigose, clothed with few, short denticles, more conspicuous near the inner side of protarsal groove. Inner margin with row of seta-hair like denticles. Inner marginal stria lightly impressed on the basal half. Outer lateral margin typically with four teeth, the first tooth from the base not prominent, close to the second tooth. Protarsal groove deep, S-shaped. Protibial spur about 1/3 the length of protarsus. Posterior surface of protibia (Fig. 77D) with few, microscopic, ocelloid punctures; the middle with transverse, elevated ridge on the basal half of protibia. Number of denticles on the outer margin five, one on inner apical angle. Median posterior stria shortened on the apical end. Inner marginal stria complete, with row of very short denticles along the stria.

Male genitalia. Aedeagus (Figs. 100A–B) sclerotized, long; the apex of parameres convergent anteriorly, the inner margin moderately narrowed on the apical fourth, fused medially; phallobase almost the same length of parameres, a little shorter; eighth tergite (Figs. 100E–F) wider posteriorly, with conspicuous, fine to coarse ocelloid markings, the posterior margin widely emarginate; ninth tergite and spiculum gastrale (Figs. 100C–D) almost the same length; spiculum gastrale narrow and slender, bifurcate on apical fourth.

Distribution. India, Sri Lanka, Myanmar, Vietnam, Indonesia: Borneo, Sulawesi, Philippines: Luzon, Negros, Leyte, Samar, Mindanao.

***Platylister (Popinus) persimilis* (Lewis, 1893)**

Platysoma persimile Lewis, 1893a: 419; 1905d: 17 [catalogued].

Platysoma (Platysoma) persimile: Bickhardt, 1910: 23 [catalogued]; 1917: 141; Desbordes, 1919: 365 [keyed]; Mazur, 1984: 242 [catalogued]; 1997: 72 [catalogued].

Platylister (Popinus) persimile: Mazur, 2011: 71.

Specimens examined. Not available in this study.

Diagnosis. *Platylister (Popinus) persimilis* (Lewis, 1893) is determined with the combination of smooth pygidium, and interrupted mesoventral stria along the anterior margin of its mesoventrite. This species bears irregular transverse band of punctures on the base of its propygidium. In addition, the frontal stria of *Platylister (Po.) persimilis* (Lewis, 1893) is complete, and the lateral stria of its pronotum is interrupted anteriorly. The striation of elytra is complete on dorsal 1–3 of this species, while the dorsal striae 4 and 5 is impressed on the apical portion

Distribution. Malaysia: Malacca, Philippines.

***Platylister (Popinus) philippinicola* (Desbordes, 1925)**

Platysoma philippinicola Desbordes, 1925c: 85

Platysoma (Platysoma) philippinicola: Mazur, 1984: 242 [catalogued]; 1997: 72 [catalogued].

Platylister (Popinus) philippinicola: Mazur, 2011: 71.

Specimens examined. Not available in this study.

Diagnosis. This species possesses no marginal stria along on its emarginated margin of mesoventrite, and its dorsal stria 3 is marked only on the apex of its elytra. Other diagnostic characters of *Platylister (Popinus) philippinicola* (Desbordes, 1925) includes transverse frontal stria, interrupted pronotal lateral margin towards the anterior margin, and presence of transverse band of punctation in the propygidium, leaving both of its apex and the base smooth. This species is also described as one of the smallest *Platysoma* (now *Platylister*) in the Indo-Malayan region, approximately only 2.00–2.30 mm in length.

Distribution. Philippines: Luzon.

DISCUSSION

The Philippine Histerinae comprises a total of 56 species, with 37 of these species available for this study (Tables 1 & 2). Seven species had previously been re-described, primarily through the works of Ohara (Ôhara, 1992; 1993; 1994; 1999; Mazur, 1994; Ôhara & Mazur, 2000). In this study, 21 species were re-examined and provided with more comprehensive descriptions. All species in this study were supplemented with SEM micrographs for the first time and were illustrated in terms of their male genital structures. This study introduces seven new species of Histerinae from the Philippines, two of which – *Notodoma* sp. 1 and *Kanaarister* sp. 1 – represent new records for their respective genera in the archipelago. The other five new species belong to the tribe Platysomatini: *Platylister* sp. 1, *Platylister* sp. 2, and *Platylister* sp. 3, *Eurylister* sp. 1, and *Platysoma* sp. 1.

The members of the tribe Exosternini represent one of the largest subgroups of Histeridae, comprising 54 genera and nearly 600 described species worldwide. The largest concentrations of taxa are found in the Neotropical and Afrotropical regions. In the Oriental realm, less than ten genera of Exosternini are distributed, with only two species recorded from the Philippines, belonging to the genera – *Anaglymma* and *Sabahister*. While *Anaglymma* also includes some species distributed in Africa, the genus *Sabahister* is confined to the Oriental region, particularly in Borneo and the Philippines. Although *Sabahister philippinensis* Thérond, 1963e is not available for re-examination, *Anaglymma circularis* Marseul, 1864 is re-described here. Moreover, the first record of the genus *Notodoma* in the Philippines is also identified for the first time.

The tribe Histerini from the Philippines consists of six genera, among which the genus *Atholus* Thomson, 1859 has the highest number of species. This genus includes six species, with two newly recorded ones: *A. torquatus* Marseul, 1854, and *A. pirithous* Marseul, 1873. Although the Philippine *Atholus* has already been revised by (dela Cruz & Ôhara, 2023a; dela Cruz *et al.*, 2023), one more species from the genus *Nasaltus* – *N. chinensis* – is concisely revised in this paper. However, several other Histerini species still remain unavailable and require proper taxonomic attention.

Hololeptini is one of the smallest tribes of Histerinae in terms of species-richness, comprising only 131 species worldwide. Many members of this group are extremely dorsoventrally flattened and are mainly found beneath the bark of dead trees and other vegetation (Pfeiler *et al.*, 2010). Four species of (*Hololepta*) are currently recorded in the Philippines, with two of them – *H. (H.) elongata* Erichson, 1834, and *H. (H.) indica* Erichson, 1834 – introduced here with re-description. Although two more species that also occur in the Philippines are not available, the description of the Japanese *H. (H.) higoniae* Lewis, 1894, and a few Indonesian materials of *H. (H.) laevigata* Guérin-Ménéville, 1833, along with their original descriptions, were also observed for differential diagnosis.

The Philippine Platysomatini comprises nine genera, making it the most abundant group of materials examined in this study. This group is one of the most complex within Histerinae, undergoing series of revisions that include re-categorizing taxa and re-assigning several species from one taxon to another since the first catalogue established by Lewis (1905). The largest Platysomatini in the Philippines in terms of body size is *Plaesius* (*sensu lato*) Erichson, 1834. Most of the specimens of *P. (P.) javanus* utilized in this study were

collected from banana stumps, preying on the larvae of banana weevils, a behavior also reported in Abera-Kalibata *et al.* (2006).

After the most recent and coherent revision of the key to Platysomatini proposed Mazur & Ôhara (2009), two sections – [Eblisia section] and [Platysoma section] – have been established to further divide Platysomatini. The Eblisia section includes the genera *Eblisia* (sensu lato) and *Eurylister*, with three species reported to date: *Eblisia lunatica* Marseul, 1853, *Eurylister silvestris* Schmidt, 1897, and *Eurylister uniformis* Lewis, 1894. The Philippine *Eblisia* is notable for the reticulated surface of its pygidium, a feature not observed in other groups. Another species of *Eblisia* – *E. hobbyi* Cooman, 1937 – is reported here for the first time. This species, a new record for the Philippine archipelago, is distinguished by its punctate reticulated pygidium. On the other hand, one new species of Philippine *Eurylister* – *E. sp. 1*, is also introduced here, bringing the total number of Philippine *Eurylister* species to three.

Two new genera – *Mesostrix* and *Kanaarister*, both erected by Mazur (1994 & 1999) respectively, are newly recorded in the Philippines. Mazur and Mokrzycki described *Mesostrix bimaculata*, noting its uniqueness with a triangular incision on its prosternal keel. On the contrary, the genus *Kanaarister* is a recently introduced genus possessing a combination of distinctly punctate lateral sides of the pronotum and its feeble but widely sinuated anterior margin of the mesoventrite. Among the only seven members of this group, a new species from the Philippines is presented here – *Kanaarister sp. 1*. This Philippine *Kanaarister* has posed a slight challenge in terms of its taxonomic placement, as I had previously assigned it to *Platylister* Lewis, 1892. However, the male genitalia of *K. sp. 1* are definitely not typical of a *Platylister*, especially with the narrowed margin on the basal third portion of its parameres.

Liopygus Lewis, 1891, is one of the most stable groups within the tribe Platysomatini. The small and deep excavations on its pygidium have been regarded as significant key characters for this genus. With only 16 species restricted to the Oriental region, three species are currently listed in the Philippines, but only two species were available for re-description: *Liopygus diopsipygus* Marseul, 1879 and *L. gestroi* Lewis, 1888b.

On the other hand, *Apoletes* Marseul, 1861, has a distinct characteristic in the deep impression of its outer subhumeral stria, considered its most stable character-state. Two species from the Philippines are available – *A. marginicollis* Lewis, 1888b, and *A. schauemei* Marseul, 1861. Besides the strong striation of their subhumeral surface, the aedeagus of this group is also somewhat peculiar, particularly on the apical form of its parameres, resembling a capped-lobe, a feature that is also observed in few species of the genus *Platysoma*.

Only two *Platysoma* species from the (2011) catalogue were recorded – *Platysoma (Platysoma) dufali*, first documented by Bickhardt (1914) in the Philippines, and an endemic species, *Platysoma (Cylistus) ineditum*, described by Desbordes (1925). In this paper, although only *P. (Platysoma) dufali* is re-described, another species that I propose as a novel one is introduced here – *P. (P.) sp. 1*.

The genus *Platylister* Marseul, 1861 contributes almost half of all the platysomatine beetles examined in this study. Due to the relatively large number of its members, this group is divided into three subgenera. Both *Platylister (Platylister)* and *Platylister (Popinus)*, although localized, are they widely distributed from the Indo-Malayan region, extending to the Continental Australia and Pacific Islands. *Platylister* (sensu stricto) in the Philippines includes seven species that are distinguished from the members of (*Popinus*) by the remarkable

high, elevated, and carinate posterolateral margin of their pygidium, while in (*Popinus*), it is usually smooth and not rimmed. Three new species are introduced here and comprehensively described – *P. (P.)* sp. 1, *P. (P.)* sp. 2, and *P. (P.)* sp. 3. In contrast, Mazur (1999) has placed all the members of *Platylister* without a carinated pygidial margin under the subgenus (*Popinus*), and it was indeed a good classification, as the three Philippine (*Popinus*) species also coincide with their morphological features of male genitalia. These features include a normal aedeagus not broadened either basally or apically, as compared to *Platylister* (*sensu stricto*), and the conspicuous, large, ocelloid markings of their eighth sternites, which are remarkably unique to (*Popinus*).

CHAPTER III

REVIEW OF THE ORIENTAL AND FAR EASTERN ASIAN SPECIES OF *Atholus* Thomson, 1859 (Histeridae: Histerinae)

INTRODUCTION

The hister beetle *Atholus* Thomson, 1859, is a cosmopolitan genus of Histerinae: Histerini (Coleoptera: Histeridae) found worldwide, with the exception of Continental Australia. The genus currently comprises 77 described species, and almost half of them occur in the Oriental Region (Mazur, 2011) hereinto. As predatory beetles, this group can be found in various decaying environments where they prey on other soft-bodied arthropod larvae. Since the decaying material provides an ideal substrate for the larval development of Diptera and larvae of other Coleoptera, including scarabaeoid beetles, they are generally attracted to ruminant dung (dela Cruz & Ôhara, 2023a) and vertebrate carcasses (Ôhara, 1993). Decaying vegetation also provides a suitable venue for the development of *Atholus*' prey (i.e. maggots), wherein several species are generalists and dwell in composts and other decomposing organic materials (Mazur, 1973; Ôhara, 1993). Some species also occur in forest litters (dela Cruz & Ôhara, 2023c), and a few reports also include decaying roots of Apiaceae (Kryzhanovskij & Reichardt, 1976; Olexa, 1982) and Fabaceae (Olexa, 1987), as well as banana and bamboo stumps (dela Cruz & Ôhara, 2023a).

Among the histerine beetles (subfamily Histerinae), *Atholus* shares the closest relationship with the genus *Hister* and was initially considered part of a single large group, *Hister*, until 43 species were designated into the subgenus *Atholus* on 1906. Until then, three apomorphic character-states were established for this group: 1) narrow prosternal keel, 2) deep antennal fossae, and 3) truncate mesosternum. According to Ôhara (1994), the genus *Atholus*, based on five Japanese species, is diagnosed by its feebly arcuated and non-emarginated marginal stria at the anterior margin of the mesoventrite. The genus *Atholus* presents a promising candidate for taxonomic revision due to its possession of more established and stable characters compared to *Hister*. Furthermore, aside from the rich diversity of *Atholus* within Histerini, the majority of its species are concentrated on the Oriental realm and its vicinities.

The Palearctic and Oriental biographical realms currently include 50 species of *Atholus*, constituting 65% of all species distributed worldwide. Although almost all Western Palearctic *Atholus*, including those from Europe and Central Asia, have been recently described, the taxonomic literature for species distributed in the Oriental Region, particularly from both Continental and Archipelagic areas, remains outdated, limited, and lacking. This hampers the ability to fully understand and utilize the biological importance of each species. Most of the taxonomical literature from the late 19th to early 20th centuries, focusing on the taxonomy of Oriental *Atholus* collected from India, Myanmar, Thailand, Cambodia, Laos, Vietnam, Malaysia, Indonesia and the Philippines, consists of short descriptions without supplementary illustrated materials. This has left these species unattended for quite some time, emphasizing the need for updating these literatures through revision work.

In this study, I have revised both Oriental and Far Eastern Asian species of *Atholus*, providing re-descriptions along with SEM images and line-art illustrations of the male and female genitalia for each species.

Among the 38 species reported in both Oriental Far Eastern Asian regions, 21 species were available for re-examination, and two new species were described. Additionally, several species were reported as new records for either adjacent areas or neighboring islands, suggesting the potential diversification of this group in these regions.

HISTORY

In 1859, Thomson established the genus *Atholus* based on the type species *Hister bimaculatus*, originally described by Linnaeus in 1758. Thomson provided a detailed description in his 1862 report: “*Prosternum pone coxas anticas haud dilatatum. Mesosternum antice rotundato-truncatum. Mandible augulo dorsali acuto. Prothorax stria marginali plerumque medio interrupta, subtus fovea antennali profunda, bene determinate. Pygidium inflexum. Elytra stria laterali nulla vel abbreviate. Tibiæ anticæ sulco tarsal recto, posteriores biseratim spinosæ*”. In this description, he notes characteristics such as the anteriorly rounded-truncated mesoventrite, deep antennal cavity, and the absence or shortening of the elytral lateral stria in *Hister bimaculatus*.

The genus *Atholus* did not receive proper acknowledgment and utilization until 1906 when Lewis revived the name and re-designated *Hister bimaculatus* as *Atholus bimaculatus*. Lewis identified three significant character-states that discriminate *Atholus* from the larger group *Hister*, including its narrow prosternal keel, deep antennal fossae, and truncate mesoventrite. In addition to *H. bimaculatus*, Lewis also re-assigned 42 other *Histers* (originally described by Marseul, Erichson, Germar, Paykull, Schrank, Schmidt, Peyron, Motschulsky, Le Conte, Say, and Lewis himself) to the *Atholus* group. In the same year, Lewis established the genus *Peranus* based on the type species *Hister scutellaris* (Erichson, 1834) and assigned three other species of *Hister* to this genus. Concurrently, Reitter proposed the genus *Atholister* from the type species *H. scutellaris* (Erichson, 1834), along with *H. bimaculatus* (Linnaeus, 1758).

In 1910, the first catalogue of Histeridae, established by Bickhardt, recognized *Atholus* as a subgenus of *Hister*, along with *Peranus*. The type species *Hister bimaculatus* was also transferred into the subgenus *Peranus*. A total of 45 species were designated in *Hister (Atholus)* and five species in *Hister (Peranus)*. Following the first catalogue, Bickhardt updated his catalogue in 1916 and 1917 (subfamily Histerinae), adding five species to *H. (Atholus)*. Desbordes also established the first key for World Histeridae, including 47 species. In 1976, Krzhanovskij proposed another subgenus, *Euatholus*, based on the type species *Hister duodecimstriatus*, described by Schrank in 1781. In 1984, Mazur re-designated *Atholus* as a separate genus in his revised catalogue following Bickhardt’s last checklist. Species from other subgenera were also re-assigned to *Atholus*, resulting in a total of 73 species. After comprehensive works on synonymies and the description of new species, the global count for *Atholus* now stands at 77.

In this study, I have re-described 13 species of *Atholus* from the Oriental and Far Eastern Asian regions: *A. bakeri* (Bickhardt, 1914), *A. bifrons* (Marseul, 1854), *A. cochinchinae* (Schmidt, 1889), *A. daldorffi* (Bedel, 1906), *A. dentipes* (Lewis, 1892), *A. famulus* (Lewis, 1892), *A. gestroi* (Schmidt, 1897), *A. helferi* (Reichardt, 1932), *A. myrmidon* (Marseul, 1861), *A. nitidissimus* Desbordes, 1925, *A. singalanus* (Marseul, 1880), *A. striatipennis* (Lewis, 1892), *A. torquatus* (Marseul, 1854). Additionally, I have provided additional descriptions for *A. amplificipes* Mazur, 2013, *A. bimaculatus* (Linnaeus, 1758), *A. coelestis* (Marseul, 1870), *A. confinis* (Erichson, 1834), *A. depistor* (Marseul, 1873), *A. duodecimstriatus* *quatuordecimstriatus* (Gyllenhal,

1808), *A. levis* Mazur, 2015, *A. philippinensis* (Marseul, 1854), *A. pirithous* (Marseul, 1873). Lastly, I have introduced and described two new species: *A. sp. 1* from Thailand and *A. sp. 2* from Tibet.

Historical Timeline of Oriental and Far Eastern Asian *Atholus* Thomson, 1859

- 1758 Linnaeus described *Hister bimaculatus* from Europe.
- 1854 Marseul described *Hister bifrons* from India.
Marseul described *Hister torquatus* from India.
Marseul described *Hister philippinensis* from the Philippines.
- 1857 Marseul described *Hister coelestis* from China.
- 1859 Thomson proposed the genus *Atholus* based from the type species *Hister bimaculatus*, which is differentiated from *Hister unicolor*, also described by Linnaeus on 1758.
- 1862 Thomson described *Atholus* with three distinctive character-states: narrow prosternal keel, deep antennal cavity, and truncate mesosternum.
- 1862 Marseul described *Hister myrmidon* from Sulawesi Island of Indonesia.
- 1870 Marseul described *Hister concordans* from Eastern India.
- 1873 Marseul described *Hister depistor* from Japan.
Marseul described *Hister pirithous* from Japan.
- 1880 Marseul described *Hister singalanus* from Sumatra Island of Indonesia.
- 1888 Lewis described *Hister genuae* from Myanmar.
- 1889 Schmidt described *Hister cochinchinae* from Vietnam.
Schmidt described *Hister infirmus* from Eastern India.
Lewis described *Hister tenuistriatus* from Borneo Island of Indonesia.
- 1891 Lewis described *Hister vestitus* from Myanmar.
- 1892 Lewis described *Hister dentipes* from Myanmar.
Lewis described *Hister striatipennis* from Myanmar.
Lewis described *Hister famulus* from Sumatra Island of Indonesia.
Lewis described *Hister ixion* from Myanmar.
- 1897 Schmidt described *Hister gestroi* from Sumatra Island of Indonesia.
- 1899 Lewis described *Hister crenatifrons* from Sumatra Island of Indonesia.
Lewis described *Hister sessilis* from Myanmar.
- 1900 Lewis described *Hister cinctipygus* from Thailand.
Lewis described *Hister pinnulae* from Borneo Island of Indonesia.
Lewis described *Hister terraemotus* from Java Island of Indonesia.
Lewis described *Hister vacillans* from Myanmar.
- 1901 Lewis described *Hister baberii* from Northwestern India.
Lewis described *Hister silvicola* from India.
Lewis described *Hister maindronii* from Pakistan.
Lewis described *Hister sectator* from Borneo Island of Indonesia.
- 1902 Lewis described *Hister tetricus* from Sumatra Island, Indonesia.
- 1906 Bedel described *Hister daldorffi* from East India.
Lewis re-designated *Hister bimaculatus* into *Atholus bimaculatus* and designated other 42 other *Hister* species into *Atholus* including *H. bifrons*, *H. coelestis*, *H. myrmidon*, *H. philippinensis*, *H. pirithous*, *H. singalanus*, *H. torquatus*, *H. confinis*, *H. duodecimstriatus*, *H. cochinchinae*, *H. gestroi*, *H. baberii*, *H. cinctipygus*, *H. crenatifrons*, *H. dentipes*, *H. famulus*, *H. genuae*, *H. ixion*, *H. pinnulae*, *H. sectator*, *H. silvicola*, *H. striatipennis*, *H. tenuistriatus*, *H. terraemotus*, *H. tetricus*, *H. vacillans* and *H. vestitus*.
Lewis proposed the genus *Peranus*, based from type species *Hister scutellaris* (Erichson, 1834), assigning *A. bimaculatus*, *A. daldorffi*, *A. depistor* and *A. maindronii*.

- 1908 Lewis described *Hister malaysi* from Malaysia.
- 1909 Reitter proposed the genus *Atholister* based from type species *Hister scutellaris* (Erichson, 1834), also assigning *A. bimaculatus*.
- 1910 Heyden synonymized *Atholister* with *Atholus*.
Bickhardt established the first Histeridae catalogue, and included Lewis' 1906 designation of 28 species of *Hister* into *Atholus*.
Bickhardt assigned both *Atholus* and *Peranus* as subgenera of *Hister* in the catalogue.
- 1913 Lewis described *Hister (Atholus) omar* from India.
Bickhardt synonymized *H. genuae* with *H. torquatus*.
- 1914 Bickhardt described *Hister (Atholus) bakeri* from the Philippines.
- 1917 Bickhardt synonymized *H. sectator* with *H. philippinensis*.
Bickhardt established the second Histeridae catalogue.
Lewis described *Hister (Atholus) mundulus* from Sumatra Island of Indonesia.
Desbordes erected the first diagnostic key of 47 species of *Atholus*.
- 1919 Desbordes synonymized *H. mundulus* with *H. torquatus*.
- 1923 Desbordes described *Hister (Atholus) arrowi* from India.
- 1925 Desbordes described *Atholus nitidissimus* from the Philippines.
- 1932 Reichardt described *Hister (Atholus) helferi* from Myanmar.
- 1948 Cooman re-assigned *H. vestitus* into genus *Asiaster vestitus*.
- 1976 Kryzhanovskij proposed the genus *Euatholus* based from type species *Hister duodecimstriatus* (Schrank, 1781).
- 1984 Mazur revised Bickhardt's catalogue.
Mazur combined the two subgenera *Atholus* and *Peranus* into a single genus *Atholus*.
- 1992 Ôhara revised the *Atholus* from Japan.
- 1993 Ôhara revised the *Atholus* from Japan (continued).
- 1997 Mazur revised his 1984 catalogue.
- 2009 Mazur synonymized *Atholus ixion* with *Atholus pirithous*.
- 2011 Mazur established a Concise Catalogue of the Histeridae (Insecta: Coleoptera).
- 2013 Mazur described *Atholus amplificipes* from Laos.
Mazur described *Atholus lao* from Laos.
Mazur described *Atholus levis* from Laos.
- 2015 Mazur listed the Palearctic *Atholus* in the Catalogue of Palearctic Coleoptera.
- 2023 dela Cruz and Ôhara revised the *Atholus* from the Philippines.
Ho, dela Cruz and Ôhara reviewed the *Atholus* from Taiwan.
- 2023 dela Cruz and Ôhara review the *Atholus* from Indonesia [On Review].
- 2024 dela Cruz and Ôhara review the *Atholus* from Thailand [For Publication].

MATERIALS AND METHODS

The methodology of this study generally follows Chapter II, with some exceptions as indicated here:

1. Aside from museum collections, several specimens were collected from cow and water buffalo dung in various farmlands across different islands (Luzon, Mindanao, Panay, Negros Cebu and Guimaras) of the Philippine Archipelago from 2019 to 2021.

2. The SEMs used in this study were the JEOL JSM-6510, JEOL JSM-5310LV, and JEOL JSM-6301F. Line arts were manually generated.

3. Both male and female genitalia (if available) were utilized and dissected.

Currently, 39 *Atholus* species occur in both Oriental and Far Eastern Asian Regions. However, only 21 species were examined in this manuscript. Fortunately, I was able to loan and utilize some specimens from the following museums. (local and abroad) [*former curator]

APM	Aomori Prefectural Museum, Aomori; Mr. Satoshi Yamauchi*
CFUJ	Private collection of Mr. Hirofumi Fujimoto, Marugame, Kagawa
CITO	Private collection of Mr. Katsuhiko Ito, Obihiro
CKIN	Private collection of Mr. Takeshi Kinoda, Miyakonojō, Miyazaki
CMCP	Natural History Museum and Institute, Chiba; Dr. Akiko Saito
CSBT	Private collection of the late Mr. Taichi Shibata, Osaka
CSDO	Private collection of the late Mr. Hiroshi Shido, Sapporo
CYSD	Private collection of Mr. Masataka Yoshida, Tokushima
EUM	Laboratory of Environmental Entomology, Ehime University Museum, Matsuyama; Drs. Sadanari Hisamatsu*, Nobuo Ohbayashi*, Masahiro Sakai*, Kazuhiko Konishi, Hiroyuki Yoshitomi
HMNH	Hiwa Museum for Natural History, Shobara; Drs. Shingo Nakamura*, Yoshihiro Senda
KMNH	Kanagawa Prefectural Museum of Natural History, Odawara; Dr. Kyohei Watanabe;
KUM	Kyushu University Museum, Fukuoka; Dr. Munetoshi Maruyama
KUM-COTK	Private collection of the late Mr. Isao Otsuka preserved in the Kyushu University Museum, Fukuoka
NIAES	Collection at the Institute of Agro-Environmental Science, NARO, Tsukuba; Drs. Shin-ichi Yoshimatsu*, Hiraku Yoshitake*
SEHU	Laboratory of Systematic Entomology, The Hokkaido University Museum, Sapporo; Dr. Masahiro Ôhara; SEHU includes collections of following entomologists: Mr. Shinichi Aoyama (AOY), the late Mr. Kenichi Emoto, Mr. Hirofumi Fujimoto, Mr. Katsuhiko Ito, Mr. A. Izumi, Mr. Takeshi Kinoda, Dr. Meiyoun Munakata (MUN), the late Dr. Takehiko Nakane (NAK), the late Dr. Yutaka Nishijima (NIS), the late Dr. Shôzô Ôsawa, Dr. Keiichi Takahashi, Dr. Haruo Takizawa (TAK), the late Dr. Akira Tanaka (TAN), the late Mr. A. Yamato, Mr. Nobuki Yasuda (YAS). Some of them (large and recent donated collections) have independent acronyms.
WPM	Wakayama Prefectural Museum of Natural History, Wakayama; Mr. Isao Matoba*
MZB	Museum Zoologicum Bogoriense, Zoology Division, Research Center for Biology, Indonesian Institute for Science, Cibinong-Bogor, Indonesia (D. Dwibadra)
TNHM	Thailand Natural History Museum, Khlong Luang, Pathum Thani, Thailand (W. Jaitrong)

Specimens I managed to get access through photos of type specimens, and other materials (abroad):

MNHN	Muséum National d'Histoire Naturelle, Paris, France (A. Mantilleri)
MNHUB	Naturhistorisches Museum, Berlin, Germany (B. Jäger)
NMNS	National Museum of Natural Science, Taichung, Taiwan (Y.H. Ho)
PCHO	Personal Collection of Yu-Hsiang Ho

TAXONOMY

The tribe Histerini, belonging to the subfamily Histerinae, comprises 35 genera. Among these, the genus *Atholus* holds the third-highest number of recorded species (Mazur, 2011), following *Hister* and *Margarinotus*, making up 72% of the tribe when their numbers are combined. The genus *Atholus* shares its closest affinity with *Hister*, particularly in their straight and elongated spermathecal sacs, in contrast to *Margarinotus*, which possesses coiled sacs. Since *Hister* is the oldest erected taxon in the group, many related genera have been assigned to this large group, including *Atholus* Thomson, 1859.

The genus *Atholus* was initially assigned several discriminating character-states by Lewis (1906) including 1) narrow prosternal keel, 2) deep antennal fossae, and 3) truncate mesoventrite. Ôhara (1994) supported these characters, particularly reinforcing the anterior margin of mesoventrite as straight or feebly arcuate outwardly, sometimes feebly emarginate at middle (such as in *A. coelestis*); however, the marginal stria along the margin should strictly remain non-emarginate.

To determine the general diagnostic characters of *Atholus* and the corresponding terminologies used, I adapted previous works by Ôhara (1992, 1993, 1994) utilizing the type species – *Atholus bimaculatus* Linnaeus, 1758. Generally, the most crucial diagnostic characters within the genus *Atholus* include the striation variability and punctation patterns, mainly on the head, pronotum, elytra and pygidia (Desbordes, 1917). In this study, I observed that striation on the prosternal lobe and the protibial structure may also contribute to determining the species' identity within this group. Importantly, the structure of the male genitalia in each species serves as the ultimate character for species identification and validation.

This study specifically focuses on the characters in the adult form of *Atholus*.

Body Shape

The body shape in *Atholus* is generally oval and moderately convex (Figs. 103–105). In some cases, certain species may appear almost round, as seen in *A. helferi* (Reichardt, 1932) (Fig. 109B), or oblong-oval, as observed in *A. striatipennis* (Lewis, 1892) (Fig. 110D). Compared to most species belonging to *Hister*, *Atholus* individuals are relatively smaller, measuring approximately 3.50–5.50 mm. However, these are exceptions, such as *A. nitidissimus* Desbordes, 1925 (2.50 mm) (Fig. 109F), and some species may reach a maximum size of 7.50 mm, as seen in *A. daldorffi* (Bedel, 1906) (Fig. 108B).

Color

All *Atholus* bears piceous black color (Fig. 110A), as seen in *A. philippinensis* (Marseul, 1854) (Fig. 110A), covering the entire body, except for certain peripheral parts like tibiae, antennae and mouthparts which are rufopiceous. However, in some early stages of adults, the entire body may appear rufopiceous. Among all the Oriental and Far Eastern Asian species, some individuals of two species, namely *A. bimaculatus* (Linnaeus, 1758), and *A. daldorffi* (Bedel, 1906), possess red macula (Figs. 107D, 108B) on the laterobasal, extending medially of the elytra. This coloration does not appear to be a result of sexual dimorphism, as I have observed this character in both male and female individuals.

Head

The head is wide oval (Fig. 103), slightly wider than long on both the dorsal and ventral sides. The apical margin of the clypeus is short, entire and slightly forward, while the anterolateral margin ranges from slightly to widely crenate, typically with three notches before the eyes. The frontal stria is complete but shows variability in its anterior striation, which can be either straight and rounded, as observed in *A. singalanus* (Marseul, 1880) (Fig. 153D), or angulate inwards, as seen in *A. striatipennis* (Lewis, 1892) (Fig. 155D). The disk is usually covered with microscopic to fine punctures, almost inconspicuous. The occipital fovea is generally absent, although *A. coelestis* (Marseul, 1870) bears a medial feature on the posterior portion (Fig. 121D). The eyes are moderately large and convex, clearly visible dorsally.

Mouthparts and Antennae

The description of antennae and mouthparts is based on the type species *Atholus bimaculatus* (Linnaeus, 1758), with additional observations on *A. coelestis* (Marseul, 1870), *A. depistor* (Marseul, 1873), *A. duodecimstriatus quatuordecimstriatus* (Gyllenhal, 1808), and *A. pirithous* (Marseul, 1873). The terminology follows Kovarik and Tishechkin (2004), Lackner (2010) and Lawrence *et al.* (2011).

The antennal scape (Fig. 105C) is elongated and slender, slightly broadened on the anterior portion. The pedicel is cylindrical, generally larger than the six antennomeres. The antennal club possess sparse and longer sensilla (ss); and the surface is covered with dense but shorter sensilla.

The labral apex (referred to as “labral fold” in Lackner, 2010) is inwardly bent from the anterior portion of the labral disc. The labral process is moderately sclerotized, protruding laterally on median portion of labrum. The anterior portion has short and dense setae, and the anterior tip sometimes overlaps and is hidden under the labral apex. The ventral surface of the labrum (Fig. 105G) is hollowed, and the anterolateral angle has a lateral fringe on both sides.

The mandibular apex (Figs. 105A–B) is acute, and the subapical tooth is prominent, usually positioned on the middle or anterior third of the inner margin. The prostheca is slightly narrow, with its short setae forming a dense brush along the inner median mandibular margin. The ventral surface sometimes has an inconspicuous row of long brush of setae along the median portion.

The mentum (Fig. 105D) is generally sclerotized, trapezoid or sub-trapezoidal, with the anterior margin emarginated. The surface has a few long setae, about half as long as the length of mentum. The submentum (Fig. 105D) is strongly sclerotized on the posterior region, with the anterior margin bearing a protruding tip at the middle. The surface has sparse punctation, with no setal hairs present.

The labial palpiger (Fig. 105G) has a few long setal hairs at its base, and the apex bears a three-segmented labial palpus connected with a short bridge. The apical labial palpomere is generally the longest in length, bearing the palpal organ on its mid-lateral portion. The middle palpomere has 2–3 setal hairs, with the longest one on the inner side of the segment.

The glossa is slightly sclerotized, with a row of short setal fringe on its inner side, and the anterior portion has a few longer setae. The paraglossa is narrow and articulated, with a moderately brush-like setae present on inner-side. The maxillary palpifer (Fig. 105F) is sclerotized with a few setae and has four-segmented maxillary palpus. The apical palpomere has a palpal organ on its mid-lateral portion, similar to the apical labial palpomere. The basistipes is triangular, generally with 3–4 long sclerotized setae. The mediostipes has one long

seta and sparse, shorter hairs. Both the galea and lacinia are narrow and articulated, with long, brush-like setae. Additionally, the lacinial hook (Fig. 105D) is present in *Atholus*.

Prothorax

The prothorax (Fig. 103) is divided into pronotum and prosternum, forming the dorsal and ventral plates. In *Atholus*, the pronotum is nearly trapezoidal, with the basal margin and medio-lateral sides being broadest and converging on the anterior portion. The anterolateral angle extends forward, and the anterior margin moderately retreats behind the head. The anterior margin of the pronotum is generally straight, but in some species, such as *A. bifrons* (Marseul, 1854) (Fig. 114E), it has a bisinuate margin. The marginal stria of the pronotum is complete laterally but ceases at the apical angle, although a few slightly lengthen behind the eye or merges with the anterior stria.

In most Oriental *Atholus*, a single lateral pronotal stria is generally common, compared to some Nearctic species that possess two complete lateral striae. However, two species – *A. tenuistriatus* (Lewis, 1889) and *A. lao* Mazur, 2013 bear a very short, external (lateral) prosternal stria near the apical margin, as described in original literature. The single (lateral) pronotal stria is fundamentally divided into two groups: interrupted (shortly abbreviated behind the anterolateral angle) such as in *A. amplificipes* Mazur, 2013 (Fig. 111E); and uninterrupted (continuous, and merging anteriorly behind the head, creating the anterior margin) like in *A. cochinchinae* (Schmidt, 1889) (Fig. 119E.), as described in Desbordes key (1917). The area behind the anterolateral angle can also be: 1) foveolate or with shallow excavation, as in *A. depistor* (Marseul, 1873) (Fig. 130A); or (2) non-foveolate, as in *A. famulus* (Lewis, 1892) (Fig. 135E). A foveolated pronotum may also bear punctations (Fig. 139E), as seen in *A. helferi* (Reichardt, 1932). The posterior margin of the pronotum is obtusely angulate in the middle or gently arcuated. The surface of the disk is often microscopically punctate or almost impunctate.

Prosternum

The prosternal plate (Fig. 104) consists of the remarkable prosternal lobe on the anterior end and prosternal process (=keel) on the posterior portion. The prosternal lobe is ascends on the medio-apical end, usually round on the anterior margin but appearing truncate in *Atholus* sp. 1 (Fig. 144C) or acute in some species, as seen in *A. striatipennis* (Fig. 156C). Additionally, the marginal stria of the prosternal lobe is clearly impressed and complete, as seen in *A. gestroi* (Schmidt, 1897) (Fig. 138C), while in other species, it is interrupted (Fig. 132E) in the middle, as in *A. duodecimstriatus quatuordecimstriatus* (Gyllenhal, 1808). The lobe has short striae present on both baso-lateral corners, with setiferous coarse punctures inside and outside of the marginal stria on both sides, becoming finer on the apical half. The prosternal suture is lightly impressed.

The prosternal process (Fig. 104) is covered with few setiferous, fine punctures on the lateral sides as the lateral descends. Lateral prosternal striae are deeply impressed and complete, and the lateral disk has several coarse, round, setiferous punctures; the mediobasal usually has no conspicuous punctation. The basal half of the keel is narrow, and the posterior margin is either straight or emarginated. The rest of the prosternal plate is covered with large, shallow, round to oval punctations, becoming finer towards the hypomeron area.

Elytra

The elytra are strongly sclerotized, consisting of marginal epipleural, marginal elytral, subhumeral, oblique humeral, dorsal and sutural striations (Figs. 103 and 105). In Histerini including *Atholus*, it is usually ovoid, with side margins that converge slightly apically.

The underside of the elytral epipleuron is sparsely covered with fine punctures on the basal half, while coarse punctures are occasionally present on the apical half. The marginal epipleural stria is typically present on the apical half, and the marginal elytral stria is almost always complete, with the exception of *A. helferi* (Reichardt, 1932) (Fig. 140D) whose marginal elytral stria is located on the apical half. Subhumeral striae in *Atholus* (Fig. 105) vary significantly among species, comprising external subhumeral stria and internal subhumeral stria. This variation can be categorized into four character-states: 1) presence of only internal subhumeral stria (Fig. 122B) in *A. coelestis* (Marseul, 1870); 2) presence of only external subhumeral stria (Fig. 146B) in *A. myrmidon* (Marseul, 1861); 3) presence of both internal and external subhumeral striae (Fig. 142E) in *A. levis* Mazur, 2015; and 4) absence of both subhumeral striae (Fig. 116C) in *A. bimaculatus* (Linnaeus, 1758). The oblique humeral elytral stria is consistently faintly impressed on the basal third of elytron.

Similarly, variability in striation, based on occurrence and length in the subhumerus, is also observed in the five dorsal elytral striae (D1, D2, D3, D4, D5), and the sutural stria (S) among the *Atholus* species. Generally, elytral dorsal striae 1–3 (D1–D3) are complete, carinated, and well-impressed in all species. Striation patterns are also observed, such as the strong bending of the apical end in the D3 and D4 inwardly (Fig. 122A), as seen in *A. coelestis* (Marseul, 1870). Additionally, the union of the D5 and S at their apical tips (Fig. 156A) is observed in *A. striatipennis* (Lewis, 1889). The elytral disk is completely covered with sparse, fine punctures, typically inconspicuous.

Hind wings

The illustration of hind wings in *Atholus* is based on Ôhara's (1994) work on *Atholus duodecimstriatus* *quatuordecimstriatus*. Other members of the subfamily Histerinae were also compared, including *Hister* (*H. concolor*). In general, there are no discernible differences between the wings of *Atholus* and *Hister*. Also, Ôhara noted that there are no peculiarities in the other veins and axillary plates of the wing in these groups. The following terminologies are used (Ôhara, 1994): C – Costa runs on anterior margin of the wing and is unbranched; connected at the base with the anterodistal projection of the first axillary sclerite; Sc – Subcosta arises from the first axillary sclerite and is unbranched; R – Radius usually arises from the second axillary sclerite in general insects. However, in Histeridae, the base of the radius is reduced and not attached to the second axillary; M – Media is connected with the median plate; Cu – Cubitus is also connected with the median plate; Pcu – Post-cubitus is divided from the near base of the cubitus; A – Anal vein is connected with the third axillary sclerite.

Mesoventrite and Metaventrite

In *Atholus*, the disks of both mesoventrite and metaventrite (Fig. 104) are microscopically to finely punctate, almost inconspicuous. The anterior margin of the mesoventrite is generally truncated; rounded and outwardly arcuate, except for *A. coelestis* (Marseul, 1870) which is shortly emarginated in the middle (Fig. 122C). The marginal mesoventral stria is always firmly arcuate, in line with the anterior margin. In *A. coelestis*

(Marseul, 1870), the marginal mesoventral stria is non-emarginate and follows suit with other species. The stria behind the anterolateral angle can also be observed. The meso-metaventral suture is usually clearly impressed, complete and medially angulate.

The lateral metaventral stria (Fig 104) is deeply impressed in most *Atholus*, extending obliquely and posteriorly, and is united with the oblique stria (Fig. 128D) as in *A. dentipes* (Lewis, 1892), or not united (Fig. 126D), as observed in *A. daldorffi* (Bedel, 1906). The oblique stria inwardly extends from the middle or basal third of metaventro-metepisternal suture. The post-mesocoxal stria always extends posteriorly and is strongly curved along the posterior mesocoxal margin, almost reaching the metaventro-mesepimeral suture. A row of coarse punctures is also present along the inside of the lateral metaventral stria. The longitudinal suture of metaventrite is lightly impressed, and the lateral disk of metaventrite is moderately covered with setiferous large round and shallow punctures. Mesepimeron, metepimeron, and the lateral disk of the first abdominal ventrite have dense setiferous, large punctures, while the metepisternum has sparse punctures, usually only on the apical half.

Pygidial segments and Abdomen

The punctures in both propygidium and pygidium among the members of the *Atholus* species also variability, ranging from coarse to fine, and sparse to dense punctations. Some species, like *A. famulus* (Lewis, 1892), have an impunctate pygidium (Fig. 136E), while others, such as *A. gestroi* (Schmidt, 1897), display a distinctive pattern on their propygidium (Fig. 138E). Punctations of the intercoxal disk of the first abdominal ventrite are nearly impunctate, whereas the lateral stria is typically deeply impressed and complete.

Legs

The coxae of *Atholus* are fundamentally similar to those of other groups within Histerini. The procoxa is subcylindrical and elongate, the mesocoxa is ovate, and the metacoxa appears triangular when viewed ventrally. The trochanters of all legs are typically small and subconical. Femora of all legs are baculiform in shape, usually thick and robust. In profemur, the marginal stria is complete, while the anterior stria is present on apical half. The femoral stria is almost complete, and shortened on basal end, and the posterior margin bears row of setae on both basal and apical ends.

The general structure of the protibia in *Atholus* can be dilated towards the apical end, but usually varies at its anterolateral angle: 1) strong and remarkable anterolateral tooth (Fig. 158G) like in *A. sp. 2* 2) broadened anterolateral area, but no remarkable tooth (Fig. 136G) like in *A. famulus* (Lewis, 1892); 3) weakly broadened towards the anterior of protibia (Fig 140H) like in *A. helferi* (Reichardt, 1932). The outer lateral margin usually consists of 3–4 teeth, although in some species, the teeth may be weak teeth or even absent along the outer margin. The teeth are generally topped with denticles from the base towards the apical angle to the anterior margin. A row of denticulation is also observed on the outer sublateral margin of the posterior face of the protibia. While the number of denticles may be serve as a useful diagnostic character, it is not entirely reliable for species identification due to the susceptibility of this character to abrasion and wear. The protarsal groove is usually shallow, and near the tarsal insertion has two spine-like tarsal denticles; another one, more distant and longer, located in the inner anterior angle. The protibial spur moderately long, and wider on the basal margin. The posterior stria is moderately impressed and abbreviated on the apical end, while the inner posterior stria is

impressed with row of sclerotized setae. Both anterior and posterior faces of protibia has feebly strigate ground sculpture.

Mesotibia slightly thickened, with two rows of medium-sized denticles on the outer margin. Mesotibial spur moderate in size.

Metatibia slenderer than mesotibia; the outer margin with fewer and shorter row of denticles. The tarsi of all legs consist of five tarsomeres.

Male Genitalia

In *Atholus*, the median lobe of the male genitalia lacks distinct median armature. The phallobase of the aedeagus is generally shorter than the parameres, except in the case of *A. famulus* (Lewis, 1892) (Figs. 171A–B) where the length is reversed. While the parameres are typically simple and elongated, some species exhibit peculiar structures on the apical portion of the paramere, as seen in *A. dentipes* (Lewis, 1892) (Figs. 189A–B), and *A. helferi* (Reichardt, 1932) (Figs. 175A–B). The eighth tergite is usually entire, and the eighth sternite covers half the length of the eighth tergite from the underside. The combined length of the ninth and tenth tergites is usually equal to the length of the spiculum gastrale. The spiculum gastrale (=ninth sternite) typically bifurcates on the apical end.

Female Genitalia

The gonocoxite is moderately sclerotized, slightly elongated, longer than wide, and bears two teeth at the apical terminal. The shape of the gonocoxite may can be categorized into two distinctive groups: one with a broadly shovel-shaped gonocoxite (Fig. 169C), as observed in *A. depistor* (Marseul, 1873), and the other with a narrow, non-shovel-shaped gonocoxite (Fig. 167C), as seen in *A. coelestis* (Marseul, 1870). An elevated lateral ridge differentiates the inner and outer surfaces, and sparse to dense, short, sclerotized setae are found on the apical half of gonocoxite. The gonostyli are detached and articulated between the teeth. The valvifer is elongated and becomes dilated anteriorly, resembling a paddle shape. The ducts of spermathecae are always straight and not coiled. The spermathecae generally consists of four to five elongated sacs and are not sclerotized.

SPECIES ACCOUNT

Key to species of *Atholus* Thomson, 1859 distributed in the Oriental and Far Eastern Asian Regions

- 1 Pronotal lateral striae two ----- 2.
 – Pronotal lateral stria one ----- 3.
- 2 External pronotal stria almost complete, shortened at base ----- *A. tenuistriatus* (Lewis, 1889).
 – External pronotal stria short, present on apical angles only ----- *A. lao* Mazur, 2013.
- 3 Pronotal lateral stria further distant from the sides and margin ----- *A. arrowi* (Desbordes, 1923).
 – Pronotal lateral stria and fairly distant from the margin ----- 4.
- 4 Apical end of third elytral dorsal stria strongly bent inwards ----- *A. coelestis* (Marseul, 1870).
 – Apical end of third elytral dorsal stria not bent ----- 5.
- 5 Propygidium with transverse, shallow and punctate excavation medially ----- 6.
 – Propygidium without transverse, shallow excavation ----- 7.
- 6 Head with median depression behind frontal stria ----- *A. cinctipygus* (Lewis, 1900).
 – Head flat, without median depression ----- *A. gestroi* (Schmidt, 1897).
- 7 Lateral pronotal stria interrupted behind anterolateral angle ----- 8.
 – Lateral pronotal stria uninterrupted, connects anteriorly from each side ----- 21.
- 8 Elytral dorsal striae 1–3 complete, stria 4 shortened at basal end --- *A. nitidissimus* Desbordes, 1925.
 – Elytral dorsal striae 1–4 complete ----- 9.
- 9 Area behind anterolateral angle of pronotum foveolate ----- 10.
 – Area behind anterolateral angle of pronotum non-foveolate ----- 13.
- 10 Inner subhumeral stria present ----- 11.
 – Inner subhumeral stria absent ----- 12.
- 11 Pygidia impunctate; internal subhumeral stria short, near apical end --- *A. silvicola* (Lewis, 1901).
 – Pygidia with punctations; internal subhumeral stria short, near medio-basal end -----
 ----- *A. tetricus* (Lewis, 1902).

- 12 Sutural stria shortened at basal end; around 3.0 mm in length ----- *A. infirmus* (Schmidt, 1889).
 – Sutural stria absent; around 6.0–7.0 mm in length ----- *A. maindronii* (Lewis, 1901).
- 13 Apical end of lateral pronotal stria straight and non-hamate ----- 14.
 – Apical end of lateral pronotal stria hamate, bent inwards ----- 15.
- 14 Protibia with strong protibial tooth; pygidium finely punctate ----- *A. crenatifrons* (Lewis, 1899).
 – Protibia strongly dilated apically; pygidium impunctate ----- *A. famulus* (Lewis, 1892).
- 15 Apical portion of protibia with remarkable tooth on the apical end ----- 16.
 – Apical portion of protibia triangularly dilated, no remarkable tooth ----- 19.
- 16 Head with two shallow impressions close to frontal stria ----- *A. omar* (Lewis, 1913).
 – Head without shallow impression ----- 17.
- 17 Anterior margin of pronotum bisinuate ----- *A. sp. 2.*
 – Anterior margin of pronotum straight, non-bisinuate ----- 18.
- 18 Propygidium punctate, punctures becoming finer on pygidium ----- *A. torquatus* (Marseul, 1854).
 – Both propygidium and pygidium moderately punctate ----- *A. bakeri* (Bickhardt, 1914).
- 19 Internal subhumeral stria on apical half, marked by interrupted line ----- *A. levis* Mazur, 2015.
 – Internal subhumeral stria wanting ----- 20.
- 20 External subhumeral stria short, marked on the posterior portion ----- *A. pinnulae* (Lewis, 1900).
 – External subhumeral stria 1/3 the length of pronotum, present medially – *A. amplificipes* Mazur, 2013.
- 21 All elytral dorsal striae 1 – 5 and sutural stria complete ----- 22.
 – Dorsal striae incomplete, at least 1 – 3 complete ----- 24.
- 22 Elytral dorsal 5 and sutural striae united at base ----- 23.
 – Elytral dorsal 5 and sutural striae not united ----- *A. confinis* (Erichson, 1834).
- 23 Anterior portion of head with transverse impression ----- *A. striatipennis* (Lewis, 1902).
 – Anterior portion of head without impression -----
 ----- *A. duodecimstriatus quatuordecimstriatus* (Gyllenhal, 1808).
- 24 Area on anterolateral angle of pronotum foveolate, or feebly excavated ----- 25.
 – Area on anterolateral angle of non-foveolate, no shallow excavation ----- 33.

25	Elytral dorsal striae 1–5 complete -----	26.
–	Elytral dorsal striae 1–4 generally complete, stria 5 on basal half -----	31.
26	Subhumeral striae absent -----	27.
–	Subhumeral striae present, either inner or outer, or both -----	30.
27	Pygidium with fine punctations, sometimes elytra with red maculate -----	28.
–	Pygidium impunctate, elytra always entirely black -----	29.
28	Body size nearly oval, around 3.0 mm in length -----	<i>A. bimaculatus</i> (Linnaeus, 1758).
–	Body size oval-oblong, relatively big, around 7.00–8.00 in length -----	<i>A. daldorffi</i> (Bedel, 1906).
29	Marginal prosternal stria interrupted medially -----	<i>A. helferi</i> (Reichardt, 1932).
–	Marginal prosternal stria complete, uninterrupted -----	<i>A. sp. 1.</i>
30	Internal subhumeral stria discal and short -----	<i>A. sessilis</i> (Lewis, 1899).
–	Internal subhumeral stria fused with short and deep external stria -----	<i>A. depistor</i> (Marseul, 1873).
31	External subhumeral stria present, internal feebly marked -----	<i>A. pirithous</i> (Marseul, 1873).
–	External subhumeral stria absent, internal short -----	32.
32	Frontal stria arched medially; elytral dorsal stria 4 shortened at base -----	<i>A. baberii</i> (Lewis, 1901).
–	Frontal stria rounded; elytral dorsal stria 4 complete to the base -----	<i>A. malaysi</i> Lewis, 1908.
33	Elytral dorsal striae 1–3 complete, dorsal stria 4 on basal half -----	34.
–	Elytral dorsal striae 1–4 complete -----	36.
34	Propygidium bi-impressed -----	<i>A. concordans</i> (Marseul, 1870).
–	Propygidium normal, not impressed -----	35.
35	Pygidium with dense and coarse punctation -----	<i>A. philippinensis</i> (Marseul, 1854).
–	Pygidium with sparse punctures, becoming finer towards apex -----	<i>A. singalanus</i> (Marseul, 1880).
36	External subhumeral absent -----	37.
–	External subhumeral present -----	38.
37	Frontal stria of head rounded; pygidium densely sculptured and strigose -----	-----
–	-----	<i>A. terraemotus</i> (Lewis, 1900).
–	Frontal stria of head slightly arched; pygidial punctures present on basal half -----	-----
–	-----	<i>A. cochinchinae</i> (Schmidt, 1889).

- 38 Pygidium coarsely and densely punctate ----- 39.
 – Pygidium with fine punctations ----- 40.
- 39 Head with longitudinal impression; pronotum bisinuate anteriorly ----- *A. bifrons* (Marseul, 1854).
 – Head without impression; pronotum non-bisinuate anteriorly ----- *A. vacillans* (Lewis, 1900).
- 40 Marginal stria of prosternum lobe shortly interrupted medially ----- *A. myrmidon* (Marseul, 1861).
 – Marginal stria of prosternum lobe widely interrupted in the middle ----- *A. dentipes* (Lewis, 1892).

***Atholus amplificipes* Mazur, 2013**
 (Figs. 107A, 111–112, 161–162, 191).

Atholus amplificipes Mazur, 2013: 191 [Type locality: Laos].

Specimens examined. 1 ♂ from Thailand; and 1 ♀ from Laos. 1 ♂ [IC-22-th01, deposited in THNHM], Thailand, Chiang Rai Province, Wiang Pa Pao, 20–29.V.2017, K. Takahashi leg.; 1 ♀ [IC-22-la01, deposited in SEHU], Laos, Bolikhamsai Province, Ban Nape, 16.VII.2006, 18°20'N 105°E, E. Jendek & O. Sausa leg.

Diagnosis. *Atholus amplificipes* Mazur, 2013 is quite similar to *Atholus torquatus* Marseul, 1854 with its abbreviated pronotal lateral stria on the anterolateral angle, and sparse punctations of pygidium becoming finer on the apex. However, *A. amplificipes* is distinguished on its protibia with no remarkable teeth on the anterior lateral margin. Although, Mazur (2013) noted that its resemblance to the protibia of *Atholus vacillans* Lewis, 1900 from Myanmar, the widely interrupted lateral pronotal stria of *A. amplificipes* is distinct from *A. vacillans*.

Additional description. Male (Figs. 107A, 111A–C). Body length: PEL: 4.3 mm; APW: 1.3 mm; PPW: 2.4 mm; EL: 1.8 mm; EW: 2.7 mm. Legs. Anterior face of protibia (Fig. 112G) flattened, dilated and clothed with few fine ocelloid punctures and strigate sculpture; outer lateral margin with very weak teeth, topped by denticles, but more clearly visible on the ventral side; protarsal groove shallow; near tarsal insertion with two spine-like tarsal denticles; another one, more distant and longer, located at inner anterior angle; protibial spur short, approximately 1/4 of the length of protarsus; posterior face of protibia (Fig. 112H) sparsely verrucose on outer side, strigate medially, with sparse and fine punctures; number of denticles on both outer lateral margin and apical margin combined 12, one on inner apical angle; median posterior stria impressed; inner margin of setae complete, strigate on inner side.

Male genitalia. Aedeagus (Figs. 161A–B) slightly wedge-shaped, becoming broader on the apical half, apically faintly curved ventrad; parameres about as twice the length as phallobase, fused on basal half; median lobe sclerotized; eighth tergite (Figs. 161E–F) entire, with longitudinal fold on both lateral sides; ninth tergite (Figs. 161C–D) with lateral folds; tenth tergite entire; spiculum gastrale almost as same length as ninth tergite, widely bifurcate on apical end.

Female genitalia. Anterior portion of valvifers (Figs. 162A–B) paddle-shaped; gonocoxite (Fig. 161C) slightly elongate, almost as twice as long as broad, shovel-like; inner and outer surfaces differentiated; inner face moderately separated from outer face by elevated lateral ridge; sclerotized setae on apical half of outer face sparse and short, surface ridge-like sculpture; inner face with short and sparse setae; apex of gonocoxite with two teeth; gonostyli present, freely articulated; spermathecae multiple (Figs. 162A–B), consisting of four sacs; sacs gradually enlarged and elongate, not sclerotized.

Distribution. Laos, Thailand (Fig. 191).

Atholus arrowi (Desbordes, 1923)

(Fig. 192).

Hister (Atholus) arrowi Desbordes, 1923b: 62 [India: Sikkim].

Atholus arrowi: Mazur, 1984: 211 [catalogued]; 1997: 129 [catalogued]; 2011: 103 [catalogued]; Lackner *et al.*, 2015: 92 [catalogued].

Specimens examined. No available specimen in this study.

Diagnosis. *Atholus arrowi* (Desbordes, 1923) bears a pronotal lateral stria further distant from the sides and margin of the lateral side compared to other Oriental species of *Atholus*. There are no subhumeral striae in the subhumerus. The elytral dorsal striae are 1–3 complete, while both propygidium and pygidium have strong and dense punctures.

Distribution. India: Sikkim (Fig. 192).

Atholus baberii (Lewis, 1901)

(Fig. 193).

Hister (Atholus) baberii Lewis, 1901b: 375 [Northwest India]; Bickhardt, 1910: 53 [catalogued]; 1917: 193 [catalogued]; Desbordes, 1917: 320 [keyed].

Atholus baberii: Lewis, 1906c: 402; Mazur, 1984: 211 [catalogued]; 1997: 129 [catalogued]; 2011: 103 [catalogued].

Specimens examined. No available specimen for this study.

Diagnosis. The frontal stria of *Atholus baberii* (Lewis, 1901) is arched on the middle portion, while its elytral dorsal stria 4 is shortened at its base. The inner subhumeral stria is deep at the middle area of the subhumerus, propygidium is sparsely punctured, and the punctation in pygidium becoming finer.

Distribution. Northwest India (Fig. 193).

Atholus bakeri (Bickhardt, 1914)

(Figs. 107B, 113, 194).

Hister bakeri Bickhardt, 1914: 428 [Luzon Island].

Hister (Atholus) bakeri: Bickhardt, 1917: 193 [catalogued].

Atholus bakeri: Mazur, 1984: 211 [catalogued]; 1997: 129 [catalogued]; 2011: 103 [catalogued]; dela Cruz and Ôhara, 2023a: 20

Specimens examined. 1 syntype [Luzon Island] based on images, “*Atholus bakeri* n. sp. Bickh. / Los Banos, / P.I., Baker. / 1639” [sex undetermined, measurements not available] (MNHUB).

Diagnosis. This species has lateral pronotal striae interrupted in the anterolateral angle, and strong punctations on its entire pygidium. According to the original description of Bickhardt (1914), *Atholus bakeri* is most similar to *A. torquatus* (Marseul, 1854) except that the propygidium and pygidium of *A. bakeri* are strongly punctate. However, based on the syntype observed, the punctation is not as prominent as described and, in fact quite similar to that of *A. torquatus* (Marseul, 1854). The punctures are finer towards the apical end of the pygidium. Another distinguishable feature of *A. bakeri* (Bickhardt, 1914) is the medially straight frontal stria, while in *A. torquatus* (Marseul, 1854) it is weakly bent inwardly. However, several studied individuals of *A. torquatus* (Marseul, 1854) likewise seem to have their frontal stria medially straight.

Re-description. Body (Figs. 107B, 113D) oval, moderately convex and black; tibia and antenna rufous.

Head. Clypeus (Figs. 113A–B) slightly crenate on anterolateral margin, apical margin slightly extended; frontal stria medially straight, complete, moderately impressed; eyes large, convex, clearly visible dorsally; mandibles with rounded outer margin curved inwardly; sub-apical tooth on left mandible large; mandibular apex acutely pointed.

Pronotum. Marginal pronotal stria (Figs. 113A–B) laterally complete, continuous onto apical angle and crenate behind head; lateral pronotal stria moderately impressed, slightly crenate; apical end shortened and bent inwardly in a curved hook; lateral portion rather distant from margin; its basal end abbreviated from basal fifth of pronotal length.

Elytra. Elytral epipleuron (Fig. 113D) with few coarse punctures on apical half; marginal epipleural stria present on apical half; marginal elytral stria (Fig. 113D) complete, slightly impressed; external and internal subhumeral striae absent; oblique humeral stria lightly impressed on basal third; dorsal elytral striae 1–4 complete; dorsal elytral stria 5 and sutural elytral stria present on apical half; disk with fine punctures. Abdomen. Propygidium (Fig. 113C) moderately covered with coarse, round, and shallow punctures; interspaces with fine punctations; pygidial punctations similar to those of propygidium, becoming sparser apically.

Meso- and metaventrite. Anterior margin of mesoventrite (Fig. 113D) outwardly arcuate; marginal mesoventral stria crenate and complete; meso-metaventral suture clearly impressed, complete, medially angulate; punctations of intercoxal disk of metaventrite similar to those of mesoventrite; longitudinal suture of metaventrite lightly impressed; lateral disk of metaventrite moderately covered with large, round, shallow punctures.

Legs. Posterior surface of protibia (Fig. 113D) flattened and strongly dilated; outer lateral margin with four weak, almost inconspicuous teeth, topped by minute denticles.

Distribution. Philippines: Luzon (Fig. 192).

Remarks. The examined syntype of *Atholus bakeri* (Bickhardt, 1914) exhibits characters similar to a typical *Atholus torquatus* (Marseul, 1854). According to Desbordes (1917), *A. torquatus* and *A. bakeri* are very similar, being set apart by the pygidial punctation (strong in *A. bakeri* and apically finer in *A. torquatus*).

Although the only examined specimen of *A. bakeri* (Bickhardt, 1914) possesses similar pygidial punctations to *A. torquatus* (Marseul, 1854), this character remains the primary distinction until further examinations of other types is established. Thus, I would encourage a comprehensive observation of both male and female genitalia for future works.

***Atholus bifrons* (Marseul, 1854)**
(Figs. 107C, 114–115, 164–165, 195).

Atholus bifrons (Marseul, 1854)

Hister bifrons Marseul, 1854: 545 [India].

Hister (Atholus) bifrons: Bickhardt, 1910: 53 [catalogued]; Bickhardt, 1917: 193 [catalogued]; Desbordes, 1917: 323 [keyed]; 1919: 399.

Atholus bifrons: Lewis, 1906: 402; Mazur, 1984: 211 [catalogued]; Mazur, 1997: 129 [catalogued]; Mazur & Zhou, 2001: 74; Mazur, 2009: 113; 2011: 103 [catalogued]; Lackner *et al.*, 2015: 92 [catalogued]; dela Cruz & Ôhara, 2022: 237; Ho *et al.*, 2023: 41.

Specimens examined. 3 ♂♂, 2 ♀♀ and 1 ex. Japan. 1 ♂, Hiji, Kunigami, [Okinawa-jima], 16.IV.2012 [MO-22-001], K. Sugino leg.; 1 ♀, Aha, Kunigami, Okinawajima, 6.VI.2009 [MO-22-002], K. Sugino leg. Indonesia. [Borneo Island] 2 ♂♂, 1 ex. [sex not designated], West Kalimantan, Mt. Bawang, alt. 250–300 m, X.1990. [Sumatra Island] 1 ♀, central Sumatra, Paya Kumbuh, Harau Valley, 3.IX.1993, Sarimudanas leg

Diagnosis. *Atholus bifrons* (Marseul, 1854) is distinctive with its longitudinal incised frons at the middle, although sometimes shallow and inconspicuous; and the coarse punctations of both propygidium and pygidium (dela Cruz & Ôhara, 2022).

Re-description. Male and female. Body length [MO-22-001, MO-22-002]: PEL: 3.22, 3.87 mm; APW: 1.31, 1.65 mm; PPW: 2.48, 2.87 mm; EL: 1.68, 2.00 mm; EW: 2.76, 3.20 mm. Body (Figs. 107C, 114A–C) oval, convex and black; tibia, antenna, mouthparts and elytral apical margin rufous.

Head. Frontal stria of head (Fig. 114D) round, complete and deeply impressed, feebly angulate inwards at the middle of anterior portion. Forehead divided into two by rather weak median longitudinal impression. Disk with alutaceous ground sculpture and clothed with fine punctures, which are separated by three times of their diameter; occipital fovea absent. Clypeus rounded laterally; anterolateral margin with three sinuous notches on each side, terminating with a strong crest before eyes. Eyes large and convex, well-visible dorsally. Labrum punctate along anterior margin, raised and transversely wide; labral fringe absent. Mandible covered with fine punctations, acutely pointed at apex; outer margin rounded and curved inwardly; sub-apical tooth on left mandible large.

Pronotum. Pronotum bisinuously indented on anterior margin and feebly narrowed on anterior portion, with angles obtuse; marginal pronotal stria laterally complete and broadly interrupted behind head; lateral pronotal stria (Fig. 114E) deeply impressed and complete; lateral stria rather distant from the lateral margin, whose basal ends are abbreviated to basal sixth of pronotal length; anterior pronotal stria present, connected with lateral stria. Disk with sparse microscopic punctures, clothed with alutaceous microsculpture. Area behind apical angle normal. Posterior margin rather bare. Ante-scutellar region with short, single longitudinal puncture.

Elytra. Elytral anterior margin with short, longitudinal striae on apical area around antero-scutellum. Epipleural fossette sparsely clothed with coarse punctures on apical half. Epipleural marginal stria present on apical half. Elytral marginal stria complete and moderately impressed; external subhumeral stria (Fig. 115B) present medio-basally; internal subhumeral stria absent; oblique stria slightly impressed on basal third; dorsal striae (Fig. 115A) 1–4 complete; dorsal stria 5 present on apical third; sutural stria on apical half; discal surface similar to pronotum with alutaceous microsculpture.

Propygidium and pygidium. Propygidium (Fig. 115E) densely covered with coarse and round punctures, about 20 μm , separated by their own to twice their diameter; interspace among the coarse punctures moderately covered with fine punctations. Pygidium with punctations (Fig. 115F) similar to those of propygidium, slightly denser, separated by their own diameter; interspace among the coarse punctures covered with fine punctations.

Prosternum. Prosternal lobe with round anterior margin (Fig. 115C); medio-apical end ascending; marginal stria deeply impressed, carinated and entire; brief striae present on basolateral ends; lobe with coarse punctures on basolateral sides, the punctures separated by their own diameter; interspace among the punctures covered with sparse and fine punctations; prosternal suture lightly impressed. Prosternal process covered with sparse, fine punctures; lateral sides descending; descending lateral stria deeply impressed and carinate; lateral disk with coarse punctations; basal half of process slightly narrow; posterior margin of basal lobe straight.

Meso- and metaventrite. Mesoventrite arcuate outwards on anterior margin (Fig. 115C); marginal stria complete and moderately impressed; stria behind anterolateral angle present; disk sparsely clothed with fine punctures, which are separated by 2–3 times of their diameter. Meso-metaventral suture slightly impressed, complete and strongly angulated at middle. Metaventral lateral stria (Fig. 115D) deeply impressed and carinated, extending obliquely and posteriorly, almost united with oblique stria which inwardly extends from basal half of metaventro-metepisternal suture; oblique stria moderately crenated. Post-mesocoxal stria extending posteriorly and strongly curved along the posterior margin of mesocoxa, attaining the metaventro-mesepimeral suture. Metaventrite with punctations of intercoxal disk similar to those of mesoventral plate; row of coarse punctures sometimes present along inside of basal portion of lateral stria; longitudinal suture slightly impressed; lateral disk moderately descending medially, densely covered with setiferous, large, round and shallow punctures; interspaces among these punctures with sparse, fine to coarse punctations. Mesepimeron and metepimeron covered with densely setiferous, large punctures; interspaces among the punctures with few, fine to coarse punctations. Metepisternum with sparse punctures on apical half. First abdominal sternite with punctation of intercoxal disk similar to that of metaventrite; surface of lateral disk similar to mesepimeron and metepimeron; lateral stria of intercoxal disk deeply impressed, slightly carinate and complete.

Legs. Protibia (Fig. 115G) flattened at anterior portion, slightly dilated and clothed with a few, fine ocelloid punctures; median area with weak strigate sculpture; lateral outer margin with four teeth topped with denticles; apical tooth stronger and more distant with each other. Number of denticles on lateral outer margin three on basal half, distinctively separated from the denticles on apical angle; anterior stria moderately impressed, shortened on basal end; inner marginal stria bearing on basal half; inner apical margin with few sclerotized setae; posterior surface (Fig. 115H) covered with sparse, fine punctures; outer surface with strigate ground sculpture; outer region slightly descending, with nine denticles on lateral outer margin; apical denticles eight, including denticles on outer apical angle; one moderately large on inner apical angle; spur moderately

long, almost half length of protarsus, growing from apical margin of protibia; median posterior stria complete and moderately impressed; inner posterior stria moderately impressed with row of sclerotized setae, terminating in three inner posterior denticles; inner margin of row of setae present on apical half, with row of setae follicles on basal half; inner margin with strigate ground sculpture. Protarsal groove shallow. Protarsus with two spine-like tarsal denticles near tarsal insertions; another one or two more distant with each other, located at inner anterior angle. Profemur sparsely clothed with fine punctations, very few, coarse punctures on apical half; surface with slightly strigate ground sculpture; marginal stria complete; anterior stria present on apical half; femoral stria almost complete, abbreviated on basal end; posterior margin with large punctations; row of setae present on both basal and apical terminals. Mesotibia slightly thickened and dilated; dorsal surface covered with sparse, fine punctures; outer margin with two rows of medium-sized denticles with sclerotized setae; median row of setae present; median stria conspicuous; dorsal mesotibial stria complete; inner row of setae few on apical end; spur moderate in size; ventral surface with few and fine punctations; strigate on outer region; median stria incomplete, absent on apical third; ventral stria nearly complete, shortened on apical end. Metatibia slenderer than mesotibia; outer margin with fewer and shorter stria; bristle-like setae present on surface; other characters almost similar to mesotibia.

Male genitalia. Aedeagus (Figs. 163A–B) moderately slender, apically slightly curved ventrad. Paramere is relatively longer, about as twice the length of basal piece; slightly fused on basal half. Median lobe moderately sclerotized. Eighth tergite (Figs. 163E–F) entire with longitudinal fold on both lateral sides. Ninth tergite (Figs. 163C–D) divided longitudinally, with lateral fold on both sides. Tenth tergite simple. Spicules (ninth sternite) almost as same length with ninth tergite, bifurcate on apical fourth.

Female genitalia. Basal shape of valvifers (Figs. 164A–B) paddle-shaped. Gonocoxite (Fig. 164C) slightly elongate, almost twice as long as broad, shovel-like. Inner side moderately separated from outer side by elevated lateral ridge. Sclerotized setae on medio-apical portion short and sparse. Apex of gonocoxite with two teeth, more prominent on inner side. Gonostyli present, freely articulated. Bursa copulatrix with single median sclerite. Spermatheca multiple, approximately four sacs, not sclerotized.

Distribution. India, Thailand, Vietnam, Hongkong, Indonesia: Sumatra, Borneo, Taiwan, Japan: Okinawajima Island (Fig. 195).

Remarks. *Atholus bifrons* (Marseul, 1854), similar to *A. coelestis* (Marseul, 1857), may have also occur in the southern islands of Japan because of its occurrence to Taiwan (Mazur, 2009) which is closer to the Ryukyus. The name “*bifrons*” comes from its longitudinally incised frons at the middle, although sometimes inconspicuous. However, among Japanese species, *A. bifrons* (Marseul, 1854) can be easily recognized for its dense and large punctures of the pygidium, which is similar to its propygidium. The authors also assume that the species may also occur in Java Island and the Philippines because of the closer vicinity among these group of islands. Moreover, between the individuals from Japan and Indonesia, there is not a single difference between the two in terms of external morphology, as well as in both male and female structures. Additional records are cited in the papers dela Cruz & Ôhara, 2023b: 16, and Ho *et al.*, 2023: 41.

Atholus bimaculatus (Linnaeus, 1758)

(Figs. 107D, 116–118, 165, 196).

Hister bimaculatus Linnaeus, 1758: 358; Paykull, 1811: 34; Marseul, 1854: 582, t. 10, f. 142; Schmidt, 1885: 294.

Hister (Atholus) bimaculatus: Ganglbauer, 1899: 369; Auzat, 1916: 93; Desbordes, 1917: 326 [keyed].

Hister (Atholister) bimaculatus: Reitter, 1909: 286.

Hister (Peranus) bimaculatus: Bickhardt, 1910: 52 [catalogued]; 1917: 192 [catalogued].

Atholus bimaculatus: Lewis, 1906c: 402; Mazur, 1984: 211 [catalogued]; 1997: 129 [catalogued]; 2011: 104 [catalogued]; Ôhara, 1992: 169 [re-described]; Ôhara & Paik, 1998: 23; Lackner *et al.*, 2015: 92 [catalogued]; dela Cruz & Ôhara, 2023b: 16.

Atholus (Euatholus) bimaculatus: Kryzhanovskij & Reichardt, 1976: 385; Hisamatsu & Kusui, 1984: 17 [noted; key]; Hisamatsu, 1985: 228, pl. 41, f. 61 [noted; keyed; photo].

Peranus bimaculatus: Lewis, 1910: 56.

Hister fimetarius Scopoli, 1763: 13, synonymized by Fabricius, 1775: 53.

Hister diluniator Voet, 1793: 46.

Hister apicatus Schrank, 1798: 452, synonymized by Hoffman, 1803: 50.

Hister erythropterus Fabricius, 1798: 38, synonymized by Schönherr, 1806: 94.

Hister obliquus Say, 1825: 37, synonymized by Leconte, 1859: 264.

Hister bimaculatus ab. *morio* Schmidt, 1885: 296.

Hister bimaculatus var. *spissatus* Rey, 1888: 4.

Specimens examined. 24 exs., 1 ♂ and 1 ♀. Japan. [Islands off Honshu] Oki Chiburi jima Is.: 4 exs., 19–20.V.2001, K. Toyoshima (SEHU); 2 exs., Akahage-yama, 15 & 16.IX.2000, S. Kawai (SEHU-ID-20290); 4 exs., Chibu, 1.VII.1990, Y. Kusui (SEHU). Oki-Nishino-shima Is.: 1 ex., Uragou, Dôzen, 7.VIII.1955, no collector's name (CSBT); 1 ♂, Urago, Dôzen, Oki, 5.VIII.1955, N. Tamu & K. Tsukamoto (SEHU-ID-15108) (Ôhara, 1992); 2 exs., Matengai, 30.VI.1990, Y. Kusui (SEHU); 4 exs., same locality and collector, but different date, 10.VIII.1990 (SEHU); 5 exs., Chazen-zan, 15.VI.2002, S. Kawai (SEHU). [Islands off Kyushu] Tsushima Is.: 1 ex., Sago, 8.V.1978, A. Oda (EUM); 1 ex., Sasuna, Kamiji-ma, 29.VII.1967, A. Okuda (CSBT); 1 ♀, Hitakatsu, 7.IX.1964, T. Nakane (SEHU-ID-15107) (Ôhara, 1992).

Diagnosis. *Atholus bimaculatus* (Linnaeus, 1758) is generally considered black with red macula on its basolateral to medial areas of its elytron. The anterolateral portion of its pronotum has moderate excavation which is usually punctiform on its surface. The subhumerus of this species has no striae, but the elytral dorsal striae are complete, except the sutural stria which is only on the apical half of the elytra.

Additional description. Female genitalia. Anterior shape of valvifers (Figs. 165A–B) paddle-shaped. Gonocoxite (Fig. 165C) elongate, almost 3 times as long as broad, not shovel-like; inner and outer surfaces divided by elevated lateral ridge on apical three-fourths; sclerotized setae on apical portion of outer face short and sparse; inner face with a few hairs. Apex of gonocoxite with two teeth. Gonostyli present, articulated. Bursa copulatrix with single median sclerite. Spermathecae (Figs. 165A–B) multiple, consisted by four sacs; the sacs gradually enlarged and elongate, not sclerotized.

Distribution. Japan: Oki Islands (Nishino-shima Is., Chiburi-jima Is., Nakano-shima Is.), Tsunoshima Is., Kyushu, Tsushima Is., Iki Is.); eastern Siberia, Russian Far East, Korean Peninsula, China, Europe, Cyprus, Iran, Iraq, Oman, Syria, Jordan, Yemen, Saudi Arabia, Israel, Afghanistan, Kyrgyzstan, Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan, Turkey, India, Myanmar, Central America, Nearctic Region, Neotropical Region (Fig. 196).

***Atholus cinctipygus* (Lewis, 1900)**

(Fig. 197).

Hister cinctipygus Lewis, 1900: 247 [Thailand].

Hister (Atholus) cinctipygus: Bickhardt, 1910: 53 [catalogued]; 1917: 193 [catalogued]; Desbordes, 1917: 325 [keyed]; 1919: 400.

Atholus cinctipygus: Lewis, 1906c: 402; Mazur, 1984: 212 [catalogued]; 1997: 129 [catalogued]; 2011: 104 [catalogued].

Specimens examined. No available specimen in this study.

Diagnosis. The transverse and punctate excavation in the propygidium of *Atholus cinctipygus* (Lewis, 1900) is similar to *Atholus gestroi* (Schmidt, 1897). However, *A. cinctipygus* (Lewis, 1900) has a distinct median depression behind the frontal stria of its head.

Distribution. Thailand (Fig. 197).

***Atholus cochinchinae* (Schmidt, 1889)**

(Figs. 107E, 119–120, 166, 198).

Hister cochinchinae Schmidt, 1889: 96 [Cochinchina (Saigon)].

Hister (Atholus) cochinchinae: Bickhardt, 1910: 53 [catalogued]; 1917: 193 [catalogued]; Desbordes, 1917: 326 [keyed]; 1919: 400.

Atholus cochinchinae: Lewis, 1906c: 402; Mazur, 1984: 212 [catalogued]; 1997: 129 [catalogued]; 2011: 104 [catalogued].

Specimens examined. 2 ♀♀. Pao District, Chiangmai [= Chiang Mai], 1 ♀ [IC-22-th02, deposited in THNHM], 20.IV–5.V.1987, Y. Manit leg.; 1 ♀, deposited in SEHU, 30.XI.1987 (same locality and collector, but different collection date).

Diagnosis. *Atholus cochinchinae* (Schmidt, 1889) is relatively larger in size compared to other species of *Atholus* from Thailand. The frontal stria is slightly grooved inwardly on anterior portion, and the anterior pronotal stria is connected to lateral stria of its pronotum. The external subhumeral stria is very short at the middle and is sometimes not remarkable, and the punctations of pygidium is generally limited only on its basal half. Protibial teeth prominent and strong mainly on the apical end.

Re-description. Body length: PEL: 5.8 mm; APW: 1.5 mm; PPW: 2.9 mm; EL: 2.3 mm; EW: 3.6 mm. Body (Figs. 107E, 119A–C) oval, moderately convex and black; tibiae, antennae, mouthparts and apical elytral margin rufous.

Head. Apical margin of clypeus (Fig. 119D) short and entire, but anterolateral margin widely crenate; frontal stria complete, impressed and faintly grooved anteriorly; disk sparsely clothed with fine punctures, separated by 2–5 times their diameter; interspaces with alutaceous microsculpture; occipital fovea absent; labrum dorsally finely punctate, raised and transversely long; mandibles covered with fine punctures, outer margin rounded, curved inwardly; mandibular apex acutely pointed; eyes large and convex, clearly visible dorsally.

Pronotum. Marginal pronotal stria laterally complete and continuous onto apical angle but interrupted behind head; lateral pronotal stria (Fig. 119E) moderately impressed, rather distant from margin, its basal end abbreviated to basal fourth of pronotal length; apical end bent inwardly behind apical angle; anterior pronotal stria connected to lateral stria; disk with sparse microscopic punctures, wholly covered with alutaceous microsculpture; area behind apical angles bare; posterior margin with row of sparsely coarse punctures; ante-scutellar region with a single short longitudinal puncture.

Elytra. Elytral epipleuron sparsely clothed with fine punctures, with few coarse punctures on apical half; marginal epipleural stria present on apical half; marginal elytral stria widely abbreviated medially, slightly impressed; external subhumeral stria (Fig. 120B) very short on middle, sometimes inconspicuous; internal subhumeral stria absent; oblique humeral elytral stria slightly impressed on basal third; dorsal elytral striae 1–4 (Fig. 120A) complete and crenate; elytral stria 5 present on apical half; sutural elytral stria abbreviated on basal third; elytral disk covered with sparse, fine punctures, separated by 3–5 times their diameter.

Propygidium and pygidium. Propygidium (Fig. 120F) moderately covered with coarse, round and shallow punctures, about 30–35 μm in diameter, separated by 1–4 times their diameter; interspaces with irregular, sparse and fine punctations, separated by 2–5 times their diameter; surface with alutaceous sculpture; pygidial punctures (Fig. 120E) present on basal half, punctation similar to that of propygidium; interspaces among coarse punctures with fine punctations.

Prosternum. Prosternal lobe with anterior margin (Fig. 120C) round; medio-apical end of prosternal lobe ascending; marginal prosternal stria deeply impressed; short striae present on both baso-lateral corners; lobe with few setiferous coarse punctures inside and outside of marginal stria on both sides, separated by 1–2 times their diameter; disk covered with sparse, finer punctures on apical half; prosternal suture lightly impressed; prosternal process covered with few, setiferous fine punctures; lateral sides descending; lateral prosternal striae deeply impressed and complete; lateral disk with several coarse setiferous punctures; basal half narrow.

Meso- and metaventrite. Anterior margin of mesoventrite outwardly arcuate (Fig. 120D); marginal mesoventral stria complete and carinate; stria behind anterolateral angle present; mesoventral disk sparsely clothed with fine punctures separated by 3–4 times their diameter; meso-metaventral suture clearly impressed, complete and medially angulate; lateral metaventral stria deeply impressed, carinate, extending obliquely and posteriorly, united with oblique stria which inwardly extends from basal half of metaventro-metepisternal suture; post-mesocoxal stria extending posteriorly and strongly curved along posterior mesocoxal margin, attaining metaventro-mesepimeral suture; punctures of metaventral disk similar to those of mesoventrite;

longitudinal suture of metaventricle lightly impressed; lateral disk of metaventricle moderately covered with setiferous large round and shallow punctures; interspaces with sparse, coarse to fine punctations; mesepimeron, metepimeron and lateral disk of first abdominal ventricle with dense setiferous, large punctures; interspaces with few coarse to fine punctations; metepisternum with sparse punctures, with short setae on apical half; punctation of intercoxal disk of first abdominal ventricle similar to that of metaventricle; lateral stria deeply impressed, slightly carinate and complete.

Legs. Anterior face of protibia (Fig. 120G) flattened, dilated and clothed with few fine ocelloid punctures; outer lateral margin with four teeth, becoming stronger apically; topped by minute denticles; protarsal groove shallow; anterior protibial stria lightly impressed; inner marginal stria present on basal half, but inconspicuous; near tarsal insertion with two spine-like tarsal denticles; another one, more distant and longer, located at inner anterior angle; protibial spur moderately long, about 1/3 of the length of protarsus; posterior face of protibia (Fig. 120H) with sparse, fine punctures and strigate ground sculpture on the inner region; number of denticles on outer lateral margin six, three of these denticles topped on the outer apical protibial tooth; denticles on apical margin four, one on inner apical angle; denticles on outer sublateral margin six or seven; median posterior stria moderately impressed and abbreviated on apical end; inner posterior stria moderately impressed with row of sclerotized setae; row of setae on inner margin of protibia present on apical half; profemur sparsely clothed with fine, ocelloid punctations; surface with lightly strigate ground sculpture; marginal stria complete; anterior stria present on apical third; femoral stria almost complete, shortened on basal end; a row of few setae present on both basal and apical ends.

Male genitalia. No specimen available in this study.

Female genitalia. Anterior portion of valvifers (Figs. 166A–B) paddle-shaped; gonocoxite (Fig. 166C) slightly elongate, almost as twice as long as broad, shovel-like; inner and outer surfaces differentiated; inner face moderately separated from outer face by elevated lateral ridge; sclerotized setae on apical half of outer face sparse and short, surface ridge-like sculpture, moderately sclerotized; inner face with short setae; apex of gonocoxite with two teeth; gonostyli present, freely articulated; spermathecae (Figs. 166A–B) multiple, consisting of three sacs; sacs gradually enlarged and elongate, not sclerotized.

Distribution. Vietnam, Thailand (Fig. 198).

Remarks. In this study, only two female individuals were examined, hence no male genitalia are available for observation.

Atholus coelestis (Marseul, 1857)

(Figs. 107F, 121–122, 167, 199).

Hister coelestis Marseul, 1857: 416, tome, 10, fig. 59 [China].

Hister (Atholus) coelestis: Bickhardt, 1910: 53 [catalogued]; 1917: 193 [catalogued]; Desbordes, 1917: 320 [keyed]; 1919: 399 [Tonkin, Annam, Cochinchine]; 1921: 10 [India]; Kamiya & Takagi, 1938: 31 [listed].

Atholus coelestis: Lewis, 1906c: 402; 1915: 55 [Formosa=Taiwan]; Mazur, 1984: 212; 1997: 129; 2011: 104 [catalogued]; Mazur *et al.*, 2015: 1454 [Philippines]; Ôhara, 1992: 173–176; 1994: 137; 1999: 110 [Nansei Islands]; 1999b: 31–32 [Taiwan]; Lackner *et al.*, 2015: 92; dela Cruz & Ôhara, 2023a: 4 [Philippines]; 2023b: 22 [Japan]; Ho *et al.*, 2023: 41 [Taiwan].

Atholus (Euatholus) coelestis: Hisamatsu & Kusui, 1984: 17 [noted, keyed].

Atholus (Euatholus) coelestes [sic]: Hisamatsu, 1985: 228, pl. 41, f. 61 [noted, keyed, image].

Hister femoralis Motschulsky, 1863: 449, synonymized by Lewis, 1885: 465.

Specimens examined. 13 ♂♂, 2 ♀♀ and 4 specimens of undetermined sex. [Luzon Island] Isabela, Angadanan, Pissay, 1 ♂, 6.44207°N, 121.46277°E 60 m a.s.l., 2019-VII-20 [IS-19-IDC-001], I.N. dela Cruz leg.; Pangasinan, Asingan, Bantog, 1 ♂, 15.59384°N, 120.41151°E 50 m a.s.l., 2019-VII-22 [PG-19-IDC-001], I.N. dela Cruz leg.; Batangas, Calatagan, Balitoc, 1 ♀, 13.51417°N, 120.38138°E 10 m a.s.l., 2019-VI-26 [BG-19-IDC-001], I.N. dela Cruz leg. [Mindoro Island] Oriental Mindoro, Mt. Halcon, 1 ex., 2005-IV. [Panay Island], Capiz, Dumarao, Bugsuan, 3 ♀♀, 11.14422°N, 122.44405°E 76 m a.s.l., 2019-VIII-03 [CP-19-IDC-001], I.N. dela Cruz leg.; Antique, Patnongon, Igbobon, 1 ♂, 1 ex. [IC-21-20], 10.55434°N, 121.59592°E -10 m a.s.l., 2019-VIII-02 [AQ-19-IDC-001], I.N. dela Cruz leg.; Iloilo, Calinog, Simsiman, 1 ♂, 11.07008°N, 122.32289°E 70 m a.s.l., 2019-VIII-01 [II-19-IDC-001], I.N. dela Cruz leg. [Guimaras Island] Guimaras, Jordan, Alaguissoc, 1 ♂, 10.37576°N, 122.36379°E 153 m a.s.l., 2019-VII-30 [GU-19-IDC-001], I.N. dela Cruz leg. [Negros Island] Negros Occidental, La Carlota, La Granja, 1 ♂, 10.23566°N, 122.59334°E 90 m a.s.l., 2019-VII-29 [NC-19-IDC-002], I.N. dela Cruz leg.; Negros Occidental, Mt. Canlaon, 1 ex., 1988-IV-11-30, D. Mohgan leg.; Negros Oriental, Tanjay, Azagra, 1 ex., 09.29363°N, 122.08473°E, 0 m a.s.l., 2019-VII-31 [NR-19-IDC-001], I.N. dela Cruz leg. [Cebu Island] Cebu, Tuburan, Poblacion, 1 ♂, 10.43204°N, 123.49155°E 15 m a.s.l., 2019-VII-27 [CE-19-IDC-001], I.N. dela Cruz leg. Mactan Island, Buyong Maribago, Lapu-lapu City, 1 ex., 1996-IV-3, S. Shimano leg. Mindanao Island, Agusan del Norte, Butuan, Tiniwisan, 1 ♂, 1 ♀ [IC-21-11], 08.57694°N, 125.35521°E 20 m a.s.l., 2021-V-01 [AN-21-IDC-001], I.N. dela Cruz leg.; Taligaman, 2 ♂♂, 08.56894°N, 125.38534°E 60 m a.s.l., 2021-VI-14 [AN-21-IDC-003], I.N. dela Cruz leg.

Diagnosis. *Atholus coelestis* (Marseul, 1857) is best characterized by its third dorsal elytral stria extending inwardly towards the apical end of the fourth and fifth striae. The slight emargination on the anterior margin of the mesoventrite is also a distinct character of this species. The number of denticles of the protibia (Figs. 122H), is 11 on the outer margin, one on the inner apical angle, and eight on the outer sublateral margin. The protibial teeth are slightly prominent only on the outer apical angle, topped with three denticles. The number of denticles on the outer margin may range from 11–13 denticles. The shape of the gonocoxite of *A. coelestis* is slenderer, becoming narrower towards the apex compared to *Atholus philippinensis* (Marseul, 1854). Moreover, the presence of a single occipital fovea on the posterior portion of the head of *A. coelestis* (Marseul, 1857) (Fig. 121D) is rather a remarkable character differentiating it from other species that has not been previously described.

Additional description. Female genitalia. Anterior portion of valvifers (Figs. 167A–B) paddle-shaped; gonocoxite (Fig. 167C) elongate, almost 4 times as long as broad, not shovel-like, more narrowed on apical end; inner and outer surfaces differentiated; inner face weakly separated from outer face by elevated lateral ridge; sclerotized setae on apical half of outer face short and sparse; inner face with short setae and moderate setae; apex of gonocoxite with two teeth; gonostyli present, freely articulated; spermathecae multiple, consisting of four sacs; sacs gradually enlarged and elongate, not sclerotized.

Distribution. Widely distributed in the Oriental Region including China, Taiwan, Ryukyu Islands (Japan). Also present in the Palearctic Region: Tajikistan and in the Afrotropical Region: Comoros Islands (Fig. 199).

Biology. All individuals of *Atholus coelestis* (Marseul, 1857) were collected from dungs of cows and water buffaloes of lowland farms and pastures across all islands of the archipelago. This species may also seem to be moisture-specific, as they were observed to dwell only on more desiccated dungs during field collection.

Remarks. *Atholus coelestis* (Marseul, 1857) is a widespread species across the Philippine archipelago showing a consistent morphology in all individuals examined. *A. coelestis* (Marseul, 1857) was re-described by Ôhara (1992) based on specimens collected from Ryukyu Islands (Japan). Here, SEM micrographs (Figs. 121–122) and illustrations of female gonocoxite and valvifers (Figs. 167) complement Ôhara's description (1992). Additional records are also presented in the papers of dela Cruz & Ôhara, 2023b: 22 [Japan], and Ho *et al.*, 2023: 41 [Taiwan].

***Atholus concordans* (Marseul, 1870)**

(Fig. 200).

Hister concordans Marseul, 1870: 87 [East India].

Hister (Atholus) concordans: Bickhardt, 1910: 54 [catalogued]; 1917: 193 [catalogued]; Desbordes, 1917: 324 [keyed].

Atholus concordans: Lewis, 1906c: 402; Mazur, 1984: 212 [catalogued]; 1997: 129 [catalogued]; 2011: 104 [catalogued].

Specimens examined. No available specimen in this study.

Diagnosis. The propygidium of *Atholus concordans* (Marseul, 1870) is slightly bi-impressed, while its pygidium is finely punctated. The lateral stria of its pronotum is arched in the anterolateral angle. The subhumeral stria of this species is absent, while the sutural stria is quite long and slightly arched.

Distribution. East India (Fig. 200).

***Atholus confinis* (Erichson, 1834)**

(Figs. 108A, 123–124, 168, 201).

Hister confinis Erichson, 1834: 154 [Cuba].

Atholus confines: Mazur, 2009: 114 [synonymic note].

Atholus rothkirchi Bickhardt, 1919: 143, synonymized by Mazur, 2009: 114.

Specimens examined. Taiwan: [Chiayi County] 1 ♀, Zhongpu, 27.VII.2021, J. C. Lin (PCHO). [Pingtung County] 1 ♂ Fangliao, Yuquan V., 22.4333, 120.6051, 11.III.2018, Cow dung, B. H. Ho (PCHO); 1 ♂ Same locality and date but different collector, Y. H. Ho & P. Y. Shih (PCHO).

Re-description. Body length: PEL: 3.29 mm; APW: 1.10 mm; PPW: 2.18 mm; EL: 2.00 mm; EW: 2.65 mm. Body (Figs. 108A, 123) oblong-oval, convex and black; tibiae, antennae, mouthparts and apical elytral margin rufous.

Head. Apical margin of clypeus (Fig. 124A) short, moderately forward; anterolateral margin crenate; frontal stria complete, curved inwardly in the middle forming slightly angulate; occipital fovea absent; labrum raised and round; mandibles covered with fine punctures, outer margin rounded, curved inwardly; mandibular apex acutely pointed; eyes large and convex, clearly visible dorsally.

Pronotum. Anterior margin straight; lateral pronotal stria (Figs. 123D, 124A) impressed and complete; lateral stria rather distant from margin, its basal end abbreviated to basal fifth of pronotal length; apical end bent inwardly behind apical angle; anterior pronotal stria present, carinate, connected to lateral stria; disk with sparse microscopic punctures; area behind apical angles excavated, finely punctate; posterior margin with row of sparsely coarse punctures; ante-scutellar region with a single short longitudinal puncture.

Elytra. External subhumeral stria (Fig. 124E) absent; internal subhumeral stria deeply impressed on apical half; oblique humeral elytral stria slightly impressed on basal third; dorsal elytral striae 1–4 (Fig. 123A) complete; dorsal stria 5 shortened on basal fourth; sutural elytral stria shortened on basal third.

Propygidium and pygidium. Propygidium (Fig. 124G) irregularly covered with coarse and round punctures, separated by 1–4 times their diameter; pygidial punctation (Fig. 124H) similar to that of propygidium, becoming finer towards the apex.

Prosternum. Prosternal lobe with anterior margin (Fig. 124B) slightly acute; medio-apical end of prosternal lobe ascending; marginal prosternal stria deeply impressed; lobe with coarse punctures inside and outside of marginal stria on both sides, separated by their 1–2 times their diameter; disk covered with sparse, finer punctures; prosternal suture lightly impressed; prosternal process covered with few fine punctures; lateral sides descending; lateral prosternal striae deeply impressed and complete; lateral disk with several coarse punctures; basal half narrow; posterior margin of basal lobe emarginated.

Meso- and metaventrite. Anterior margin of mesoventrite outwardly arcuate (Fig. 124B); marginal mesoventral stria complete, carinate; lateral metaventral stria deeply impressed, carinate, extending obliquely and posteriorly, almost united with oblique stria which inwardly extends from basal third of metaventrometepisternal suture; post-mesocoxal stria extending posteriorly and strongly curved along posterior mesocoxal margin, attaining metaventromesepimeral suture; lateral disk of metaventrite moderately covered with large, round and shallow punctures; mesepimeron, metepimeron and lateral disk of first abdominal ventrite with largely punctate; lateral stria of first abdominal ventrite clearly impressed.

Legs. Anterior face of protibia (Fig. 124C) flattened, dilated and clothed with few, fine ocelloid punctures; outer lateral margin with three teeth, becoming stronger apically; topped by minute denticles; protibial spur moderately long, wider on basal margin, approximately half the length of protarsus; posterior face of protibia (Fig. 124D) with finely punctate; median posterior stria moderately impressed and complete.

Male genitalia. Aedeagus (Figs. 168A–B) plump, becoming broader towards apex; phallobase short, approximately half the length of the parameres; median lobe sclerotized medially and apex; eighth tergite (Figs. 168C–D) entire, posterior margin widely emarginate; spiculum gastrale (Fig. 168E) almost as same length as ninth tergite (Figs. 168F–G), broadly bifurcate on the apex

Distribution. Laos, Taiwan (Fig. 201).

Remarks. The specimens were examined by Y. H. Hsiang. This species was first recorded by Mazur (2013) in Taiwan and is supplemented here with images and additional descriptions on protibia and male genitalia for the first time. *Atholus confinis* (Erichson, 1834) is an African species which has been introduced to Central America and Hawaii (Summerlin *et al.*, 1987), and from Hawaii to Taiwan. This is believed that the occurrence in Taiwan is most likely because there is no record of this species as yet east of Africa, including India and Southeast Asia (Mazur, 2009).

Atholus crenatifrons (Lewis, 1899)

(Fig. 202).

Hister crenatifrons Lewis, 1899: 17 [Sumatra].

Hister (Atholus) crenatifrons: Bickhardt, 1910: 54 [catalogued]; 1917: 193 [catalogued]; Desbordes, 1917: 322 [keyed].

Atholus crenatifrons: Lewis, 1906c: 402; Mazur, 1984: 212 [catalogued]; 1997: 130 [catalogued]; 2011: 104 [catalogued].

Specimens examined. No available specimen in this study.

Diagnosis. *Atholus crenatifrons* (Lewis, 1899) possess a deeply notched anterior edge margin of the head before its eyes. The lateral stria of its pronotum is straight and non-hamate on the apical tip. The external subhumeral stria of this species is almost complete, abbreviated shortly on both apical and basal ends. Also, the pygidia of *A. crenatifrons* (Lewis, 1899) is irregularly, and not closely nor coarsely punctured.

Distribution. Indonesia: Sumatra (Fig. 202).

Atholus daldorffi (Bedel, 1906)

(Figs. 108B, 125–126, 189E–F, 190D–F, 203).

Atholus daldorffi Bedel, 1906.

Hister bipustulatus Fabricius, 1798: 87 [Type locality: East India]; Paykull, 1811, 33, tome, 13, fig. 1 [East India]; Marseul, 1854, 581, tome, 10, fig. 141 [Inde: Pondichéry, Malaisie: Ceylan]; Lewis, 1888: 640 [Burma=Myanmar].

Pactolinus bipustulatus: Motschulsky, 1863: 450 [East India].

Peranus bipustulatus: Lewis, 1906: 401 [East India].

Hister daldorffi Bedel, 1906: 91 [East India]; Desbordes, 1919: 398 [Cochinchina=Vietnam].

Hister (Peranus) daldorffi tristiculus: Reichardt, 1932: 117 [Cochinchina=Vietnam].

Hister (Peranus) daldorffi: Bickhardt, 1910: 53 [catalogued: Indien]; 1917: 192 [catalogued: Indien].

Atholus daldorffi: Mazur, 1984: 213 [catalogued: Burma: Tenasserim]; Mazur, 1997: 130 [catalogued: East India, Pakistan, Sri Lanka, Burma, Thailand, Vietnam]; Mazur, 2011: 104 [catalogued: East India, Pakistan, Sri Lanka, Myanmar, Thailand, Vietnam].

Specimens examined. 3 ♂♂, 2 ♀♀ and 6 exs. Laos: Vientiane, Vang Vieng, 2 ♂♂ (1 ♂ sem, hab & gen), 1 ♀ (gen), 2 exs., 26–28-IV-2006, no collector indicated. India: Ajmer, Rajasthan, 1 ♂, 14-VIII-1966, G. Kraft leg.; Panna National Park, 3 exs., VIII-1988, M. P. Werner leg.; Delhi, 1 ex., 1-IV-1992, no collector indicated.

Re-description. Body length: PEL: 7.04 mm; APW: 2.55 mm; PPW: 5.14 mm; EL: 4.00 mm; EW: 5.67 mm. Body (Figs. 108B, 125A–C) oblong-oval, convex and black, the elytra sometimes with red macula medially; tibiae, antennae, mouthparts and apical elytral margin rufous.

Head. Apical margin of clypeus (Fig. 125D) short, entire and forward, anterolateral margin crenate; frontal stria complete, strongly impressed, the anterior portion curved inwardly; disk sparsely clothed with fine punctures, separated by 2–3× their diameter; interspaces with alutaceous microsculpture; occipital fovea absent; labrum raised and elongate; mandibles finely punctate, outer margin rounded, curved inwardly; mandibular apex acutely pointed; eyes medium and convex, slightly visible dorsally.

Pronotum. Marginal pronotal stria laterally complete, continuous onto apical angle but interrupted behind head; lateral pronotal stria (Fig. 125E) deeply impressed, its basal end abbreviated to basal fifth of pronotal length; apical end bent inwardly behind apical angle; the bent a little far from the apical angle; anterior pronotal stria crenate, connected to lateral stria; the apical third portion moderately excavated, with few punctations; disk with sparse microscopic punctures, slightly coriaceous; posterior margin with row of coarse punctures; ante-scutellar region with a single short longitudinal puncture.

Elytra. Marginal epipleural stria present on apical third; marginal elytral stria complete, but interrupted medially; external and internal subhumeral striae (Fig. 126B) wanting; oblique humeral elytral stria slightly impressed on basal third; dorsal elytral striae 1–5 (Fig. 126A) complete, moderately crenate; sutural stria impressed on apical half, the sutural stria a little longer; elytral disk coriaceous.

Propygidium and pygidium. Propygidium (Fig. 126F) sparsely covered with round, shallow punctures, separated by 3–5 times their diameter; interspaces with irregular, sparse and fine punctations; medio-posterior area almost impunctate; pygidial punctation (Fig. 126E) similar to that of propygidium, slightly denser.

Prosternum. Prosternal lobe with anterior margin (Fig. 126C) round; medio-apical end of prosternal lobe ascending; marginal prosternal stria impressed, shortly abbreviated in the middle, both basolateral corners slightly deep; lobe with few ocelloid, coarse punctures inside and outside of marginal striae, separated by their 1–3× their diameter; disk covered with sparse, finer punctures; prosternal suture faintly impressed; prosternal process covered with few, setiferous fine punctures; lateral sides descending; lateral prosternal striae deeply impressed and complete; lateral disk with few, coarse to fine setiferous punctures; basal half slightly narrow.

Meso- and metaventricle. Anterior margin of mesoventrite arcuate, feebly emarginate in the middle (Fig. 126C); marginal mesoventral stria complete, straight; stria behind anterolateral angle present; mesoventral disk sparsely clothed with microscopic punctures; meso-metaventral suture feebly impressed, complete and medially angulate; lateral metaventral stria (Fig. 126D) deeply impressed, carinate, extending obliquely and posteriorly, almost united with oblique stria which inwardly extends from basal third of metavento-metepisternal suture; post-mesocoxal stria extending posteriorly attaining the basal half of the lateral disk; longitudinal suture of metaventricle impressed; lateral disk of metaventricle moderately covered with large, ocelloid and shallow punctures; interspaces with sparse, coarse to fine punctations; mesepimeron, metepimeron and lateral disk of first abdominal ventrite with large punctures; interspaces with few coarse to fine punctations; metepisternum

with sparse punctures, mainly on apical half; punctation of intercoxal disk of first abdominal ventrite similar to that of metaventrite; lateral stria deeply impressed, slightly carinate and complete.

Legs. Anterior face of protibia (Fig. 126G) flattened, dilated, the surface clothed with sparse ocelloid punctures; outer lateral margin with 3 teeth; basal outer margin with row of short, tapering denticles; protarsal groove shallow; inner apical angle with row of longer sclerotized seta; near tarsal insertion with two spine-like tarsal denticles; another one, more distant and longer, located at inner anterior angle; protibial spur prominent and robust; posterior face of protibia (Fig. 126H) with coriaceous sculpture; number of denticles on outer lateral margin seven, two of these denticles topped apical tooth of the apical angle, denticles on the anterior margin minute; denticles on outer sublateral none; median posterior stria clearly impressed; inner posterior stria moderately impressed with row of sclerotized setae.

Male genitalia. Aedeagus (Figs. 189E–F) moderately long, widest on its base; parameres about twice the length as phallobase, fused on basal half, the anterolateral portion with conspicuous fine punctation; median lobe sclerotized, broader near the apex.

Female genitalia. Anterior portion of valvifers (Figs. 190D–E) paddle-shaped; gonocoxite (Fig. 190F) slightly elongate, almost as twice as long as broad, shovel-like; inner and outer surfaces differentiated; inner face moderately separated from outer face by elevated lateral ridge; sclerotized setae on apical half of outer face sparse and short, surface ridge-like sculpture, moderately sclerotized; inner face with short setae; apex of gonocoxite with two teeth; gonostyli present, freely articulated; spermathecae multiple, consisting of about 7–8 sacs; sacs gradually enlarged and elongate, not sclerotized.

Distribution. India, Pakistan, Sri Lanka, Myanmar, Thailand, Vietnam, Laos (Fig. 203).

Atholus dentipes (Lewis, 1892)

(Figs. 108C, 127–128, 189A–B, 190A–C, 204).

Hister dentipes Lewis, 1892d: 29 [Myanmar].

Hister (Atholus) dentipes: Bickhardt, 1910: 54 [catalogued]; 1917: 193 [catalogued]; Desbordes, 1917: 319 [keyed].

Atholus dentipes: Lewis, 1906c: 402; Mazur, 1984: 213 [catalogued]; 1997: 130 [catalogued]; 2011: 104 [catalogued].

Specimens examined. 1 ♂, 1 ♀ and 3 exs. Malaysia: Selangor, Ulu Gombak Field Studies Center, 250 masl, 1 ♂ (gen), 3 exs. (1 ex. sem & hab), 2–18-III-2004, M. Maruyama *et al.*, leg. (collected by FIT); 1 ♀, 3–5-III-2003, M. Maruyama leg.

Re-description. Body length: PEL: 5.44 mm; APW: 1.88 mm; PPW: 3.96 mm; EL: 3.20 mm; EW: 4.70 mm. Body (Figs. 108C, 127A–C) oval, convex and black; tibiae, antennae, mouthparts and apical elytral margin rufous.

Head. Apical margin of clypeus (Fig. 127C) short, entire and slightly forward, anterolateral margin crenate; frontal stria wide and deeply impressed; disk sparsely clothed with fine punctures, separated by 2–3 times their diameter; interspaces with alutaceous microsculpture; occipital fovea absent; labrum raised,

transversely elongate; mandibles microscopically punctate, outer margin rounded, curved inwardly; mandibular apex acutely pointed; eyes medium and convex, slightly visible dorsally.

Pronotum. Marginal pronotal stria laterally complete, continuous onto apical angle but interrupted behind head; lateral pronotal stria (Fig. 127D) impressed and slightly crenate; lateral stria rather distant from margin, its basal end abbreviated to basal fourth of pronotal length; apical end bent inwardly behind apical angle; anterior pronotal stria crenate, connected to lateral stria; disk with sparse microscopic punctures, covered with alutaceous microsculpture; area behind apical angles bare; posterior margin with row of coarse punctures; ante-scutellar region with a single short longitudinal puncture.

Elytra. Elytral epipleuron sparsely clothed with fine punctures; marginal epipleural stria present on apical third; marginal elytral stria complete, clearly impressed; external subhumeral stria (Fig. 128B) mediobasally; internal subhumeral absent; oblique humeral elytral stria slightly impressed on basal third; dorsal elytral striae 1–4 (Fig. 128A) complete, crenate; dorsal elytral stria 5 and sutural elytral stria on apical half, the sutural stria a little longer; elytral disk almost impunctate.

Propygidium and pygidium. Propygidium (Fig. 128F) moderately covered with round and shallow punctures, separated by 1–3 times their diameter; interspaces with irregular, sparse and fine punctations, separated by 2–4 times their diameter; surface with alutaceous sculpture; pygidial punctation (Fig. 128E) similar to that of propygidium, punctures of pygidium, becoming finer apically.

Prosternum. Prosternal lobe with anterior margin (Fig. 128C) round, feebly pointed ventrally; medio-apical end of prosternal lobe ascending; marginal prosternal stria impressed and widely interrupted medially, both basolateral corners slightly deep; lobe with few ocelloid, coarse punctures inside and outside of marginal striae, separated by their 1–3 times their diameter; disk covered with sparse, finer punctures on apical half; prosternal suture faintly impressed; prosternal process covered with few, setiferous fine punctures; lateral sides descending; lateral prosternal striae deeply impressed and complete; lateral disk with few, coarse setiferous punctures; basal half narrow.

Meso- and metaventrite. Anterior margin of mesoventrite outwardly arcuate (Fig. 128C); marginal mesoventral stria complete, carinate, sparsely crenate; stria behind anterolateral angle present; mesoventral disk sparsely clothed with microscopic punctures; meso-metaventral suture clearly impressed, complete and medially angulate; lateral metaventral stria (Fig. 128D) deeply impressed, carinate, extending obliquely and posteriorly, united with oblique stria which inwardly extends from basal third of metaventro-metepisternal suture; post-mesocoxal stria extending posteriorly and strongly curved along posterior mesocoxal margin, attaining metaventro-mesepimeral suture; punctures of metaventral disk similar to those of mesoventrite; longitudinal suture of metaventrite lightly impressed; lateral disk of metaventrite moderately covered with large, ocelloid and shallow punctures; interspaces with sparse, coarse to fine punctations; mesepimeron, metepimeron and lateral disk of first abdominal ventrite with large punctures; interspaces with few coarse to fine punctations; metepisternum with sparse punctures, mainly on apical half; punctation of intercoxal disk of first abdominal ventrite similar to that of metaventrite; lateral stria deeply impressed, slightly carinate and complete.

Legs. Anterior face of protibia (Fig. 128G) flattened, slightly dilated; outer lateral with unremarkable teeth, no prominent groove; denticles inconspicuous; protarsal groove shallow; anterior protibial stria moderately impressed; inner marginal stria present on basal half; protibial short and plump; posterior face of

protibia (Fig. 128H) almost smooth; denticles on outer lateral margin and outer sublateral margin ambiguous; inner posterior stria slightly impressed with row of few, sclerotized setae; marginal and anterior striae complete.

Male genitalia. Aedeagus (Figs. 189A–B) plump, stout and tapering posteriorly, widest on the anterior, narrowest on the posterior portion; phallobase almost the same length as the parameres, a little shorter, fused on basal half; median lobe sclerotized, broader on the apical portion.

Female genitalia. Anterior portion of valvifers (Figs. 190A–B) paddle-shaped; gonocoxite (Fig. 190C) elongate, almost as thrice as long as broad, shovel-like; inner and outer surfaces differentiated; inner face moderately separated from outer face by elevated lateral ridge; apical half with minute, round punctation; inner face with short and sparse, brush-like setae; apex of gonocoxite with two teeth; gonostyli present, freely articulated; spermathecae multiple, consisting of four sacs; sacs gradually enlarged and elongate, not sclerotized.

Distribution. Myanmar, Malaysia: Selangor (Fig. 204).

Atholus depistor (Marseul, 1873)

(Figs. 108D, 129–131, 169A–C, 205).

Hister depistor Marseul, 1873: 224 [Japan: Nagasaki, Kiu-siu(=Kyushu)].

Hister (Peranus) depistor: Bickhardt, 1910: 53 [catalogued]; 1917: 192 [catalogued]; Muller, 1937: 130 [Japan: Mongol]; Kamiya & Takagi, 1938: 31 [listed]; Osawa & Nakane, 1951: 6 [noted, figured].

Peranus depistor: Lewis, 1906c: 402; 1915: 55; Nakane, 1963: 70.

Atholus (Atholus) depistor: Kryzhanovskij & Reichardt, 1976: 386; Nakane, 1981: 10 [listed]; Hisamatsu & Kusui, 1984: 17 [keyed; noted]; Hisamatsu, 1985, 228, p. 41, f. 17 [noted; keyed; photo].

Atholus depistor: Mazur, 1984: 213 [catalogued]; 1997: 130 [catalogued]; 2011: 104 [catalogued]; Ôhara, 1992: 76 [re-described]; 1999a: 109; Lackner *et al.*, 2015: 92 [catalogued]; dela Cruz & Ôhara, 2023b: 23; Ho *et al.*, 2023: 41.

Specimens examined. 47 exs. and 2 ♀♀ Japan. [Hokkaido] 2 exs., Kamikawa-shichô: Kiyokawa, Kamikawa-chô, 11.VI.1983, N. Yasuda (SEHU-YAS). [Honshu] Tochigi-ken: 1 ex., Dorobu, Nikkô, 23.VI.1985, K. Kinugasa (SEHU). Gumma-ken: 1 ex., Anderson farm, Matsuida, 17.V.1998, T. Shimada (SEHU). Chiba-ken: 1 ex., Furutone, Abiko, 30.VIII.1987, K. Emoto (SEHU); 1 ex., Tonegawa-dote, Abiko, from cow dung, 27.V.1973, M. & K. Ishida (SEHU); 2 exs., Uchiura-okudani, Amatsukominato, 1.VIII.1986, S. Miyano (CMCP-2741, 2741). Kanagawa-ken: 1 ex., Kakio, Kawasaki, 23.III.1933, S. Nakayama (KMNH). Niigata-ken: 2 exs., Matsunami, Kashiwazaki, 25.VI.1982, Y. Kusui (EUM). Osaka-fu: 1 ex., Utsubo, 9.X.1957, T. Shibata (CSBT). Hiroshima-ken: 2 exs., Shôbara 19.VIII.1972, G. Tokihiro (EUM). [Ogasawara Isls.] Chichi-jima Is.: 2 exs., Komagari, 2.IX.1972, Y. Kusui (EUM); 5 exs., same locality but different date, 8.IV.1973, Y. Kusui (EUM). [Islands off Shikoku] Shôdo-shima: 1 ex., Okazaki-bokujô, alt. 220 m, Sakate, 17.V.2008, T. Miki, from cow dung (CFUJ). [Shikoku] Tokushima-ken: 2 exs., Ishi – Aihata, Yoshino-gawa, 12.VIII.1963, M. Sakai (EUM). Ehime-ken: 3 exs., Ôzu, Tôge, Riverside of Hiji-kawa, 13.V.2001, M. & A. Sakai (EUM); 1 ex., Zenôji-shinchi, Matsuyama, 7.VI.2006, Y. Satô (EUM). [Islands off Kyushu] Tsushima Is.: 1 ex., Kashi, Izuhara-chô, 8.VIII.1994, H. Yoshitomi (EUM). [Kyushu] Kumamoto-ken: 1 ex., Kyôzuka, 17.VI.1961, no collector's name (KUM-COTK); 2 exs., Kuroishibaru, Nishigoshi, Kikuchi, 26.X.1978, T. Koumori (KUM-COTK); 1 ex., Toroku,

26.VIII.1958, I. Ôtsuka (KUM-COTK); 4 exs., Aso, Hisaishi, 18.VI.1981, I. Ôtsuka (KUM-COTK); 1 ex., Kôshimachi, Kikuchi-gun, 18.VI.1988, K. Fujita (EUM). Miyazaki-ken: 1 ex., Ônuki-chô, Nobeoka, 22.VI.1989, T. Kinoda (CKIN); 1 ex., Shimokitakata, no. 4731-7353, 3.II.2010, Y. Sasaoka (CKIN). [Ryukyus] Ishigaki-jima Is.: 2 exs., 2.VIII.1963, Y. Hama (CSBT); 2 exs., Ban'na-dake, 14. VII.1963, Y. Hama (CSBT); 1 ex., 9.VIII.1974, A. Tanaka (SEHU-TAN); 1 ex., Sonai, 28.IV.1979, Y. Kurosa (SEHU); 1 ., 1 ex., Uehara, 15.IX.1993, from cow dung, M. Ôhara (SEHU-ID-14167, 14170) (Ôhara, 1999a). Zamami-jima Is.: 1 ♀, 27.IX.1987, Y. Kusui (SEHU-ID-14148) (Ôhara, 1993).

Diagnosis. *Atholus depistor* (Marseul, 1873) is characterized with its prominent excavated area behind the anterolateral angle of its pronotum, and its elytral dorsal stria is nearly complete. The lateral disk of its metaventrite bears long hairs, while the anterior margin of its prosternal lobe is narrowly truncated in the middle. The punctuation of the propygidium of this species is evenly covered, and its deep external subhumeral stria is connected to the internal stria.

Additional description. Female genitalia. Anterior shape of valvifers (Figs. 169A–B) paddle-shaped. Gonocoxite (Fig. 169C) slightly elongate, almost 2.5 times as long as broad, shovel-like; inner and outer surface differentiated; inner face moderately separated from outer face by elevated lateral ridge; sclerotized setae on apical terminal of outer face short and sparse; surface of apical half moderately sclerotized with ridge-like sculpture; inner face with few hairs. Apex of gonocoxite with two teeth. Gonostyli present, articulated. Bursa copulatrix with single median sclerite. Spermathecae multiple, consisted by five sacs which become gradually enlarged and elongate, and are not sclerotized.

Distribution. Japan: Hokkaido, Okushiri-tô Is., Honshu, Ogasawara Isls. (Chichi-jima Is.), Awaji-shima Is., Shikoku, Shôdo-shima Is., Kyushu, Hirado-jima Is., Tsushima Is., Yakushima Is., Okinawa-jima Is., Zamami-jima Is., Miyako-jima Is., Ishigaki-jima Is., Iriomote-jima Is.); Russian Far East, Korean Peninsula, Jeju Is., China, Taiwan (Fig. 205).

Biology. This species is a common dweller in cow dungs and other ruminant fecal matter.

Remarks. Additional records are cited in the papers of Ho *et al.*, 2023: 41 [Taiwan].

Atholus duodecimstriatus quatuordecimstriatus (Gyllenhal, 1808)

(Figs. 108E, 132–134, 170A–C, 206).

Hister quatuordecimstriatus Gyllenhal, 1808: 83 [Sweden]; Marseul, 1854: 248, t. 9, f. 56; 1873, 220 [Nangasaki (Kyushu)]; Lewis, 1874: 174.

Hister duodecimstriatus var. *quatuordecimstriatus*: Schmidt, 1885: 295.

Hister (Atholus) duodecimstriatus var. *quatuordecimstriatus*: Auzat, 1924: 95; Bickhardt, 1917: 193 [catalogued]; Desbordes, 1917: 322 [keyed].

Hister (Atholus) duodecimstriatus: Kamiya & Takagi, 1938: 31 [listed].

Hister quinquestriatus Motschulsky, 1862: 13; synonymized by Lewis, 1895: 188.

Hister (Atholus) quinquestriatus: Nakane, 1951: 1040.

Atholus (Euatholus) duodecimstriatus quatuordecimstriatus: Kryzhanovskij & Reichardt, 1976: 338; Hisamatsu & Kusui, 1984: 17 [key; noted]; Hisamatsu, 1985: 228, pl. 41, f. 20 [key; noted; photo].

Atholus duodecimstriatus quatuordecimstriatus: Mazur, 1984: 213 [catalogued]; 1997: 130; 2011: 104 [catalogued]; Ôhara, 1993: 135 [re-described]; 1994: 137; 199a: 110; Lackner *et al.*, 2015: 92; dela Cruz & Ôhara, 2023b: 27; Ho *et al.*, 2023: 42.

Atholus duodecimstriatus quinquestriatus: Théron, 1962c: 65; Nakane, 1981: 10 [listed].

Atholus duodecimstriatus var. beta: Paykull, 1811: 37, synonymized by Gyllenhal, 1827: 263. *Atholus quinquestriatus*: Lewis, 1906: 402.

Atholus duodecimstriatus var. *quatuordecimstriatus*: Baude À Selve, 1864: 232.

Atholus quatuordecimstriatus: Thomson, 1862: 230.

Hister (Atholus) duodecimstriatus var. *quatuordecimstriatus* [sic]: Bickhardt, 1910: 193 [catalogued].

Hister bimaculatus var. *quatuordecimstriatus* [sic]: Auzat, 1925: 75.

Specimens examined. 240 exs., 1 ♂ and 1 ♀. Japan — [Hokkaido] Kamikawa-shichô: 5 exs., Koshiji, Kamikawa-chô, 1.V.1976, N. Yasuda (SEHU-YAS); 2 exs., Echanankeppu, Kamikawa-chô, 13.V.1975, N. Yasuda (SEHU-YAS). Abashiri-shichô: 3 exs., Minehama, Shari, from carrion of seal, 4.VIII.1999, N. Ishihama & T. Yoshida (SEHU); 1 ex., Kunneppu, 29.V.2000, A. Iwasaki (SEHU); 19 exs., Shuen-nishi, Shari, 43°55'10" N 144°44'04" E, 26.V.2002, under old horse dung and seaweed, M. Ôhara (SEHU); 2 exs., Minehama, Shari, 43°55'76"N 144°47'51"E, 9.VI.2002, sandy beach, chicken bait trap [HK-02-MO-011], M. Ôhara (SEHU). Kushiro-shichô: 1 ♀, Kushiro Zoo, Yamahana, Kushiro, 9.VI.1992, M. Ôhara (SEHU-ID-141195) (Ôhara, 1993). Ishikari-shichô: 1 ex., Kamayau-su, Sapporo, 20.VII.1987, M. Hinakura (SEHU-ID-14394). Shiribeshi-shichô: 1 ex., Utashima, Shimamaki, 30.VII.1996, K. Sasaki (SEHU); 1 ex., Okusawa, Otaru, 25.V.1943, no collector's name (SEHU); 5 exs., same locality but different date, 29.V.1943 (SEHU); 1 ex., same locality but different date, 10.VI.1943 (SEHU); 1 ex., Otaru, 25.V.1943, no collector's name (SEHU). Tokachi-shichô: 1 ex., Fushimi-senkyô-penkenai-rindô, Memuro, 19.VI.1999, K. Ito (SEHU); 1 ex., Bisei-gawa, Memuro, 30.V.1999, K. Ito (CITO); 1 ♂, Nobutori, Ikeda, 27.VII.1992, M. Ôhara (SEHU-ID-16891). Oshima-shichô: 1 ex., Yahata (Hokkaido University of Education, Hakodate Campus), Hakodate, 29.V.1984, M. Munakata (SEHU-MUN); 1 ex., Nakamichi, Hakodate, 14.IV.1955, K. Munakata (SEHU-MUN); 7 exs., same locality and collector but different date, 13.IV.1957 (SEHU-MUN); 1 ex., same locality and collector but different date, 15.V.1957 (SEHU-MUN); 1 ex., same locality and collector but different date, 12.IV.1959 (SEHU-MUN); 1 ex., Tôgeshita, Nanae, 15.VI.1992, M. Munakata (SEHU-MUN). [Islands off Hokkaido] Rishiri-tô Is.: 1 ex., 17.VII.1962, K. Ueda (CSBT). [Honshu] Aomori-ken: 2 exs., Tashiro, Higashidori-mura, collected under cow dung, 9.VII.1987, S. Yamauchi (APM); 2 exs., Yasute, Hiraka-machi, 23.VI.1972, A. Sato (APM); 1 ex., same locality and collector but different date, 2.VII.1972 (APM); 1 ex., same locality and collector but different date, 27.V.1972 (APM); 16 exs., same locality and collector but different date, 3.VI.1973 (APM); 2 exs., same locality and collector but different date, 1.VIII.1973 (APM); 5 exs., same locality and collector but different date, 26.V.1974 (APM); 2 exs., Hiraka-machi, 5.IV.1972, A. Sato (APM); 1 ex., same locality and collector but different date, 23.IV.1972 (APM); 1 ex., same locality and collector but different date, 21.VII.1972 (APM); 2 exs., same locality and collector but different date, 29.VII.1972 (APM); 1 ex., same locality and collector but different date, 26.V.1973 (APM); 2 exs., same locality and collector but different date, 27.V.1973 (APM); 1 ex., same locality and collector but different date, 3.VI.1973 (APM); 1 ex., Higashidôri, 41°13'39.53"N, 141°24'11.73"E, 21.VII.2014, under dead body of seagull [HN-14-MO-044b], M. Ôhara

(SEHU). Fukushima-ken: 1 ex., Hinoemata, Minami-Aizu, 20.VI.1976, K. Emoto (SEHU). Ibaraki-ken: 1 ex., Yatabe, Tsukuba, 8.VIII.1982, A. Tanaka (SEHU-TAN). Tochigi-ken: 1 ex., Hazama, Ashikaga, 10.IV.1987, H. Takizawa (SEHU-TAK); 1 ex., Idei, Oyama, 11.V.1997, H. Takizawa (SEHU-TAK). Saitama-ken: 1 ex., Arakawa, Ishitajuku, Kitamoto, 10.VI.1985, A. Izumi (SEHU). Chiba-ken: 2 exs., Tonegawa-dote, Abiko, from cow dung, 5.V.1973, M. & K. Ishida (SEHU); 1 ex., Oritate (1733, 34), Shiroy City, 19.VI.2005, H. Yama-saki (CMCP). Tokyo-to: 1 ex., Koishikawa, 17.IV.1939, T. Ishihara (EUM); 1 ex., Ogikubo, 6.VII.1951, S. Hisamatsu (EUM); 2 exs., Tokyo, 3.VI.1946, S. Hisamatsu (EUM); 1 ex., same locality and collector but different date, 6.VI.1946 (EUM); 9 exs., Shiba, Ueno, 15.V.1953, K. Sawada (SEHU); 1 ex., Takaosan, Hachiôji, 23.IV.1969, H. Takizawa (SEHU-TAK). Kanagawa-ken: 1 ex., Yokohama, 17.V.1946, K. Ohbayashi (EUM); 1 ex., Kakio, Kawasaki, 25.VII.1932, S. Nakayama (KMNH); 2 exs., Tetsu-machi, Midori-ku, Yokohama, 14.IV.1988, A. Izumi (SEHU); 3 exs., Tsurumi-gawa, Kozukue, Yokohama, 23.IV.1988, A. Izumi (SEHU); 1 ex., Sano-gawa, Fujino-chô, Sagamiha- ra, 26.V.1985, A. Izumi (SEHU); 1 ex., Kozukue, Yokohama, 30.VIII.1987, A. Izumi (SEHU); 1 ex., Maioka-chô, Totsuka-ku, Yokohama, 23.IV.1987, A. Izumi (SEHU). Nagano-ken: 1 ex., Kirigamine, 19.VIII.1973, K. Ito (EUM). Gifu-ken: 1 ex., Gifu, 13.VII.1949, N. Ohbayashi (EUM). Mie-ken: 4 exs., Suzuka, 17.V.1955, H. Ichihashi (EUM). Aichi-ken: 1 ex., Nakaku, Nagoya-shi, 12.III.1955, Y. Shibayama (EUM); 1 ex., Jokoji, 12.VI.1955, M. Satô (EUM); 5 exs., Higashiyama, Nagoya, 26.IV.1982, S. Ôsawa (SEHU). Kyoto-fu: 1 ex., Shimogamo, 10.IV.1958, T. Shibata (CSBT). Osaka-fu: 2 exs., Utsubo, 14.IV.1956, T. Shibata (CSBT); 1 ex., same locality and collector but different date, 24.IV.1956 (CSBT); 1 ex., OMNH, Nagai, Hiagshi-sumiyoshi-ku, Osaka City, 3.IX.1999, Y. Kawakami (SEHU); 1 ex., same locality and collector but different date, 26.III.2001 (SEHU); 1 ex., Nose, 10.IV.1986, T. Kishimoto (SEHU); 1 ex., Mt. Ônoyama, Yamakita, 28.IV.1995, K. Toyada & K. Matsuda (SEHU). Niigata-ken: 2 exs., Matsunami, Kashiwazaki, 23.VII.1981, Y. Kusui (SEHU); 1 ex., same locality and collector but different date, 25.VI.1982 (SEHU). Hyôgo-ken: 1 ex., Ina-gawa, 4.XI.1957, T. Shibata (CSBT); 1 ex., Motoyama-mura, 16.X.1941, K. Sakaguchi (SEHU-NAK). Shimane-ken: 1 ex., Hirose, Nogi-gun, 25.VII.1978, Y. Seiyama (EUM); 5 exs., same locality and collector but different date, 30.VII.1978 (EUM). Hiroshima-ken: 11 exs., Shôbara, 19.VII.1972, G. Tokihiro (HMNH); 1 ex., Takakure, Takano, Hiba, 15.VI.1996, S. Nakamura (HMNH); 10 exs., Nanatsu-ka, Aki, Shobara, 30.IV.1967, S. Ôsawa (SEHU); 1 ex., Shimoyama, Kure, 9.VI.1963, cow dung, T. Kosaka (SEHU); 1 ex., Oasa, Oasa-chô, 25–26.VI.1994, Route 4, M. Kawanabe (EUM). [Islands off Honshu] Oki-Chiburi-jima Is.: 2 exs., 19–20.V.2001, K. Toyoshima (SEHU); 1 ex., Chibu, 1.VII.1990, Y. Kusui (SEHU). Oki-Dôgo: 1 ex., Saigô, 10.VIII.1990, Y. Kusui (SEHU). Oki- Nishino-shima Is.: 4 exs., Matengai, 30.VI.1990, Y. Kusui (SEHU). [Izu Isls.] Ôshima Is.: 1 ex., Atagoyama, 11.V.1983, B. I. Collection (SEHU). [Shikoku] Tokushima-ken: 1 ex., Kôtsu-zan, 30.IV.1972, M. Yoshida (CYSD); 1 ex., Aihata – Ishii, 30.III.1966, M. Sakai (EUM); 1 ex., Kamono – Ishii, 10.IV.1965, M. Sakai (EUM); 1 ex., same locality and collector but different date, 27.IV.1965 (EUM); 2 exs., Tokushima-shi, 26.III.1969, M. Sakai (EUM); 1 ex., Takabatake, Ishii, 26.VIII.1992, in riverside-trash, no collector’s name (EUM). Ehime-ken: 1 ex., Matsuyama, 9.II.1947, M. Miyatake (EUM); 1 ex, same locality and collector but different date, 22.IV.1948; 1 ex., same locality and collector but different date, 20.IV.1986 (EUM); 1 ex., same locality but different collector and date, 17.I.1972, S. Kinoshita (EUM); 1 ex. same locality but different collector and date, 10.VII.1975, T. Ishihara (EUM); 3 exs., Tarumi, Matsuyama, 5. V.1978, I. Amano (EUM); 1 ex., same locality but different date and collector, 26.X.1976, T. Matsuda (EUM); 1 ex., same locality but different date and collector, 20.VI.1975,

A. Yonetsu (EUM); 2 exs., Gomyô, 9.V.1978, I. Amano (EUM); 2 exs., same locality but different date and collector, 5.IX.1968, K. Ishikawa (EUM); 4 exs., same locality and collector but different date and method, by Berlese funnel, 24.I.1969 (EUM); 1 ex., same locality but different date and collector, 5.VI.198X [the last number is illegible], E. Imai (EUM); 1 ex., Yoshidahama, 7.VI.1972, S. Kinoshita (EUM); 1 ex., Omogokei, 17.V.1953, T. Edashige (EUM); 1 ex., Oonogahara, Nomura Town, 13.IX.2002, Y. Kamite (EUM). [Islands off Shikoku] Shôdo-shima Is.: 4 exs., Okazaki-bokujô, alt. 220 m, Sakate, 17.V.2008, T. Miki, from cow dung (CFUJ). Tosa-Okinoshima Is.: 1 ex., V.1952, K. Sugimoto (SEHU); 1 ex., same locality and collector but different date, 1–12.IV.1953 (SEHU-ID-24986). Akahone-jima Is.: 4 exs., Kamijima-chô, 2.V.2009, Y. Satô (EUM). [Kyushu] Ôita-ken: 1 ex., Syuchiku-jô, Kuzyû-chô, 13.VII.1968, S. Kinoshita (EUM). Nagasaki-ken: 3 exs., Hirado, 10.IV.1977, A. oda (EUM). Miyazaki-ken: 2 exs., Koiwaya, Hôri-gawa, Kitagawa, 30.IV.1994, T. Kinoda (CKIN).

Diagnosis. The area behind the apical angle of pronotum in *Atholus duodecimstriatus quatuordecimstriatus* (Gyllenhal, 1808) is feebly excavated. However, its internal subhumeral stria is quite conspicuous and present on the middle, but external stria is wanting. All elytral dorsal striae including the sutural stria is present in *A. duodecimstriatus quatuordecimstriatus* (Gyllenhal, 1808) in which both dorsal stria 5 and the sutural stria is usually united on their basal tips.

Additional description. Female genitalia. Anterior shape of valvifers (Figs. 170A–B) paddle-shaped. Gonocoxite (Fig. 170C) elongate, three times as long as broad, not shovel-like; inner and outer surface differentiated, similar to *Atholus coelestis* (Marseul, 1857); inner face feebly separated from outer face by elevated lateral ridge; sclerotized setae on apical half of outer face short and sparse; inner face with short setae and moderate hairs. Apex of gonocoxite with two teeth. Gonostyli present and articulated. Bursa copulatrix with single median sclerite. Spermathecae multiple, consisted by four sacs which are gradually enlarged and elongate, not sclerotized.

Distribution. Japan: Shikotan-tô Is., Hokkaido, Okushiri-tô Is., Honshu, Izu Isls. (Miyake-jima Is., Ôshima Is., Hachijô-jima Is., Hachijô-kojima Is.), Tobishima Is., Sado-ga-shima Is., Oki Isls. (Dôgo Is., Nishinoshima Is., Oki-Chiburi-jima Is.), Shikoku, Shôdo-shima Is., Tosa-Okinoshima Is., Akahone-jima Is., Kyushu, Azuchi-Ôshima Is., Tsushima, the Ryukyus (Miyako-jima Is.); Siberia, Korean Peninsula, Jeju Is., Taiwan, Mongolia, China, northern Europe, highland of Europe, Afghanistan, Tajikistan, Kyrgyzstan, Uzbekistan, Morocco (Fig. 206)

Biology. Similar to *Atholus depistor* (Marseul, 1873), *Atholus duodecimstriatus quatuordecimstriatus* (Gyllenhal, 1808) is a common dweller in dungs of ruminants.

***Atholus famulus* (Lewis, 1892)**

(Figs. 108F, 135–136, 171–172, 207).

Hister famulus Lewis, 1892: 346 [Sumatra].

Hister (Atholus) famulus: Bickhardt, 1910: 54; 1917: 194 [catalogued], Desbordes, 1917: 319 [keyed].

Atholus famulus: Lewis, 1906c: 402; Mazur, 1984: 131; 1997: 214; 2011: 105 [catalogued].

Specimens examined. 1 ♂, 1 ♀. [Borneo Island] 1 ♂ [SEHU] 1 km north of Camp Pemantus, 73 km north of Sotek, alt. 310 m, natural forest, East Kalimantan, 1980-XII-23, J. Aoki leg. (Bo-14A) [IC-22-in03]; 1

♀ [SEHU] same locality, date and collector (Bo-14A) [IC-22-in04] (see Aoki and Harada, 1982, 346, and 369, as *Hister*).

Diagnosis. *Atholus famulus* (Lewis, 1892) is remarkable for its strongly dilated protibia, which is almost trilobed-like in structure. The male aedeagus is also quite peculiar having a small extended membrane on its anterior portion, but inconspicuous.

Re-description. Male, female. Body length: PEL: 3.00, 3.25 mm; APW: 1.25, 1.25 mm; PPW: 2.44, 2.60 mm; EL: 1.70, 1.70 mm; EW: 2.75, 2.80 mm. Body (Figs. 108F, 135A–C) oval and convex; color from dark rufous to black; tibia, antenna, mouthparts and apical elytral margin rufous.

Head. Apical margin of clypeus entire, anterolateral margin feebly sinuous laterally; frontal stria (Fig. 135D) round and deeply impressed; disk covered with sparsely fine punctures, separated by 5 times their diameter, with alutaceous ground sculpture; occipital fovea absent; eyes well-visible dorsally; labrum strigate on surface, slightly oblong, labral fringe absent; mandible rather small, outer margin rounded and curved inwardly, mandibular apex acutely pointed.

Pronotum. Marginal stria laterally complete, weak on anterolateral angle; lateral pronotal stria (Fig. 135E) short and deeply impressed, the lateral stria rather distant from the margin, its basal end abbreviated to basal third, the apical end interrupted; anterior pronotal stria present, feebly connected to marginal stria; disk with sparse microscopic punctures, clothed with alutaceous microsculpture; area behind apical angle bare; posterior margin with very sparse, inconspicuous punctures; ante-scutellar region with short puncture.

Elytra. Anterior margin with row of short, longitudinal striae present on apical area around antero-scutellum; epipleural fossette bare; epipleural marginal stria absent; elytral marginal stria complete; external subhumeral (Fig. 136B) stria present medio-basally; internal subhumeral stria absent; oblique stria lightly impressed on basal third; dorsal striae (Fig. 136A) 1–4 complete, dorsal stria 5 present on apical third, sutural stria moderately longer, reaching beyond middle, abbreviated on basal third; disk surface similar to pronotum with alutaceous microsculpture.

Propygidium and pygidium. Propygidium (Fig. 136F) finely and loosely punctate, few shallow and coarse punctures scattered on basal area; pygidial (Fig. 136E) punctations similar to that of propygidium, becoming smooth on apex.

Prosternum. Prosternal lobe with moderately truncate and short anterior margin (Fig. 136C), medio-apical end ascending, marginal stria absent, striae present on basolateral ends brief and carinated; lobe with setiferous coarse punctures on anterolateral region, interspace among these punctures with sparse fine punctations, prosternal suture inconspicuous; prosternal process clothed with sparse fine punctures, the lateral sides descending; descending lateral stria moderately impressed and carinate; lateral disk with very few fine punctations; basal half of process narrow, posterior margin of basal lobe strongly emarginated.

Meso- and metaventrite. Anterior margin arcuate outwards (Fig. 136C), marginal stria complete, moderately impressed, stria behind anterolateral angle present; disk sparsely clothed with fine punctures on basal margin, which are separated by three to five times their diameter; meso-metaventral suture lightly impressed, complete and lightly angulated at middle; metaventral lateral stria (Fig. 136D) deeply impressed and carinated, extending obliquely and posteriorly, united with oblique stria which inwardly extends from basal third of metaventro-metepisternal suture; post-mesocoxal stria extending posteriorly and strongly curved along the posterior margin of mesocoxa, almost attaining the metaventro-mesepimeral suture; metaventrite with

punctations of intercoxal disk similar to those of the apex of mesoventral plate; row of coarse punctures sometimes present along inside of basal portion of lateral stria; longitudinal suture lightly impressed; lateral disk of metaventricle densely covered with setiferous, large, round, shallow punctures; interspaces among the large punctures with sparse, fine to coarse punctations; mesepimeron and metepimeron covered with densely setiferous, large punctures, interspaces among the punctures with few, fine to coarse punctations; metepisternum with sparse punctures on apical half; first abdominal sternite with punctation of intercoxal disk of similar to that of metaventricle; surface of lateral disk similar to mesepimeron and metepimeron; lateral stria deeply impressed, slightly carinate and complete.

Legs. Anterior surface of protibia (Fig. 136G) strongly dilated, becoming broader towards apical region, appearing trilobe; surface clothed with few, fine ocelloid punctures; the median area with weak strigate sculpture; outer lateral margin with three weak teeth topped with small denticles; anterior protibial stria complete and moderately impressed; inner marginal stria present almost on basal half; posterior surface (Fig. 136H) covered with sparse, fine punctures, the outer surface of ground sculpture strigate, the outer region slightly descending; number of denticles on both outer lateral margin and apical margin combined 9, one on inner apical angle; spur moderately long, almost half the length of protarsus; median posterior stria complete and moderately impressed; inner posterior stria lightly impressed with row of few sclerotized setae. Protarsal groove shallow. Protarsus with two spine-like tarsal denticles present; another one or two more distant, located at inner anterior angle; profemur sparsely clothed with fine punctations, the surface with strigate ground sculpture; marginal and anterior striae absent; femoral stria complete; posterior margin with few, large punctations, row of setae present on apical end.

Male genitalia. Aedeagus (Figs. 171A–B) slightly stout, apically curved ventrad; parameres shorter, about half the length of phallobase; median lobe sclerotized; the anterior portion with extended membrane covered with sparse, short setae; eighth tergite (Figs. 171E–F) entire, with longitudinal fold on both lateral sides; ninth tergite (Figs. 171C–D) with lateral folds; tenth tergite simple; spiculum gastrale almost as same length as ninth tergite, bifurcate on apical fifth.

Female genitalia. Anterior portion of valvifers (Figs. 172A–B) paddle-shaped; gonocoxite (Fig. 172C) slightly elongate, almost as twice as broad, shovel-like; inner and outer surfaces differentiated; inner face moderately separated outer face by elevated lateral ridge; sclerotized setae on apical quarter of outer face short and slightly dense; inner face with short and sparse setae; apex of gonocoxite with two teeth; gonostyli present, articulated; spermathecae multiple, consisting of four sacs; sacs gradually enlarged and elongate, not sclerotized.

Distribution. Greater Sunda (Sumatra and Borneo Islands) (Fig. 207).

Remark. This species is relatively small, about the same body size with *Atholus coelestis* (Marseul, 1857).

Atholus gestroi (Schmidt, 1897)
(Figs. 109A, 137–138, 173–174, 208).

Hister gestroi Schmidt, 1897: 293 [Sumatra].

Hister (Atholus) gestroi: Bickhardt, 1910: 54 [Sumatra]; 1917: 194 [catalogued]; Desbordes, 1917: 324 [keyed]; Reichardt, 1932: 117.

Atholus gestroi: Lewis, 1906c: 402 [Sumatra]; Mazur, 1984: 214 [catalogued]; 1997: 131 214 [catalogued]; 2011: 105 214 [catalogued].

Specimens examined. 2 ♂♂, 1 ♀ and 4 exs. 1 ♂ [IC-22-th04, deposited in THNHM], Chiang Mai, Mae Sa, Elephant Camp, 3.IV.1989, M. Nishikawa leg.; 1 ex. [SEHU], same locality, collection date and collector; 1 ♂ [IC-22-th06, THNHM], Maesa Village (Elephant Camp), 20–27.III.1988, K. Masumoto leg.; 1 ♀ [IC-22-th05, THNHM], Chiang Mai, Mesa Village, 26.VII–1.VIII.1987, K. Masumoto leg.; 2 exs. [1 THNHM, 1 SEHU], Chiang Mai, Maesa Village, 16.V.1988, Y. Manit leg.; 1 ex. [SEHU], Chiang Mai, Maesa, 23–29.III.1999, K. Okajima leg.

Diagnosis. *Atholus gestroi* (Schmidt, 1897) is easily recognized by its remarkable transverse excavation on the medio-apical region of its propygidium. The shallow excavation is coarsely punctated, while the basal and lateral sides of propygidium are smooth. The lateral pronotal stria of this species is abbreviated, and is not connected to the anterior pronotal stria. The subhumerus of elytra without any striae, and the protibial teeth is prominent on apical end.

Re-description. Male and female. Body length (♂, ♀): PEL: 4.5, 5.4 mm; APW: 1.2, 1.5 mm; PPW: 2.3, 2.8 mm; EL: 2.0, 2.1 mm; EW: 2.6, 3.1 mm. Body (Figs. 109A, 137A–C) oblong-oval, convex and black; tibiae, antennae, mouthparts and apical elytral margin rufous.

Head. Apical margin of clypeus (Fig. 137D) short and entire; anterolateral margin round, hardly crenate; frontal stria round, complete and impressed; disk sparsely clothed with fine punctures, interspaces with alutaceous microsculpture; occipital fovea absent; labrum dorsally finely punctate, raised and transversely long; mandibles covered with fine punctures, outer margin rounded, curved inwardly; mandibular apex acutely pointed; eyes large and convex, clearly visible dorsally.

Pronotum. Anterior margin bisinuously indented; marginal pronotal stria laterally complete, continuous onto apical angle but interrupted behind head; lateral pronotal stria (Fig. 137E) impressed and complete; lateral stria rather distant from margin, its basal end abbreviated to basal fifth of pronotal length; apical end bent inwardly behind apical angle; anterior pronotal stria present, but not connected to lateral stria; disk with sparse microscopic punctures; area behind apical angles bare; posterior margin with row of sparsely coarse punctures; ante-scutellar region with a single short longitudinal puncture.

Elytra. Elytral epipleuron excavated medially, clothed with few, coarse punctures on apical half; marginal epipleural stria present on apical half; marginal elytral stria complete and moderately impressed; external and internal subhumeral striae (Fig. 138B) absent; oblique humeral elytral stria slightly impressed on basal third; dorsal elytral striae 1–4 (Fig. 138A) complete; elytral stria 5 present on apical half; sutural elytral stria abbreviated on basal third; elytral disk covered with sparse, fine punctures; medio-basal area with alutaceous ground sculpture.

Propygidium and pygidium. Propygidium (Fig. 138F) with transverse, shallow excavation on the middle; the excavation with coarse and round punctures, about 35 µm in diameter, separated by 1–3 times their diameter; interspaces with irregular, sparse and fine punctations; surface outside excavation impunctate; pygidial punctation (Fig. 138E) only on the baso-medial half, similar to that of propygidium, but irregularly and slightly punctate; interspaces among the coarse punctures with fine punctations.

Prosternum. Prosternal lobe with anterior margin (Fig. 138C) slightly acute and pointed ventrally; medio-apical end of prosternal lobe ascending; marginal prosternal stria deeply impressed and carinate; short striae present on both baso-lateral corners; lobe with few setiferous coarse punctures inside and outside of marginal stria on both sides, separated by their 1–2 times their diameter; disk covered with sparse, finer punctures; prosternal suture lightly impressed; prosternal process covered with few, setiferous fine punctures; lateral sides descending; lateral prosternal striae deeply impressed and complete; lateral disk with several coarse punctures; basal half narrow; posterior margin of basal lobe strongly emarginated.

Meso- and metaventrite. Anterior margin of mesoventrite outwardly arcuate (Fig. 138C); marginal mesoventral stria complete and slightly carinate; stria behind anterolateral angle present; mesoventral disk sparsely clothed with fine punctures separated by 3–4 times their diameter; meso-metaventral suture slightly impressed, complete and medially angulate; lateral metaventral stria deeply impressed, carinate, extending obliquely and posteriorly, united with oblique stria which inwardly extends from basal third of metaventro-metepisternal suture; post-mesocoxal stria extending posteriorly and strongly curved along posterior mesocoxal margin, attaining metaventro-mesepimeral suture; punctures of metaventral disk similar to those of mesoventrite; longitudinal suture of metaventrite moderately impressed; lateral disk of metaventrite moderately covered with setiferous large round and shallow punctures; interspaces with sparse, coarse to fine punctations; mesepimeron, metepimeron and lateral disk of first abdominal ventrite with dense setiferous, large punctures; interspaces with few coarse to fine punctations; metepisternum with sparse punctures, with few short setae on apical half; punctation of intercoxal disk of first abdominal ventrite similar to that of metaventrite; lateral stria deeply impressed, slightly carinate and complete.

Legs. Anterior face of protibia (Fig. 138G) flattened, dilated and clothed with few, fine ocelloid punctures; outer lateral margin with four teeth, becoming stronger apically; topped by minute denticles; protarsal groove shallow, with few coarse punctures; anterior protibial stria slightly curved and lightly impressed; inner marginal stria present on basal half; near tarsal insertion with two spine-like tarsal denticles; another one, more distant and longer, located at inner anterior angle; protibial spur moderately long, wider on basal margin, approximately half the length of protarsus; posterior face of protibia (Fig. 138H) with sparse, fine punctures and strigate ground sculpture from basal to median surface; number of denticles on outer lateral margin six, three of these denticles topped on the outer apical protibial tooth; denticles on apical margin four, one on inner apical angle; denticles on outer sublateral margin three or four; median posterior stria moderately impressed; inner posterior stria moderately impressed with row of moderately strong, sclerotized setae; row of setae on inner margin of protibia present on apical half; profemur sparsely clothed with fine, ocelloid punctations on apical half; surface with lightly strigate ground sculpture; marginal stria complete; anterior stria present on apical half; femoral stria almost complete, shortened on basal end; posterior margin with large punctations; a row of setae present on both basal and apical ends.

Male genitalia. Aedeagus (Figs. 173A–B) slender, becoming narrower towards apex; parameres long, approximately almost four times longer than phallobase; median lobe sclerotized medially and apex, short setae present on apical tip; eighth tergite (Figs. 173E–F) entire, with longitudinal fold on both anterolateral sides, area on posterolateral angle slightly punctate; eighth sternite with short setae on anterior portion; ninth tergite (Figs. 173C–D) with small lateral folds; spiculum gastrale almost as same length as ninth tergite, strong bifurcate on apical half.

Female genitalia. Anterior portion of valvifers (Figs. 174A–B) paddle-shaped; gonocoxite (Fig. 174C) elongate, almost as thrice as long as broad, shovel-like; inner and outer surfaces differentiated; inner face moderately separated from outer face by elevated lateral ridge; sclerotized setae on apical half of outer face sparse and short; inner face with short and sparse setae; apex of gonocoxite with two teeth; gonostyli present, freely articulated; spermathecae multiple, consisting of four sacs; sacs gradually enlarged and elongate, not sclerotized.

Distribution. Indonesia: Sumatra, Myanmar: Taninthari, Thailand (Fig. 208).

Remarks. Although *Atholus gestroi* (Schmidt, 1897) possesses the transverse, shallow and punctated excavation on its propygidium, *A. cinctipygus* (Lewis, 1900) is also described to have the similar characteristics on its propygidium. However, on Desbordes' key (1917) to *Atholus*, the two species are generally distinguished by the median depression in the head of *A. cinctipygus* (Lewis, 1900), which is entirely normal in *A. gestroi* (Schmidt, 1897). The marginal and lateral striae on the pronotum of *A. cinctipygus* (Lewis, 1900) is also described to cease near the eyes, but the lateral stria of *A. gestroi* (Schmidt, 1897) reappears in the middle of its anterior margin.

Atholus helferi (Reichardt, 1932)
(Figs. 109B, 139–140, 175–176, 209).

Hister helferi Reichardt, 1932: 117 [Myanmar (Tenasserim)].

Atholus helferi: Mazur, 1984: 214 [catalogued: Tenasserim]; 1997: 131 [catalogued: Burma: Tenasserim]; 2011: 105 [catalogued: Myanmar: Taninthari=Tenasserim].

Specimens examined. 1 ♂, 1 ♀ and 3 exs. 1 ♂ [IC-22th07, deposited in THNHM], Chiang Mai, Mae Sa Village, 31.I.1988, Y. Manit leg.; 1 ♀ [IC-22-th08, THNHM], Mae Sa Village (Elephant Camp), 20–27.III.1988, K. Masumoto leg.; 1 ex. [IC-22-th09, SEHU], Chiang Mai, Mae Sa Village, 23.VIII.1994, K. Masumoto leg.; 2 exs. [1 THNHM, 1 SEHU], Chiang Mai, Mae Rim, Mae Sa, 27.III.1999, K. Okajima leg.

Diagnosis. *Atholus helferi* (Reichardt, 1932) is distinguished for its oval size, almost circular in body-shape. The anterior pronotal stria is connected the lateral stria, while the area within the anterolateral angle of its pronotum is foveated and moderately excavated with punctures. The basal end of dorsal elytral stria 5 is bent inwardly towards the scutellum, the marginal stria of prosternal lobe is abbreviated on the middle, and its pygidium is almost impunctate. The protibial teeth of this species is not prominent, and the outer margin is topped by multiple denticles.

Re-description. Male and female. Body length (♂, ♀): PEL: 4.3, 4.5 mm; APW: 1.5, 1.5 mm; PPW: 2.7, 2.9 mm; EL: 2.3, 2.5 mm; EW: 3.0, 3.3 mm. Body (Figs. 109B, 139A–C) oval, convex and black; tibiae, antennae, mouthparts and apical elytral margin rufous.

Head. Apical margin of clypeus (Fig. 139D) short, entire and forward, anterolateral margin crenate; frontal stria carinate and impressed, moderately angulate inwards; disk smooth, almost impunctate, but with alutaceous microsculpture; occipital fovea absent; labrum raised and finely punctate; mandibles covered with fine punctures, outer margin rounded, curved inwardly; mandibular apex acutely pointed; eyes large and convex, visible dorsally.

Pronotum. Marginal pronotal stria laterally complete, continuous onto apical angle, interrupted behind eyes and head; lateral pronotal stria (Fig. 139E) moderately impressed, rather distant from margin, its basal end abbreviated to basal fourth of pronotal length; apical end bent inwardly behind apical angle; anterior pronotal stria present, connected to lateral stria; disk with sparse microscopic punctures, wholly covered with alutaceous microsculpture; area within anterolateral angle of lateral stria moderately excavated with fine to moderate punctures; posterior margin with row of sparsely coarse punctures; ante-scutellar region with a single short longitudinal puncture.

Elytra. Elytral epipleuron sparsely clothed with fine punctures; marginal epipleural stria present on apical third, sometimes inconspicuous; marginal elytral stria on apical half; external and internal subhumeral striae (Fig. 140B) absent; oblique humeral elytral stria slightly impressed on basal third; dorsal elytral striae 1–5 (Fig. 140A) complete, crenate and slightly bent inwardly on apical tip, mainly elytral dorsal striae 3 and 4; elytral stria 5 bent inwardly on basal end toward scutellum; sutural elytral stria abbreviated on basal third; elytral disk covered with sparse, fine punctures.

Propygidium and pygidium. Propygidium (Fig. 140F) sparsely covered with coarse, round and shallow punctures on basal half, becoming sparser apically, coarse puncture about 10–15 µm in diameter, separated by 2–4 times their diameter; interspaces with irregular, sparse and fine punctations, separated by 3–4 times their diameter; pygidial punctation (Fig. 140E) with only fine punctations, separated by 2–3 times their diameter; no coarse punctures.

Prosternum. Prosternal lobe with anterior margin (Fig. 140C) round; medio-apical end of prosternal lobe ascending, but short; marginal prosternal stria impressed and moderately interrupted medially; short striae present on both baso-lateral corners; lobe with very few setiferous fine to coarse punctures inside and outside of marginal striae, separated by their 2–3 times their diameter; disk covered with sparse, finer punctures; prosternal suture lightly impressed; prosternal process covered with few, setiferous fine punctures; lateral sides descending; lateral prosternal striae deeply impressed and complete; lateral disk with several coarse setiferous punctures; basal half narrow.

Meso- and metaventricle. Anterior margin of mesoventrite outwardly arcuate (Fig. 140C); marginal mesoventral stria complete, carinate, sparsely crenate; stria behind anterolateral angle present; mesoventral disk almost impunctate, but with ground alutaceous sculpture; meso-metaventral suture clearly impressed and complete; lateral metaventral stria (Fig. 140D) deeply impressed, carinate, extending obliquely and posteriorly, not united with oblique stria; oblique stria extends from basal half of metaventro-metepisternal suture; post-mesocoxal stria extending posteriorly and strongly curved, slightly distant from posterior mesocoxal margin, attaining to the middle of lateral disk; punctures of metaventral disk similar to those of mesoventrite; longitudinal suture of metaventricle lightly impressed; lateral disk of metaventricle moderately covered with setiferous large round and shallow punctures, becoming sparser around oblique stria; interspaces with sparse, coarse to fine punctations; mesepimeron, metepimeron and lateral disk of first abdominal ventrite with dense setiferous, large punctures; interspaces with few coarse to fine punctations; metepisternum with sparse punctures, with short setae on apical half; punctation of intercoxal disk of first abdominal ventrite similar to that of metaventricle; lateral stria deeply impressed, slightly carinate and complete.

Legs. Anterior face of protibia (Fig. 140G) flattened, slightly dilated and clothed with few fine ocelloid punctures; outer lateral margin with no conspicuous teeth, but anterolateral portion slightly prominent from the

basal half, topped by multiple denticles; protarsal groove shallow; near tarsal insertion with two spine-like tarsal denticles; another one, more distant and longer, located at inner anterior angle; protibial spur short, approximately 1/5 of the length of protarsus; posterior face of protibia (Fig. 140H) with sparse and fine punctures; number of denticles on both outer lateral margin and apical margin combined 14–16, one on inner apical angle, denticles on outer sublateral margin 14–15; median posterior stria impressed; row of setae on inner margin of protibia present; profemur sparsely clothed with fine, ocelloid punctations; surface with lightly strigate sculpture; marginal stria complete; anterior stria absent; femoral stria almost complete, shortened on basal end; posterior margin with large punctations; a row of setae present on both basal and apical ends.

Male genitalia. Aedeagus (Figs. 175A–B) slightly wedge-shaped, becoming broader towards apical half, faintly curved ventrad; parameres about as twice the length as phallobase, fused on basal half, apical half covered with sparse punctation, apical end with hollow-shaped membranes on lateral sides; median lobe sclerotized; eighth tergite (Figs. 175E–F) entire, with longitudinal fold on both lateral sides; ninth tergite (Figs. 175C–D) with small lateral folds; tenth tergite entire; spiculum gastrale almost as same length as ninth tergite, widely bifurcate on apical end.

Female genitalia. Anterior portion of valvifers (Figs. 176A–B) paddle-shaped; gonocoxite (Fig. 176C) elongate, almost as thrice as long as broad, shovel-like, slenderer on anterior half; inner and outer surfaces differentiated; inner face slightly separated from outer face by elevated lateral ridge; apical half with minute, round punctation; inner face with short and sparse, brush-like setae; apex of gonocoxite with two teeth; gonostyli present, freely articulated; spermathecae multiple, consisting of four sacs; sacs gradually enlarged and elongate, not sclerotized.

Distribution. Myanmar, Thailand (Fig. 209).

Remarks. This species is quite different on the structure of its protibia, bearing no remarkable protibial teeth. However, the number of denticles on both outer lateral margin and apical margin combined (14–16), and its outer sublateral margin (14–15) are more numerous compared to other species of *Atholus* from Thailand. This diagnostic character was also noted by Reichardt (1932) from his original description.

Atholus infirmus (Schmidt, 1889)

(Fig. 210).

Hister infirmus Schmidt, 1889b: 93 [East India]; Bickhardt, 1910: 24 [catalogued].

Hister (Atholus) infirmus: Bickhardt, 1917: 194 [catalogued].

Atholus infirmus: Mazur, 1984: 214 [catalogued]; 1997: 131 [catalogued]; 2011: 105 [catalogued].

Specimens examined. No available specimen in this study.

Diagnosis. The body size and pronotum of *Atholus infirmus* (Schmidt, 1889) is similar to *A. coelestis* (Marseul, 1857) but the anterior stria behind the head is interrupted, appearing as 4-segmented line on the anterolateral area. The fovea of this species is relatively deeper compared to *A. coelestis* (Marseul, 1857), with no punctures, and none of the elytral dorsal striae are bent inwards.

Distribution. East India (Fig. 210).

Atholus lao Mazur, 2013

(Fig. 211).

Atholus lao Mazur, 2013: 193 [Laos].

Specimens examined. No available specimen in this study.

Diagnosis. Similar with *Atholus tenuistriatus* (Lewis, 1889), *Atholus lao* Mazur, 2013 possess two lateral pronotal striae however, the external pronotal stria of *A. lao* is short and is present only close to the apical angle. The outer subhumeral stria of this species is incised on the basal half of the subhumerus, while all of its elytral dorsal striae, including the sutural stria is complete, wherein the stria 5 and sutural stria are joined basally.

Distribution. Laos (Fig. 211).

Atholus levis Mazur, 2015

(Figs. 109C, 141 – 142, 177, 212).

Atholus levis Mazur, 2015: 195 [Laos].

Specimens examined. Taiwan: [Nantou County] 3 exs., Ren'ai, Huisun Forest Area, 6.V–9.VI.2018, flight interception trap, Y. H. Ho (PCHO); 1 ex., same locality and method but different date and collector, 29.IV–16.V.2018, W. R. Liang (PCHO); 1 ex., same locality, collector, and method but different date, 9–25.VI.2018 (PCHO); 1 ex., same locality, collector, and method but different date, 26.VII–14.VIII.2018 (PCHO); 1 ex., same locality, collector, and method but different date, 9.VI–6.X.2019 (PCHO); 1 ex., same locality and method but different date and collector, 19–22.IV.2020, Y. H. Ho & P. Y. Shih (PCHO). [Chiayi County] 2 exs., Dapu, Shimiantong, 25.V–8.VI.2011, flight interception trap, M. L. Jeng (NMNS). [Tainan City] 1 ex., Xinhua, Sinhua Forest Reserve, 5.II–4.III.2020, flight interception trap, G. Y. Chen (PCHO). [Pingtung County] 1 ex., Manzhou, IV–8.V.2011, M. L. Jeng (NMNS).

Additional description. Body length: PEL: 3.26 mm; APW: 1.23 mm; PPW: 2.22 mm; EL: 2.00 mm; EW: 2.80 mm. Body (Figs. 109C, 141A–C) oblong-oval, convex and black; tibiae, antennae, mouthparts and apical elytral margin rufous. Anterior face of protibia (Fig. 142C) flattened, dilated and clothed with few fine ocelloid punctures; outer lateral margin with very weak teeth, topped by denticles, but more clearly visible on the ventral side; protarsal groove shallow; protibial spur approximately 1/3 of the length of protarsus; posterior face of protibia (Fig. 142D) sparsely verrucose on outer side; median posterior stria complete; inner marginal stria shortened on basal fourth.

Male genitalia. Aedeagus (Figs. 177A–B) short and plump, becoming wider towards the apex; parameres about as twice the length as phallobase; median lobe sclerotized, broadest on the apical portion; eighth tergite (Fig. 177C) entire, posterior margin broadly emarginate; spiculum gastrale (Fig. 177E) almost as same length as ninth tergite, widely bifurcate on apical end.

Distribution. Laos, Taiwan (Fig. 212).

Remarks. The specimens were examined by Y. H. Hsiang. This species was first recorded by Mazur (2013) in Taiwan and is supplemented here with images and additional descriptions on protibia and male genitalia for the first time.

***Atholus malaysi* Lewis, 1908**

(Fig. 213).

Atholus malaysi Lewis, 1908: 150 [Malacca].

Hister (Atholus) malaysi: Bickhardt, 1910: 54 [catalogued]; 1917: 194 [catalogued]; Desbordes, 1917: 321 [keyed].

Atholus malaysi: Mazur, 1984: 215 [catalogued]; 1997: 131 [catalogued]; 2011: 105 [catalogued].

Specimens examined. No available specimen in this study.

Diagnosis. The frontal stria of *Atholus malaysi* Lewis, 1908 is semi-circular and the lateral pronotal stria is abbreviated before the base. The anterolateral angle has a shallow fovea and the subhumeral area is marked with short internal subhumeral stria at the middle. The dorsal elytral striae 1–4 is complete, and dorsal 5 and sutural striae is on the apical half. *A. malaysi* Lewis, 1908 has finely punctated pygidia.

Distribution. Malaysia: Malacca (Fig. 213).

***Atholus maindronii* (Lewis, 1901)**

(Fig. 214).

Hister maindronii Lewis, 1901: 243 [Kurrachi].

Atholus maindronii: Mazur, 1984: 215 [catalogued]; 1997: 131 [catalogued]; 2011: 105 [catalogued]; Mazur *et al.*, 2014: 1268; Lackner *et al.*, 2015: 93.

Specimens examined. No available specimen in this study.

Diagnosis. *Atholus maindronii* (Lewis, 1901) is foveolated on its anterolateral area of its pronotum, behind the apical angle. This species has an impressed head, while the frontal stria is arched inwards. The elytral dorsal striae 1–4 is rather complete, with an apical dorsal stria 5 and no sutural stria. This species is also rarely observed for its red macula, but mostly black on its elytra.

Distribution. Pakistan: Karachi, Afghanistan, Nepal, India: Uttarakhand, Haryana, New Delhi.

***Atholus* sp. 1**

(Figs. 109D, 143–144, 178–179, 215).

Specimens examined. 1 ♂, 1 ♀ and 12 exs. Types. Holotype: 1 ♂ [IC-22-th19, deposited in THNHM], N Thailand, Chiang Mai Prov., Chiang Dao, 23.VII.1986, K. Masumoto leg. Paratypes: 1 ♀ [IC-22-th20, deposited in THNHM], N Thailand, Chiang Mai Province, Maesa Village (Elephant Camp), 20 27.III.1988, K. Masumoto leg.; 1 ex. [IC-22-th21, THNHM], Chiang Mai, Mae Sa, 23–29.III.1999, K. Okajima leg.; 1 ex. [IC-

22-th22, THNHM], Chiang Mai, Mae Rim, Elephant Camp, 15.V.2015, K. Masumoto and T.C. Wang leg. (ED); 1 ex. [SEHU], Chiang Dao (Elephant Park), 27–31.VIII.1987, K. Masumoto leg.; 3 exs. [1 THNHM, 2 SEHU], Maesa Village (Elephant Camp), 20–27.III.1988, K. Masumoto leg.; 1 ex [THNHM], Chiang Mai Province, Phrao-Chiang Dao, 9.X.1988, Y. Manit leg.; 2 exs. [1 THNHM, 1 SEHU], Chiang Mai, Mae Sa, 23–29.III.1999, K. Okajima leg.; 3 exs. [1 THNHM, 2 SEHU], Chiang Mai, Mae Rim, Mae Sa, 27.III.1999, K. Okajima leg.

Description. Male and female. Body length (♂, ♀): PEL: 3.2, 3.5 mm; APW: 0.9, 1.0 mm; PPW: 2.0, 2.2 mm; EL: 1.4, 1.7 mm; EW: 2.2, 2.3 mm. Body (Fig. 109D, 143A–C) oval, convex and black; tibiae, antennae, mouthparts and apical elytral margin rufous.

Head. Apical margin of clypeus (Fig. 143D) short, entire and forward, anterolateral margin crenate; frontal stria slightly carinate and impressed, moderately angulate inwards; disk smooth, but with alutaceous microsculpture; occipital fovea absent; labrum raised and finely punctate; mandibles covered with fine punctures, outer margin rounded, curved inwardly; mandibular apex acutely pointed; eyes large and convex, visible dorsally.

Pronotum. Marginal pronotal stria laterally complete, but shortly interrupted on apical angle; lateral pronotal stria (Fig. 143E) moderately impressed, rather distant from margin, its basal end abbreviated to basal third of pronotal length; apical end bent inwardly behind apical angle connected to anterior pronotal stria present; disk almost impunctate; area within anterolateral angle of lateral stria moderately excavated with fine to moderate punctures; posterior margin with row of sparsely coarse punctures; ante-scutellar region with a single short longitudinal puncture.

Elytra. Elytral epipleuron almost impunctate; marginal epipleural stria present on apical third but inconspicuous, sometimes absent; marginal elytral stria on apical half; external and internal subhumeral striae (Fig. 144B) absent; oblique humeral elytral stria slightly impressed on basal third; dorsal elytral striae 1–5 (Fig. 144A) complete and crenate; elytral stria 5 bent inwardly on basal end toward scutellum; sutural elytral stria abbreviated on basal third; elytral disk covered with sparse, fine punctures.

Propygidium and pygidium. Propygidium (Fig. 144F) sparsely covered with coarse, round and shallow punctures on basal half, becoming sparser apically, coarse puncture about 10 µm in diameter, separated by 4–5 times their diameter; interspaces with irregular, sparse and fine punctations, separated by 3–4 times their diameter; pygidial punctation (Fig. 144E) with only fine punctations, separated by 2–3 times their diameter; no coarse punctures.

Prosternum. Prosternal lobe with anterior margin (Fig. 144C) round; medio-apical end of prosternal lobe ascending, but short; marginal prosternal stria impressed and complete; short striae present on both baso-lateral corners; lobe with very few setiferous fine to coarse punctures inside and outside of marginal striae, separated by their 2–3× their diameter; disk covered with sparse, finer punctures; prosternal suture lightly impressed; prosternal process covered with few, setiferous fine punctures; lateral sides descending; lateral prosternal striae deeply impressed and complete; lateral disk with several coarse setiferous punctures; basal half narrow.

Meso- and metaventrite. Anterior margin of mesoventrite (Fig. 144C) outwardly arcuate; marginal mesoventral stria complete, carinate, sparsely crenate; stria behind anterolateral angle present; mesoventral disk almost impunctate, but with ground alutaceous sculpture; meso-metaventral suture clearly impressed and

complete; lateral metaventral stria (Fig. 144D) deeply impressed, carinate, extending obliquely and posteriorly, not united with oblique stria; oblique stria extends from basal half of metaventro-metepisternal suture; post-mesocoxal stria extending posteriorly and strongly curved, slightly distant from posterior mesocoxal margin, attaining to the middle of lateral disk; punctures of metaventral disk similar to those of mesoventrite; longitudinal suture of metaventricle lightly impressed; lateral disk of metaventricle moderately covered with setiferous large round and shallow punctures, becoming sparser around oblique stria; interspaces with sparse, coarse to fine punctations; mesepimeron, metepimeron and lateral disk of first abdominal ventrite with dense setiferous, large punctures; interspaces with few coarse to fine punctations; metepisternum with sparse punctures; punctation of intercoxal disk of first abdominal ventrite similar to that of metaventricle; lateral stria deeply impressed, slightly carinate and complete.

Legs. Anterior face of protibia (Fig. 144G) flattened, slightly dilated and clothed with few fine ocelloid punctures and strigate sculpture; outer lateral margin with no conspicuous teeth, but anterolateral portion slightly prominent from the basal half, topped by multiple denticles; protarsal groove shallow; near tarsal insertion with two spine-like tarsal denticles; another one, more distant and longer, located at inner anterior angle; protibial spur short, approximately 1/5 of the length of protarsus; posterior face of protibia (Fig. 144H) with sparse and fine punctures, strigate on outer margin along near the denticles; number of denticles on both outer lateral margin and apical margin combined 11, one on inner apical angle, denticles on outer sublateral margin 10–11; median posterior stria impressed; row of setae on inner margin of protibia present; profemur sparsely clothed with fine, ocelloid punctations; surface with lightly strigate sculpture; marginal stria complete; anterior stria absent; femoral stria almost complete, shortened on basal end; posterior margin with large punctations; a row of setae present on both basal and apical ends.

Male genitalia. Aedeagus (Figs. 178A–B) stout, slightly broader on anterior portion, minute punctation on anterolateral sides, moderately curved ventrad; parameres about as twice the length as phallobase, fused on basal half; median lobe moderately sclerotized on anterior portion; eighth tergite (Figs. 178E–F) entire, with longitudinal fold both on lateral sides; ninth tergite (Figs. 178C–D) with small lateral folds; tenth tergite entire; spiculum gastrale almost as same length as ninth tergite, bifurcate on apical tip.

Female genitalia. Anterior portion of valvifers (Figs. 179A–B) paddle-shaped; gonocoxite (Fig. 179C) elongate, almost as thrice as long as broad, shovel-like, becoming slenderer towards anterior end; inner and outer surfaces differentiated; inner face slightly separated from outer face by elevated lateral ridge; apical half with minute, round punctation, area on apical end with few, short setae; inner face with short and sparse, brush-like setae; apex of gonocoxite with two teeth; gonostyli present, freely articulated; spermathecae multiple, consisting of four sacs; sacs gradually enlarged and elongate, not sclerotized.

Differential Diagnosis and Remarks. *Atholus* sp. 1 is a relatively smaller species of *Atholus* compared to other *Atholus* species from Thailand, and shares few morphological similarities to *Atholus coelestis* (Marseul, 1857) and *Atholus helferi* (Reichardt, 1932). *A.* sp. 1 is approximately the same body size as with *A. coelestis* (Marseul, 1857). The general shape and structure of *A. coelestis* (Marseul, 1857) to the new species, mainly on number and localization of denticles on the outer lateral margin and apical margin of protibia. However, the inwardly bent extension in the apical end of elytral dorsal stria 3 of *A. coelestis* (Marseul, 1857), and the punctated excavation within the anterolateral area of lateral stria are the characters that set these two species apart. On the other hand, both *A. helferi* (Reichardt, 1932) and *A.* sp. 1 may resemble each other with their

shallow, punctated excavation on the anterolateral angle of pronotum; the bending of elytral stria 5 on basal end towards their scutellum; and similar punctations on both of their propygidia and pygidia. However, the complete marginal prosternal stria of *A. sp. 1* is clearly distinctive from *A. helferi* (Reichardt, 1932) which is widely interrupted in the middle. This character is consistent to all four individuals of *A. helferi* (Reichardt, 1932), and 14 examined materials of *A. sp. 1*. Moreover, the number of protibial denticles on both outer lateral margin and apical margin combined is relatively less numerous (12 denticles) in *A. sp. 1* than in *A. helferi* (Reichardt, 1932) (15–17 denticles).

Distribution. Thailand (Fig. 215).

Atholus myrmidon (Marseul, 1862)

(Figs. 109E, 145–146, 180, 216).

Hister myrmidon Marseul, 1862b: 542 [Sulawesi].

Hister (Atholus) myrmidon: Bickhardt, 1910: 54; 1917: 194 [catalogued], Desbordes, 1917: 324.

Atholus myrmidon: Lewis, 1906c: 402; Mazur, 1984: 131; 1997: 215; 2011: 105 (New Guinea, Laos) [catalogued].

Specimens examined. 1 ♂. [Sulawesi Island] 1 ♂ [SEHU] Propinsi Sulawesi Selatan, Kabupaten Maros, near Makassar, 05.0108°S; 119.4038°E, 40 masl, Cagar Alam Bantimurung, 2000-X-27, M. Ôhara leg. [SU-00-MO-002] [IC-22-in05].

Diagnosis. *Atholus myrmidon* (Marseul, 1862) is generally identified with combinations of uninterrupted lateral stria, elytral dorsal stria complete 1–4 complete, and fine to almost no punctation of prosternum and pygidium. The paramere of aedeagus is stout and is moderately broad on the medio-apical portion.

Re-description. Male. Body length: PEL: 4.00 mm; APW: 1.52 mm; PPW: 3.00 mm; EL: 2.10 mm; EW: 3.40 mm. Body (Figs. 109E, 145A–C) oval with wider posterior region, convex and black; tibia, antenna, mouthparts and apical elytral margin rufous.

Head. Anterior margin of clypeus entire, anterolateral margin sinuous; frontal stria (Fig. 145D) round, complete and deeply impressed; disk clothed with fine punctures, which are separated by 2–3× their diameter, with alutaceous ground sculpture; occipital fovea absent; eyes large and convex, well-visible dorsally; labrum finely punctated, raised and transversely long, labral fringe absent; mandible covered with fine punctations, outer margin rounded and curved inwardly, sub-apical tooth on left mandible large, mandibular apex acutely pointed.

Pronotum. Pronotum bisinuously indented and feebly narrowed on anterior portion, with angles obtuse; marginal pronotal stria laterally complete, broadly interrupted behind head; lateral pronotal stria (Fig. 145E) deeply impressed and complete, the lateral portion rather distant from the margin, its basal end abbreviated to basal sixth of pronotal length; anterior pronotal stria present, connected to lateral stria; disk with sparse microscopic punctures, clothed with alutaceous microsculpture; area behind apical angle bare; posterior margin with row of few coarse punctures; ante-scutellar region with short, longitudinal puncture.

Elytra. Anterior margin with row of short, inconspicuous, longitudinal striae present on apical area around antero-scutellum; epipleural fossette almost no punctures on apical half; epipleural marginal stria present on apical third; elytral marginal stria complete and lightly impressed; external subhumeral stria (Fig. 146B) present medio-basally; internal subhumeral stria absent; oblique stria lightly impressed on basal third; dorsal striae (Fig. 146A) 1–4 complete; dorsal 5 and sutural striae present on apical half; the sutural stria longer towards the base; disk surface similar to pronotum with alutaceous microsculpture.

Propygidium and pygidium. Propygidium (Fig. 146F) moderately covered with coarse and round punctures, separated by 2–5 times their diameter, the puncture about 20 μm in diameter; interspace among the coarse punctures moderately covered with fine punctations; pygidium punctations (Fig. 146E) very sparse to almost no coarse punctures, the basal half with fine and sparse punctations, becoming finer on apex.

Prosternum. Prosternal lobe with round anterior margin (Fig. 146C), medio-apical end ascending; marginal stria deeply impressed, carinated and shortly interrupted at the middle, brief striae present on basolateral ends; lobe with moderate punctures on basolateral sides, separated by their own diameter, interspace among these punctures are sparse fine punctations, prosternal suture inconspicuous; prosternal process covered with sparse, fine punctures, the lateral sides descending; descending lateral stria deeply impressed and carinate, lateral disk with coarse punctations; basal half of process slightly narrow, posterior margin of basal lobe emarginated.

Meso- and metaventrite. Anterior margin arcuate outwards (Fig. 146C), marginal stria complete and moderately impressed, stria behind anterolateral angle present; disk sparsely clothed with fine punctures, which are separated by two to three times their diameter; meso-metaventral suture lightly impressed, complete and strongly angulated at middle; metaventral lateral stria (Fig. 146D) deeply impressed and carinated, extending obliquely and posteriorly, but not united with oblique stria which inwardly extends from basal third of metaventro-metepisternal suture; post-mesocoxal stria extending posteriorly and strongly curved along the posterior margin of mesocoxa, attaining the metaventro-mesepimeral suture; metaventrite with punctations of intercoxal disk similar to that of the apex of mesoventral plate; row of coarse punctures sometimes present along inside of basal portion of lateral stria; longitudinal suture lightly impressed; lateral disk of metaventrite densely covered with setiferous, large, round, shallow punctures; interspaces among the large punctures with sparse, fine punctations; mesepimeron and metepimeron covered with densely setiferous, large punctures; interspaces few, fine to coarse punctations; metepisternum with very sparse punctures on apical half; first abdominal sternite with punctation of intercoxal disk similar to that of metaventrite; surface of lateral disk similar to mesepimeron and metepimeron; lateral stria deeply impressed, slightly carinated and complete.

Legs. Anterior surface of protibia (Fig. 146G) flattened, moderately dilated and clothed with few, fine ocelloid punctures, the median area with weak strigate sculpture; outer lateral margin with three to four weak teeth topped by short denticles; anterior protibial stria complete and moderately impressed; inner marginal stria present on basal half; the inner apical margin with few sclerotized setae; posterior surface of protibia (Fig. 146H) covered with sparse, fine punctures, and strigate ground sculpture on outer basal surface, the outer region with few inconsistent ridges on surface; number of denticles on both outer lateral margin and apical margin combined 10, one moderately larger on inner apical angle, outer sublateral margin 4; median posterior stria absent; inner posterior stria present on basal half, becoming carinate on apical half; row of sclerotized setae absent; row of setae on inner margin of protibia present on apical half, with row of setae follicles on basal half;

protarsal groove shallow; profemur sparsely clothed with fine, ocelloid punctations, the surface with lightly strigate ground sculpture; marginal stria complete; anterior stria present on apical half; femoral stria almost complete; posterior margin with large and shallow punctations; row of short setae present on both basal and apical ends.

Male genitalia. Aedeagus (Figs. 180A–B) slightly stout, faintly curved ventrad on the apex; paramere about the same length as basal piece, moderately broad on medio-apical portion; median lobe moderately sclerotized, plumped on medio-apical end; eighth tergite (Figs. 180E–F) entire, with longitudinal fold on both lateral sides; ninth tergite (Figs. 180C–D) divided longitudinally, with lateral fold on both sides; tenth tergite simple. Spiculum gastrale almost as same length as ninth tergite, bifurcate on apical fifth.

Female genitalia. Not available in this study.

Distribution. Indonesia: Greater Sunda (Sulawesi Island); Laos and New Guinea (Fig. 216).

Remark. Only a single male specimen is available for re-examination and re-description for this species.

Atholus nitidissimus Desbordes, 1925

(Figs. 109F, 147–148, 181–182, 217).

Atholus nitidissimus Desbordes, 1925: 87 [Leyte Island]; Mazur 1984: 215; 1997: 131; 2011: 105 [catalogued]; dela Cruz & Ôhara, 2023a: 18; dela Cruz *et al.*, 2023.

Specimens examined. Two syntypes of undetermined sex housed in MNHN have been examined by N. Dégallier. The following re-description is based on images provided by him. *Additional specimens.* 7 exs., Philippines – [Luzon Island] 1 ♂ [IC-23-eum01], Laguna Province, Mt. Maquiling (= Makiling), alt. 400 masl, 12.IX.1985, Tullgren sample of leaf litter, K. Ishikawa leg. (EUM); 1 undetermined sex, same information (EUM); 3 ♂♂, 2 ♀♀, Pampanga Province, Mt. Arayat, 15 15.203730, 120.733086, 3–6.VII.2023, Flight interception trap, J. F. Tsai, H. Cahilog, and A. K. S. Amarga leg. (NMNS).

Diagnosis. This species is easily distinguished by its almost circular body and absence of sutural elytral striae. Judging by the images of two examined syntypes, this species is clearly distinct in its pattern of dorsal elytral striation, differing from other species by the absence of the fifth or sutural elytral striae. *A. nitidissimus* Desbordes, 1925 (Figs. 109F, 148A) is similar to *A. coelestis* (Marseul, 1870), albeit it is comparatively smaller in size than other species examined.

Re-description. Body (Figs. 109F, 147D, 148A–B) length: PEL: 2.15 mm; APW: 0.85 mm; PPW: 1.75 mm; EL: 1.15 mm; EW: 1.95 mm. Body almost circular, convex, and black; tibiae and antennae rufous.

Head. Clypeus (Fig. 147A) slightly crenate on anterolateral margin, apical margin projecting; frontal stria round, complete, and moderately impressed; eyes clearly visible dorsally; mandibles with rounded outer margin curved inwardly; mandibular apex acutely pointed.

Pronotum. Marginal pronotal stria (Fig. 147A) laterally complete, continuous onto the apical angle and behind head; lateral pronotal stria moderately impressed; apical end shortened and bent inwardly; lateral portion rather distant from margin; its basal end obsolete on basal sixth of pronotal length.

Elytra. External and internal subhumeral striae absent (Fig. 148C); oblique humeral elytral stria lightly impressed on basal third; dorsal elytral striae 1–3 complete; elytral stria 4 present on apical half or shorter; elytral stria 5 either absent or very short; sutural elytral stria absent.

Propygidium and pygidium. Propygidium (Figs. 147B, 148D) moderately covered with coarse, round, and shallow punctures; interspaces with fine punctations; pygidial punctures similar to those of propygidium, albeit slightly denser.

Prosternum. Anterior margin of prosternal lobe (Fig. 147C) round; medio-apical end ascending; marginal prosternal stria impressed, shortly interrupted medially; short striae

Additional description. Legs. Anterior surface of protibia (Fig. 148E) dilated and clothed with sparse, fine punctures, and strigate sculpture; outer lateral margin with very weak teeth, topped by minute denticles; protarsal groove shallow; anterior protibial stria impressed; inner marginal stria present on basal half, with row of spine-like setae on apical end; near tarsal insertion with three spine-like tarsal denticles, of which one is located a little distant from the other two; anterior surface of protibia with sparse and fine punctures, posterior surface of that (Fig. 148F) with sparse, fine punctures and strigate ground sculpture; number of denticles on outer margin nine, and one on inner apical angle and three on outer sublateral margin; median posterior stria moderately impressed and abbreviated on apical end; inner posterior stria slightly impressed, with a row of sclerotized setae.

Male genitalia. Aedeagus (Figs. 181A–B) quite slender, with apical tip curved ventrad. Phallobase almost the same length with paramere, slightly fused on basal half; median lobe moderately sclerotized; eighth tergite (Figs. 181E–F) entire with longitudinal folds on lateral sides; membranes of ninth and tenth tergites (Figs. 181C–D) sclerotized; spiculum gastrale the same length as ninth tergite, widely bifurcate on the basal tip.

Female genitalia. Anterior portion of valvifers paddle-shaped; gonocoxite (Fig. 182) elongate, twice as long as broad, shovel-like; inner and outer surfaces of gonocoxite differentiated with each other; inner face moderately separated from outer face by elevated lateral ridge; sclerotized setae on apical half of outer face short; inner face with long, seta-like hairs on apical two-thirds of gonocoxite; apex of gonocoxite with two conspicuous teeth; gonostyli present; spermathecae multiple, consisting of five sacs.

Remark. Since the specimen materials were collected through Tullgren funnel method from leaf litter samples, this has broadened the knowledge on the habitat of *Atholus* beetles. In the Philippines, *Atholus coelestis* (Marseul, 1857) and *Atholus torquatus* (Marseul, 1854) are common dwellers to herbivore dung, while *Atholus philippinensis* (Marseul, 1854) prefer decaying banana stumps.

Distribution. Endemic in the Philippines.

Atholus omar (Lewis, 1913)

(Fig. 218).

Hister omar Lewis, 1913: 81 [Tamil Nadu].

Hister (Hister) omar: Bickhardt, 1917: 183 [catalogued].

Atholus omar: Mazur, 1984: 215 [catalogued]; 1997: 132 [catalogued]; 2011: 105 [catalogued].

Specimens examined. No available specimen in this study.

Diagnosis. The head of *Atholus omar* (Lewis, 1913) possessed two shallow impressions which is close to the frontal stria. The lateral pronotal stria is hamate and ceasing behind the anterolateral angle, and dorsal elytral striae 1–4 is complete, while dorsal 5 and sutural striae is present on the apical half. The punctation in the pygidia of this species is microscopic, intermixed with fine to large punctures.

Distribution. India: Tamil Nadu (Fig. 218).

Atholus philippinensis (Marseul, 1854)

(Figs. 110A, 149–150, 183, 219).

Hister philippinensis Marseul, 1854: 547 [Malaisie (îles Philippines)].

Hister (Atholus) philippinensis: Bickhardt, 1910: 54 [catalogued]; 1913: 173 [Hoozan, Taihorin]; 1917: 194 [catalogued]; Desbordes, 1917: 322; Miwa, 1931: 57 [Hoozan, Taihorin]; Kamiya & Takagi, 1938: 31.

Atholus philippinensis: Lewis, 1906: 402; 1915: 55; Mazur, 1984: 215; 1997: 132; 2011: 106 [catalogued]; Lackner *et al.*, 2015: 93; Ôhara, 1999b: 32–36 [Taiwan]; dela Cruz & Ôhara, 2023a: 3 [Philippines].

Hister sectator Lewis, 1901: 375, synonymized by Bickhardt, 1917: 194.

Atholus sectator: Lewis, 1906c: 402.

Hister philippensis (sic): Gemminger & Harold, 1868: 771.

Specimens examined. 3 ♂♂, 3 ♀♀. [Mindanao Island] Agusan del Norte, Butuan, Taligaman, 3 ♂♂, 3 ♀♀ [IC-21-18], 08.56894°N, 125.38534°E 60 m a.s.l., 2021-VI-02 [AN-21-IDC-002], I.N. dela Cruz leg.

Diagnosis. *Atholus philippinensis* (Marseul, 1854) is easily distinguished from other Philippine congeners by entire dorsal elytral striae 1–3 (fourth stria is incomplete), and dense punctation of propygidium and pygidium. Among Philippine species, it is the largest one in size, with its markedly wider elytra and posterior angles of pronotum. The number of denticles of the outer sublateral margin of protibia is four.

Additional description. Female genitalia. Anterior portion of valvifers (Figs. 183A–B) paddle-shaped; gonocoxite (Fig. 183C) slightly elongate, almost twice as long as broad, shovel-like; inner and outer surfaces differentiated; inner face moderately separated from outer face by elevated lateral ridge; sclerotized setae on apical half of outer face short and somewhat dense; inner face with short and sparse setae; apex of gonocoxite with two teeth; gonostyli present, freely articulated; spermathecae multiple, consisting of four sacs; sacs gradually enlarged and elongate, not sclerotized.

Distribution. Philippines, Malaysia, Indonesia: Sumatra, Borneo, Java, Myanmar, Vietnam, India: Meghalaya, China: Hainan, Taiwan (Fig. 219).

Biology. This species occurs in decaying banana stumps and are often found along with some species of *Platylister* (Platysomatini, Histerinae, Histeridae).

Remarks. The protibial teeth of *Atholus philippinensis* (Marseul, 1854) are not as prominent as they are in other species. Moreover, in comparison to the description of Ôhara (1999b), the number of denticles may vary, ranging from 9–11 on the outer margin, one on the inner apical angle, and four or five on the outer sublateral margin. This species was already re-described based on specimens of Taiwan and western Kalimantan, Indonesia (Ôhara, 1999b), including the illustrations of male genitalia and spermatheca of female.

Ôhara (1999b) also provided a figure of the spermatheca; we add illustrations of the female gonocoxite and valvifers here (Figs. 183).

Atholus pinnulae (Lewis, 1900)

(Fig. 220).

Hister pinnulae Lewis, 1900: 250 [Borneo].

Hister (Atholus) pinnulae: Bickhardt, 1910: 54 [catalogued]; 1917: 194 [catalogued]; Desbordes: 1917: 322 [keyed].

Atholus pinnulae: Mazur, 1984: 215 [catalogued]; 1997: 132 [catalogued]; 2011: 106 [catalogued].

Atholus pennulae [sic]: Lewis, 1906c: 402.

Specimens examined. No available specimen in this study.

Diagnosis. The body size of *Atholus pinnulae* (Lewis, 1900) is quite small around 3.30 mm, with a hamate apical end of the lateral pronotal stria on its anterolateral portion. Inner subhumeral stria is absent, but the external stria is impressed on posteriorly. The propygidium is inconspicuously punctulate, and its pygidium is smooth.

Distribution. Indonesia: Borneo, Sumatra (Fig. 220).

Atholus pirithous (Marseul, 1873)

(Figs. 110B, 151–152, 184, 221).

Hister pirithous Marseul, 1873: 224 [Japan: Hiogo and Nangasaki].

Hister (Atholus) pirithous: Bickhardt, 1910: 54 [catalogued]; 1913a: 173; 1917: 194 [catalogued]; Desbordes, 1917: 323 [keyed]; 1919: 400; 1921: 10; Reichardt, 1930: 48; Kamiya & Takagi, 1938: 31 [listed]; Ôsawa & Nakane, 1951: 7.

Atholus pirithous: Lewis, 1906c: 402; 1915: 55; Nakane, 1981: 10; Mazur, 1984: 215 [catalogued]; 1987: 466; 1991: 11; 1994: 76; 1997: 132; 2009: 115; 2011: 106 [catalogued]; Mazur *et al.*, 2014: 1269; Ôhara, 1993: 141; 1994: 138; 1999a: 110; 1999b: 36; Lackner *et al.* 2015: 93 [catalogued]; dela Cruz & Ôhara, 2023a: 16; 2023b: 31; Ho *et al.*, 2023: 47.

Atholus (Euatholus) pirithous: Kryzhanovskij & Reichardt, 1976: 390; Hisamatsu & Kusui, 1984: 23; Hisamatsu, 1985: 223, pl. 41, fig. 19 [keyed; noted; image];

Hister ixion Lewis, 1892: 30; Reichardt, 1932: 117; synonymized by Mazur, 2009: 115.

Hister reitteri Bickhardt, 1918: 231; synonymized by Reichardt, 1930: 48; Kamiya & Takagi, 1938: 31 [listed].

Hister pirithous ab. *reitteri*: Reichardt, 1930: 48.

Specimens examined. Seven specimens of undetermined sex. [Luzon Island] Laguna, northern Lucena, Kinabuhayan, 7 exs. [IC-21-47], 1994-V-VI, N. Monreal leg.

Diagnosis. *Atholus pirithous* (Marseul, 1873) is generally recognized for its light excavation in the area behind the anterolateral angle of the pronotum.

Additional description. Anterior shape of valvifers (Figs. 184A–B) paddle-shaped. Gonocoxite (Figs. 184C) slightly elongate, almost three times as long as broad, shovel-like; inner and outer surface differentiated, similar to *Atholus depistor* (Marseul, 1873); inner face moderately separated from outer face by elevated lateral ridge; sclerotized setae on apical terminal of outer face short and sparse; surface of apical half moderately sclerotized with ridge-like sculpture; inner face with moderately dense hairs. Apex of gonocoxite with two teeth. Gonostyli present, articulated. Bursa copulatrix with single median sclerite. Spermathecae multiple, consisted by five sacs which are gradually enlarged and elongate, not sclerotized.

Distribution. Russia: East Siberia and Far East, Afghanistan, Oman, China: Shanghai and Guangdong, North Korea, South Korea, Japan, Taiwan, India: Uttarakhand, Nepal, Vietnam, Philippines, Thailand (Fig. 221).

Biology. In Japan, *Atholus pirithous* (Marseul, 1873) is generally found in decaying compost, dung of herbivores and sap of trees.

Remarks. All seven examined individuals of *Atholus pirithous* lack internal subhumeral stria, but traces of dots and short lines can be observed in the apical end. The outer apical protibial tooth of this species is moderately prominent, topped by three denticles. The total number of protibial denticles on the outer margin. Additional records are also indicated in the papers of dela Cruz & Ôhara, 2023b: 31 [Japan], and Ho *et al.*, 2023: 47 [Taiwan].

Atholus sessilis (Lewis, 1899)

(Fig. 222).

Hister sessilis Lewis, 1899: 18 [Burma].

Hister (Atholus) sessilis: Bickhardt, 1910: 55 [catalogued]; 1917: 194 [catalogued]; Desbordes: 1917: 321 [keyed].

Atholus sessilis: Lewis, 1906c: 402; Mazur, 1984: 217 [catalogued]; 1997: 133 [catalogued]; 2011: 106 [catalogued].

Specimens examined. No available specimen in this study.

Diagnosis. *Atholus sessilis* (Lewis, 1899) is fairly small, around 2.75–3.25 mm of its body size. The anterior portion of its head, and the anterolateral area of its pronotum is punctiform. The lateral pronotal stria is very short, and the margin of its pronotum is distinctly sinuous anteriorly. In elytra, all dorsal striae is complete, while the sutural stria is on apical half. No external subhumeral stria is observed, but internal stria is very short and discal. The pygidium of this species is impunctate and smooth.

Distribution. Myanmar, Thailand (Fig. 222).

Atholus silvicola (Lewis, 1901)

(Fig. 223).

Hister silvicola Lewis, 1901b: 376 [India: Khasia Hills].

Hister (Atholus) silvicola: Bickhardt, 1910: 55 [catalogued]; 1917: 194 [catalogued]; Desbordes: 1917: 321 [keyed].

Atholus silvicola: Lewis, 1906c: 402; Mazur, 1984: 217 [catalogued]; 1997: 133 [catalogued]; 2011: 106 [catalogued]; Lackner *et al.*, 2015: 93 [catalogued].

Specimens examined. No available specimen in this study.

Diagnosis. The frontal stria of *Atholus silvicola* (Lewis, 1901) is arched, while the anterolateral area of its pronotum is foveolated. The subhumeral bears no external stria, but the internal stria is deeply marked on the mediobasal part. Elytral dorsal stria 1–4 is complete, but stria 5 and sutural stria is only on the apical half.

Distribution. India: West Bengal, Meghalaya (Fig. 223).

Atholus singalanus (Marseul, 1880)

(Figs. 110C, 153–154, 224).

Hister singalanus Marseul, 1880: 157 [Sumatra].

Hister (Atholus) singalanus: Bickhardt, 1910: 55; 1917: 194 [catalogued], Desbordes, 1917: 322.

Atholus singalanus: Lewis, 1906c: 402; Mazur, 1984: 133; 1997: 217; 2011: 106 [catalogued].

Specimens examined. 1 ex. [Sumatra Island] 1 ex. [SEHU] West Sumatra, Sukarami, Bukit Gompong, NE 20km from Padang, 1998-VIII-19 [No. 9856], M. Ôhara leg. [IC-22-in07].

Diagnosis. *Atholus singalanus* (Marseul, 1880) is generally identified for its combined character of uninterrupted lateral stria of pronotum, and very short external subhumeral stria located on the basal end.

Re-description. Body length: PEL: 3.40 mm; APW: 1.35 mm; PPW: 2.60 mm; EL: 1.85 mm; EW: 3.00 mm. Body (Figs. 110C, 153A–C) oval, convex and black; tibia, antenna, mouthparts and elytral apical margin rufous.

Head. Forehead divided into two by rather weak median longitudinal impression; anterior margin of clypeus entire and slightly forward, anterolateral margin sinuous; frontal stria (Fig. 153D) round, complete and deeply impressed; disk with alutaceous ground sculpture and clothed with very sparse, fine punctures; occipital fovea absent; eyes large and convex, well-visible dorsally; labrum punctate, raised and transversely wide, absent labral fringe; mandible covered with fine punctations, acutely pointed at apex, outer margin rounded and curved inwardly.

Pronotum. Marginal pronotal stria laterally complete and broadly interrupted behind head; lateral pronotal stria (Fig. 153E) deeply impressed and complete, almost reaching the posterior margin of pronotum, lateral stria rather distant from the lateral margin; anterior pronotal stria present, connected with lateral stria; disk with sparse microscopic punctures, clothed with alutaceous microsculpture; area behind apical angle bare; posterior margin rather bare; ante-scutellar region with short, single longitudinal puncture.

Elytra. Anterior margin with short, longitudinal striae on apical area around antero-scutellum; epipleural fossette smooth and impunctate; epipleural marginal stria present on apical half; elytral marginal stria complete and moderately impressed; external subhumeral stria (Fig. 154B) moderately impressed, present medio-basally and about 1/3 long of the elytral length; internal subhumeral stria absent; oblique stria slightly impressed on basal third; dorsal striae (Fig. 154C) 1–3 complete, dorsal 4 present on apical half, sometimes joined to dorsal stria 5 on apical end, dorsal stria 5 present on apical third; sutural stria shorter, present on apical fourth; discal surface similar to pronotum with alutaceous microsculpture.

Propygidium and pygidium. Propygidium (Fig. 154F) densely covered with coarse and round punctures, separated by their own to twice their diameter, the puncture about 30 µm in diameter; interspace among the coarse punctures moderately covered with fine punctations; pygidium with punctations (Fig. 154E) similar to those of propygidium, but finer and becoming sparser on the apex, separated by their own diameter; interspace among the coarse punctures covered with fine punctations.

Prosternum. Prosternal lobe with round anterior margin (Fig. 154C), medio-apical end ascending; marginal stria deeply impressed, carinated and entire, brief striae present on basolateral ends; lobe with coarse punctures on basolateral sides, the punctures separated by their own diameter, interspace among the punctures covered with sparse and fine punctations, prosternal suture inconspicuous; prosternal process covered with sparse, fine punctures, lateral sides descending; descending lateral stria deeply impressed and carinate; lateral disk with coarse punctations; basal half of process slightly narrow, posterior margin of basal lobe emarginated.

Meso- and metaventrite. Anterior margin arcuate outwards (Fig. 154C), marginal stria complete and moderately impressed, stria behind anterolateral angle present; disk sparsely clothed with fine punctures, which are separated by three to five times of their diameter; meso-metaventral suture moderately impressed, complete and carinated; metaventral lateral stria (Fig. 154D) deeply impressed, extending obliquely and posteriorly, united with oblique stria which inwardly extends from basal fifth of metaventro-metepisternal suture, oblique stria moderately crenated; post-mesocoxal stria extending posteriorly and strongly curved along the posterior margin of mesocoxa, attaining the metaventro-mesepimeral suture; metaventrite with punctations of intercoxal disk similar to those of mesoventral plate; row of coarse punctures sometimes present along inside of basal portion of lateral stria; longitudinal suture slightly impressed; lateral disk moderately descending medially, densely covered with setiferous, large, round and shallow punctures; interspaces among these punctures with sparse, fine to coarse punctations; mesepimeron and metepimeron covered with densely setiferous, large punctures; interspaces among the punctures with few, fine to coarse punctations; metepisternum with sparse punctures on apical half; first abdominal sternite with punctation of intercoxal disk similar to that of metaventrite; surface of lateral disk similar to mesepimeron and metepimeron; lateral stria of intercoxal disk deeply impressed, slightly carinate and complete.

Legs. Protibia (Fig. 154G) flattened on the anterior portion, slightly dilated and clothed with a few, fine ocelloid punctures; median area with weak strigate sculpture; outer lateral margin with two or three unremarkable teeth topped by short denticles; outer apical tooth weak and rounded; anterior stria moderately impressed, shortened on basal end; inner marginal stria bearing on basal half, inner apical margin with few sclerotized setae; posterior surface (Fig. 154H) covered with sparse, fine punctures, strigate ground sculpture on outer surface; outer region slightly descending; number of denticles in both outer lateral margin and apical margin combined 10, one on inner apical angle, outer sublateral margin 5; protibial spur moderately long, almost half the length of protarsus, growing from apical margin of protibia; median posterior stria complete and moderately impressed; inner posterior

stria moderately impressed on basal half, with row of sclerotized setae; row of setae on inner margin of protibia with strigate ground sculpture; protarsal groove shallow; protarsus with two spine-like tarsal denticles near tarsal insertions, another one larger and more distant, located near inner anterior angle; profemur clothed with fine punctations, very few, coarse punctures on median area, surface with slightly strigate ground sculpture; marginal stria complete, anterior stria present on apical half; femoral stria almost complete, abbreviated on basal end; posterior margin with large punctations, row of setae present on both basal and apical terminals.

Male genitalia. Not available in this study.

Female genitalia. Not available in this study.

Distribution. Endemic to Sumatra Island (Fig. 224).

Remark. No genitalia were examined on this study.

Atholus striatipennis (Lewis, 1892)

(Figs. 110D, 155–156, 185–186, 225).

Hister striatipennis Lewis, 1892: 31 [Myanmar].

Hister (Atholus) striatipennis: Bickhardt, 1910: 55 [catalogued]; Bickhardt, 1917: 194 [catalogued]; Desbordes, 1917: 326 [keyed]; Desbordes, 1919: 400; Reichardt, 1932: 118.

Atholus striatipennis: Lewis, 1906: 402; Mazur, 1984: 217 [catalogued]; 1997: 133 [catalogued]; 2011: 106 [catalogued]; Lackner *et al.*, 2015: 93 [catalogued].

Specimens examined. 1 ♂, 1 ♀ and 2 exs. 1 ♂ [IC-22-th11, deposited in THNHM], Chiang Mai, Fang, Doi Ang Khang, 23.VI.1992, Y. Manit leg.; 1 ex. [SEHU], same locality, collection date and collector; 1 ♀ [IC-22-th12, THNHM], Chiang Mai Province, Doi Inthanon 1000m, 31.III.1989, M. Nishikawa leg.; Chiang Mai Province, Fang, Doi Pha Hon Pok, 1 ex. [IC-22-th13, SEHU], 8–9.III.2014, K. Masumoto leg.

Diagnosis. *Atholus striatipennis* (Lewis, 1892) is generally oblong on its body shape. Few diagnostic characters of this species are the deep impression of its head, and the unification of dorsal elytral stria 5 and sutural stria of the elytra at the base. Also, the anterior pronotal stria of *A. striatipennis* (Lewis, 1892) is connected to the lateral stria of the pronotum, and its anterolateral protibial tooth is quite remarkable.

Re-description. Male and female. Body length (♂, ♀): PEL: 3.3, 3.4 mm; APW: 1.0, 1.0 mm; PPW: 1.9, 2.1 mm; EL: 1.6, 1.7 mm; EW: 2.1, 2.3 mm. Body (Figs. 110D, 155A–C) oblong, convex and black; tibiae, antennae, mouthparts and apical elytral margin rufous.

Head. Apical margin of clypeus (Fig. 155D) short, entire and slightly forward, anterolateral margin crenate; frons with a deep, transverse impression behind clypeus; frontal stria carinate and deeply impressed, strongly angulate inwards; disk sparsely clothed with fine punctures, separated by 2–3× their diameter; interspaces with alutaceous microsculpture; occipital fovea absent; labrum raised and finely punctate; mandibles covered with fine punctures, outer margin rounded, curved inwardly; mandibular apex acutely pointed; eyes medium and convex, slightly visible dorsally.

Pronotum. Marginal pronotal stria laterally complete, continuous onto apical angle but interrupted behind head; lateral pronotal stria (Fig. 155E) impressed and slightly crenate; lateral stria rather distant from margin, its basal end abbreviated to basal fourth of pronotal length; apical end bent inwardly behind apical

angle; anterior pronotal stria crenate, connected to lateral stria; disk with sparse microscopic punctures, covered with alutaceous microsculpture; area behind apical angles bare; posterior margin with row of coarse punctures; ante-scutellar region with a single short longitudinal puncture.

Elytra. Elytral epipleuron sparsely clothed with fine punctures; marginal epipleural stria present on apical half; marginal elytral stria complete, moderately impressed; external subhumeral stria (Fig. 156B) absent; internal subhumeral stria very short medially, sometimes inconspicuous; oblique humeral elytral stria slightly impressed on basal third; dorsal elytral striae 1–5 and sutural stria (Fig. 156A) complete and slightly crenate; dorsal elytral stria 5 and sutural elytral stria united at the base; elytral disk covered with sparse, fine punctures.

Propygidium and pygidium. Propygidium (Fig. 156F) moderately covered with round and shallow punctures, about 15–20 µm in diameter, separated by 1–3 times their diameter; interspaces with irregular, sparse and fine punctations, separated by 2–4 times their diameter; surface with alutaceous sculpture; pygidial punctation (Fig. 156E) similar to that of propygidium, punctures of pygidium evenly distributed; interspaces with fine punctations.

Prosternum. Prosternal lobe with anterior margin (Fig. 156C) slightly acute and pointed ventrally; medio-apical end of prosternal lobe ascending; marginal prosternal stria impressed and shortly interrupted medially, both basolateral corners slightly deep; lobe with few setiferous, coarse punctures inside and outside of marginal striae, separated by their 2–3 times their diameter; disk covered with sparse, finer punctures on apical half; prosternal suture faintly impressed; prosternal process covered with few, setiferous fine punctures; lateral sides descending; lateral prosternal striae deeply impressed and complete; lateral disk with few, coarse setiferous punctures; basal half narrow.

Meso- and metaventricle. Anterior margin of mesoventrite outwardly arcuate (Fig. 156C); marginal mesoventral stria complete, carinate, sparsely crenate; stria behind anterolateral angle present; mesoventral disk sparsely clothed with fine punctures separated by 3–4 times their diameter; meso-metaventral suture clearly impressed, complete and medially angulate; lateral metaventral stria (Fig. 156D) deeply impressed, carinate, extending obliquely and posteriorly, almost united with oblique stria which inwardly extends from basal third of metaventro-metepisternal suture; post-mesocoxal stria extending posteriorly and strongly curved along posterior mesocoxal margin, attaining metaventro-mesepimeral suture; punctures of metaventral disk similar to those of mesoventrite; longitudinal suture of metaventricle lightly impressed; lateral disk of metaventricle moderately covered with setiferous large round and shallow punctures; interspaces with sparse, coarse to fine punctations; mesepimeron, metepimeron and lateral disk of first abdominal ventrite with dense setiferous, large punctures; interspaces with few coarse to fine punctations; metepisternum with sparse punctures, mainly on apical half; punctation of intercoxal disk of first abdominal ventrite similar to that of metaventricle; lateral stria deeply impressed, slightly carinate and complete.

Legs. Anterior face of protibia (Fig. 156G) flattened, dilated and clothed with few fine ocelloid punctures; basal to median area with weak strigate sculpture; outer lateral margin with three teeth, becoming stronger apically; topped by medium denticles; protarsal groove shallow; anterior protibial stria moderately impressed; inner marginal stria present on basal half; near tarsal insertion with two spine-like tarsal denticles; another one, more distant and longer, located at inner anterior angle; protibial spur moderately long, about half the length of protarsus; posterior face of protibia (Fig. 156H) with sparse, fine punctures and strigate ground sculpture from basal to median surface; number of denticles on outer lateral margin four, two of these denticles

topped on the outer apical protibial tooth; denticles on apical margin four, one on inner apical angle; denticles on outer sublateral margin four; median posterior stria complete and moderately impressed; inner posterior stria slightly impressed with row of sclerotized setae; row of setae on inner margin of protibia present on apical half; profemur sparsely clothed with fine, ocelloid punctations; surface with lightly strigate ground sculpture; marginal stria complete; anterior stria present on apical half; femoral stria almost complete, shortened on basal end; posterior margin with large punctations; a row of few setae present on both basal and apical ends.

Male genitalia. Aedeagus (Figs. 185A–B) stout, moderately curved ventrad; parameres about as twice the length as phallobase, fused on basal half; median lobe sclerotized; eighth tergite (Figs. 185E–F) entire, with longitudinal fold both on lateral sides, area on posterolateral angle with few punctations; ninth tergite (Figs. 185C–D) bare; tenth tergite entire; spiculum gastrale almost as same length as ninth tergite, bifurcate on apical tip.

Female genitalia. Anterior portion of valvifers (Figs. 186A–B) paddle-shaped; gonocoxite (Fig. 186C) elongate, almost as thrice as long as broad, shovel-like; inner and outer surfaces differentiated; inner face moderately separated from outer face by elevated lateral ridge; apical half with minute, round punctation; inner face with short and sparse, brush-like setae; apex of gonocoxite with two teeth; gonostyli present, freely articulated; spermathecae multiple, consisting of four sacs; sacs gradually enlarged and elongate, not sclerotized.

Distribution. Myanmar, Laos, Thailand, India: Darjeeling (Fig. 225).

Atholus tenuistriatus (Lewis, 1889)

(Fig. 226).

Hister tenuistriatus Lewis, 1889: 284 [Borneo].

Hister (Atholus) tenuistriatus: Bickhardt, 1910: 55 [catalogued]; 1917: 194 [catalogued]; Desbordes, 1917: 319 [keyed].

Atholus tenuistriatus: Lewis, 1906c: 402; Mazur, 1984: 217 [catalogued]; 1997: 133 [catalogued]; 2011: 106 [catalogued].

Specimens examined. No available specimen in this study.

Diagnosis. *Atholus tenuistriatus* (Lewis, 1889) can easily be recognized for its two prosternal lateral stria, which is a rare characteristic among the Oriental *Atholus*. Although, this character is also recently observed in *A. lao* Mazur, 2013, the external pronotal stria in *A. tenuistriatus* (Lewis, 1889) is longer and almost complete, but shortened at its base. The elytral sutural stria of this species is almost complete, while both of its propygidium and pygidium is almost impunctate, particularly the pygidium is smooth.

Distribution. Indonesia: Borneo (Fig. 226).

Atholus terraemotus (Lewis, 1900)

(Fig. 227).

Hister terraemotus Lewis, 1900: 248 [Java].

Hister (Atholus) terraemotus: Bickhardt, 1910: 55 [catalogued]; 1917: 194 [catalogued]; Desbordes: 1917: 323 [keyed].

Atholus terraemotus: Lewis, 1906c: 402; Mazur, 1984: 217 [catalogued]; 1997: 133 [catalogued]; 2011: 106 [catalogued].

Specimens examined. No available specimen in this study.

Diagnosis. The pygidium of *Atholus terraemotus* (Lewis, 1900) is unique for its densely sculptured and strigose surface. Other diagnostic characters of this species include rounded frontal stria anteriorly, uninterrupted lateral pronotal stria which unites anteriorly, and no subhumeral striae.

Distribution. Indonesia: Java (Fig. 227).

Atholus tetricus (Lewis, 1902)

(Fig. 228).

Hister tetricus Lewis, 1902: 239 [Sumatra].

Hister (Atholus) tetricus: Bickhardt, 1910: 55 [catalogued]; 1917: 194 [catalogued]; Desbordes: 1917: 321 [keyed].

Atholus tetricus: Lewis, 1906c: 402; Mazur, 1984: 217 [catalogued]; 1997: 134 [catalogued]; 2011: 106 [catalogued].

Specimens examined. No available specimen in this study.

Diagnosis. *Atholus tetricus* (Lewis, 1902) bears a circular fovea behind the anterolateral angle of its pronotum. Also, the inner subhumeral stria of subhumerus is located close to apex, while its elytral dorsal striae 1–4 is complete, but dorsal and sutural striae is marked on its apical half. Both propygidium and pygidium are almost impunctate, appearing as smooth on their surfaces.

Distribution. Indonesia: Sumatra (Fig. 228).

Atholus sp. 2

(Figs. 110E, 157–158, 189B, 229).

Specimens examined. 1 ♂ and 1 ex. East Tibet, Jiaka, Zhuogong County, 4000 masl, 1 ♂ (sem, hab, gen), 1 ex., VIII-2005, He *et al* leg.

Re-description. Male. Body length: PEL: 5.70 mm; APW: 1.82 mm; PPW: 3.80 mm; EL: 3.38 mm; EW: 4.50 mm. Body (Figs. 110E, 157A–C) oval, convex and black; tibiae, antennae, mouthparts and apical elytral margin rufous.

Head. Apical margin of clypeus (Fig. 157D) short, entire and slightly forward, anterolateral margin weakly crenate; frontal stria wide and deeply impressed; disk sparsely clothed with fine punctures, separated by 2–3 times their diameter; interspaces with alutaceous microsculpture; occipital fovea absent; labrum raised, round; mandibles finely punctate, outer margin rounded, curved inwardly; mandibular apex acutely pointed; eyes medium and convex, slightly visible dorsally.

Pronotum. Marginal pronotal stria laterally complete, continuous onto apical angle, united with the anterior stria behind the head; lateral pronotal stria (Fig. 157E) strongly; lateral stria rather distant from margin, its basal end abbreviated to basal fourth of pronotal length; apical end bent inwardly, interrupted behind apical angle; anterior pronotal stria crenate, connected to marginal stria; disk with sparse microscopic punctures, covered with alutaceous microsculpture; area behind apical angles bare; posterior margin with row of coarse punctures; ante-scutellar region with a single short longitudinal puncture.

Elytra. Elytral epipleuron sparsely clothed with microscopic punctures; marginal epipleural stria feebly impressed on apical third; marginal elytral stria complete, clearly impressed; subhumeral striae (Fig. 158B) absent; oblique humeral elytral stria feebly impressed on basal third; dorsal elytral striae 1–4 (Fig. 158A) complete, crenate; dorsal elytral stria 5 and sutural elytral stria on apical half, the sutural stria a little longer; elytral disk finely punctate.

Propygidium and pygidium. Propygidium (Fig. 158F) sparsely covered with round and shallow punctures, separated by 3–6 times their diameter; interspaces with irregular, sparse and microscopic punctations; surface with alutaceous sculpture; pygidial punctation (Fig. 158E) fine, with no coarse punctures, becoming smoother towards the apex.

Prosternum. Prosternal lobe with anterior margin (Fig. 158C) round, slightly pointed ventrally; medio-apical end of prosternal lobe ascending; marginal prosternal stria impressed laterally, widely interrupted anteriorly, both basolateral corners slightly deep; lobe with few ocelloid, coarse punctures inside and outside of marginal striae, separated by their 1–3 times their diameter; disk covered with sparse, finer punctures on apical half; prosternal suture inconspicuous; prosternal process microscopically punctate; lateral sides descending; lateral prosternal striae deeply impressed and complete; lateral disk with few, coarse setiferous punctures; basal half narrow.

Meso- and metaventricle. Anterior margin of mesoventrite outwardly arcuate (Fig. 158C); marginal mesoventral stria complete, carinate, sparsely crenate; stria behind anterolateral angle present; mesoventral disk sparsely clothed with microscopic punctures; meso-metaventral suture clearly impressed, complete; lateral metaventral stria (Fig. 158D) deeply impressed, extending obliquely and posteriorly, united with oblique stria which inwardly extends from basal third of metaventro-metepisternal suture; post-mesocoxal stria extending posteriorly and strongly curved along posterior mesocoxal margin, attaining metaventro-mesepimeral suture; punctures of metaventral disk similar to those of mesoventrite; longitudinal suture of metaventricle lightly impressed; lateral disk of metaventricle moderately covered with large, ocelloid and shallow punctures; interspaces with sparse, coarse to fine punctations; mesepimeron, metepimeron and lateral disk of first abdominal ventrite with large punctures; interspaces with few coarse to fine punctations; metepisternum with sparse punctures, mainly on apical half; punctation of intercoxal disk of first abdominal ventrite similar to that of metaventricle; lateral stria deeply impressed, slightly carinate and complete.

Legs. Anterior face of protibia (Fig. 158G) flattened, dilated and clothed with few fine, ocelloid punctures; outer lateral margin with three teeth, sometimes ambiguous; the first three teeth near the base weak, the tooth on the apical angle prominent, more distant from the third tooth; teeth topped by minute denticles; protarsal groove shallow; anterior protibial stria lightly impressed; inner marginal stria present on basal half, but inconspicuous; near tarsal insertion with two spine-like tarsal denticles; another one, more distant and longer, located at inner anterior angle; protibial spur moderately long, about half the length of protarsus; posterior face of protibia (Fig. 158H) with sparse, fine punctures and strigate ground sculpture; number of denticles on outer lateral margin ten, three of these denticles topped on the outer apical protibial tooth; denticles on apical margin four, one on inner apical angle; denticles on outer sublateral margin two; median posterior stria complete, clearly impressed; inner posterior stria shortened on basal fourth, impressed with row of sclerotized setae. Male genitalia. Aedeagus (Fig. 189C–D) long, slightly broader on apical third; parameres about three times the length as phallobase, fused medially; median lobe sclerotized, widest on the apex.

Distribution. Tibet (Fig. 230).

Atholus torquatus (Marseul, 1854)

(Figs. 110F, 159–160, 187–188, 230).

Hister torquatus Marseul, 1854: 587 [India]; Lewis, 1888: 640; Lewis, 1892: 31; Desbordes, 1919: 400.

Hister (Atholus) torquatus: Bickhardt, 1910: 55 [catalogued]; 1917: 194 [catalogued]; Desbordes, 1917: 325.

Atholus torquatus: Lewis, 1906c: 402; Mazur, 1972: 372; 1975: 443; 1984: 218; 1991: 6; 1997: 134; 2011: 106 [catalogued]; 2015: 1454; Lackner *et al.*, 2015: 93 [catalogued]; dela Cruz & Ôhara, 2023a: 8 [Philippines].

Hister genuae Lewis, 1888: 639; synonymized by Bickhardt 1913b: 698.

Atholus genuae: Lewis, 1906c: 402.

Specimens examined. 8 ♂♂, 14 ♀♀ and 7 exs. [Luzon Island] Bataan, Abucay, Gabon, 8 ♂♂ [IC-21-23], 12 ♀♀ [IC-21-53], 5 exs., 14.42329°N, 120.26222°E 570 m a.s.l., 2019-VII-21 [BA-19-IDC-001], I.N. dela Cruz leg.; Laguna, Northern Lucena, Kinabuhayan, 2 ♀♀ [IC-21-49], 1989-II, N. Monreal leg. [Mindoro Island] Oriental Mindoro, Mt. Halcon, 1 ex., 2005-IV. [Palawan Island] Puerto Princesa, Barrio Talabigan, 1 ex., 1979-III-24, K. Wada leg.

Diagnosis. *Atholus torquatus* (Marseul, 1854) is recognized with a combination of its interrupted lateral pronotal stria in the anterolateral angle, and fine punctations on the apical portion of its pygidium. This species also possesses remarkable teeth of protibia, increasing in size apically. The structure of the female genitalia of this species is described here for the first time, showing its similarity to the shape of the gonocoxite of *Atholus philippinensis* (Marseul, 1854), which is broad and shovel-like.

Re-description. Male and female. Body length: PEL: 3.13–4.32 mm; APW: 1.11–1.47 mm; PPW: 2.35–2.90 mm; EL: 1.89–2.74 mm; EW: 2.66–3.56 mm. Body (Figs. 110F, 159A–C) oval, moderately convex and black; tibiae, antennae, mouthparts and apical elytral margin rufous.

Head. Apical margin of clypeus (Fig. 159D) short, entire and slightly forward, but anterolateral margin widely crenate; frontal stria rounded, complete and deeply impressed; disk sparsely clothed with fine punctures, separated by 2–3× their diameter; interspaces with alutaceous microsculpture; occipital fovea absent; labrum dorsally finely punctate, raised and transversely long; short labral fringe (Lackner, 2010) present antero-laterally; mandibles covered with fine and even punctures, outer margin rounded, curved inwardly; sub-apical tooth on left mandible large; mandibular apex acutely pointed; eyes large and convex, clearly visible dorsally.

Pronotum. Marginal pronotal stria laterally complete, continuous onto apical angle and behind head; lateral pronotal stria (Fig. 159E) deeply impressed, slightly crenate and complete; lateral stria rather distant from margin, its basal end abbreviated to basal fourth of pronotal length; apical end bent inwardly behind apical angle; anterior pronotal stria absent; disk with sparse microscopic punctures, wholly covered with alutaceous microsculpture; area behind apical angles bare; posterior margin without row of coarse punctures; ante-scutellar region with a single short longitudinal puncture.

Elytra. Basal margin with a row of short, longitudinal striae; elytral epipleuron sparsely clothed with fine punctures, with few, coarse punctures on apical half; marginal epipleural stria present on apical half; marginal elytral stria complete, moderately impressed; external subhumeral stria (Fig. 160B) generally absent, occasionally noticeable on basal half, abbreviated on basal eighth; internal subhumeral stria absent; oblique humeral elytral stria slightly impressed on basal third; dorsal elytral striae 1–4 (Fig. 160A) complete; elytral stria 5 present on apical half; sutural elytral stria abbreviated on basal third; elytral disk covered with sparse, fine punctures, separated by 3–4 times their diameter; medio-basal area with alutaceous ground sculpture.

Propygidium and pygidium. Propygidium (Fig. 160F) densely covered with coarse, round and shallow punctures, about 25 µm in diameter, separated by 1–4 times their diameter; interspaces with irregular, sparse and fine punctations, separated by 2–3 times their diameter; surface with alutaceous sculpture; pygidial punctation (Fig. 160E) similar to that of propygidium, coarse punctures of pygidium becoming sparser and finer apically; interspaces with fine punctations.

Prosternum. Prosternal lobe with anterior margin (Fig. 160C) round; medio-apical end of prosternal lobe ascending; marginal prosternal stria deeply impressed, carinate and shortly interrupted medially; short striae present on both baso-lateral corners; lobe with few setiferous coarse punctures inside and outside of marginal stria on both sides, separated by their 1–2 times their diameter; disk covered with sparse, finer punctures on apical half; prosternal suture lightly impressed; prosternal process covered with few, setiferous fine punctures; lateral sides descending; lateral prosternal striae deeply impressed and complete; lateral disk with several coarse setiferous punctures; basal half narrow; posterior margin of basal lobe strongly emarginated.

Meso- and metaventrite. Anterior margin of mesoventrite outwardly arcuate (Fig. 160C); marginal mesoventral stria complete, carinate, sparsely crenate; stria behind anterolateral angle present; mesoventral disk sparsely clothed with fine punctures separated by 4–5 times their diameter; meso-metaventral suture clearly impressed, complete and medially angulate; lateral metaventral stria (Fig. 160D) deeply impressed, carinate, extending obliquely and posteriorly, united with oblique stria which inwardly extends from basal third of metaventro-metepisternal suture; post-mesocoxal stria extending posteriorly and strongly curved along posterior mesocoxal margin, almost attaining metaventro-mesepimeral suture; punctures of metaventral disk similar to those of mesoventrite; a row of coarse punctures present along inside lateral metaventral stria; longitudinal suture of metaventrite lightly impressed; lateral disk of metaventrite moderately covered with setiferous large

round and shallow punctures; interspaces with sparse, coarse to fine punctations; mesepimeron, metepimeron and lateral disk of first abdominal ventrite with dense setiferous, large punctures; interspaces with few coarse to fine punctations; metepisternum with sparse punctures on apical half; punctation of intercoxal disk of first abdominal ventrite similar to that of metaventrite; lateral stria deeply impressed, slightly carinate and complete.

Legs. Anterior face of protibia (Fig. 160G) flattened, dilated and clothed with few, fine ocelloid punctures; basal to median area with weak strigate sculpture; outer lateral margin with four teeth, becoming stronger apically; topped by minute denticles; protarsal groove shallow, with few coarse punctures; anterior protibial stria lightly impressed; inner marginal stria present on basal half, along stria a slightly depressed with row of coarse punctures present; near tarsal insertion with two spine-like tarsal denticles; another one, more distant and longer, located at inner anterior angle; protibial spur moderately long, wider on basal margin, approximately half the length of protarsus; posterior face of protibia (Fig. 160H) with sparse, fine punctures and strigate ground sculpture from basal to median surface; number of denticles on outer margin eight, one on inner apical angle, outer sublateral margin three or four; median posterior stria moderately impressed and abbreviated on apical end; inner posterior stria moderately impressed with row of sclerotized setae, terminating in three inner posterior denticles; inner margin of setae present on apical half, with a row of short setae on basal half; inner margin with strigate ground sculpture; profemur sparsely clothed with fine, ocelloid punctations; surface with lightly strigate ground sculpture; marginal stria complete; anterior stria present on apical half; femoral stria almost complete, shortened on basal end; posterior margin with large punctations; a row of setae present on both basal and apical ends.

Male genitalia. Aedeagus (Figs. 187A–B) moderately slender, apically slightly curved ventrad; parameres relatively longer, about as almost as thrice the length of phallobase, slightly fused on basal half; median lobe sclerotized; eighth tergite (Figs. 187E–F) entire, with longitudinal fold on both lateral sides; ninth tergite (Figs. 187C–D) with lateral folds; tenth tergite dorsally longitudinally divided; spiculum gastrale almost as same length as ninth tergite.

Female genitalia. Anterior portion of valvifers (Figs. 188A–B) paddle-shaped; gonocoxite (Fig. 188C) slightly elongate, almost as twice as long as broad, shovel-like; inner and outer surfaces differentiated; inner face moderately separated from outer face by elevated lateral ridge; sclerotized setae on apical half of outer face short and slightly dense; inner face with short and sparse setae; apex of gonocoxite with two teeth; gonostyli present, freely articulated; spermathecae multiple, consisting of four sacs; sacs gradually enlarged and elongate, not sclerotized.

Distribution. Widespread in the Oriental Region including Indonesia, Myanmar, Laos, Thailand, Vietnam, India, Nepal, and China (Sichuan), Philippines (Fig. 230).

Biology. *Atholus torquatus* (Marseul, 1854) were collected within the dung of cows located in a higher elevation and semi-forested area. The substrate also differs from *Atholus coelestis* (Marseul, 1870), as *A. torquatus* (Marseul, 1854) was typically observed in soggy, moist dung.

Remarks. *Atholus torquatus* (Marseul, 1854) is a quite variable species regarding the external subhumeral stria on its elytra, either clearly marked or totally absent. This character is also mentioned by Desbordes (1917) who mentions the stria can be aberrant. Although the type specimen of *A. torquatus* (Marseul, 1854) according to the original description possesses no external subhumeral stria, we have examined one specimen with the subhumeral stria present. This corresponds to the observations of Desbordes' (1917). Our

observations confirm the variability of this character among specimens ranging across Continental as well as Insular Southeast Asia. On the other hand, male and female genitalia exhibit little variation. I therefore propose to drop the external subhumeral stria as the primary key character for delimiting this species from others.

Atholus vacillans (Lewis, 1900)

(Fig. 231).

Hister vacillans Lewis, 1900: 250 [Tenasserim].

Hister (Atholus) vacillans: Bickhardt, 1910: 55 [catalogued]; 1917: 194 [catalogued]; Desbordes, 1917: 323 [keyed].

Atholus vacillans: Lewis, 1906c: 402; Mazur, 1984: 218 [catalogued]; 1997: 134 [catalogued]; 2011: 107 [catalogued].

Specimens examined. No available specimen in this study.

Diagnosis. The anterior portion of the frontal stria in the head of *Atholus vacillans* (Lewis, 1900) is feebly bisinuous, and the lateral pronotal stria is continuous on the anterior margin behind the head, merging with the stria of the other side. The external subhumeral stria of this species is deeply impressed medially, and both propygidium and pygidium is covered with coarse and dense punctures.

Distribution. Myanmar: Tenasserim (Fig. 231).

DISCUSSION

In the most recent count, 77 species of the genus *Atholus* are recorded worldwide wherein thirty-nine of these species occurs in the Oriental Region and Far Eastern Asian (Tables 3 and 4). However, only twenty-two species are available in this manuscript for examination. Thirteen species are re-described for the first time and all of them are Oriental species – *A. bakeri* (Bickhardt, 1914), *A. bifrons* (Marseul, 1854), *A. cochinchinae* (Schmidt, 1889), *A. daldorffi* (Bedel, 1906), *A. dentipes* (Lewis, 1892), *A. famulus* (Lewis, 1892), *A. gestroi* (Schmidt, 1897), *A. myrmidon* (Marseul, 1861), *A. nitidissimus* Desbordes, 1925, *A. singalanus* (Marseul, 1880), *A. striatipennis* (Lewis, 1892) and *A. torquatus* (Marseul, 1854). These re-described species are provided with both SEM and genitalia figures to provide comprehensive and a more resolve taxonomic description, except for *A. cochinchinae* (Schmidt, 1889) (no available ♂ genitalia), *A. myrmidon* (Marseul, 1861) (no available ♀ genitalia), *A. bakeri* (Bickhardt, 1914) and *A. singalanus* (Marseul, 1880) (no available ♂ and ♀ genitalia). The lack of access in the genital characters is apparently due to insufficient number of individuals or deteriorated membranes and muscles inside the abdominal cavity of dried specimens. Other species are also can be accessible through images only for re-examination.

Seven species are also presented here with additional descriptions, mostly describing the genital structures, as well as describing their protibial leg and its denticulation. Most Japanese species such as *A. bimaculatus* (Linnaeus, 1758), *A. coelestis* (Marseul, 1870), *A. depistor* (Marseul, 1873), *A. duodecimstriatus* *quatuordecimstriatus* (Gyllenhal, 1808) and *A. pirithous* (Marseul, 1873) are also supplemented with SEM figures and female genitalia illustrations. *A. confinis* (Erichson, 1834) and *A. levis* Mazur, 2015 from Taiwan were also added here, as well as *A. amplificipes* Mazur, 2013 from Laos, and *A. philippinensis* (Marseul, 1854) from the Philippines. In addition, two new species of *Atholus* are described here – *Atholus* sp. 1 from Thailand, and *A.* sp. 2 from Tibet, rising the number of *Atholus* records into 79 species.

Seventeen species of mostly from India are not available for re-examination. This also includes several species from Indonesia which are almost all deposited in the Natural History Museum of London, which I did not have the opportunity to get access. Nevertheless, the twenty-two species that are included here still generates a fair number of species being reviewed occurring from both Oriental Region and Far Eastern Asia.

CHAPTER IV

GENERAL DISCUSSION

Preface

The review of the subfamily Histerinae in the Philippines and the genus *Atholus* in both the Oriental Region and Far Eastern Asia has resulted in significant advancements in the understanding of the entomofaunal composition and biodiversity of Histeridae in the archipelago. The primary objective of this research is to create a comprehensive taxonomic resource that can enhance systematic understanding in histerid beetles occurring in the Oriental realm and its extralimital areas. While this study primarily focuses on revising and updating the description of each of the available species of Histerinae, it also provides valuable several insights gained from comparing various taxa within this extensive subfamily, including their systematic and distributional aspects.

Checklist

New records of three genera – gen. *Notodoma* (Lacordaire, 1854), gen. *Mesostrix* (Mazur, 1994), and gen. *Kanaarister* (Mazur, 1999) in the Philippines have been determined here for the first time. While all these groups originate from Asia, each is a relatively small group, consisting of no more than ten species. This suggests that these taxa may be confined to specific regions.

Seven new species from the Philippines are originally described in this paper. Two of these – *Notodoma* sp. 1 and *Kanaarister* sp. 1 belong to the newly recorded genera mentioned earlier, while most of these new species belong to the subgenus *Platylister* – *Platylister* sp. 1, *Platylister* sp. 2, and *Platylister* sp. 3. Although the majority members of this subgenus appear to be of Indo-Malayan origin, a few species can also be sparsely found in Australia and the Afrotropical region. Two other novel species are introduced here – *Eurylistera* sp. 1 and *Platysoma* sp. nov., both of which are also platysomatine beetles (Platysomatini). On the other hand, two new species of the genus *Atholus* from Thailand – *Atholus* sp. 1 from Thailand and *Atholus* sp. 2 from Tibet are also presented here. To date, 56 species of Philippine Histerinae have been recorded from the archipelago, and 79 species of the histerine beetle *Atholus* (Thomson, 1859) are known worldwide.

Revision

The taxonomic review of each species in this study is classified into two types of revisional works: 1) re-description (RD); and 2) supplementation (S). Species that underwent re-descriptions in this study are those that have not been re-visited since their original descriptions. Notably, almost all previous descriptions provided by the original authors were brief and insufficient, lacking complementary morphological illustrations to support the species' diagnoses. Additionally, species previously subjected to re-description by other authors are included here, supplemented with additional information to provide a more substantial taxonomic identity.

Twenty-three species of Histerinae from the Philippines are re-described here for the first time. Sixteen of these belong to the tribe Platysomatini, four to the tribe Histerini, two to Hololeptini, and a single species to

Exosternini. Despite the fact that most of them have previously been reported in the Philippines, morphological re-examinations of these entities were not performed until now. Similarly, eleven species of the Oriental *Atholus* are re-described in this paper, mostly distributed on Indochina and the Indonesian group of islands.

Regarding supplementation, seven species of Philippine Histerinae are provided here with either illustrations of the structures in male genitalia or SEM micrographs for a better resolution of external morphology. The same applies to the nine species of *Atholus* occurring in the Oriental Region and Far Eastern Asia.

Remarks on Taxonomy

The Exosternini distributed in the Philippines is primarily characterized by the strong bisinuation of the anterior margin of its mesoventrite. This diagnostic character is valid in at least two of the Japanese Exosternini, as described by Ôhara & Nakane (1989). *Notodoma* sp. 1 is differentiated by the combination of these character states: 1) the impression of the transverse stria on its mesoventrite; and 2) the variability in the dorsal striation of its elytra, distinguishing it from other neighboring species occurring in Borneo and Sumatra. In the tribe Histerini, additional descriptions of Philippine *Atholus* mainly focus on revising the localization of the denticles on the protibial leg. This involves considering the combination of apical denticles and outer lateral denticles as “outer denticles”, and denticles along the margin as “outer sublateral denticles” to avoid ambiguity for some species lacking a prominent outer apical angle.

Although the Hololeptini in the Philippines can be readily recognized by their dorsoventrally flattened bodies, a few important character states, such as the protuberance in the head and the superficial pattern of their propygidium, are useful for delimiting species. Moreover, other peculiar character-states of *Hololepta* in the male genitalia include the row of long seta-like hairs along the caudal margin and the long, sclerotized protuberance on the basolateral angles of their eighth sternite, which I have not observed from the other groups of Histerinae.

After the most recent and coherent revision of the key to Platysomatini proposed by Mazur & Ôhara (2009), two sections – [Eblisia section] and [Platysoma section] have been established to divide Platysomatini. The use of length-width ratio of the mesoventrite to further subdivide *Platysoma sensu lato* into three subgenera yielded *Platysoma sensu stricto*, possessing the widest mesoventrite, *Cylister* Cooman, 1941 with an intermediate mesoventrite, and *Cylistus* Dejean, 1833 with narrowest mesoventrite, appearing as the most elongated group in terms of its shape. However, upon carefully checking and comparing the mesoventrite of *P. (P.) dufali* from the illustrations by Mazur & Ôhara (2009) showing the ventral side of the three type species of each subgenus, the mesoventrite of this species is indeed narrower as it is being currently assigned under the subgenus *Platysoma*. In this study, I propose to re-assign *P. (Platysoma) dufali* as *P. (Cylister) dufali* herein. Interestingly, the number of pronotal lateral striae in *Platylister* has not yet been properly attended to before and may be regarded as a vital key for identification. One of the earliest keys of *Platysoma* that was established by Desbordes (1919) has utilized the two lateral striae of *Platysoma striatiderum* (now *Platylister striatiderum*) for diagnostic identification. In the current study, this character-state is reinforced by emphasizing the two new species of Philippine *Platylister* – *P. (P.)* sp. 1 and *P. (P.)* sp. 3. that are recently described, which also bear an inner lateral pronotal stria. The dual striation on their pronotum is also consistently similar to their structure of

their male aedeagus, which is evidently different from the *Platylister* that only possess a single lateral pronotal stria – a valuable trait that may help us further understand the complex systematics of this platysomatine beetles. My first attempt to describe the mouthparts in *Atholus* has clearly offered good information to better understand the identity of the group. Although detailed structures on the mouthparts of its closest relative, *Hister*, have not been compared here yet, other tribes within Histerinae were revisited, inferring its similarity to Exosternini more than with Hololeptini (Ôhara, 1994). In comparison with other subfamilies, the labral process in *Atholus* (Histerinae) is not completely hidden under the labral apex, as is the case with most groups of Saprininae, whose labral process is entirely covered by the labral apex (Lackner, 2010). Instead, the process in *Atholus* protrudes laterally from the posterior portion to the tip of the labral apex (dela Cruz & Ôhara, 2023b).

In the Oriental Region and Far Eastern Asian *Atholus*, most of their diagnostic characters were established relying on the variability in body striations and punctations as their primary character-states. However, a few species, such as the Oriental cosmopolitan *A. torquatus* Marseul, 1854, show variability regarding the presence of external subhumeral stria. This character was also emphasized by Desbordes (1917) who mentions that the stria can be aberrant. Although the type specimen of this species, according to the original description, possess no stria, I have examined one specimen from the Philippines that bears an external subhumeral stria, corresponding to Desbordes' (1917) observations. Hence, my observations confirm the variability of this character among populations ranging across the Continental Asia, as well as Insular Southeast Asia (dela Cruz & Ôhara, 2023a).

Moreover, all the genital structures of males examined here display their own unique forms, implying species identity and contributing to *Atholus*' diversity. Furthermore, based on the few structures in the female genitalia of Japanese species, two apparent species groups are recognized. One exhibits broadly shovel-shaped gonocoxite, while the other has a narrow, non-shovel-shaped gonocoxite. These two distinguishing forms in the female reproductive structure have also been observed in various *Atholus* species from Japan, Thailand, Indonesia and the Philippines, suggesting that the gonocoxite of *Atholus* might become a useful tool for morphological diagnosis in the future.

Remarks on Biogeography

All Histerinae listed and described in the Philippines are also distributed in the Oriental Region, except for the 18 species that are endemic to the archipelago, as recorded. Within the archipelago and among the various main islands, no specific distributional pattern is observed (Fig. 1), as this study relies solely on the availability of museum materials. Nevertheless, most of the species distributed in the Oriental Region are also found in the Indonesian archipelago and other neighboring islands, such as Taiwan, Ryukyus, and New Guinea. Although other cosmopolitan species are more widespread and can occur westward to Continental Asia and eastward towards Australia and the Pacific, it may imply that the Philippine archipelago has become an intermediary spot for the biodiversity of these beetles between the two geographical lands and among the greater and lesser islands of the Indo-Malayan region.

In the case of Oriental and Far Eastern Asian *Atholus*, two species – *A. bimaculatus* and *A. duodecimstriatus quatuordecimstriatus*, originally described from Europe – are also found in the Northern Palearctic Region, extending towards Eastern Siberia and Japan. Despite being considered almost cosmopolitan

(Mazur, 2011), these species do not occur in any of the Southeastern territories of the Indo-Malayan realm. This is also true for *A. depistor*, which is confined only to Japan and its vicinities. This limitation to the south might be due to geographical hindrances such as mountain impediments (Himalayan range) or oceanic barriers, or it may be related to latitudinal gradient factors. However, *A. pirithous* which is widely distributed in continental Asia, has extended southward and has recently been reported in the Philippines. On the other hand, some species such, as *A. coelestis* and *A. torquatus*, are particularly ubiquitous in the Indo-Malayan areas, although *A. coelestis* has ventured north to the islands of Taiwan and the Ryukyus of Japan.

The endemism of most *Atholus* in the Oriental Region is generally restricted to the oceanic islands of Southeast Asia, such as *A. bakeri* (Luzon), *A. singalanus*, and *A. tetricus* (Sumatra), *A. tenuistriatus* (Borneo), and *A. terraemotus* (Java). In this study, several new records were discovered, expanding the distribution of *A. famulus* (new record for Borneo, from Sumatra), *A. amplificipes* (new record for Thailand, from Laos), *A. helferi* (new record for Thailand, from Myanmar), and even *A. bifrons* (new record for Japan, from Sumatra). In the Philippines, *A. nitidissimus*, previously confined to Leyte, has recently been reported recently in Luzon as well. The distributional pattern of *Atholus*, in general, may not be fully understood given the current status of the materials available in the study. This lack of understanding might also be attributed to the life strategies of most taxa of Histerinae, which are generalist feeders on soft-bodied larvae of other invertebrates, occupying heterotrophic ecosystems and necrobiomes.

Implications to Ecology and Adaptive Evolution

The Philippine archipelago, situated between mainland Asia and continental Australia, is considered one of the mega-diverse spots in the tropics. The archipelago's monsoonal climate provides a haven for various tropical vegetation and large herbivores. Bananas, a key agricultural product in the Oriental region, particularly in the Philippines, serve as habitats for many Histerinae beetles that are predators to pests like weevils and other beetle larvae that feed on banana corms and fleshy stumps. This natural predation highlights the association of these predatory beetles with agricultural pests in the field. This relationship may extend to other vegetation types, such as bamboo and palm plantations, offering the potential for utilizing these natural predators as pest control for important crops.

The use of histerid beetles in reducing the risk of fly-borne diseases in warmer climates may also be a promising method to control the population of flies that are potential vectors to infections. As histerid beetles are attracted to heterotrophic ecosystems, including fecal matter and dung of ruminants, pastures, as well as small-scale farmlands and poultry areas, could potentially become breeding grounds for fly-borne disease outbreaks if not monitored with proper sanitary methods. In the field, histerid beetles are among the groups of insects that dominate areas where maggots appear or reach their highest peak. This adaptive mechanism, which involves detecting and locating fly larvae using chemical signals from decomposing materials such as dung, enables histerid beetles, particularly observed in most species of *Atholus*, to find prey and optimal habitats. *Atholus*, a histerine beetle, is ubiquitous in these heterotrophic environments and adept at hunting any soft-bodied larvae of other insects. This adaptation could potentially become a useful tool in the future if applied appropriately as a pest control regimen.

Insect succession, such as in Histeridae, is a stable component of carrion communities; however, their biology and ecology are poorly studied. The succession of these beetles may be used to determine the elapsed time since death, commonly referred to as the “post-mortem interval” or PMI in forensic entomology. Studies on forensics utilizing histerid beetles have been limited and have not primarily applied to human-related scenarios. Nevertheless, results from small-scale experiments may provide information on how succession works in forensically-significant Histeridae, helping us comprehend the diversity of the species and its distribution. Recent studies have shown that some species of histerid beetles are highly helpful for this purpose, including studies that deal on seasonality, competition, or spatial and temporal variation in species composition.

The myrmecophilic and termitophilic associations of histerid beetles are observed in several species of Histerinae, given that this group contains the para/polyphyletic Exosternini. While most members of the subfamily Histerinae are generally non-myrmecophile, other inquiline histerines include representatives of *Hister* and other genera. Although this unique relationship of these beetles with other groups of insects is not yet reported in the Philippines or neighboring islands, it may possibly occur, as other groups of Histeridae have been adapting this mechanism through co-evolution with ants and termites over time.

In general, taxonomy employs the inductive method to obtain knowledge. Examining and describing the characters of histerid beetles allows us to infer various character-states and understand their function in nature. For example, the dorsoventrally-flattened shape of the tribes Hololeptini and Platysomatini suggests adaptation to life in subcortical and tight spaces under the bark of trees. On the other hand, the combination of oval and convex-shaped bodies of Histerini implies adaptability to moist and soft substrates such as dung and other decomposing organic materials. While most of the specimens examined in this study are museum materials, and much of the biological information of the species remains undetermined, the comprehensive morphological descriptions provided in this study represent a significant step forward in understanding and resolving the identity of these taxa.

Conclusion

While this study successfully addresses the majority of species from various groups of Histerinae occurring not only at the archipelagic level in the Philippines but also on a larger scale within the Oriental Region and Far Eastern Asian fauna, it highlights the ongoing need for extensive research to fully comprehend the diversity, distribution, and life histories of not only of Histeridae but also to other closely related groups that share the same life strategies as histerid beetles.

Despite the Philippines being situated in the faunal transition zone of Wallacea and being recognized as one of the world’s megadiverse spots, understanding the taxonomy of taxa on both the archipelagic and larger Oriental Region scales raises intriguing questions about dispersal routes and mechanisms.

While morphological characterization and differentiation of male genital structures prove sufficient for species determination, establishing relationships between higher taxonomic groups may require molecular methods for confirmation. Further studies on the biology and life histories of these beetles are essential to gain a better understanding of their roles in agriculture and forensic studies.

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APPENDICES

LIST OF TABLES

LIST OF FIGURES

Table 1. Checklist and summary of all the species of the Philippine Histerinae (Tribes Exosternini, Histerini and Hololeptini) showing their record status, taxonomic remarks and distribution.

Tribes	Genus	Subgenus	Species	Author, Year	Record Status	Remarks	Distribution
Exosternini							
	<i>Anaglymma</i>		<i>circularis</i>	Marseul, 1864	PR	RD	O
	<i>Notodoma</i>		sp. 1	sp. nov.	NS; *	OD	E
	<i>Sabahister</i>		<i>philippinensis</i>	Thérond, 1963	PR	NA	E
Histerini							
	<i>Margarinotus</i>	(<i>Ptomister</i>)	<i>faldermanni</i>	Marseul, 1862	PR	NA	E
	<i>Merohister</i>		<i>jekeli</i>	Marseul, 1857	PR	NA	O; EP
	<i>Nasaltus</i>		<i>chinensis</i>	Quensel, 1806	NR	RD	O; PI
	<i>Nasaltus</i>		<i>philippinarum</i>	Bickhardt, 1914	PR	NA	E
	<i>Hister</i>	(<i>Zabromorphus</i>)	<i>salebrosus</i>	Schleicher, 1932	PR	NA	O; EP
	<i>Atholus</i>		<i>bakeri</i>	Bickhardt, 1914	PR	RD	E
	<i>Atholus</i>		<i>coelestis</i>	Marseul, 1857	PR	S	O; P
	<i>Atholus</i>		<i>nitidissimus</i>	Desbordes, 1925	PR	RD	E
	<i>Atholus</i>		<i>philippinensis</i>	Marseul, 1854	PR	S	O
	<i>Atholus</i>		<i>pirithous</i>	Marseul, 1873	PR	S	O; P
	<i>Atholus</i>		<i>torquatus</i>	Marseul, 1854	NR	RD	O
	<i>Asiaster</i>		<i>duostriatus</i>	Kapler, 1999	PR	NA	E
Hololeptini							
	<i>Hololepta</i>	(<i>Hololepta</i>)	<i>elongata</i>	Erichson, 1834	PR	RD	O
	<i>Hololepta</i>	(<i>Hololepta</i>)	<i>higoniae</i>	Lewis, 1894	PR	NA	O; P
	<i>Hololepta</i>	(<i>Hololepta</i>)	<i>indica</i>	Erichson, 1834	PR	RD	O
	<i>Hololepta</i>	(<i>Hololepta</i>)	<i>laevigata</i>	Guérin-Ménéville, 1833	PR	NA	O

Record Status

PR previously recorded
 NR newly recorded
 NS new species

Distribution

O Oriental
 E Endemic
 EP Eastern Palearctic
 P Palearctic
 PI Pacific Islands

Remarks

RD re-described
 OD originally described
 S supplemented
 NA not available
 * genus is new record to the Philippines
 ** re-assigned from (*Platysoma*)

Table 2. Checklist and summary of all the species of the Philippine Histerinae (Tribe Platysomatini) showing their record status, taxonomic remarks and distribution.

Tribe	Genus	Subgenus	Species	Author, Year	Record Status	Remarks	Distribution
Platysomatini							
	<i>Plaesius</i>	(<i>Plaesius</i>)	<i>javanus</i>	Erichson, 1834	PR	S	O; PI
	<i>Plaesius</i>	(<i>Hyposolenus</i>)	<i>laevigatus</i>	Marseul, 1853	PR	S	O
	<i>Eblisia</i>	(<i>Eblisia</i>)	<i>hobbyi</i>	Cooman, 1937	NR	RD	O
	<i>Eblisia</i>	(<i>Eblisia</i>)	<i>lunatica</i>	Marseul, 1864	PR	RD	O
	<i>Eurylister</i>		sp. 1	new species	NS	OD	E
	<i>Eurylister</i>		<i>silvestris</i>	Schmidt, 1897	PR	RD	O
	<i>Eurylister</i>		<i>uniformis</i>	Lewis, 1894	PR	RD	O
	<i>Apobletes</i>		<i>cavifrons</i>	Lewis, 1900	PR	NA	O
	<i>Apobletes</i>		<i>corticalis</i>	Lewis, 1891	PR	NA	O
	<i>Apobletes</i>		<i>feratius</i>	Lewis, 1902	PR	NA	O
	<i>Apobletes</i>		<i>fictitius</i>	Lewis, 1885	PR	NA	O
	<i>Apobletes</i>		<i>marginicollis</i>	Lewis, 1888	PR	RD	O
	<i>Apobletes</i>		<i>schaumei</i>	Marseul, 1860	PR	S	O; EP
	<i>Mesostrix</i>		<i>bimaculata</i>	Mazur & Mokrzycki, 2014	NR	S	O
	<i>Platysoma</i>	(<i>Platysoma</i>)	sp. 1	new species	NS	OD	E
	<i>Platysoma</i>	(<i>Cylistus</i>)	<i>dufali</i>	Marseul, 1864	PR	RD; **	O
	<i>Platysoma</i>	(<i>Cylistus</i>)	<i>ineditum</i>	Desbordes, 1925	PR	NA	E
	<i>Liopygus</i>		<i>cavatus</i>	Lewis, 1885	PR	NA	O
	<i>Liopygus</i>		<i>diopsipygus</i>	Marseul, 1879	PR	RD	O
	<i>Liopygus</i>		<i>gestroi</i>	Lewis, 1888	PR	RD	O
	<i>Kanaarister</i>		sp. 1	new species	NS	OD	E
	<i>Platylister</i>	(<i>Platylister</i>)	<i>abruptus</i>	Erichson, 1834	PR	RD	O
	<i>Platylister</i>	(<i>Platylister</i>)	<i>charrali</i>	Marseul, 1861	PR	RD	O
	<i>Platylister</i>	(<i>Platylister</i>)	<i>corticinus</i>	Bickhardt, 1914	PR	NA	E
	<i>Platylister</i>	(<i>Platylister</i>)	<i>densatus</i>	Schmidt, 1894	PR	NA	O
	<i>Platylister</i>	(<i>Platylister</i>)	sp. 1	new species	NS	OD	E
	<i>Platylister</i>	(<i>Platylister</i>)	<i>lucifugus</i>	Marseul, 1853	PR	RD	E
	<i>Platylister</i>	(<i>Platylister</i>)	sp. 2	new species	NS	OD	E
	<i>Platylister</i>	(<i>Platylister</i>)	sp. 3	new species	NS	OD	E
	<i>Platylister</i>	(<i>Platylister</i>)	<i>ovatus</i>	Erichson, 1834	PR	RD	O
	<i>Platylister</i>	(<i>Platylister</i>)	<i>striatiderum</i>	Marseul, 1853	PR	RD	E
	<i>Platylister</i>	(<i>Popinus</i>)	<i>confucii</i>	Marseul, 1857	NR	RD	O
	<i>Platylister</i>	(<i>Popinus</i>)	<i>dahdah</i>	Marseul, 1861	PR	RD	O; PI
	<i>Platylister</i>	(<i>Popinus</i>)	<i>decipiens</i>	Schmidt, 1889	PR	NA	O
	<i>Platylister</i>	(<i>Popinus</i>)	<i>luzonicus</i>	Erichson, 1834	PR	RD	O
	<i>Platylister</i>	(<i>Popinus</i>)	<i>persimilis</i>	Lewis, 1893	PR	NA	O
	<i>Platylister</i>	(<i>Popinus</i>)	<i>philippinicola</i>	Desbordes, 1925	PR	NA	E

(see Table 1 for acronym reference).

Table 3. Checklist and summary of all the species of *Atholus* Thomson, 1859 (Histerinae, Histerini) from the Oriental Region and Far Eastern Asia showing their taxonomic remarks and distribution.

Tribe	Genus	Species	Subspecies	Author, Year	Remarks	Distribution
Histerini	<i>Atholus</i>					
		<i>amplificipes</i>		Mazur, 2013	supplemented	ORN
		<i>arrowi</i>		Desbordes, 1923	NA	ORN
		<i>baberii</i>		Lewis, 1901	NA	ORN
		<i>bakeri</i>		Bickhardt, 1914	re-described	ORN
		<i>bifrons</i>		Marseul, 1854	re-described	ORN, PAL
		<i>bimaculatus</i>		Linnaeus, 1758	supplemented	*
		<i>cinctipygus</i>		Lewis, 1900	NA	ORN
		<i>cochinchinae</i>		Schmidt, 1889	re-described	ORN
		<i>coelestis</i>		Marseul, 1870	supplemented	ORN, PAL
		<i>concordans</i>		Marseul, 1870	NA	ORN
		<i>confinis</i>		Erichson, 1834	re-described	PAL, **
		<i>crenatifrons</i>		Lewis, 1899	NA	ORN
		<i>daldorffi</i>		Bedel, 1906	re-described	ORN, PAL
		<i>dentipes</i>		Lewis, 1892	re-described	ORN
		<i>depistor</i>		Marseul, 1873	supplemented	
		<i>duodecimstriatus</i>	<i>quatuordecimstriatus</i>	Gyllenhal, 1808	supplemented	PAL
		<i>famulus</i>		Lewis, 1892	re-described	ORN
		<i>gestroi</i>		Schmidt, 1897	re-described	ORN
		<i>helpferi</i>		Reichardt, 1932	re-described	ORN
		<i>infirmus</i>		Schmidt, 1889	NA	ORN

Remarks

S supplemented
 NA not available

Distribution

ORN Oriental
 PAL Palearctic
 * cosmopolitan, occurring almost all regions
 ** introduced from Nearctic and Afrotropical via Pacific

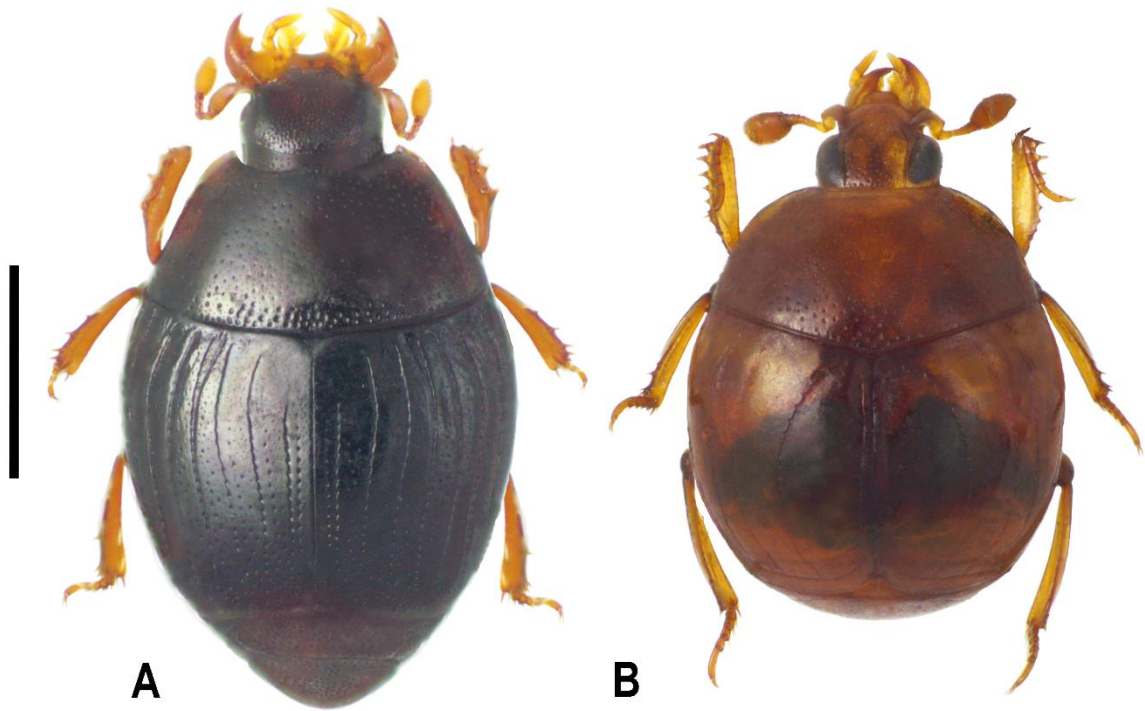
Table 4. Checklist and summary of all the species of *Atholus* Thomson, 1859 (Histerinae, Histerini) from the Oriental Region and Far Eastern Asia showing their taxonomic remarks and distribution (cont).

Tribe	Genus	Species	Subspecies	Author, Year	Remarks	Distribution
		<i>lao</i>		Mazur, 2013	NA	ORN
		<i>levis</i>		Mazur, 2015	supplemented	ORN, PAL
		<i>malaysi</i>		Lewis, 1908	NA	ORN
		<i>maindronii</i>		Lewis, 1901	NA	ORN
		sp. 1		new species	described	ORN
		<i>myrmidon</i>		Marseul, 1861	re-described	ORN
		<i>nitidissimus</i>		Desbordes, 1925	re-described	ORN
		<i>omar</i>		Lewis, 1913	NA	ORN
		<i>philippinensis</i>		Marseul, 1854	supplemented	ORN, PAL
		<i>pinnulae</i>		Lewis, 1900	NA	ORN
		<i>pirithous</i>		Marseul, 1873	supplemented	ORN, PAL
		<i>sessilis</i>		Lewis, 1899	NA	ORN
		<i>silvicola</i>		Lewis, 1901	NA	ORN
		<i>singalanus</i>		Marseul, 1880	re-described	ORN
		<i>striatipennis</i>		Lewis, 1892	re-described	ORN
		<i>tenuistriatus</i>		Lewis, 1889	NA	ORN
		<i>terraemotus</i>		Lewis, 1900	NA	ORN
		<i>tetricus</i>		Lewis, 1902	NA	ORN
		sp. 2		new species	described	PAL
		<i>torquatus</i>		Marseul, 1854	re-described	ORN
		<i>vacillans</i>		Lewis, 1900	NA	ORN

(see Table 3 for acronym reference).



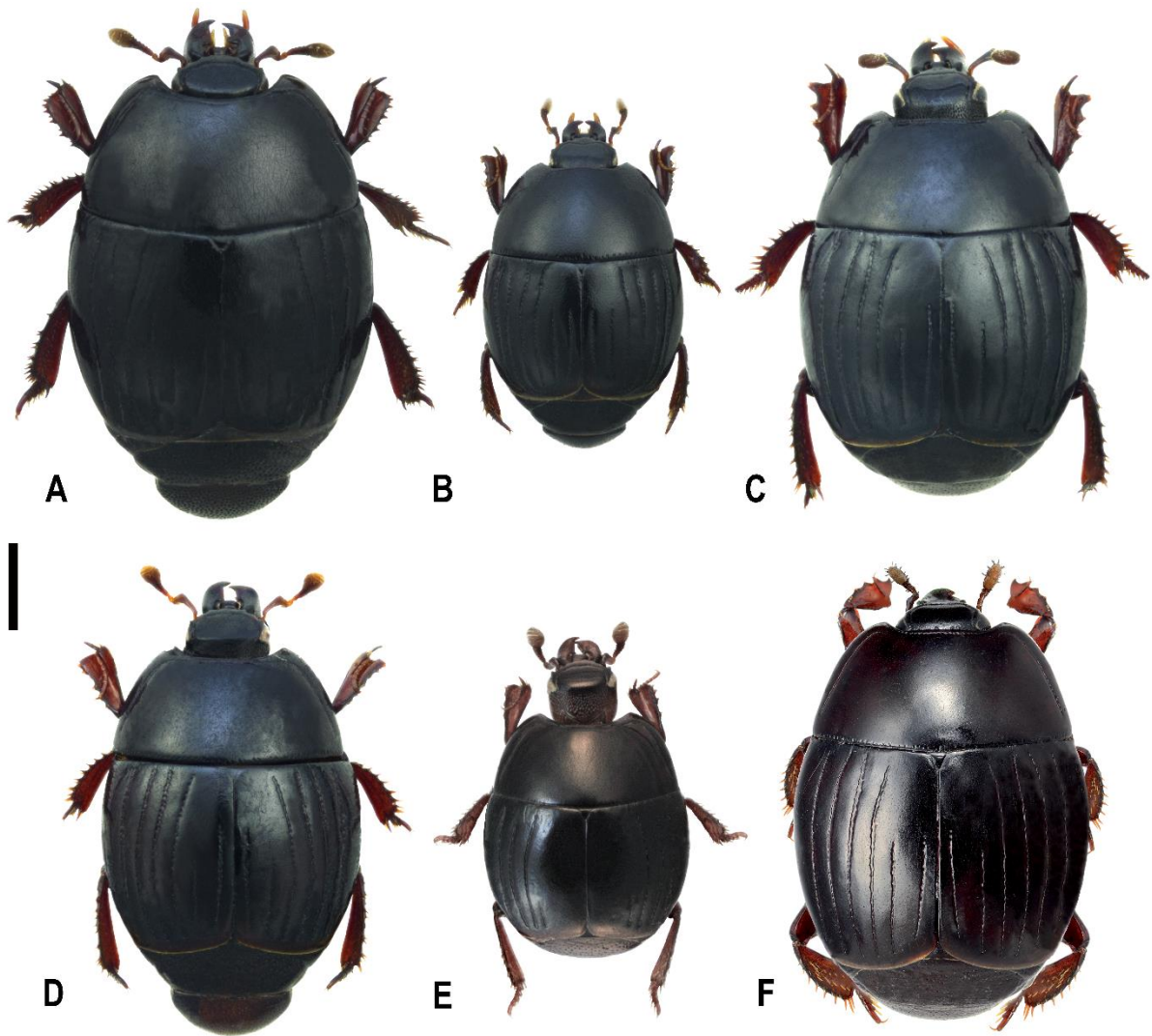
Fig. 1. Map of the Philippine archipelago showing all the collection sites of Histerinae.



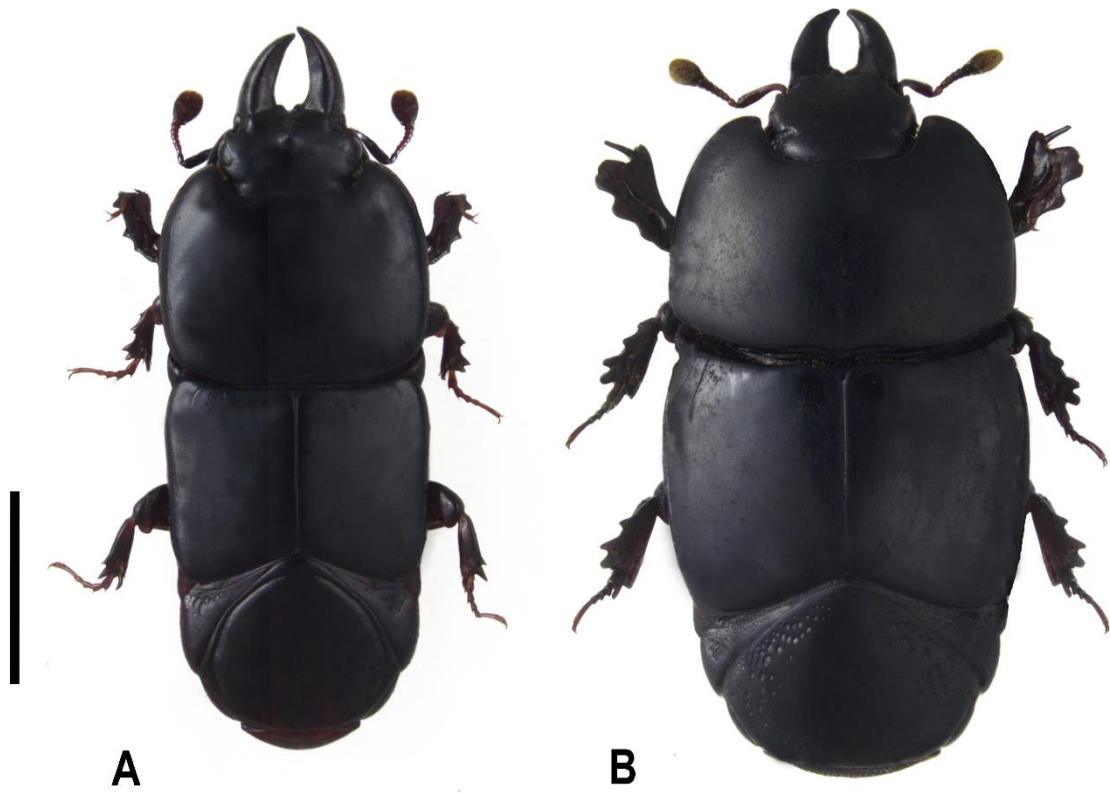
Figs. 2. Adult dorsal habitus of tribe Exosternini, genera *Anaglymma* (Lewis, 1894) and *Notodoma* (Lacordaire, 1854). — A, *Anaglymma circularis* (Marseul, 1864); B, *Notodoma* sp. 1 Scale bar: 1.00 mm.



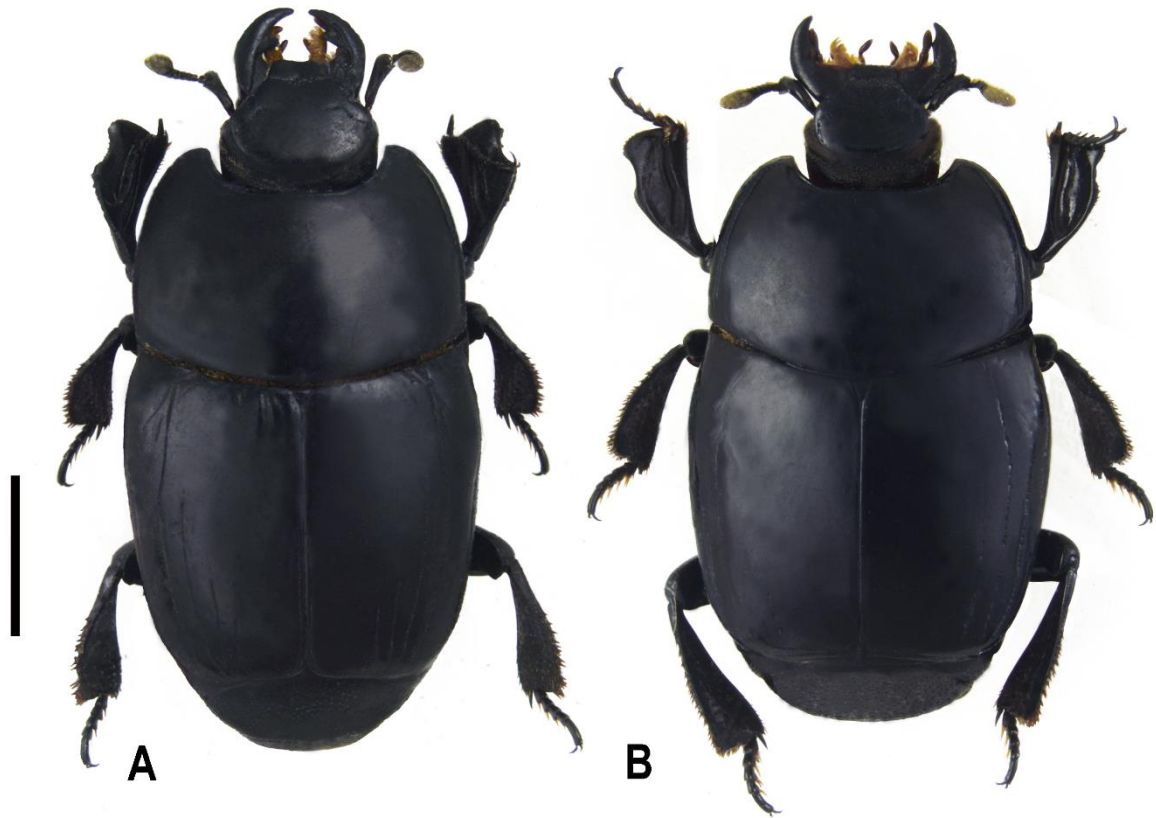
Fig. 3. Adult dorsal habitus of tribe Histerini, genus *Nasaltus* Mazur & Węgrzynowicz, 2008. — *Nasaltus chinensis* (Quensel, 1806). Scale bar: 2.50 mm.



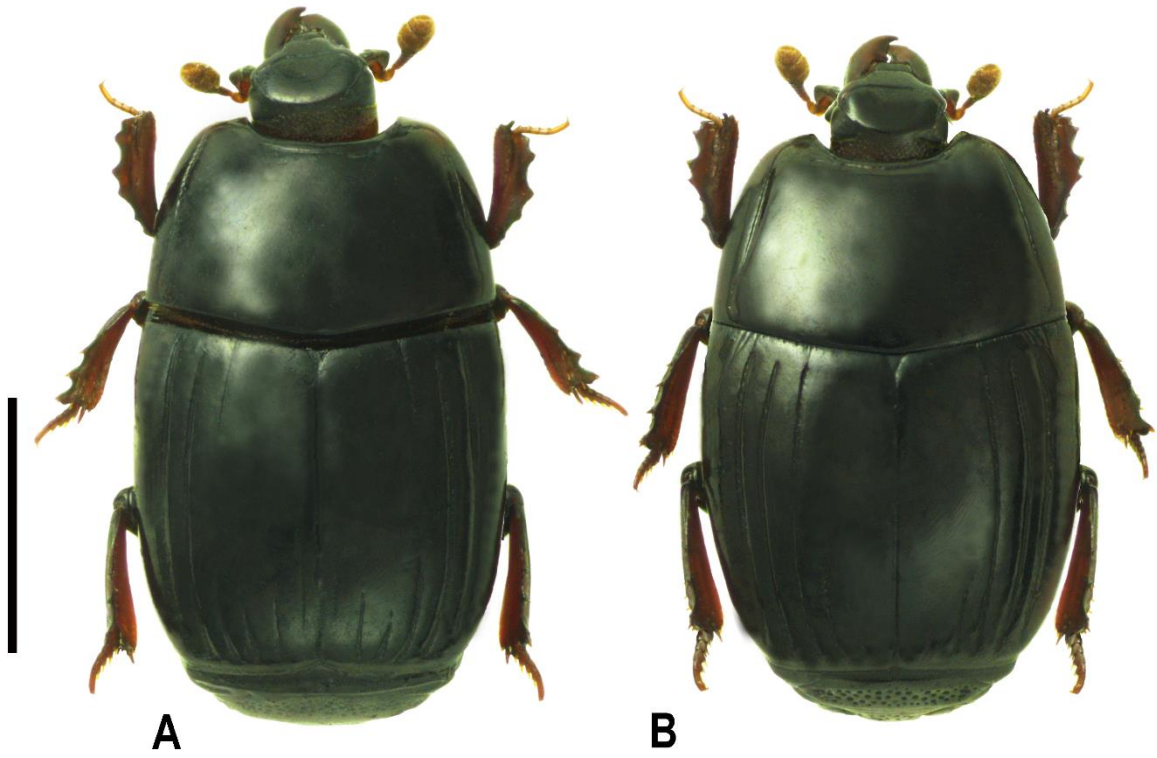
Figs. 4. Adult dorsal habitus of tribe Histerini, genus *Atholus* Thomson, 1859. — A, *Atholus philippinensis* (Marseul, 1854); B, *Atholus coelestis* (Marseul, 1857); C, *Atholus torquatus* (Marseul, 1854); D, *Atholus pirithous* (Marseul, 1873); E, *Atholus nitidissimus* Desbordes, 1925; F, *Atholus bakeri* (Bickhardt, 1914). Scale bar: 1.00 mm.



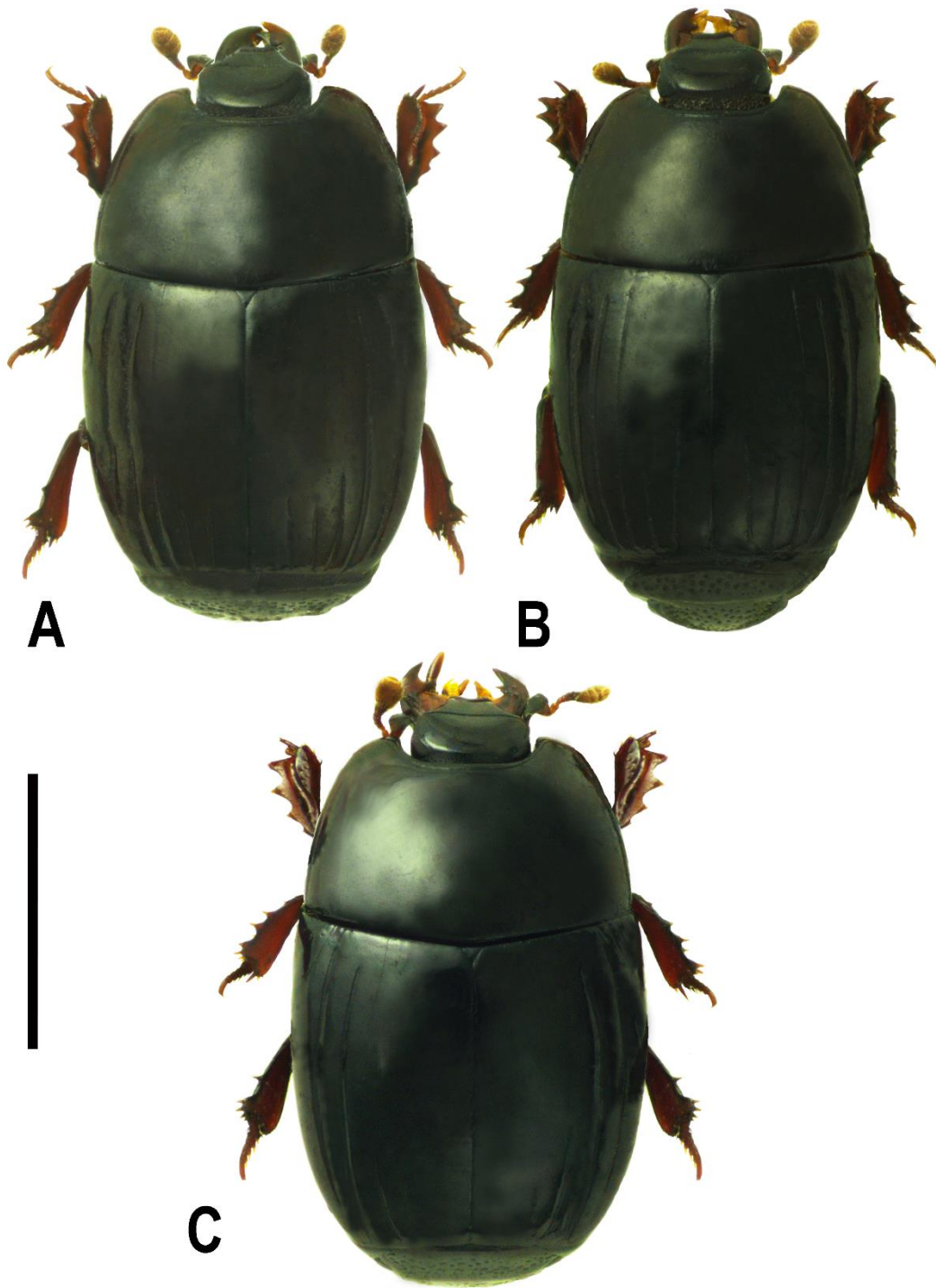
Figs. 5. Adult dorsal habitus of tribe Hololeptini, genus *Hololepta* Paykull, 1811 — A, *Hololepta (Hololepta) elongata* Erichson, 1834; B, *Hololepta (Hololepta) indica* Erichson, 1834. Scale bar: 2.50 mm.



Figs. 6. Adult dorsal habitus of tribe Platysomatini, genus *Plaesius* Erichson, 1834 — A, *Plaesius (Plaesius) javanus* Erichson, 1834; B, *Plaesius (Hyposolenus) laevigatus* Marseul, 1853. Scale bar: 2.50 mm.



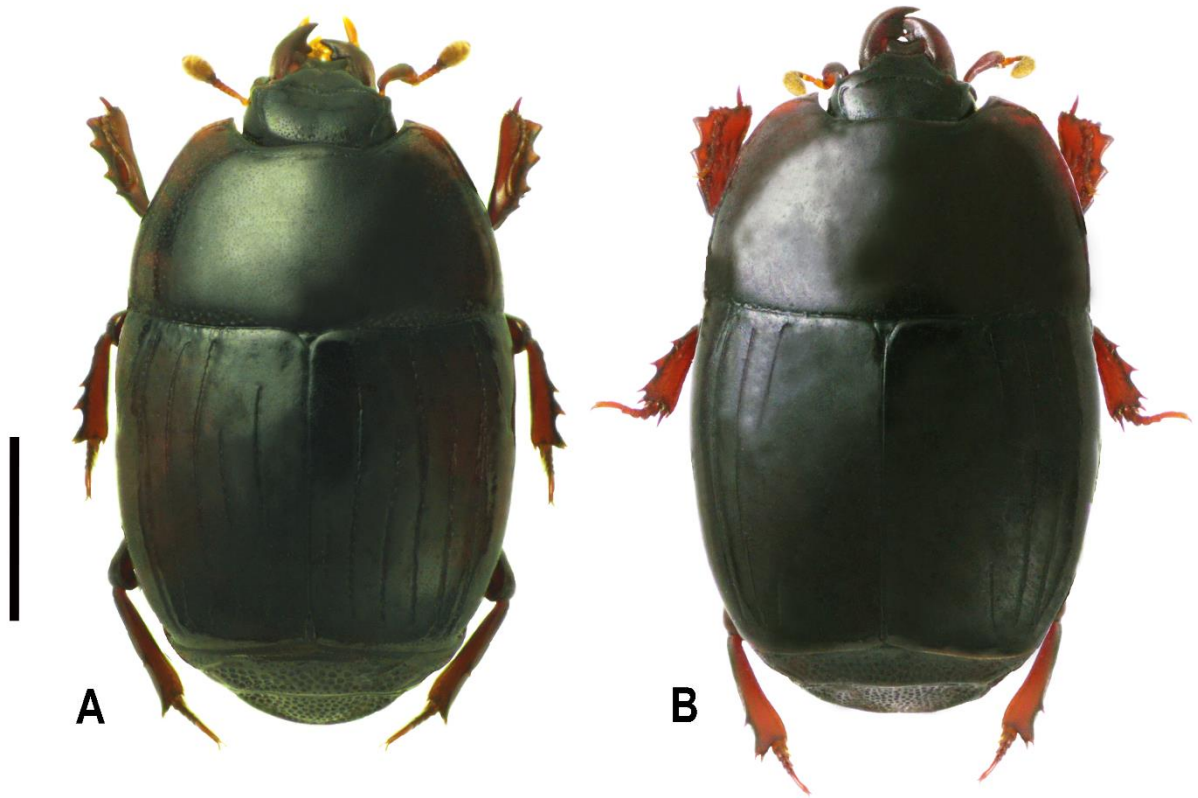
Figs. 7. Adult dorsal habitus of tribe Platysomatini, genus *Eblisia* Lewis, 1889 — A, *Eblisia (Eblisia) lunatica* (Marseul, 1864); B, *Eblisia (Eblisia) hobbyi* (Cooman, 1937). Scale bar: 2.00 mm.



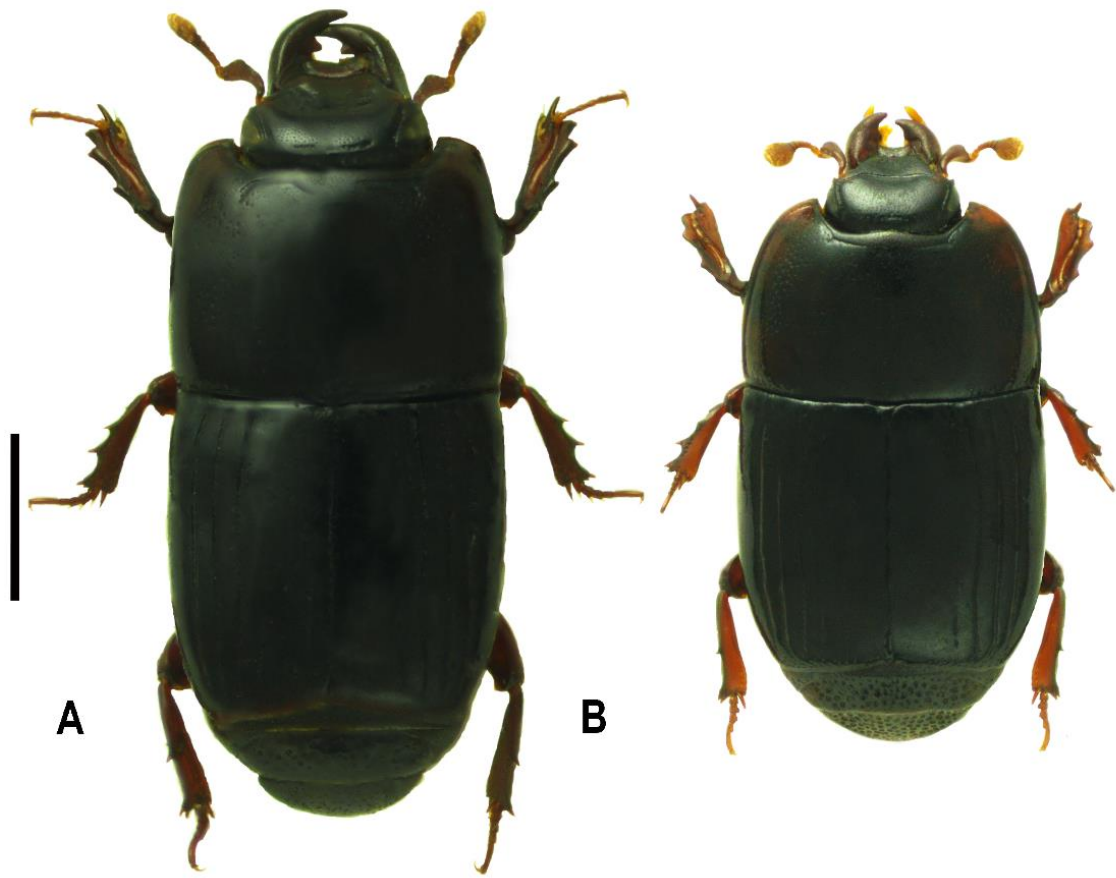
Figs. 8. Adult dorsal habitus of tribe Platysomatini, genus *Eurylister* Bickhardt, 1920 — A, *Eurylister uniformis* (Lewis, 1894); B, *Eurylister silvestris* (Schmidt, 1897); C, *Eurylister* sp. 1. Scale bar: 2.00 mm.



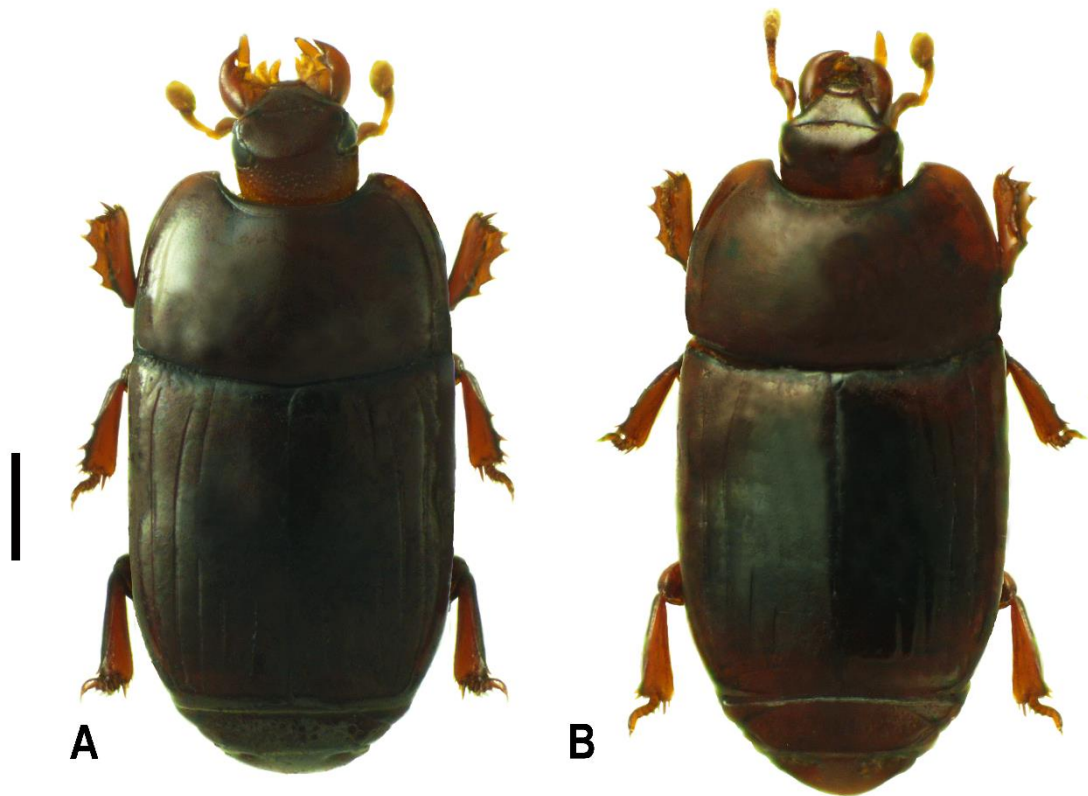
Figs. 9. Adult dorsal habitus of tribe Platysomatini, genus *Apobletes* Marseul, 1861 — A, *Apobletes marginicollis* Lewis, 1888; B, *Apobletes schaumei* Marseul, 1861. Scale bar: 1.00 mm.



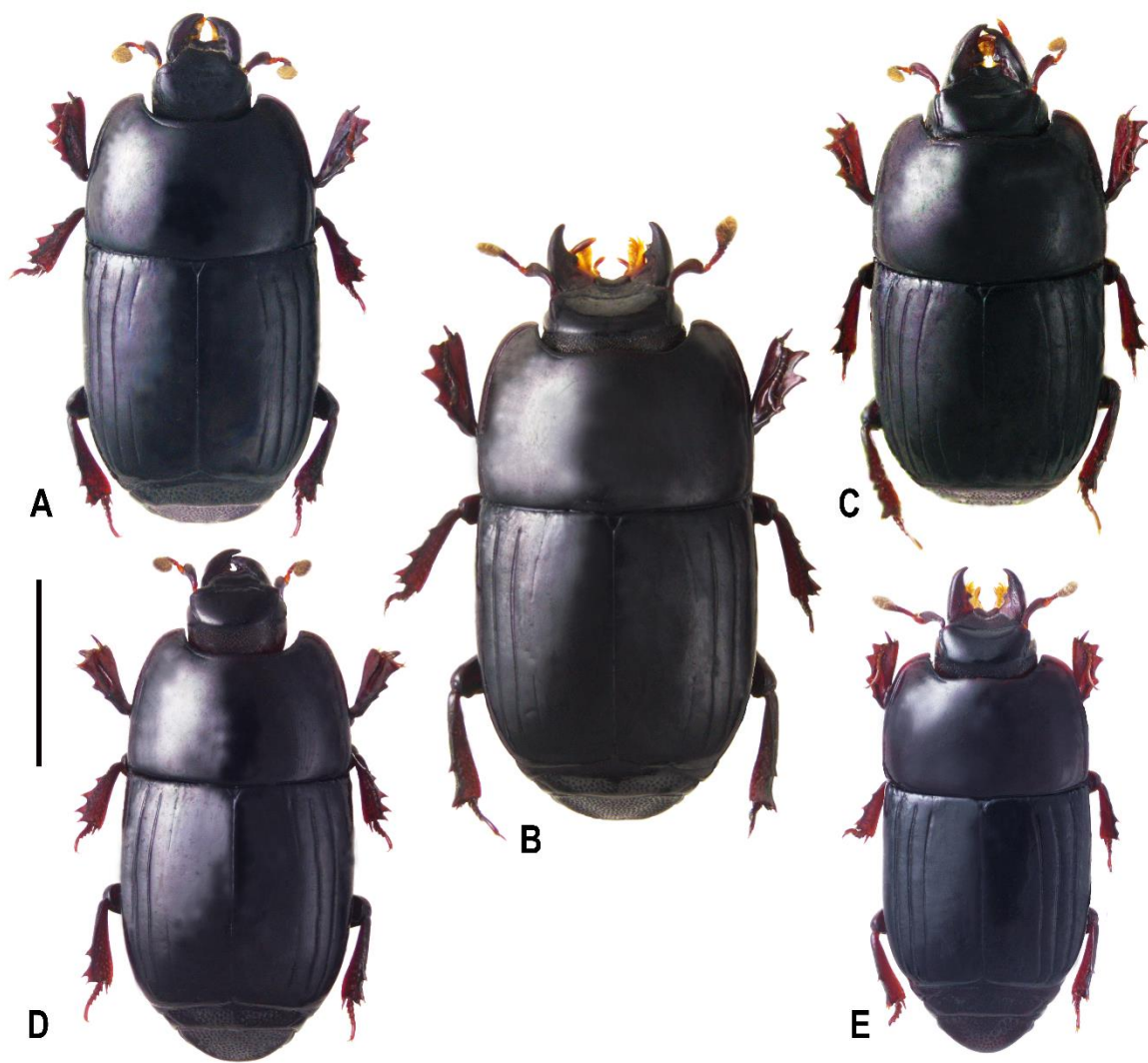
Figs. 10. Adult dorsal habitus of tribe Platysomatini, genera *Mesostrix* Mazur, 1994 and *Kanaarister* Mazur, 1999 — A, *Mesostrix bimaculata* Mazur & Mokrzycki, 2014; B) *Kanaarister* sp. 1. Scale bar: 1.00 mm.



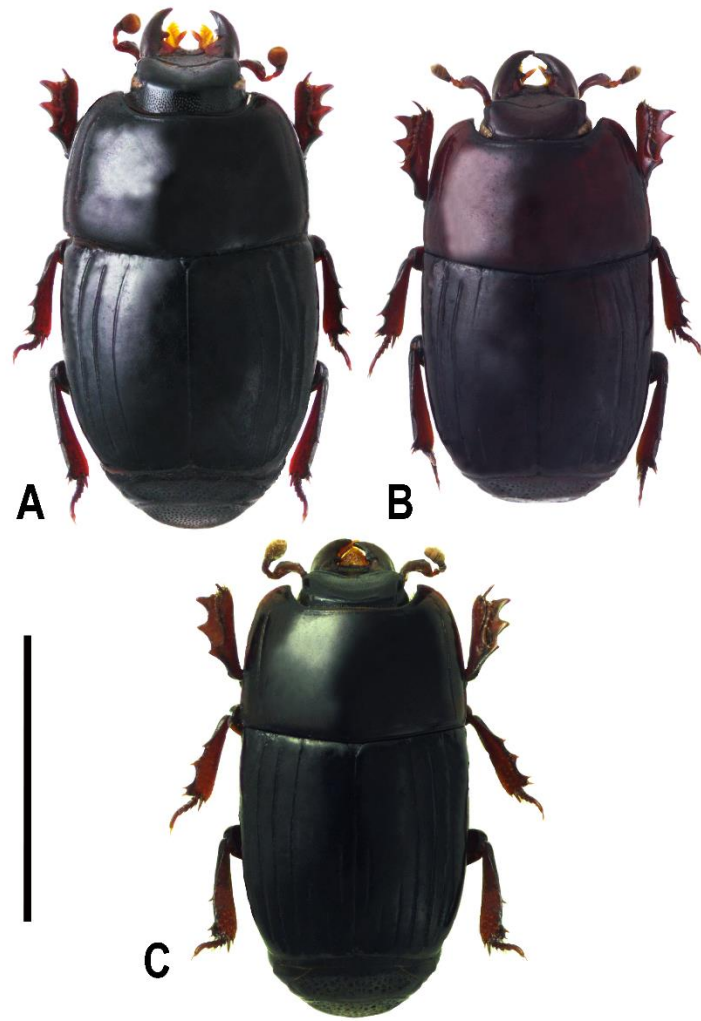
Figs. 11. Adult dorsal habitus of tribe Platysomatini, genus *Platysoma* Leach, 1817 — A, *Platysoma (Cylister) dufali* Erichson, 1834; B, *Platysoma (Platysoma)* sp. 1. Scale bar: 1.00 mm.



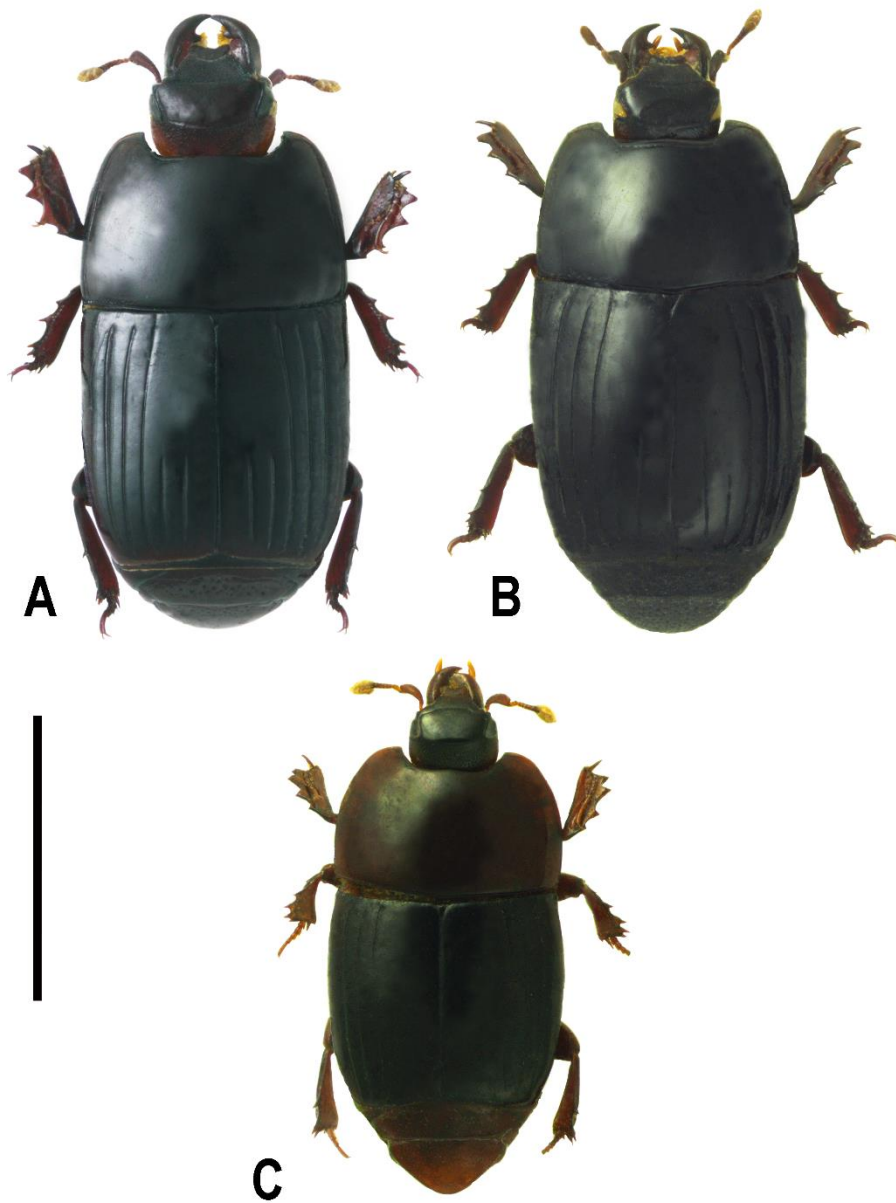
Figs. 12. Adult dorsal habitus of tribe Platysomatini, genus *Liopygus* Lewis, 1891 — A, *Liopygus gestroi* (Lewis, 1888); B, *Liopygus diopsipygus* (Marseul, 1879). Scale bar: 0.50 mm.



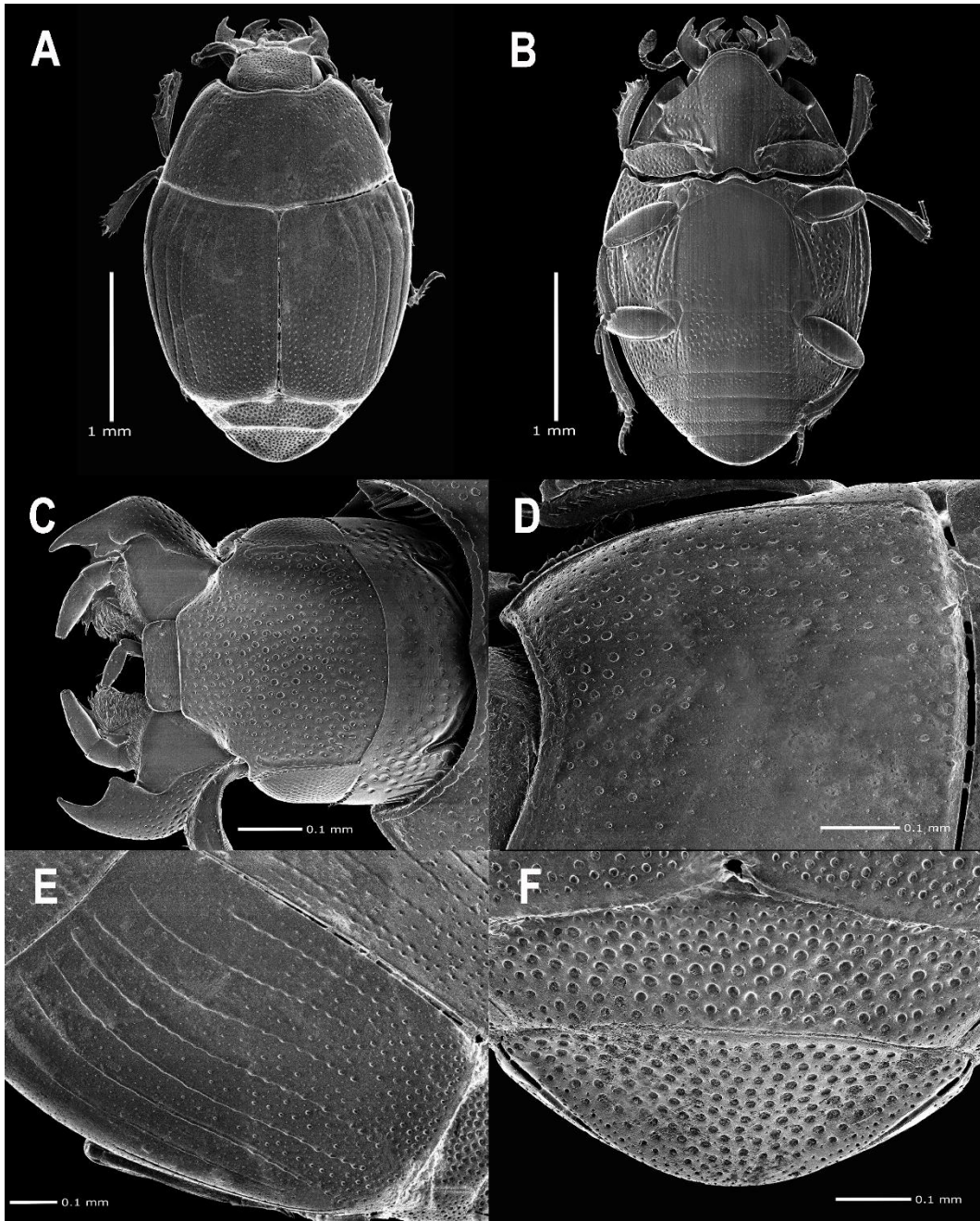
Figs. 13. Adult dorsal habitus of tribe Platysomatini, genus *Platylister* (*Platylister*) Lewis, 1892 with one lateral pronotal stria — A, *Platylister* (*Platylister*) *abruptus* (Erichson, 1834); B, *Platylister* (*Platylister*) *ovatus* (Erichson, 1834); C, *Platylister* (*Platylister*) *charrali* (Marseul, 1861); D, *Platylister* (*Platylister*) *lucifugus* (Marseul, 1853); E, *Platylister* (*Platylister*) sp. 2. Scale bar: 2.50 mm.



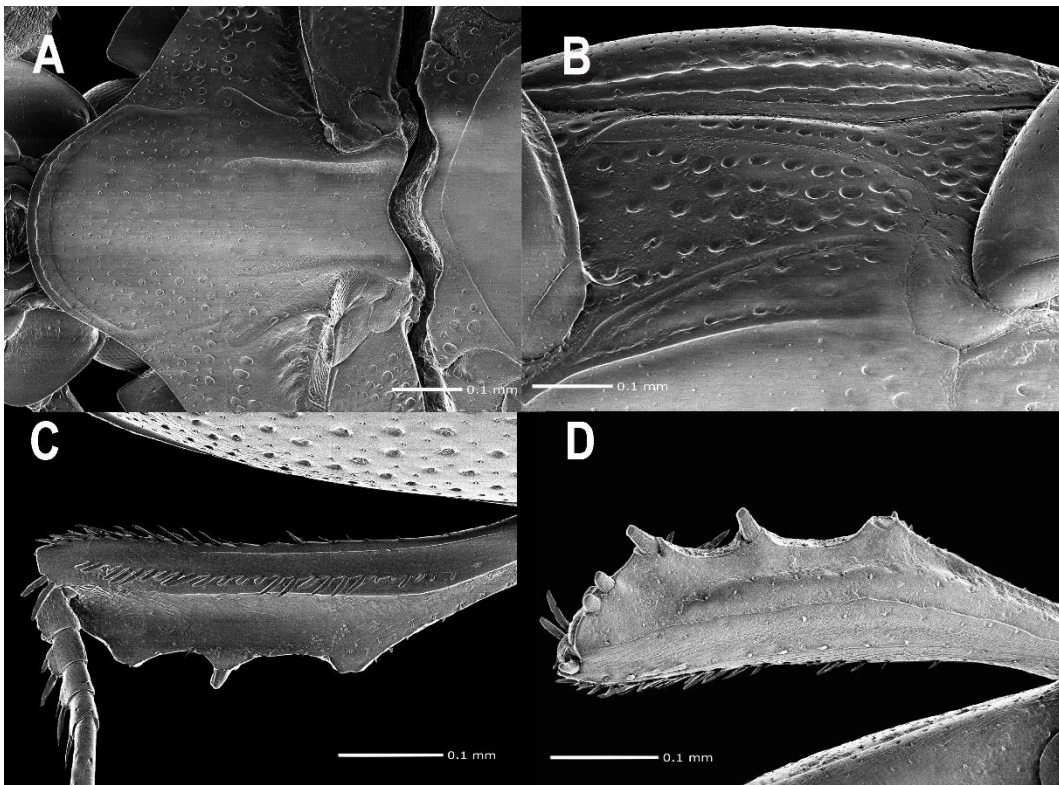
Figs. 14. Adult dorsal habitus of tribe Platysomatini, genus *Platylister* (*Platylister*) Lewis, 1892 with two lateral pronotal striae — A, *Platylister* (*Platylister*) sp. 1; B, *Platylister* (*Platylister*) sp. 2; C, *Platylister* (*Platylister*) *striatiderum* (Marseul, 1853). Scale bar: 2.50 mm.



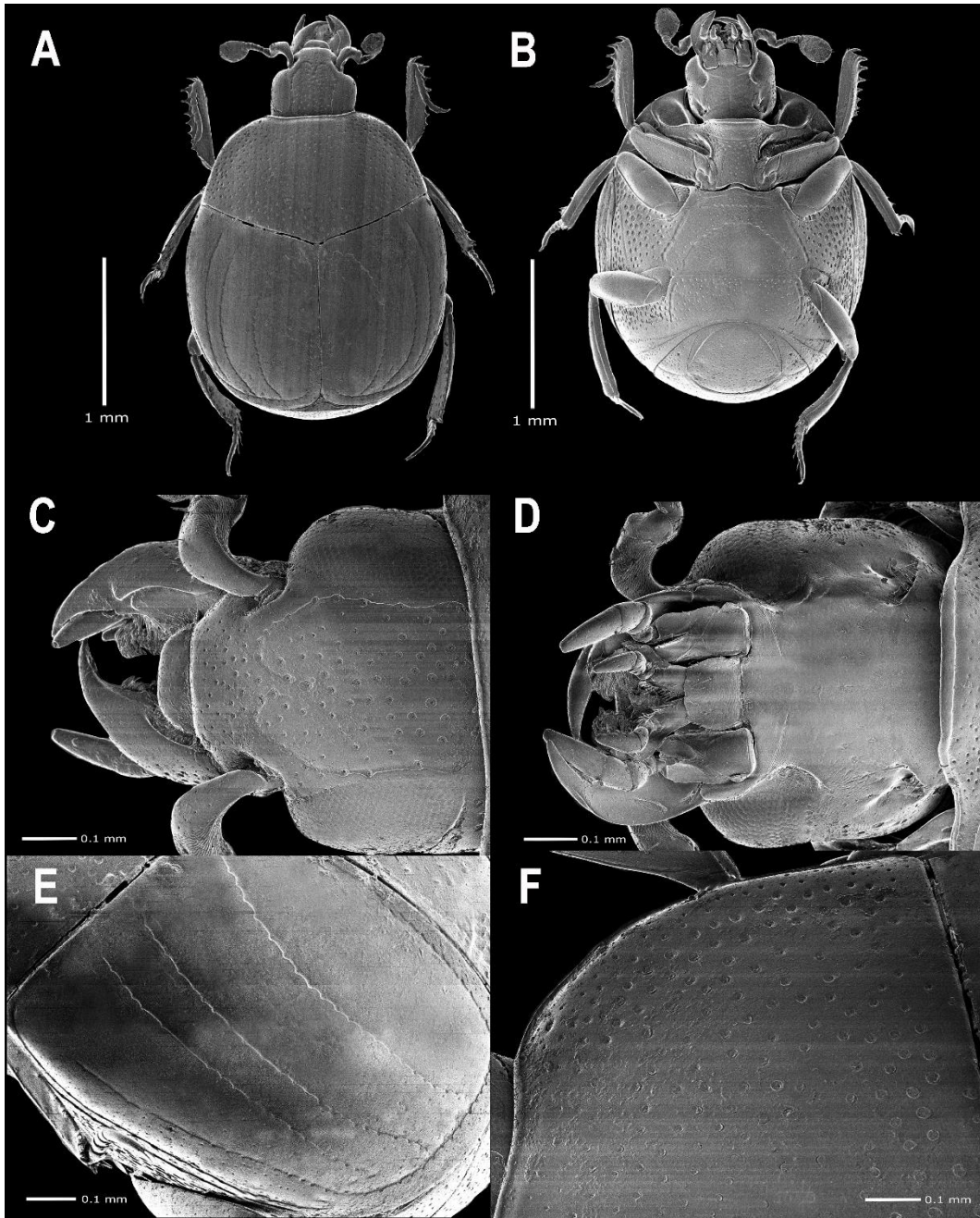
Figs. 15. Adult dorsal habitus of tribe Platysomatini, genus *Platylister* (*Popinus*) Lewis, 1892 — A, *Platylister* (*Popinus*) *confucii* (Marseul, 1857); B, *Platylister* (*Popinus*) *luzonicus* (Erichson, 1834); C, *Platylister* (*Popinus*) *dahdah* (Marseul, 1861). Scale bar: 2.50 mm.



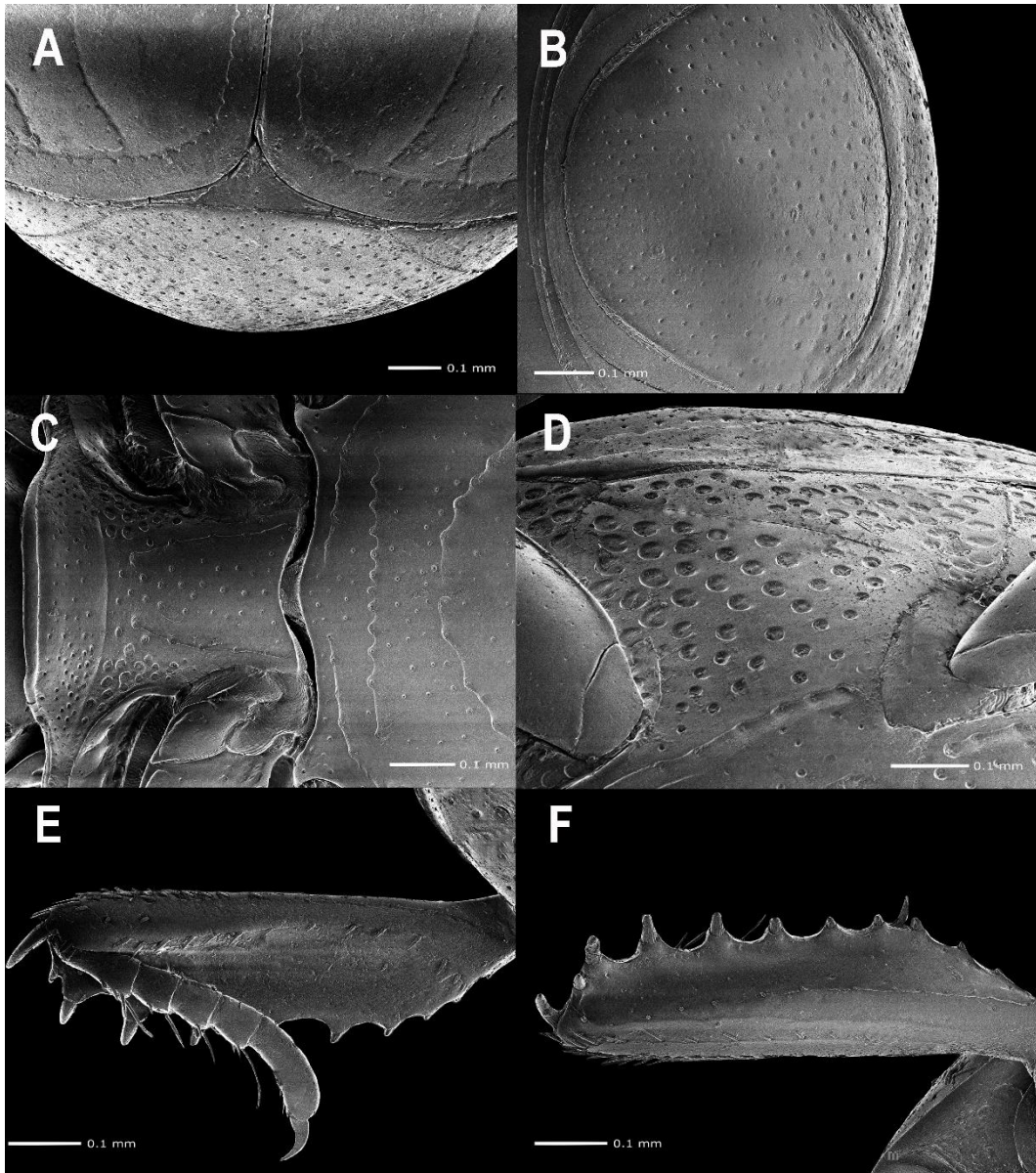
Figs. 16. Micrographs of *Anaglymma circularis* (Marseul, 1864) using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



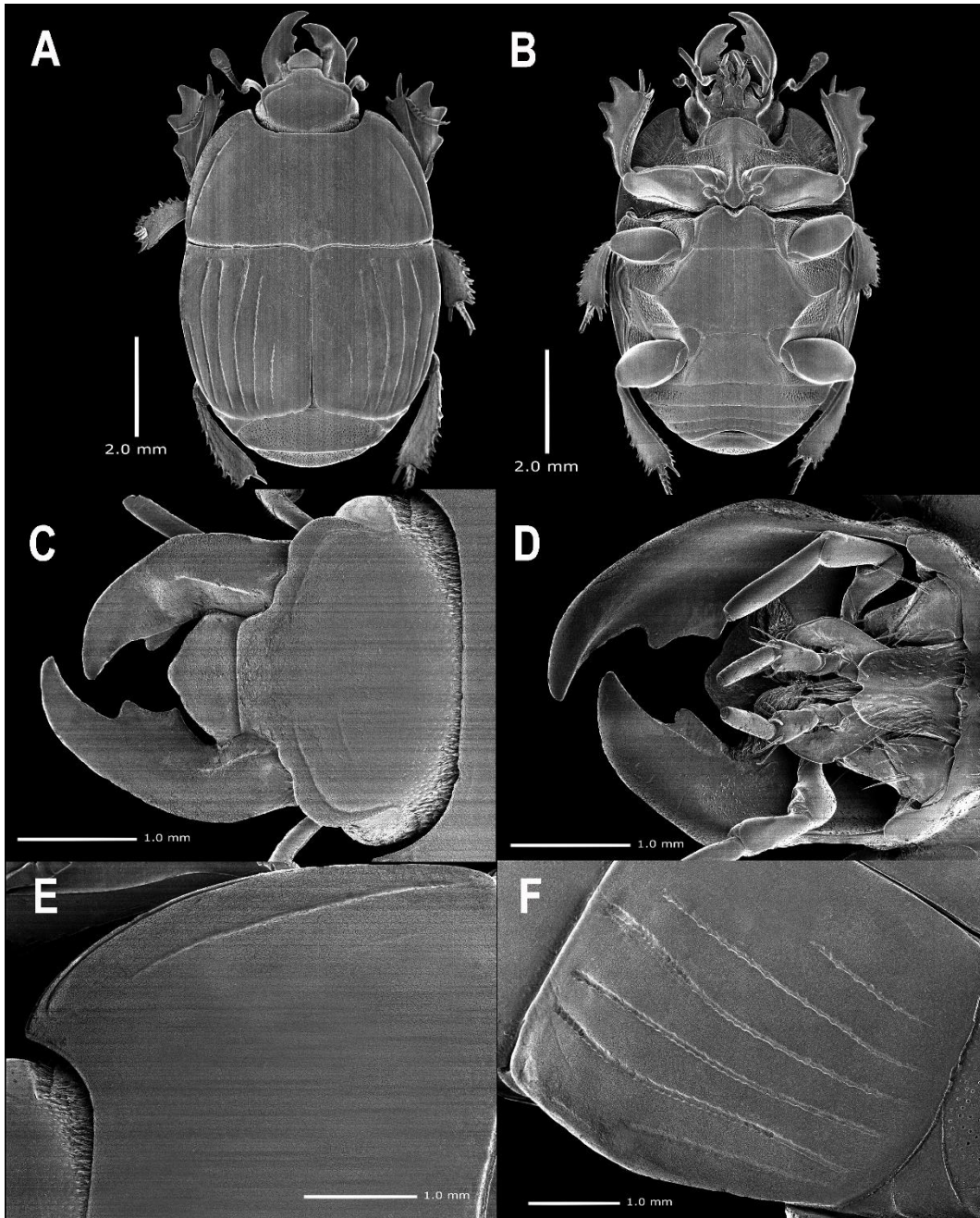
Figs. 17. Micrographs of *Anaglymma circularis* (Marseul, 1864) using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrete; C, protibia, dorsal view; D, ditto, ventral view.



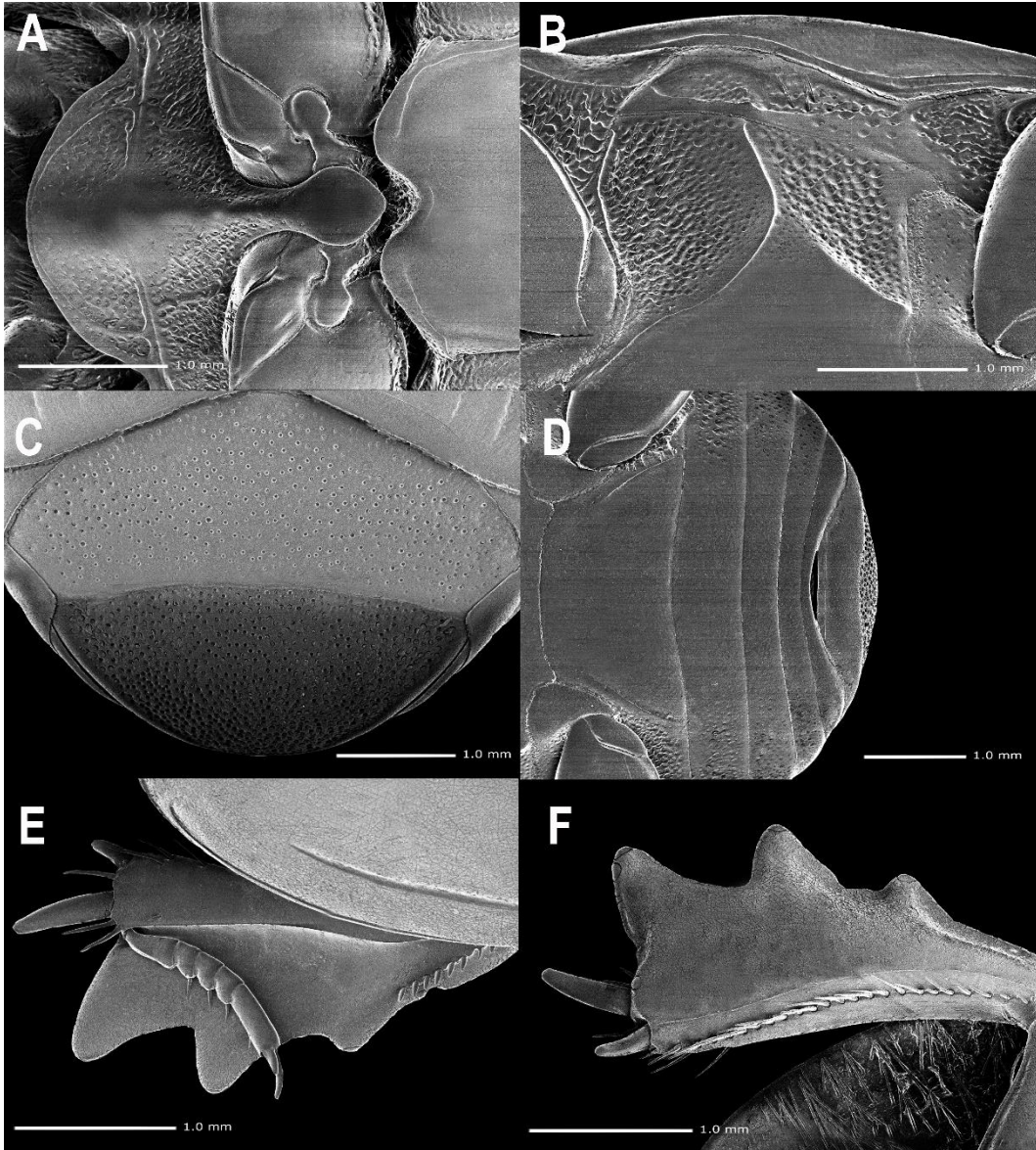
Figs. 18. Micrographs of *Notodoma* sp. 1 using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, mouthparts, ventral view; E, left elytron, oblique view; F, pronotum.



Figs. 19. Micrographs of *Notodoma* sp. 1 using SEM, Plate 2 — A, Propygidium, caudal view; B, pygidium, caudal view; C, prosternal process and mesoventrite; D, meso-metaventrите; E, protibia, dorsal view; F, ditto, ventral view.



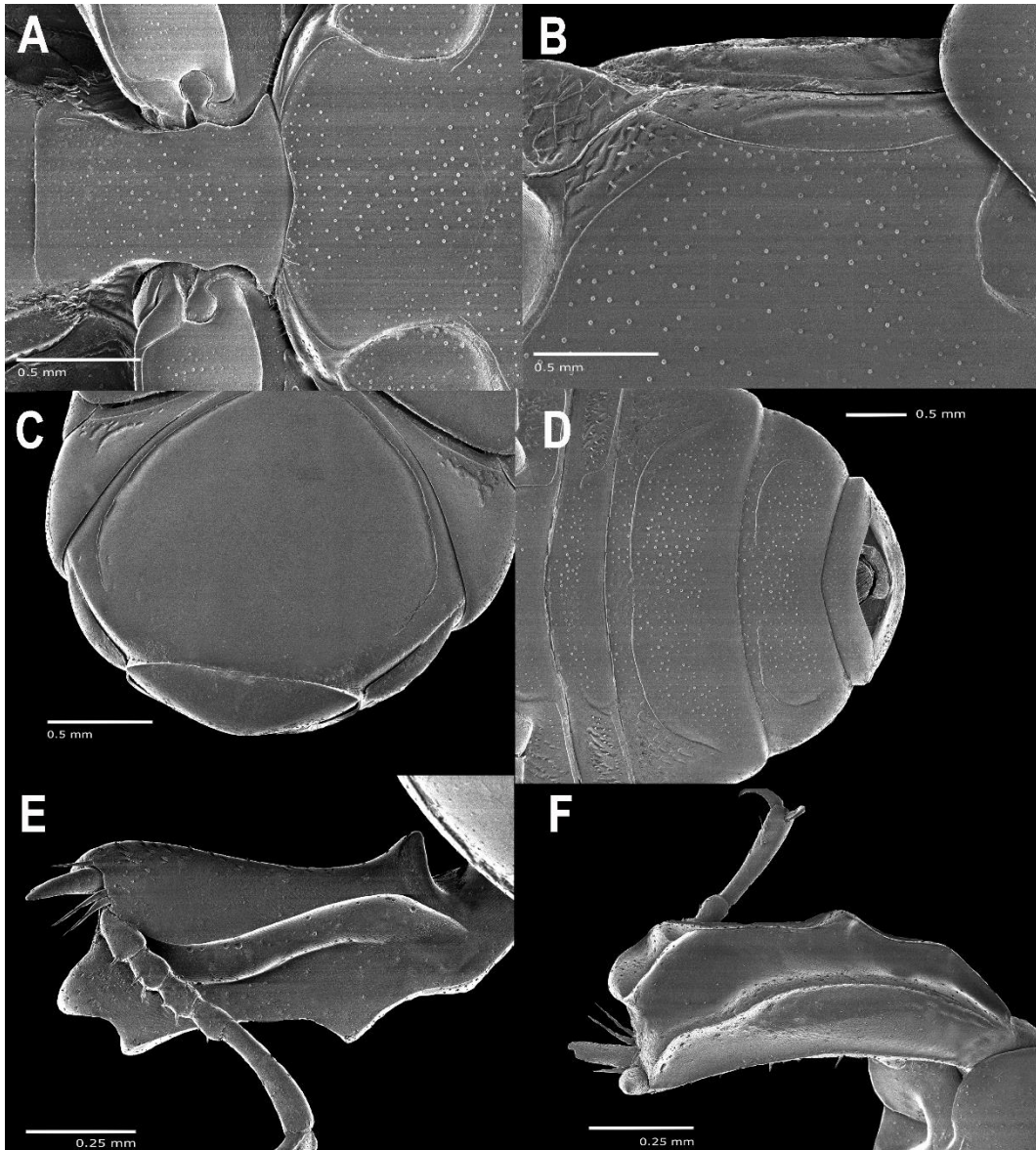
Figs. 20. Micrographs of *Nasaltus chinensis* (Quensel, 1806) using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, mouthparts, ventral view; E, left elytron, oblique view; F, pronotum.



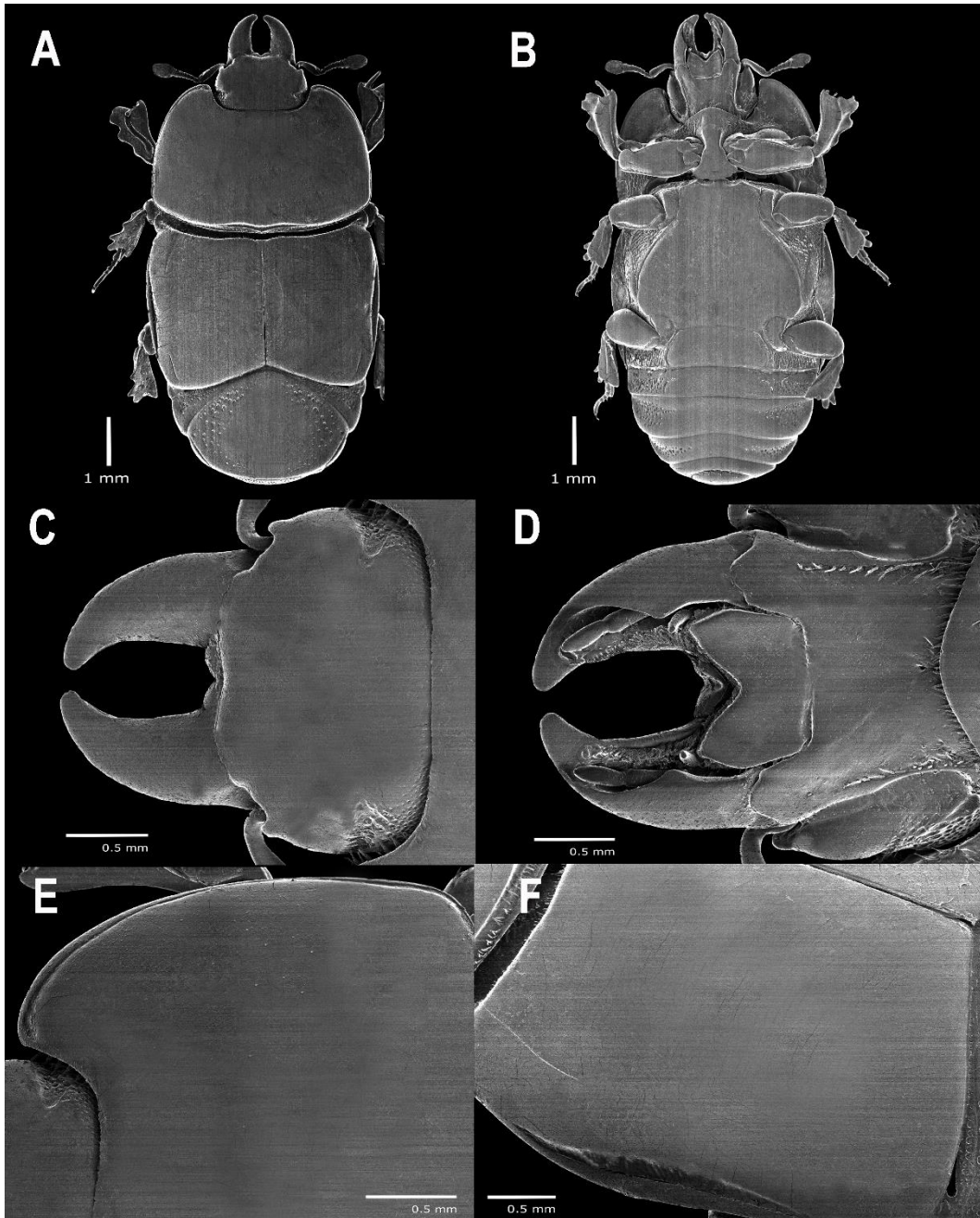
Figs. 21. Micrographs of *Nasaltus chinensis* (Quensel, 1806) using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, pygidium, caudal view; D, abdominal ventrites, ventral view E, protibia, dorsal view; F, ditto, ventral view.



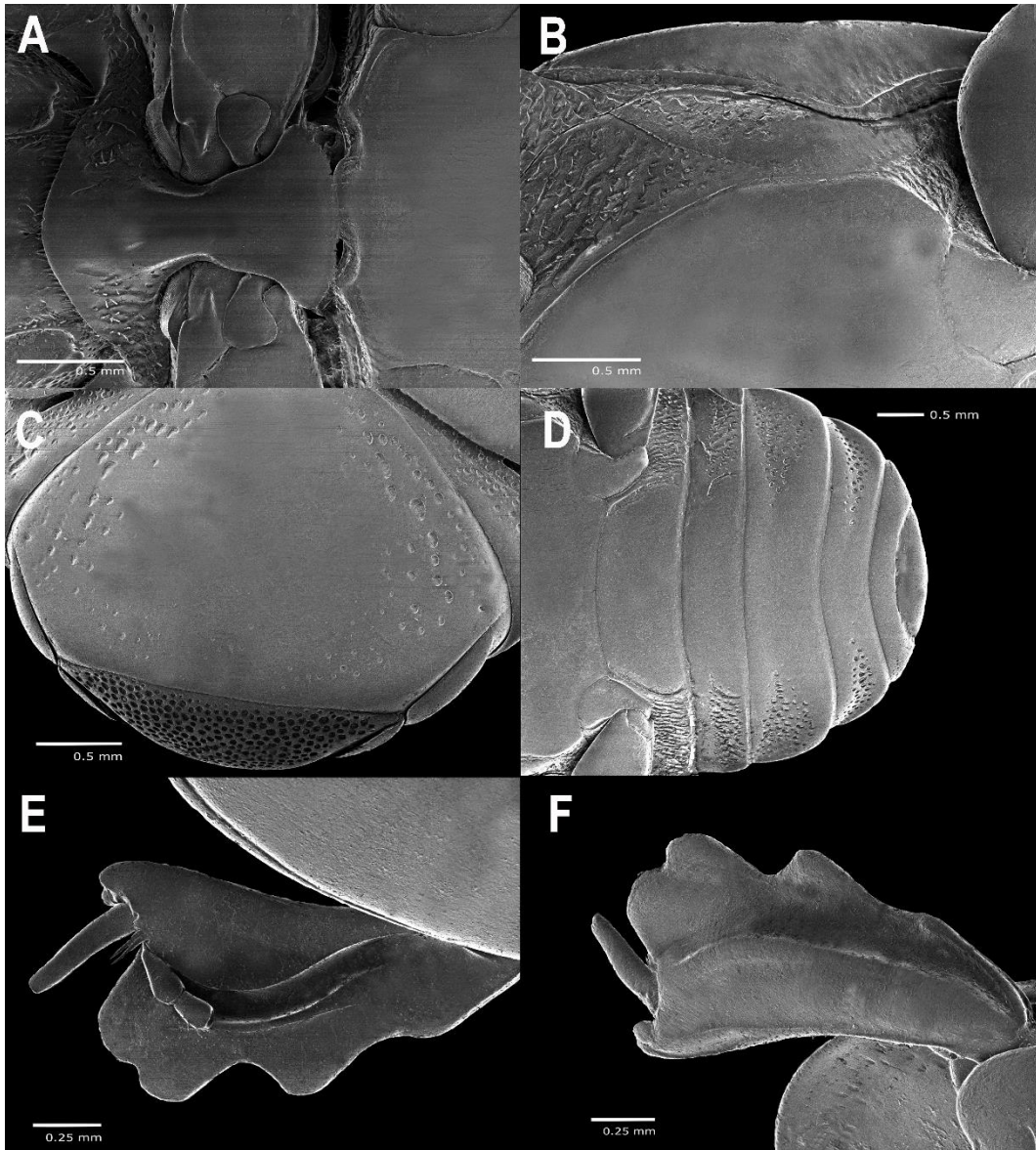
Figs. 22. Micrographs of *Hololepta elongata* Erichson, 1834 using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, mouthparts, ventral view; E, pronotum; F, left elytron, oblique view.



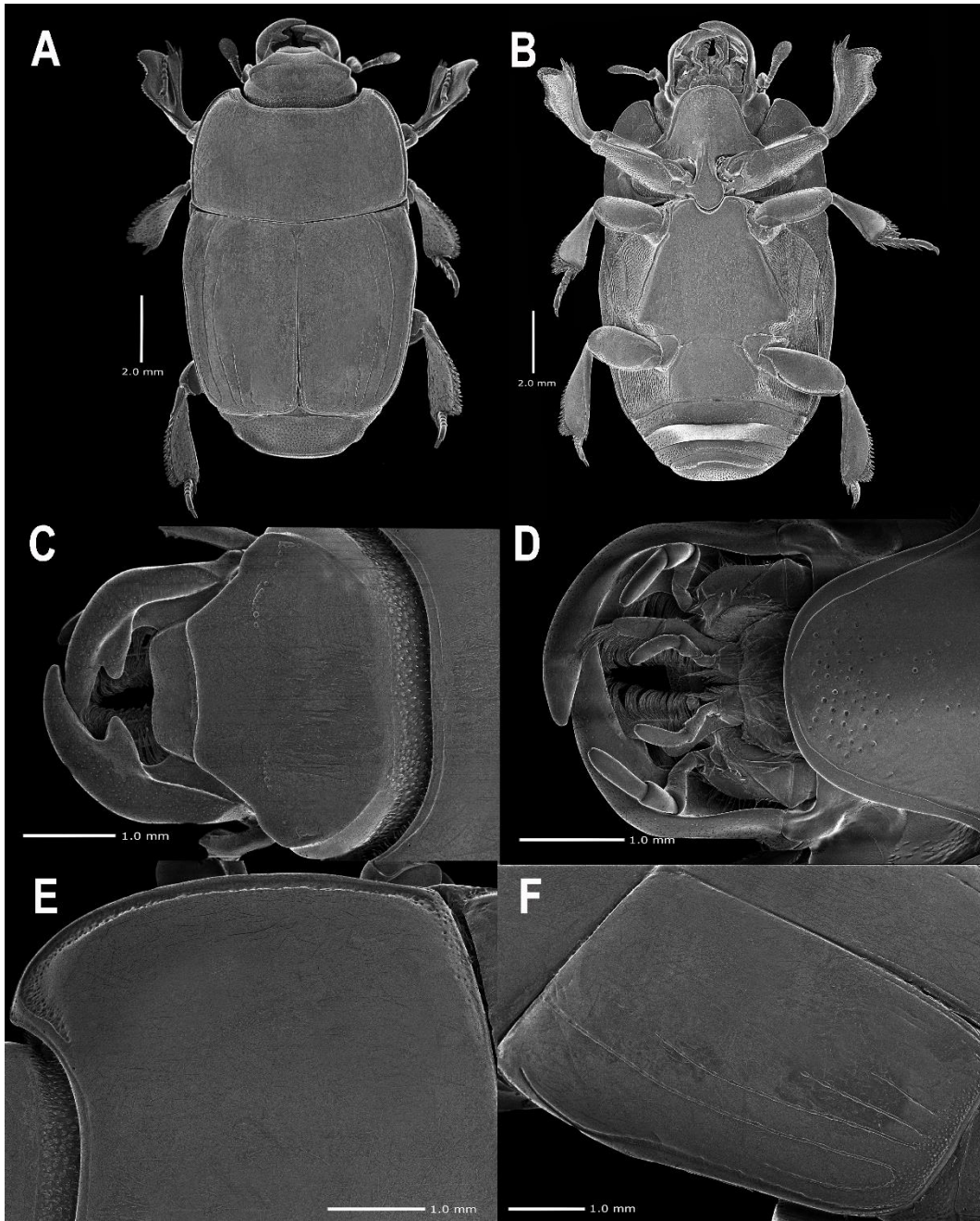
Figs. 23. Micrographs of *Hololepta (Hololepta) elongata* Erichson, 1834 using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, pygidium, caudal view; D, abdominal ventrites, ventral view E, protibia, dorsal view; F, ditto, ventral view.



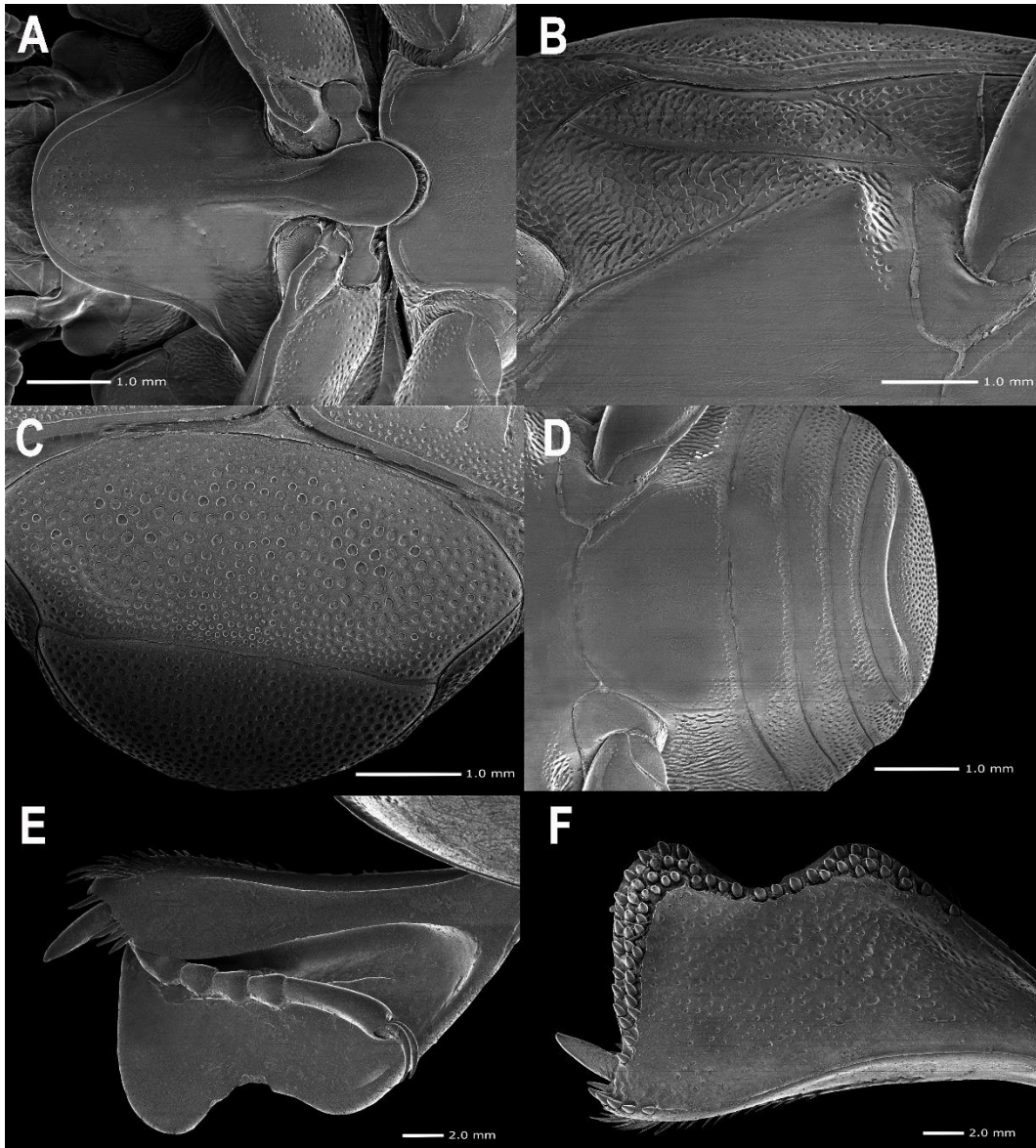
Figs. 24. Micrographs of *Hololepta (Hololepta) indica* Erichson, 1834 using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, mouthparts, ventral view; E, pronotum; F, left elytron, oblique view.



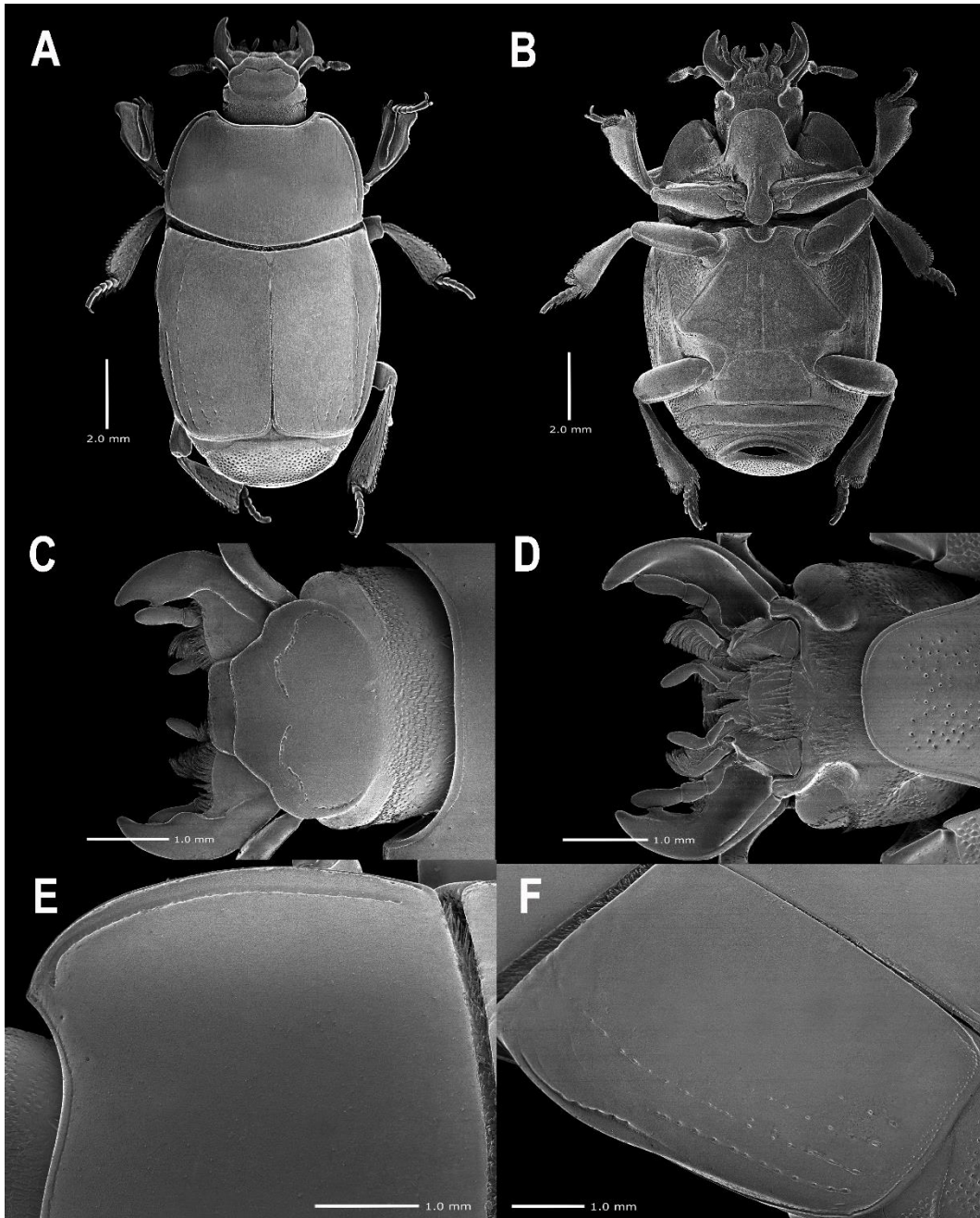
Figs. 25. Micrographs of *Hololepta (Hololepta) indica* Erichson, 1834 using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, pygidium, caudal view; D, abdominal ventrites, ventral view E, protibia, dorsal view; F, ditto, ventral view.



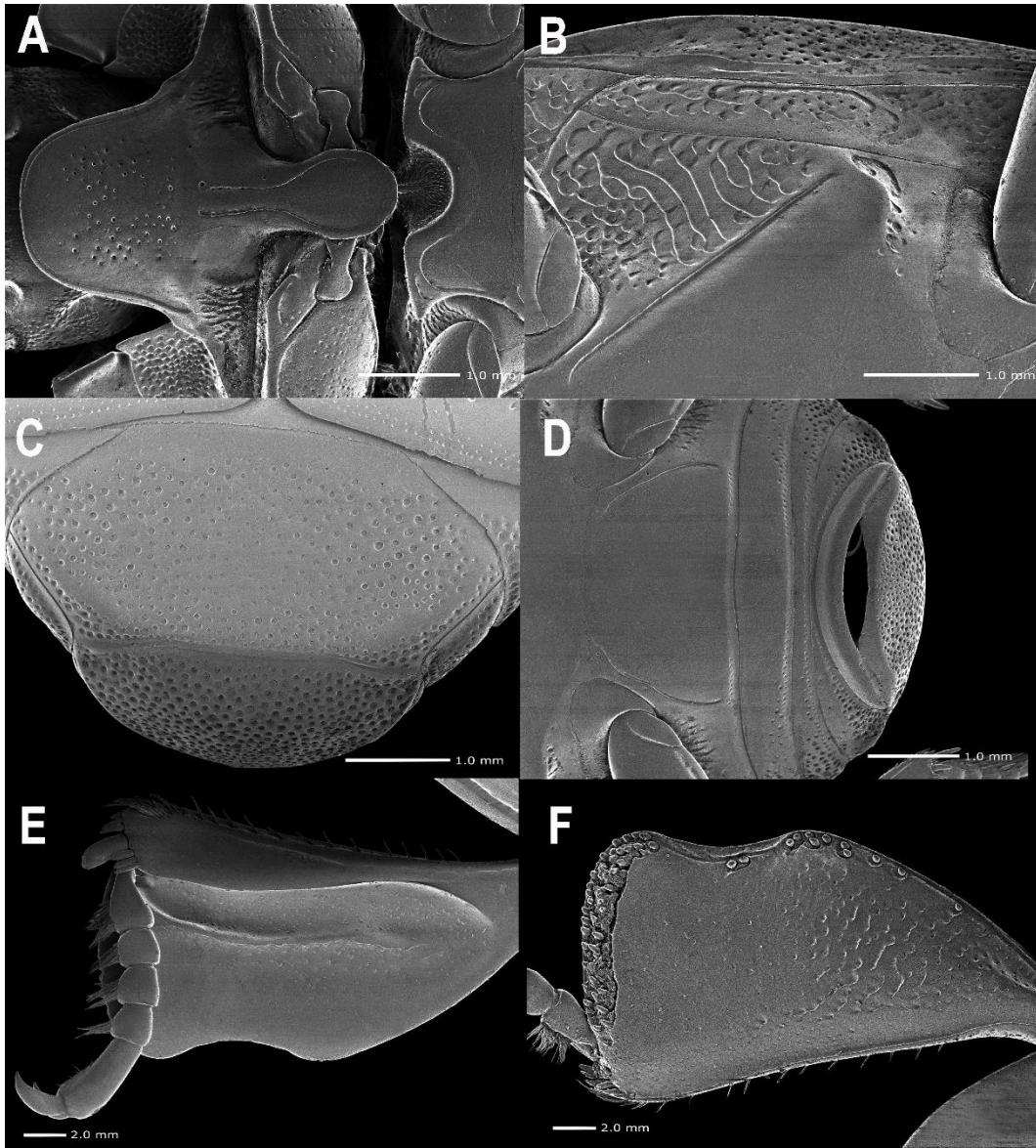
Figs. 26. Micrographs of *Plaesius (Plaesius) javanus* Erichson, 1834 using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, mouthparts, ventral view; E, pronotum; F, left elytron, oblique view.



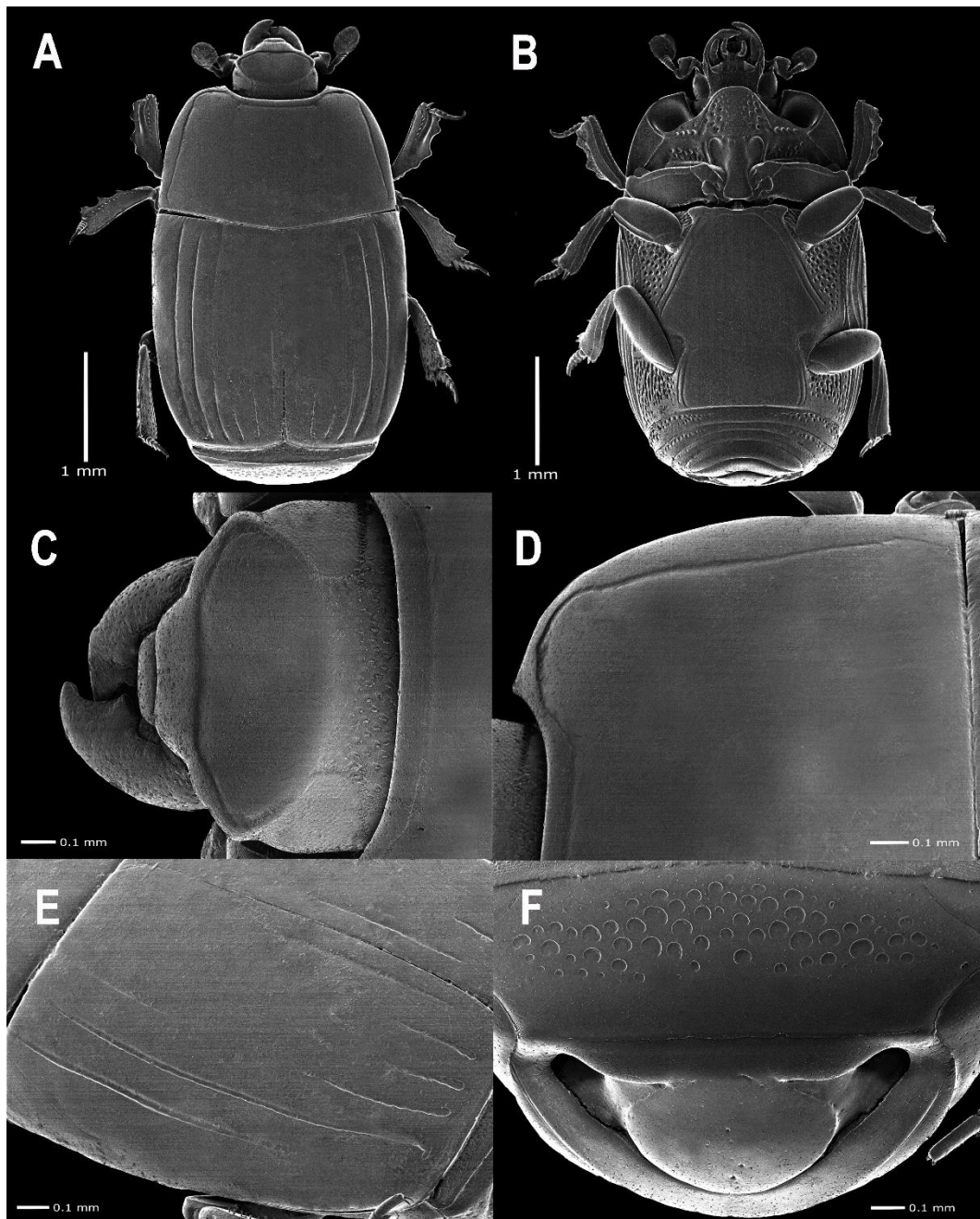
Figs. 27. Micrographs of *Plaesius (Plaesius) javanus* Erichson, 1834 using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrите; C, pygidium, caudal view; D, abdominal ventrites, ventral view E, protibia, dorsal view; F, ditto, ventral view.



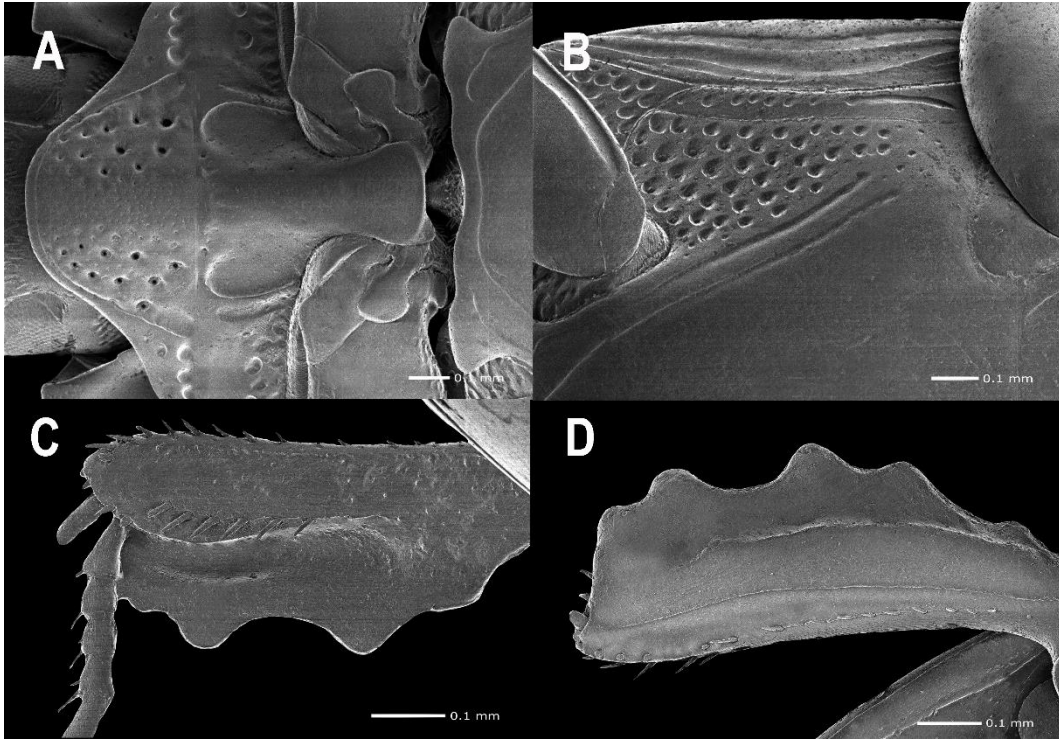
Figs. 28. Micrographs of *Plaesius (Hyposolenus) laevigatus* Marseul, 1853 using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, mouthparts, ventral view; E, pronotum; F, left elytron, oblique view.



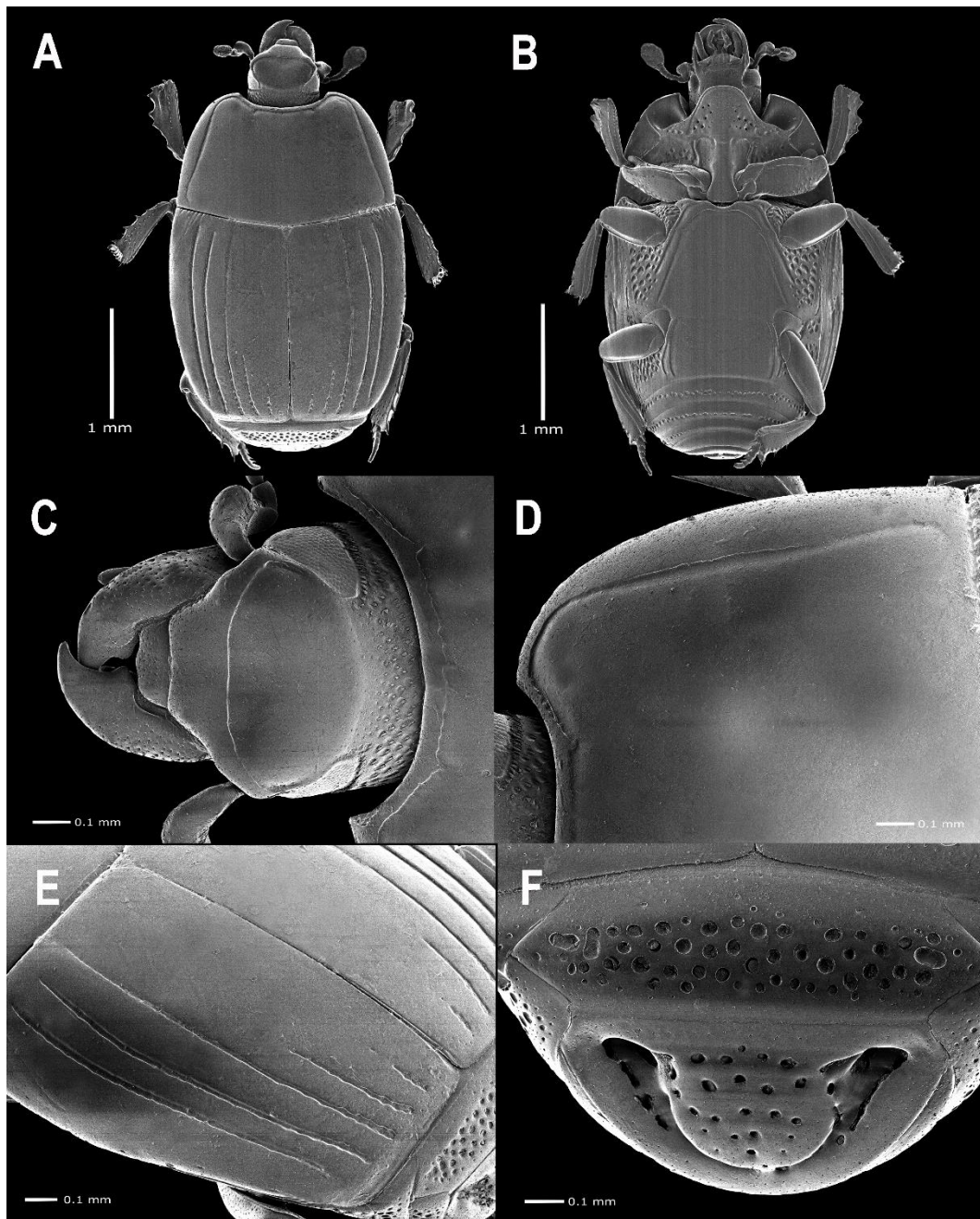
Figs. 29. Micrographs of *Plaesius (Hyposolenus) laevigatus* Marseul, 1853 using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, pygidium, caudal view; D, abdominal ventrites, ventral view E, protibia, dorsal view; F, ditto, ventral view.



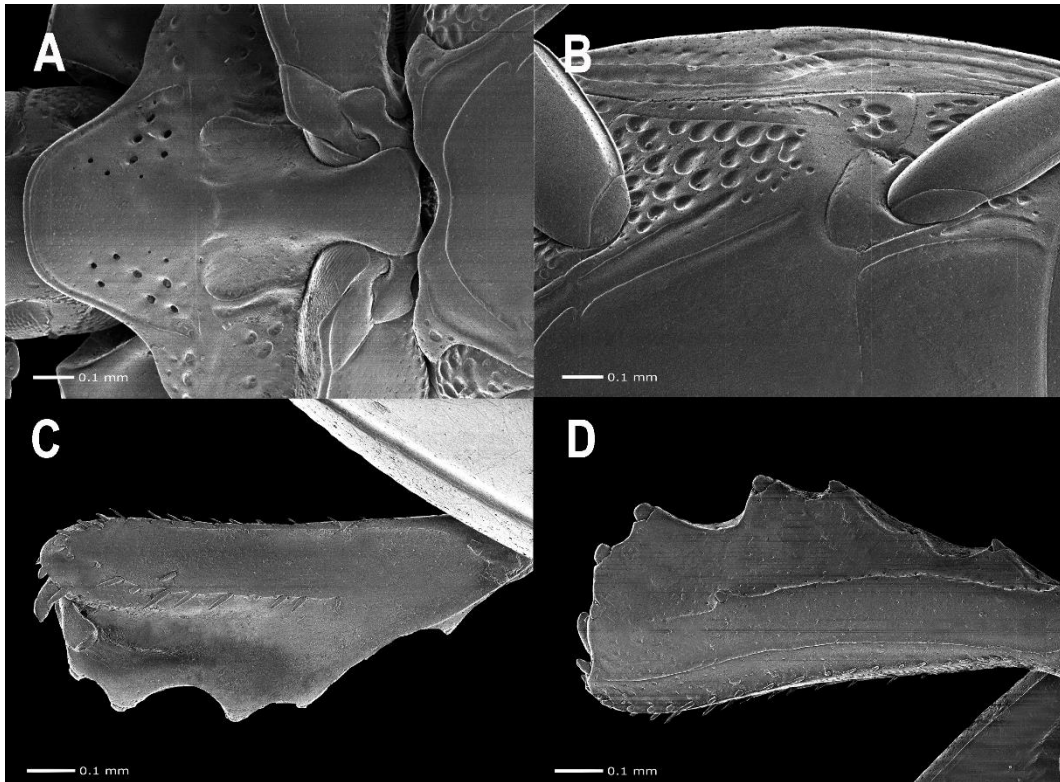
Figs. 30. Micrographs of *Eblisia (Eblisia) lunatica* (Marseul, 1864) using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



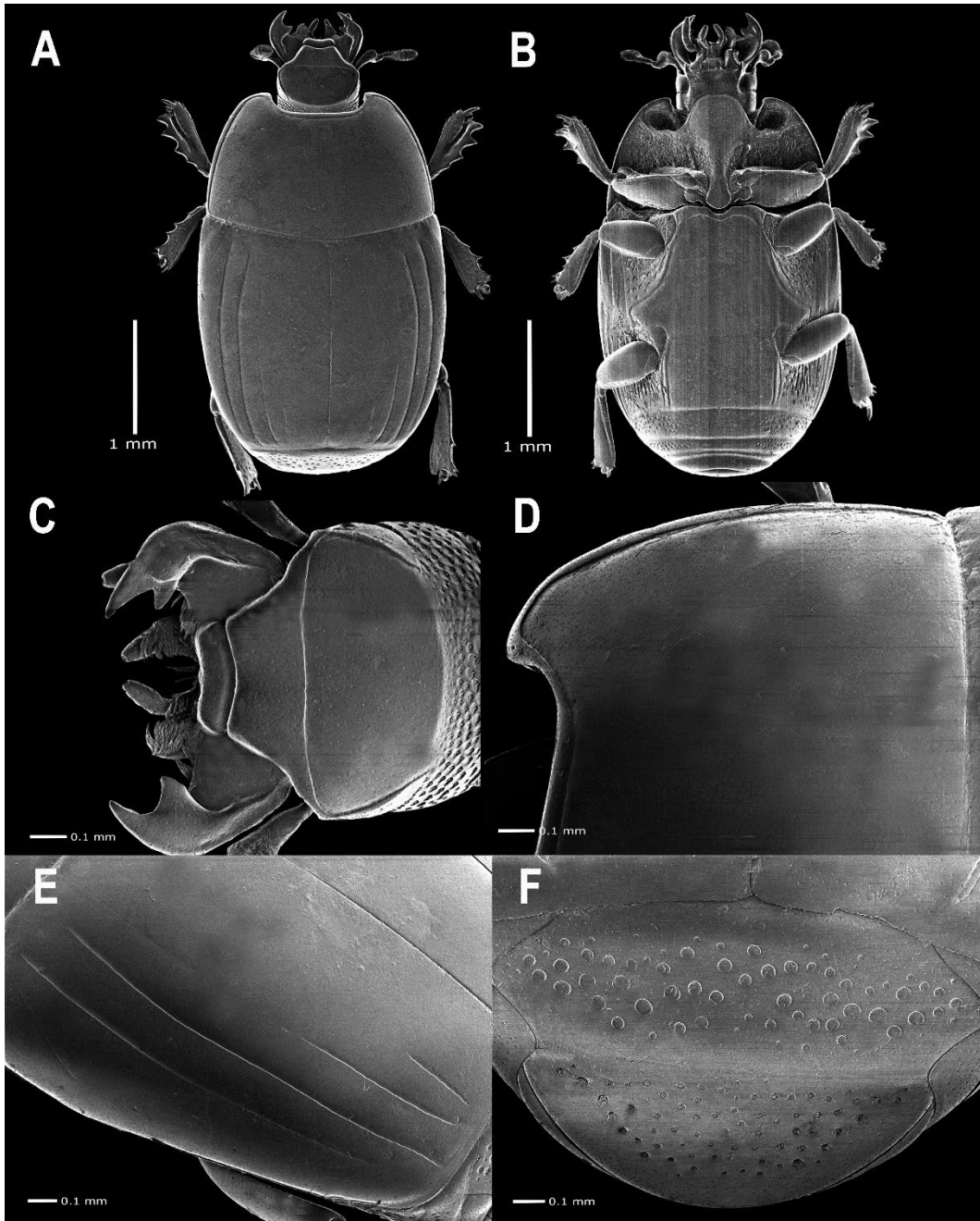
Figs. 31. Micrographs of *Eblisia (Eblisia) lunatica* (Marseul, 1864) using SEM, Plate 2 — A, Prosternal process; B, meso-metaventricle; C, protibia, dorsal view; D, ditto, ventral view.



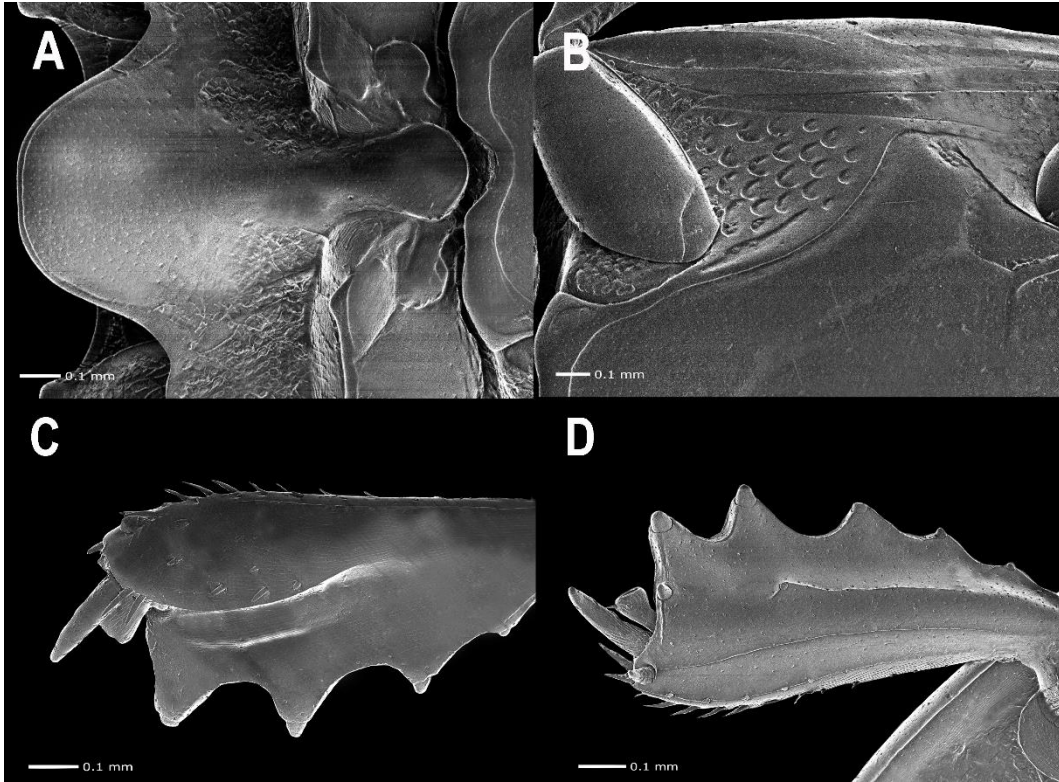
Figs. 32. Micrographs of *Eblisia (Eblisia) hobbyi* (Cooman, 1937) using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



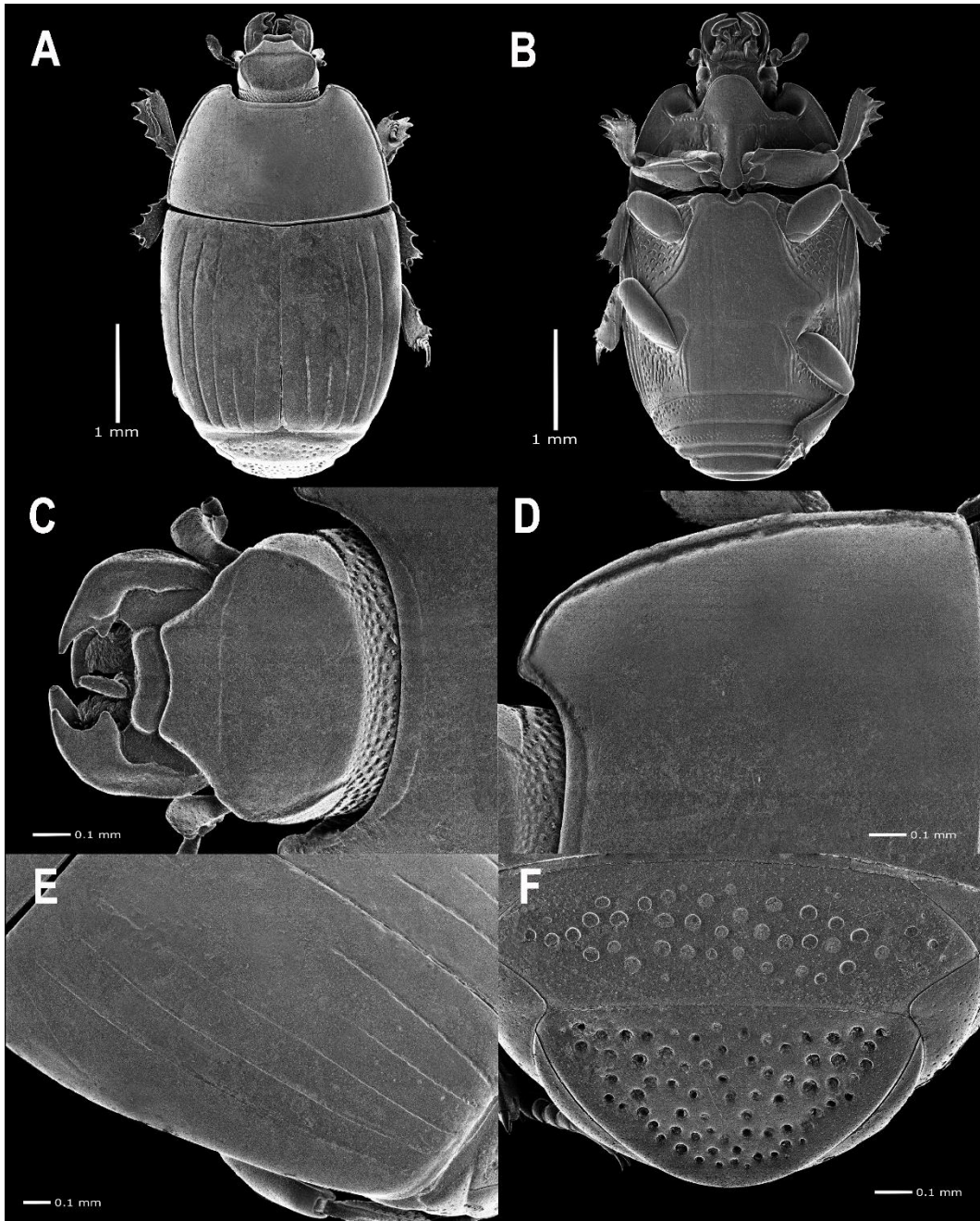
Figs. 33. Micrographs of *Eblisia (Eblisia) hobbyi* (Cooman, 1937) using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



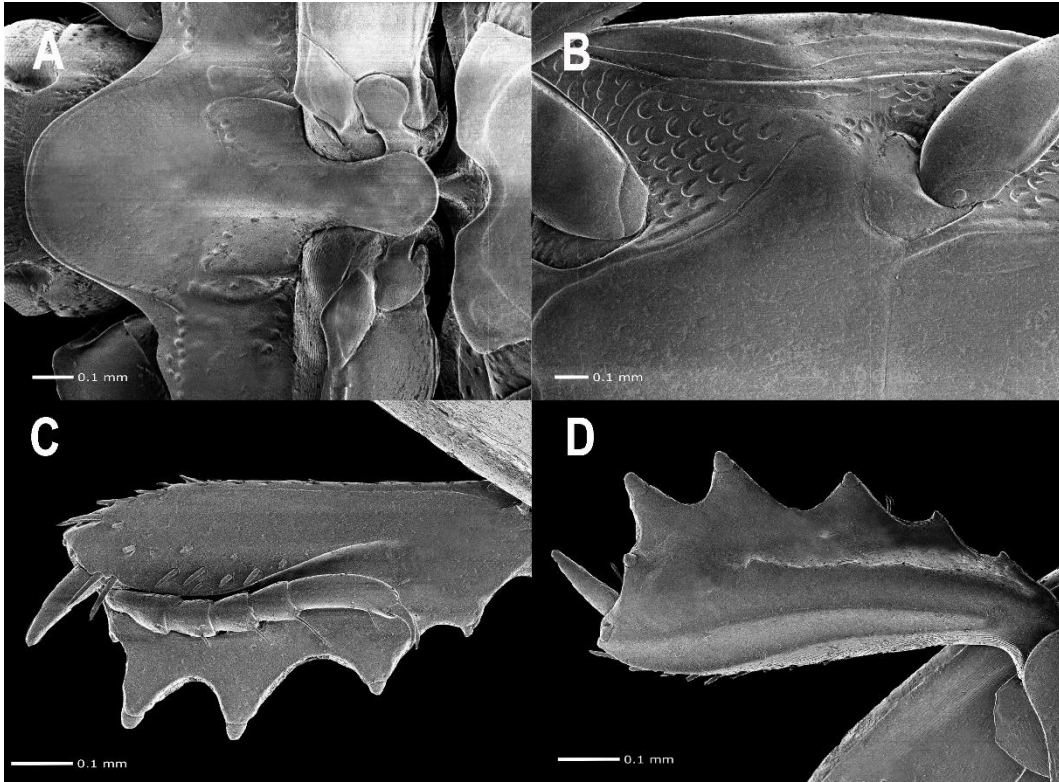
Figs. 34. Micrographs of *Eurylyster* sp. 1 using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



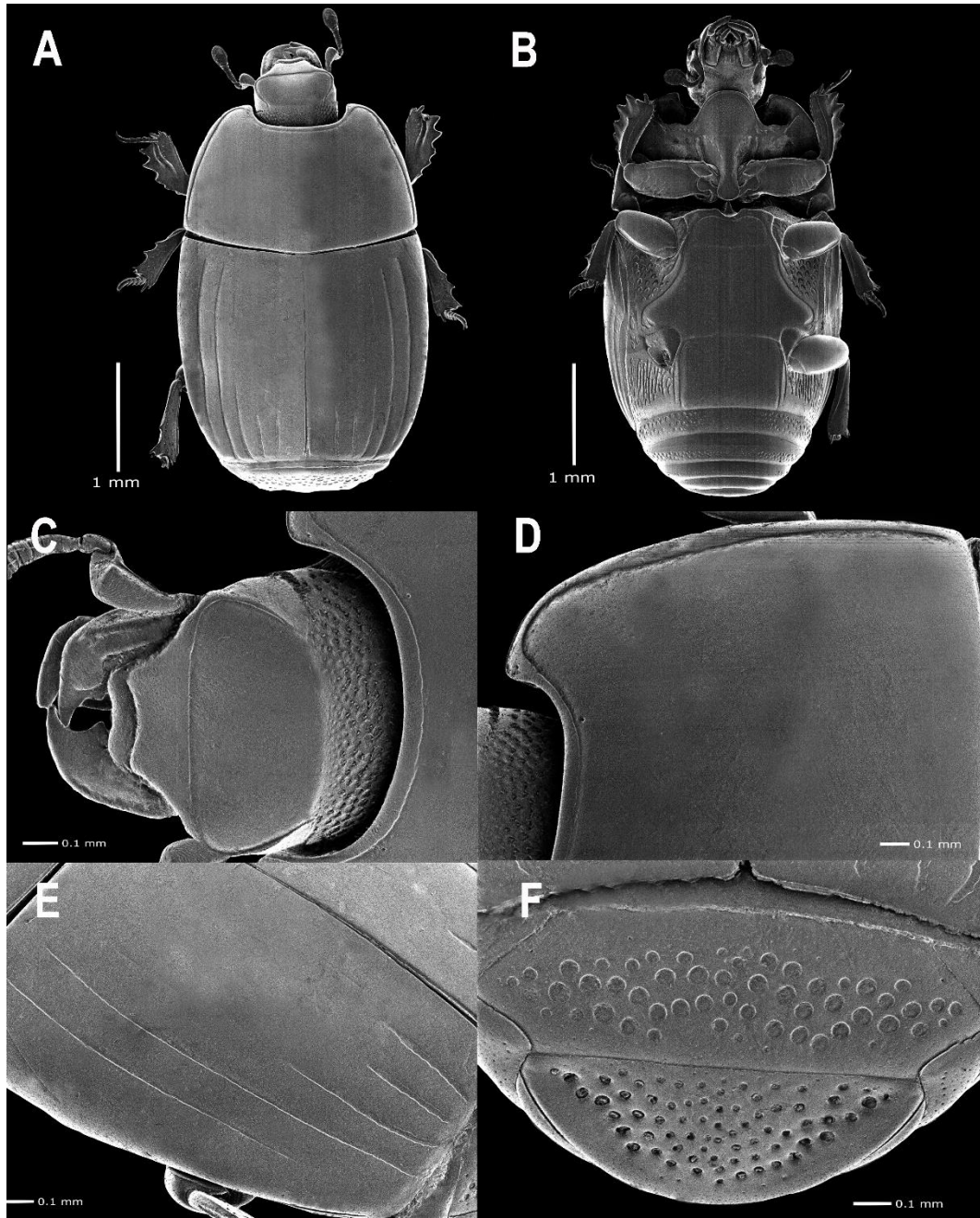
Figs. 35. Micrographs of *Eurylister* sp. 1 using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



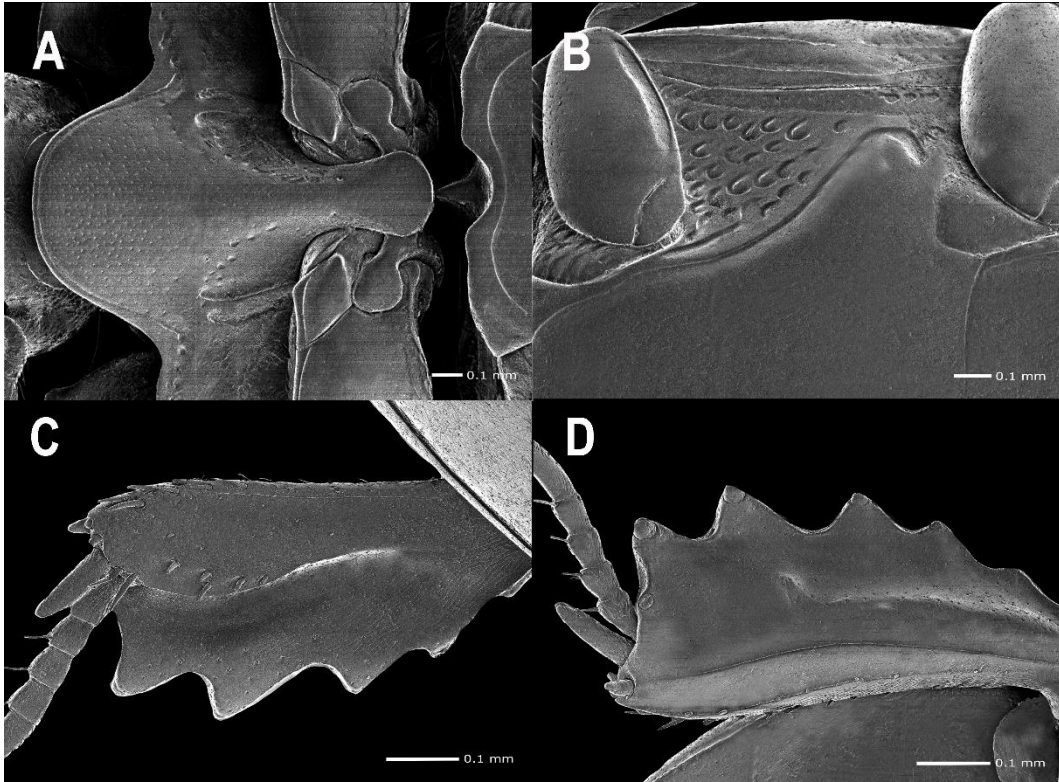
Figs. 36. Micrographs of *Eurylyster silvestris* (Schmidt, 1897) using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



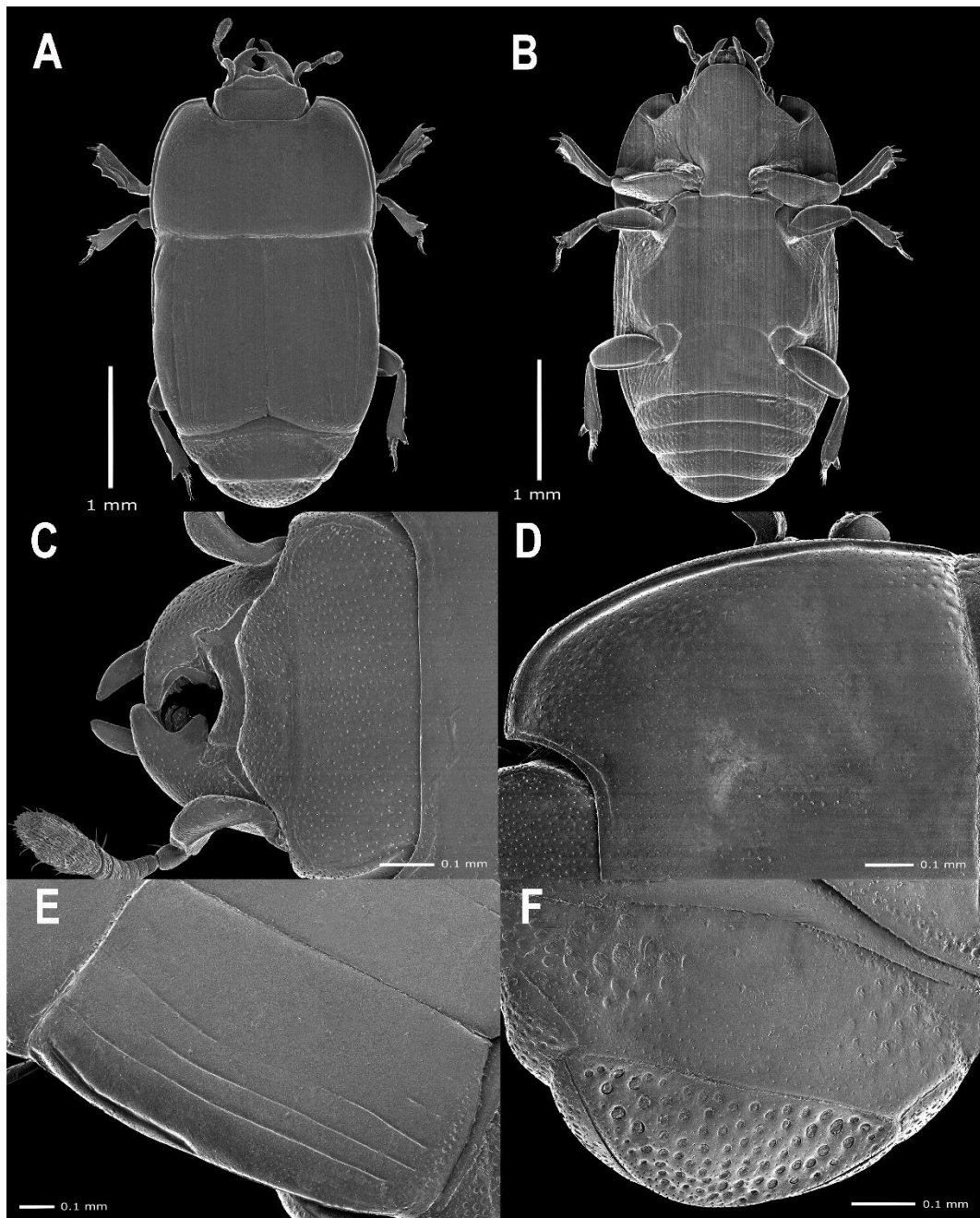
Figs. 37. Micrographs of *Eurylister silvestris* (Schmidt, 1897) using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



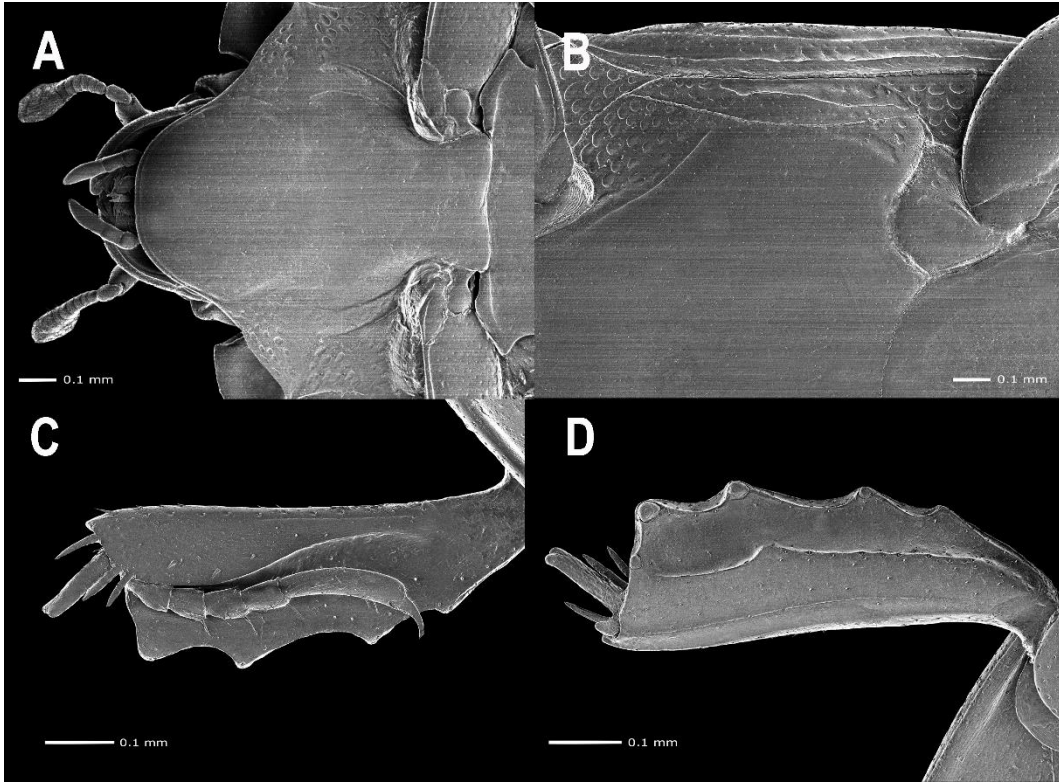
Figs. 38. Micrographs of *Eurylyster uniformis* (Lewis, 1894) using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



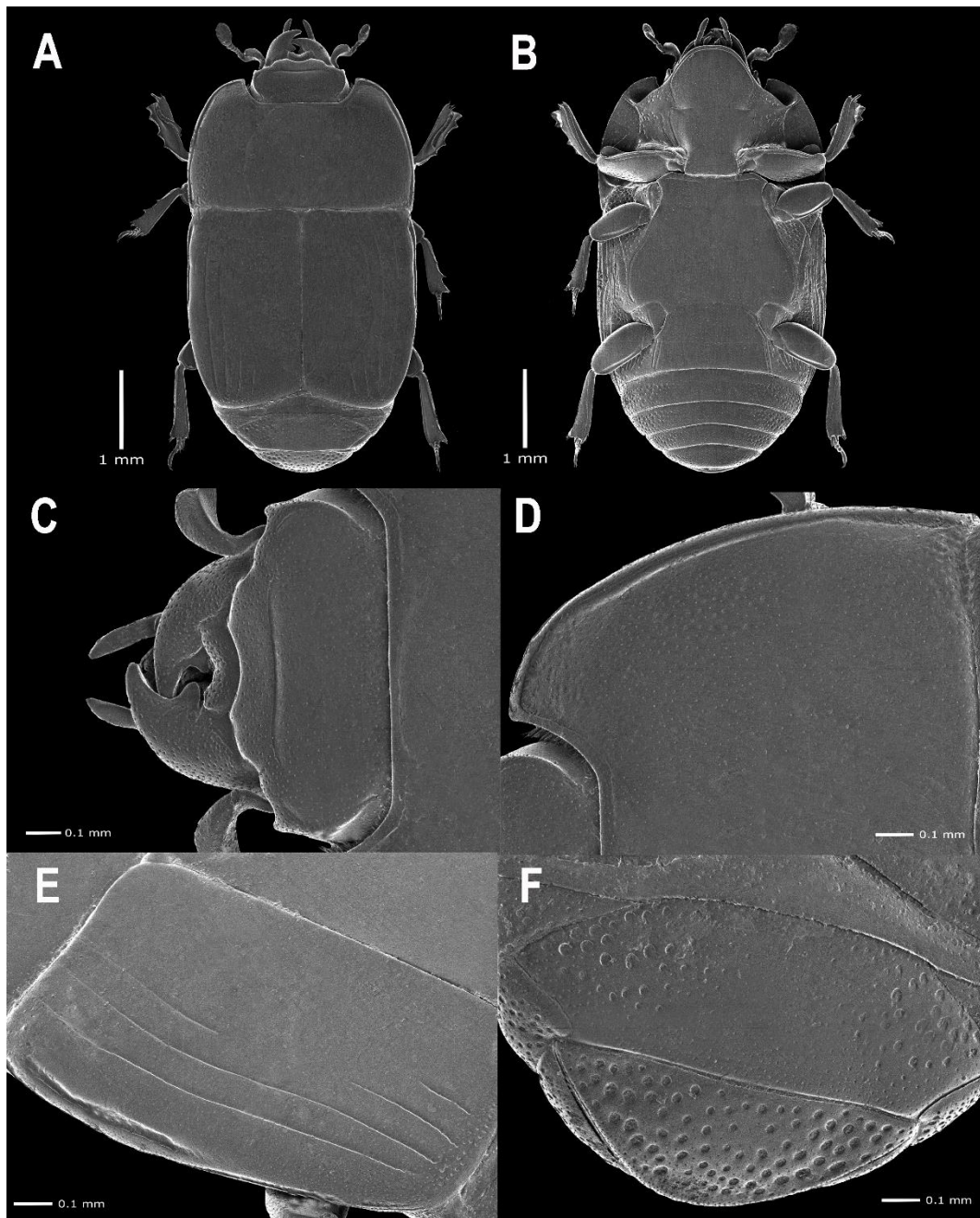
Figs. 39. Micrographs of *Eurylister uniformis* (Lewis, 1894) using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



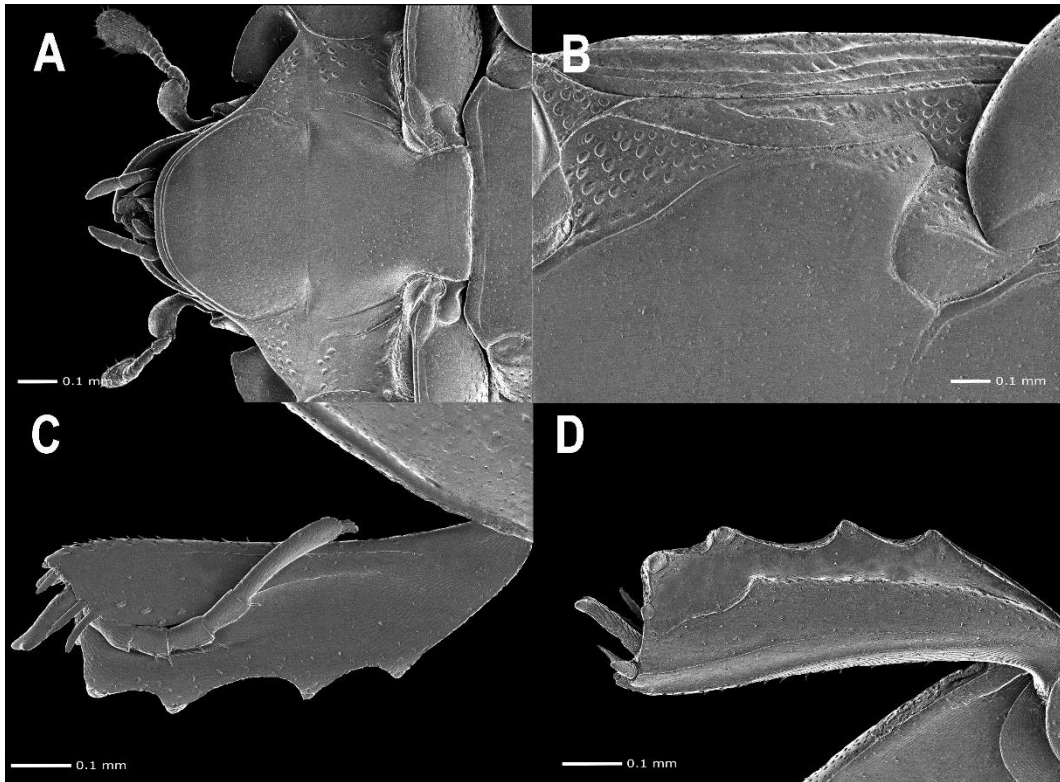
Figs. 40. Micrographs of *Apobletes marginicollis* Lewis, 1888 using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



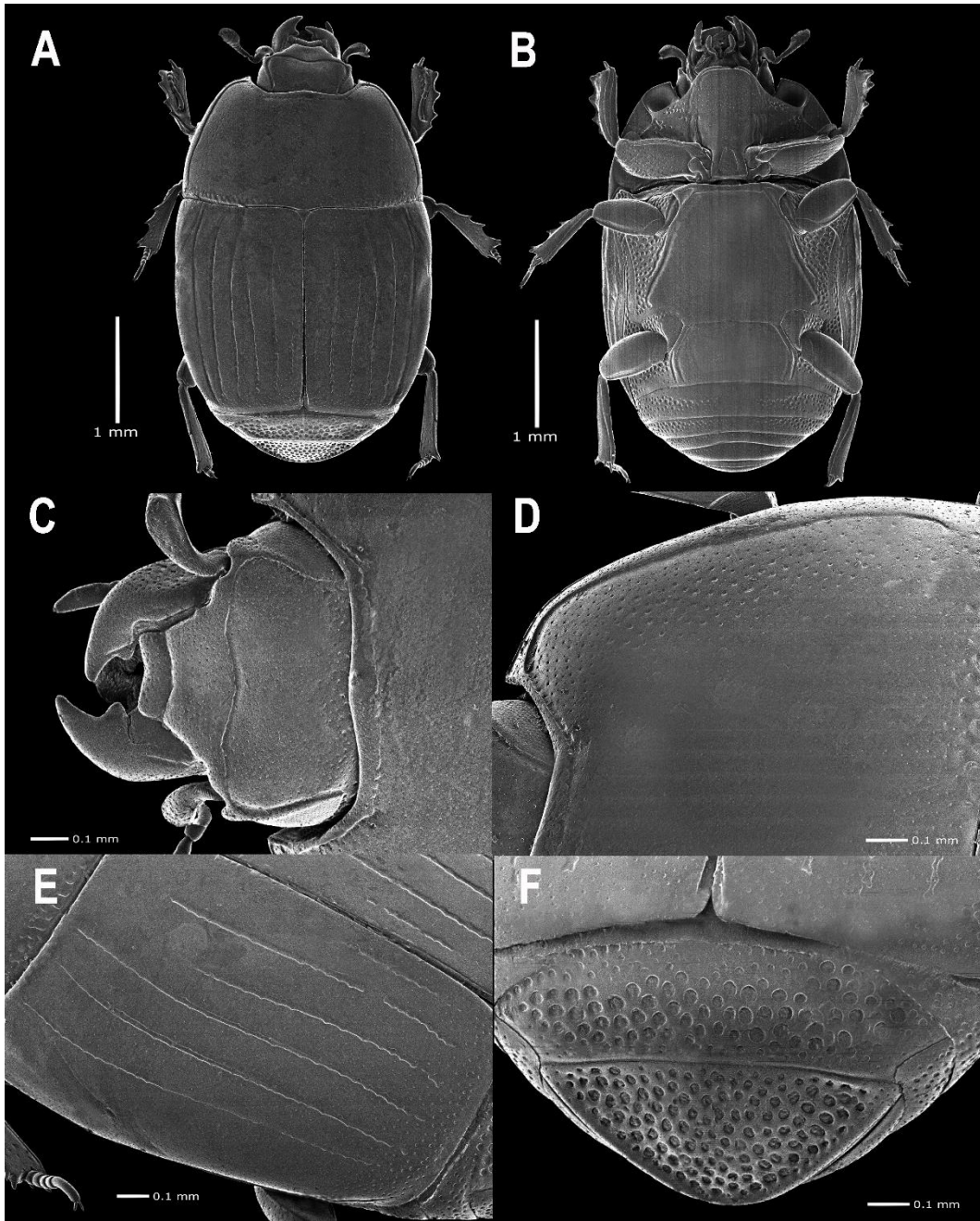
Figs. 41. Micrographs of *Apobletes marginicollis* Lewis, 1888 using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



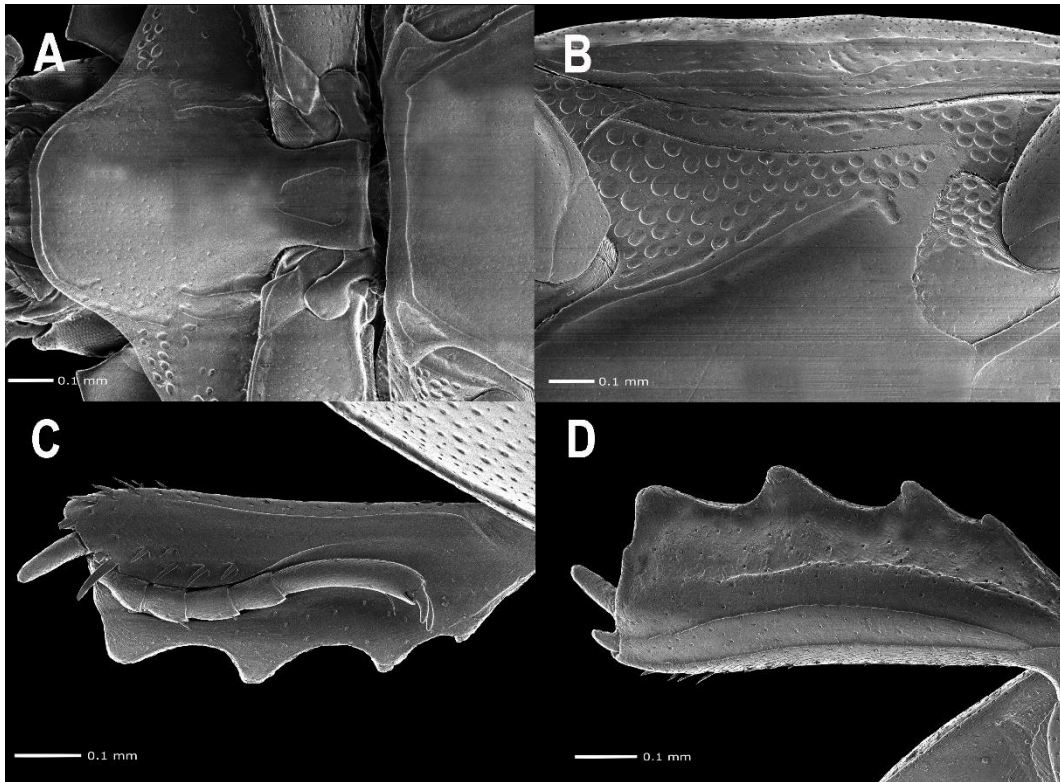
Figs. 42. Micrographs of *Apobletes schaumei* Marseul, 1860 using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



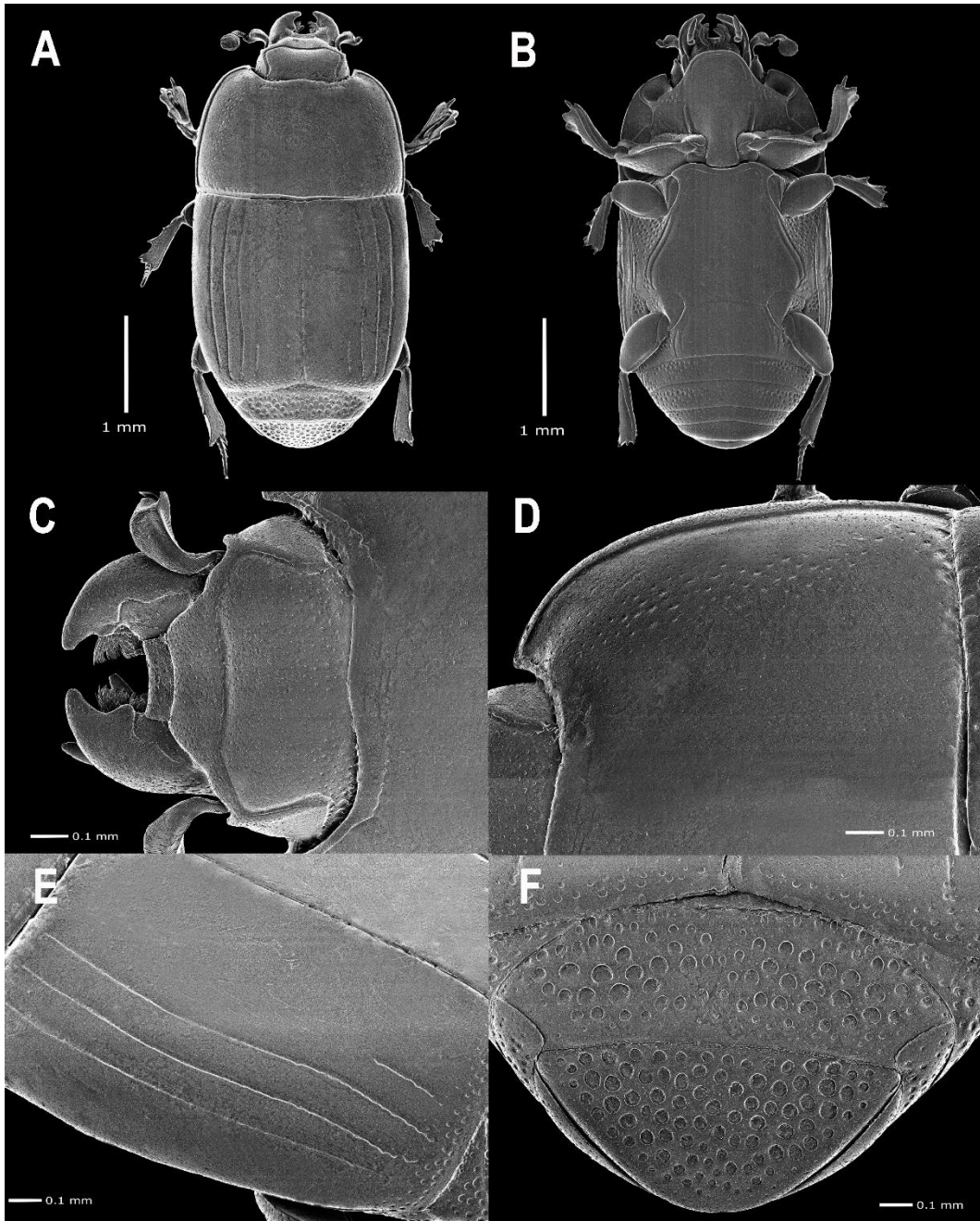
Figs. 43. Micrographs of *Apobletes schaumei* Marseul, 1860 using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



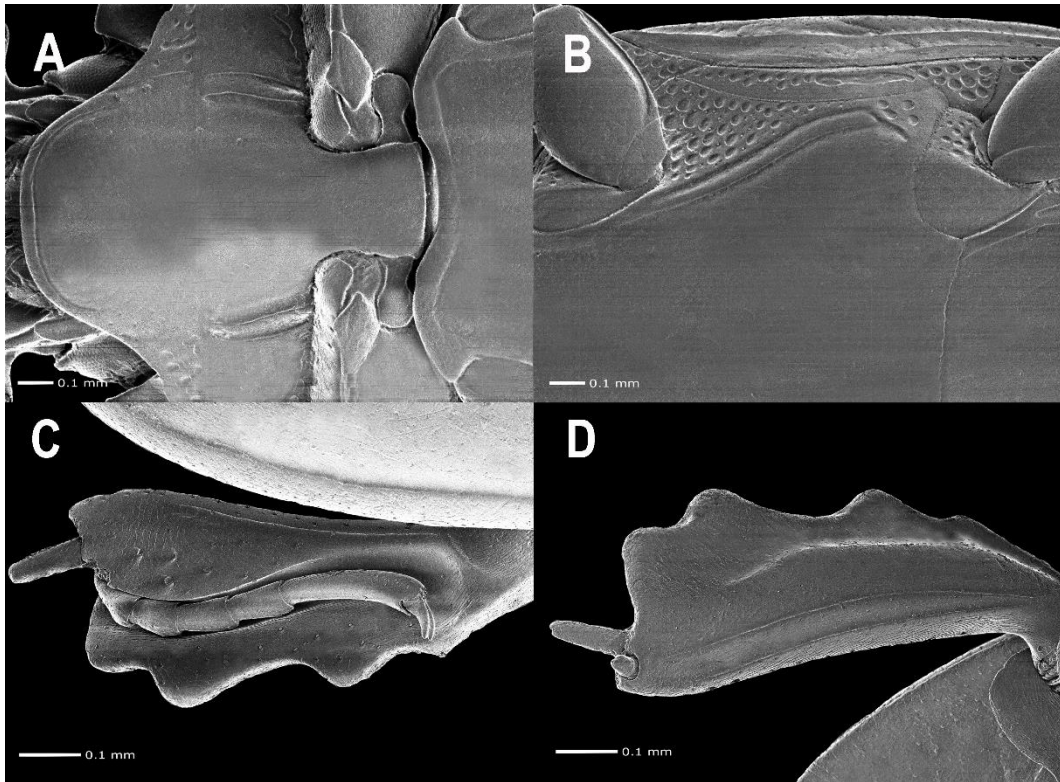
Figs. 44. Micrographs of *Mesostrix bimaculata* Mazur & Mokrzycki, 2014 using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



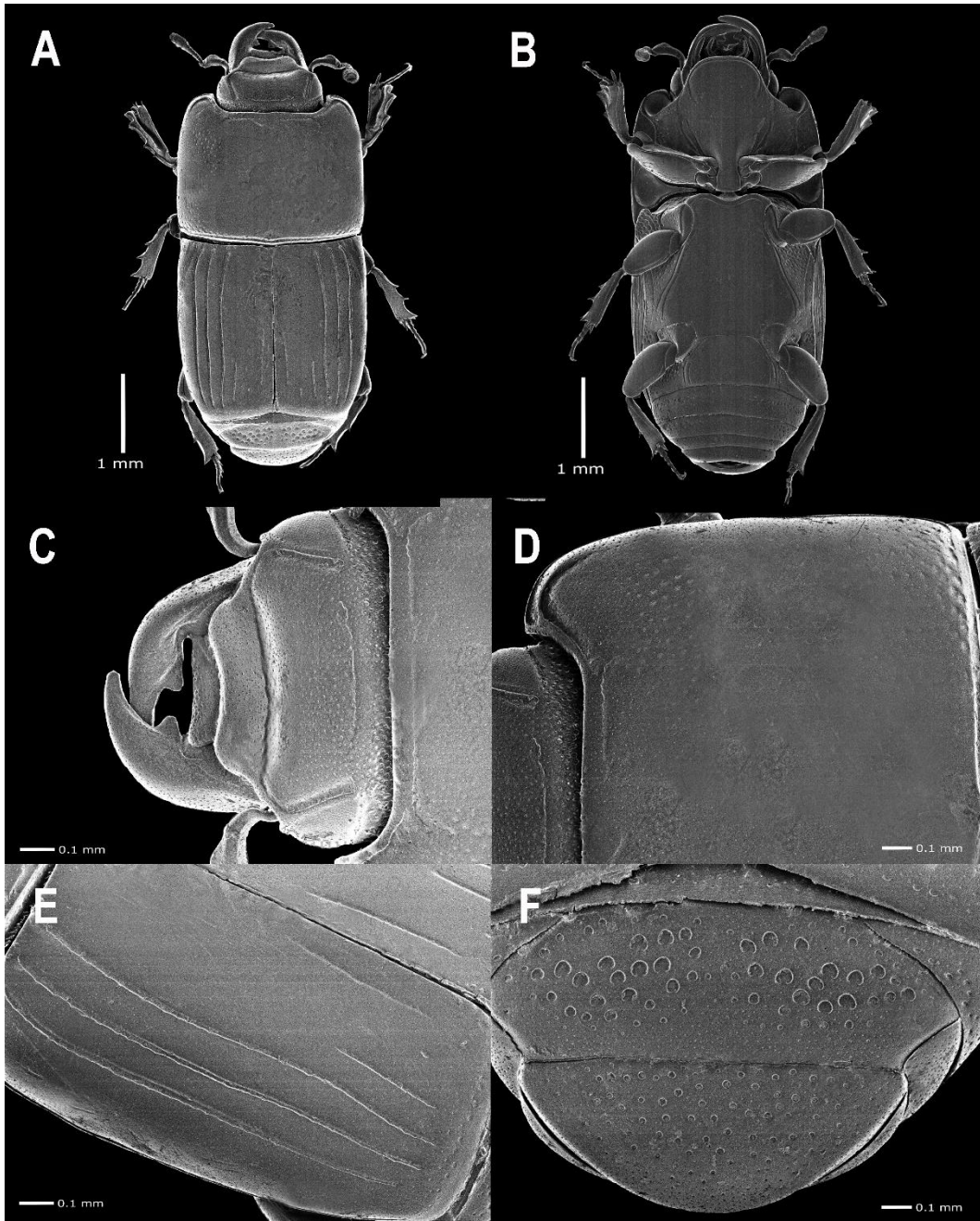
Figs. 45. Micrographs of *Mesostrix bimaculata* Mazur & Mokrzycki, 2014 using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



Figs. 46. Micrographs of *Platysoma (Platysoma) sp. 1* using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



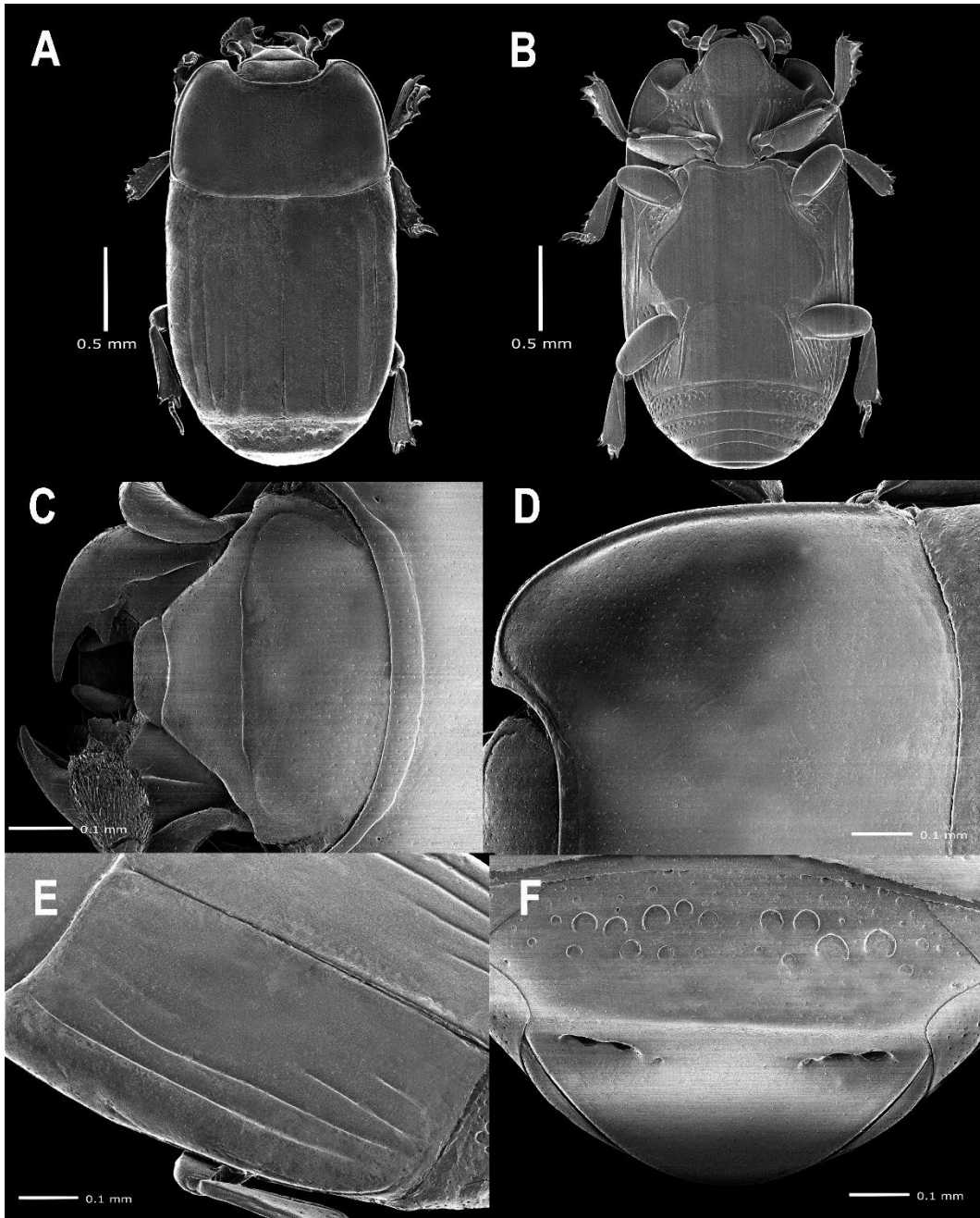
Figs. 47. Micrographs of *Platysoma (Platysoma)* sp. 1 using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



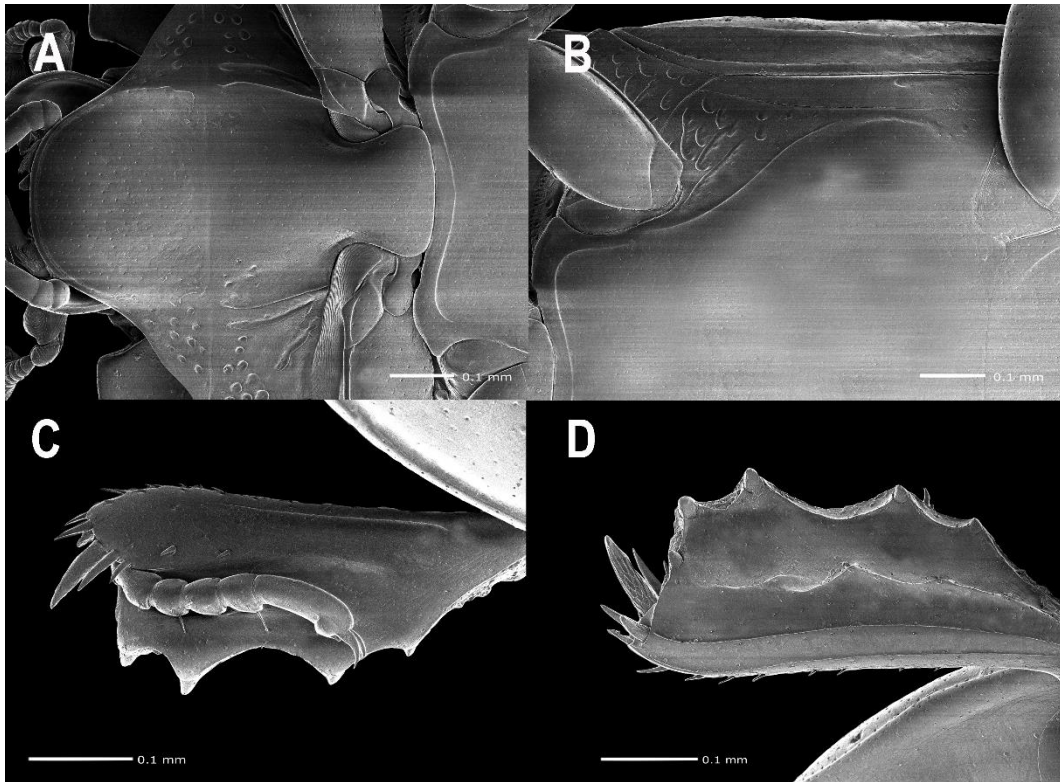
Figs. 48. Micrographs of *Platysoma (Cylister) dufali* Marseul, 1864 using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



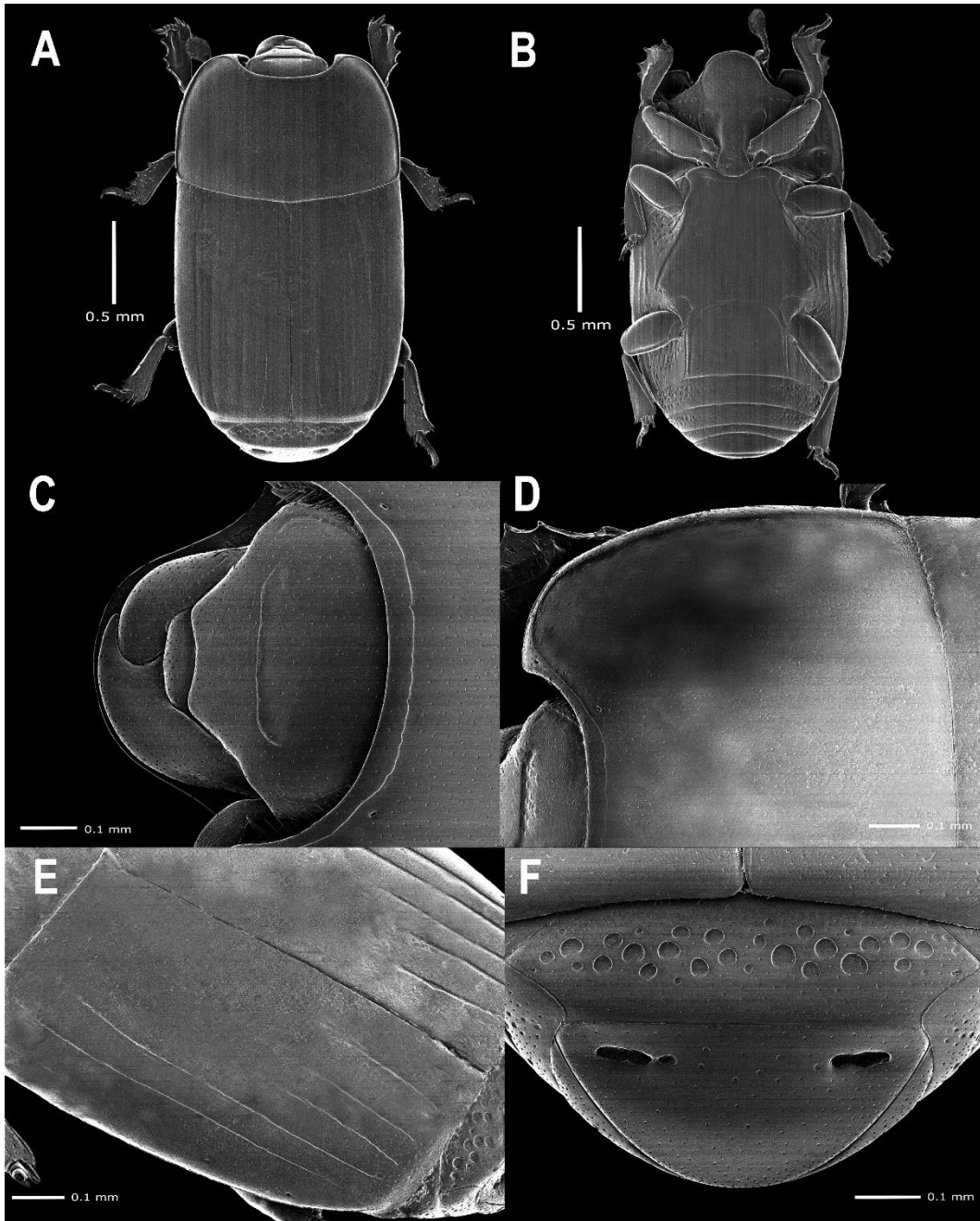
Figs. 49. Micrographs of *Platysoma (Cylister) dufali* Marseul, 1864 using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



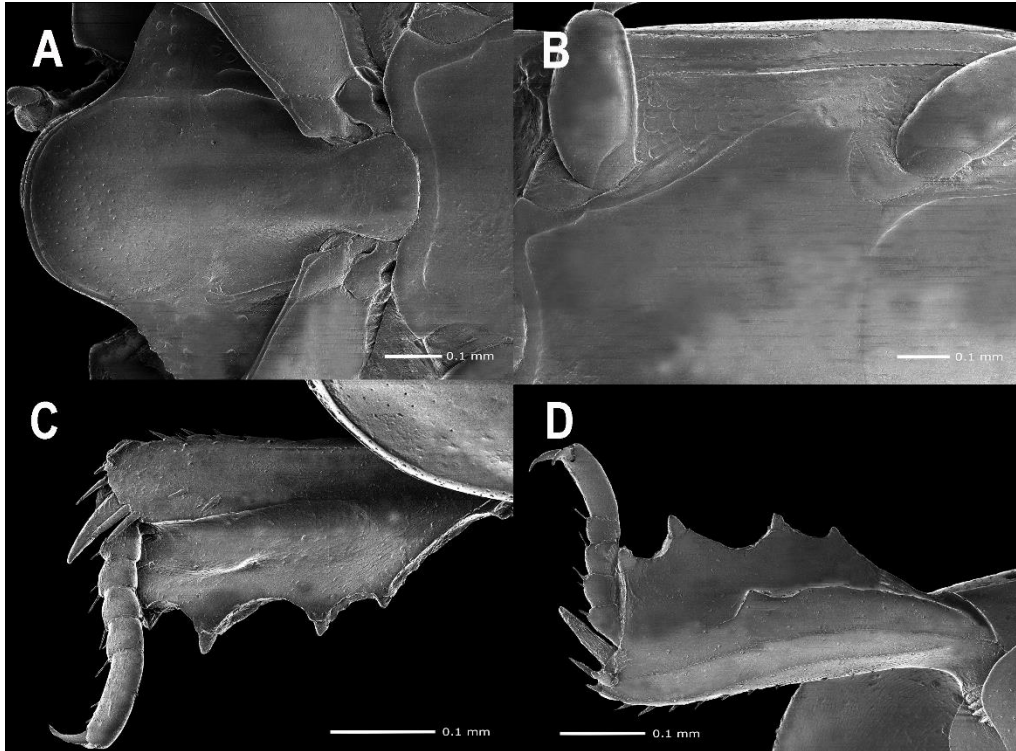
Figs. 50. Micrographs of *Liopygus diopsipygus* (Marseul, 1879) using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



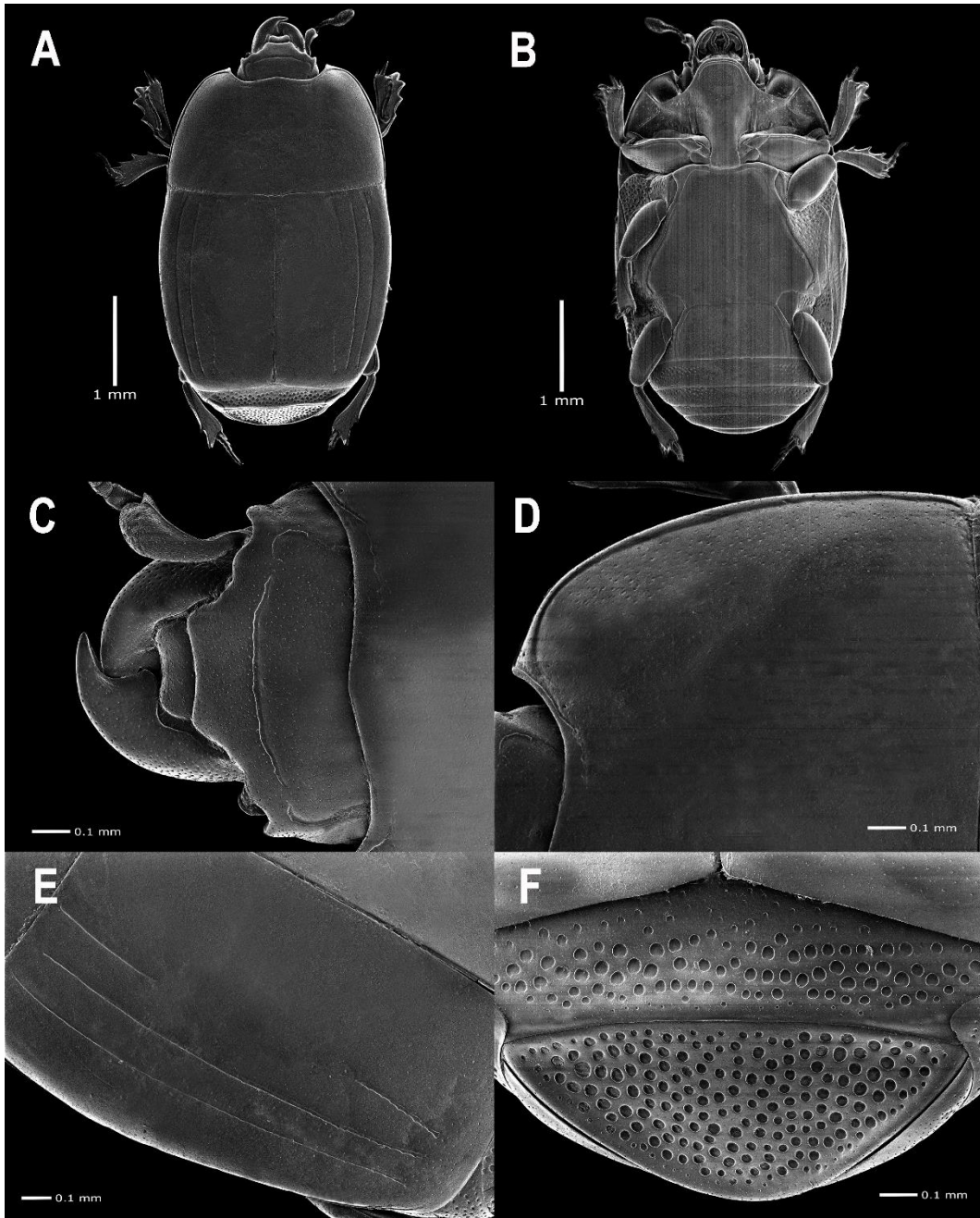
Figs. 51. Micrographs of *Liopygus diopsipygus* (Marseul, 1879) using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



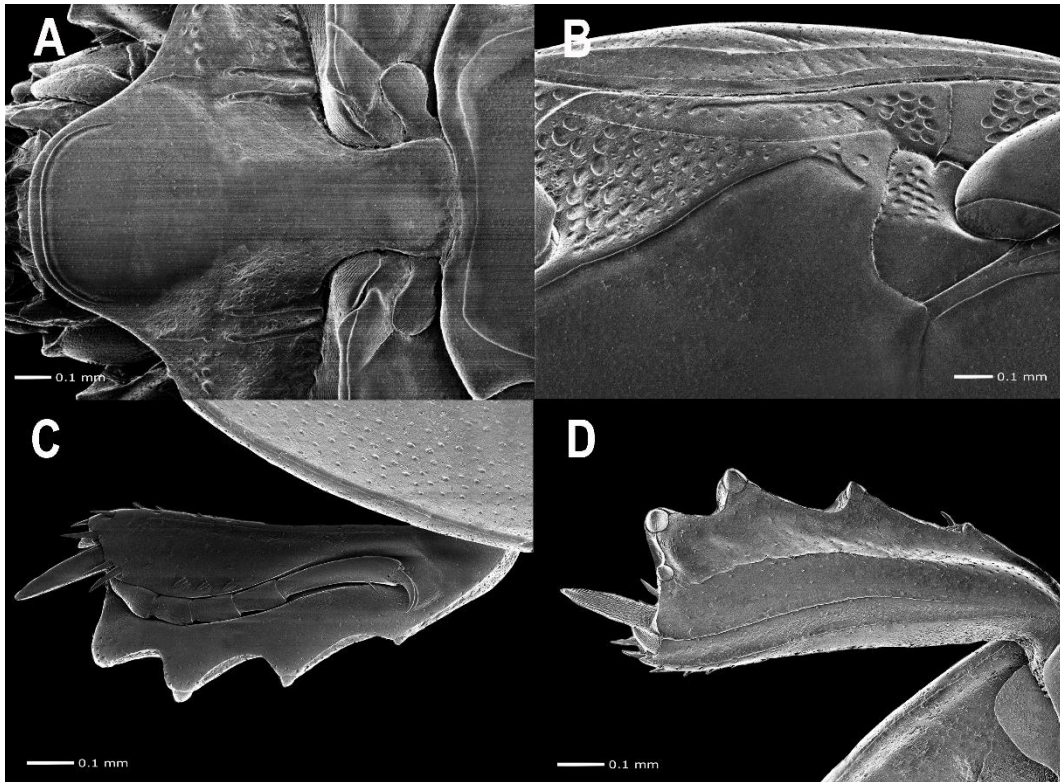
Figs. 52. Micrographs of *Liopygus gestroi* (Lewis, 1888) using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



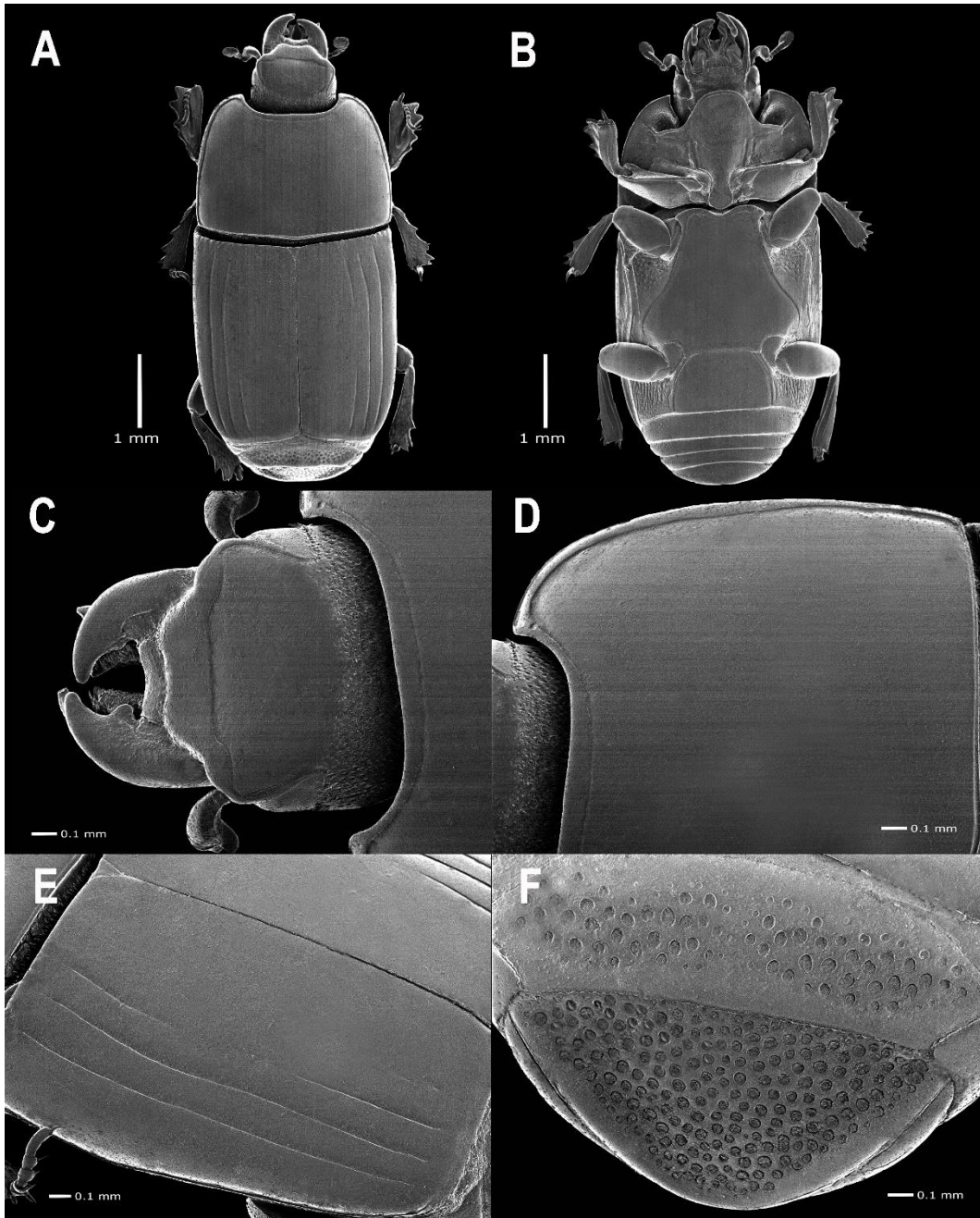
Figs. 53. Micrographs of *Liopygus gestroi* (Lewis, 1888) using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



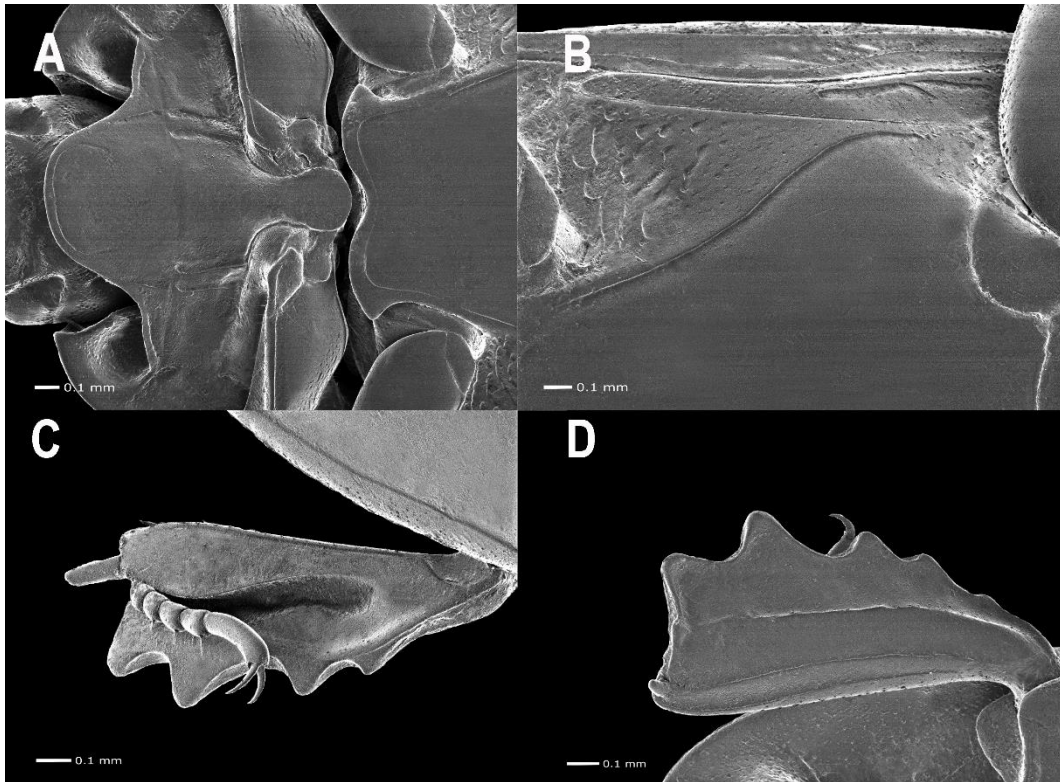
Figs. 54. Micrographs of *Kanaarister* sp. 1 using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



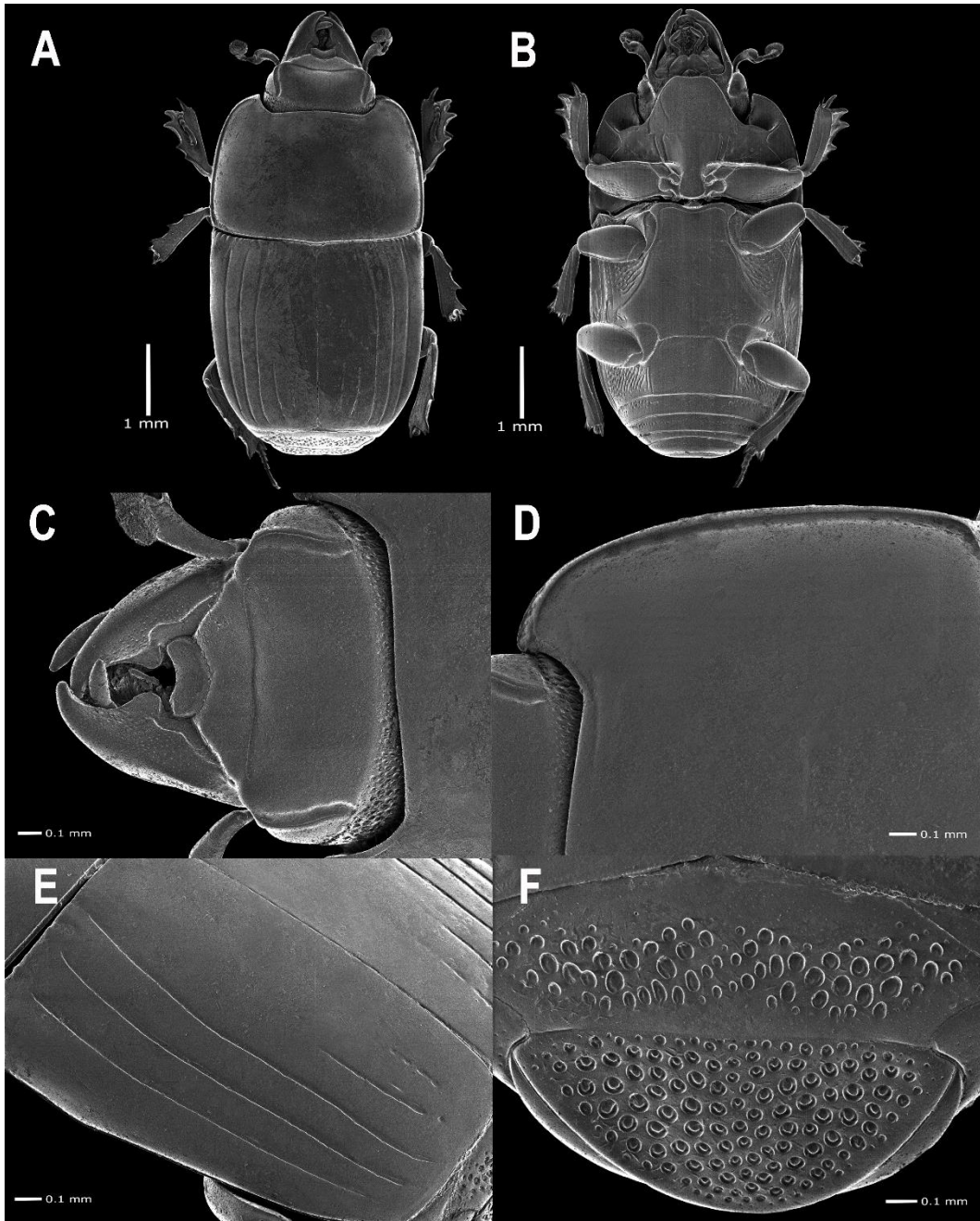
Figs. 55. Micrographs of *Kanaarister* sp. 1 using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



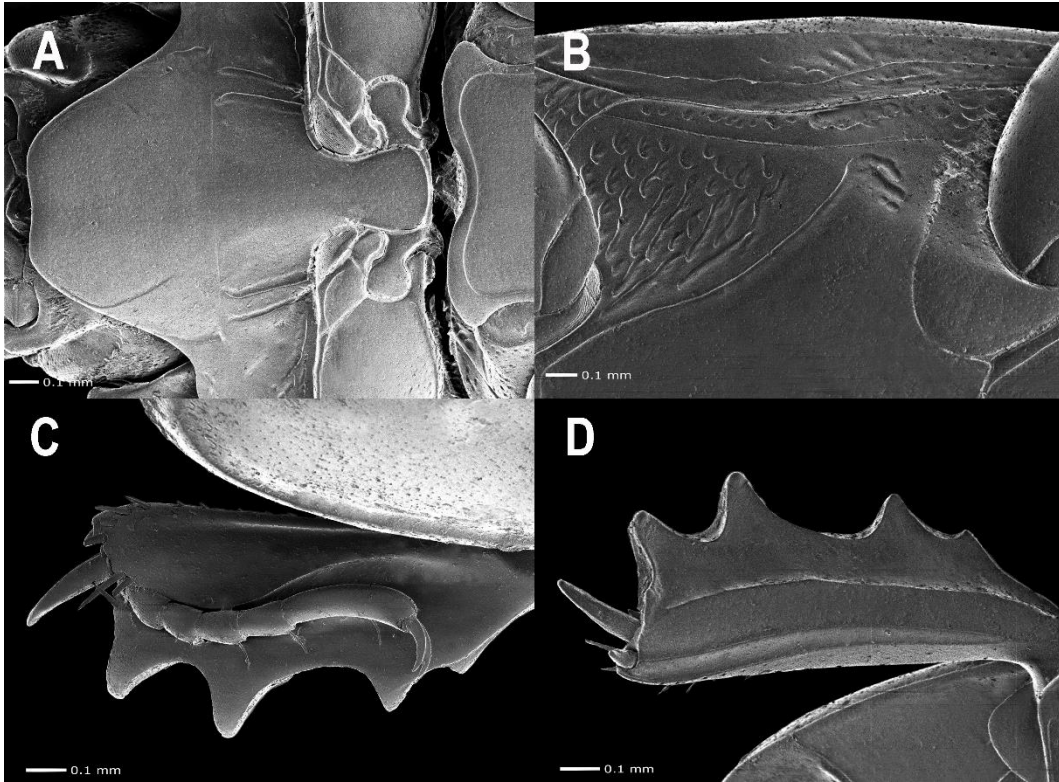
Figs. 56. Micrographs of *Platylister (Platylister) abruptus* (Erichson, 1834) using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



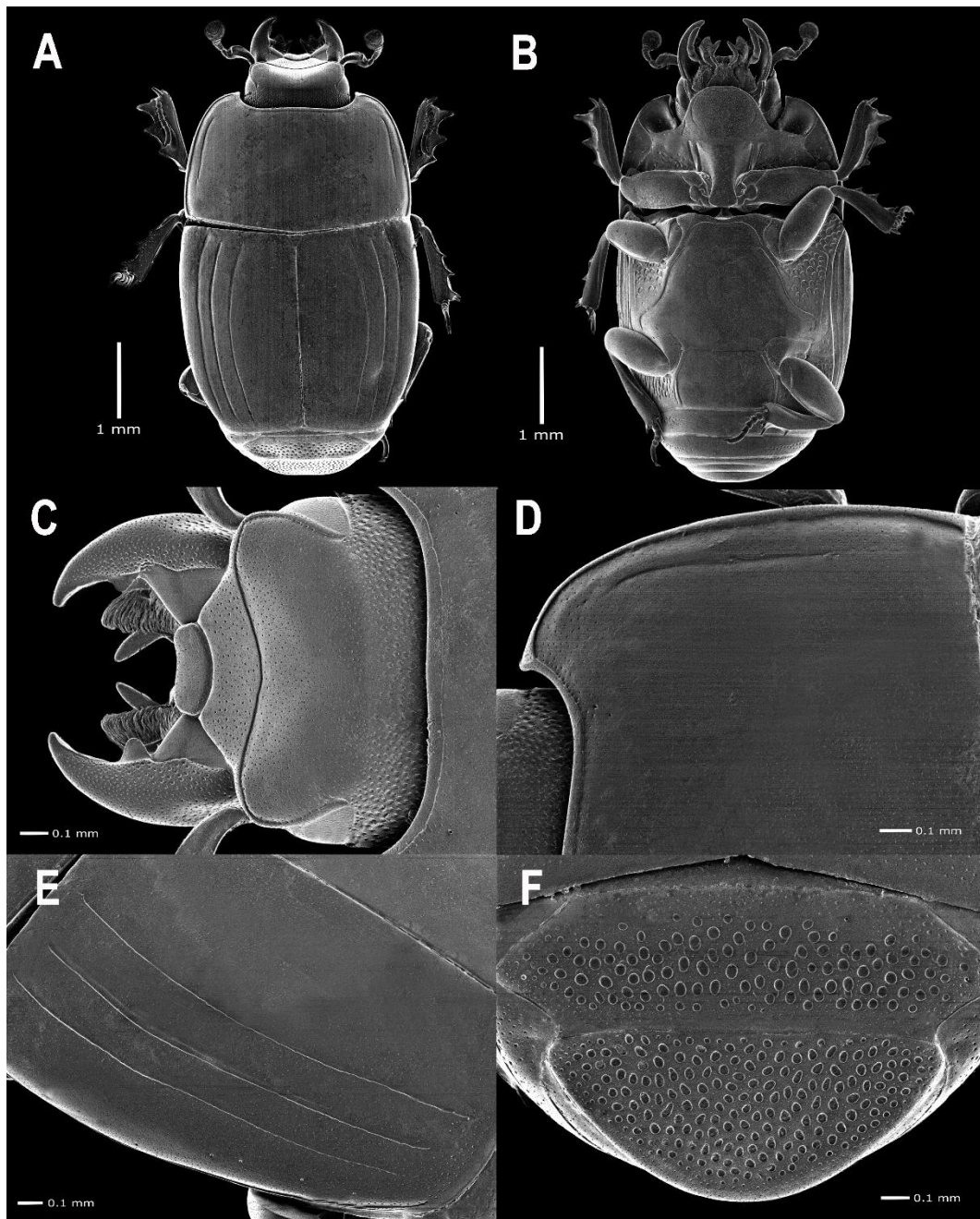
Figs. 57. Micrographs of *Platylister (Platylister) abruptus* (Erichson, 1834) using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



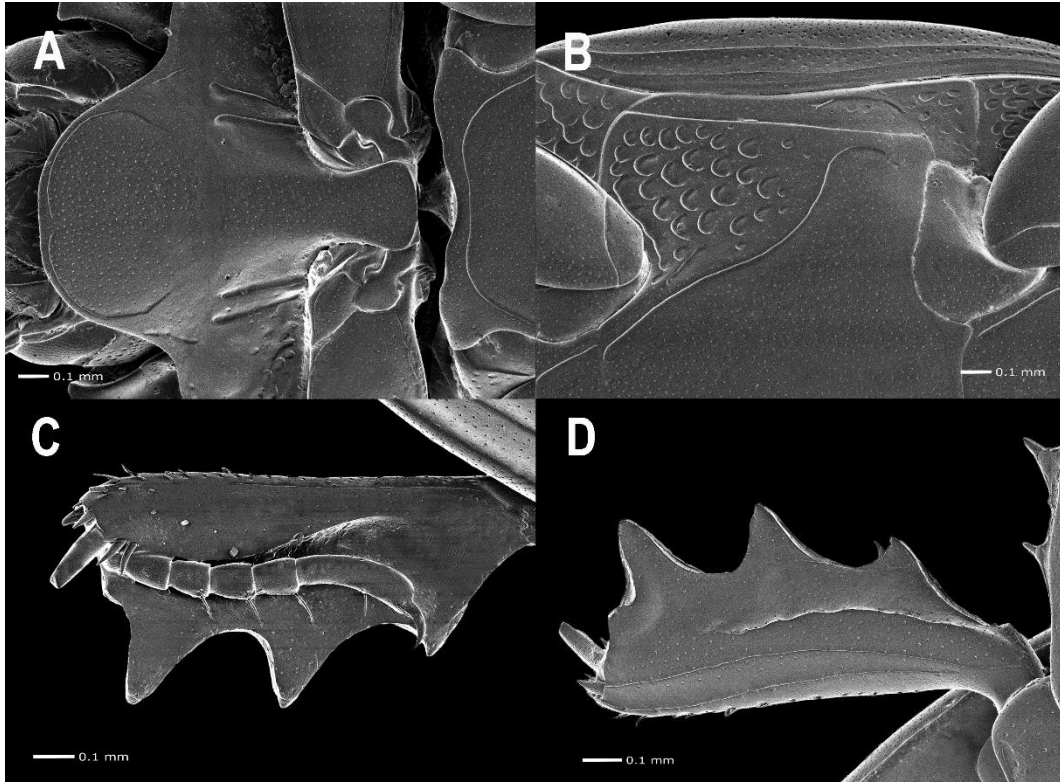
Figs. 58. Micrographs of *Platylister (Platylister) charrali* (Marseul, 1861) using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



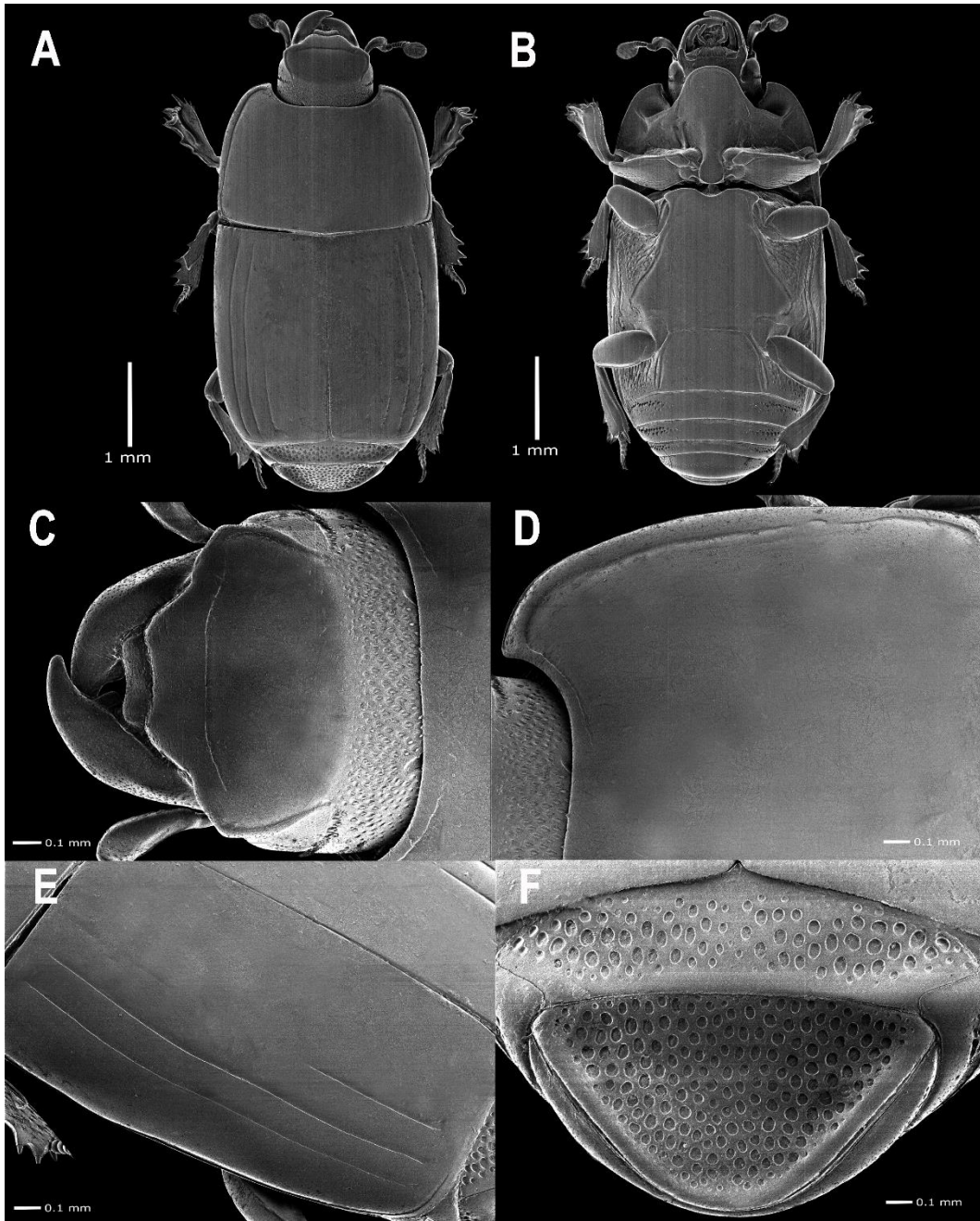
Figs. 59. Micrographs of *Platylister (Platylister) charrali* (Marseul, 1861) using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



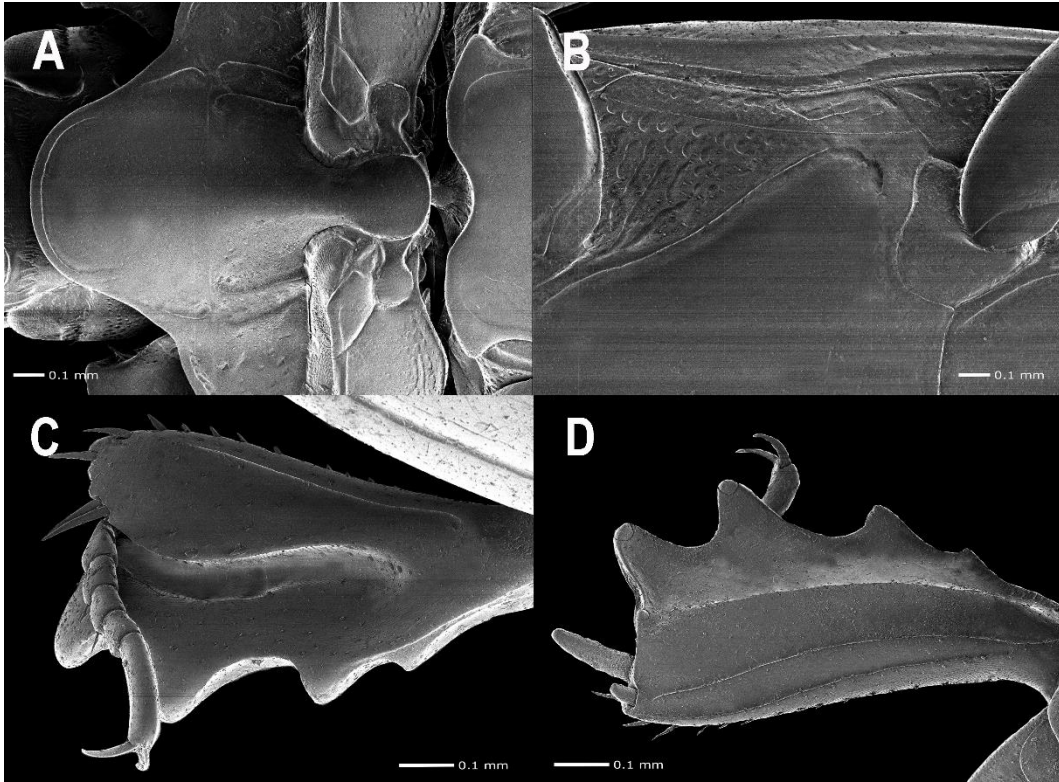
Figs. 60. Micrographs of *Platylister (Platylister)* sp. 1 using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



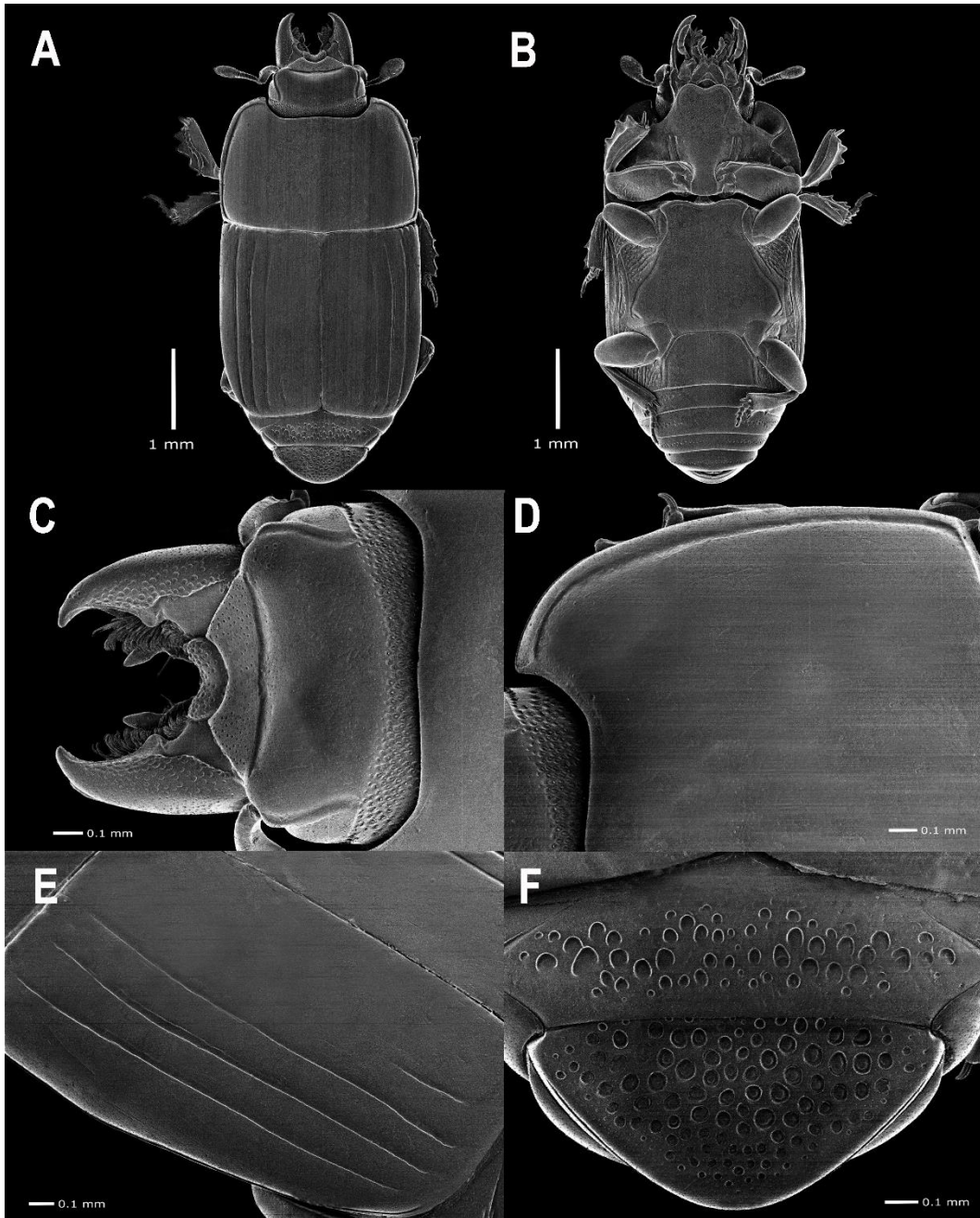
Figs. 61. Micrographs of *Platylister (Platylister)* sp. 1 using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



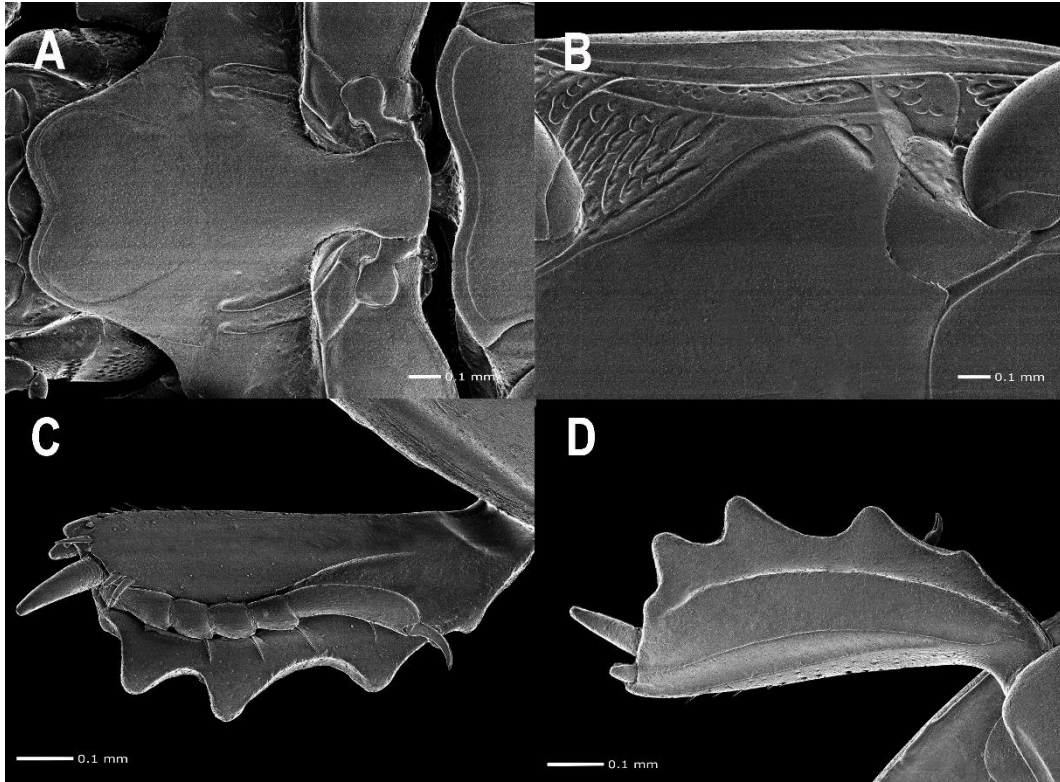
Figs. 62. Micrographs of *Platylister (Platylister) lucifugus* (Marseul, 1861) using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



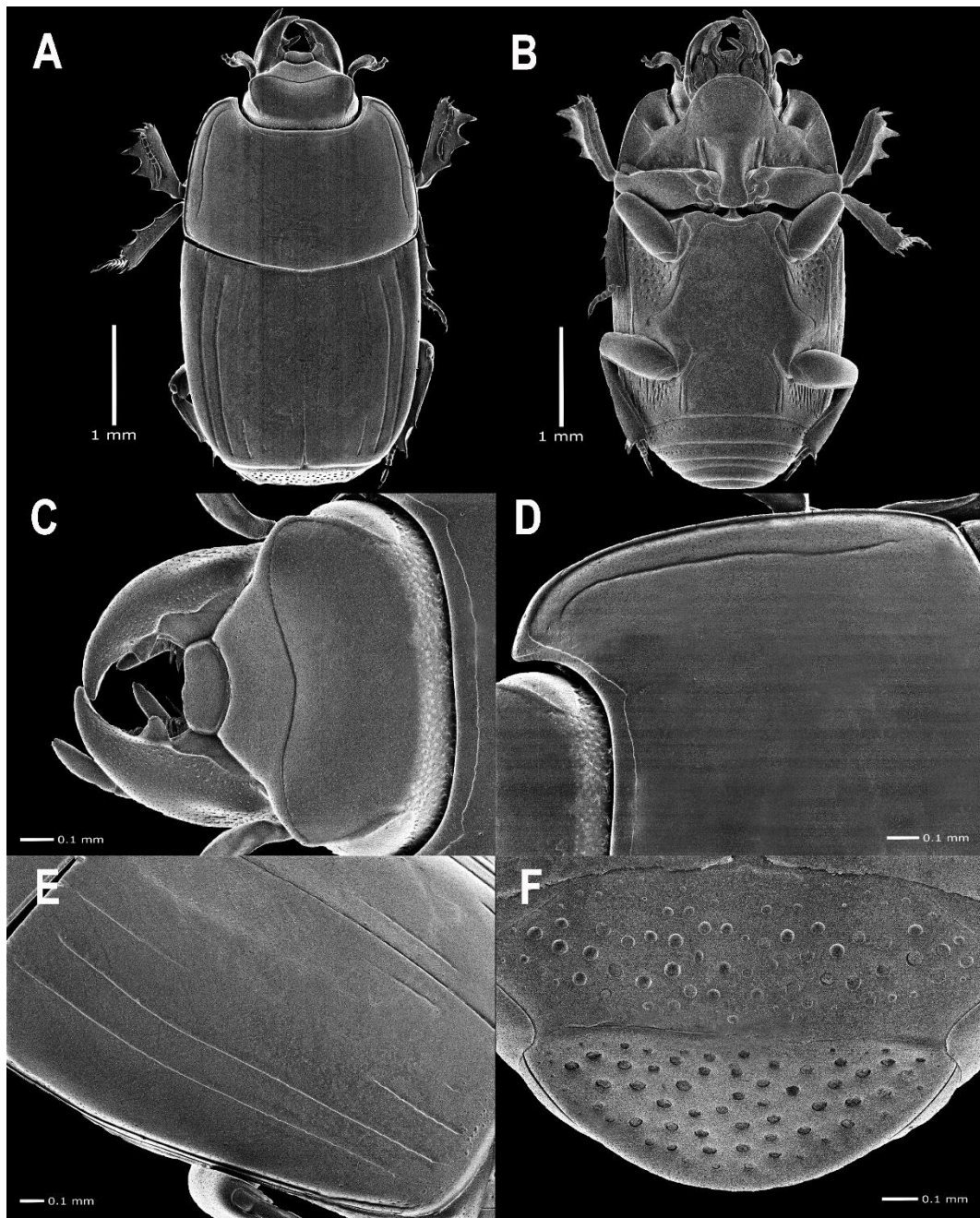
Figs. 63. Micrographs of *Platylister (Platylister) lucifugus* (Marseul, 1861) using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



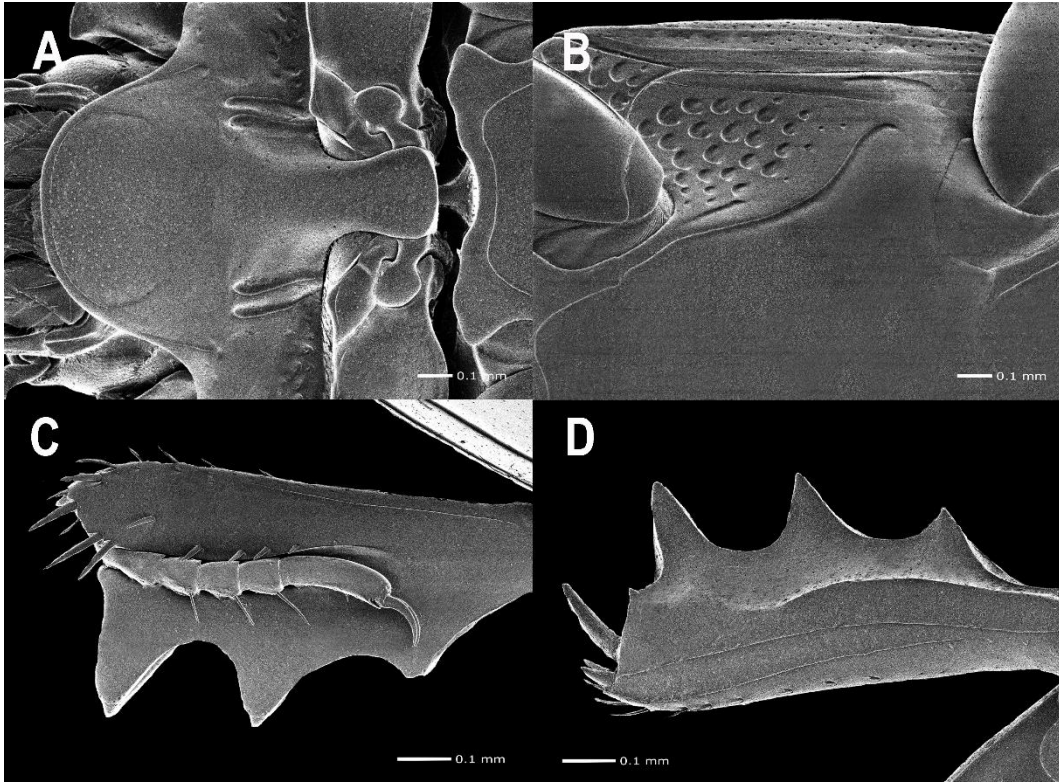
Figs. 64. Micrographs of *Platylister (Platylister)* sp. 2 using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



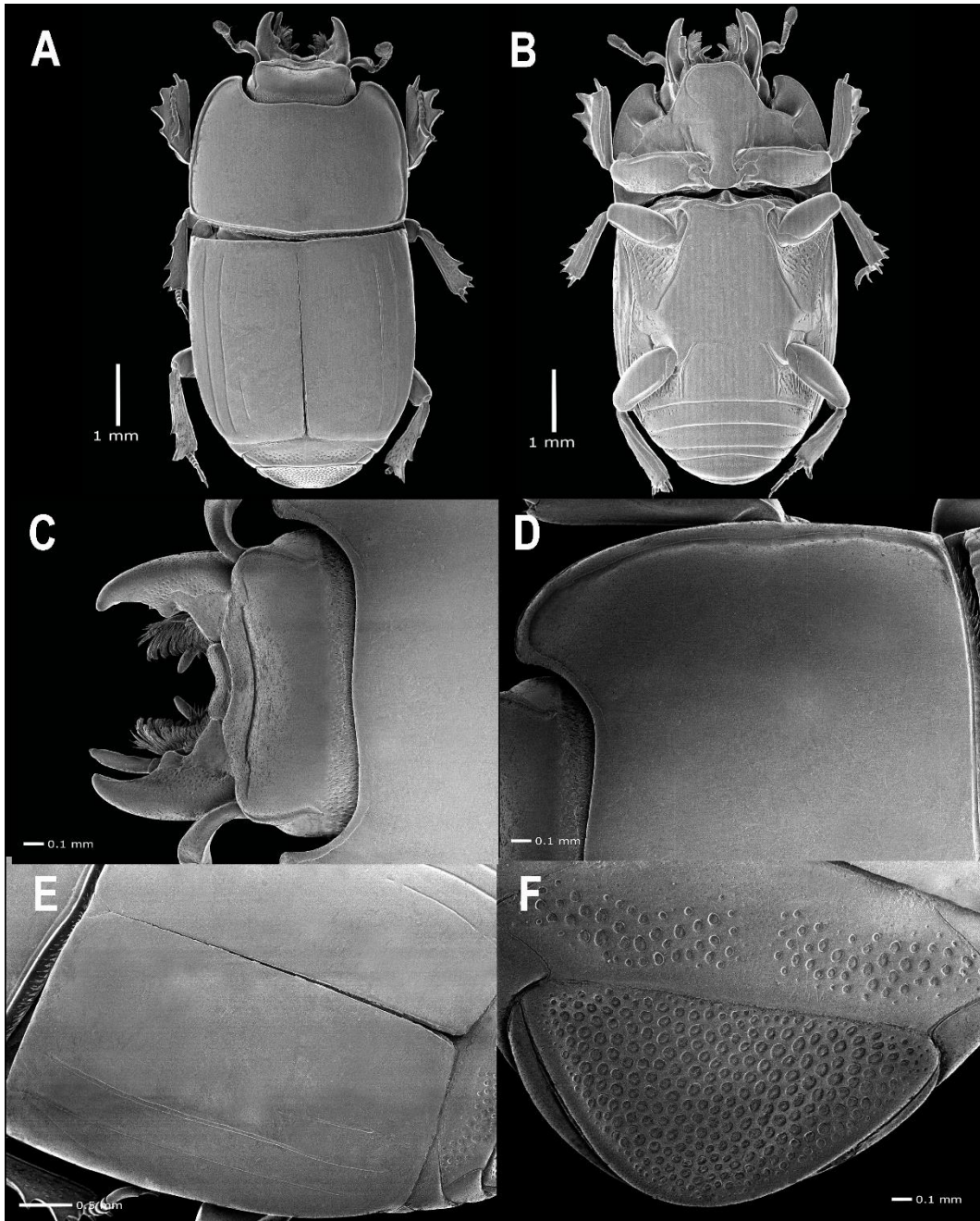
Figs. 65. Micrographs of *Platylister (Platylister)* sp. 2 using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



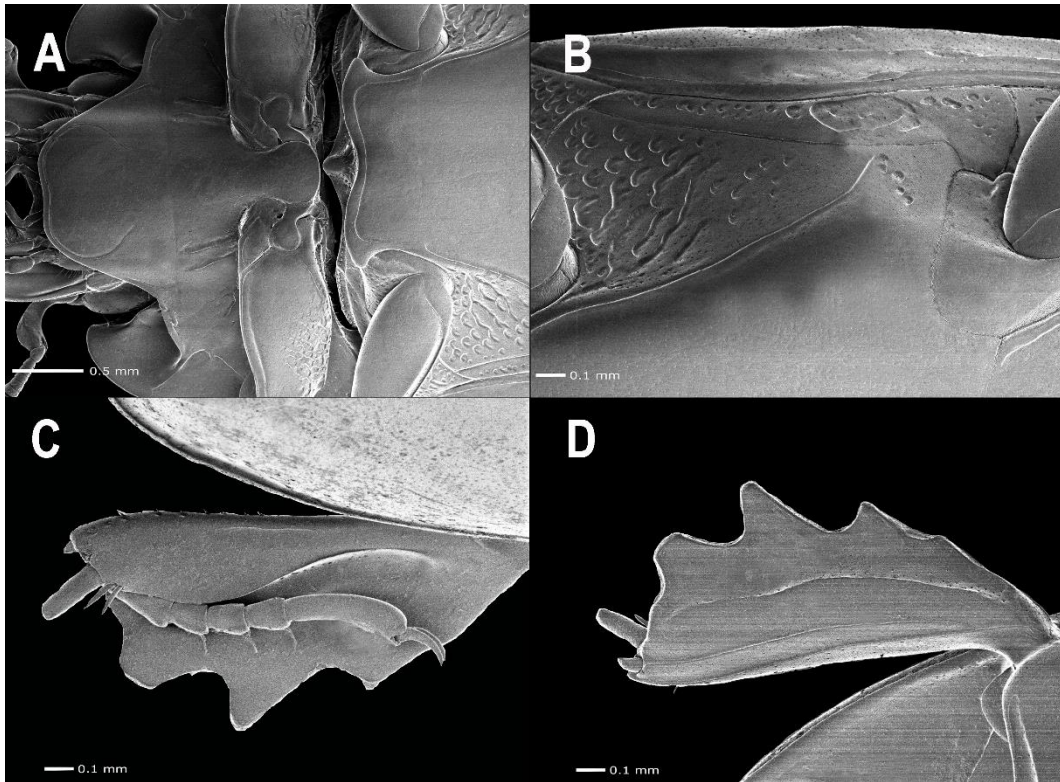
Figs. 66. Micrographs of *Platylister (Platylister)* sp. 3 using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



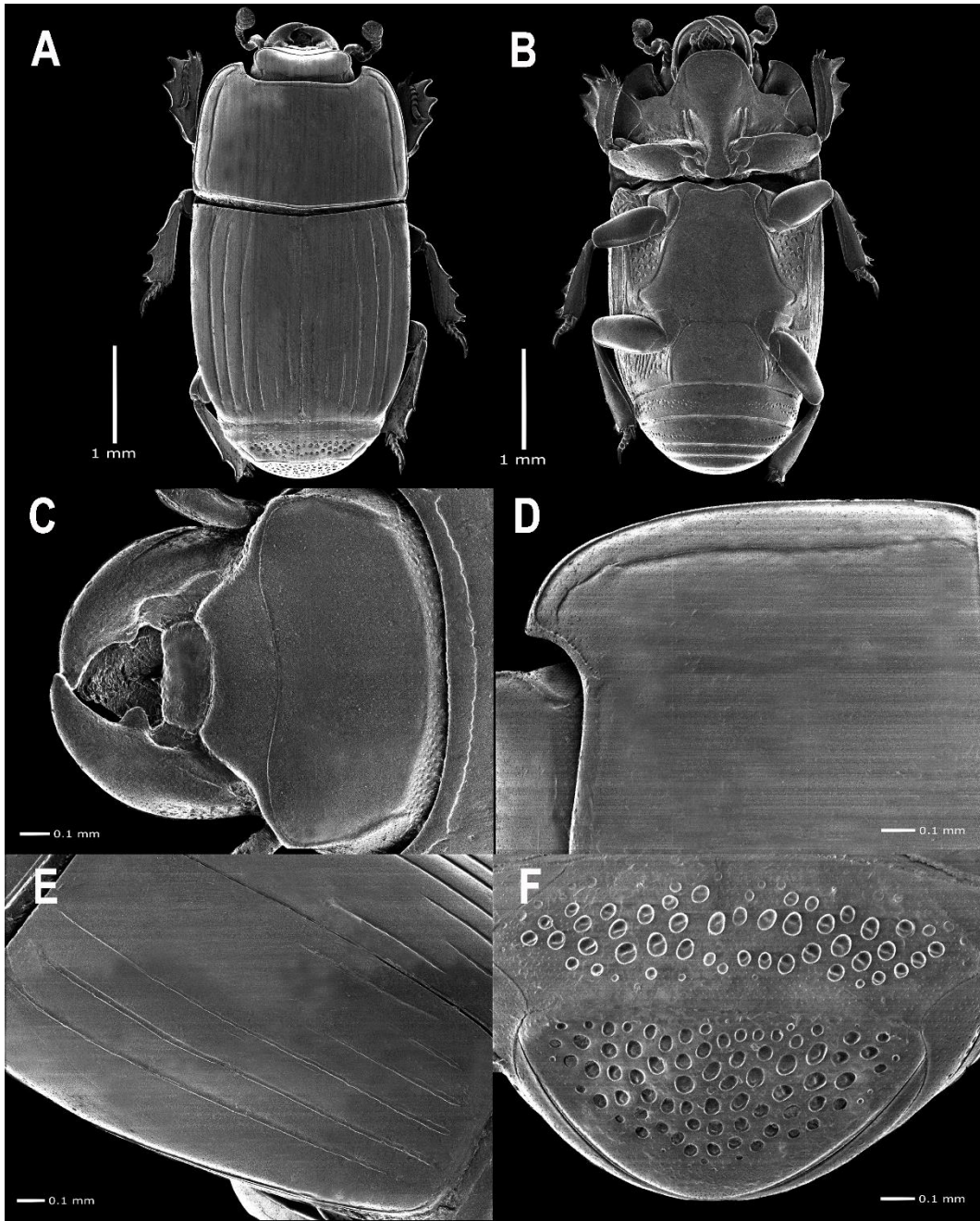
Figs. 67. Micrographs of *Platylister (Platylister)* sp. 3 using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



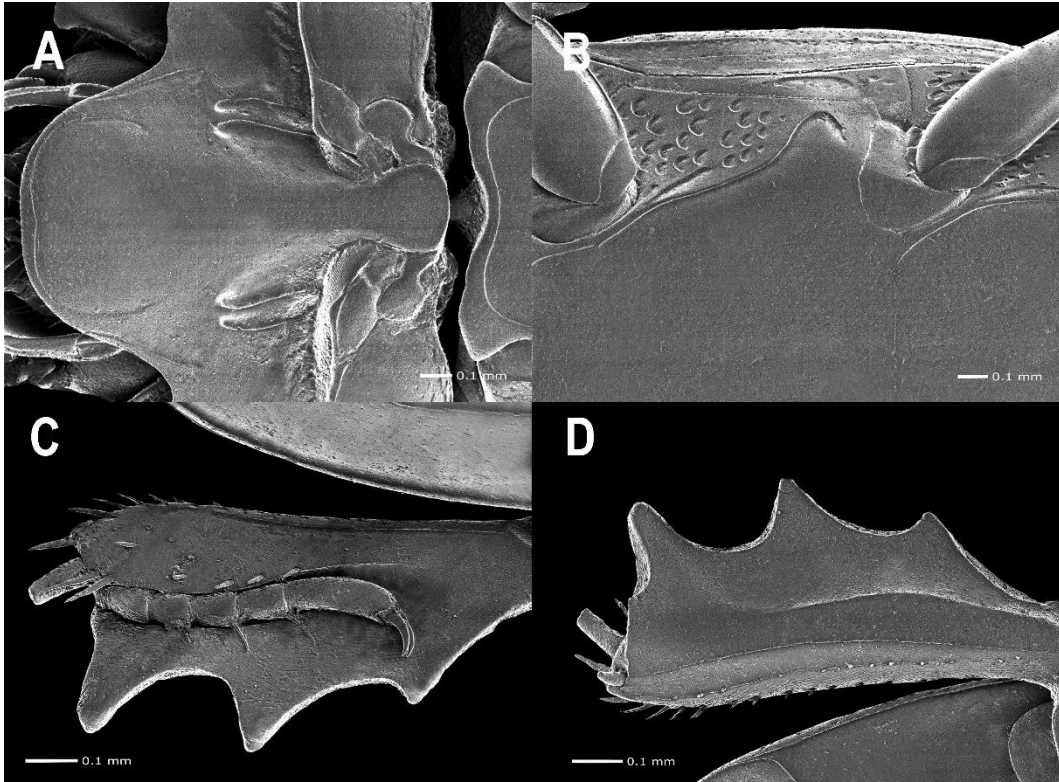
Figs. 68. Micrographs of *Platylister (Platylister) ovatus* (Erichson, 1834) using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



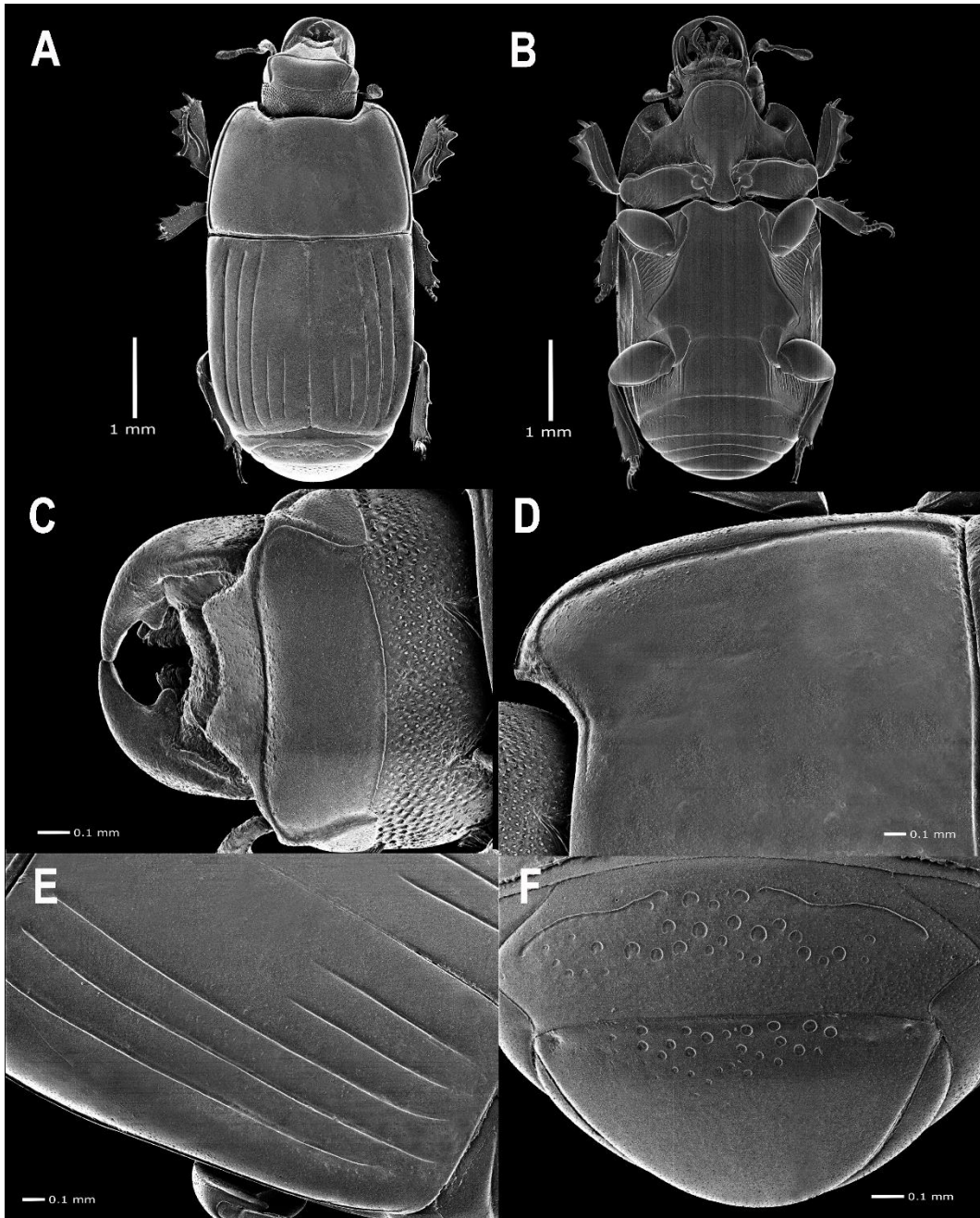
Figs. 69. Micrographs of *Platylister (Platylister) ovatus* (Erichson, 1834) using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



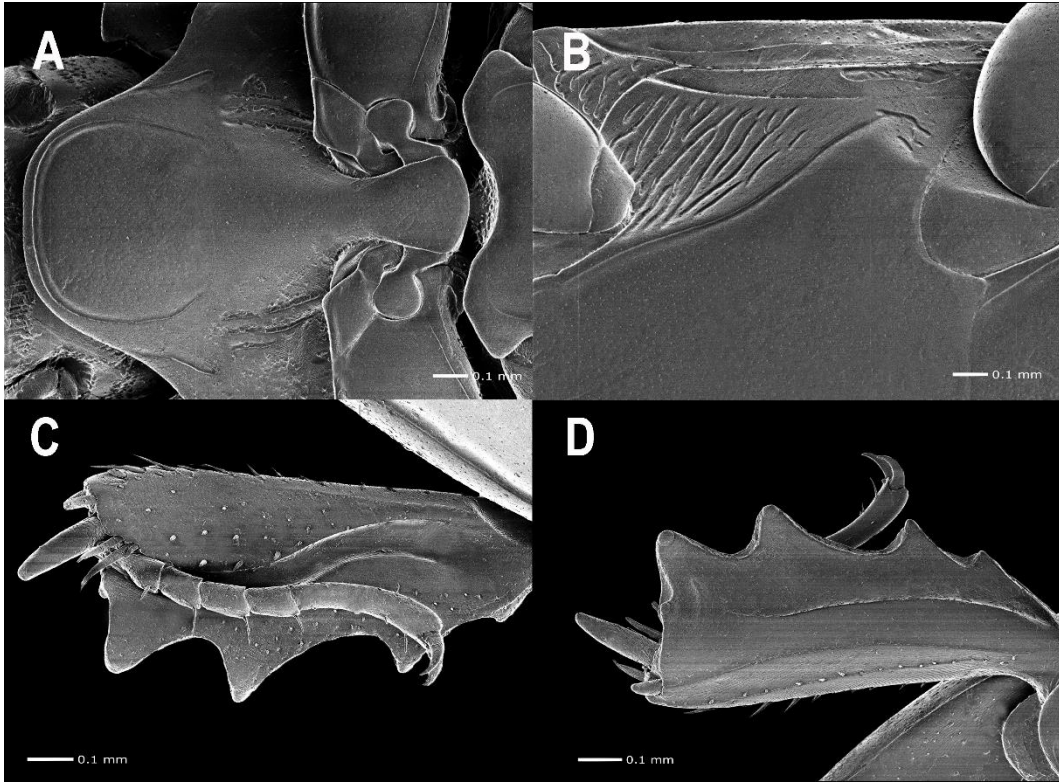
Figs. 70. Micrographs of *Platylister (Platylister) striatiderum* (Marseul, 1853) using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



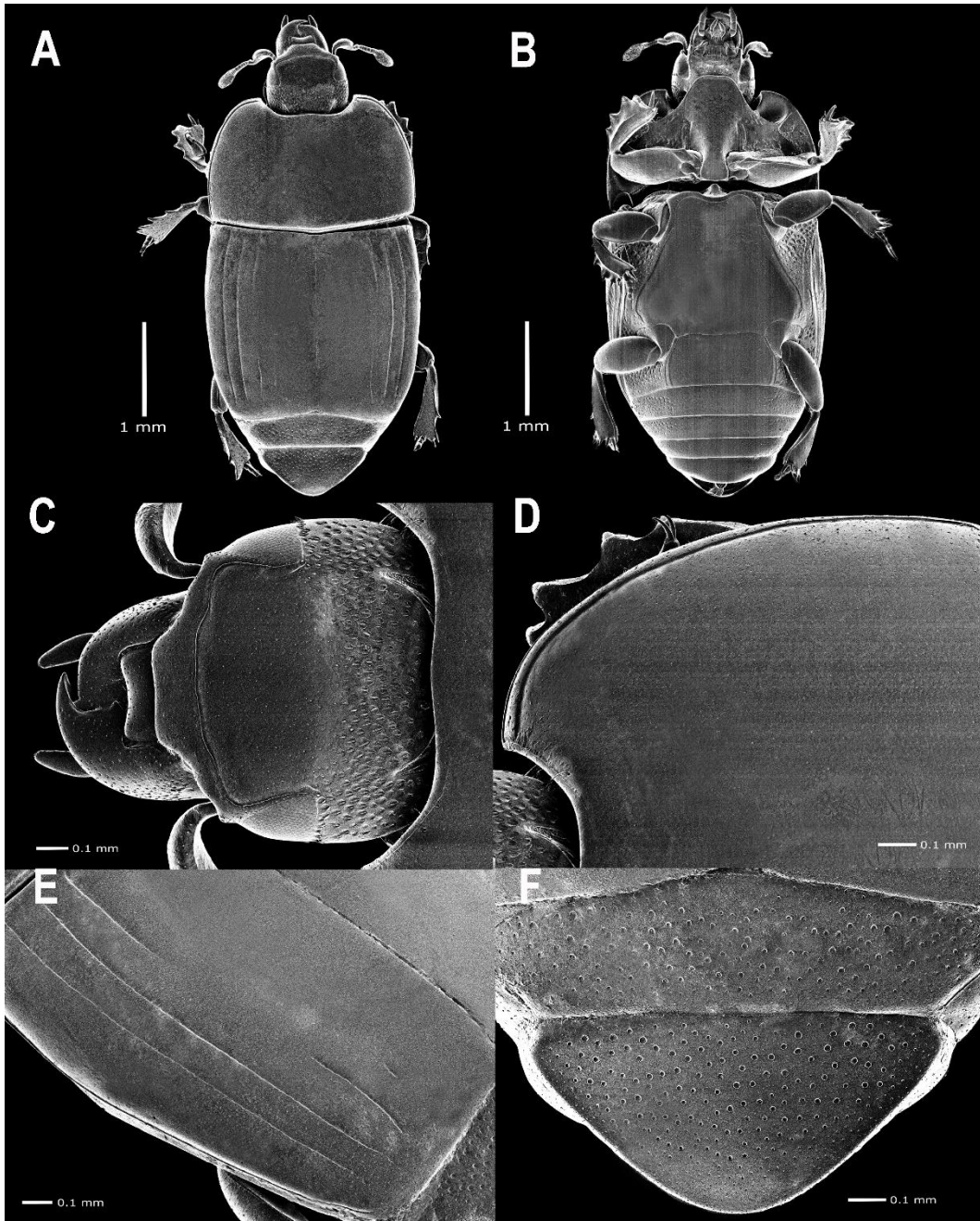
Figs. 71. Micrographs of *Platylister (Platylister) striatiderum* (Marseul, 1853) using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



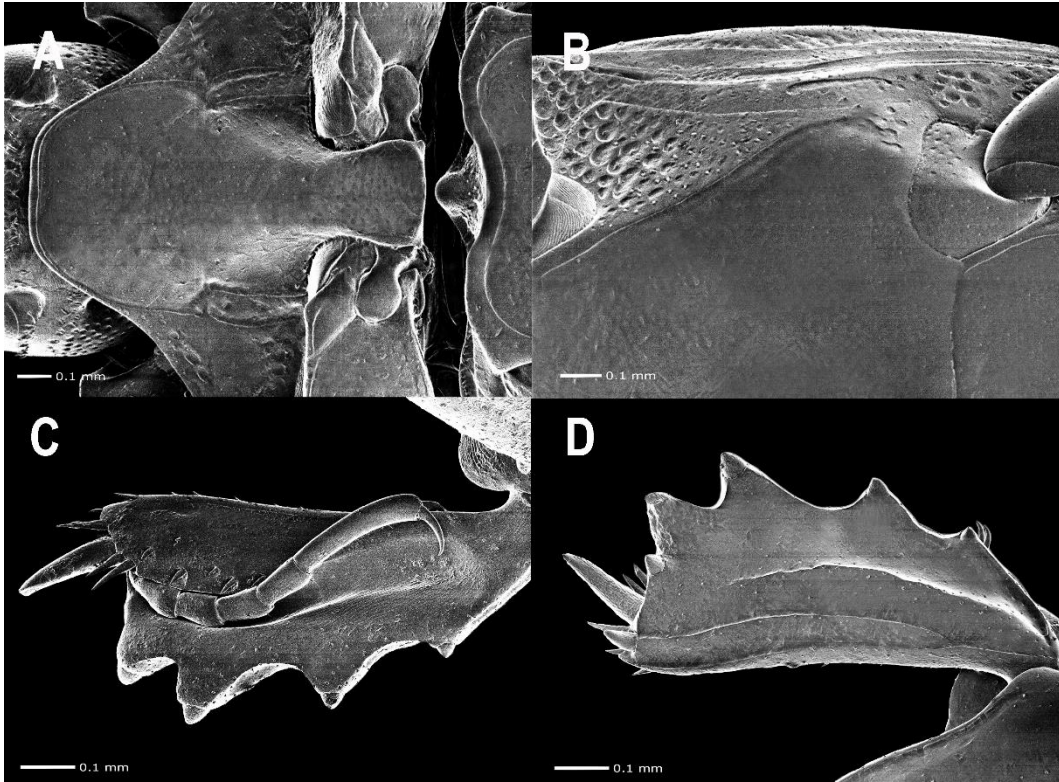
Figs. 72. Micrographs of *Platylister (Popinus) confucii* (Marseul, 1857) using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



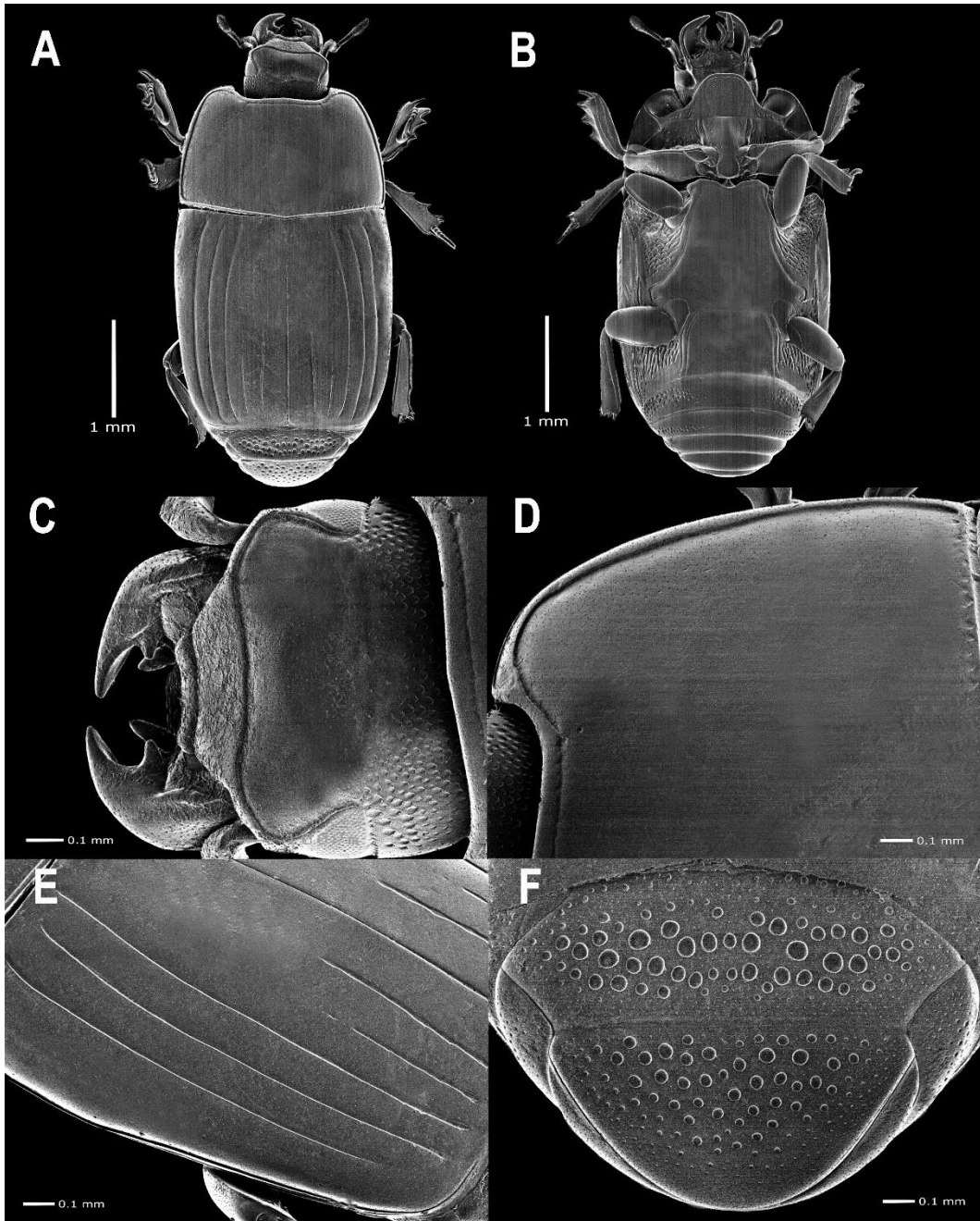
Figs. 73. Micrographs of *Platylister (Popinus) confucii* (Marseul, 1857) using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



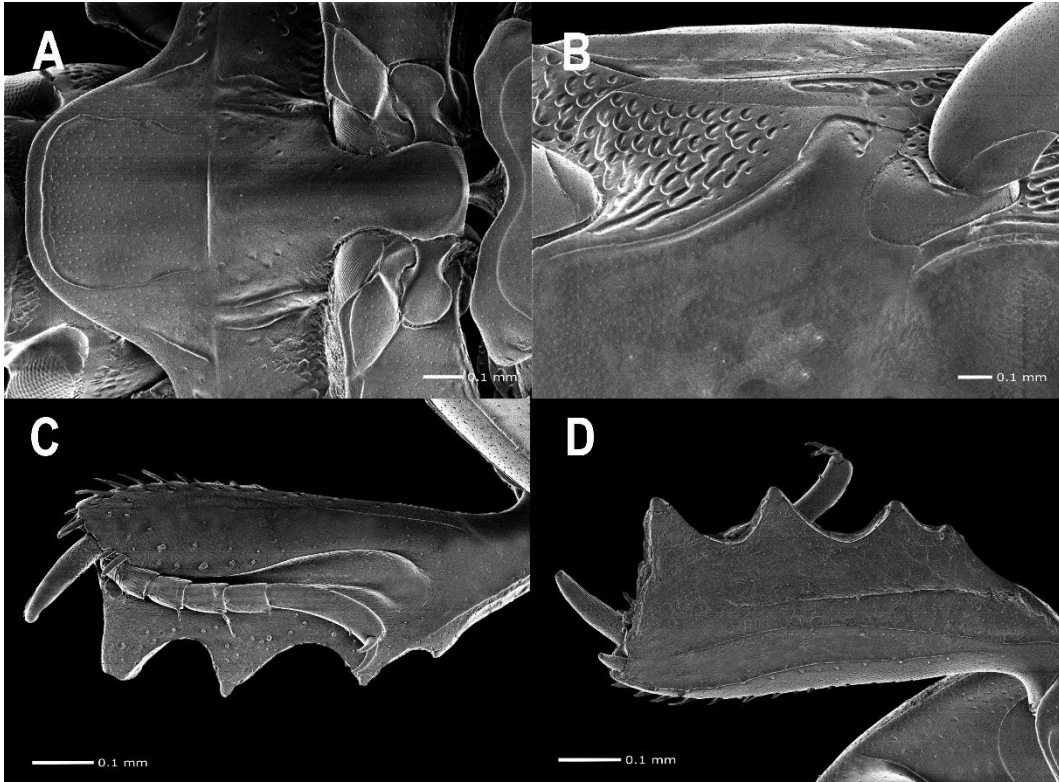
Figs. 74. Micrographs of *Platylister (Popinus) dahdah* (Marseul, 1861) using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



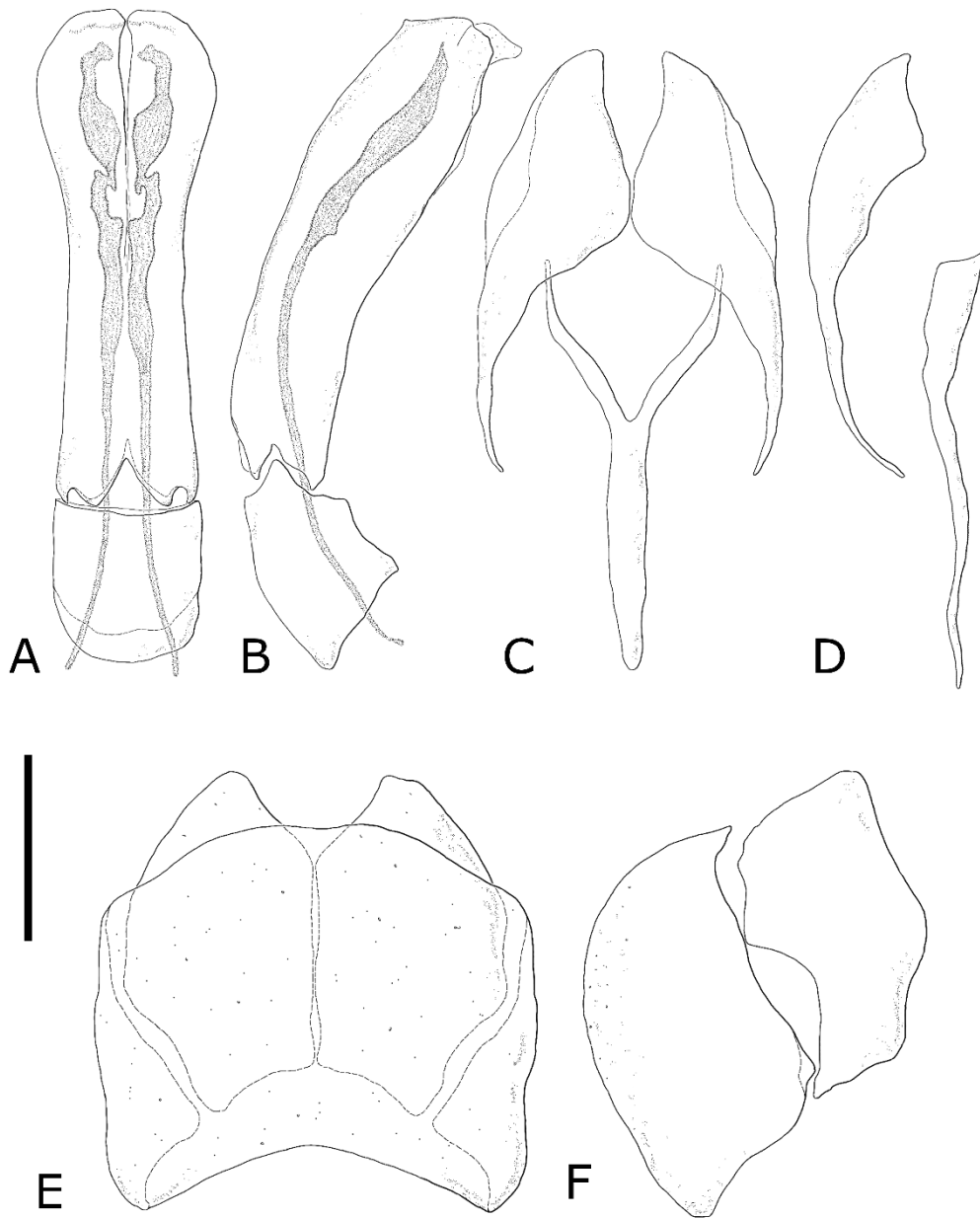
Figs. 75. Micrographs of *Platylister (Popinus) dahdah* (Marseul, 1861) using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



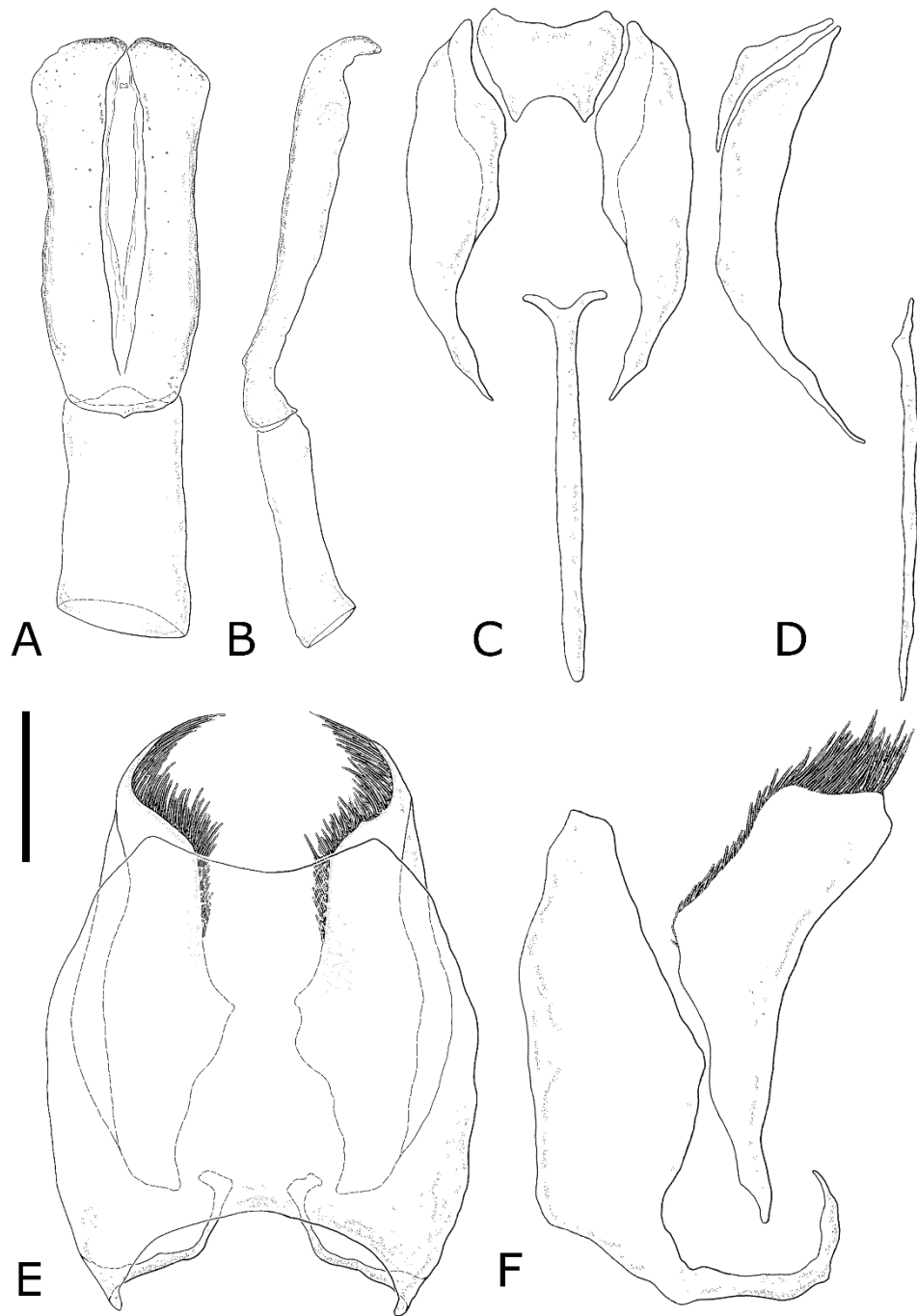
Figs. 76. Micrographs of *Platylister (Popinus) luzonicus* (Erichson, 1834) using SEM, Plate 1 — A, Habitus, dorsal view; B, ditto, ventral view; C, head, dorsal view; D, pronotum; E, left elytron, oblique view; F, propygidium and pygidium, caudal view.



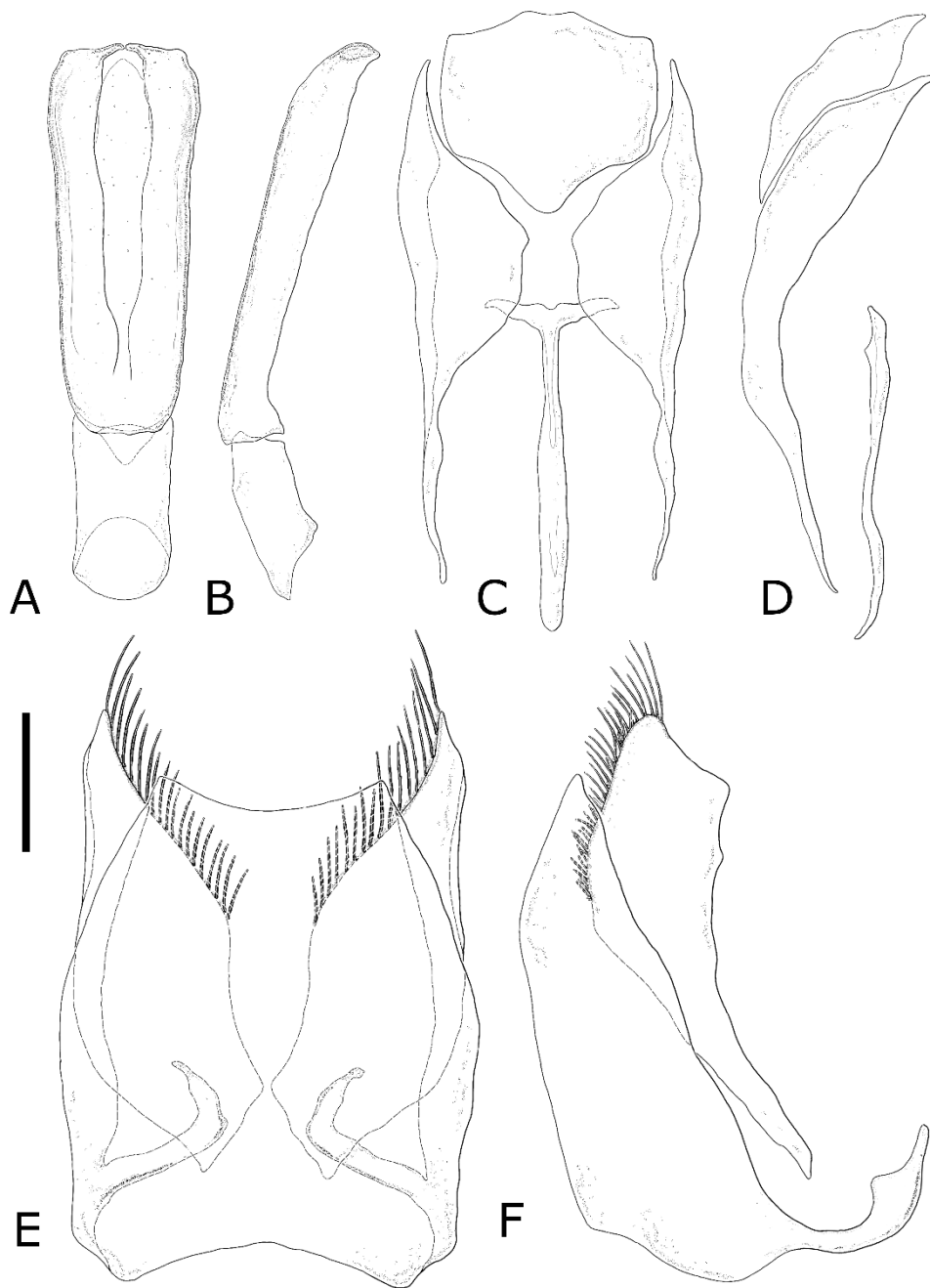
Figs. 77. Micrographs of *Platylister (Popinus) luzonicus* (Erichson, 1834) using SEM, Plate 2 — A, Prosternal process; B, meso-metaventrite; C, protibia, dorsal view; D, ditto, ventral view.



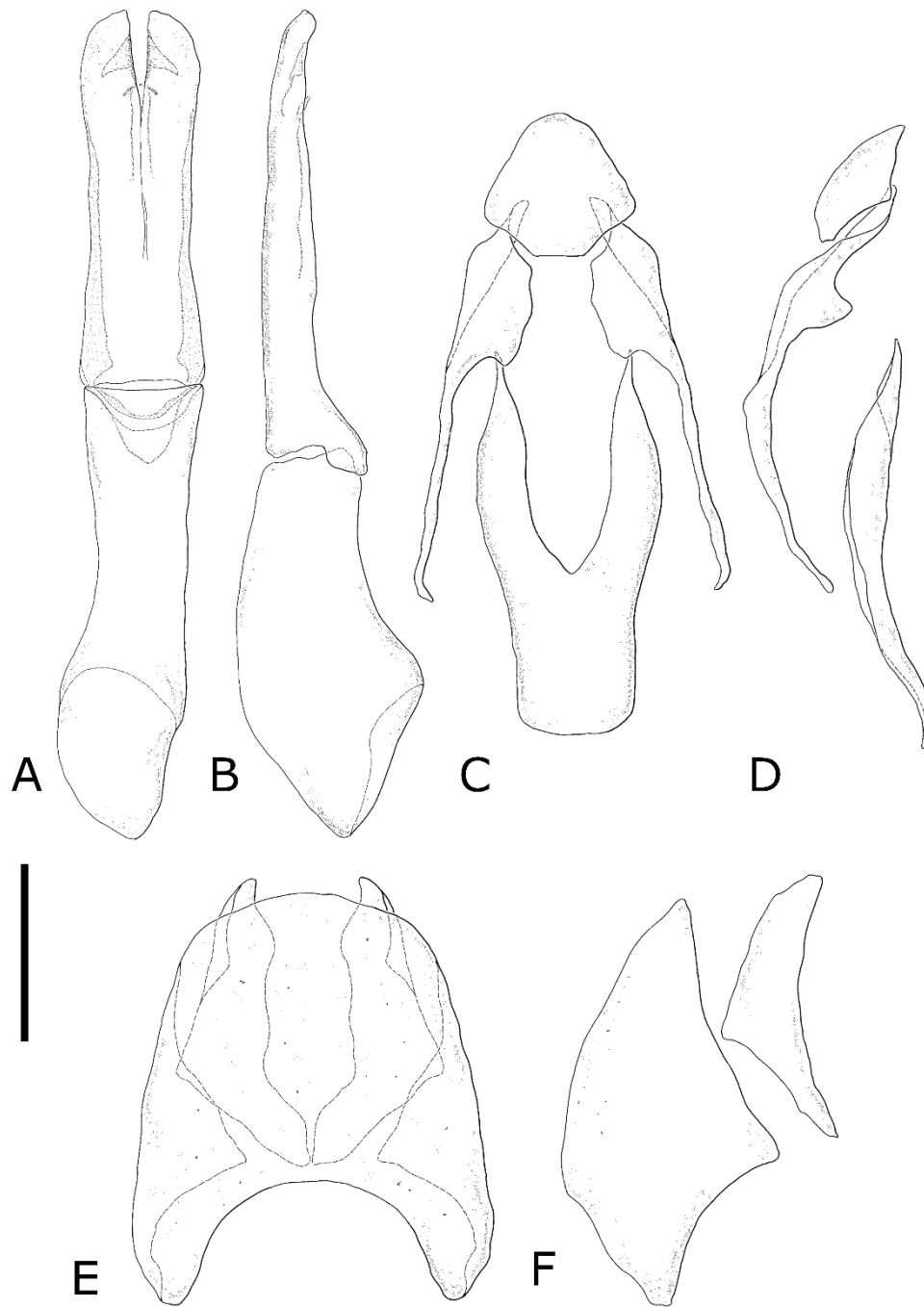
Figs. 78. Male genitalia of *Nasaltus chinensis* (Quensel, 1806) — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 1.00 mm.



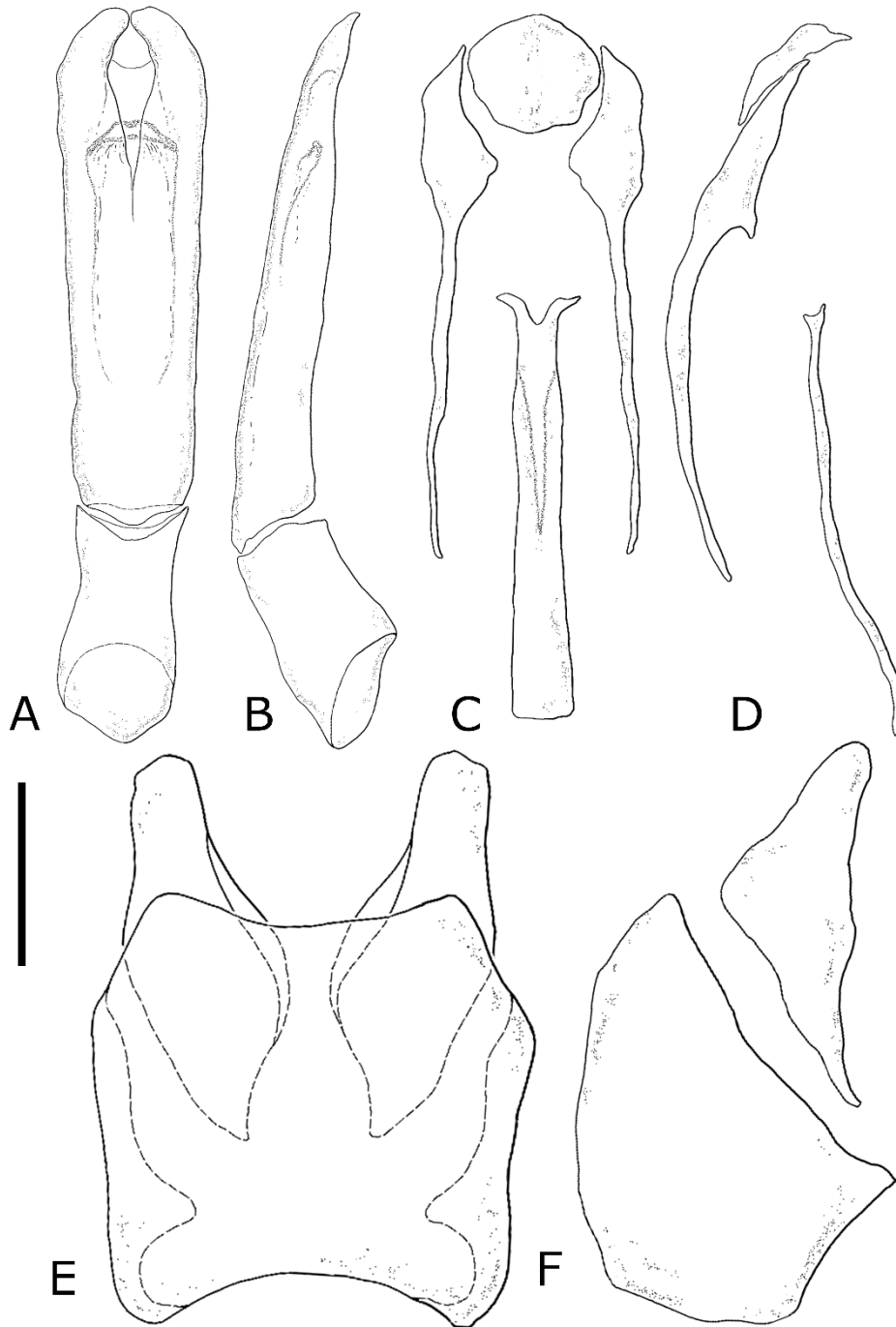
Figs. 79. Male genitalia of *Hololepta (Hololepta) elongata* Erichson, 1834 — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.20 mm.



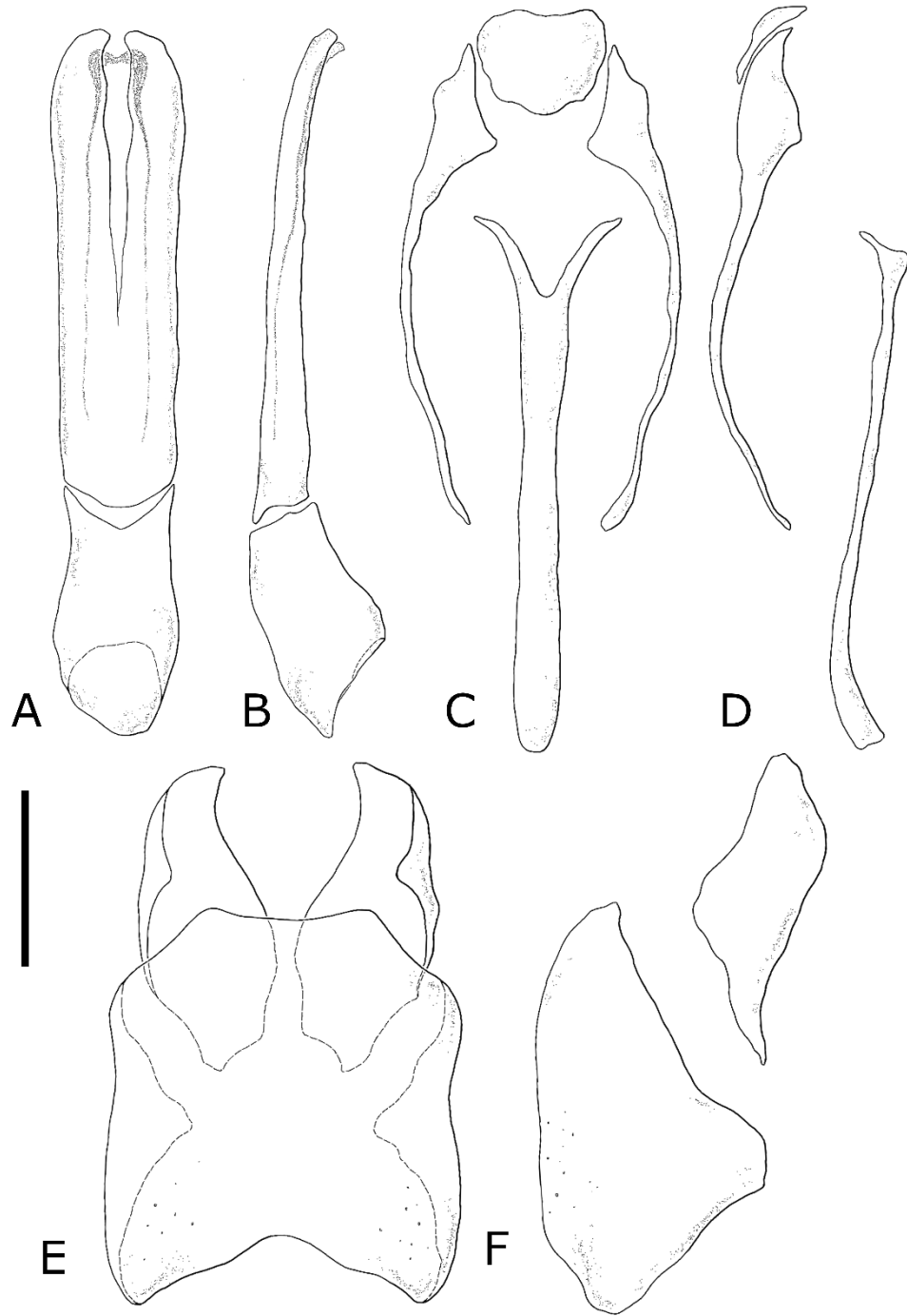
Figs. 80. Male genitalia of *Hololepta (Hololepta) indica* Erichson, 1834 — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.25 mm.



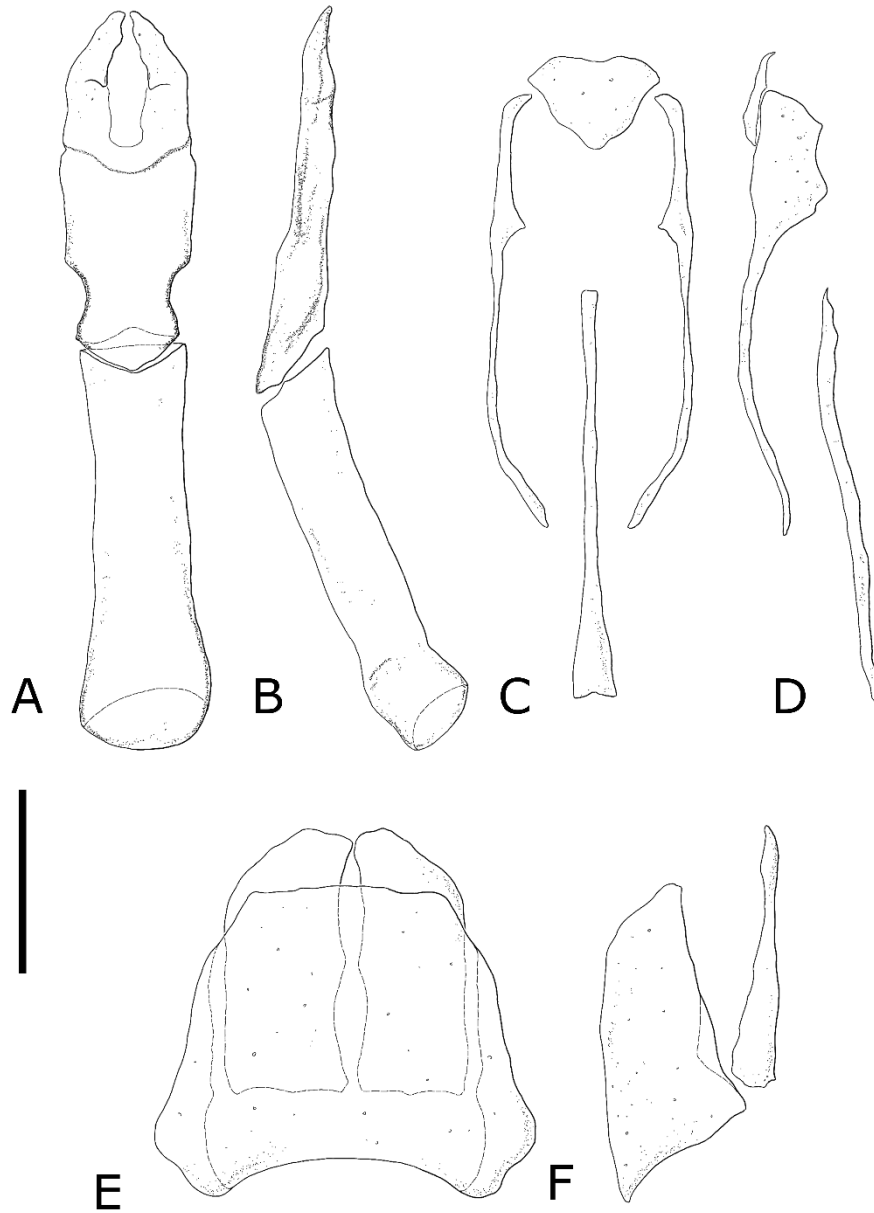
Figs. 81. Male genitalia of *Eblisia (Eblisia) lunatica* (Marseul, 1864) — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.25 mm.



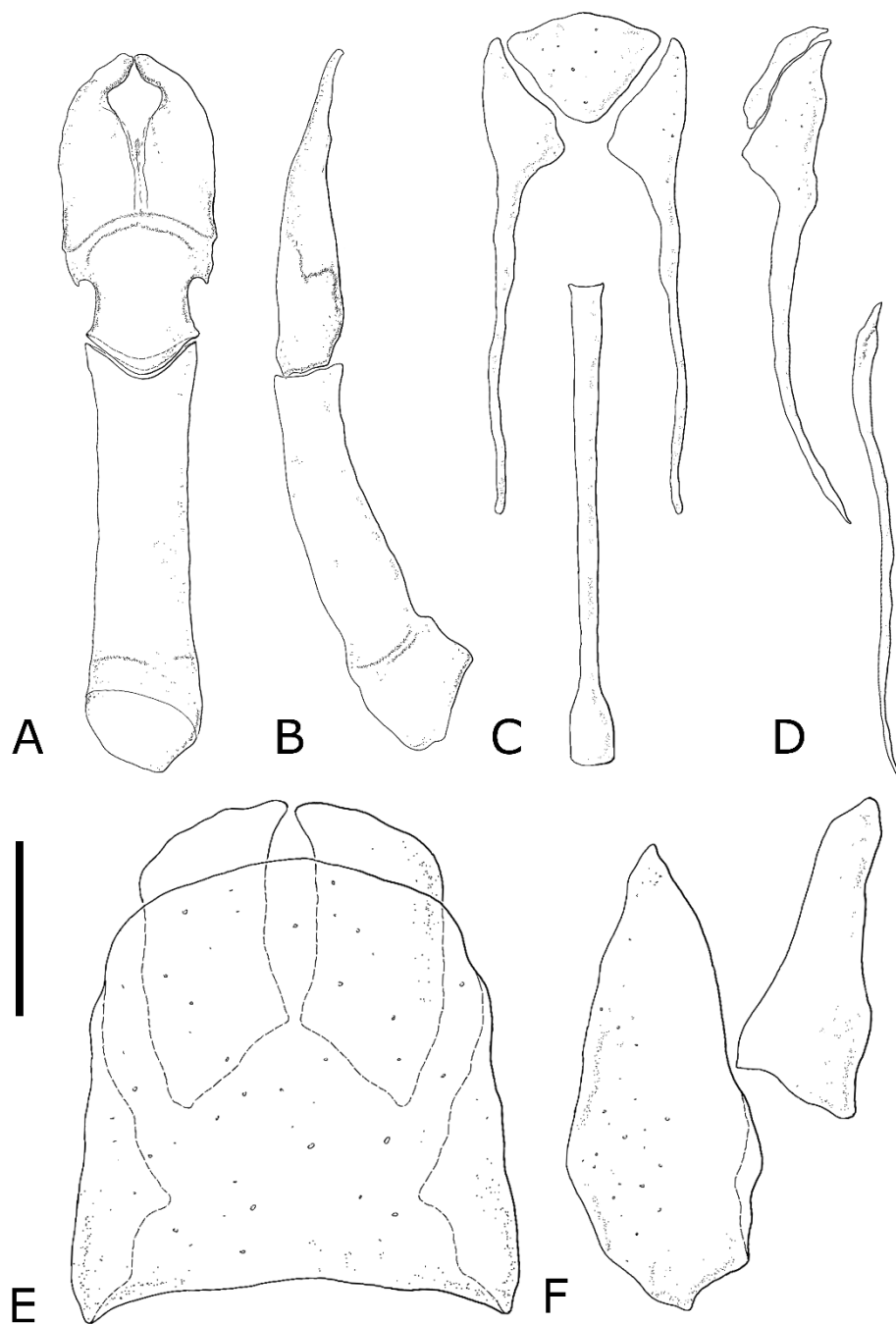
Figs. 82. Male genitalia of *Eurylistes* sp. 1. — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.20 mm.



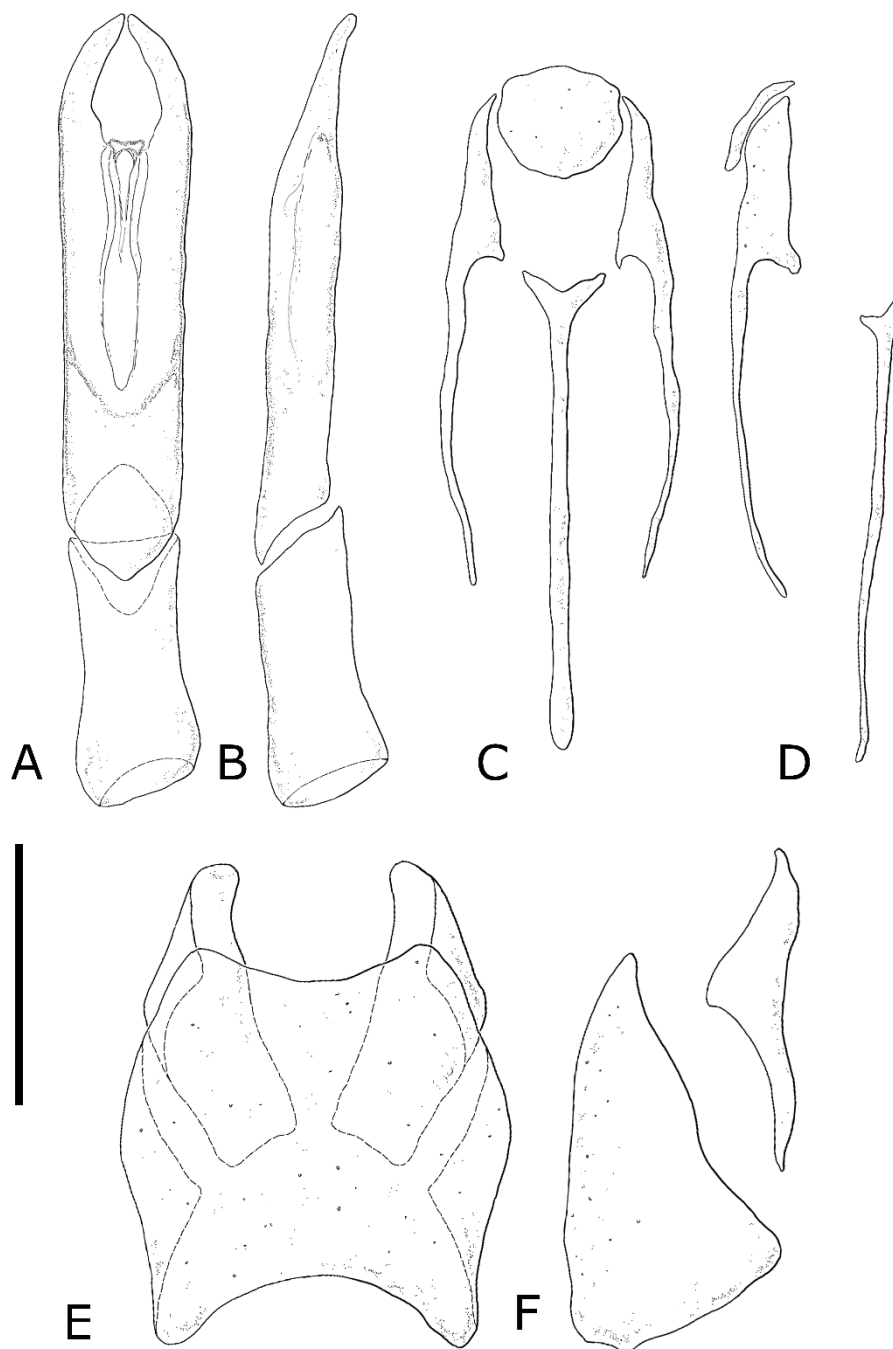
Figs. 83. Male genitalia of *Eurylistes uniformis* (Lewis, 1894) — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.20 mm.



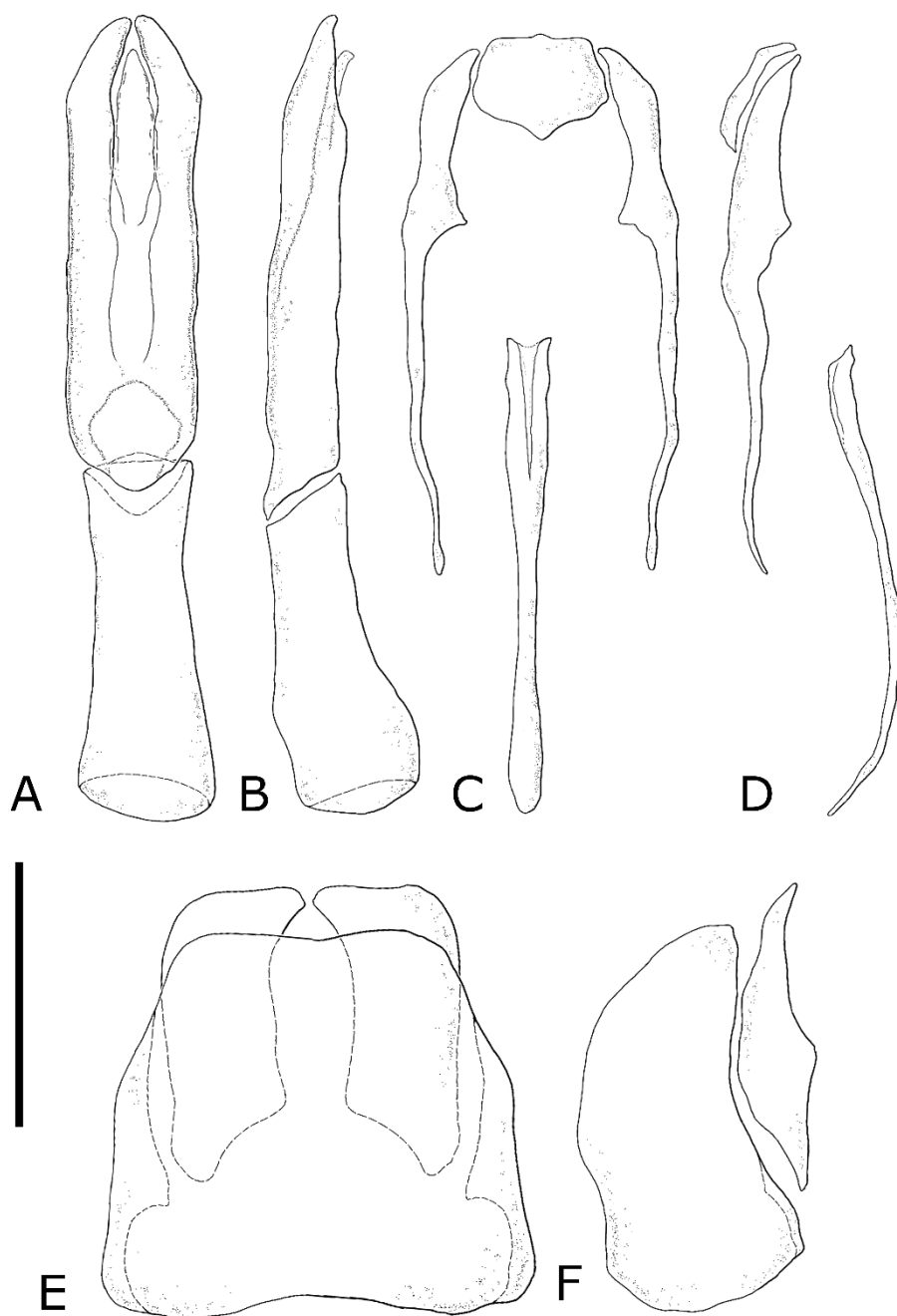
Figs. 84. Male genitalia of *Apobletes marginicollis* (Lewis, 1888) — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.20 mm.



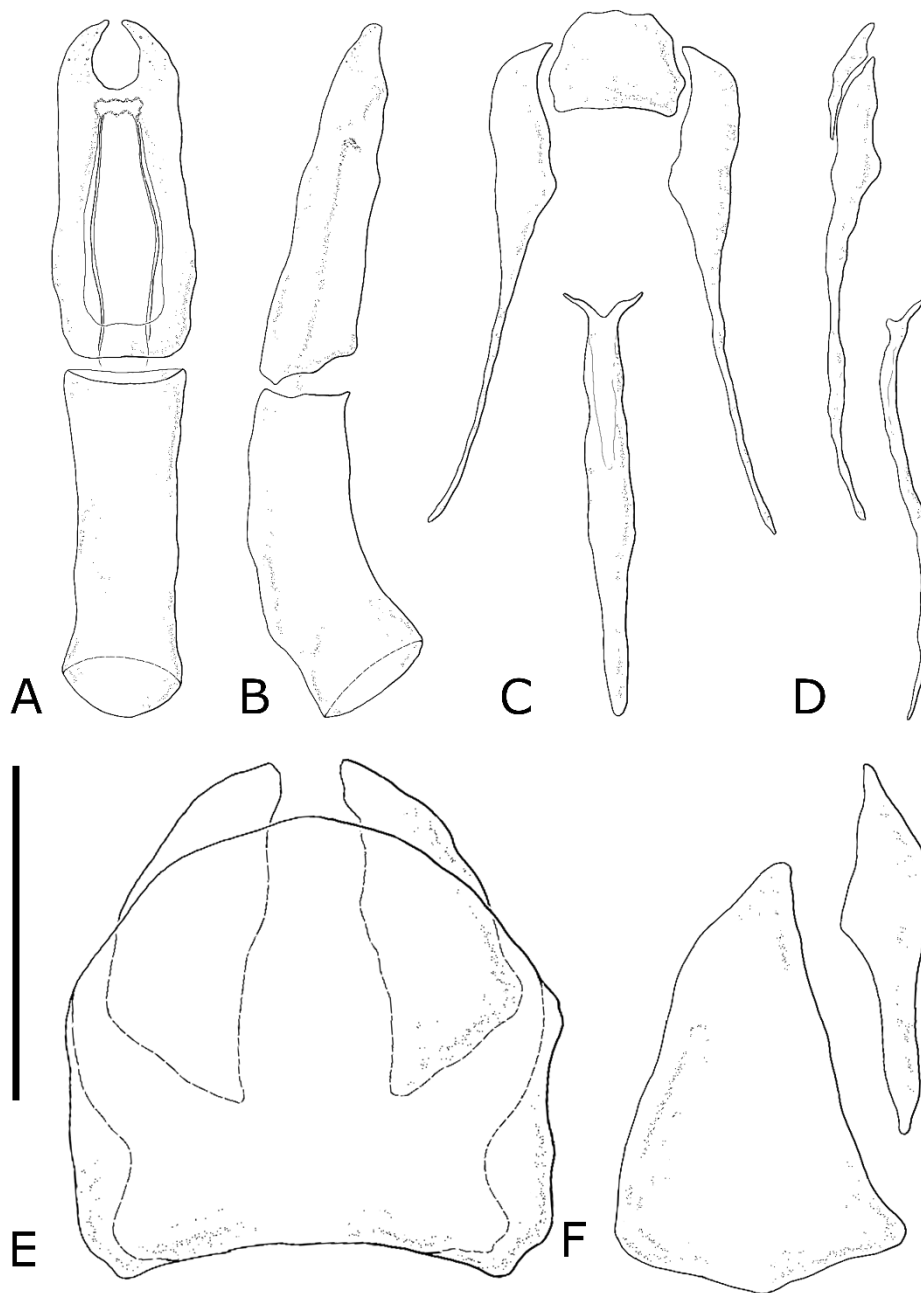
Figs. 85. Male genitalia of *Apobletes schaumei* (Marseul, 1860) — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.20 mm.



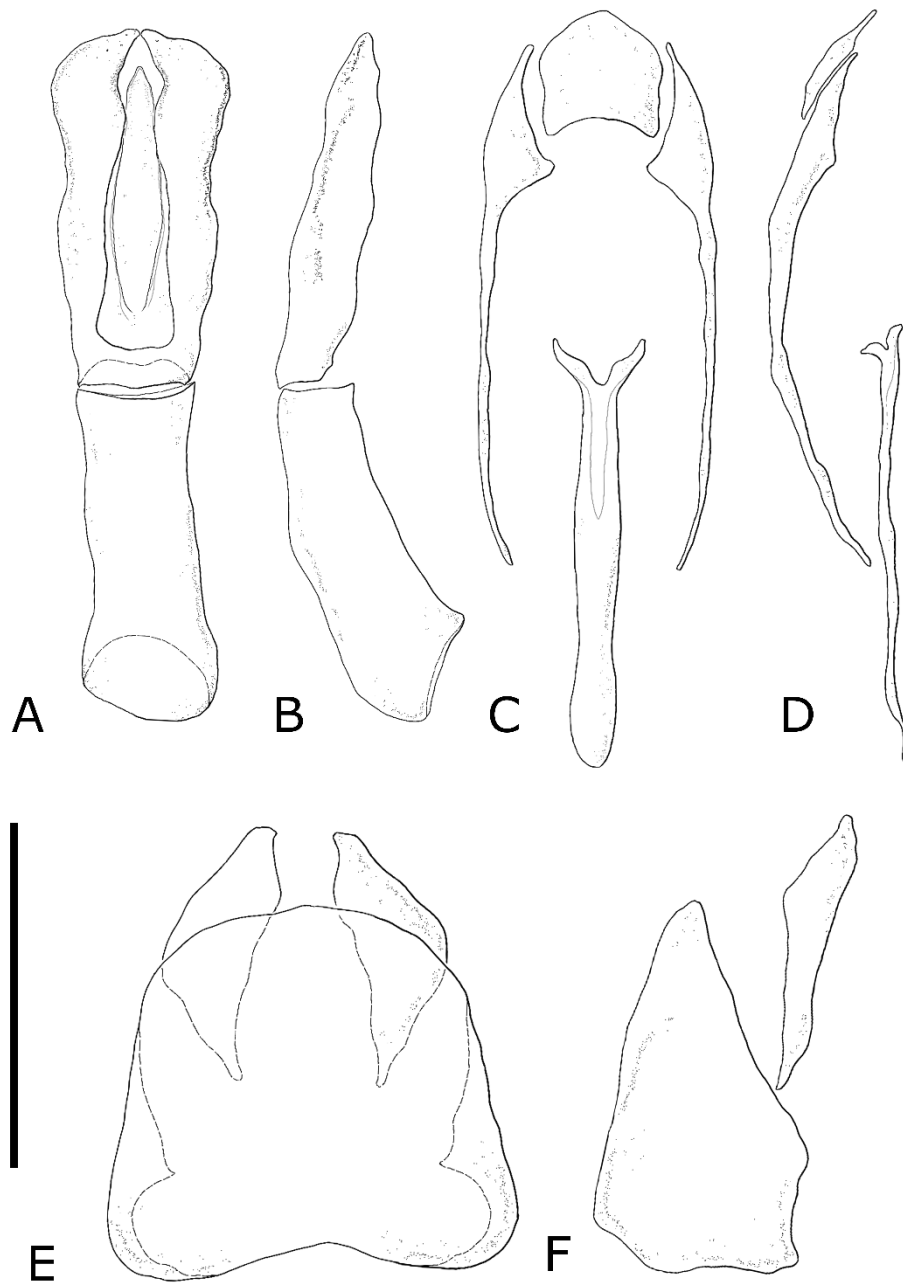
Figs. 86. Male genitalia of *Mesostrix bimaculata* Mazur & Mokrzycki, 2014 — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.20 mm.



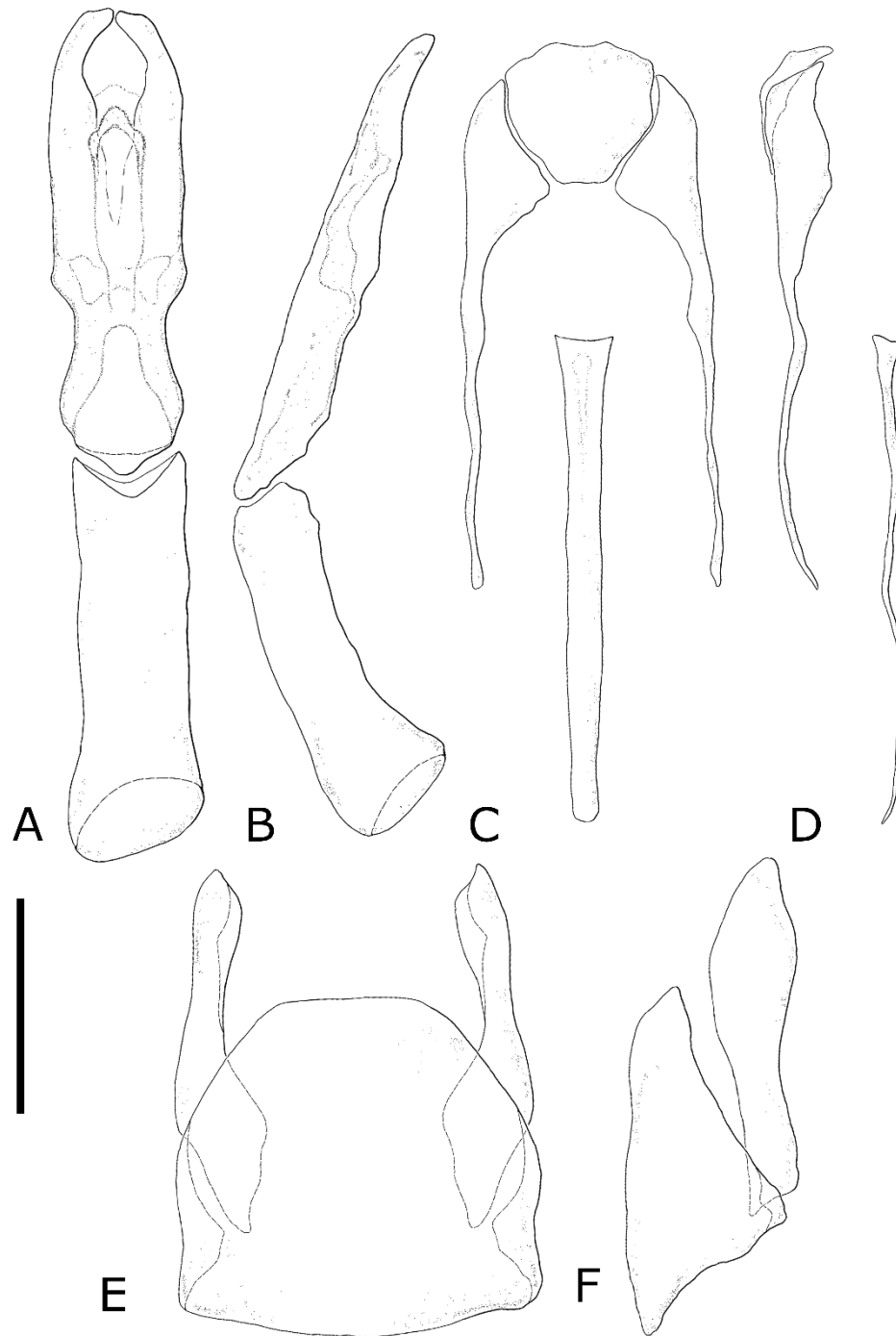
Figs. 87. Male genitalia of *Platysoma (Cylister) dufali* Marseul, 1864 — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.20 mm.



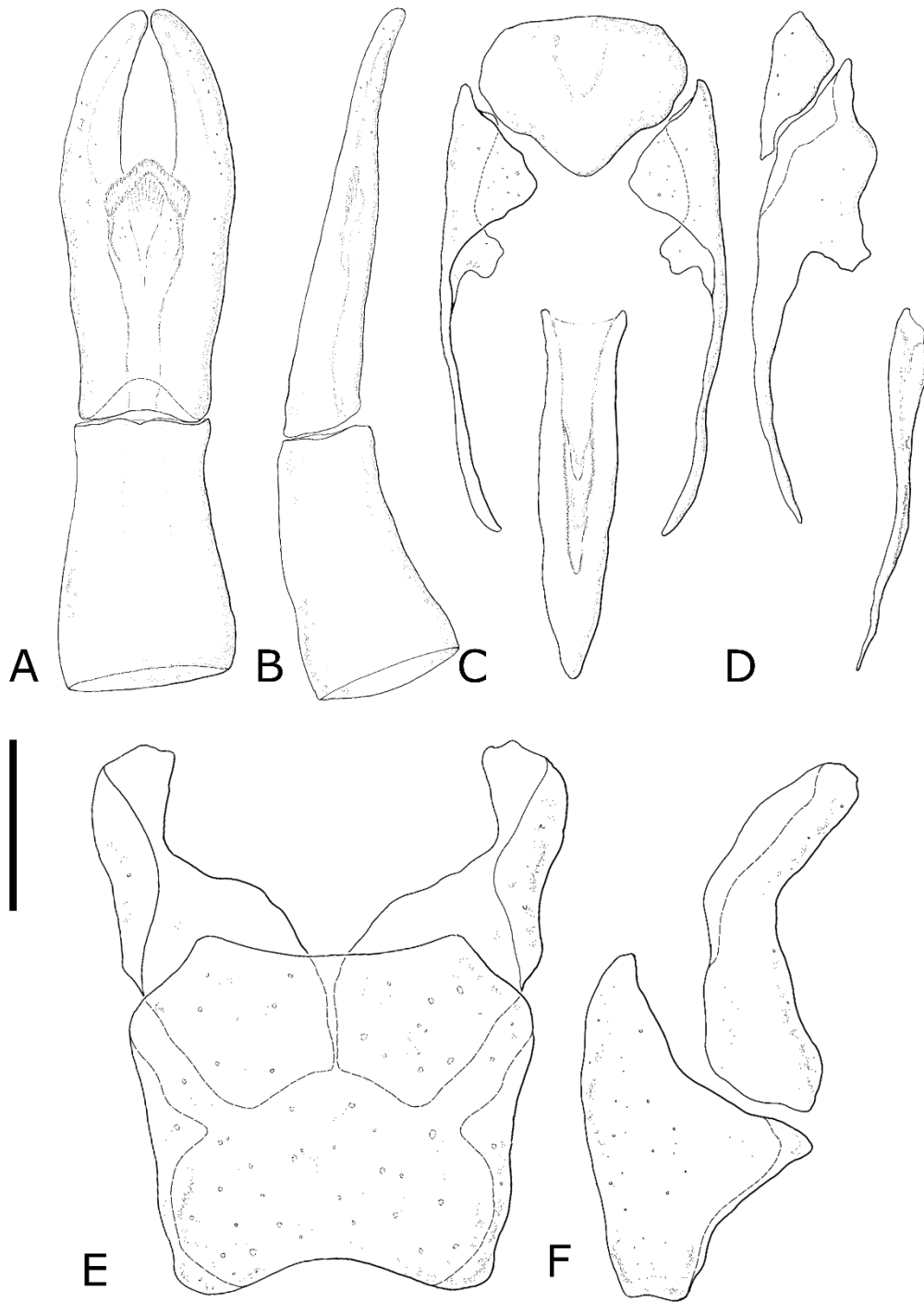
Figs. 88. Male genitalia of *Liopygus diopsipygus* (Marseul, 1879) — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.20 mm.



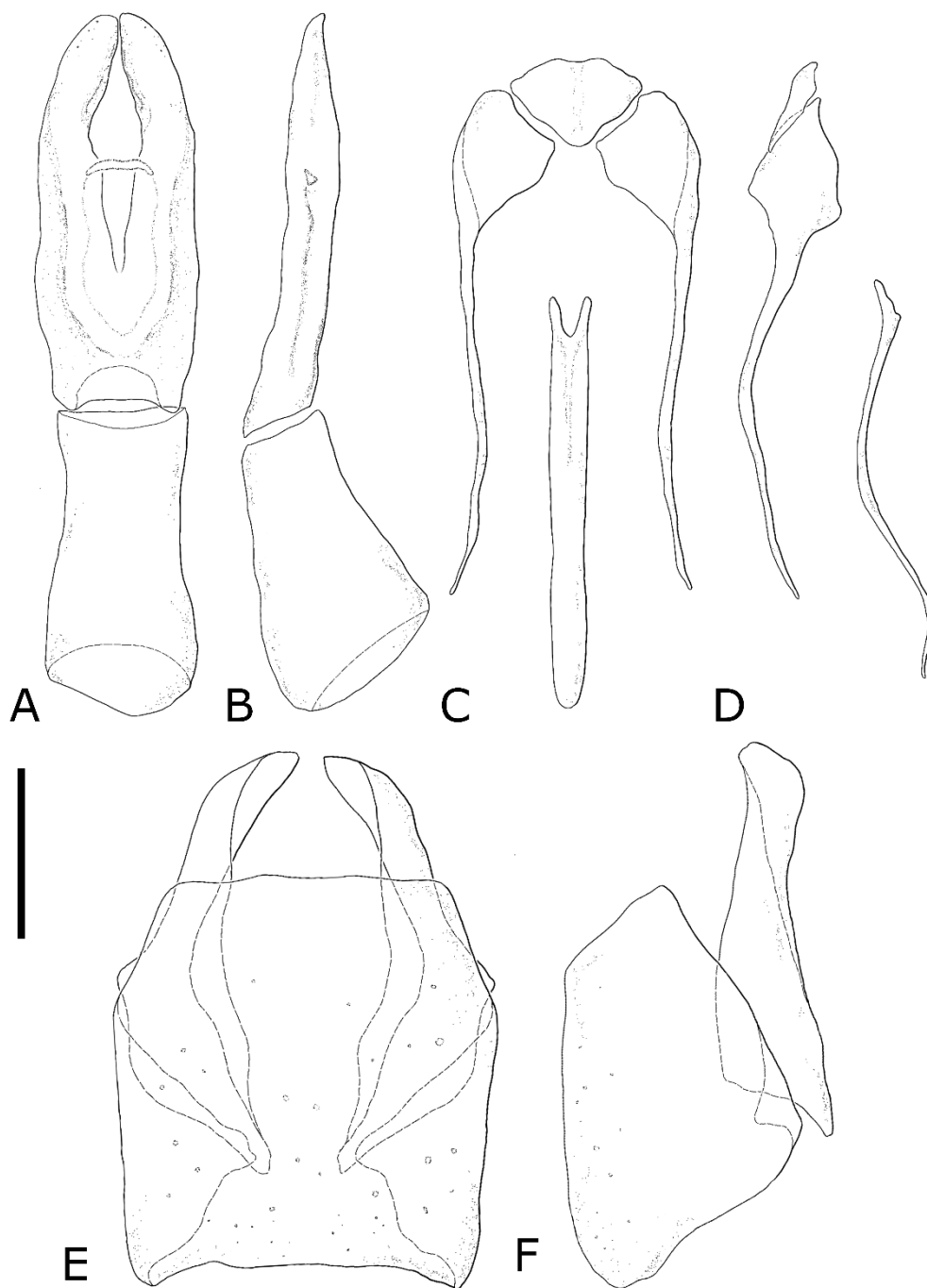
Figs. 89. Male genitalia of *Liopygus gestroi* (Lewis, 1888) — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.20 mm.



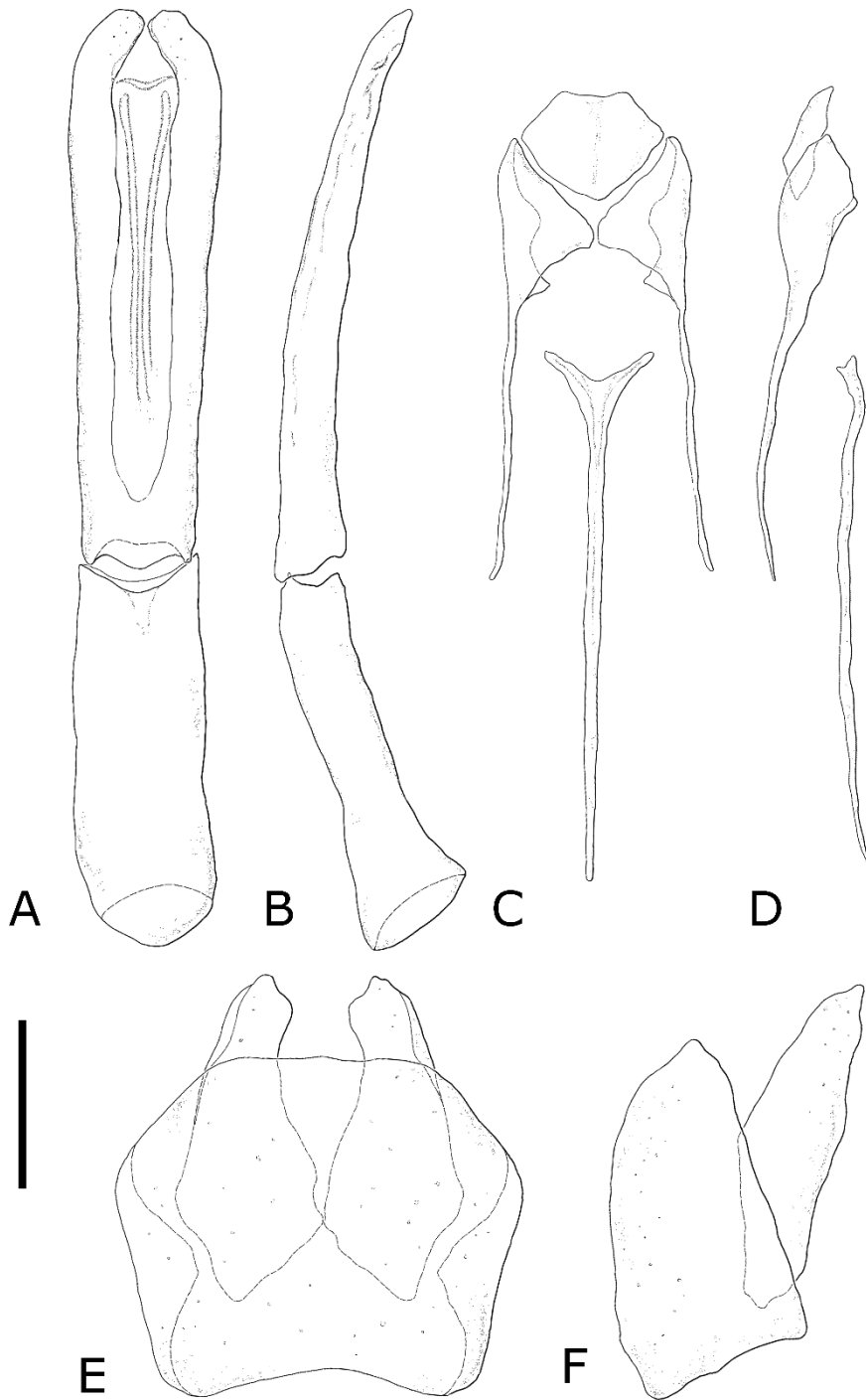
Figs. 90. Male genitalia of *Kanaarister* sp. 1. — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.25 mm.



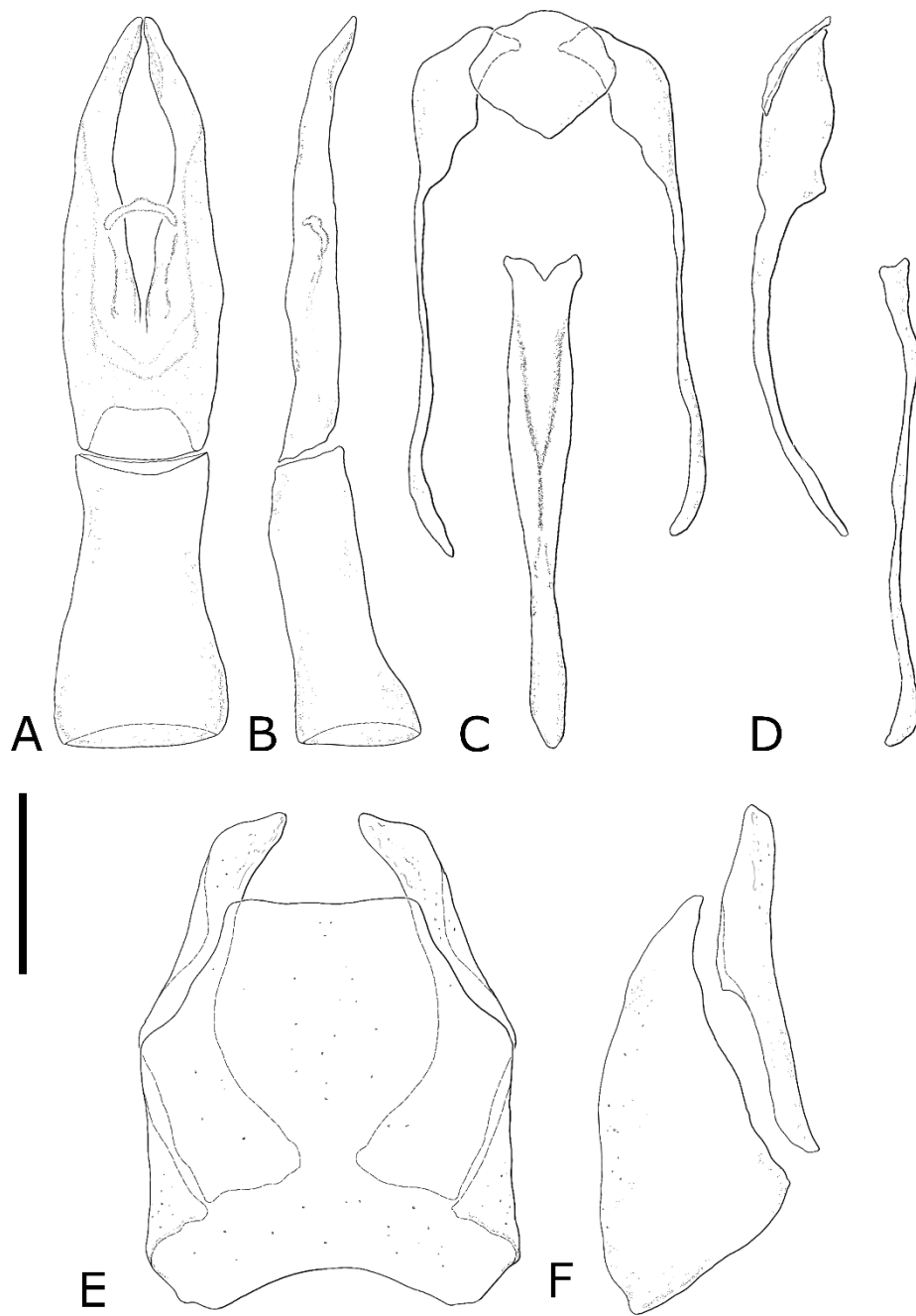
Figs. 91. Male genitalia of *Platylister (Platylister) abruptus* (Erichson, 1834) — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.20 mm.



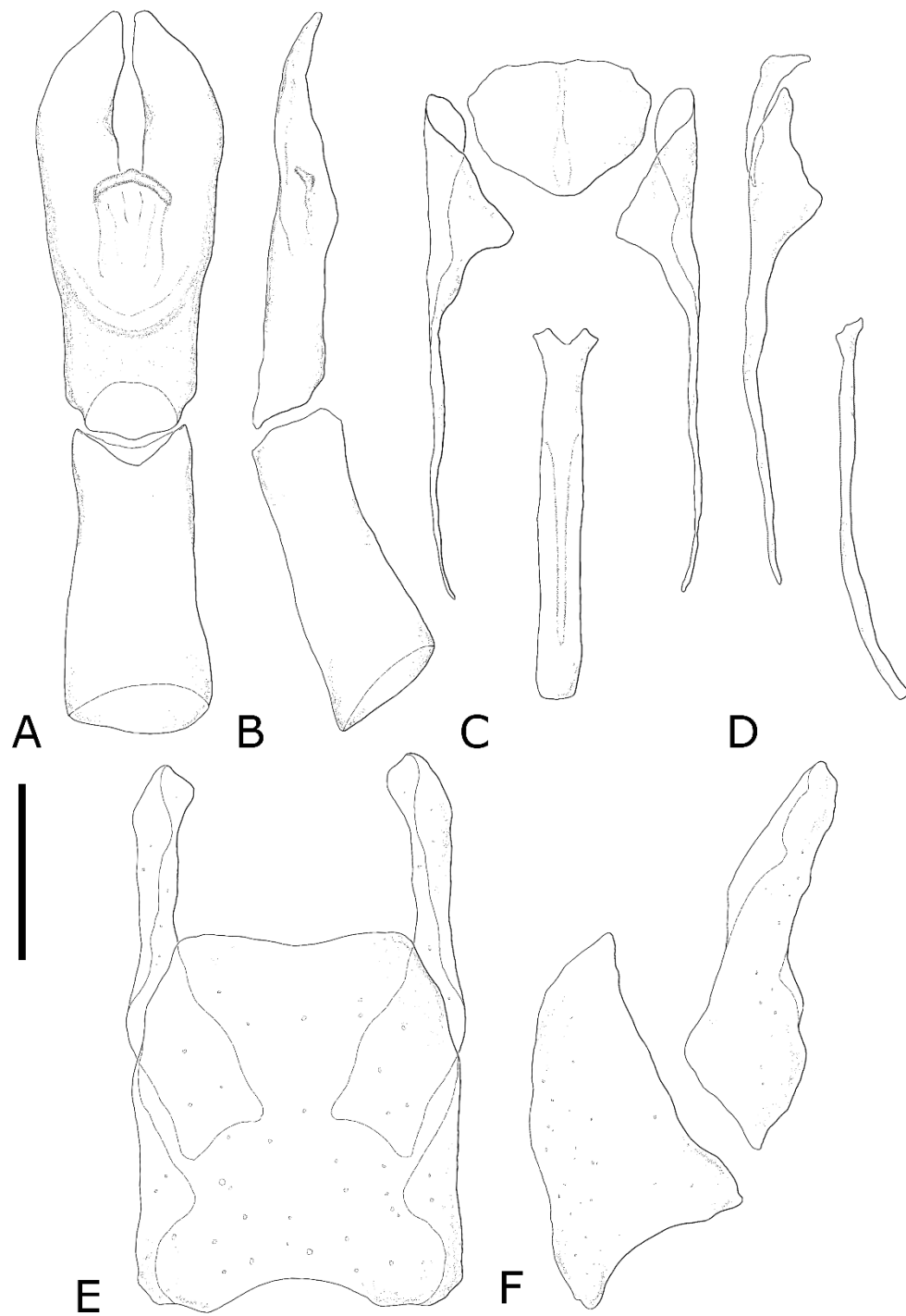
Figs. 92. Male genitalia of *Platylister (Platylister) charrali* (Marseul, 1861) — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.20 mm.



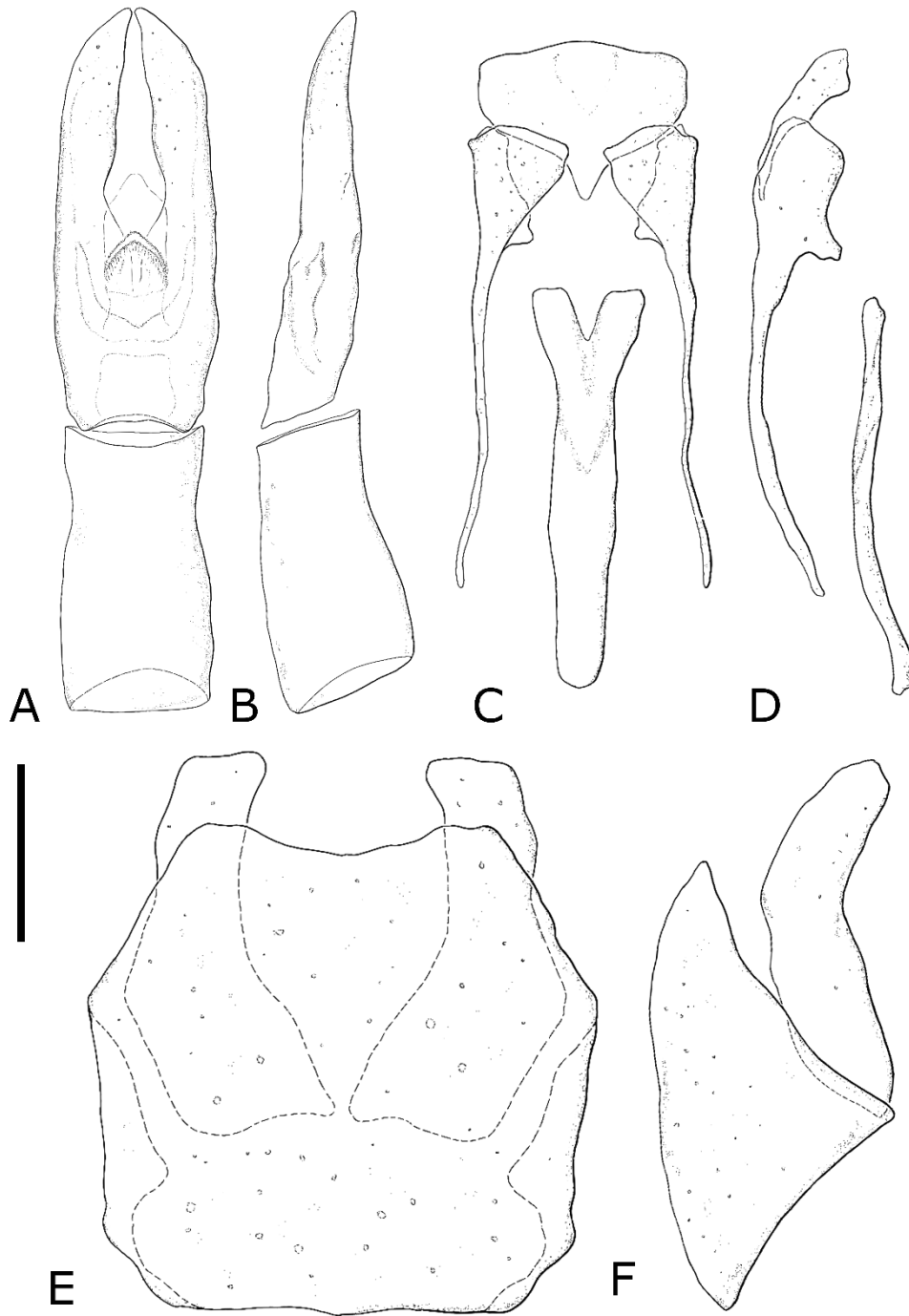
Figs. 93. Male genitalia of *Platylister (Platylister)* sp. 1. — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.20 mm.



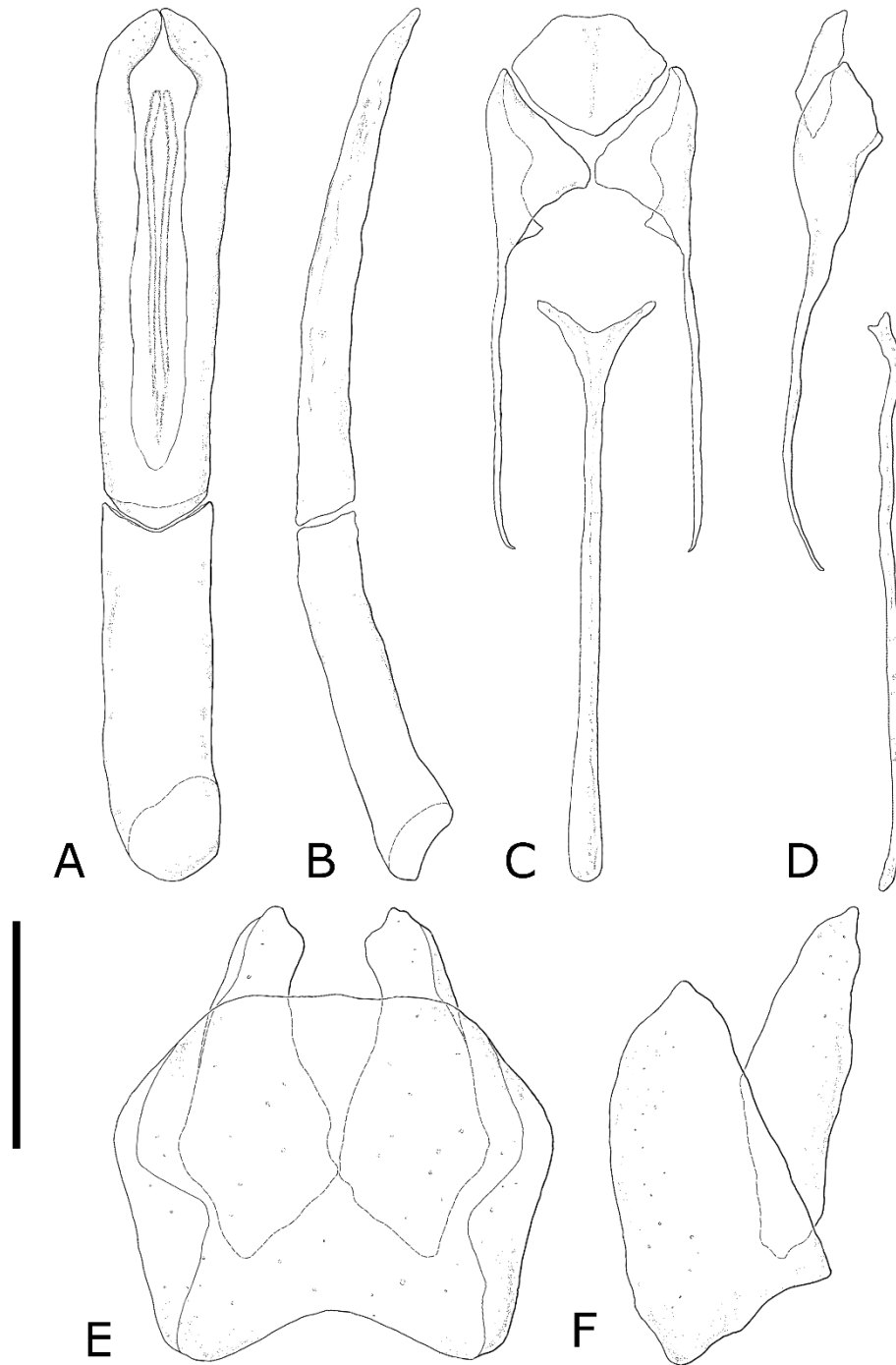
Figs. 94. Male genitalia of *Platylister (Platylister) lucifugus* (Marseul, 1853) — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.25 mm.



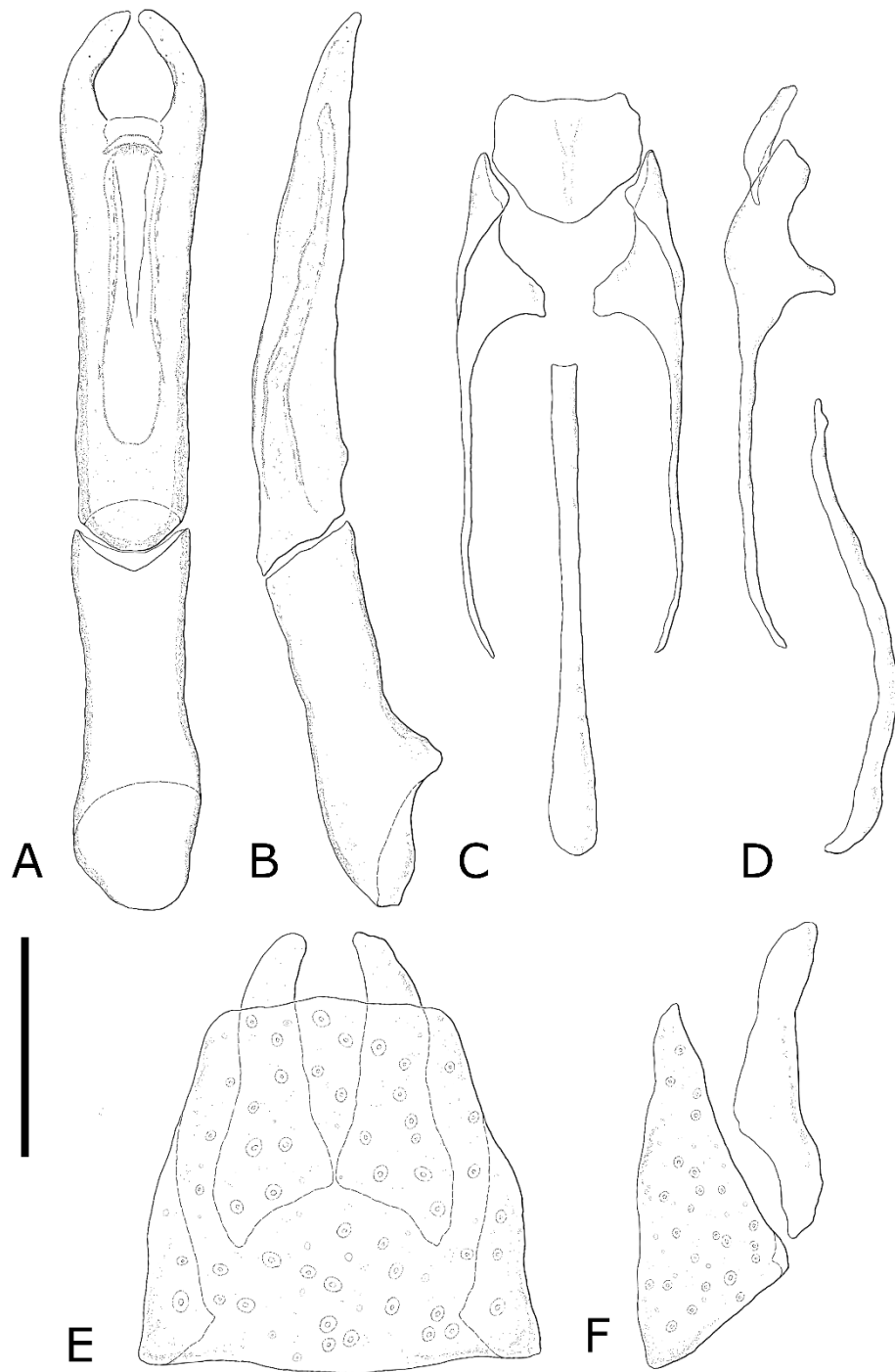
Figs. 95. Male genitalia of *Platylister (Platylister)* sp. 2. — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.20 mm.



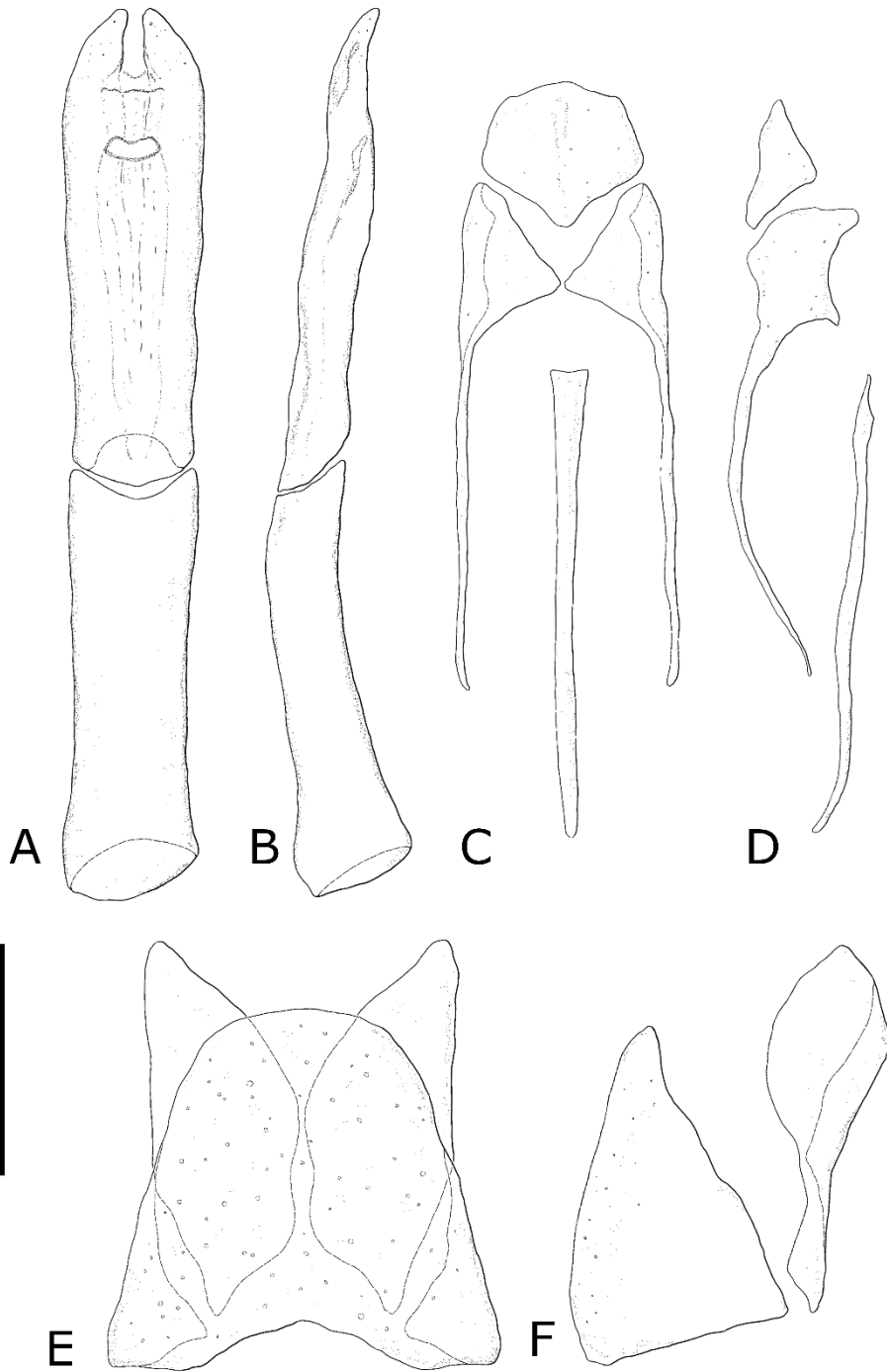
Figs. 96. Male genitalia of *Platylister (Platylister) ovatus* (Erichson, 1834) — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.25 mm.



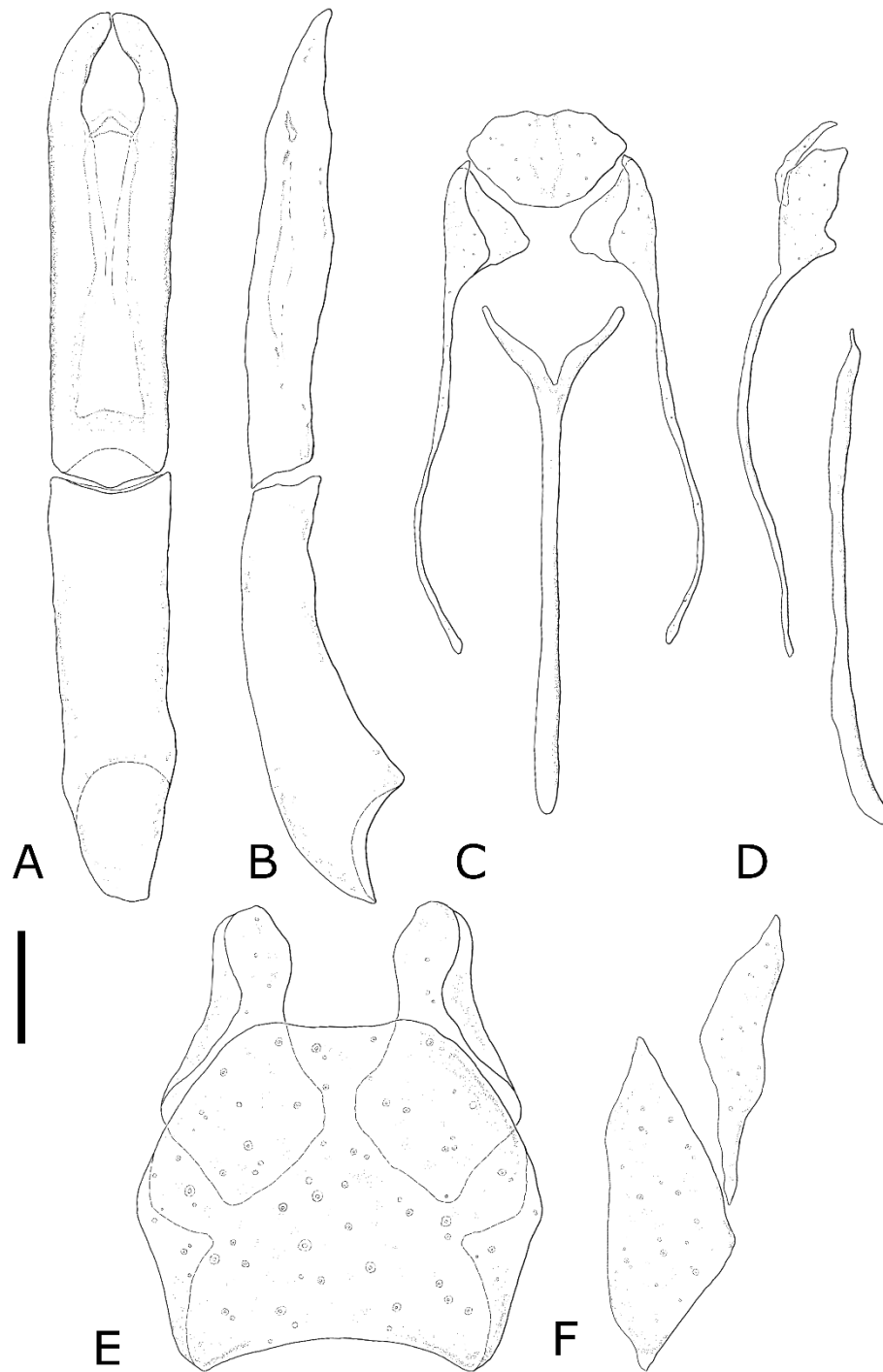
Figs. 97. Male genitalia of *Platylister (Platylister) striatiderum* (Marseul, 1853) — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.25 mm.



Figs. 98. Male genitalia of *Platylister (Popinus) confucii* (Marseul, 1857) — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.25 mm.



Figs. 99. Male genitalia of *Platylister (Popinus) dahdah* (Marseul, 1861) — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.20 mm.



Figs. 100. Male genitalia of *Platylister (Popinus) luzonicus* (Erichson, 1834) — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.20 mm.

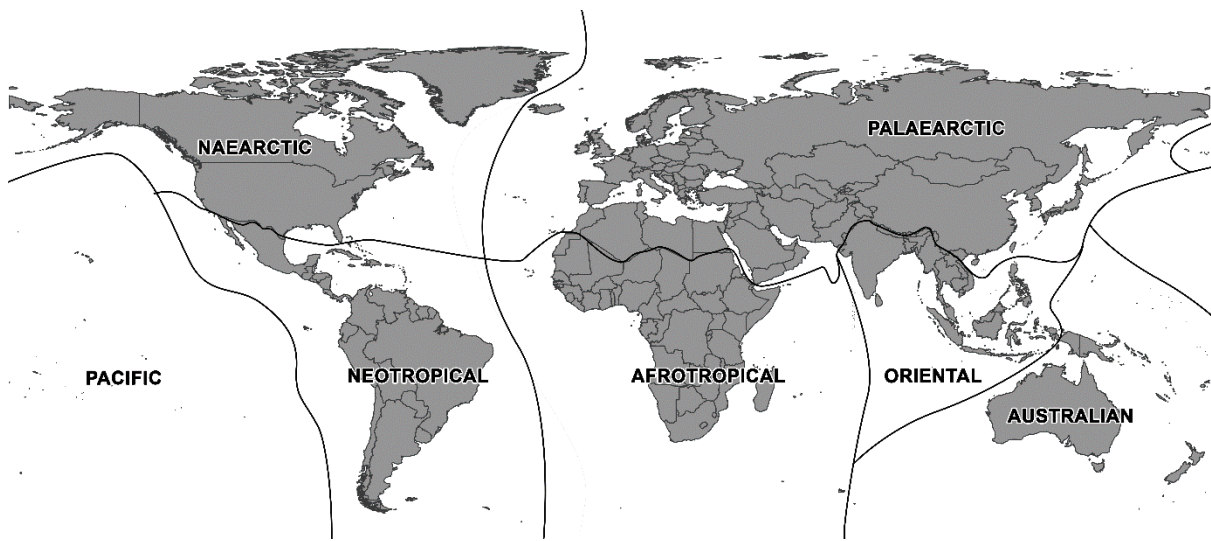


Fig. 101. World map showing the biogeographical realms and limits of Palearctic and Oriental Regions as defined by this study.



Fig. 102. Map of Asia showing the limits of the Far East as defined by this study, including the northeastern-most of Siberia (Russia), Mongolia, China including Tibet and Hainan Island, Korean Peninsula, Japan Archipelago, and Taiwan (Fig. 101).

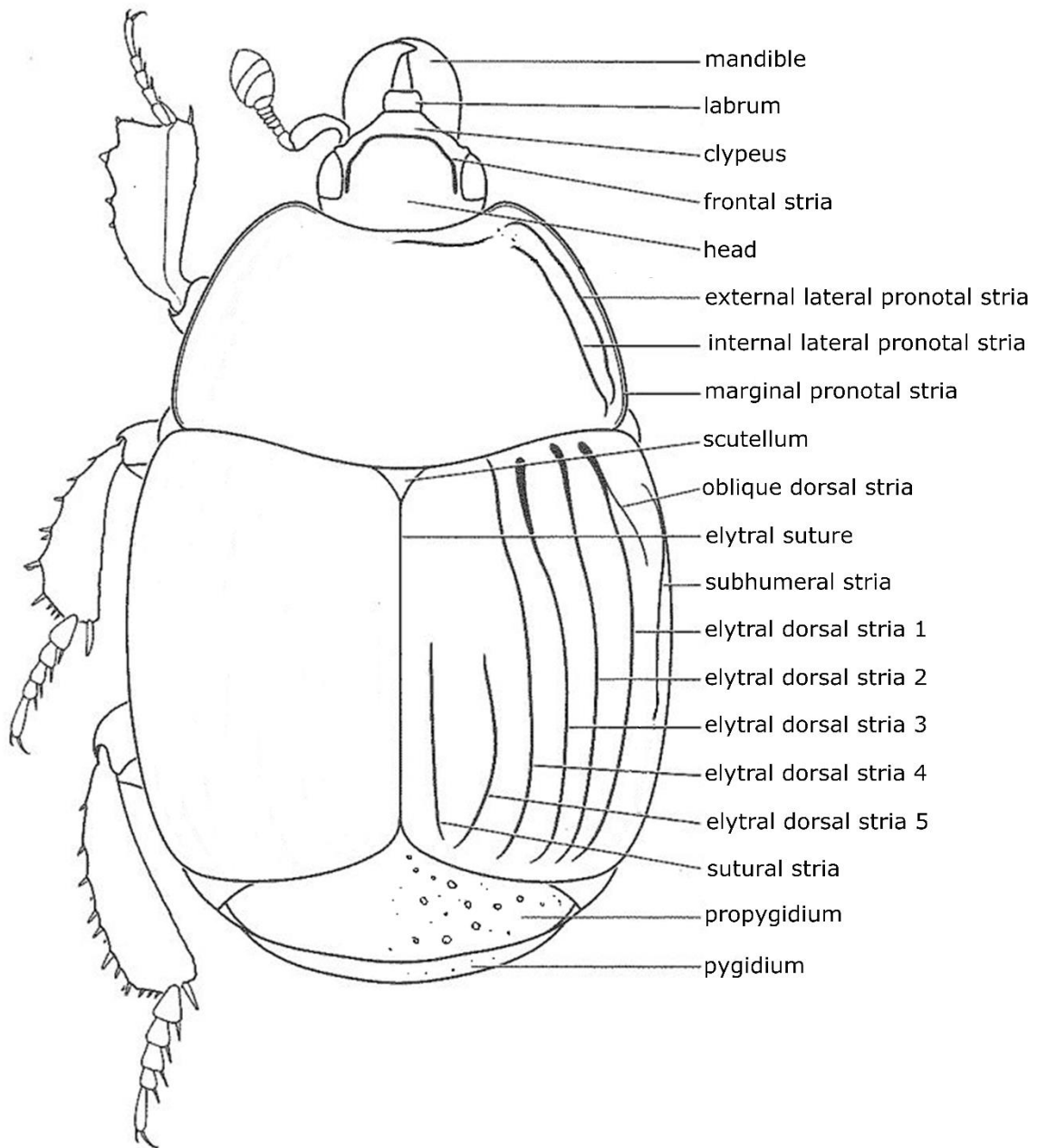


Fig. 103. General schematic illustration of genus *Atholus* Thomson, 1859 showing the morphological characters in dorsal habitus.

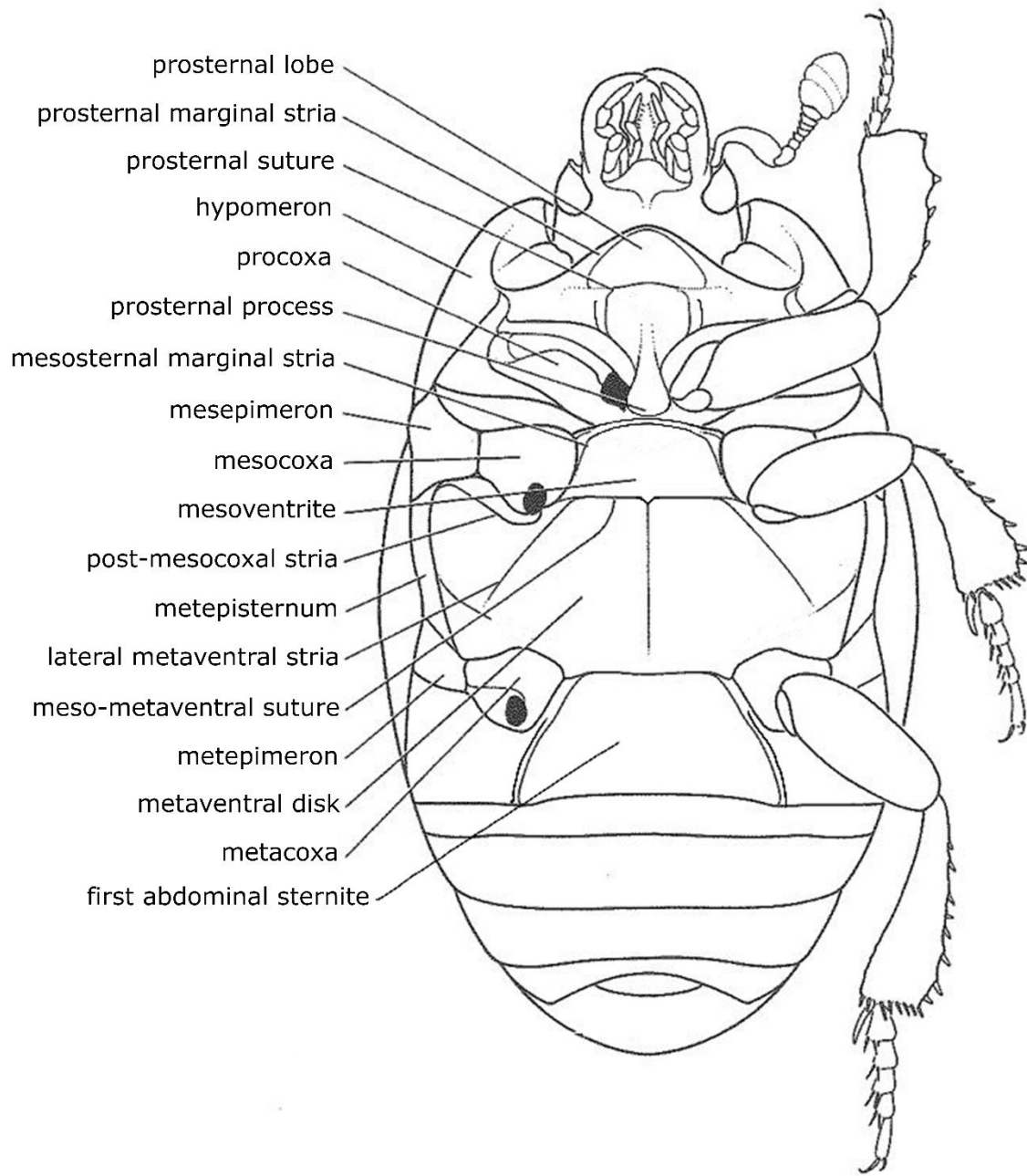


Fig. 104. General schematic illustration of genus *Atholus* Thomson, 1859 showing the morphological characters in ventral habitus.

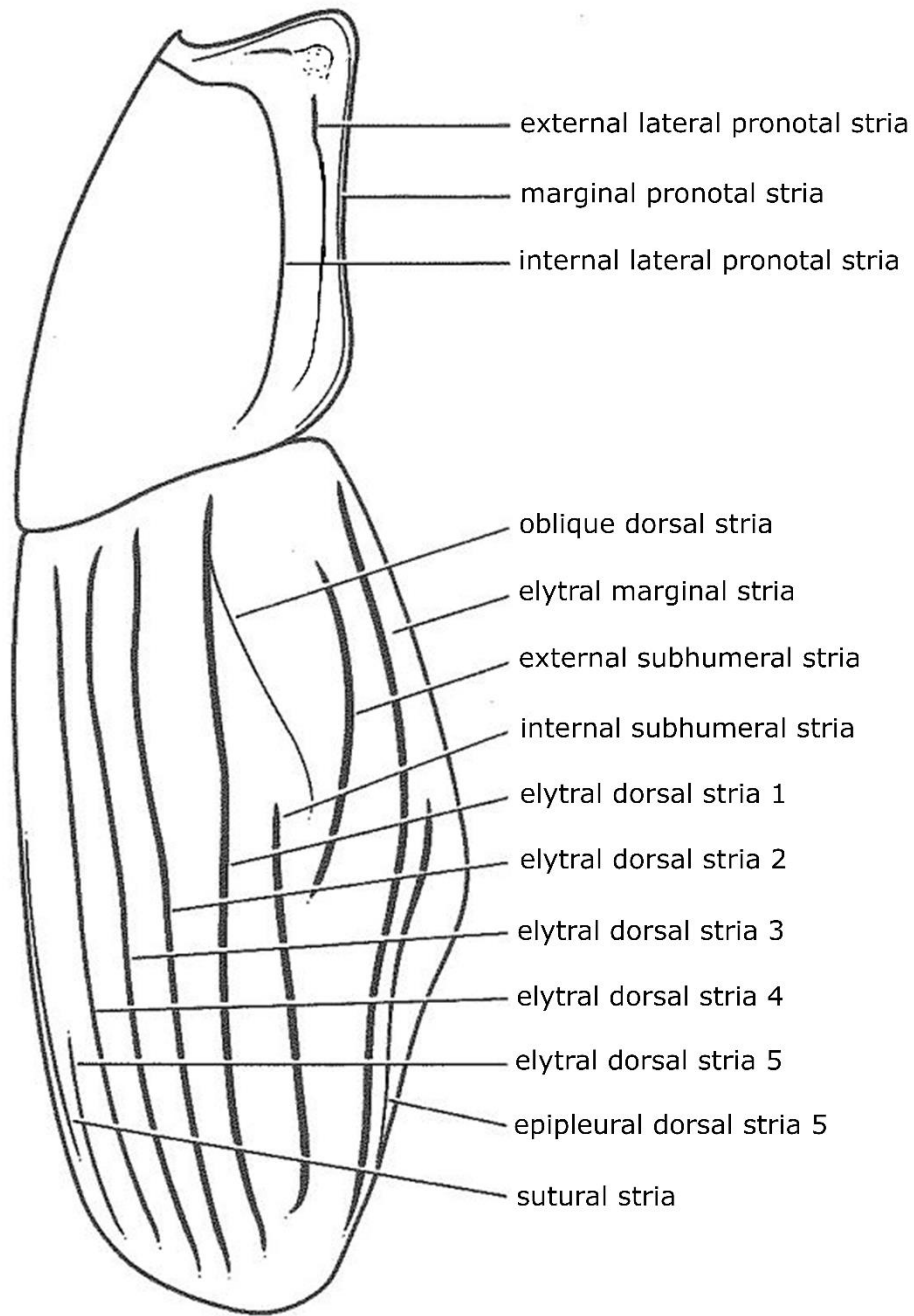


Fig. 105. General schematic illustration of genus *Atholus* Thomson, 1859 showing the morphological characters in lateral habitus.

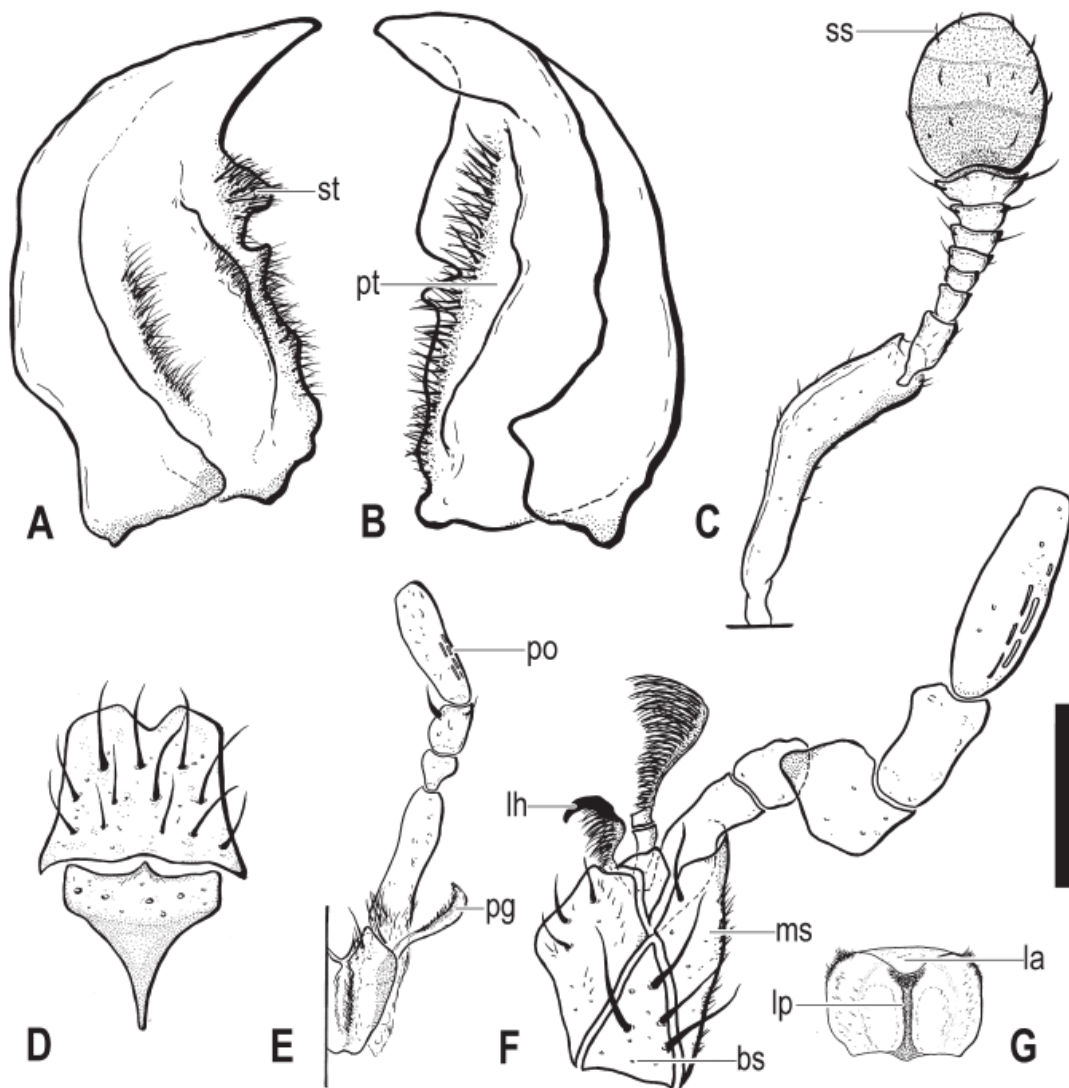
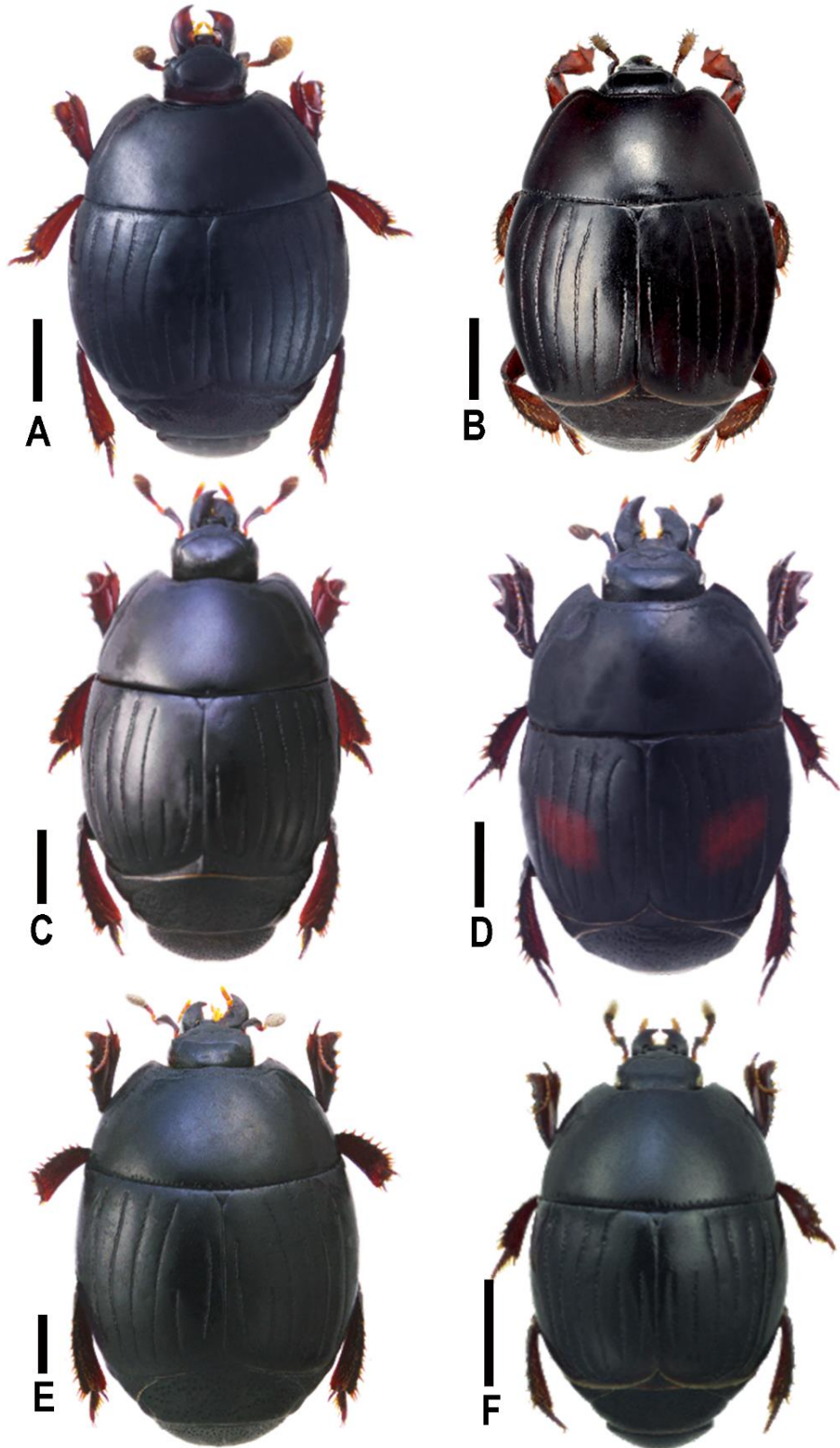
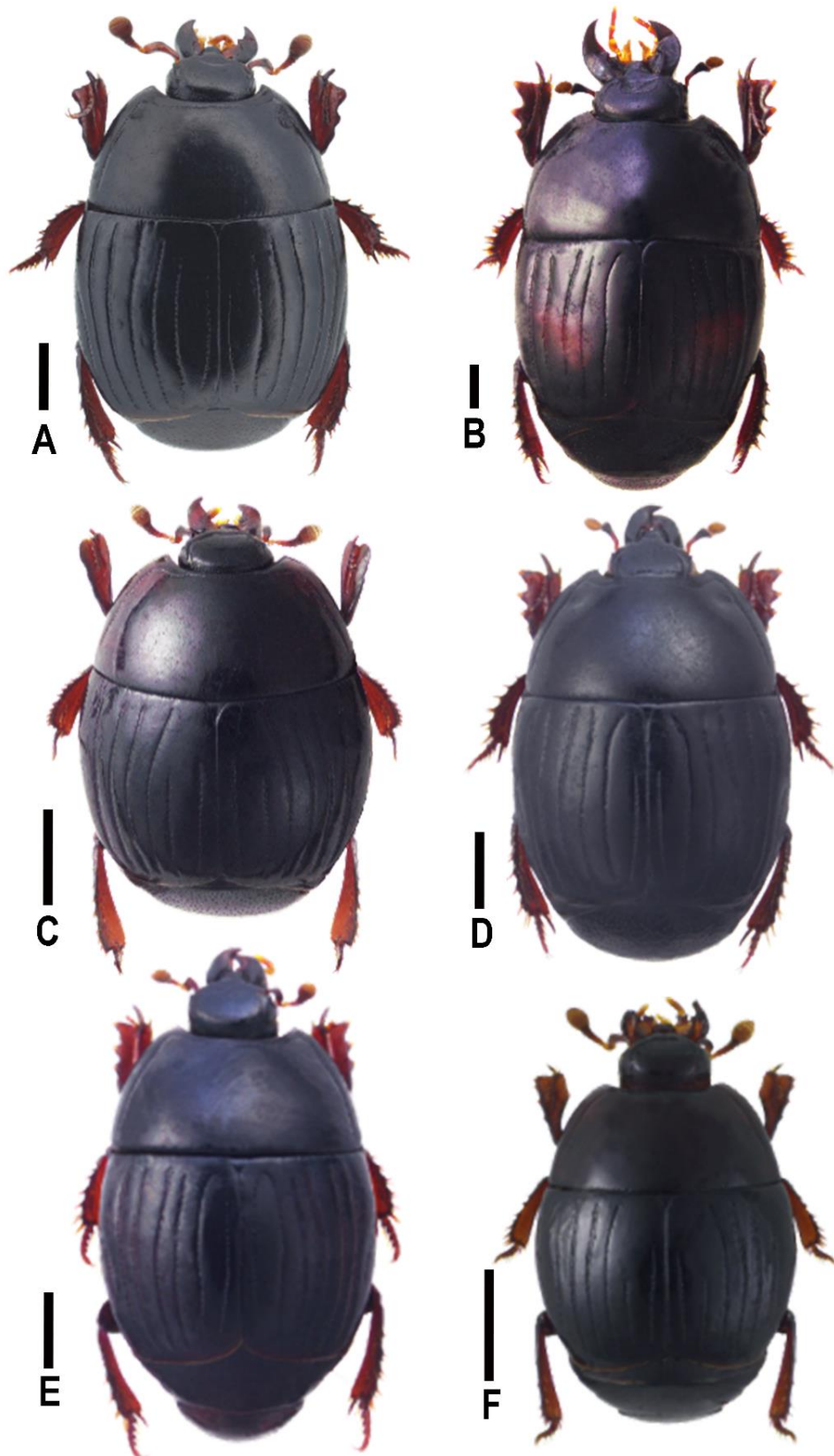


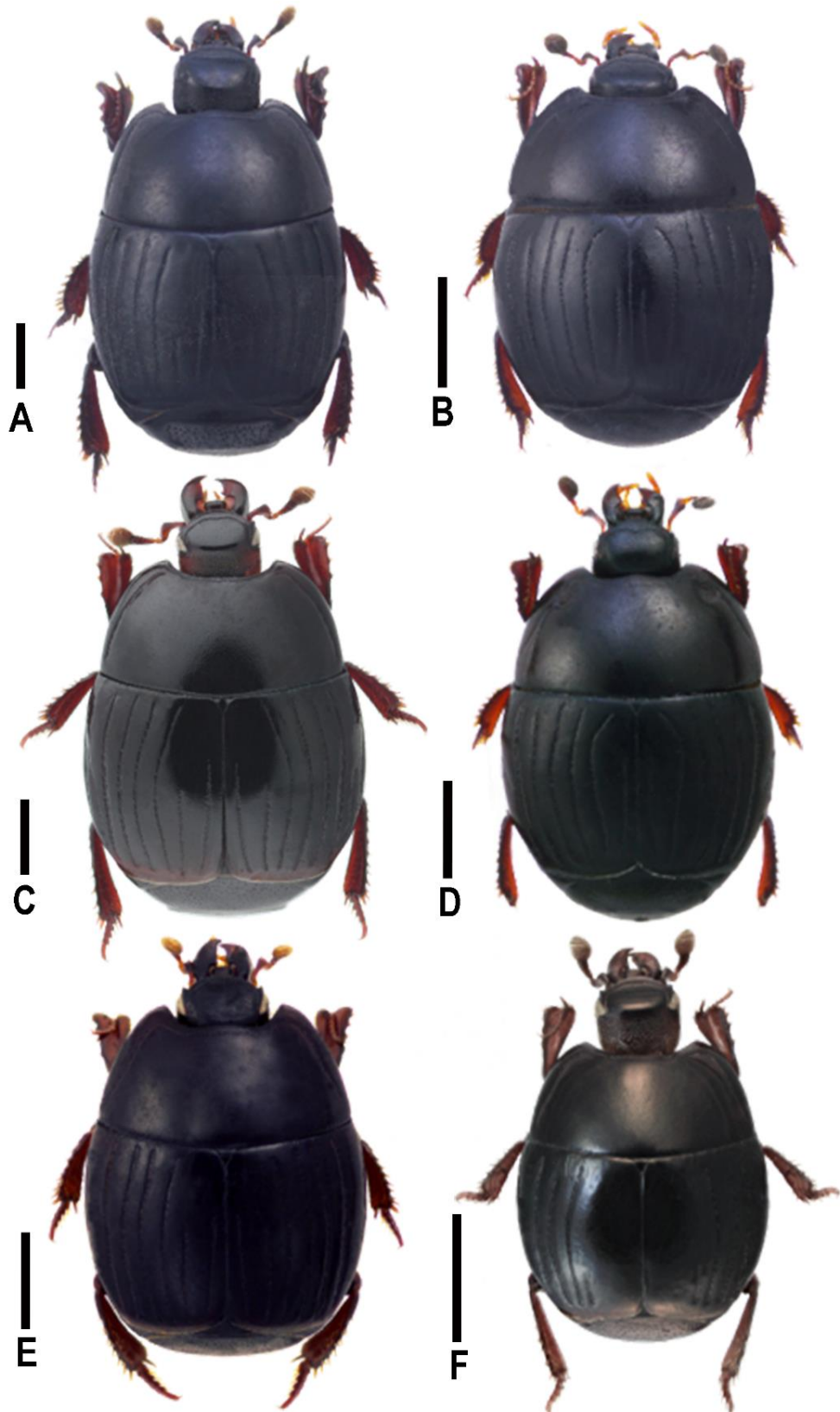
Fig. 106. Morphological characters of antennae and mouthparts of *Atholus* Thomson, 1859, showing the type species of the genus *Atholus bimaculatus* Linnaeus, 1758. — A, Right mandible, ventral view; left mandible, ventral view; C, left antenna; D, mentum and submentum, ventral view; E, left labium, ventral view; F, left maxilla, ventral view; F, left maxilla, ventral view; G, labrum, ventral view. — st, Subapical tooth; pt, prosthaca; la, labral apex; lp, labral process; ss, sensillum; po, palpal organ; pg, paraglossa; lh, lacinial hook; ms, mediostipes; bs, basostipes. Scale bar: 0.25 mm.



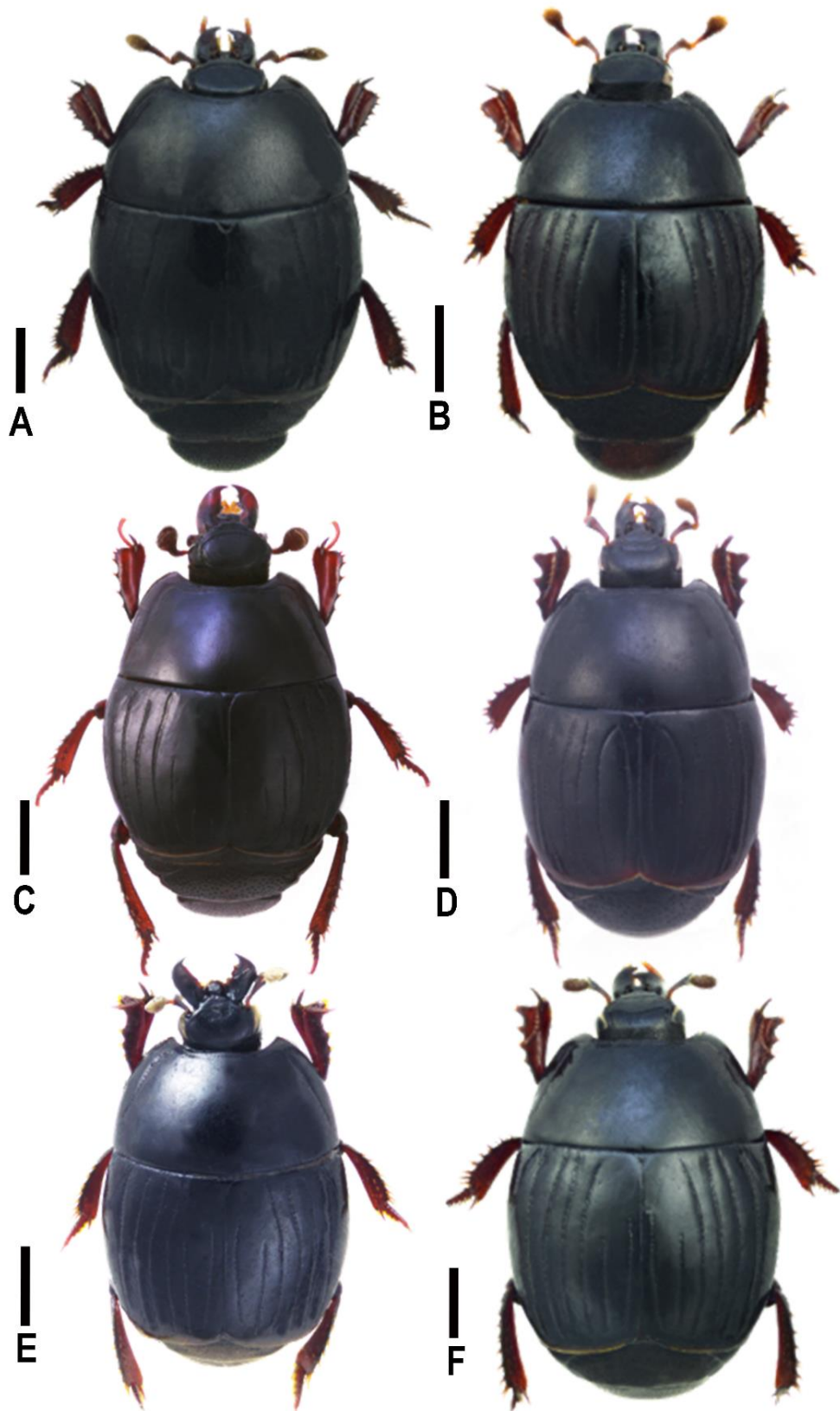
Figs. 107. Adult dorsal habitus of Oriental and Far Eastern Asian species of *Atholus* Thomson, 1859. — A, *Atholus amplificipes* Mazur, 2013; B, *Atholus bakeri* (Bickhardt, 1914); C, *Atholus bifrons* (Marseul, 1854); D, *Atholus bimaculatus* (Linnaeus, 1758); E, *Atholus cochinchinae* (Schmidt, 1889); F, *Atholus coelestis* (Marseul, 1870). Scale bars: 1.00 mm.



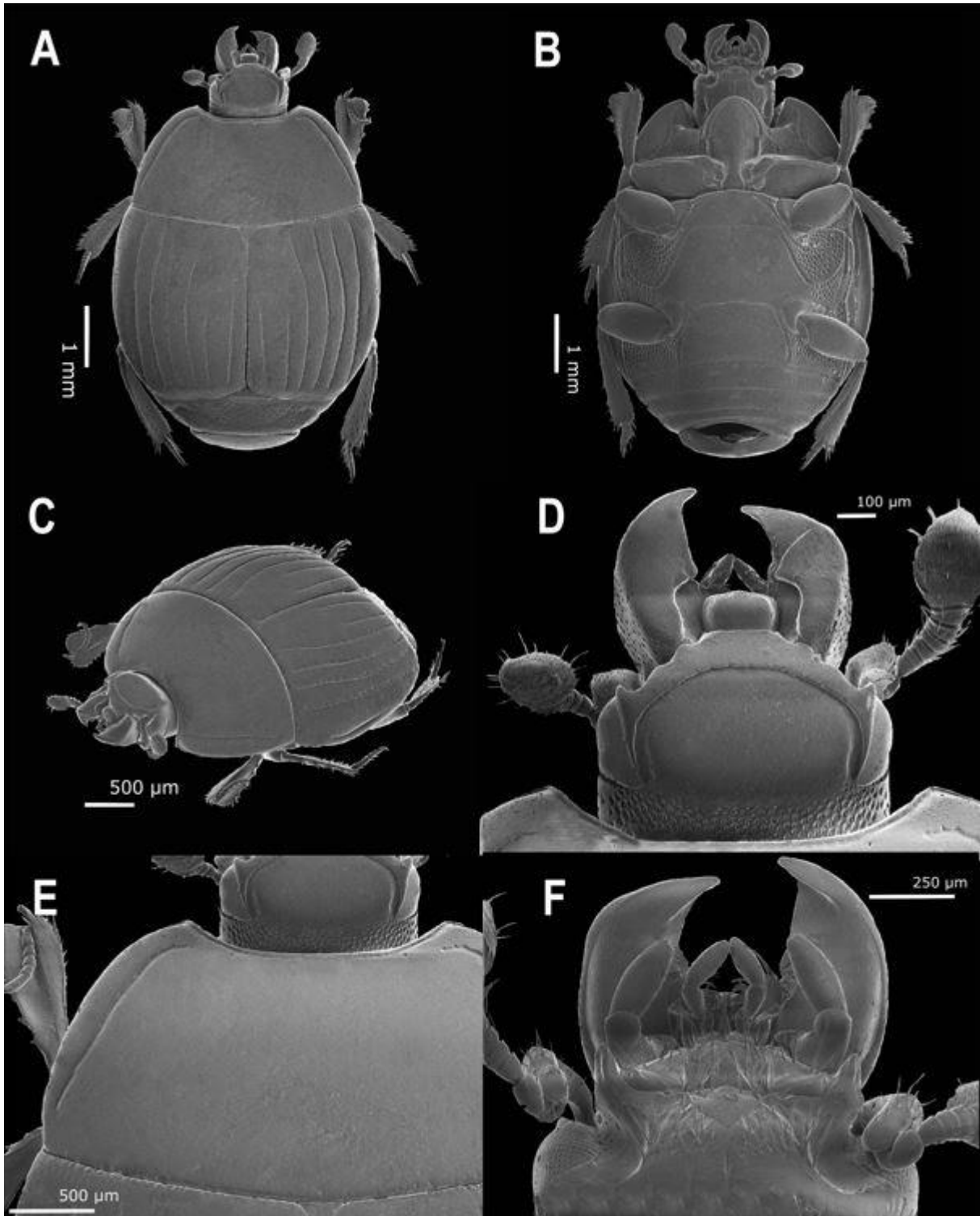
Figs. 108. Adult dorsal habitus of Oriental and Far Eastern Asian species of *Atholus* Thomson, 1859. — A, *Atholus confinis* (Erichson, 1834); B, *Atholus daldorffi* (Bedel, 1906); C, *Atholus dentipes* (Lewis, 1892); D, *Atholus depistor* (Marseul, 1873); E, *Atholus duodecimstriatus quatuordecimstriatus* (Gyllenhal, 1808); F, *Atholus famulus* (Lewis, 1892). Scale bars: 1.00 mm.



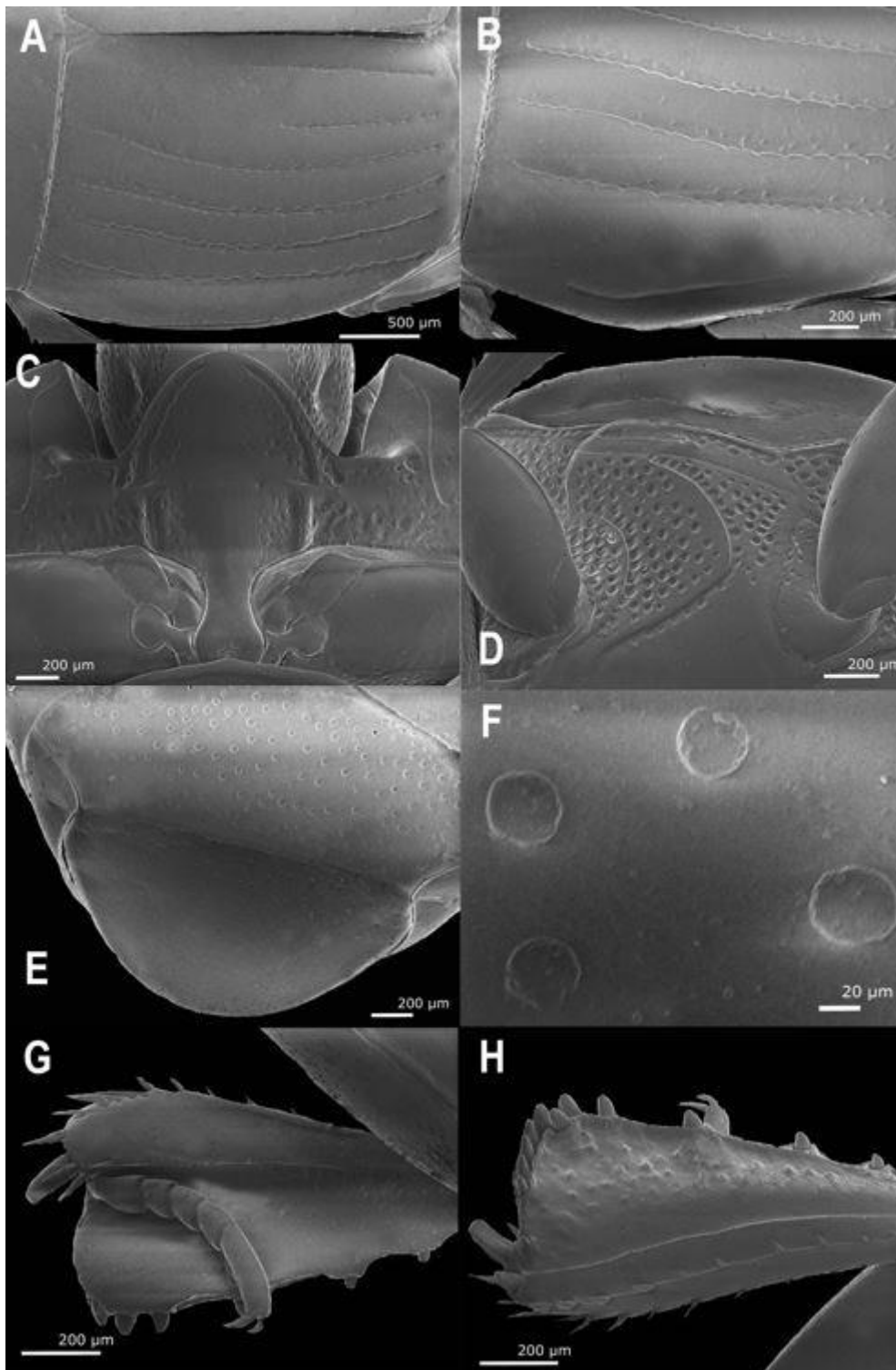
Figs. 109. Adult dorsal habitus of Oriental and Far Eastern Asian species of *Atholus* Thomson, 1859. — A, *Atholus gestroi* (Schmidt, 1897); B, *Atholus helferi* (Reichardt, 1932); C, *Atholus levis* Mazur, 2015; D, *Atholus* sp. 1; E, *Atholus myrmidon* (Marseul, 1861); F, *Atholus nitidissimus* Desbordes, 1925. Scale bars: 1.00 mm.



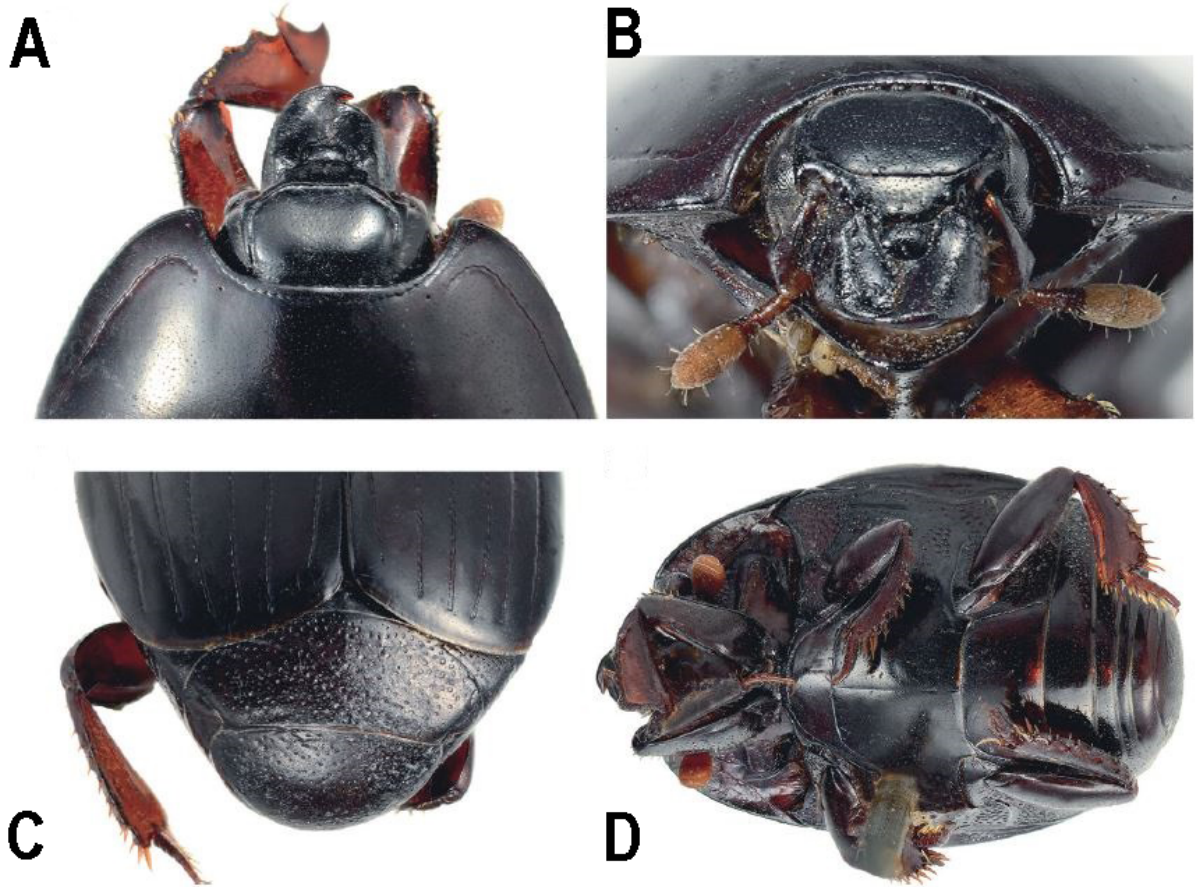
Figs. 110. Adult dorsal habitus of Oriental and Far Eastern Asian species of *Atholus* Thomson, 1859. — A, *Atholus philippinensis* (Marseul, 1854); B, *Atholus pirithous* (Marseul, 1873); C, *Atholus singalanus* (Marseul, 1880); D, *Atholus striatipennis* (Lewis, 1892); E, *Atholus* sp. 2; F, *Atholus torquatus* (Marseul, 1854). Scale bars: 1.00 mm.



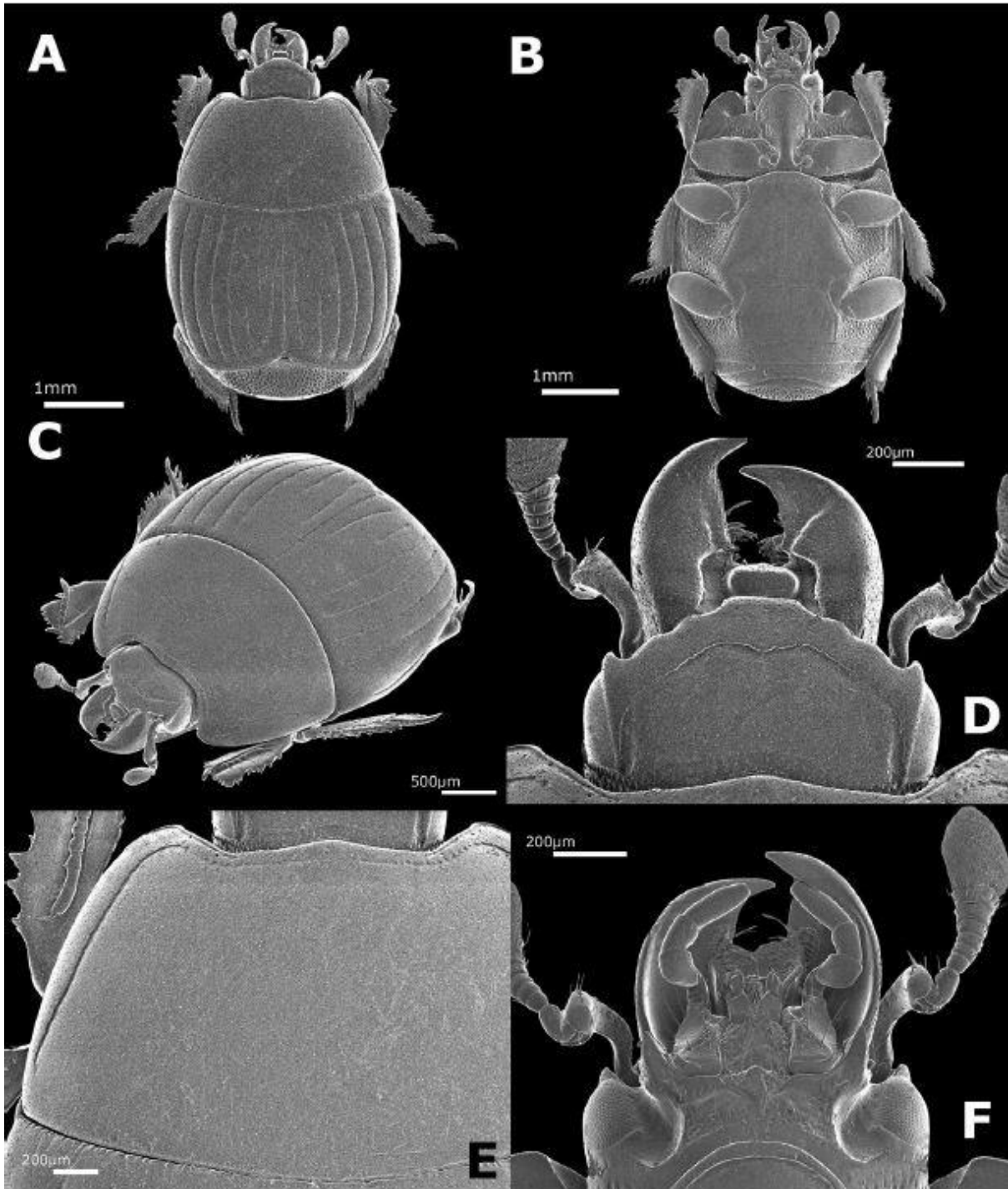
Figs. 111. Micrographs of *Atholus amplificipes* Mazur, 2013 using SEM, Plate 1. — A, Habitus, dorsal view; B, ditto, ventral view; C, ditto, oblique view; D, head, dorsal view; E, pronotum; F, mouthparts, ventral view.



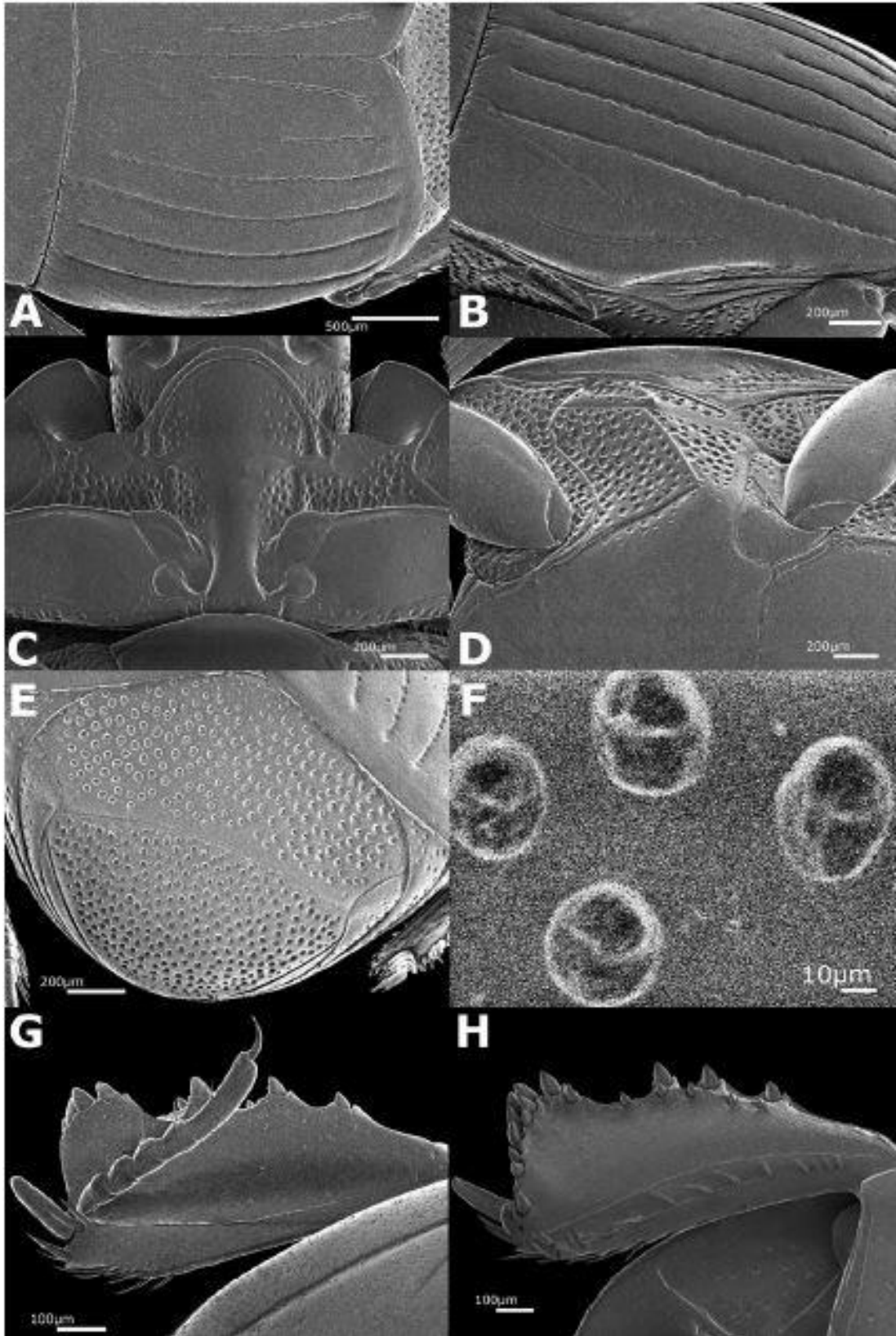
Figs. 112. Micrographs of *Atholus amplificipes* Mazur, 2013 using SEM, Plate 2. — A, Left elytron, dorsal view; B, ditto, oblique view; C, prosternal process, ventral view; D, meso-metaventrite, ventral view; E, propygidium and pygidium, caudal view; F, punctations of propygidium; G, protibia, dorsal view; H, protibia, ventral view.



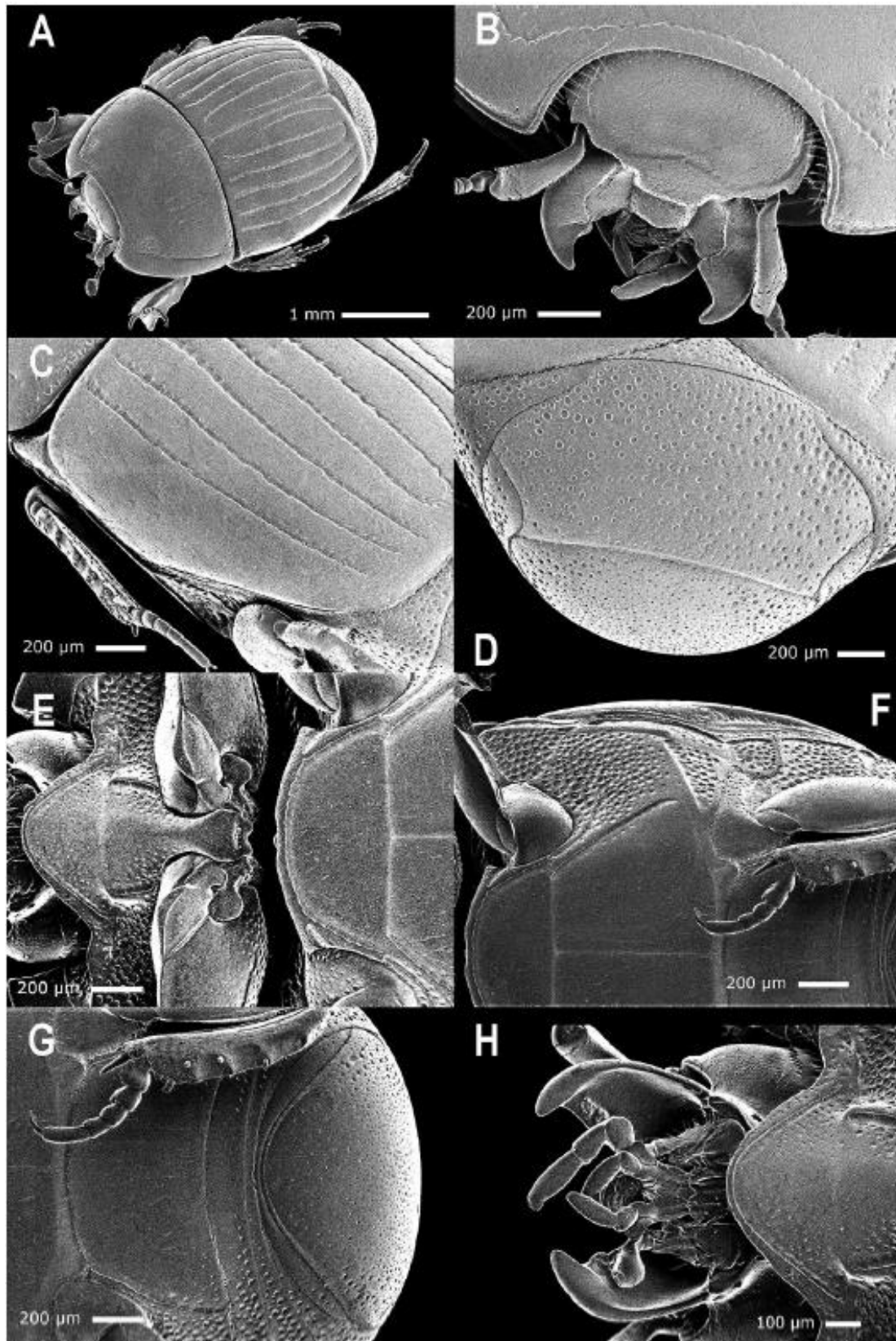
Figs. 113. Micrographs of *Atholus bakeri* (Bickhardt, 1913). — A, Head and pronotum, dorsal view; B, head, frontal view; C, propygidium and pygidium, caudal view; D, habitus, ventral view.



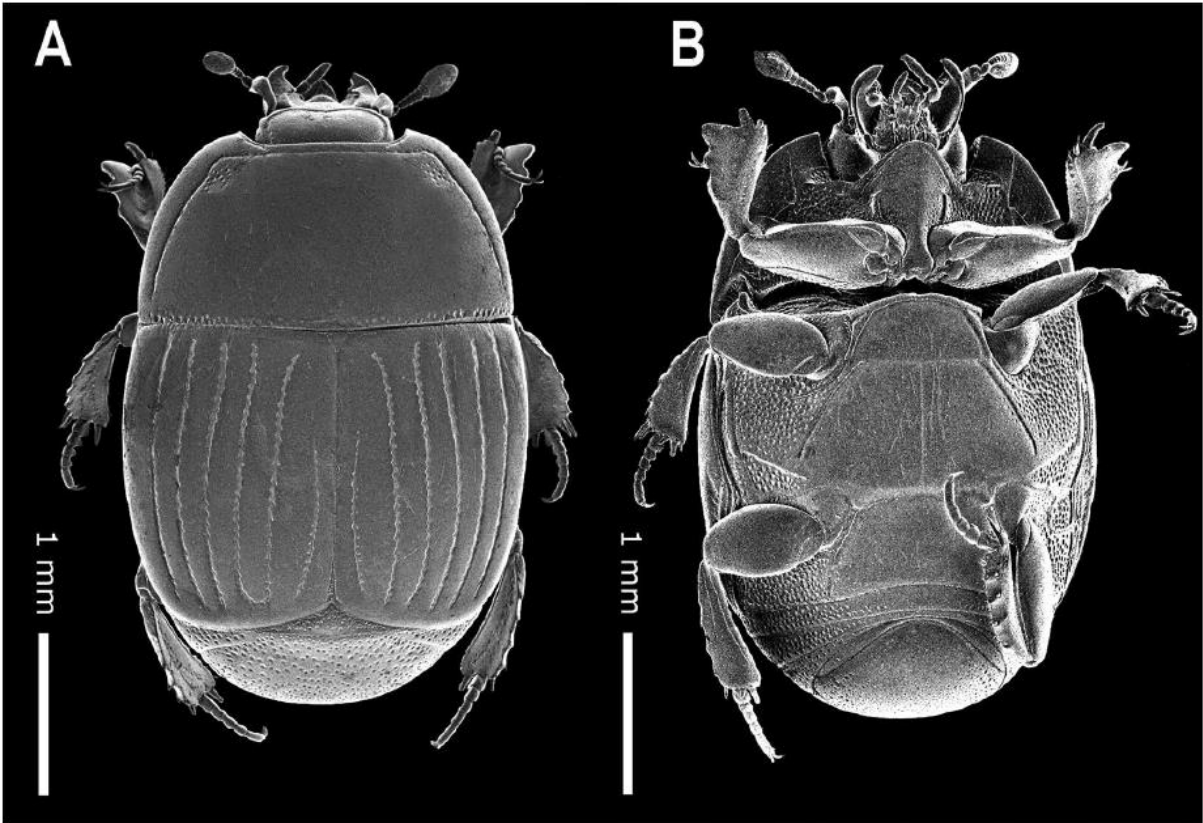
Figs. 114. Micrographs of *Atholus bifrons* (Marseul, 1854) using SEM, Plate 1. — A, Habitus, dorsal view; B, ditto, ventral view; C, ditto, oblique view; D, head, dorsal view; E, pronotum; F, mouthparts, ventral view.



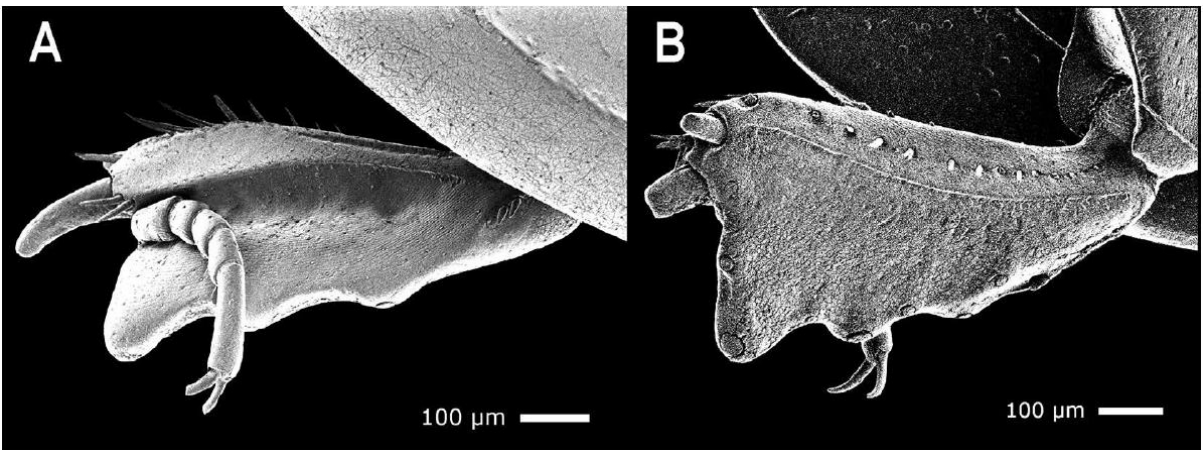
Figs. 115. Micrographs of *Atholus bifrons* (Marseul, 1854) using SEM, Plate 2. — A, Left elytron, dorsal view; B, ditto, oblique view; C, prosternal process, ventral view; D, meso-metaventrite, ventral view; E, propygidium and pygidium, caudal view; F, punctations of propygidium; G, protibia, dorsal view; H, protibia, ventral view.



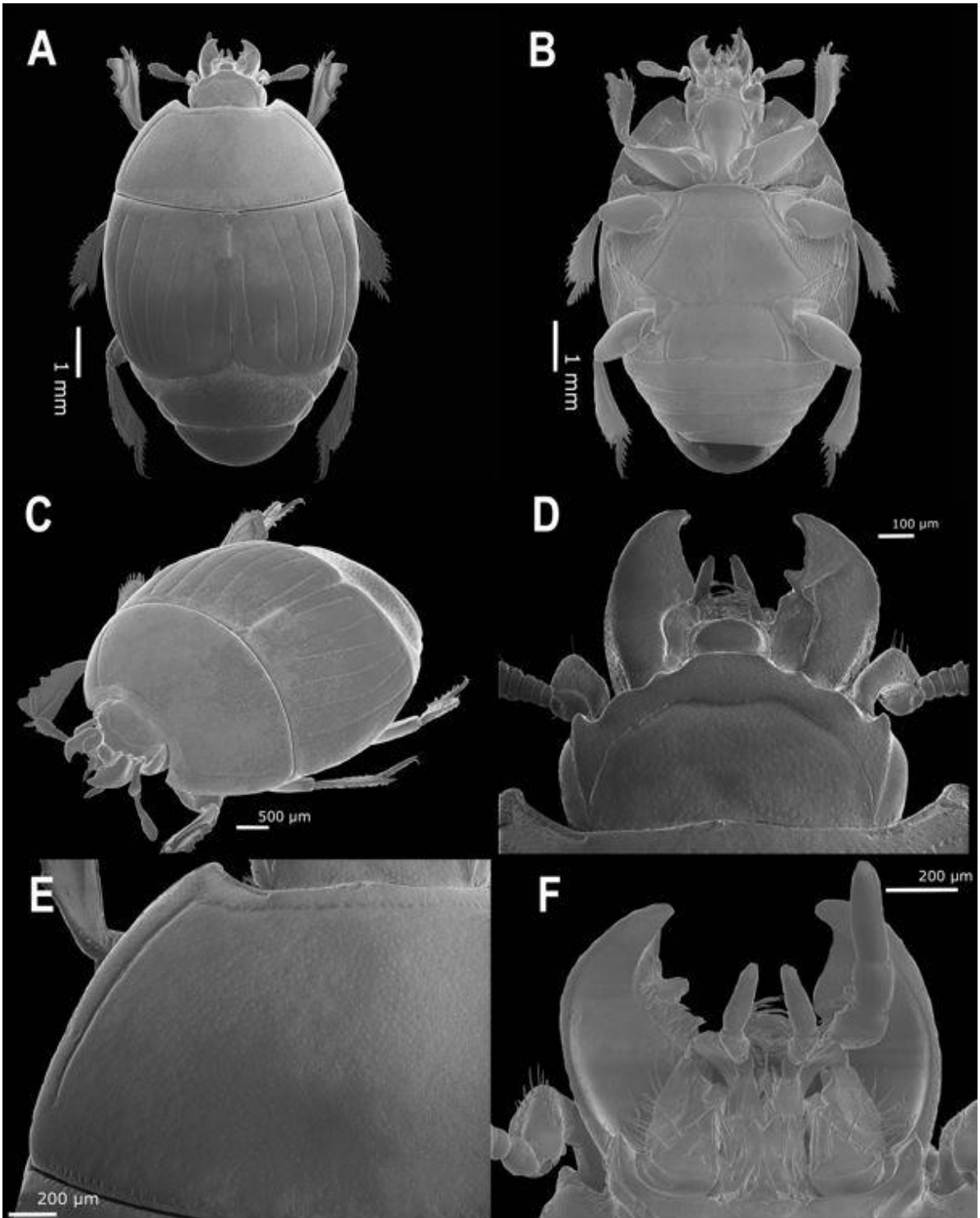
Figs. 116. Micrographs of *Atholus bimaculatus* (Linnaeus, 1758) using SEM, Plate 1. — A, Habitus, dorso-lateral view; B, head, frontal view; C, left elytron, oblique view; D, propygidium and pygidium, caudal view; E, prosternum and mesoventrite, ventral view; F, lateral disk of metaventrite and epipleuron of elytron, ventral view; G, abdominal ventrites; H, mouthparts, ventral view.



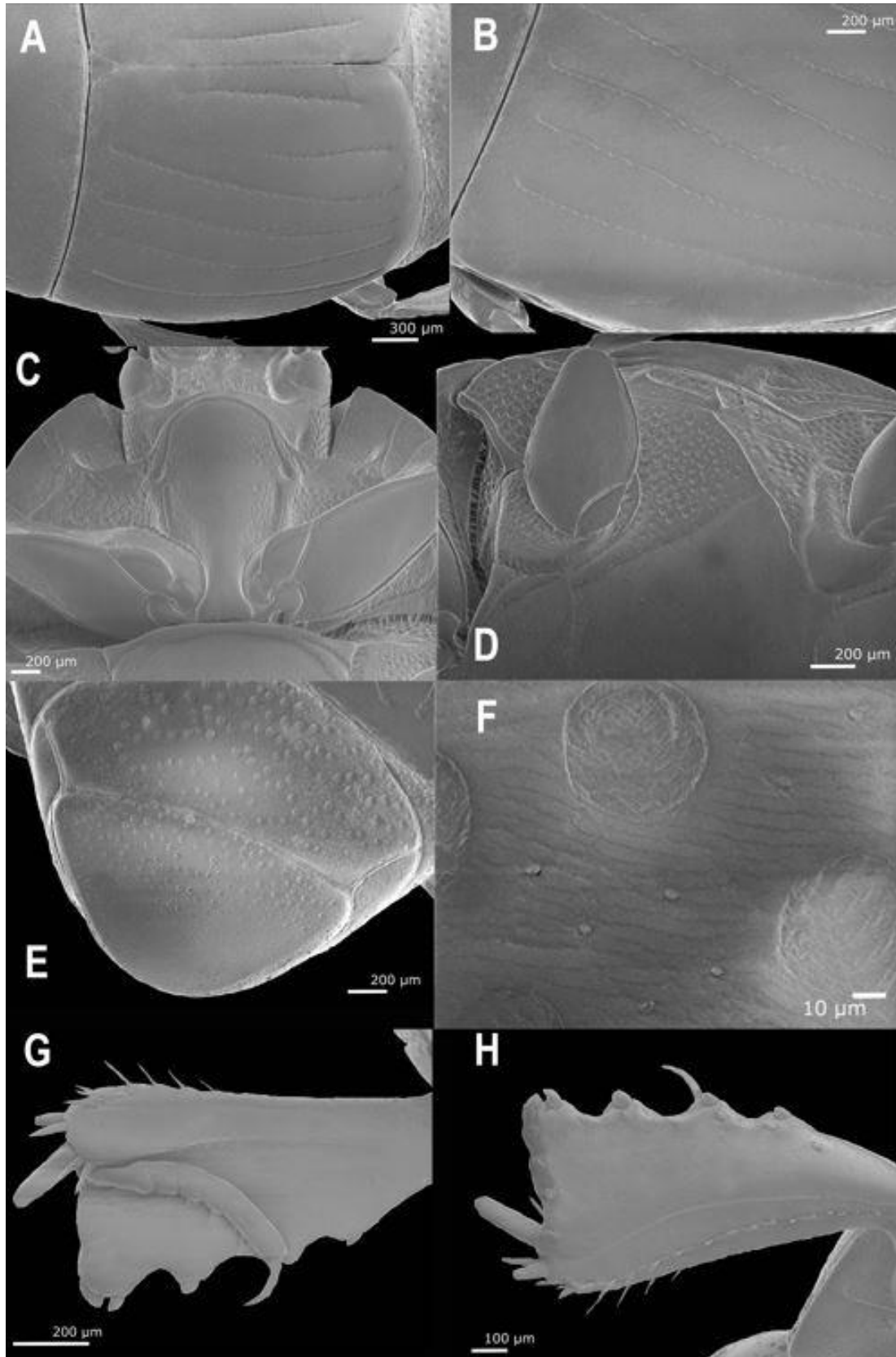
Figs. 117. Micrographs of *Atholus bimaculatus* (Linnaeus, 1758) using SEM, Plate 2. — A, Habitus, dorsal view; B, ditto, ventral view.



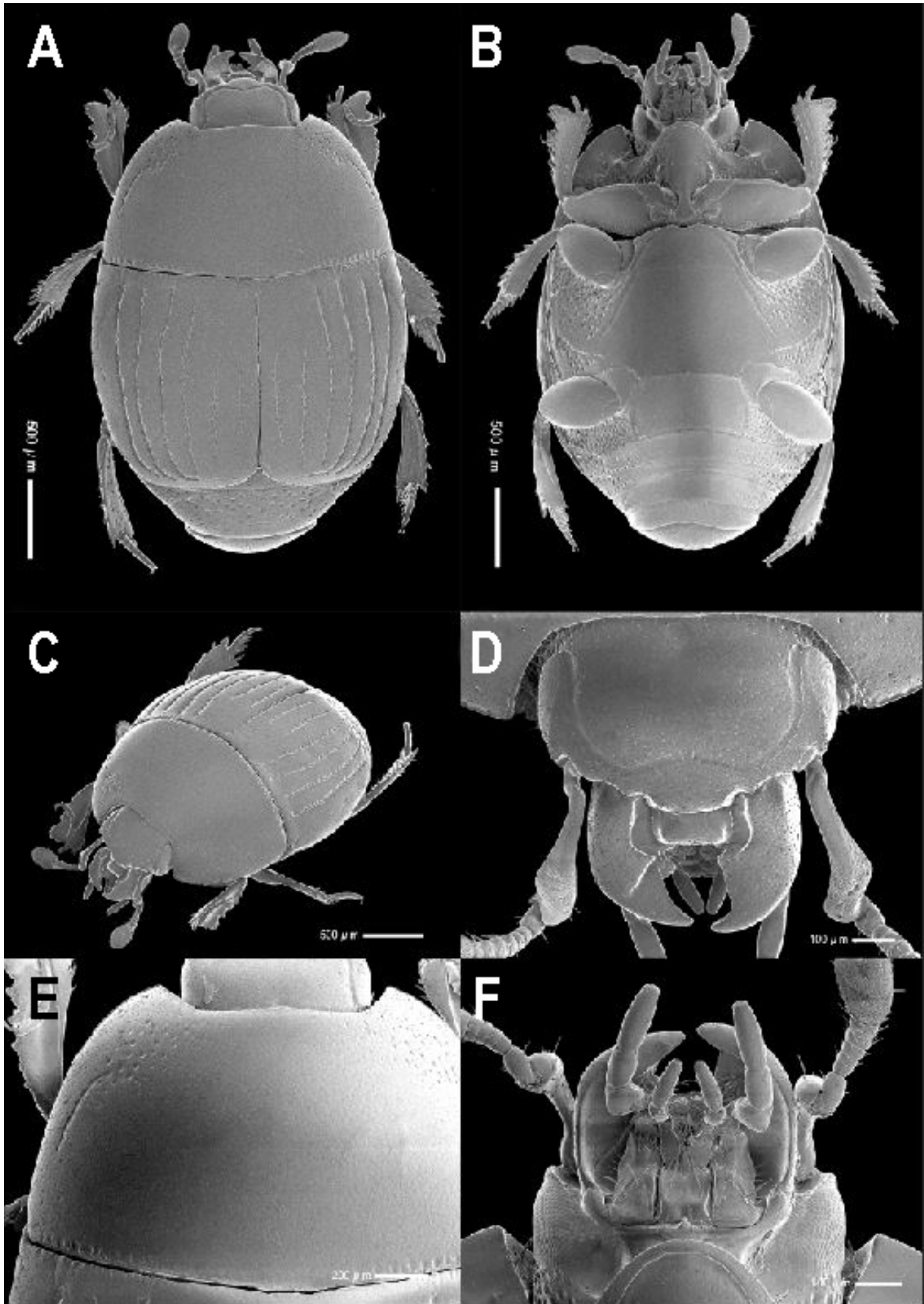
Figs. 118. Micrographs of *Atholus bimaculatus* (Linnaeus, 1758) using SEM, Plate 3. — A, Protibia, dorsal view; B, ditto, ventral view.



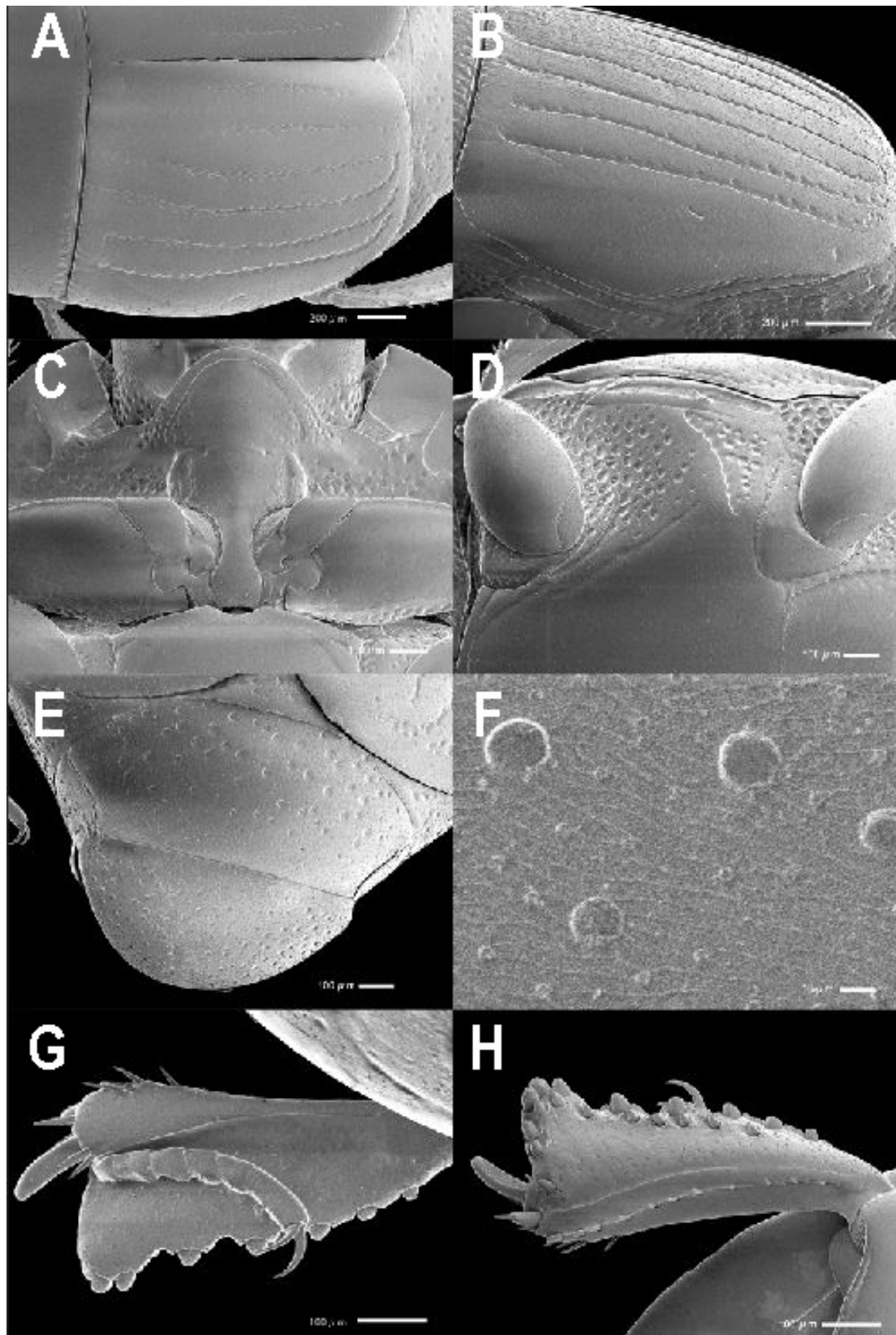
Figs. 119. Micrographs of *Atholus cochinchinae* (Schmidt, 1889) using SEM, Plate 1. — A, Habitus, dorsal view; B, ditto, ventral view; C, ditto, oblique view; D, head, dorsal view; E, pronotum; F, mouthparts, ventral view.



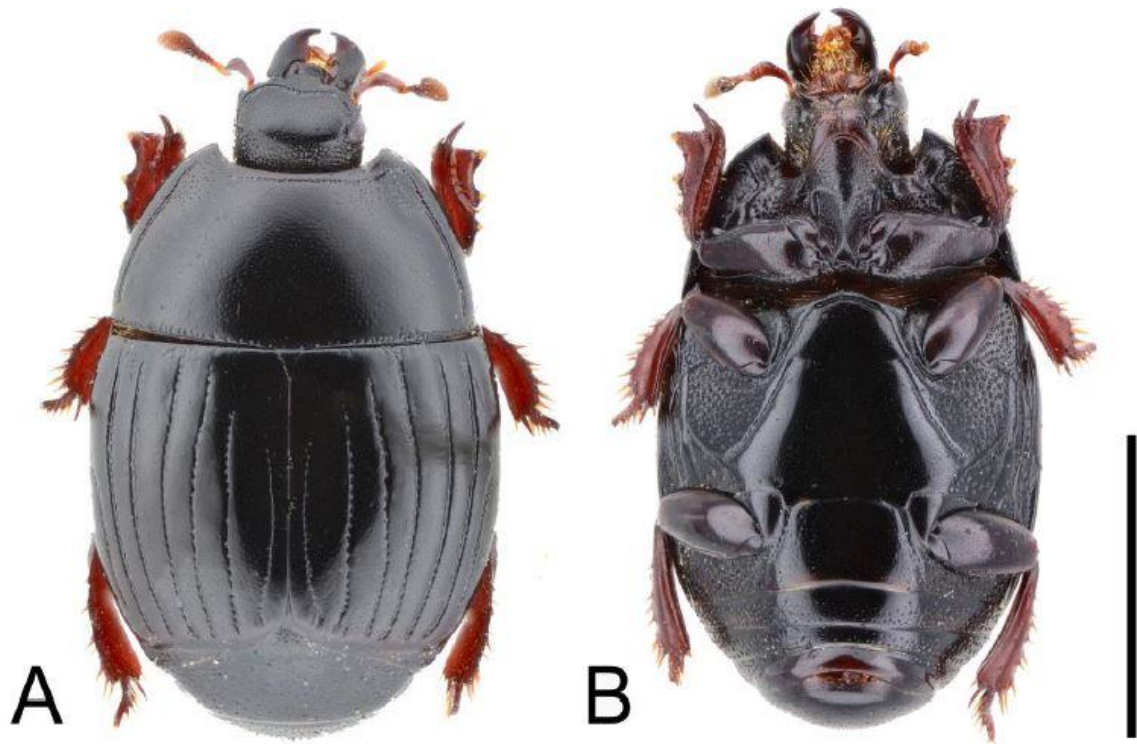
Figs. 120. Micrographs of *Atholus cochinchinae* (Schmidt, 1889) using SEM, Plate 2. — A, Left elytron, dorsal view; B, ditto, oblique view; C, prosternal process, ventral view; D, meso-metaventrite, ventral view; E, propygidium and pygidium, caudal view; F, punctations of propygidium; G, protibia, dorsal view; H, protibia, ventral view.



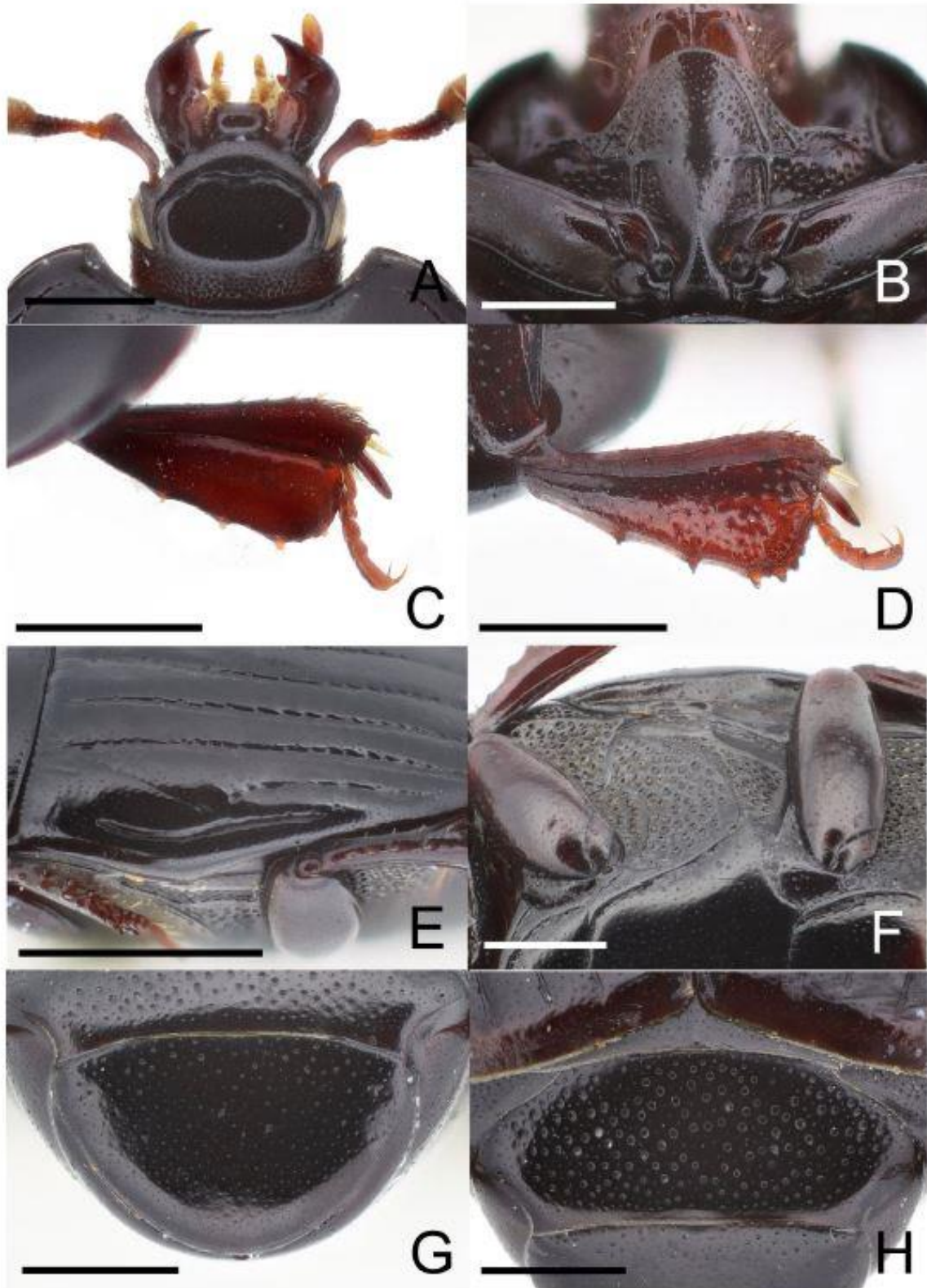
Figs. 121. Micrographs of *Atholus coelestis* (Marseul, 1870) using SEM, Plate 1. — A, Habitus, dorsal view; B, ditto, ventral view; C, ditto, oblique view; D, head, dorsal view; E, pronotum; F, mouthparts, ventral view.



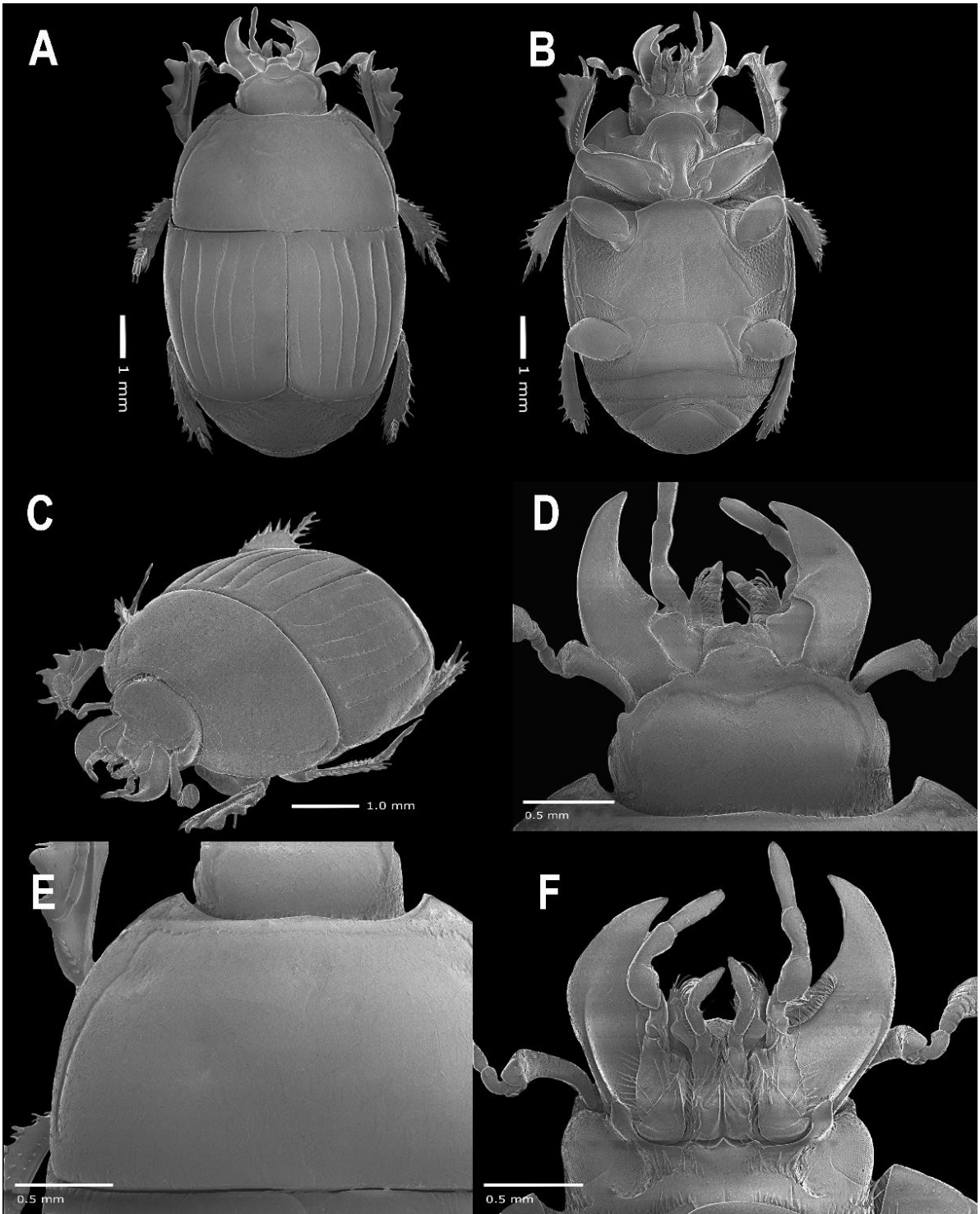
Figs. 122. Micrographs of *Atholus coelestis* (Marseul, 1870) using SEM, Plate 2. — A, Left elytron, dorsal view; B, ditto, oblique view; C, prosternal process, ventral view; D, meso-metaventrite, ventral view; E, propygidium and pygidium, caudal view; F, punctations of propygidium; G, protibia, dorsal view; H, protibia, ventral view.



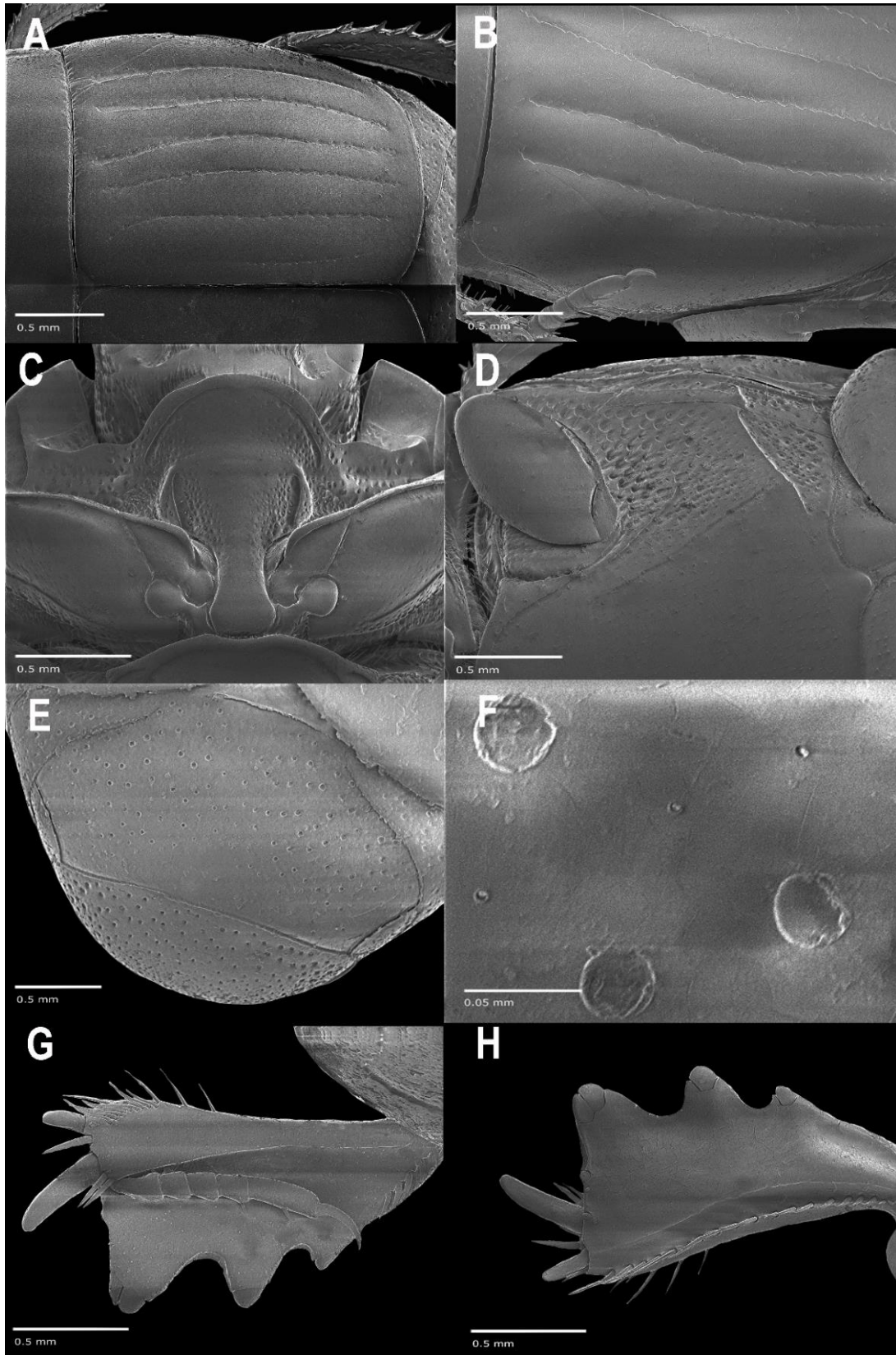
Figs. 123. Micrographs of *Atholus confinis* (Erichson, 1834), Plate 1. — A, Habitus, dorsal view; B, ditto, ventral view. Scale bar: 2.00 mm.



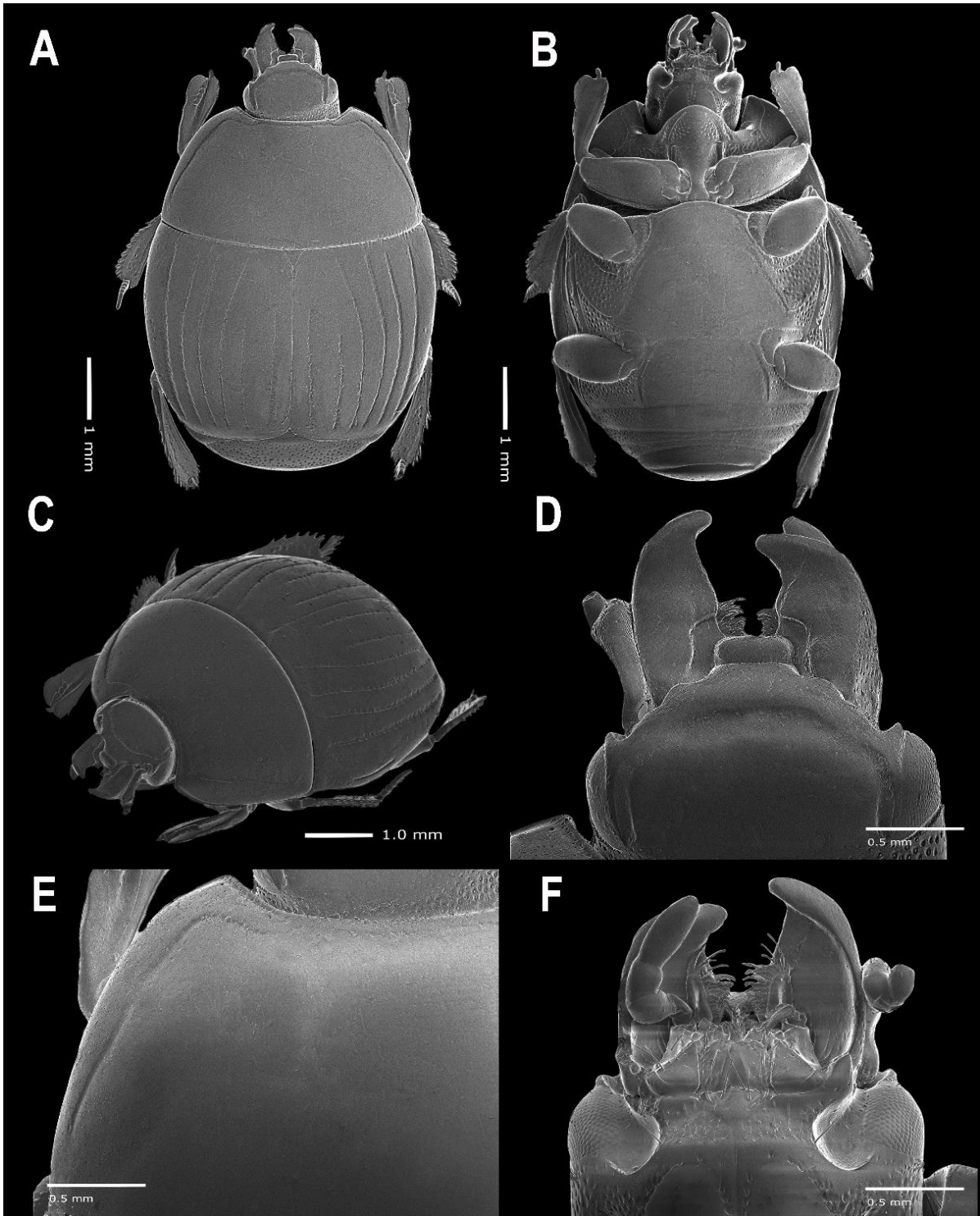
Figs. 124. Micrographs of *Atholus confinis* (Erichson, 1834), Plate 2. — A, Head, dorsal view; B, prosternal process, ventral view; C, protibia, dorsal view; D, ditto, ventral view; E, subhumerus, lateral view; F, meso-metaventrite, ventral view; G, pygidium, caudal view; H, propygidium, caudal view. Scale bars: A–D, F–H=0.50 mm, E=1.00 mm.



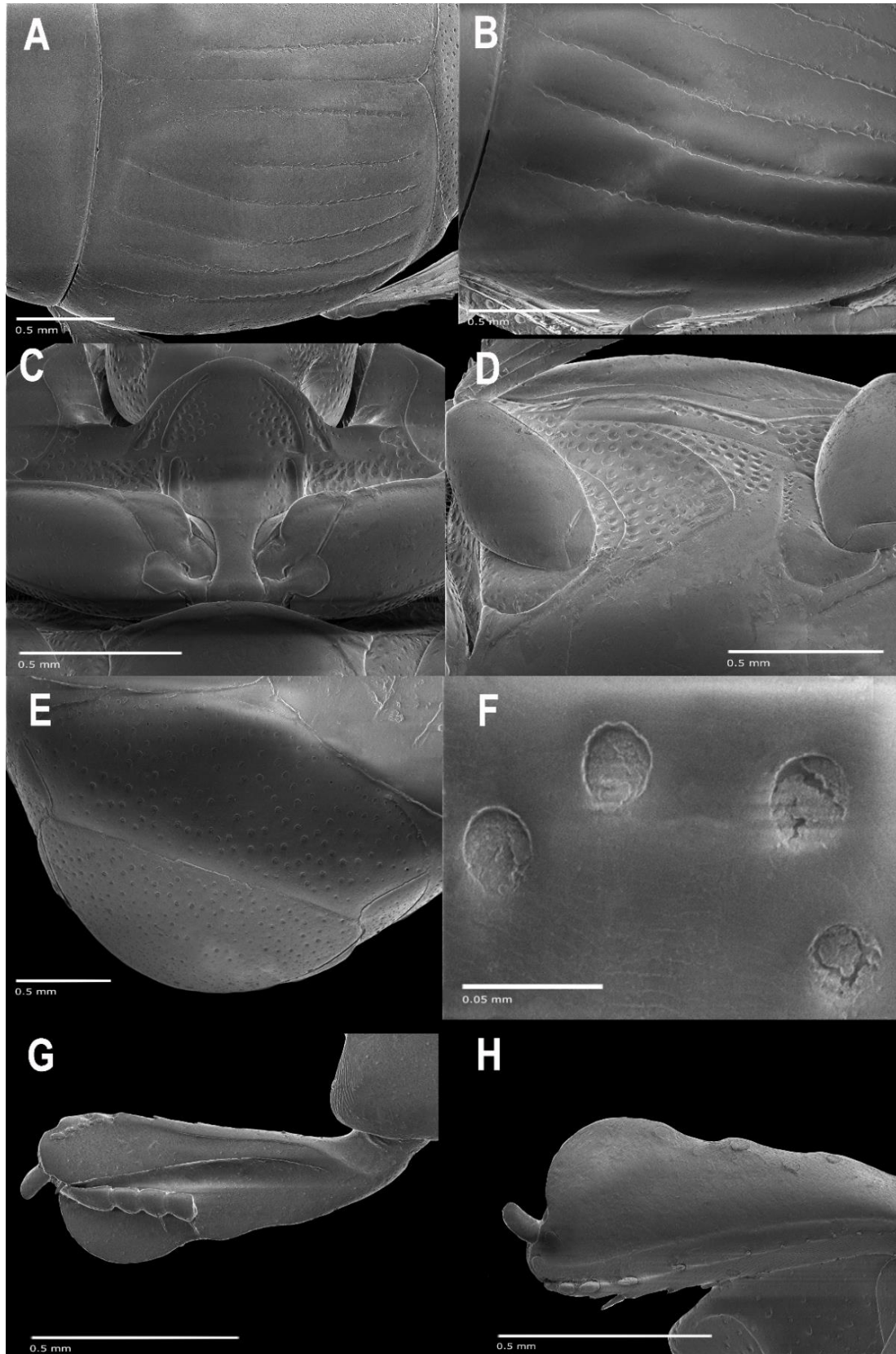
Figs. 125. Micrographs of *Atholus daldorffi* (Bedel, 1906) using SEM, Plate 1. — A, Habitus, dorsal view; B, ditto, ventral view; C, ditto, oblique view; D, head, dorsal view; E, pronotum; F, mouthparts, ventral view.



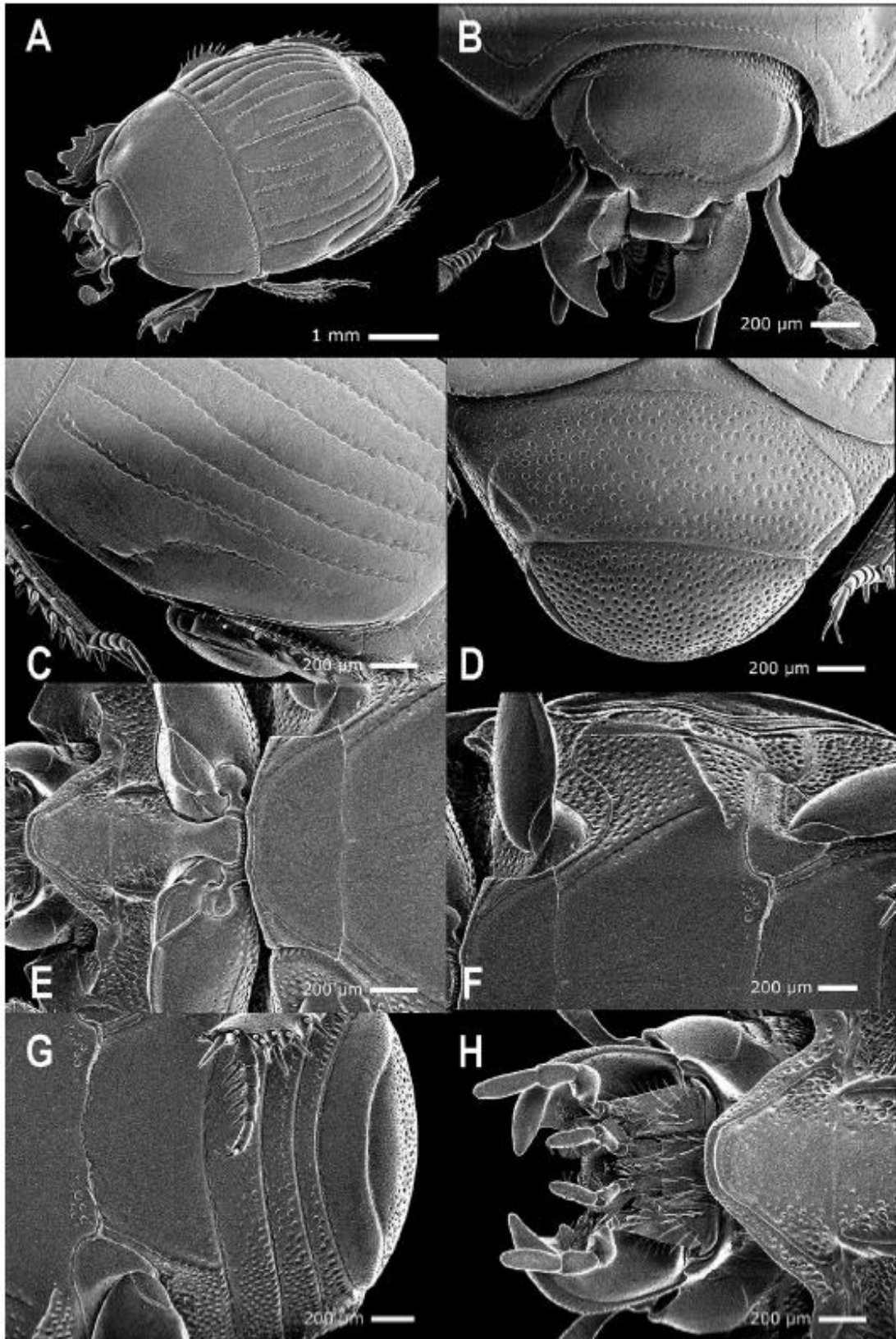
Figs. 126. Micrographs of *Atholus daldorffi* (Bedel, 1906) using SEM, Plate 2. — A, Left elytron, dorsal view; B, ditto, oblique view; C, prosternal process, ventral view; D, meso-metaventrite, ventral view; E, propygidium and pygidium, caudal view; F, punctations of propygidium; G, protibia, dorsal view; H, protibia, ventral view.



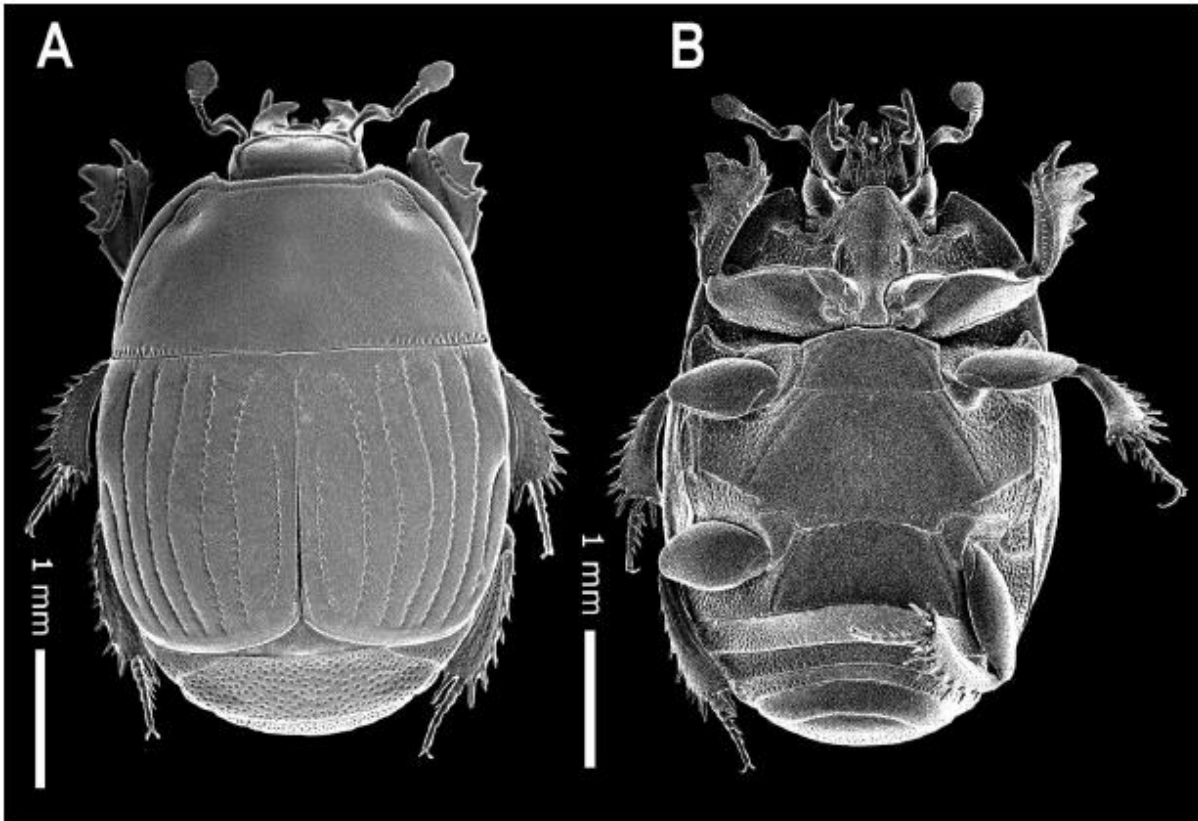
Figs. 127. Micrographs of *Atholus dentipes* (Lewis, 1892) using SEM, Plate 1. — A, Habitus, dorsal view; B, ditto, ventral view; C, ditto, oblique view; D, head, dorsal view; E, pronotum; F, mouthparts, ventral view.



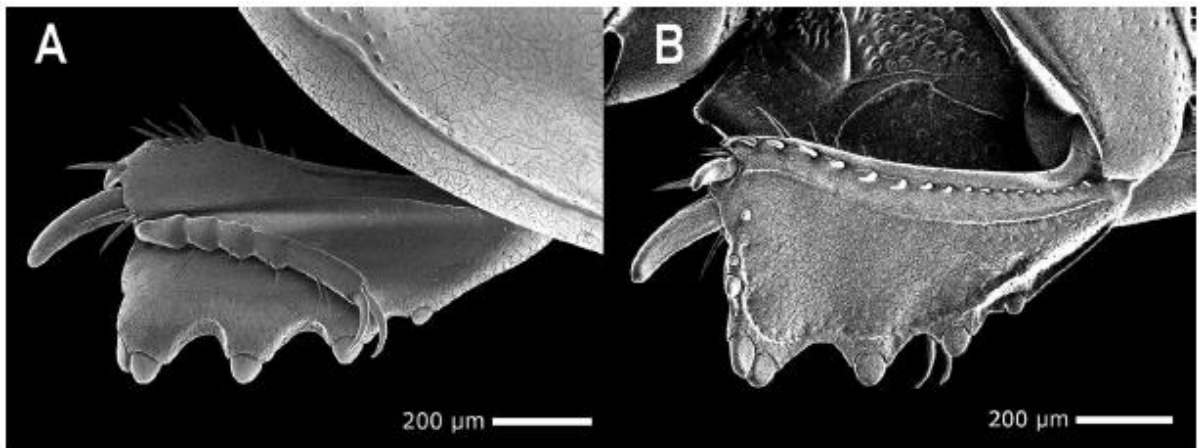
Figs. 128. Micrographs of *Atholus dentipes* (Lewis, 1892) using SEM, Plate 2. — A, Left elytron, dorsal view; B, ditto, oblique view; C, prosternal process, ventral view; D, meso-metaventrite, ventral view; E, propygidium and pygidium, caudal view; F, punctations of propygidium; G, protibia, dorsal view; H, protibia, ventral view.



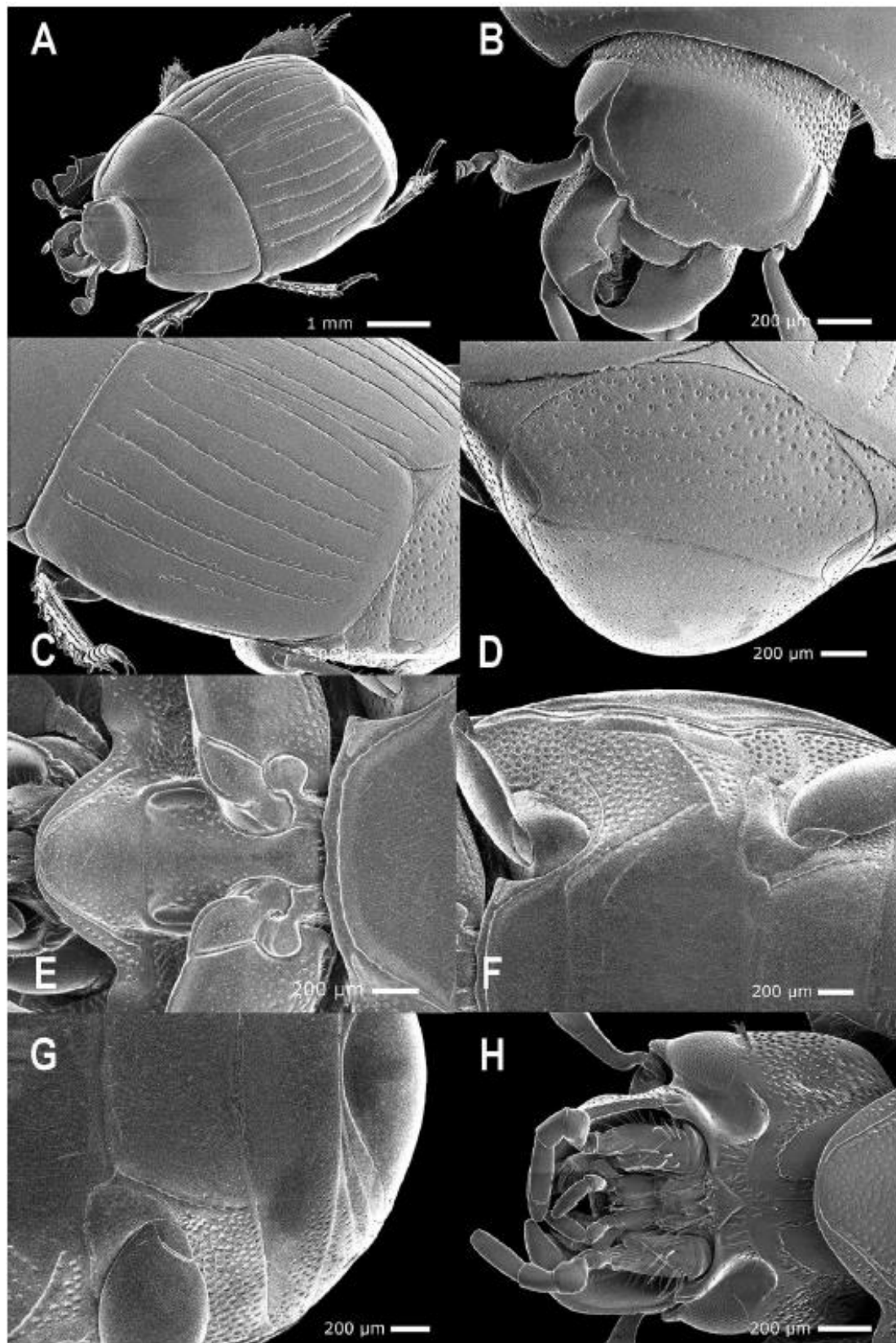
Figs. 129. Micrographs of *Atholus depistor* (Marseul, 1873) using SEM, Plate 1. — A, Habitus, dorso-lateral view; B, head, frontal view; C, left elytron, oblique view; D, propygidium and pygidium, caudal view; E, prosternum and mesoventrite, ventral view; F, lateral disk of metaventrite and epipleuron of elytron, ventral view; G, abdominal ventrites; H, mouthparts, ventral view.



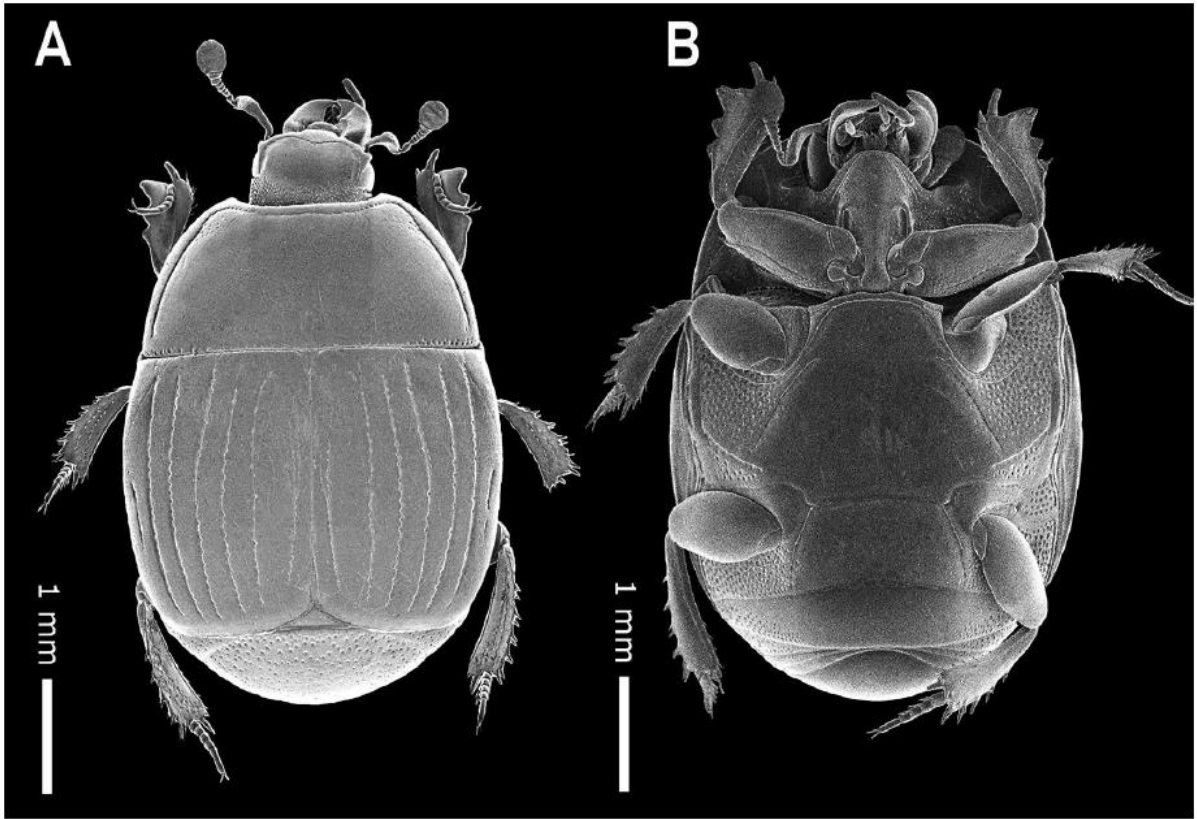
Figs. 130. Micrographs of *Atholus depistor* (Marseul, 1873) using SEM, Plate 2. — A, Habitus, dorsal view; B, ditto, ventral view.



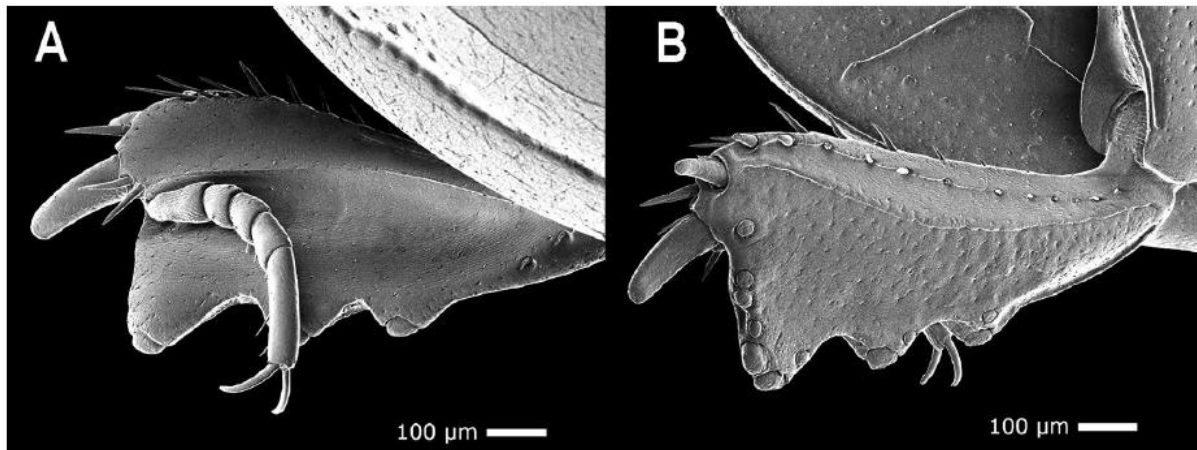
Figs. 131. Micrographs of *Atholus depistor* (Marseul, 1873) using SEM, Plate 3. — A, Protibia, dorsal view; B, ditto, ventral view.



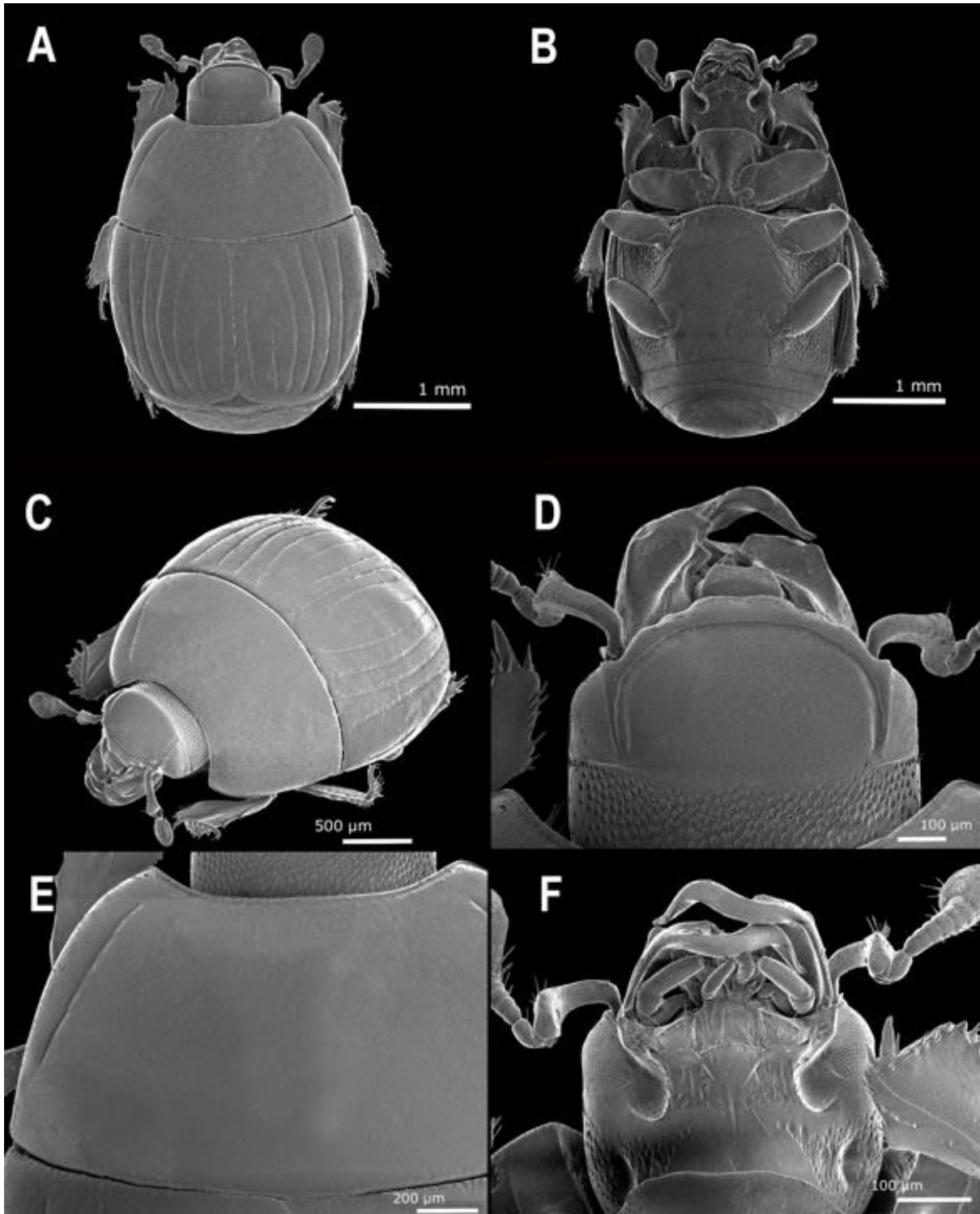
Figs. 132. Micrographs of *Atholus duodecimstriatus quatuordecimstriatus* (Gyllenhal, 1808) using SEM, Plate 1. — A, Habitus, dorso-lateral view; B, head, frontal view; C, left elytron, oblique view; D, propygidium and pygidium, caudal view; E, prosternum and mesoventrite, ventral view; F, lateral disk of metaventrite and epipleuron of elytron, ventral view; G, abdominal ventrites; H, mouthparts, ventral view.



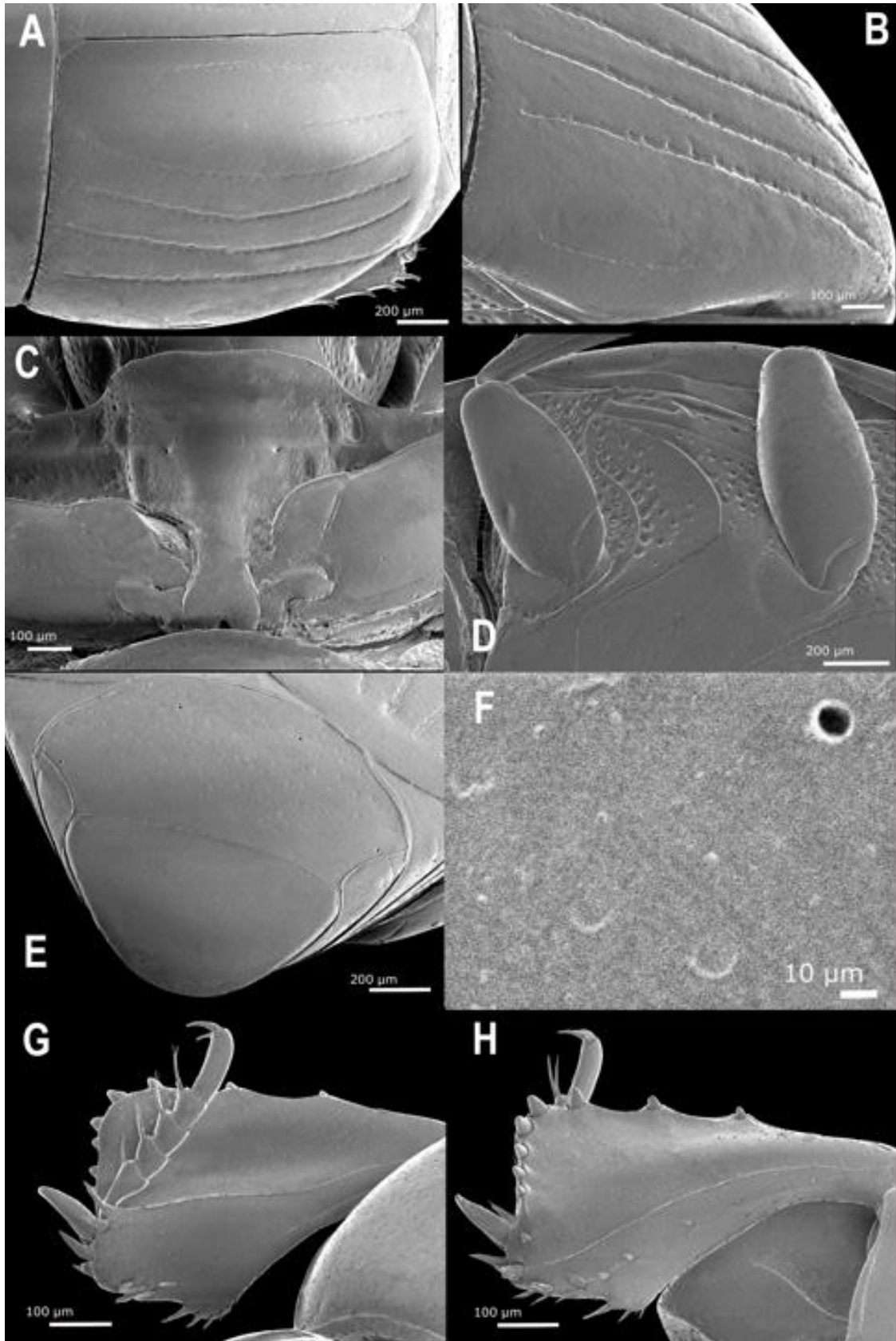
Figs. 133. Micrographs of *Atholus duodecimstriatus quatuordecimstriatus* (Gyllenhal, 1808) using SEM, Plate 2. — A, Habitus, dorsal view; B, ditto, ventral view.



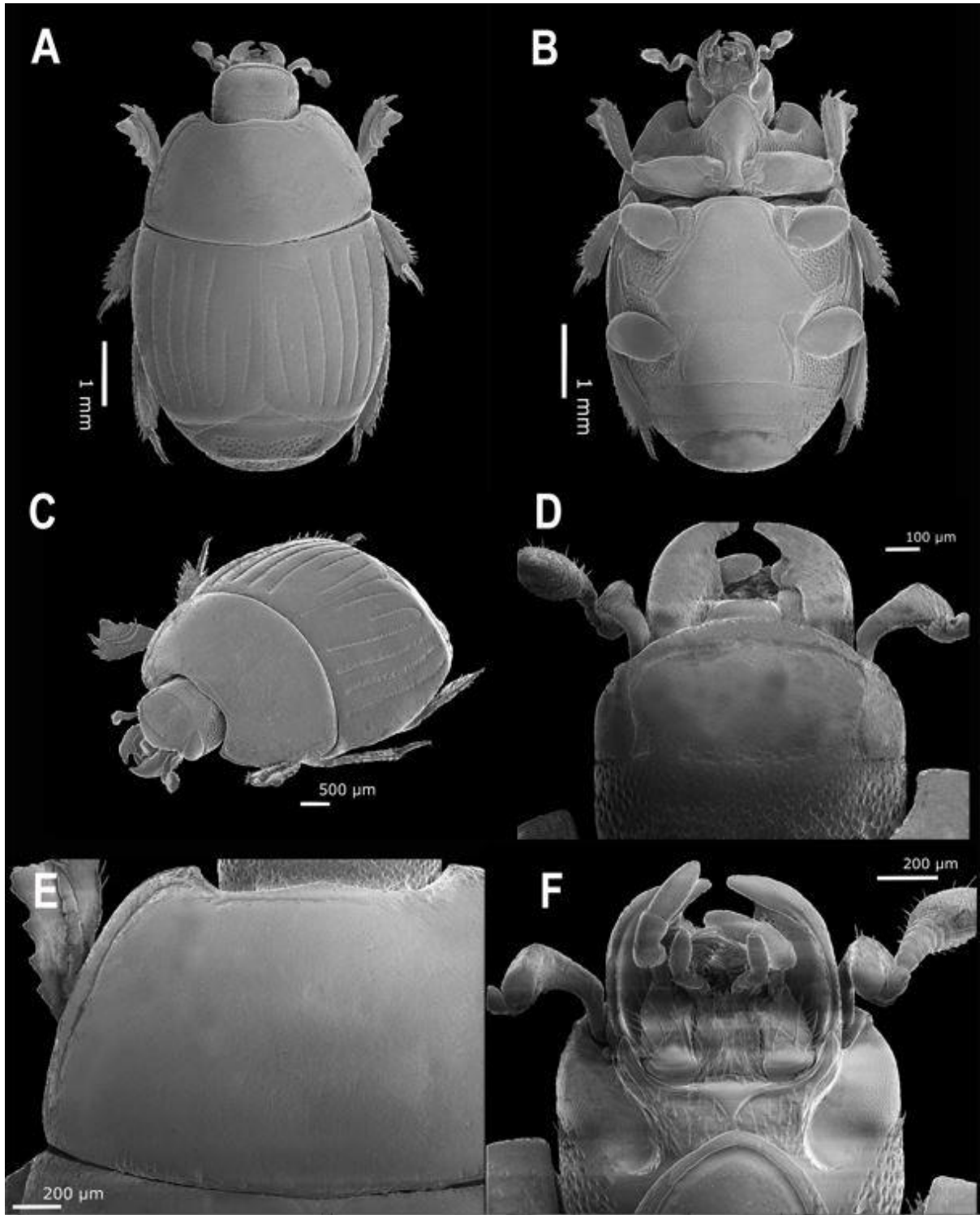
Figs. 134. Micrographs of *Atholus duodecimstriatus quatuordecimstriatus* (Gyllenhal, 1808) using SEM, Plate 3. — A, Protibia, dorsal view; B, ditto, ventral view.



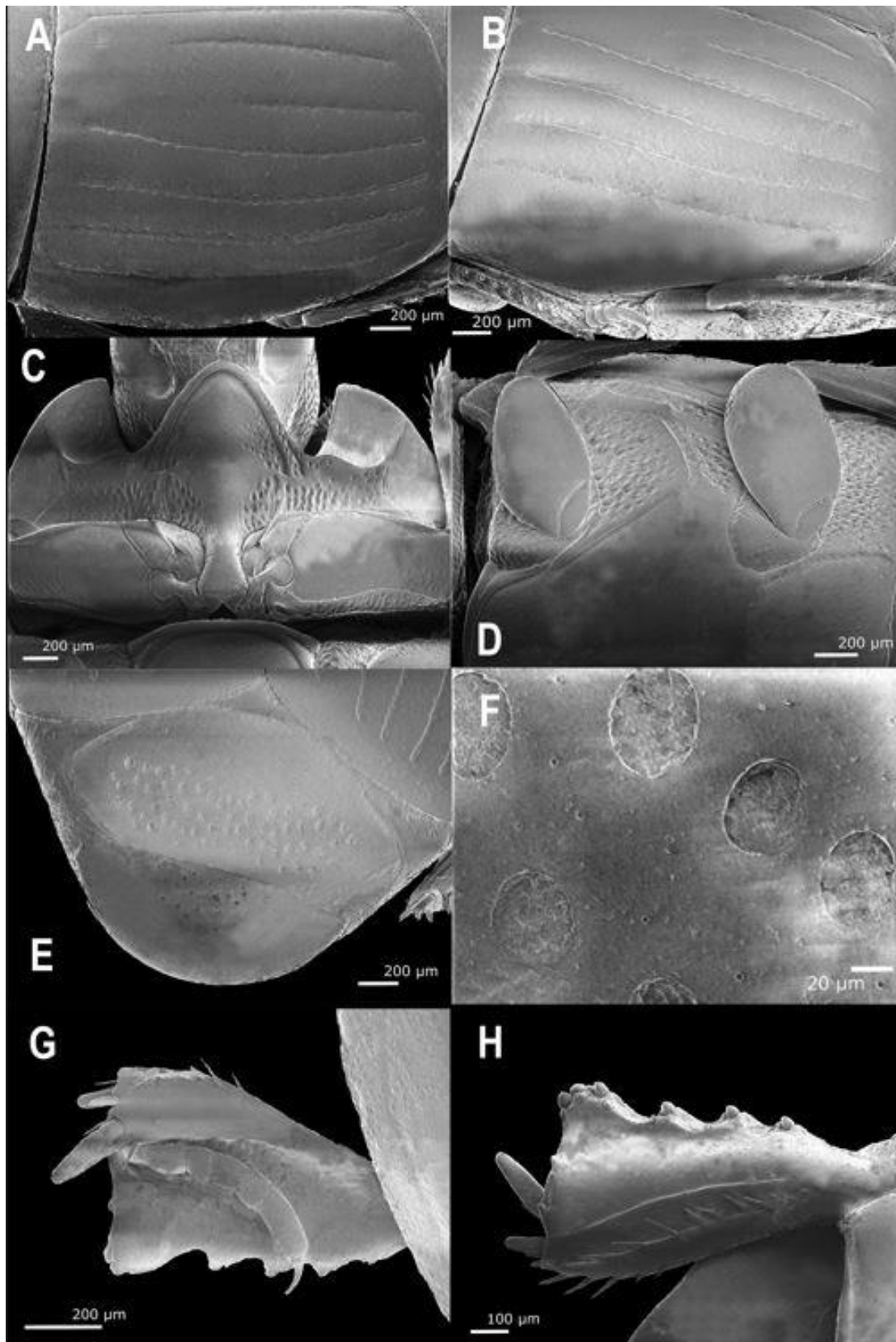
Figs. 135. Micrographs of *Atholus famulus* (Lewis, 1892) using SEM, Plate 1. — A, Habitus, dorsal view; B, ditto, ventral view; C, ditto, oblique view; D, head, dorsal view; E, pronotum; F, mouthparts, ventral view.



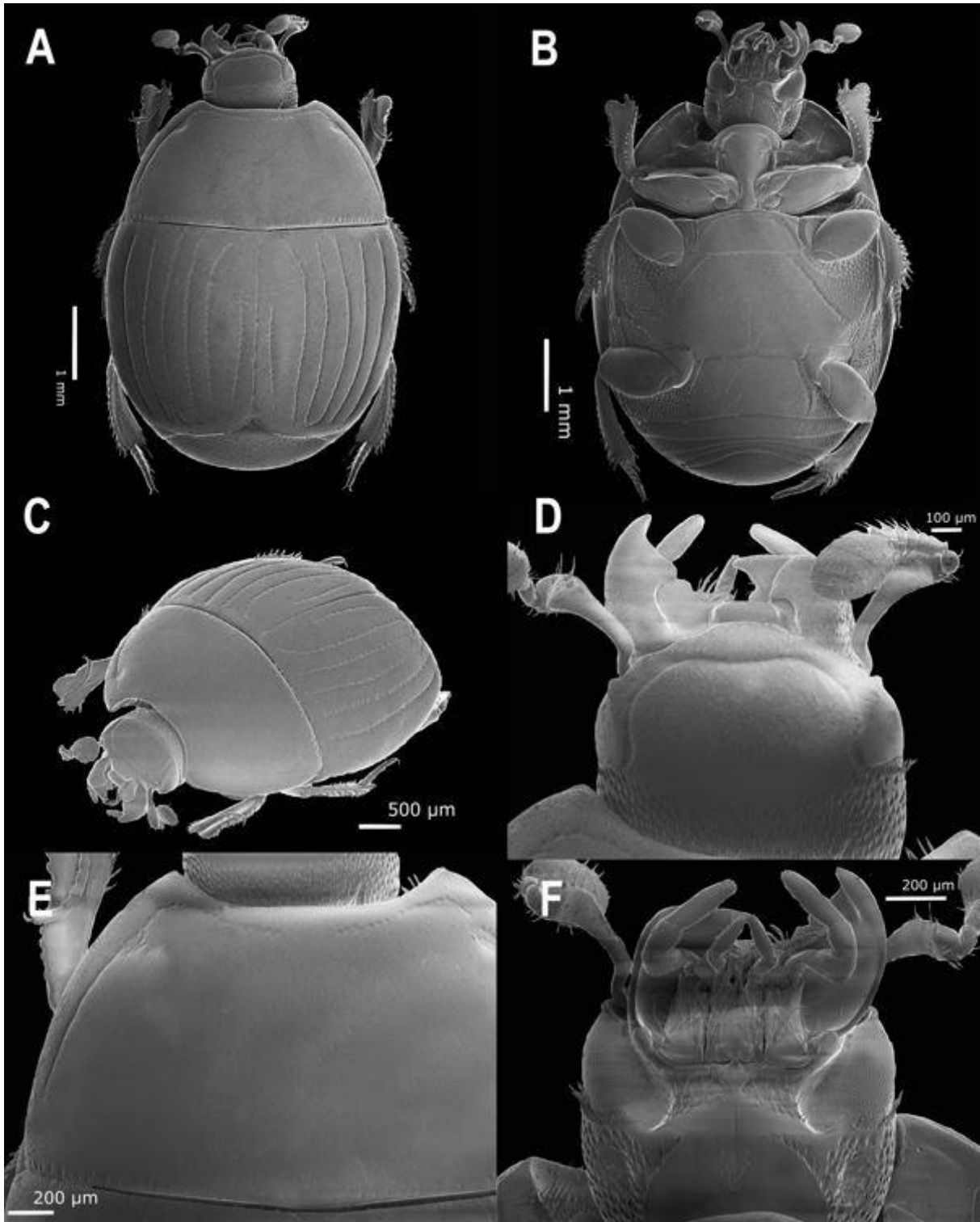
Figs. 136. Micrographs of *Atholus famulus* (Lewis, 1892) using SEM, Plate 2. — A, Left elytron, dorsal view; B, ditto, oblique view; C, prosternal process, ventral view; D, meso-metaventrite, ventral view; E, propygidium and pygidium, caudal view; F, punctations of propygidium; G, protibia, dorsal view; H, protibia, ventral view.



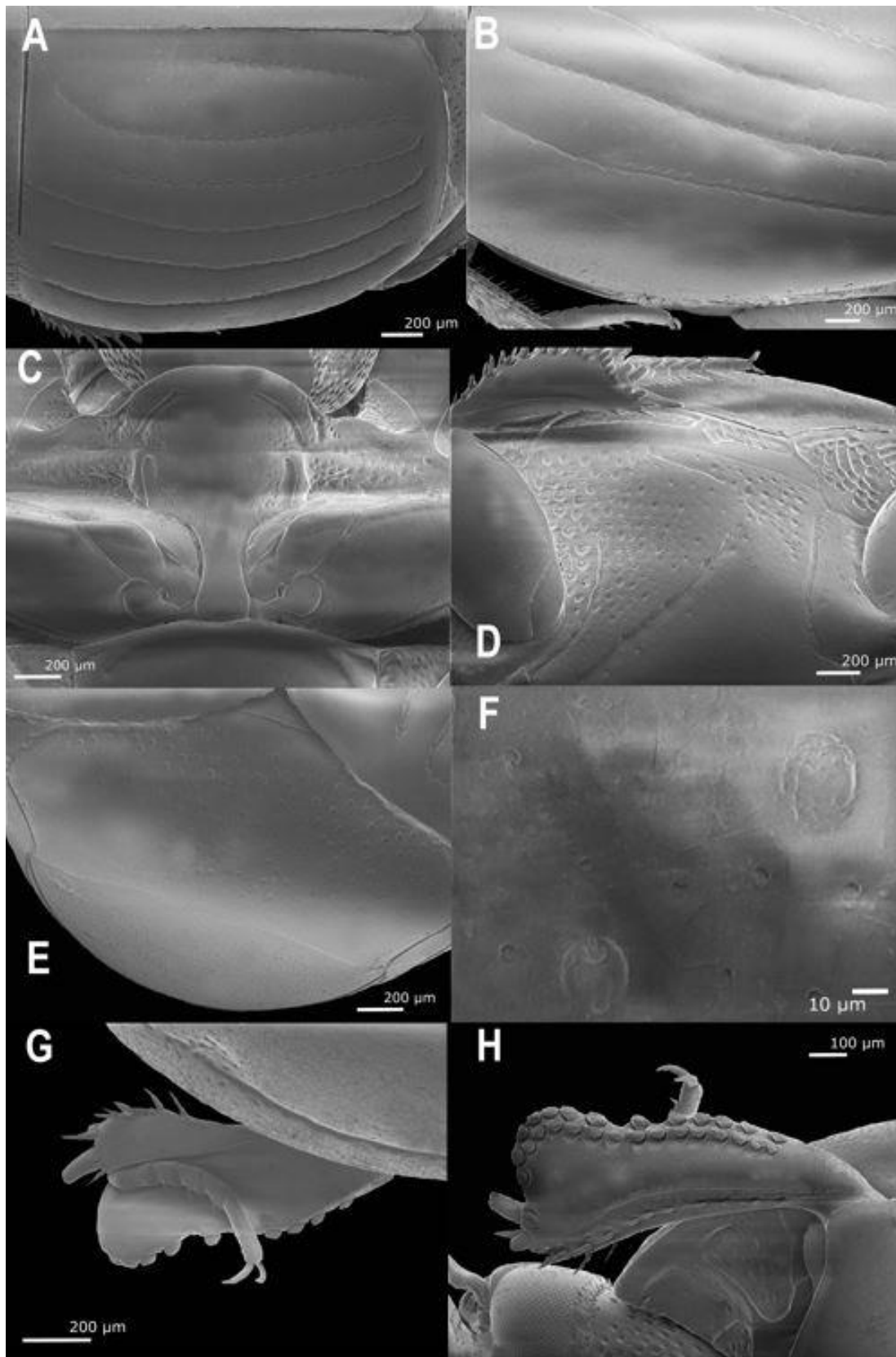
Figs. 137. Micrographs of *Atholus gestroi* (Schmidt, 1897) using SEM, Plate 1. — A, Habitus, dorsal view; B, ditto, ventral view; C, ditto, oblique view; D, head, dorsal view; E, pronotum; F, mouthparts, ventral view.



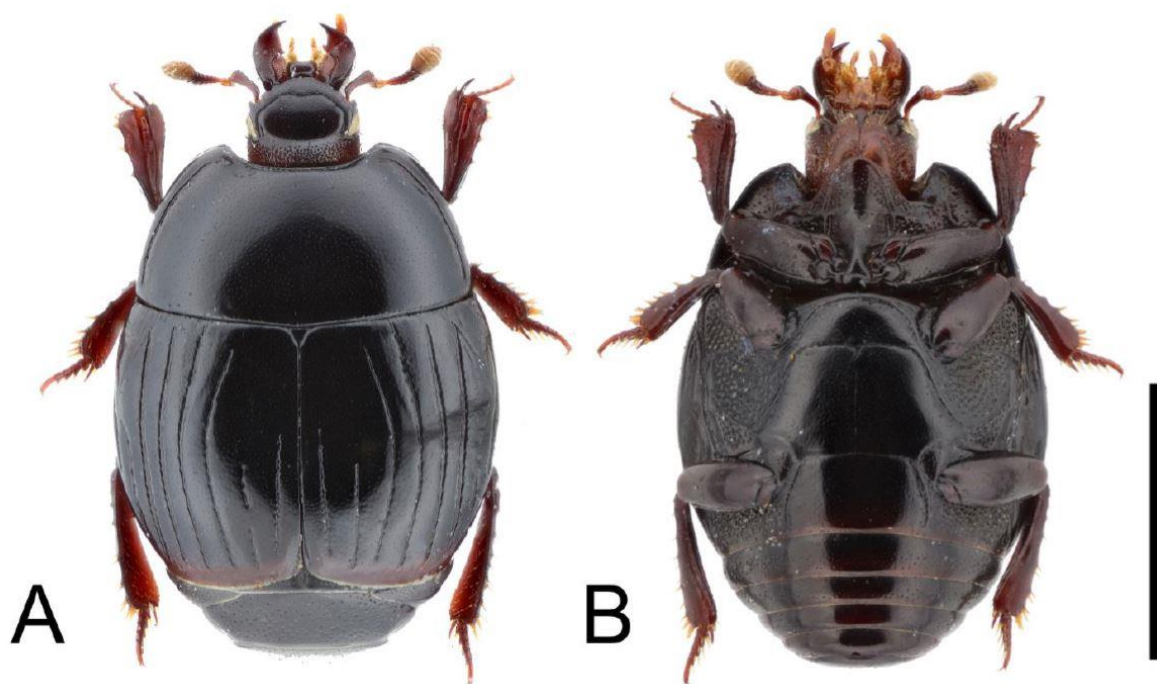
Figs. 138. Micrographs of *Atholus gestroi* (Schmidt, 1897) using SEM, Plate 2. — A, Left elytron, dorsal view; B, ditto, oblique view; C, prosternal process, ventral view; D, meso-metaventrite, ventral view; E, propygidium and pygidium, caudal view; F, punctations of propygidium; G, protibia, dorsal view; H, protibia, ventral view.



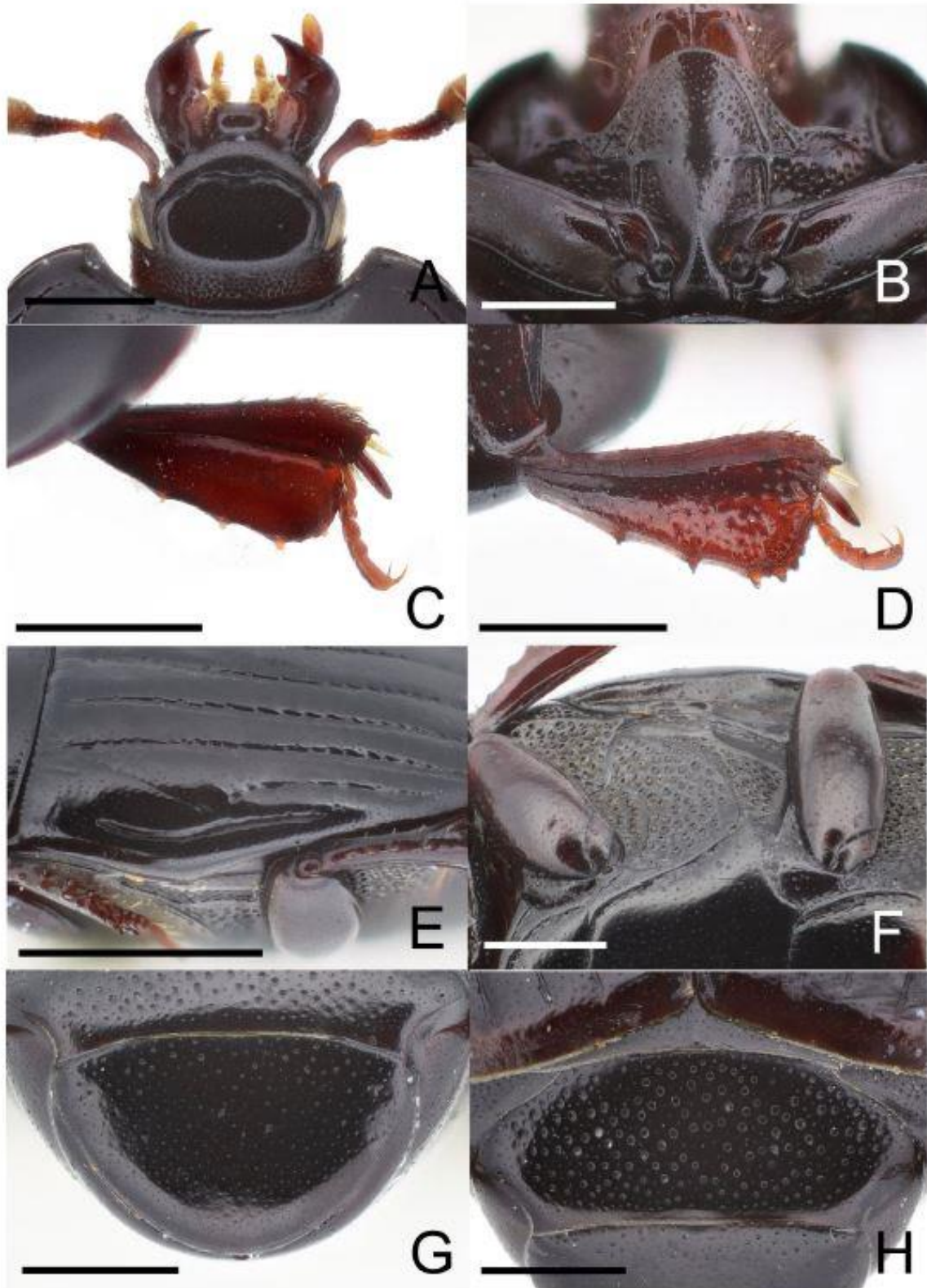
Figs. 139. Micrographs of *Atholus helferi* (Reichardt, 1932) using SEM, Plate 1. — A, Habitus, dorsal view; B, ditto, ventral view; C, ditto, oblique view; D, head, dorsal view; E, pronotum; F, mouthparts, ventral view.



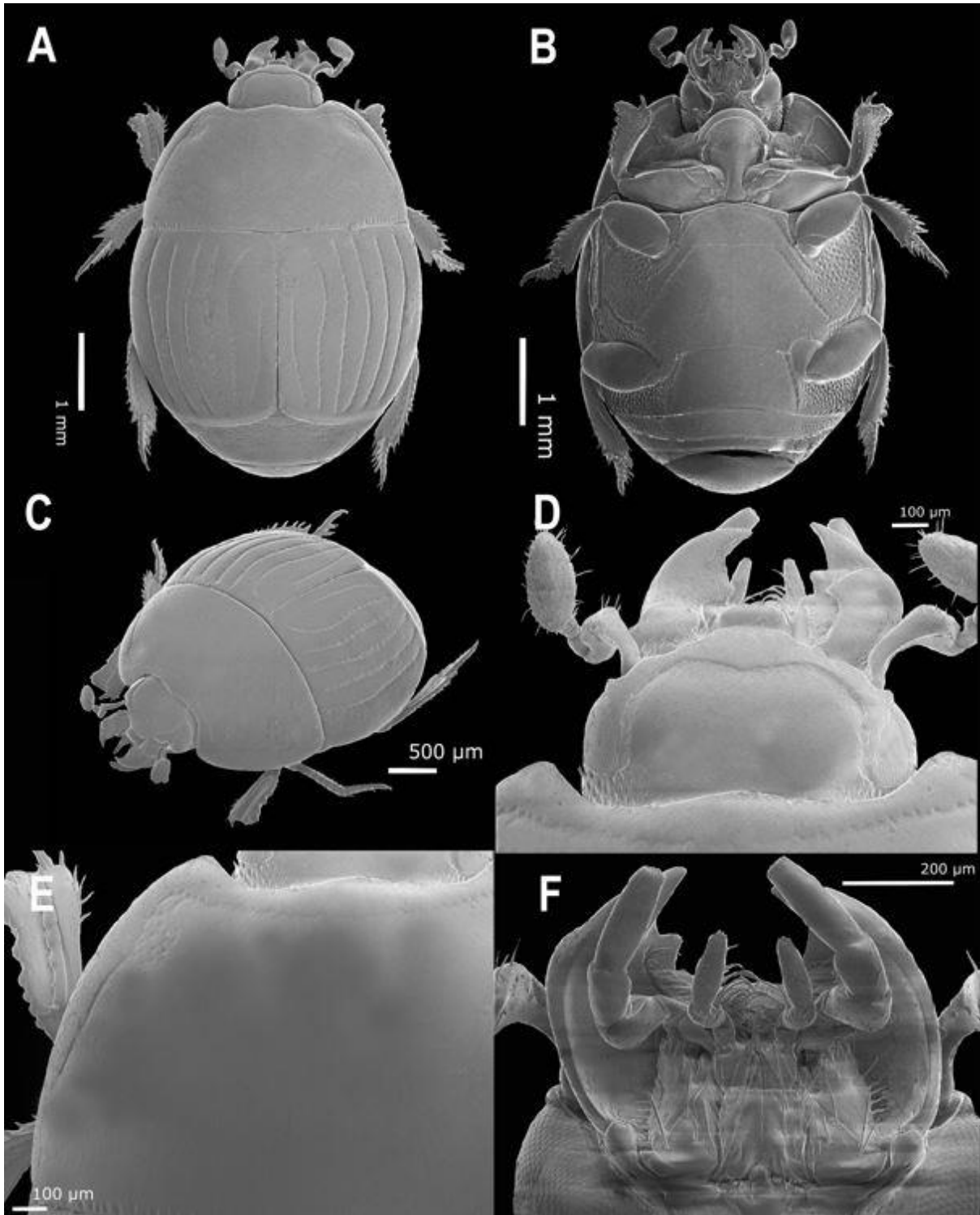
Figs. 140. Micrographs of *Atholus helferi* (Reichardt, 1932) using SEM, Plate 2. — A, Left elytron, dorsal view; B, ditto, oblique view; C, prosternal process, ventral view; D, meso-metaventrite, ventral view; E, propygidium and pygidium, caudal view; F, punctations of propygidium; G, protibia, dorsal view; H, protibia, ventral view.



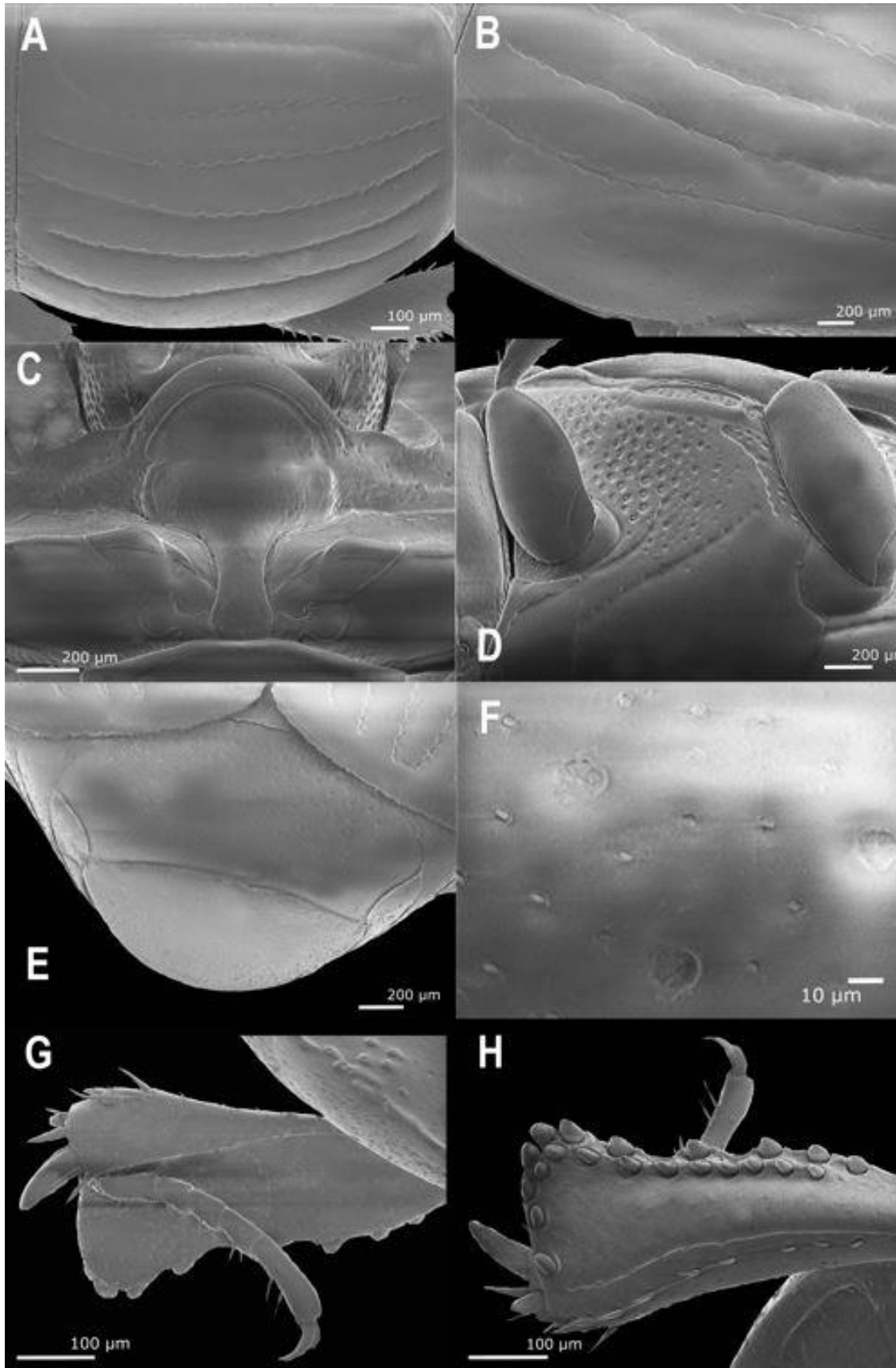
Figs. 141. Micrographs of *Atholus levis* Mazur, 2015, Plate 1. — A, Habitus, dorsal view; B, ditto, ventral view. Scale bar: 2.00 mm.



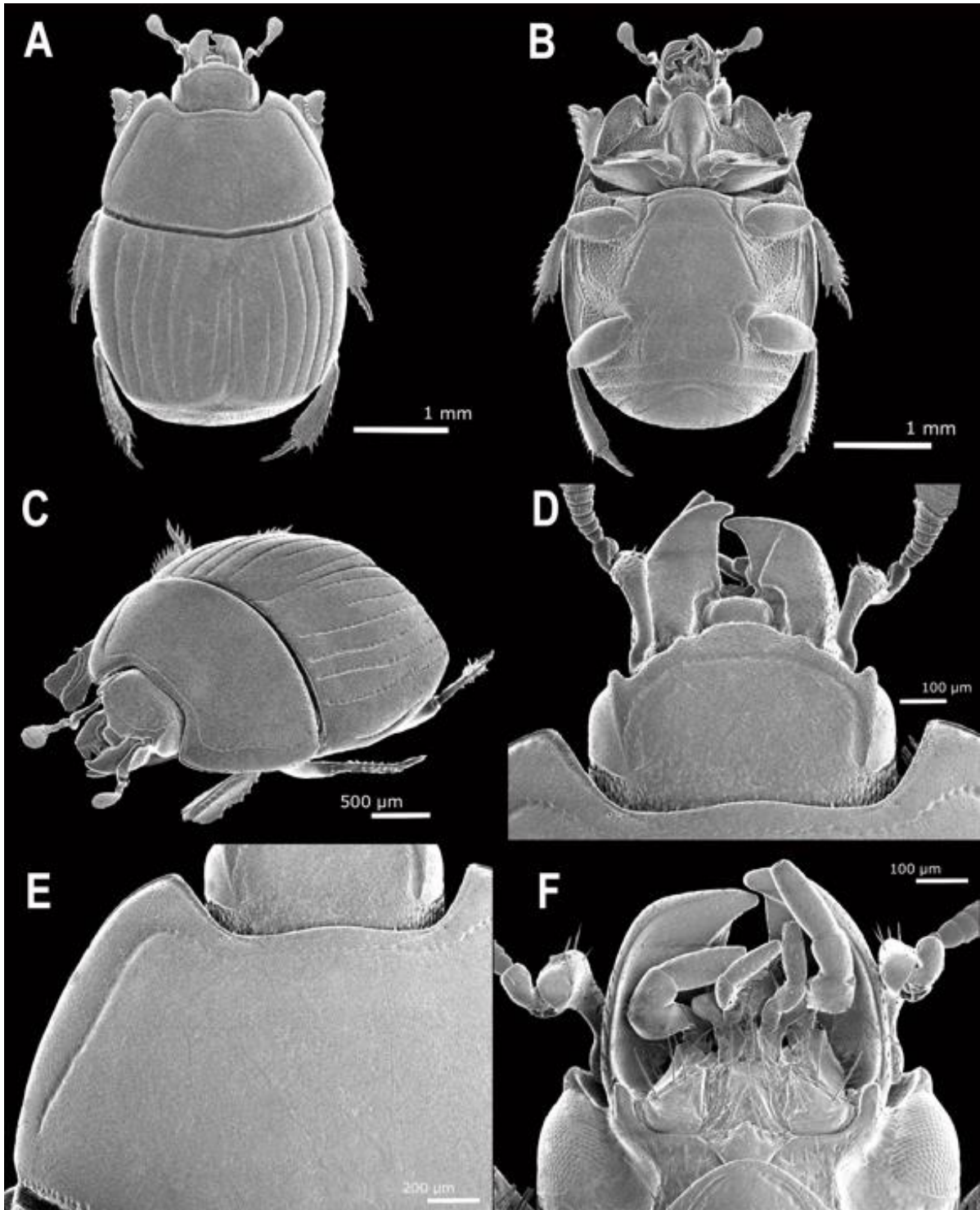
Figs. 142. Micrographs of *Atholus levis* Mazur, 2015, Plate 2. — A, Head, dorsal view; B, prosternal process, ventral view; C, protibia, dorsal view; D, ditto, ventral view; E, subhumerus, lateral view; F, meso-metaventrite, ventral view; G, pygidium, caudal view; H, propygidium, caudal view. Scale bars: A–D, F–H=0.50 mm, E=1.00 mm.



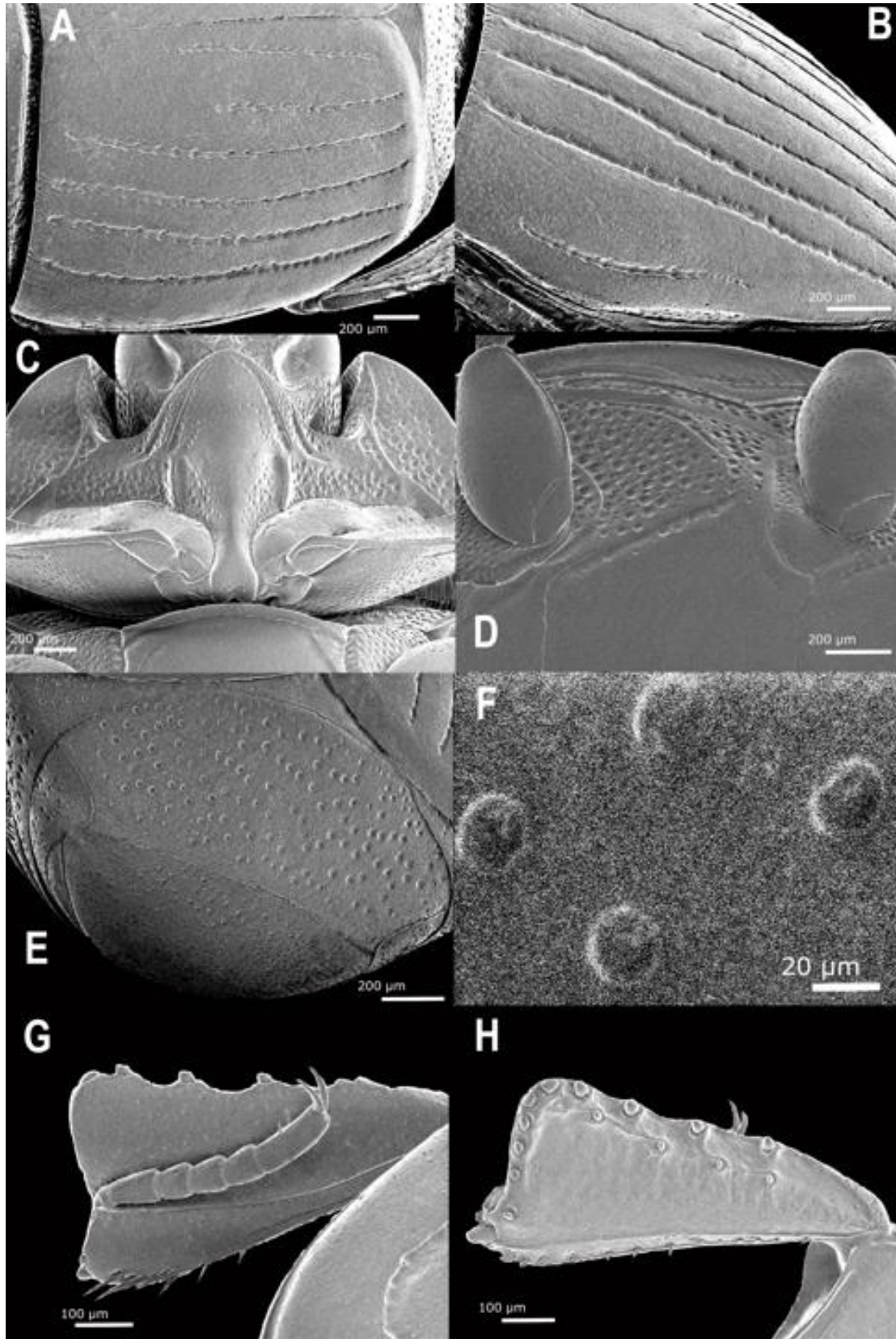
Figs. 143. Micrographs of *Atholus* sp. 1. using SEM, Plate 1. — A, Habitus, dorsal view; B, ditto, ventral view; C, ditto, oblique view; D, head, dorsal view; E, pronotum; F, mouthparts, ventral view.



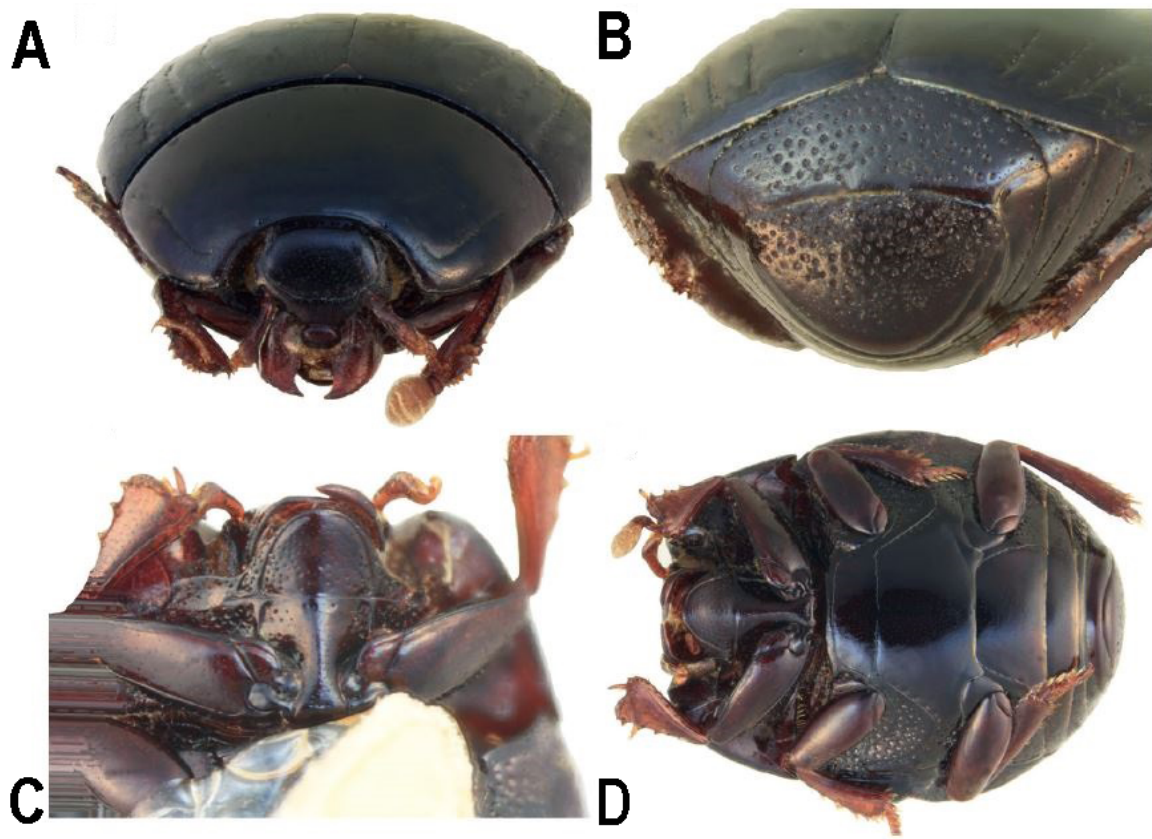
Figs. 144. Micrographs of *Atholus* sp. 1 using SEM, Plate 2. — A, Left elytron, dorsal view; B, ditto, oblique view; C, prosternal process, ventral view; D, meso-metaventrals, ventral view; E, propygidium and pygidium, caudal view; F, punctations of propygidium; G, protibia, dorsal view; H, protibia, ventral view.



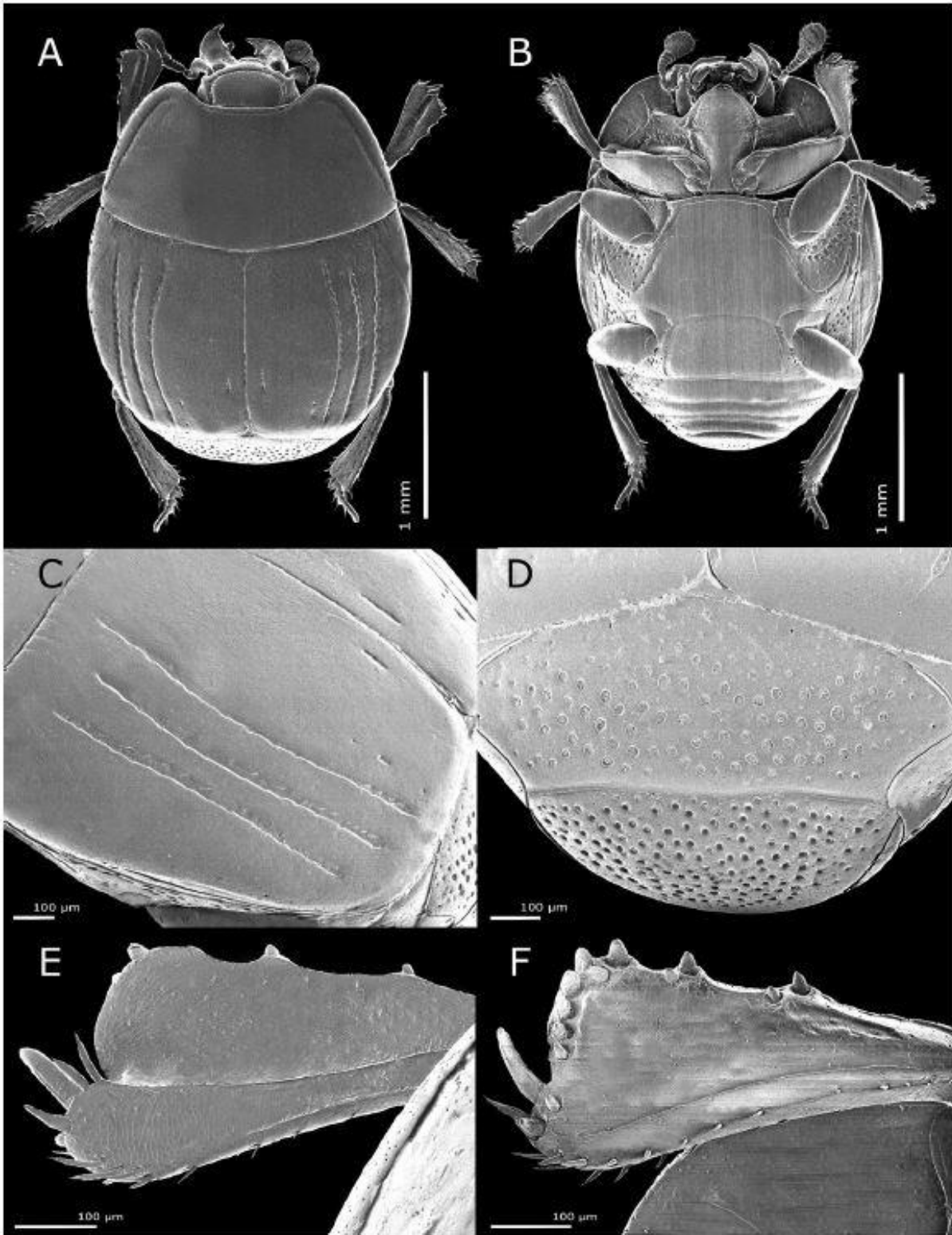
Figs. 145. Micrographs of *Atholus myrmidon* (Marseul, 1861) using SEM, Plate 1. — A, Habitus, dorsal view; B, ditto, ventral view; C, ditto, oblique view; D, head, dorsal view; E, pronotum; F, mouthparts, ventral view.



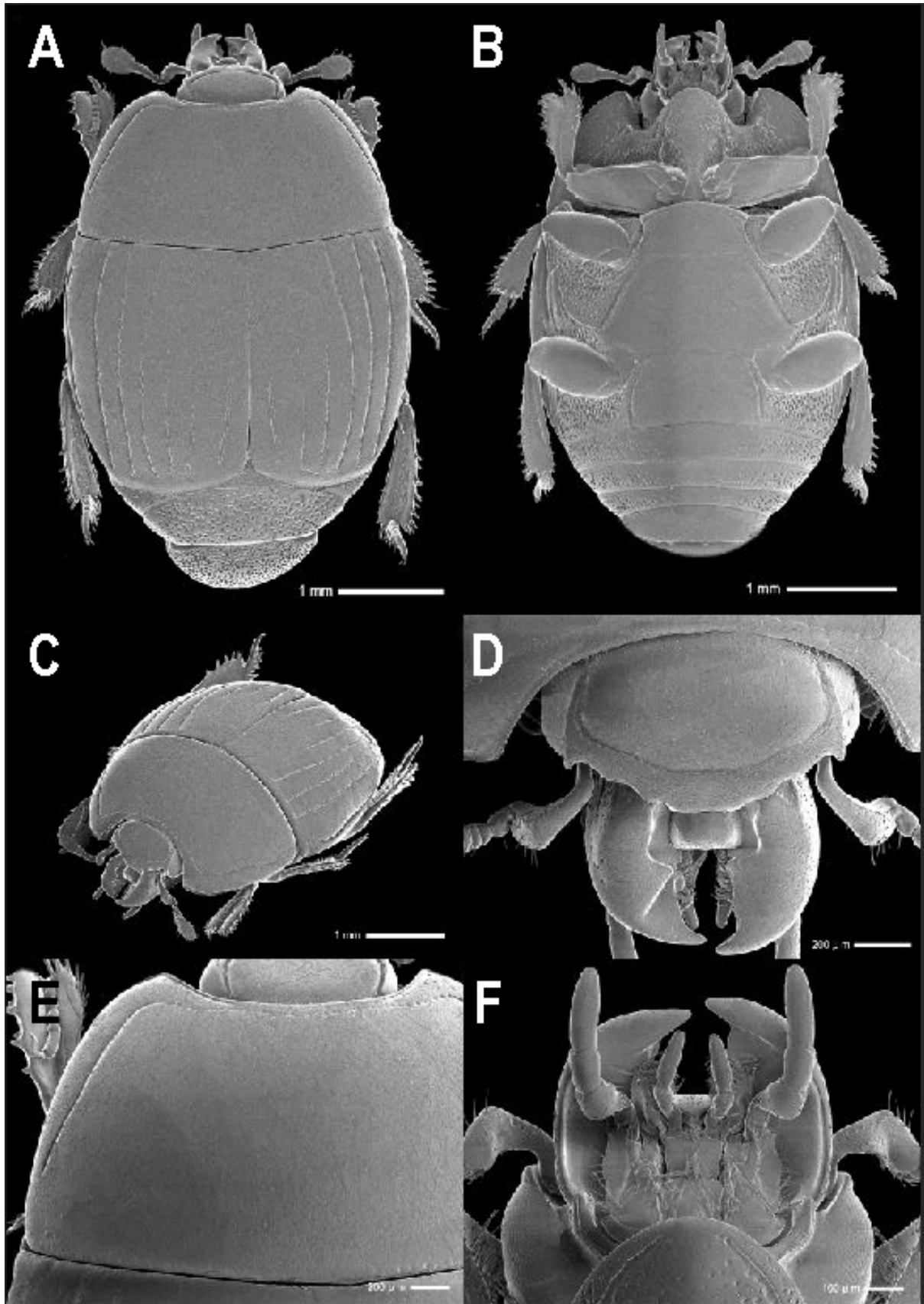
Figs. 146. Micrographs of *Atholus myrmidon* (Marseul, 1861) using SEM, Plate 2. — A, Left elytron, dorsal view; B, ditto, oblique view; C, prosternal process, ventral view; D, meso-metaventrite, ventral view; E, propygidium and pygidium, caudal view; F, punctations of propygidium; G, protibia, dorsal view; H, protibia, ventral view.



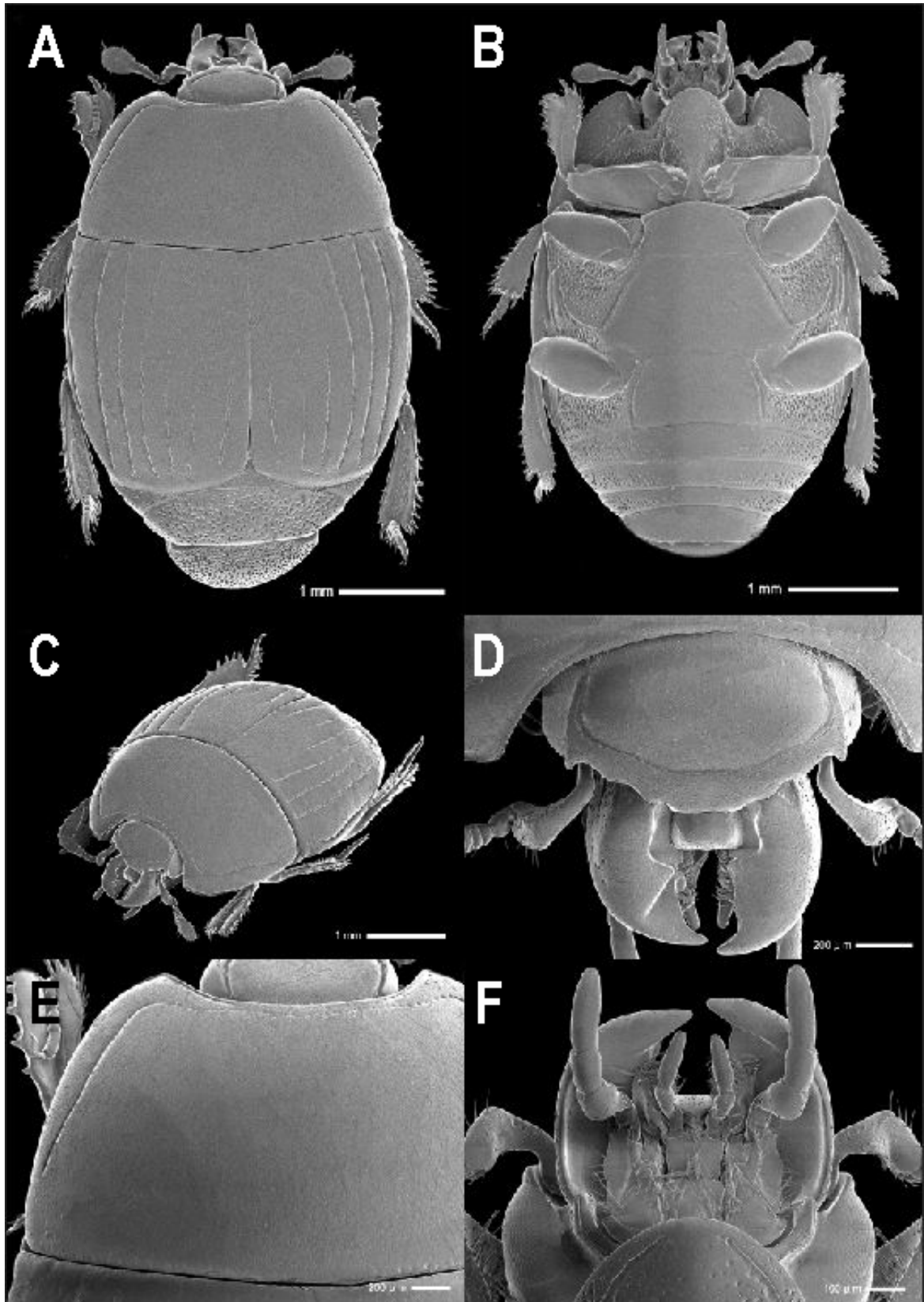
Figs. 147. Micrographs of *Atholus nitidissimus* Desbordes, 1925. — A, Head and pronotum, dorsal view; B, head, frontal view; C, propygidium and pygidium, caudal view; D, habitus, ventral view.



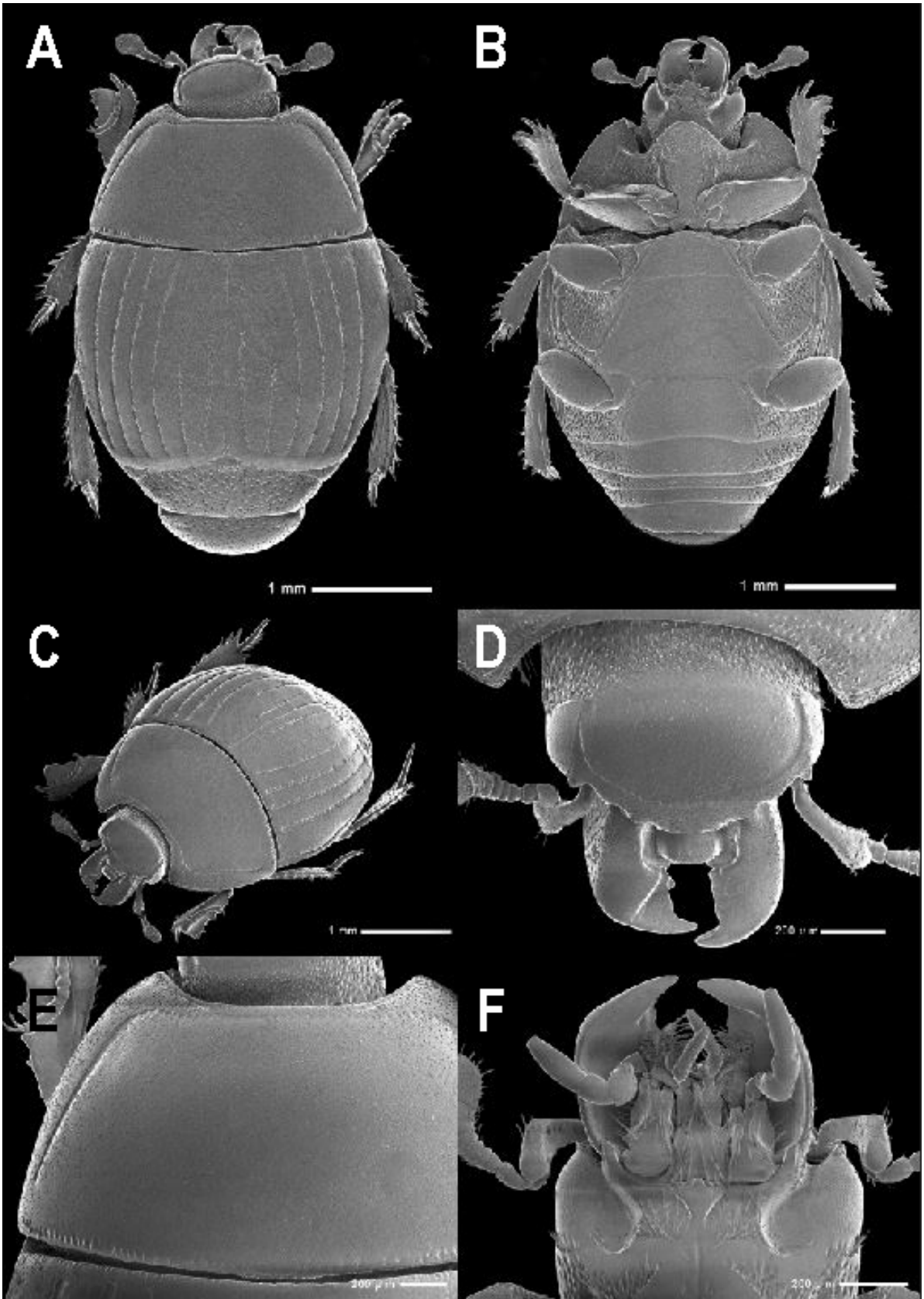
Figs. 148. *Atholus nitidissimus* Desbordes, 1925 using SEM. — A, Habitus, dorsal view; B, ditto, ventral view; C, left elytron, oblique view; D, propygidium and pygidium, caudal view; E, protibia, dorsal view; F, ditto, ventral view.



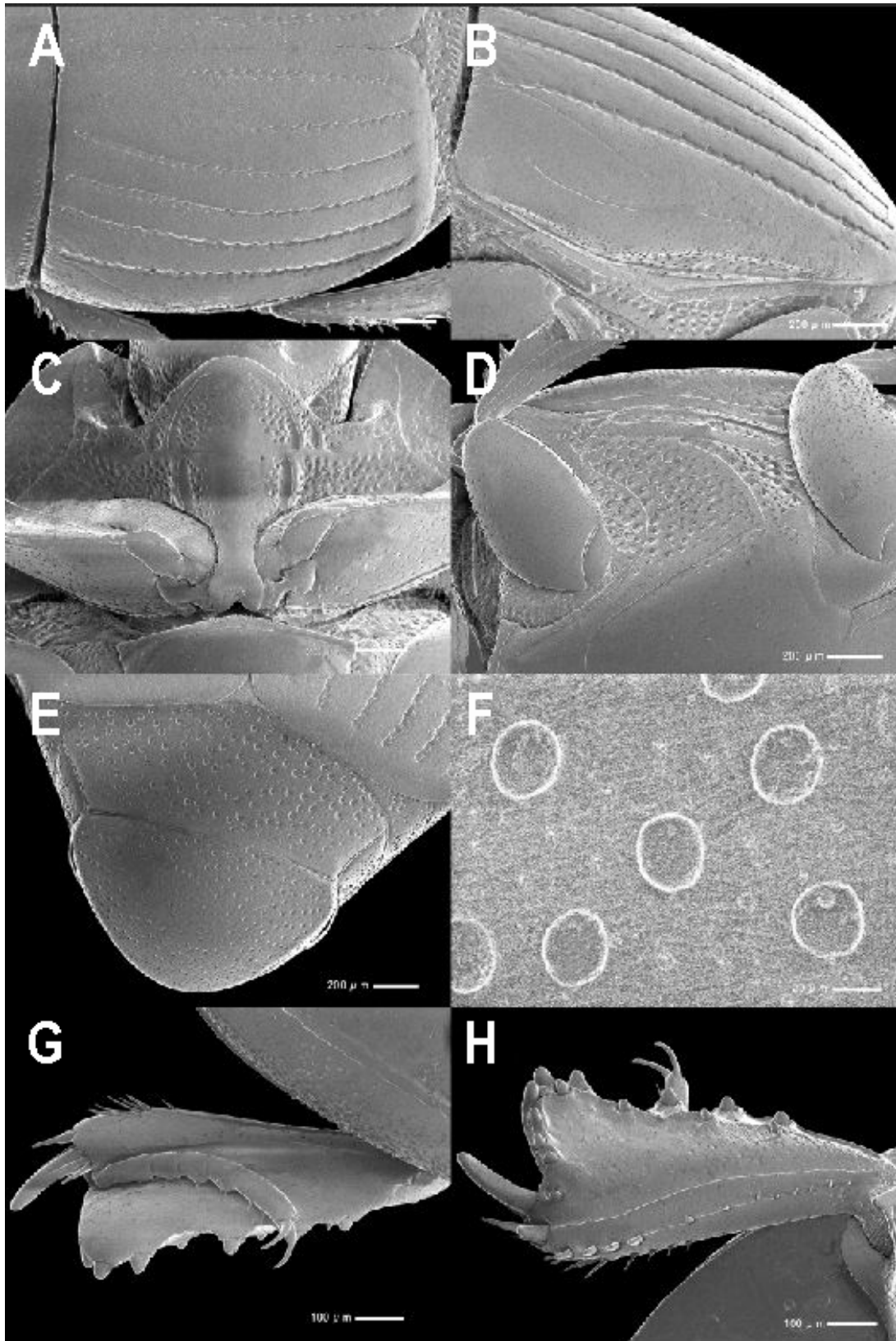
Figs. 149. Micrographs of *Atholus philippinensis* (Marseul, 1854) using SEM, Plate 1. — A, Habitus, dorsal view; B, ditto, ventral view; C, ditto, oblique view; D, head, dorsal view; E, pronotum; F, mouthparts, ventral view.



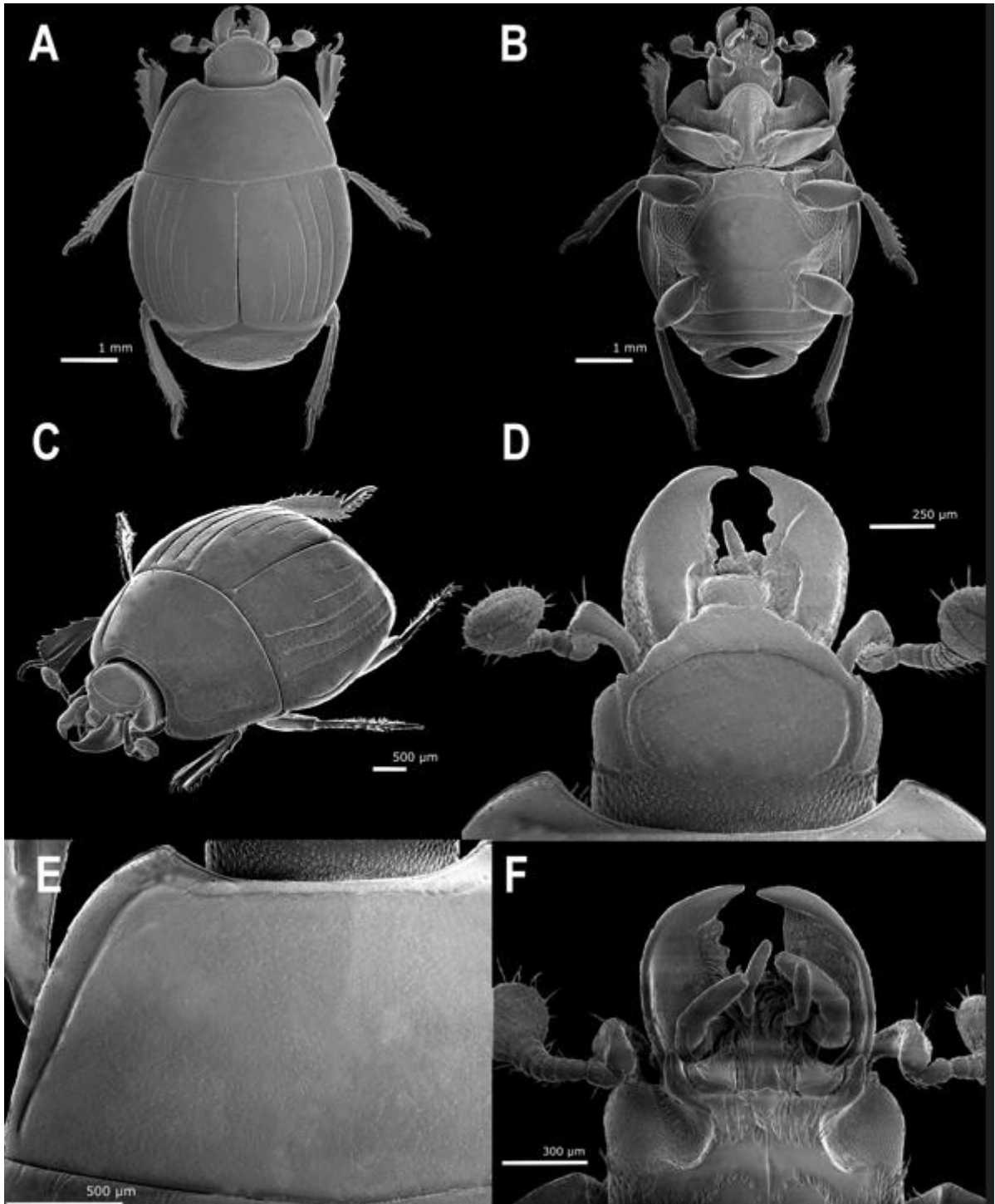
Figs. 150. Micrographs of *Atholus philippinensis* (Marseul, 1854) using SEM, Plate 2. — A, Left elytron, dorsal view; B, ditto, oblique view; C, prosternal process, ventral view; D, meso-metaventrite, ventral view; E, propygidium and pygidium, caudal view; F, punctations of propygidium; G, protibia, dorsal view; H, protibia, ventral view.



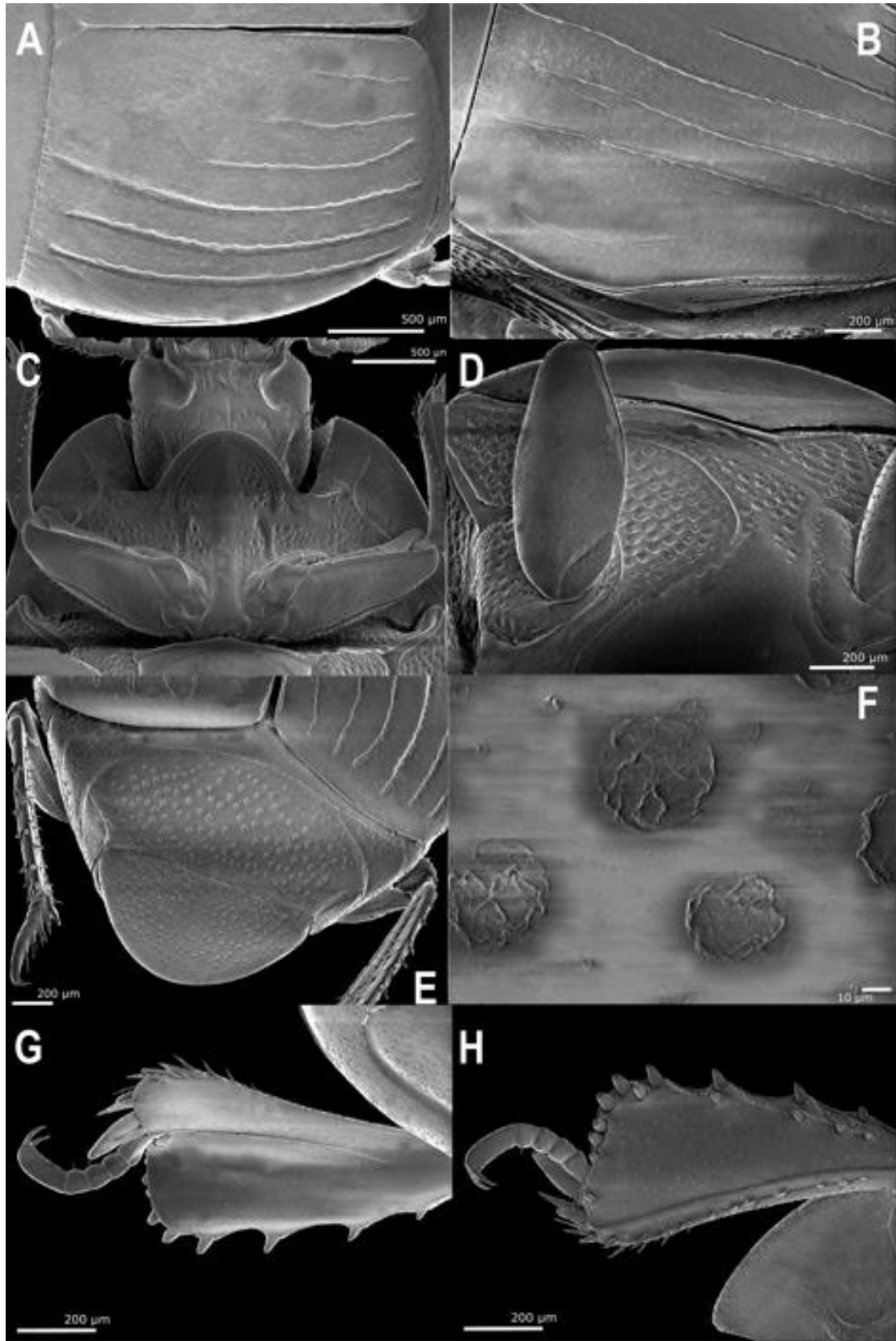
Figs. 151. Micrographs of *Atholus pirithous* (Marseul, 1873) using SEM, Plate 1. — A, Habitus, dorsal view; B, ditto, ventral view; C, ditto, oblique view; D, head, dorsal view; E, pronotum; F, mouthparts, ventral view.



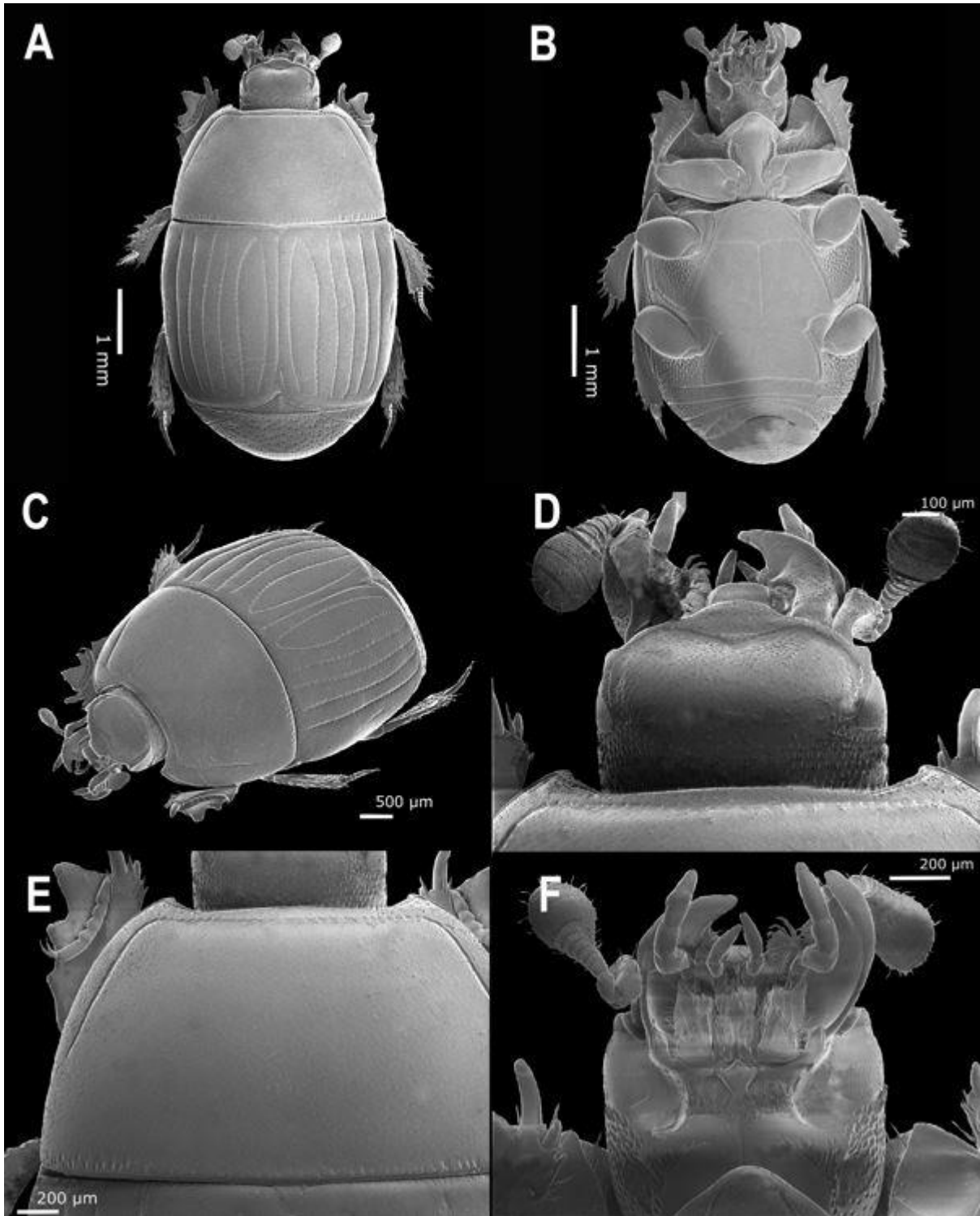
Figs. 152. Micrographs of *Atholus pirithous* (Marseul, 1873) using SEM, Plate 2. — A, Left elytron, dorsal view; B, ditto, oblique view; C, prosternal process, ventral view; D, meso-metaventrite, ventral view; E, propygidium and pygidium, caudal view; F, punctations of propygidium; G, protibia, dorsal view; H, protibia, ventral view.



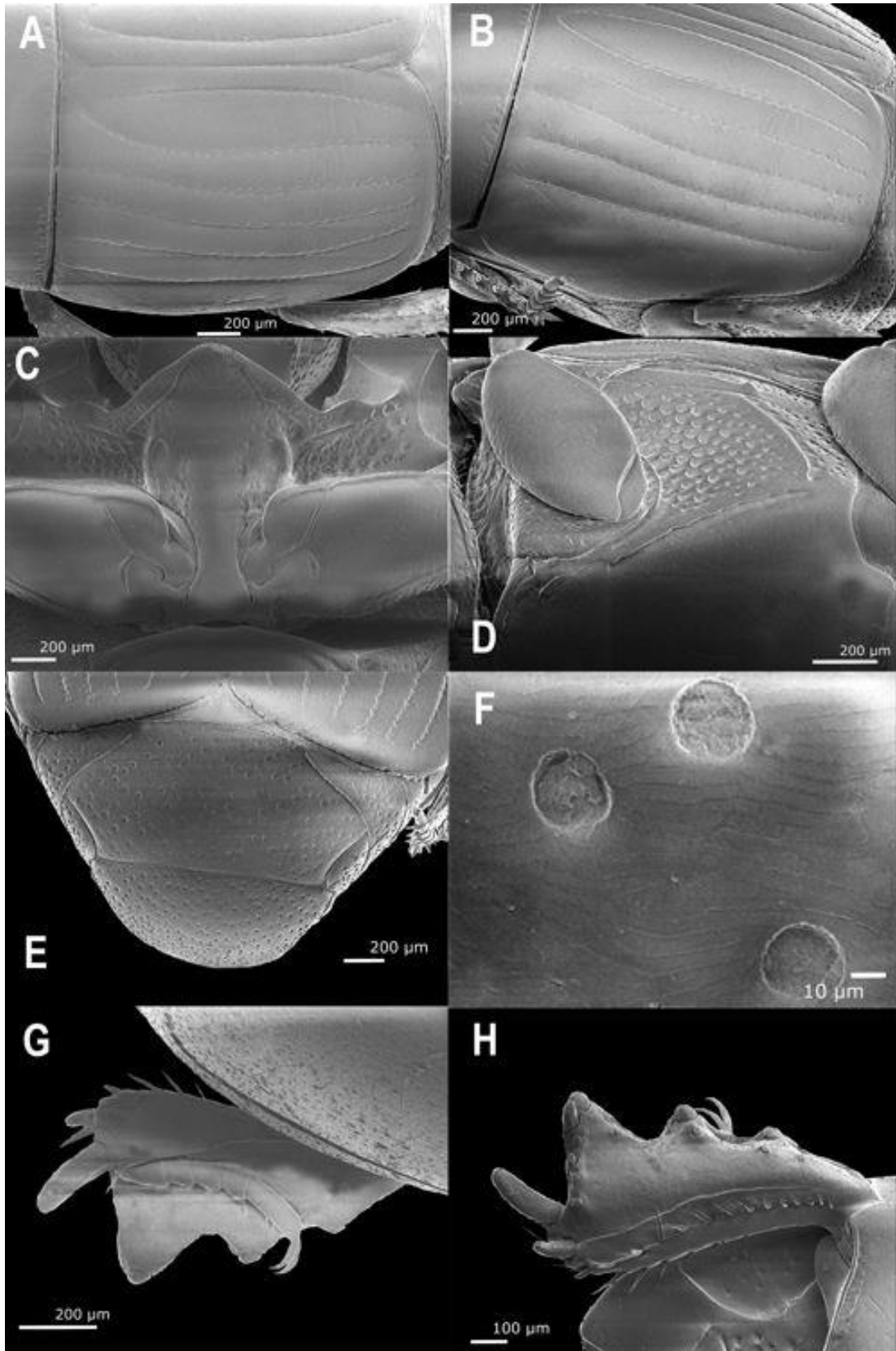
Figs. 153. Micrographs of *Atholus singalanus* (Marseul, 1880) using SEM, Plate 1. — A, Habitus, dorsal view; B, ditto, ventral view; C, ditto, oblique view; D, head, dorsal view; E, pronotum; F, mouthparts, ventral view.



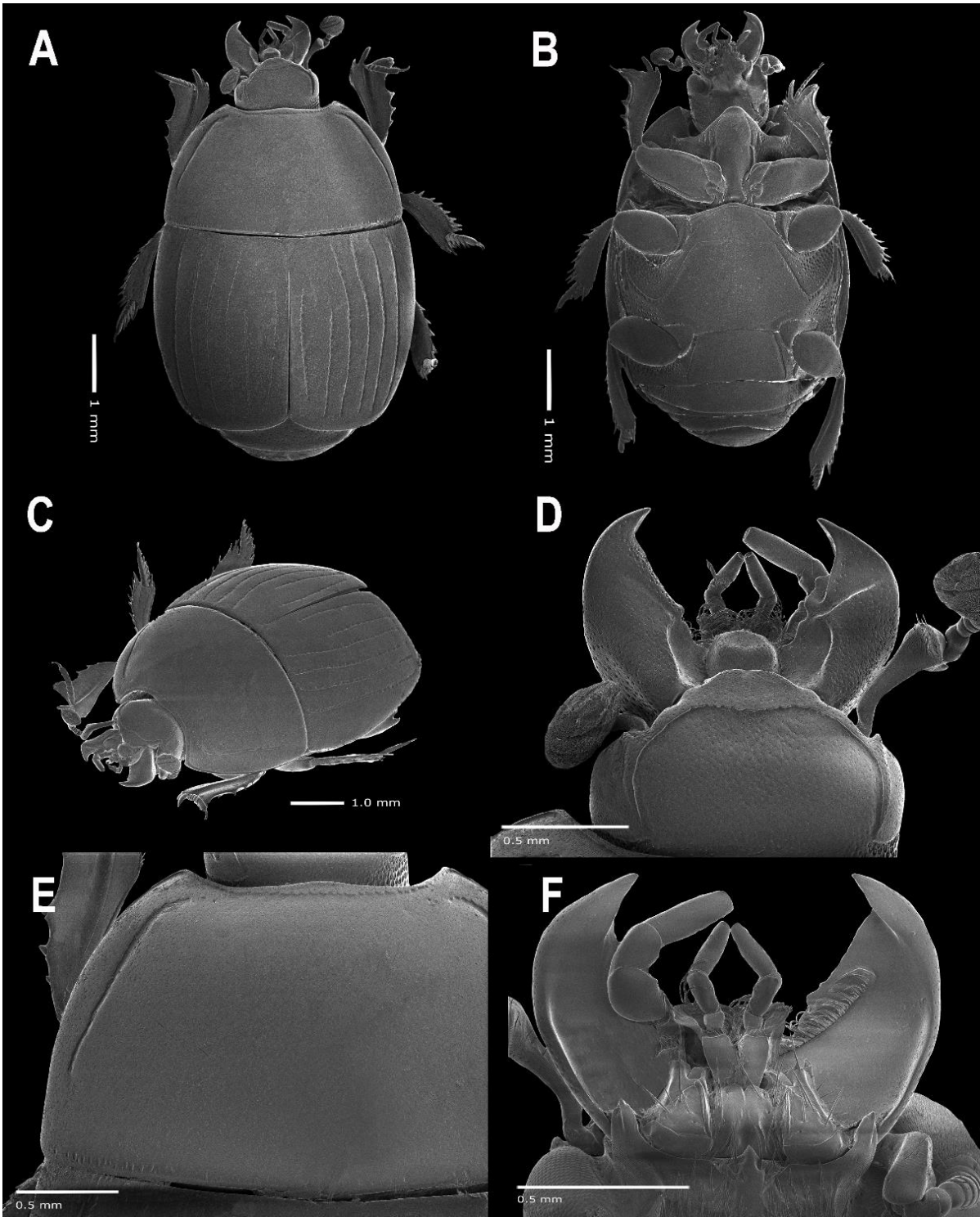
Figs. 154. Micrographs of *Atholus singalanus* (Marseul, 1880) using SEM, Plate 2. — A, Left elytron, dorsal view; B, ditto, oblique view; C, prosternal process, ventral view; D, meso-metaventrite, ventral view; E, propygidium and pygidium, caudal view; F, punctations of propygidium; G, protibia, dorsal view; H, protibia, ventral view.



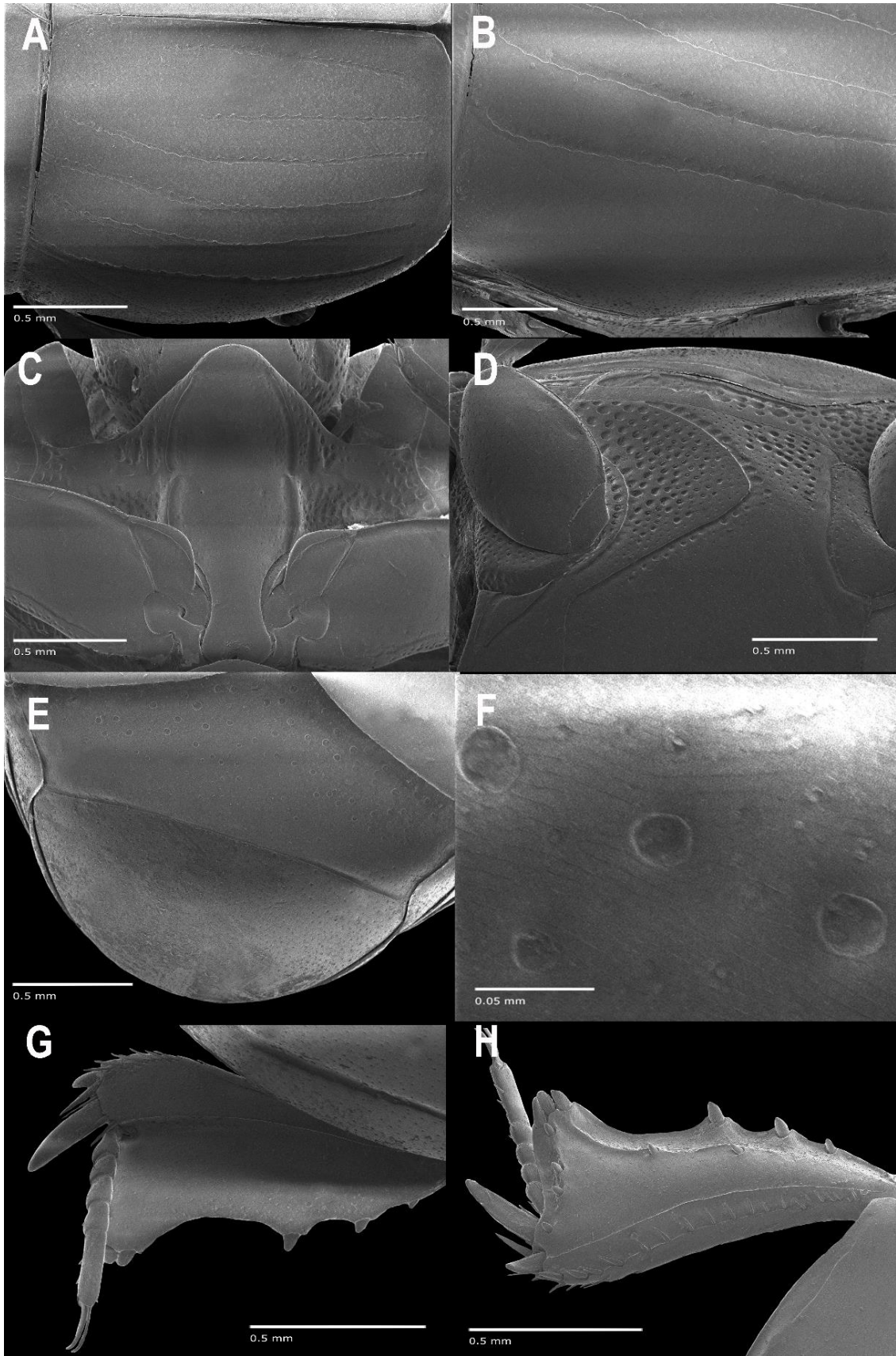
Figs. 155. Micrographs of *Atholus striatipennis* (Lewis, 1892) using SEM, Plate 1. — A, Habitus, dorsal view; B, ditto, ventral view; C, ditto, oblique view; D, head, dorsal view; E, pronotum; F, mouthparts, ventral view.



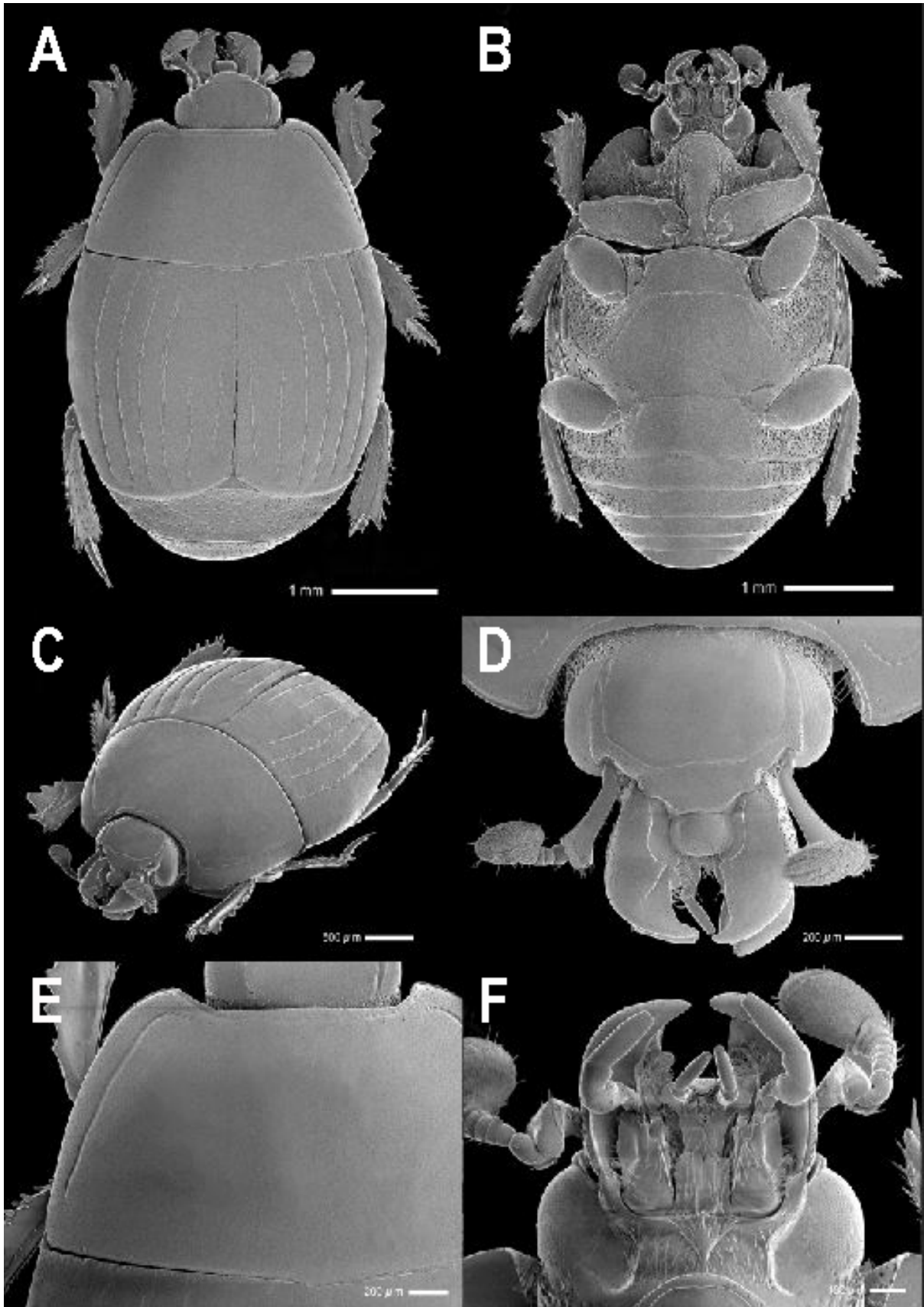
Figs. 156. Micrographs of *Atholus striatipennis* (Lewis, 1892) using SEM, Plate 2. — A, Left elytron, dorsal view; B, ditto, oblique view; C, prosternal process, ventral view; D, meso-metaventrite, ventral view; E, propygidium and pygidium, caudal view; F, punctations of propygidium; G, protibia, dorsal view; H, protibia, ventral view.



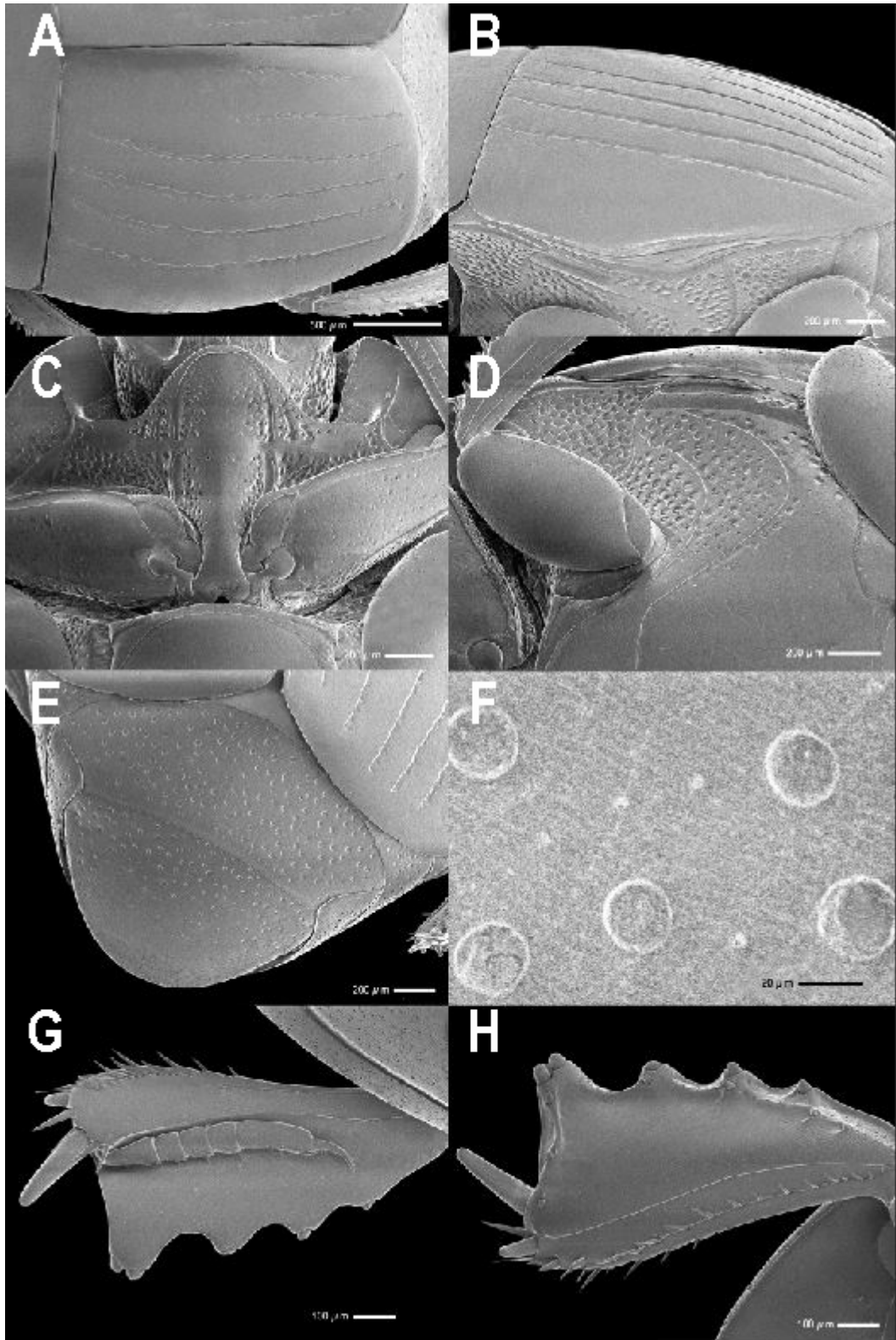
Figs. 157. Micrographs of *Atholus* sp. 2 using SEM, Plate 1. — A, Habitus, dorsal view; B, ditto, ventral view; C, ditto, oblique view; D, head, dorsal view; E, pronotum; F, mouthparts, ventral view.



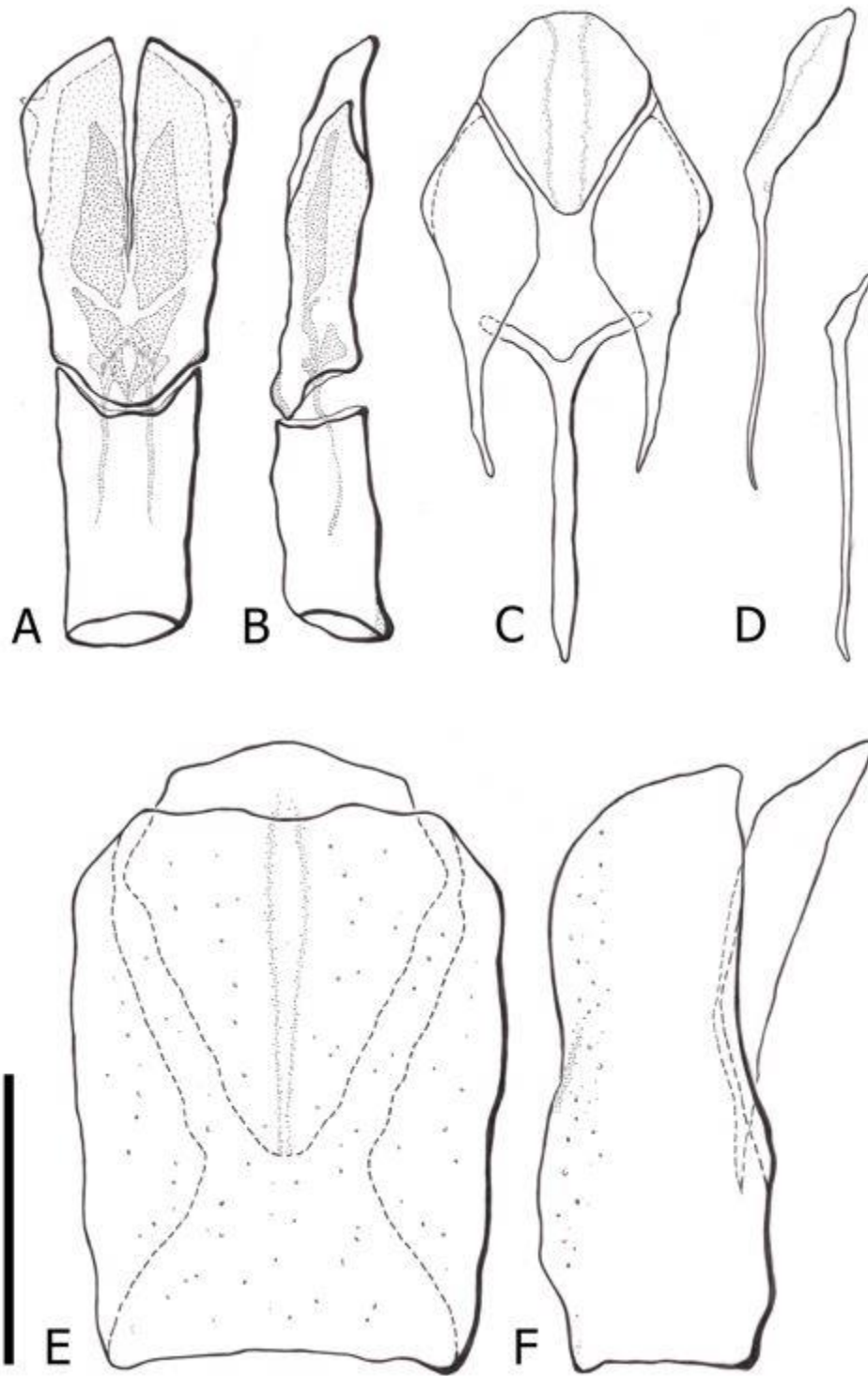
Figs. 158. Micrographs of *Atholus* sp. 2 using SEM, Plate 2. — A, Left elytron, dorsal view; B, ditto, oblique view; C, prosternal process, ventral view; D, meso-metaventrite, ventral view; E, propygidium and pygidium, caudal view; F, punctations of propygidium; G, protibia, dorsal view; H, protibia, ventral view.



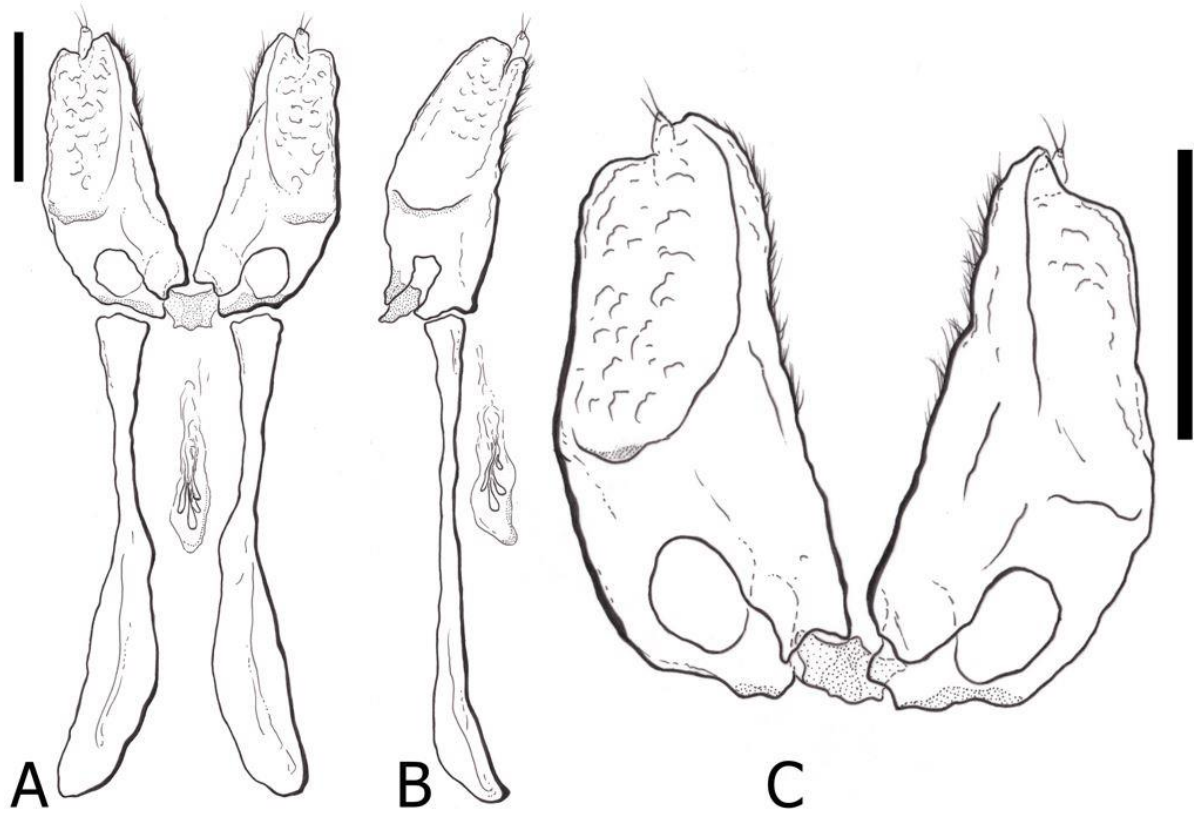
Figs. 159. Micrographs of *Atholus torquatus* (Marseul, 1854) using SEM, Plate 1. — A, Habitus, dorsal view; B, ditto, ventral view; C, ditto, oblique view; D, head, dorsal view; E, pronotum; F, mouthparts, ventral view.



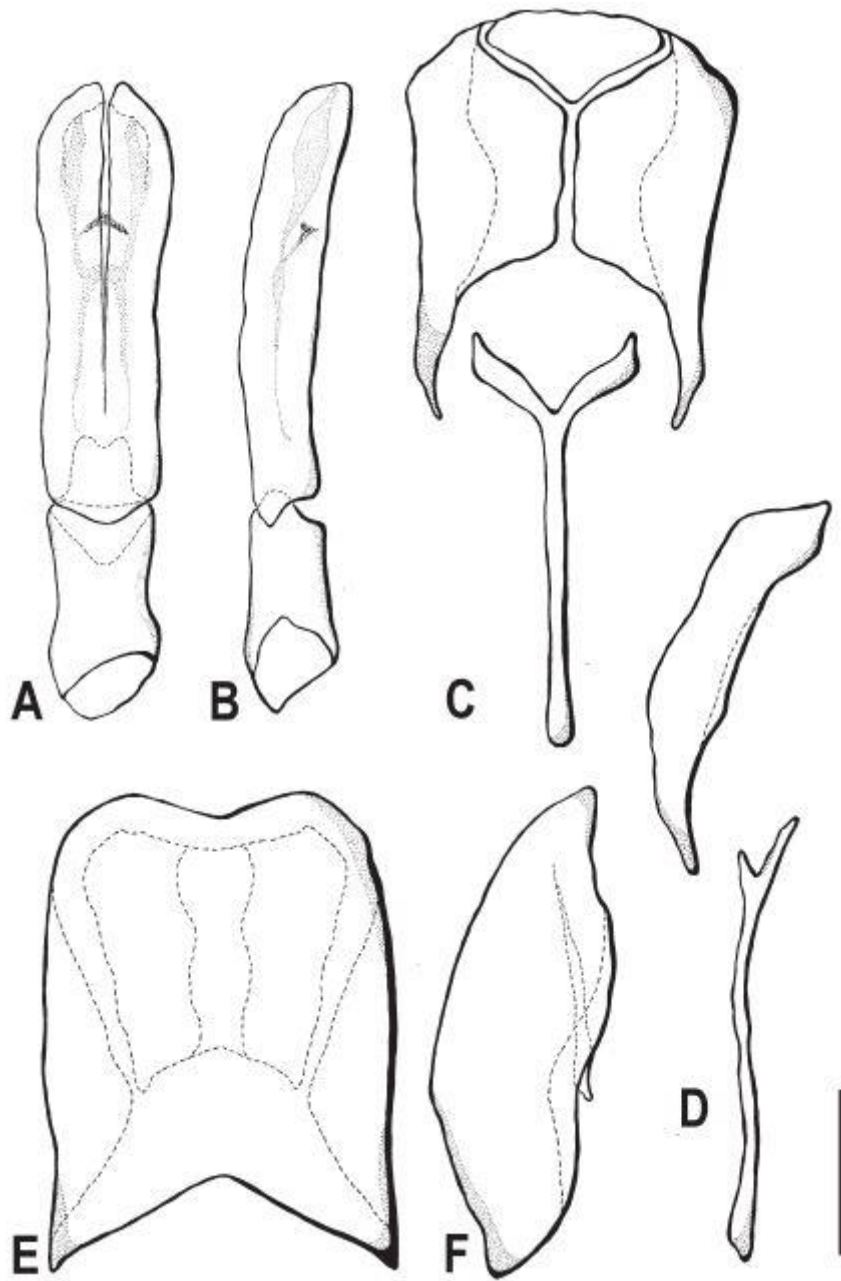
Figs. 160. Micrographs of *Atholus torquatus* (Marseul, 1854) using SEM, Plate 2. — A, Left elytron, dorsal view; B, ditto, oblique view; C, prosternal process, ventral view; D, meso-metaventrite, ventral view; E, propygidium and pygidium, caudal view; F, punctations of propygidium; G, protibia, dorsal view; H, protibia, ventral view.



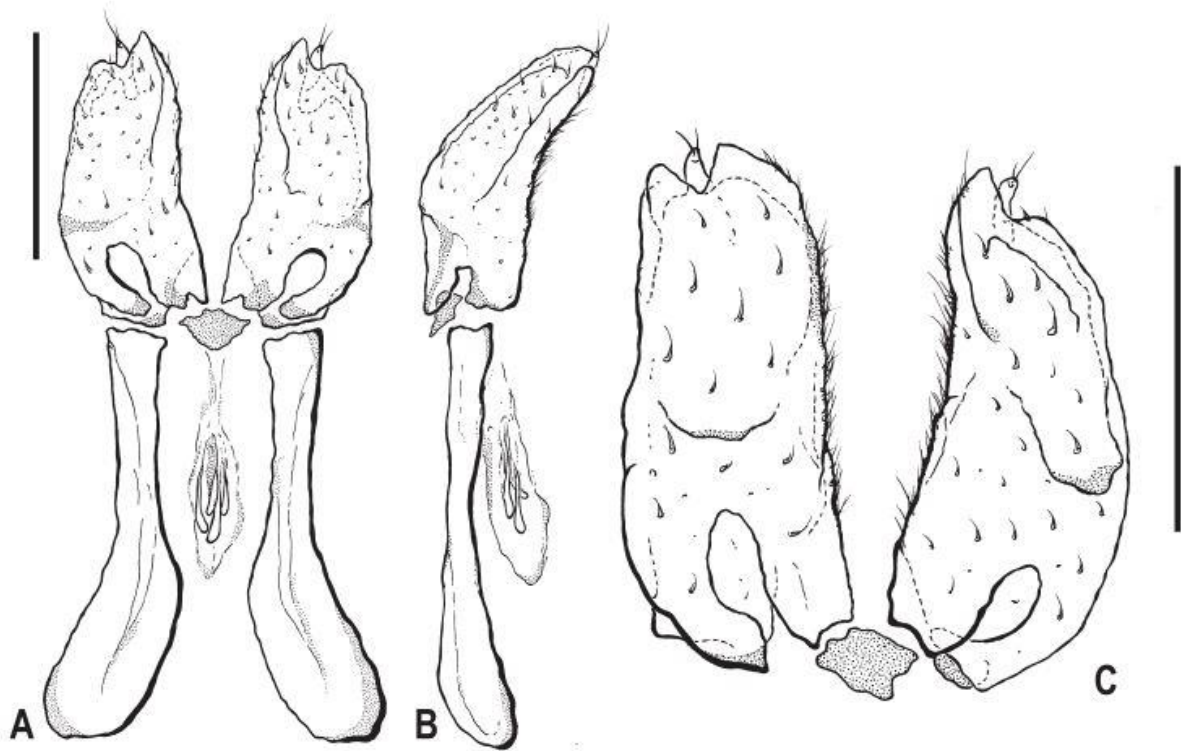
Figs. 161. Male genitalia of *Atholus amplificipes* Mazur, 2013. — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.50 mm.



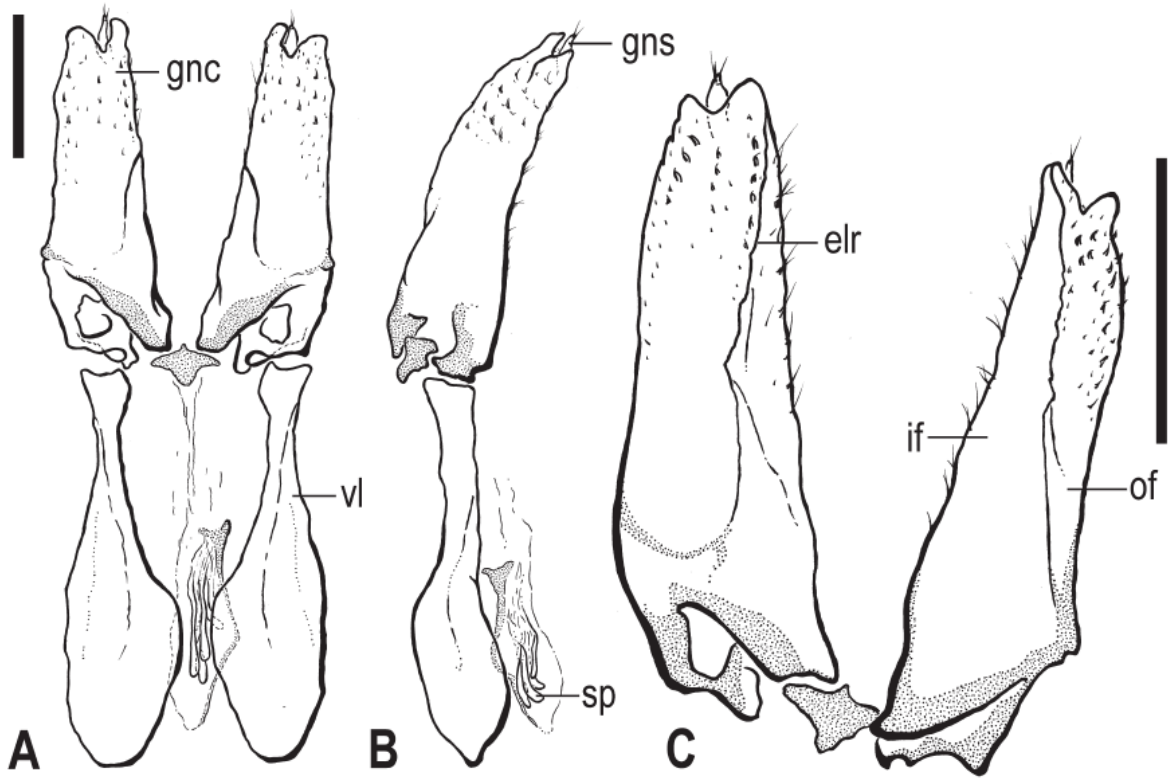
Figs. 162. Female genitalia of *Atholus amplificipes* Mazur, 2013. — A) Dorsal view; B) lateral view; C) dorsolateral view of gonocoxite. Scale bars: 0.25 mm.



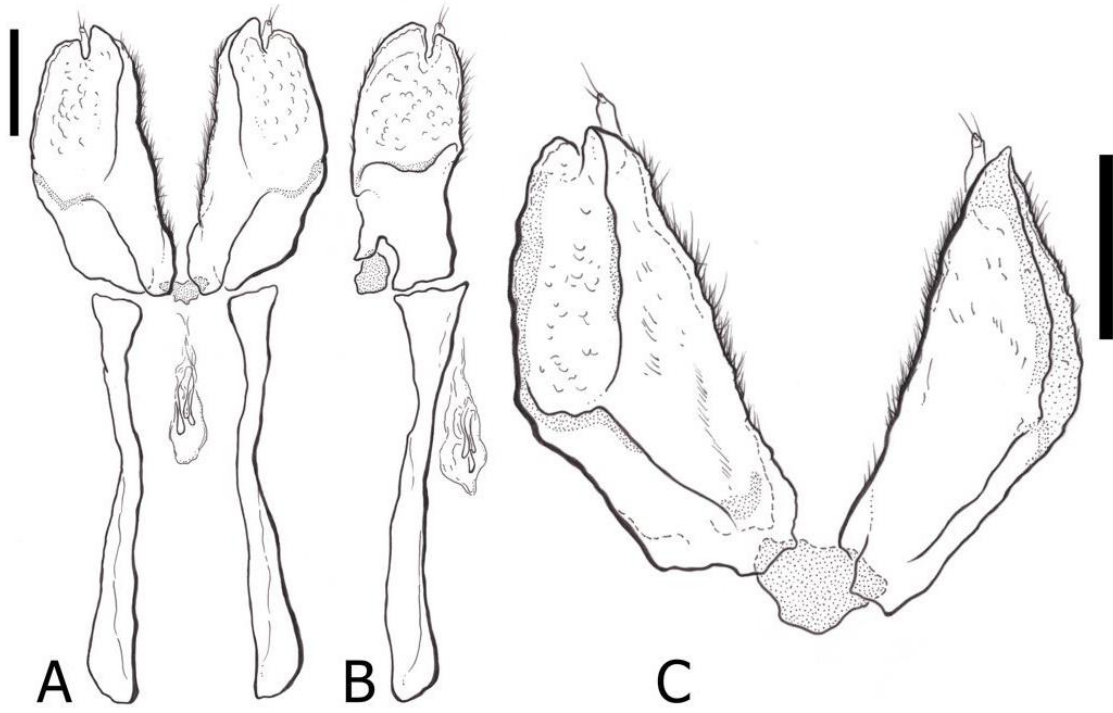
Figs. 163. Male genitalia of *Atholus bifrons* (Marseul, 1854). — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.25 mm.



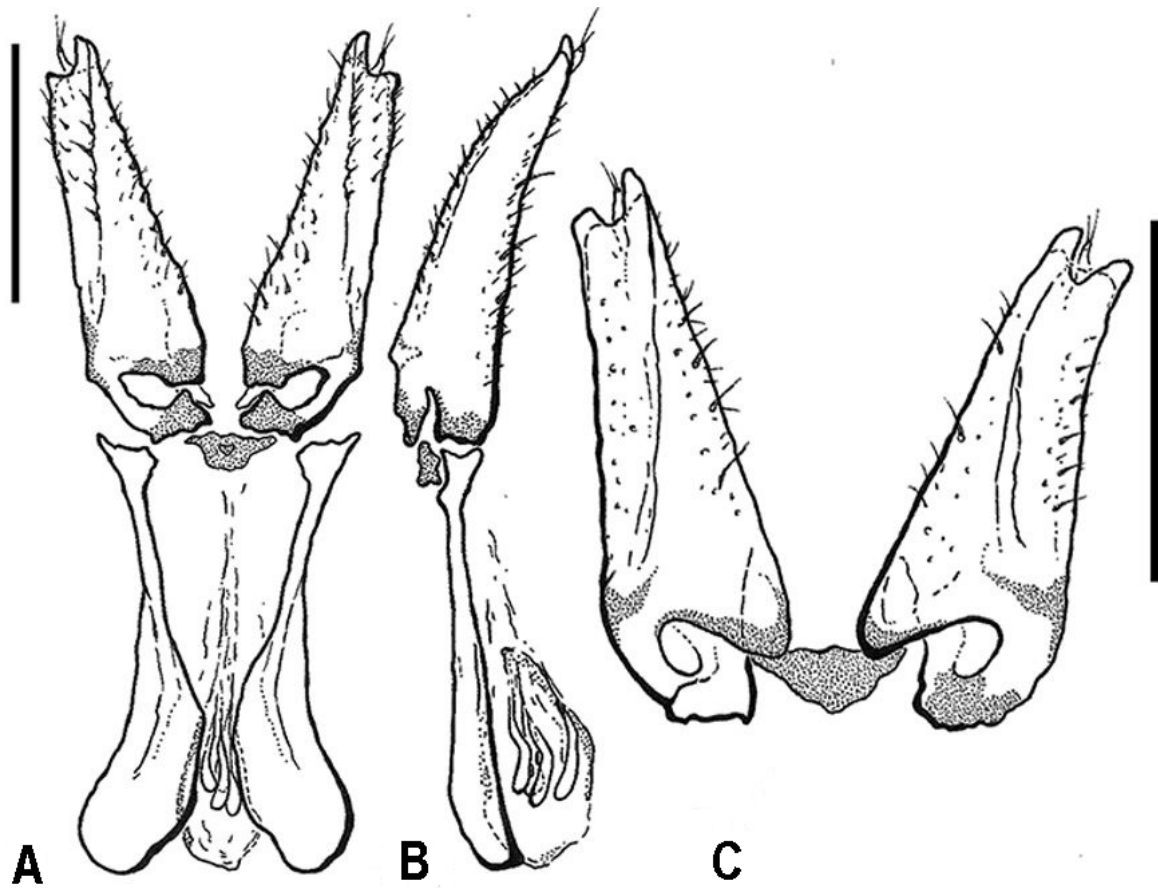
Figs. 164. Female genitalia of *Atholus bifrons* (Marseul, 1854). — A) Dorsal view; B) lateral view; C) dorsolateral view of gonocoxite. Scale bars: 0.25 mm.



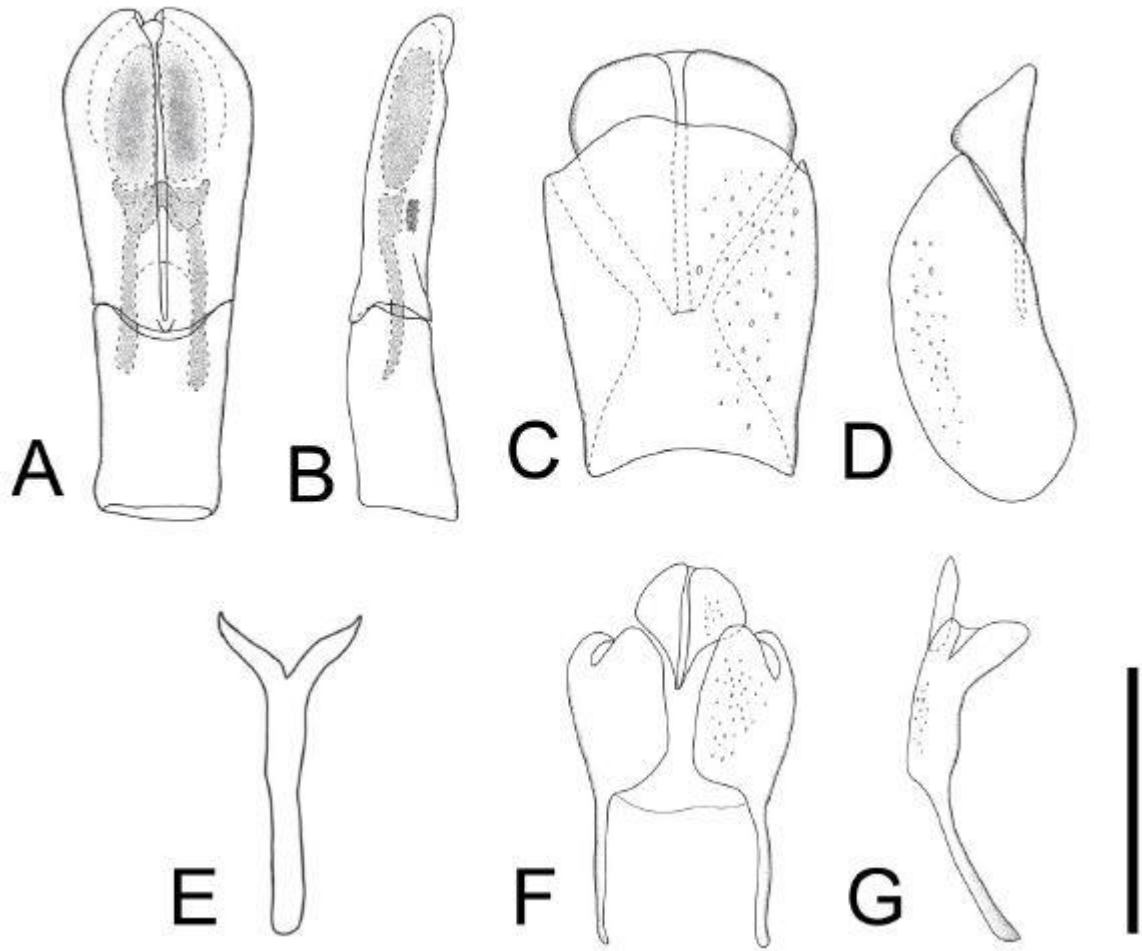
Figs. 165. Female genitalia of *Atholus bimaculatus* (Linnaeus, 1758). — A) Dorsal view; B) lateral view; C) dorsolateral view of gonocoxite. Scale bars: 0.20 mm.



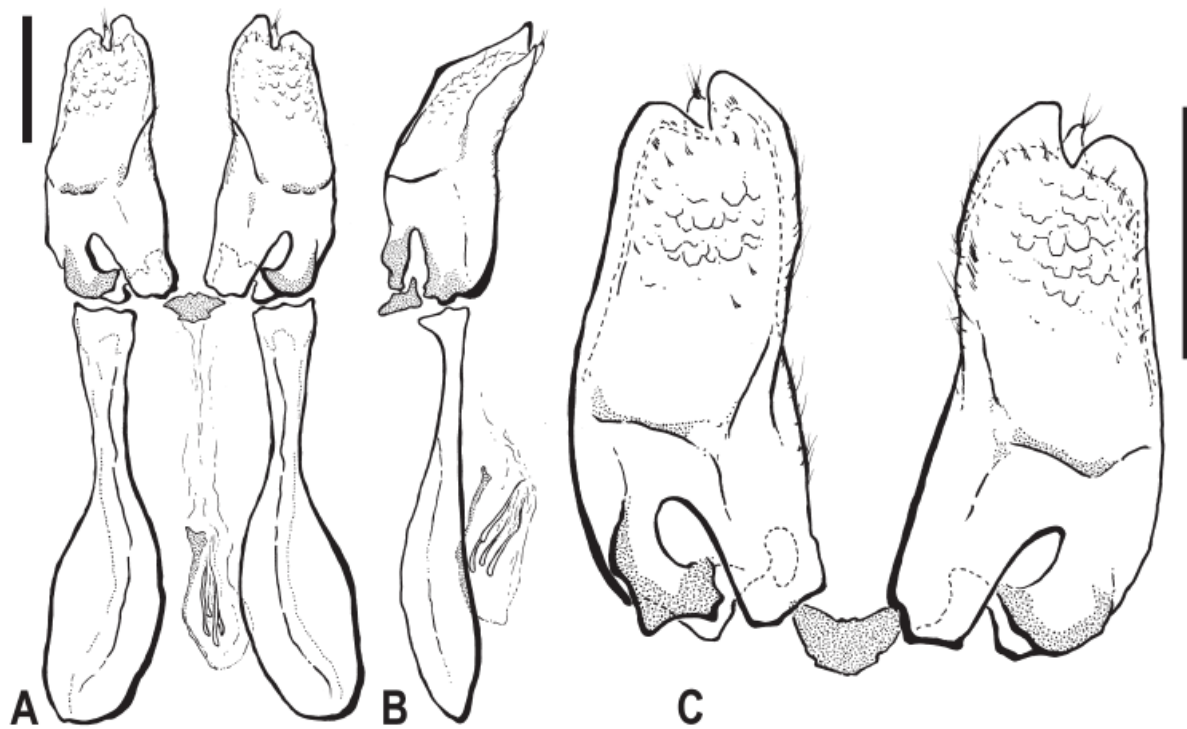
Figs. 166. Female genitalia of *Atholus cochinchinae* (Schmidt, 1889). — A) Dorsal view; B) lateral view; C) dorsolateral view of gonocoxite. Scale bars: 0.25 mm.



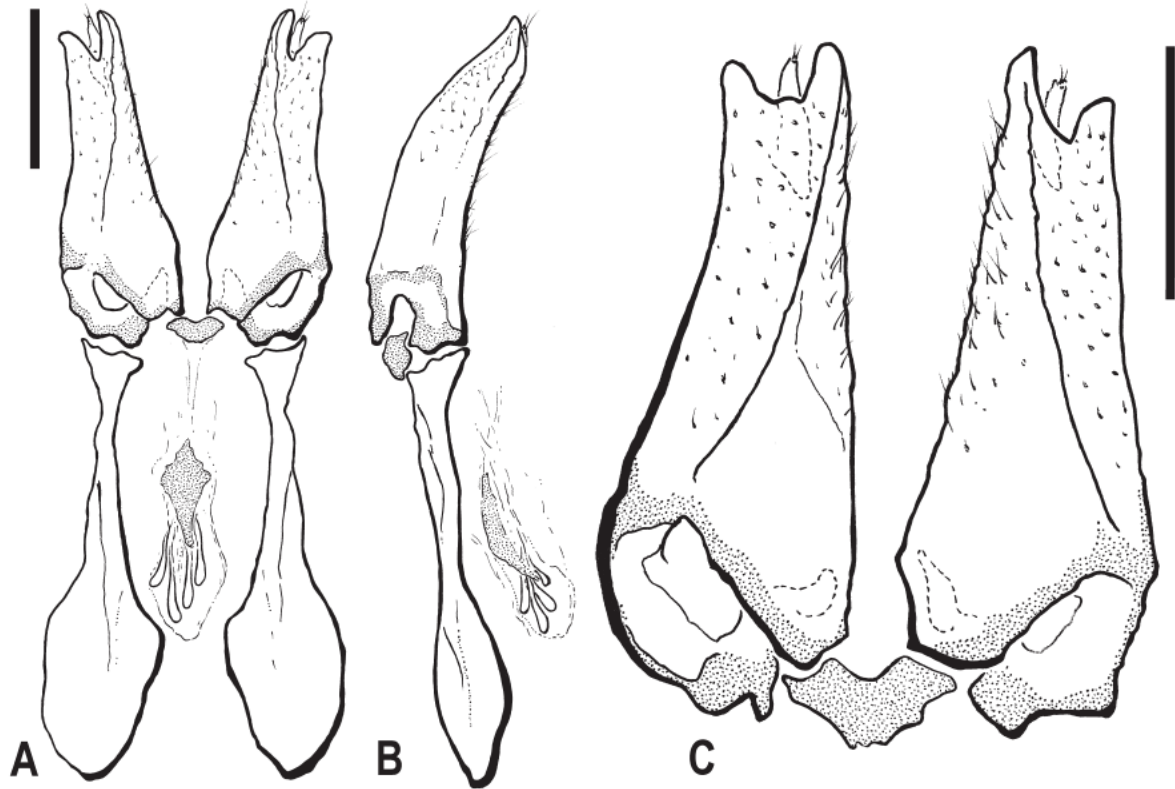
Figs. 167. Female genitalia of *Atholus coelestis* (Marseul, 1870). — A) Dorsal view; B) lateral view; C) dorsolateral view of gonocoxite. Scale bars: 0.20 mm.



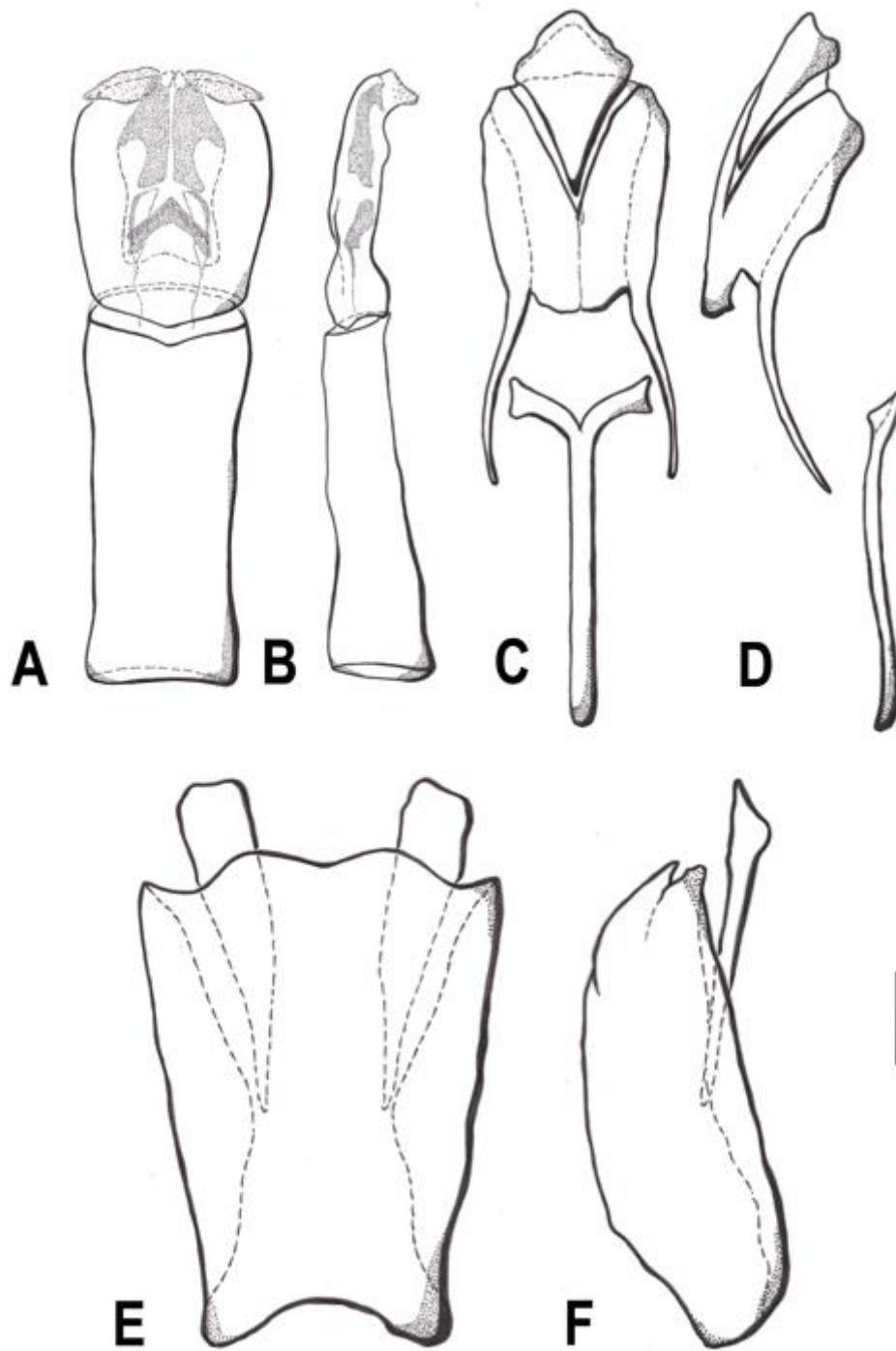
Figs. 168. Male genitalia of *Atholus confinis* (Erichson, 1834). — A, Aedeagus, dorsal view; B, ditto, lateral view; C, eighth tergite and sternite, dorsal view; D, ditto, lateral view; E, spiculum gastrale, dorsal view; F, ninth and tenth tergites, dorsal view; G, ditto, lateral view. Scale bar: 0.50 mm.



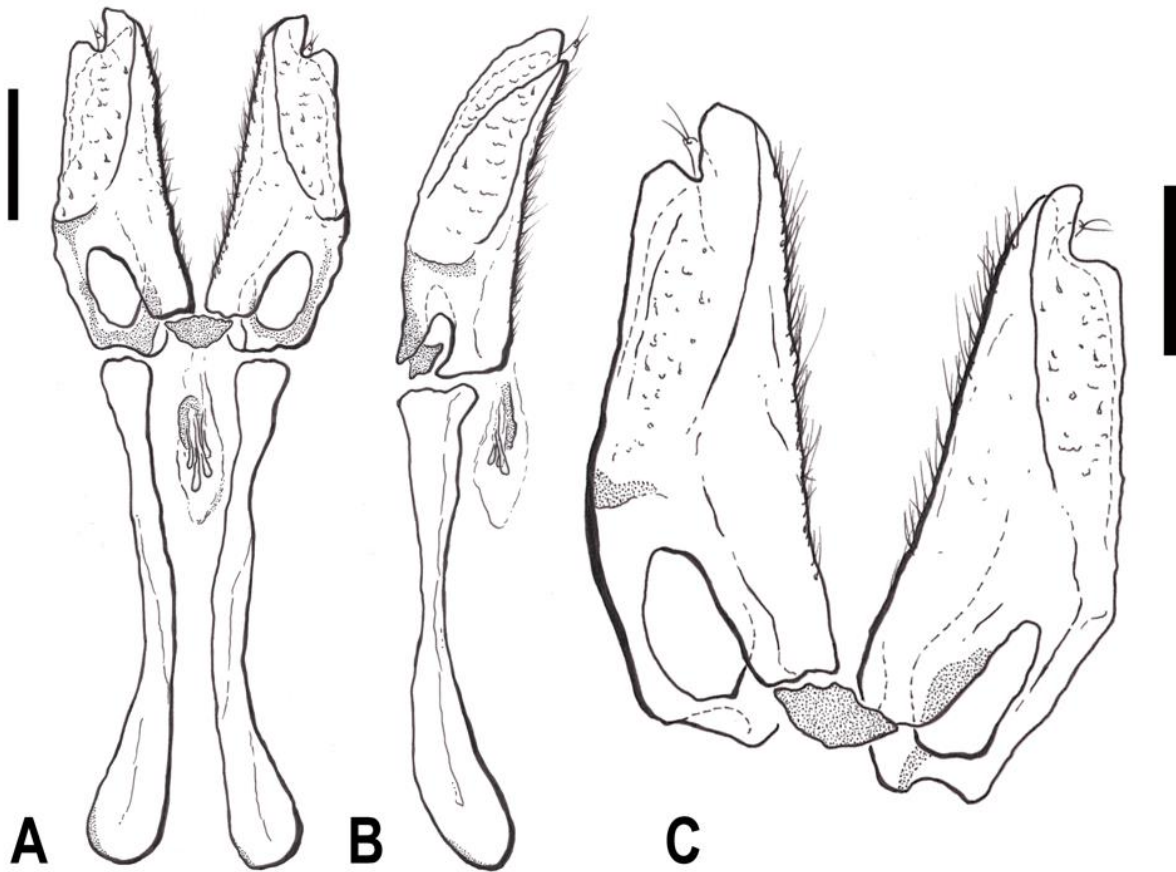
Figs. 169. Female genitalia of *Atholus depistor* (Marseul, 1873). — A) Dorsal view; B) lateral view; C) dorsolateral view of gonocoxite. Scale bars: 0.20 mm.



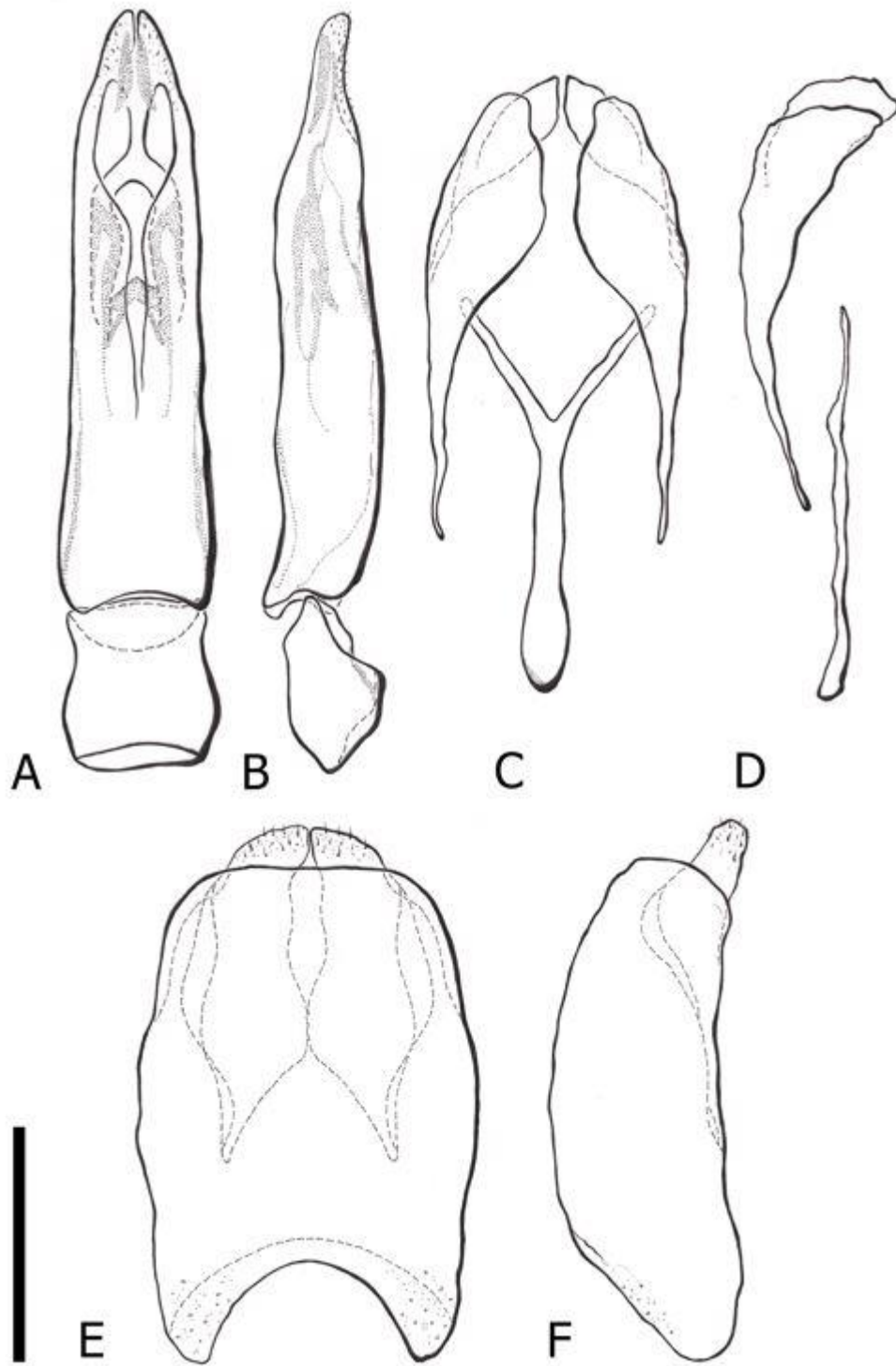
Figs. 170. Female genitalia of *Atholus duodecimstriatus quatuordecimstriatus* (Gyllenhal, 1808). — A) Dorsal view; B) lateral view; C) dorsolateral view of gonocoxite. Scale bars: 0.20 mm.



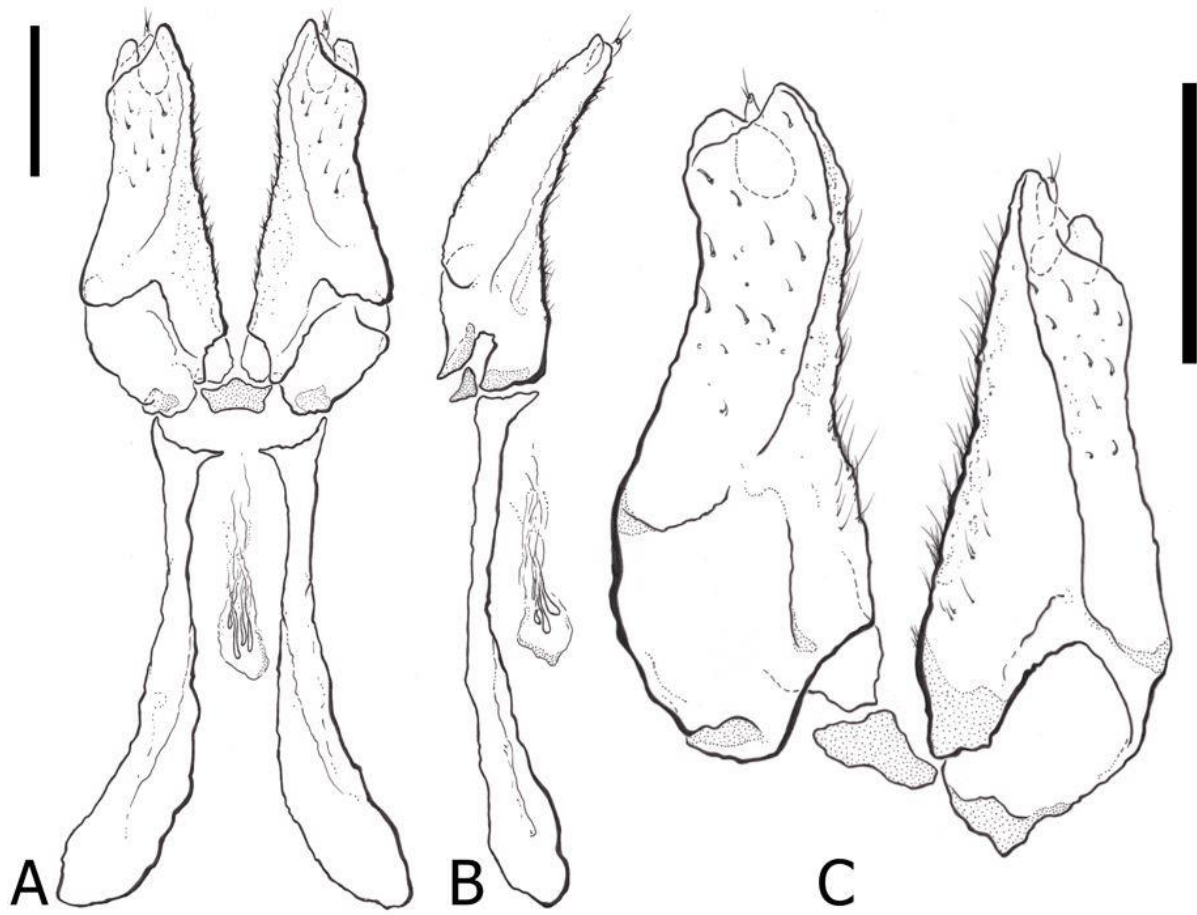
Figs. 171. Male genitalia of *Atholus famulus* (Lewis, 1892). — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.20 mm.



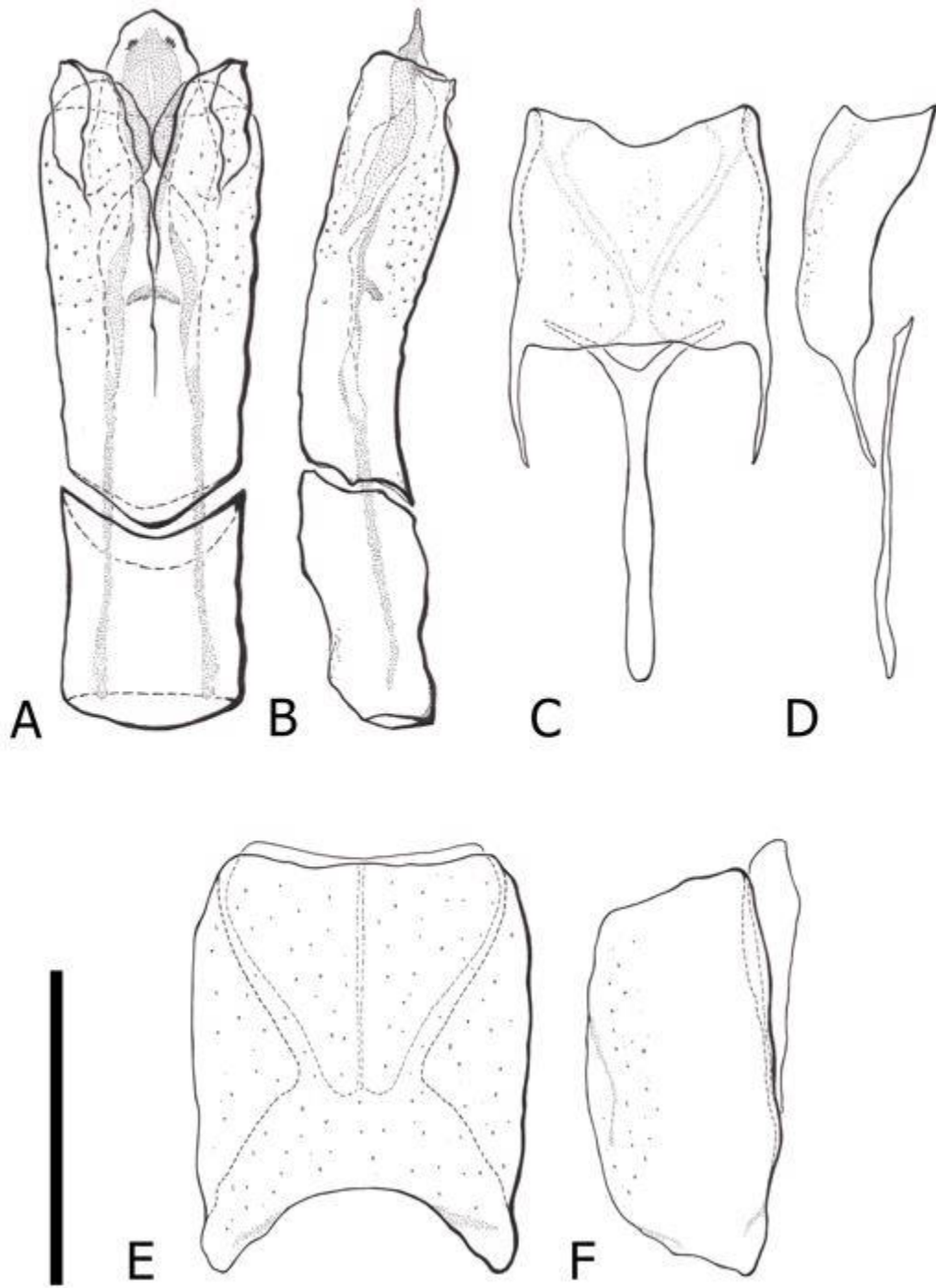
Figs. 172. Female genitalia of *Atholus famulus* (Lewis, 1892). — A) Dorsal view; B) lateral view; C) dorsolateral view of gonocoxite. Scale bars: 0.25 mm.



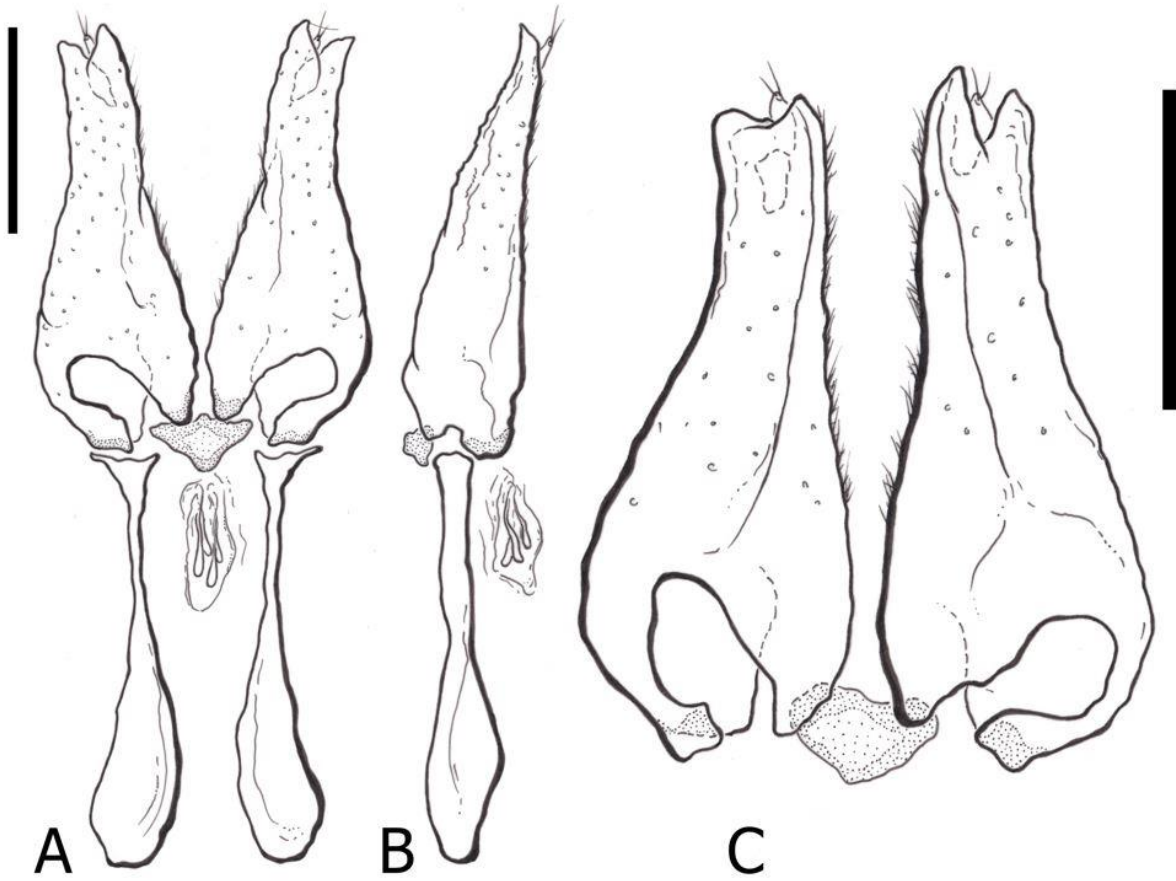
Figs. 173. Male genitalia of *Atholus gestroi* (Schmidt, 1897). — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.50 mm.



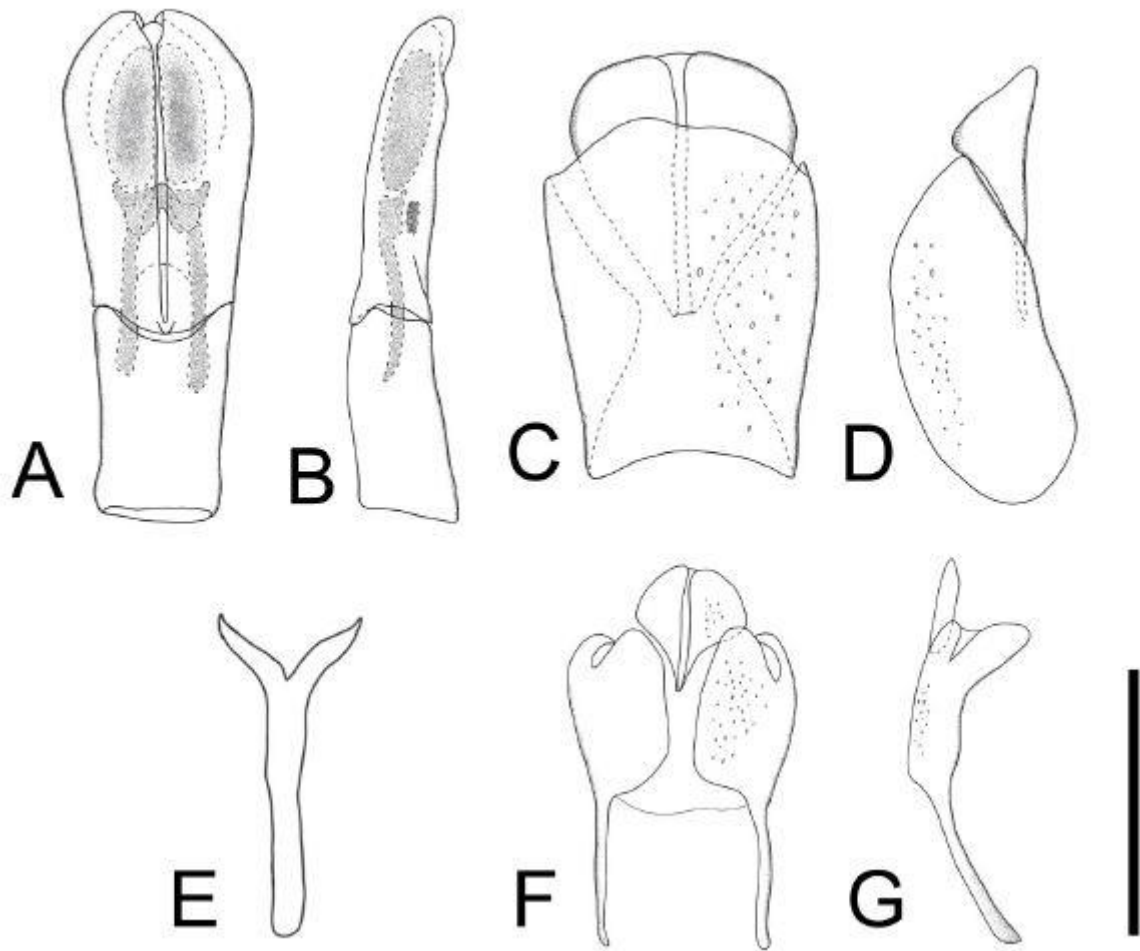
Figs. 174. Female genitalia of *Atholus gestroi* (Schmidt, 1897). — A) Dorsal view; B) lateral view; C) dorsolateral view of gonocoxite. Scale bars: 0.25 mm.



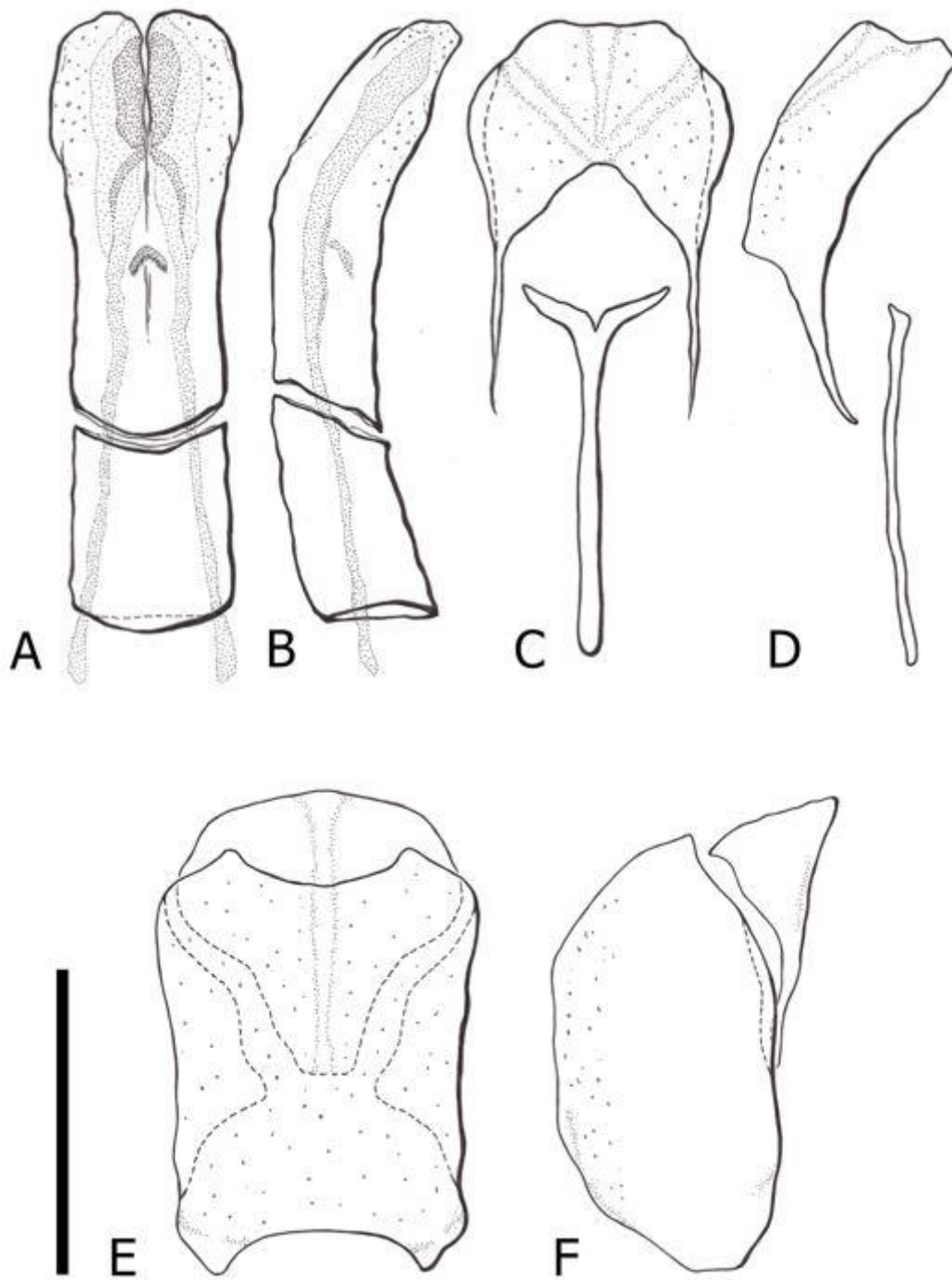
Figs. 175. Male genitalia of *Atholus helferi* (Reichardt, 1932). — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.50 mm.



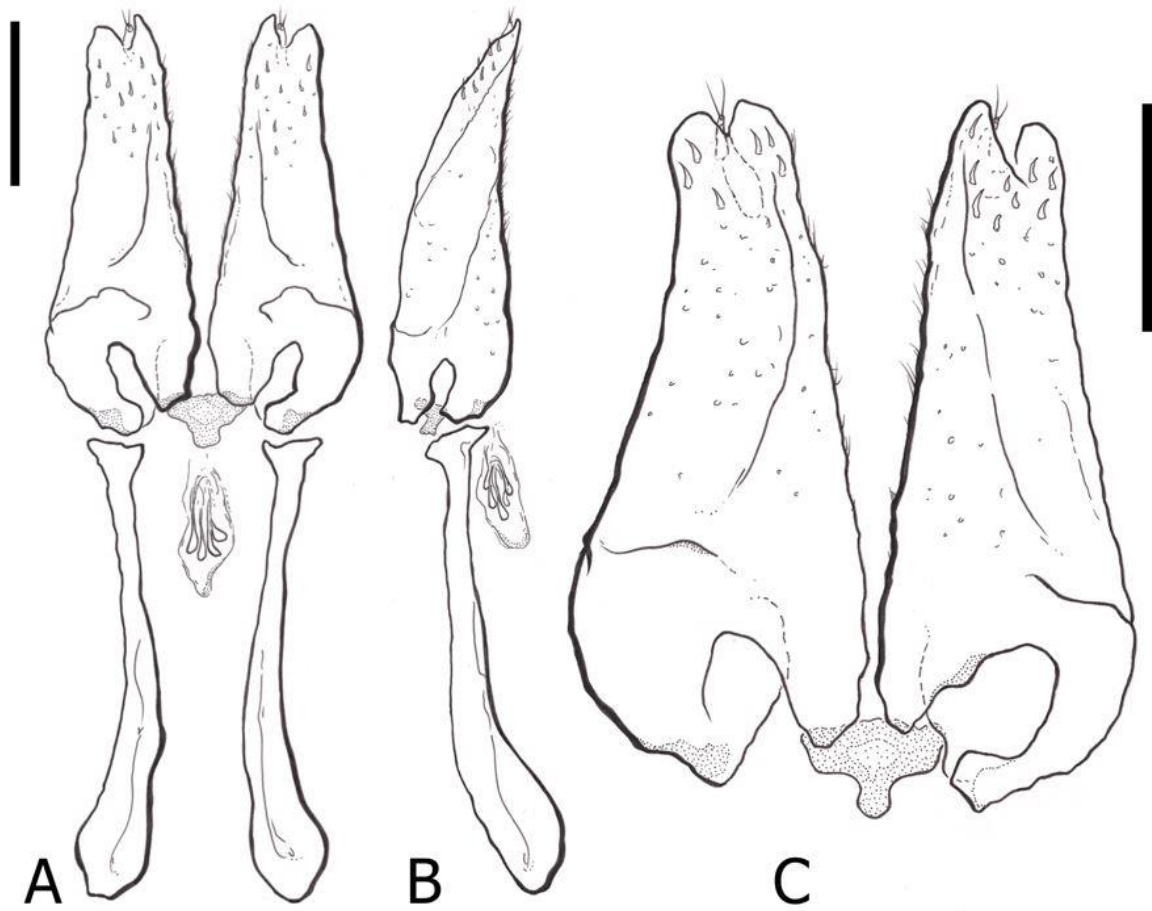
Figs. 176. Female genitalia of *Atholus helferi* (Reichardt, 1932). — A) Dorsal view; B) lateral view; C) dorsolateral view of gonocoxite. Scale bars: 0.25 mm.



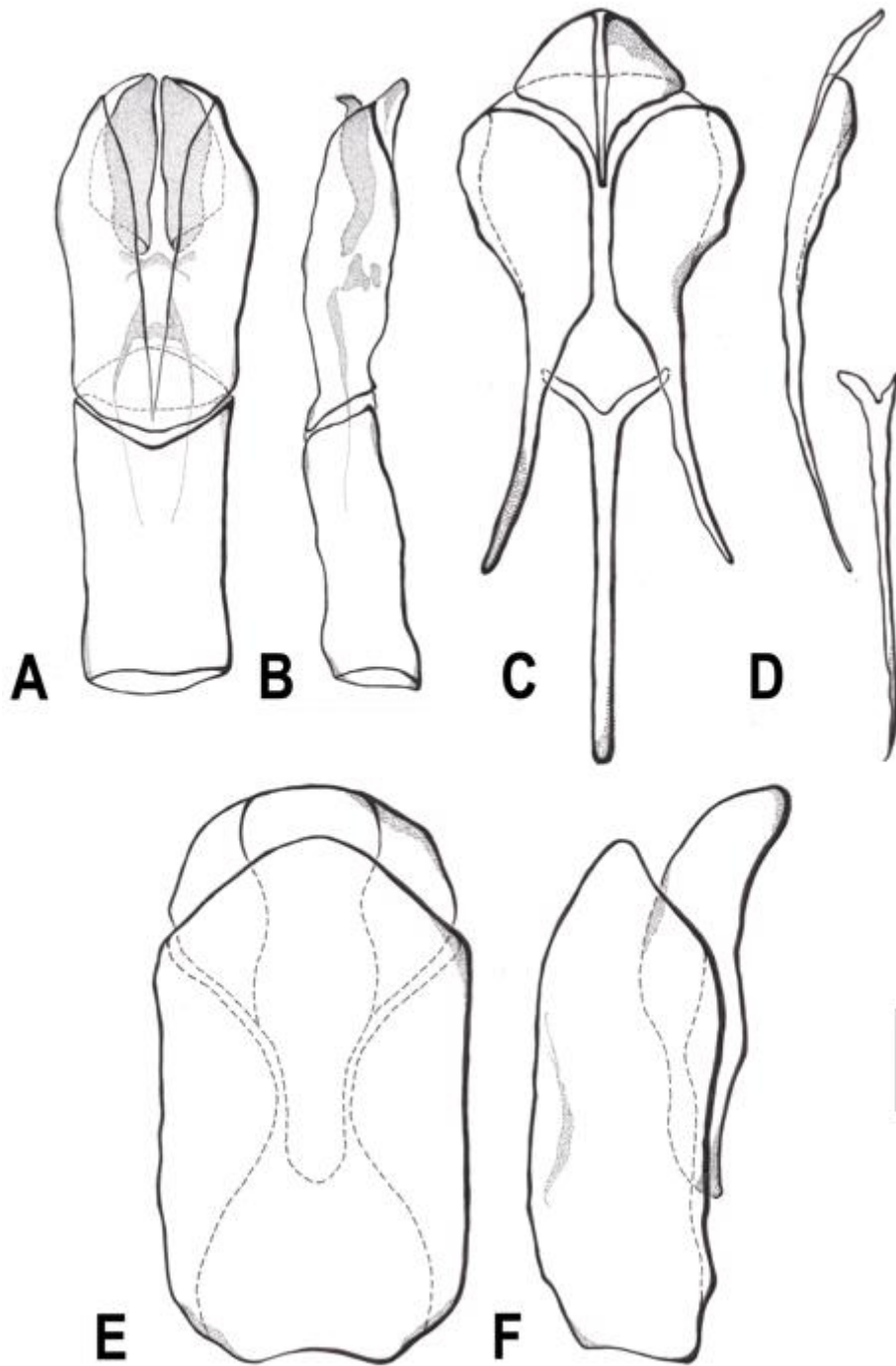
Figs. 177. Male genitalia of *Atholus levis* Mazur, 2015. — A, Aedeagus, dorsal view; B, ditto, lateral view; C, eighth tergite and sternite, dorsal view; D, ditto, lateral view; E, spiculum gastrale, dorsal view; F, ninth and tenth tergites, dorsal view; G, ditto, lateral view. Scale bar: 0.50 mm.



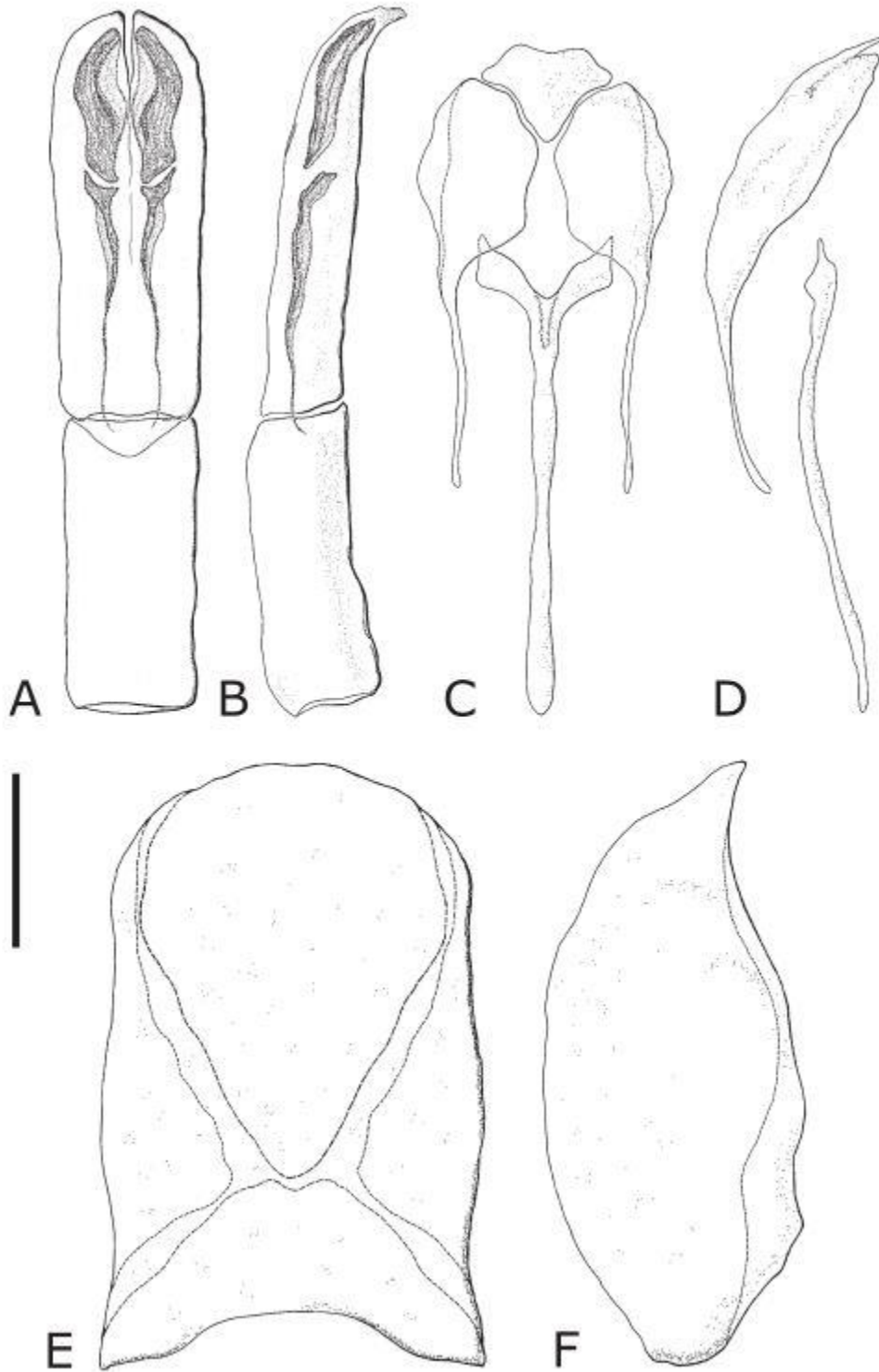
Figs. 178. Male genitalia of *Atholus* sp. 1 — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.50 mm.



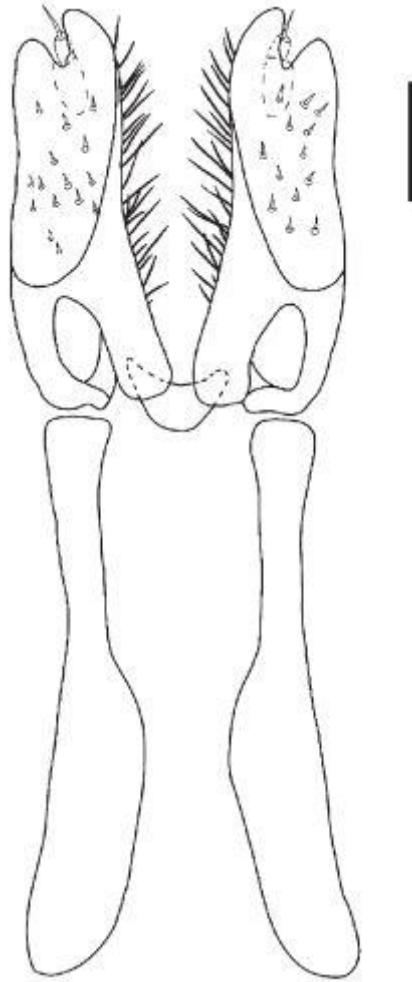
Figs. 179. Female genitalia of *Atholus* sp. 1 — A) Dorsal view; B) lateral view; C) dorsolateral view of gonocoxite. Scale bars: 0.25 mm.



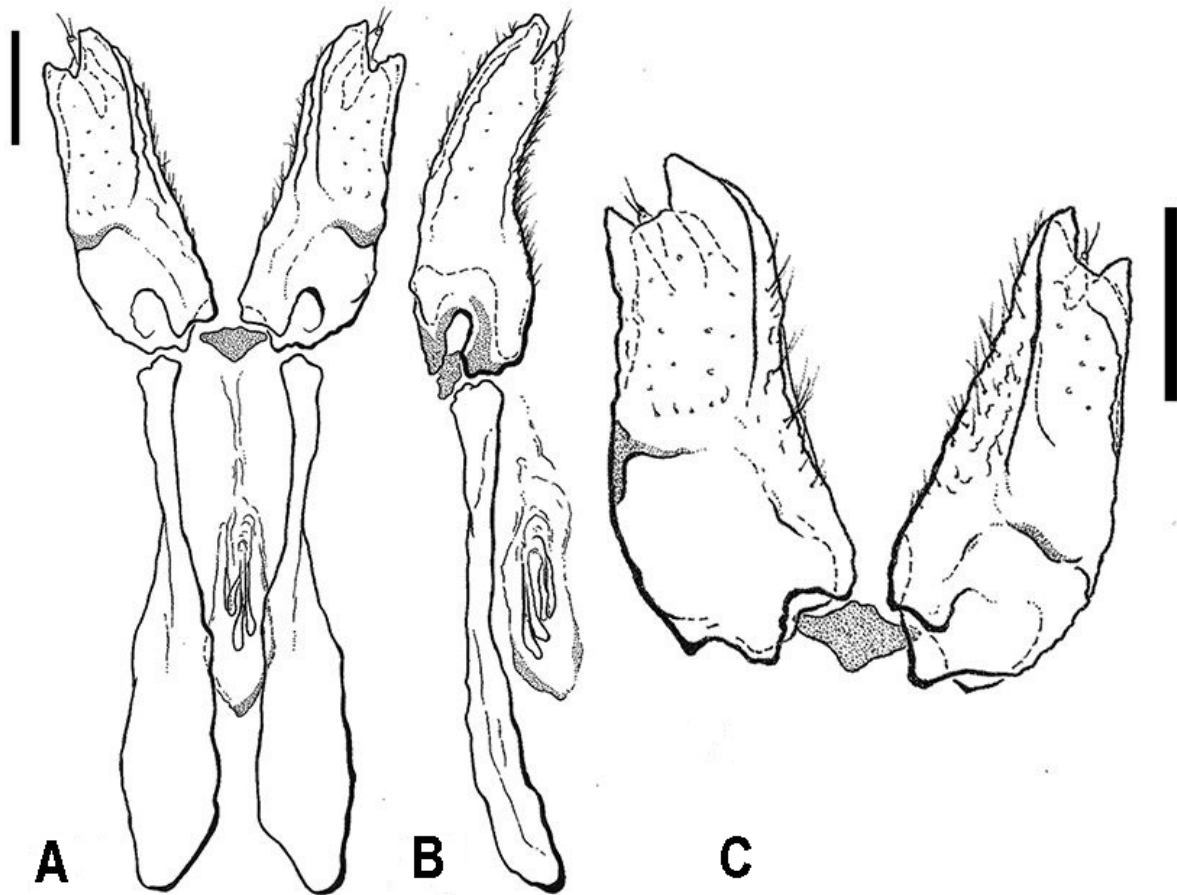
Figs. 180. Male genitalia of *Atholus myrmidon* (Marseul, 1861). — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.20 mm.



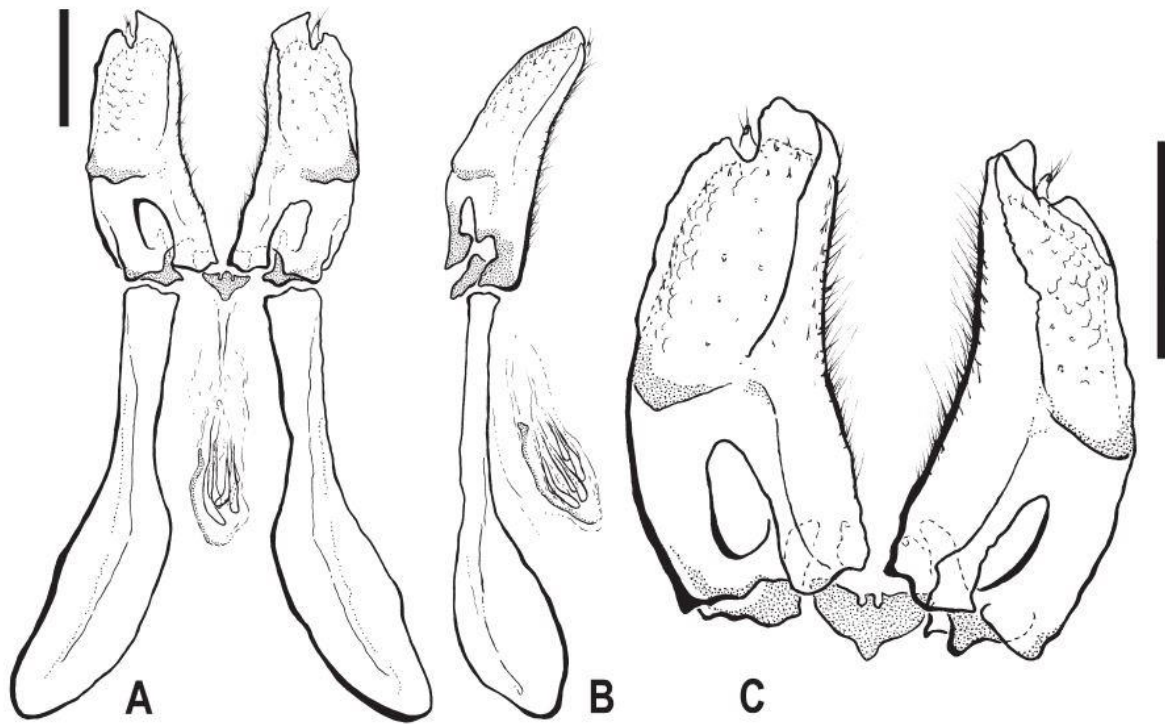
Figs. 181. Male genitalia of *Atholus nitidissimus* Desbordes, 1925. — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.25 mm.



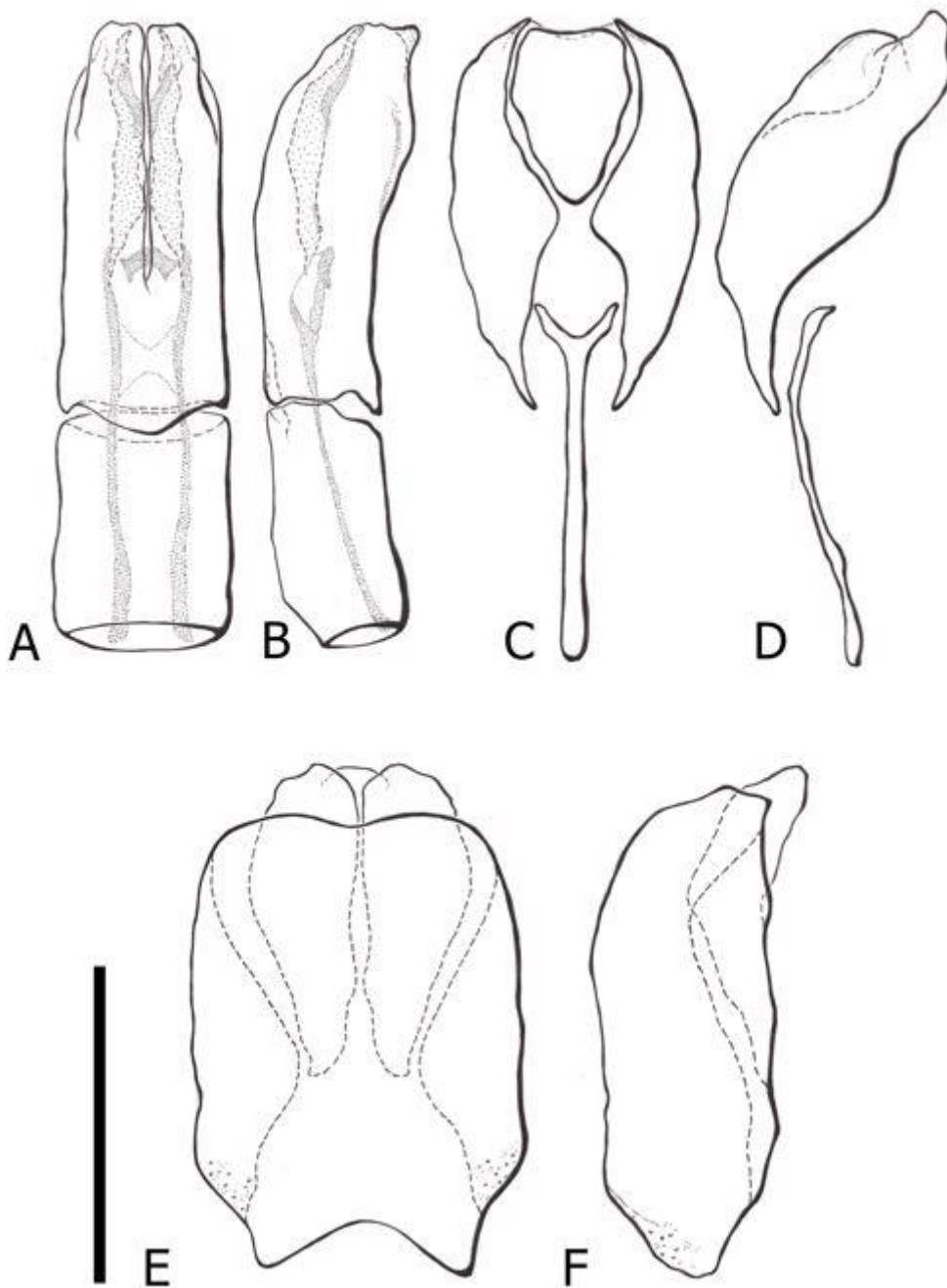
Figs. 182. Female genitalia of *Atholus nitidissimus* Desbordes, 1925. — Gonocoxite, dorsal view. Scale bar: 0.20 mm.



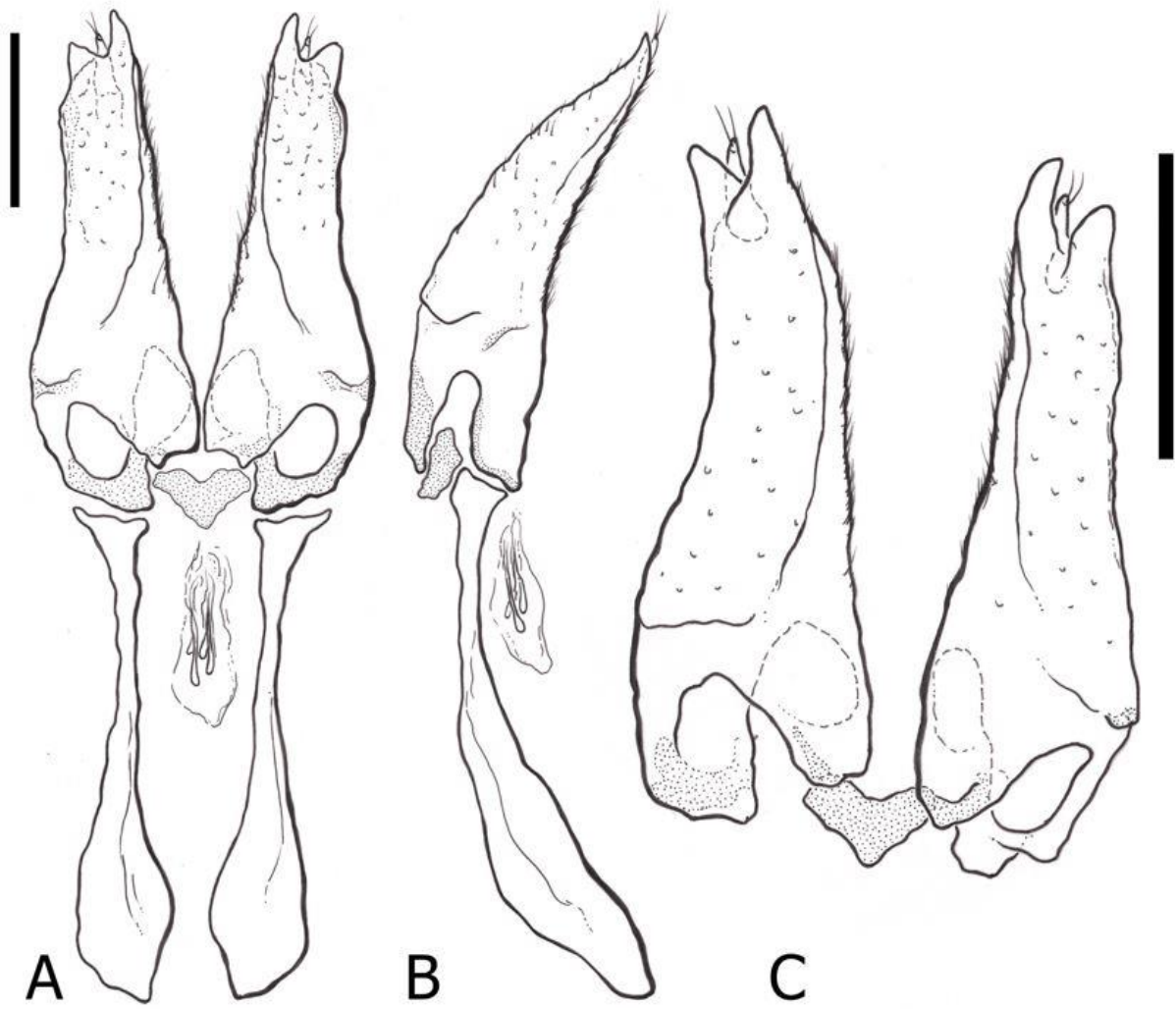
Figs. 183. Female genitalia of *Atholus philippinensis* (Marseul, 1854). — A) Dorsal view; B) lateral view; C) dorsolateral view of gonocoxite. Scale bars: 0.20 mm.



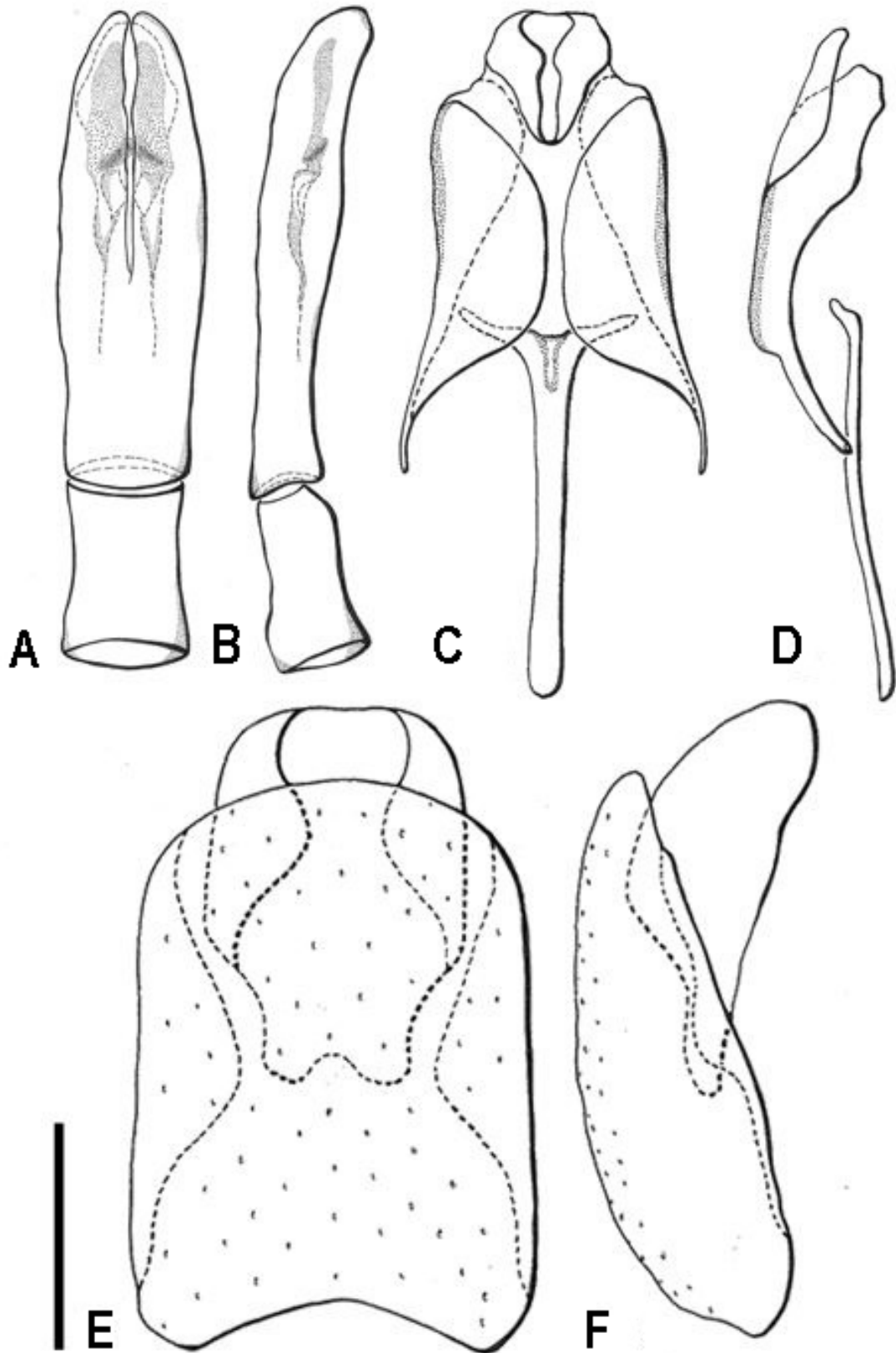
Figs. 184. Female genitalia of *Atholus pirithous* (Marseul, 1873). — A) Dorsal view; B) lateral view; C) dorsolateral view of gonocoxite. Scale bars: 0.20 mm.



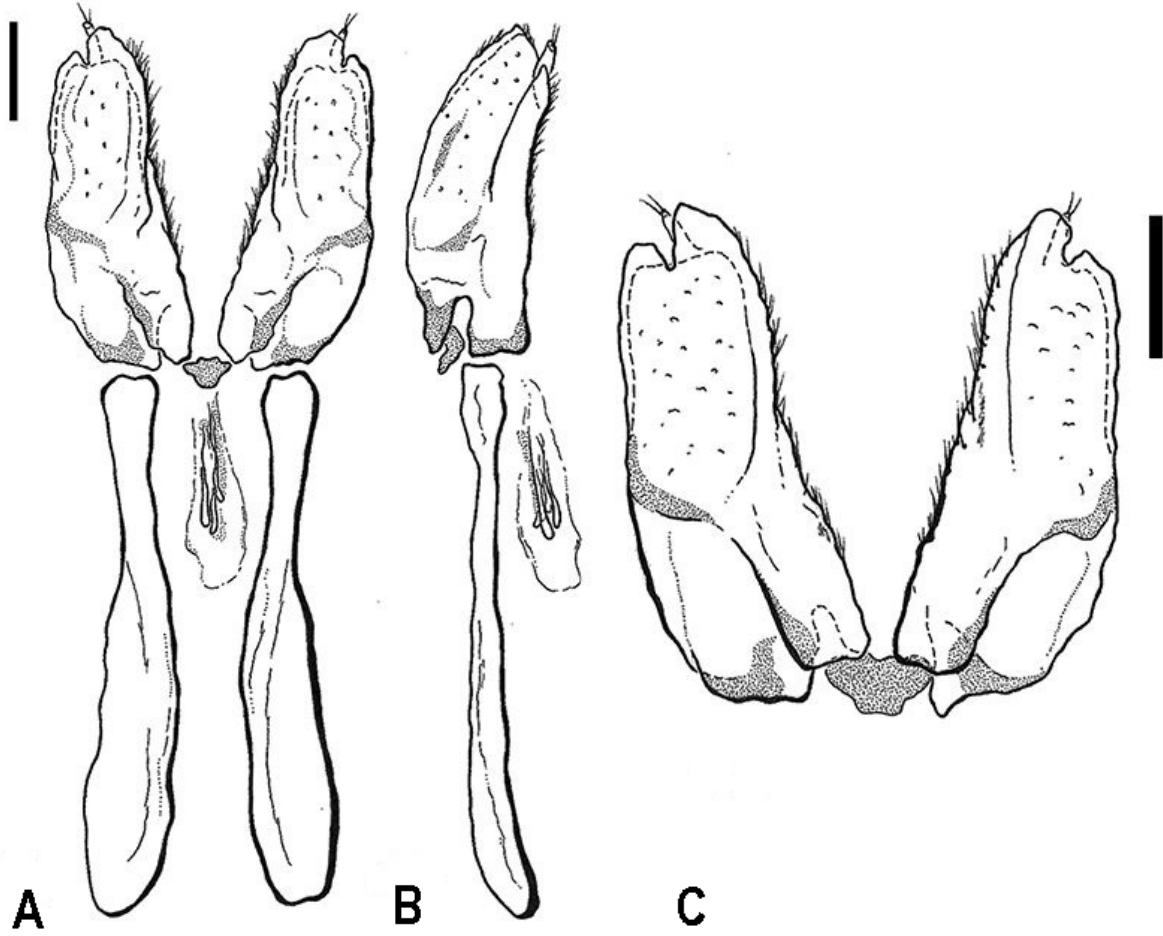
Figs. 185. Male genitalia of *Atholus striatipennis* (Lewis, 1892). — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.50 mm.



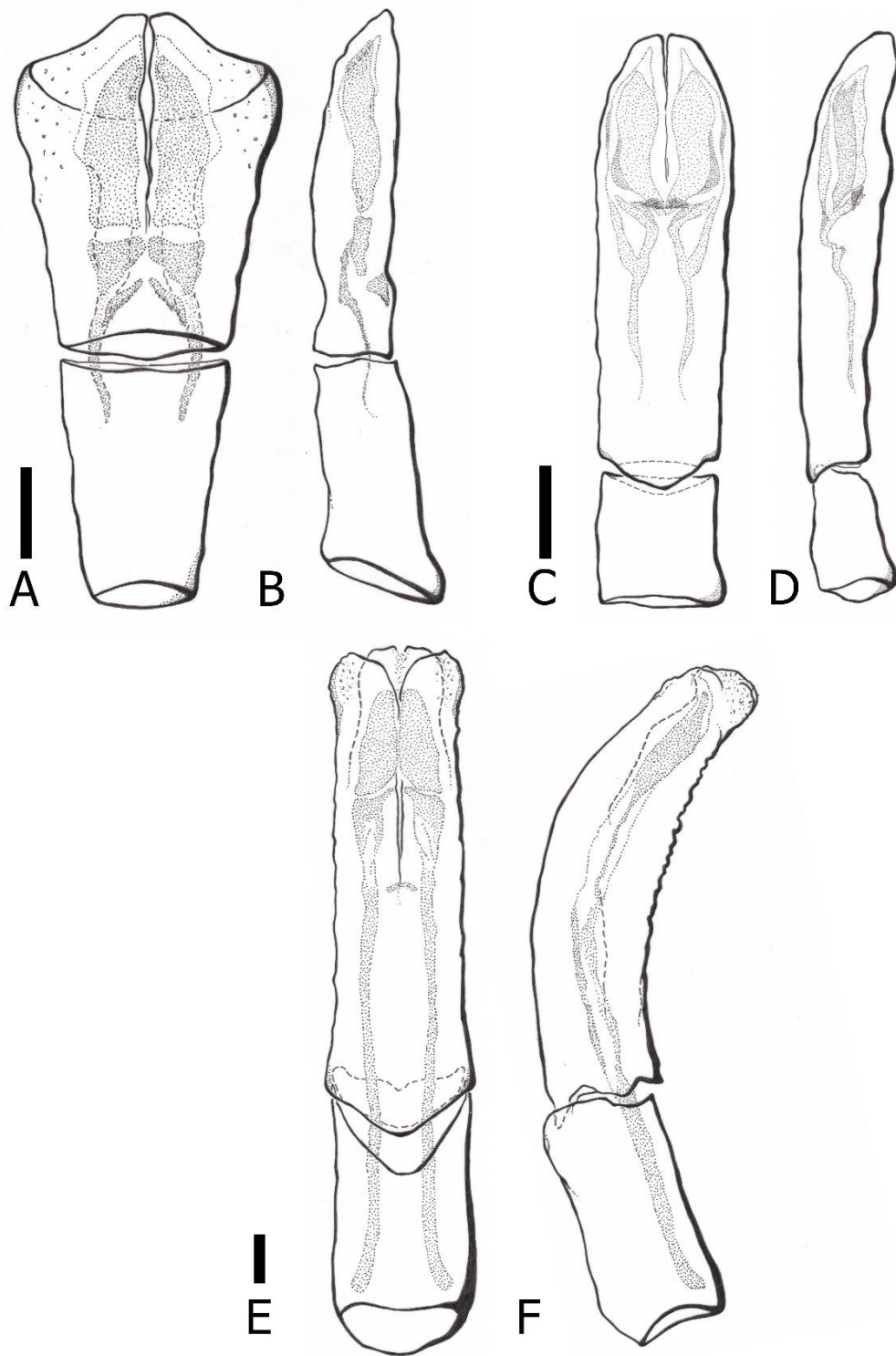
Figs. 186. Female genitalia of *Atholus striatipennis* (Lewis, 1892). — A) Dorsal view; B) lateral view; C) dorsolateral view of gonocoxite. Scale bars: 0.25 mm.



Figs. 187. Male genitalia of *Atholus torquatus* (Marseul, 1854). — A, Aedeagus, dorsal view; B, ditto, lateral view; C, ninth, tenth tergites and spiculum gastrale, dorsal view; D, ditto, lateral view; E, eighth tergite and sternite, dorsal view; F, ditto, lateral view. Scale bar: 0.50 mm.



Figs. 188. Female genitalia of *Atholus torquatus* (Marseul, 1854). — A) Dorsal view; B) lateral view; C) dorsolateral view of gonocoxite. Scale bars: 0.20 mm.



Figs. 189. Male genitalia of *Atholus dentipes* (Lewis, 1892), *Atholus* sp. 2, and *Atholus daldorffi* (Bedel, 1906).
 — A, Aedeagus of *A. dentipes*, dorsal view; B, ditto, lateral view; C, Aedeagus of *A. sp. 2*, dorsal view; D,
 ditto, lateral view; E, Aedeagus of *A. daldorffi*, dorsal view; B, ditto, lateral view. Scale bar: 0.10 mm.



Figs. 190. Female genitalia of *Atholus dentipes* (Lewis, 1892) and *Atholus daldorffi* (Bedel, 1906). — A) Dorsal view of *A. dentipes*; B) lateral view; C) dorsolateral view of gonocoxite; A) dorsal view of *A. daldorffi*; B) lateral view; C) dorsolateral view of gonocoxite. Scale bars: A–B, D–E=0.20 mm, C and F=0.25 mm.

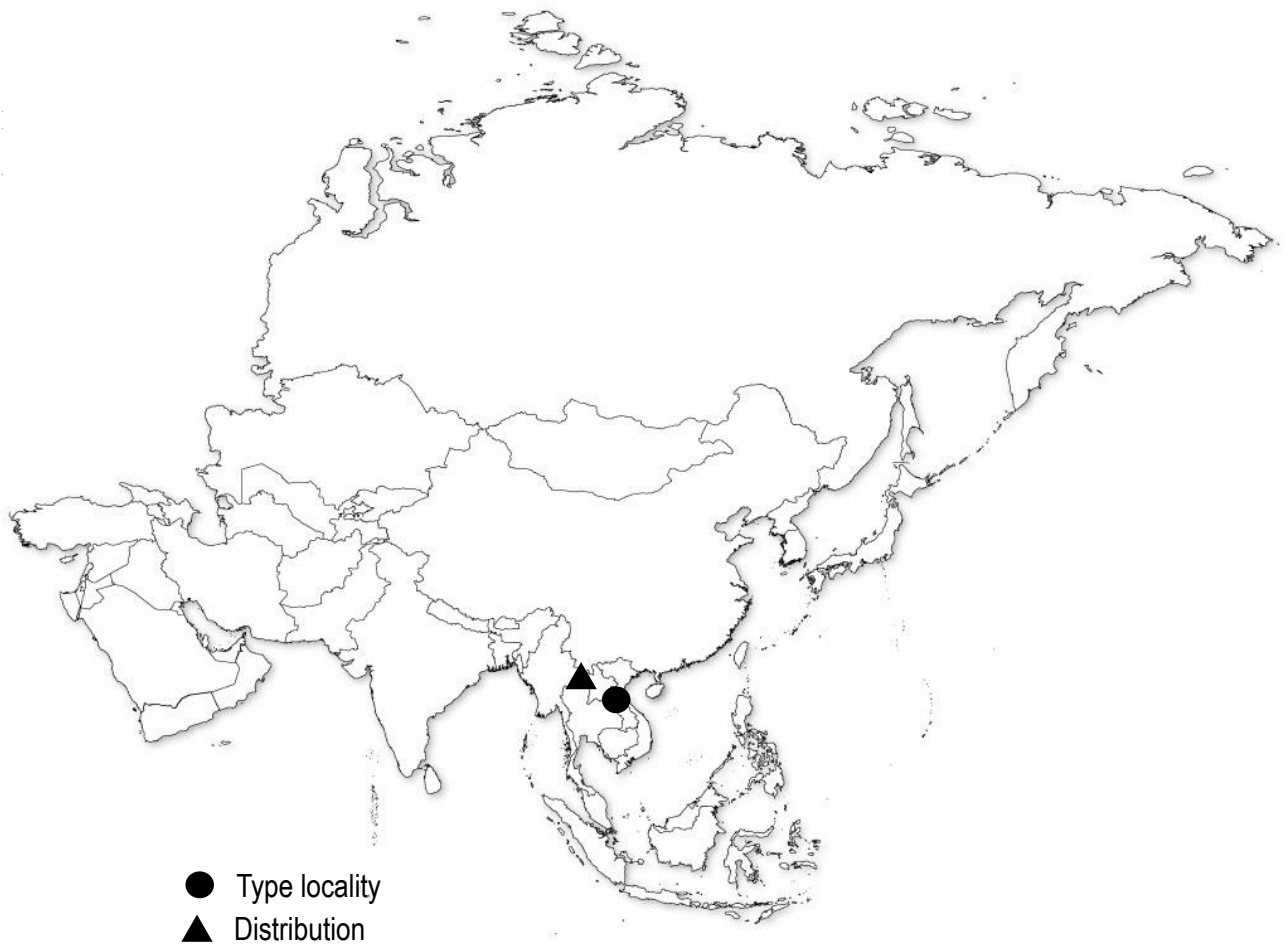


Fig. 191. Map showing the distribution of *Atholus amplificipes* Mazur, 2013 in the Oriental and Far Eastern Asian Regions.



Fig. 192. Map showing the distribution of *Atholus arrowi* (Desbordes, 1923) in the Oriental and Far Eastern Asian Regions.

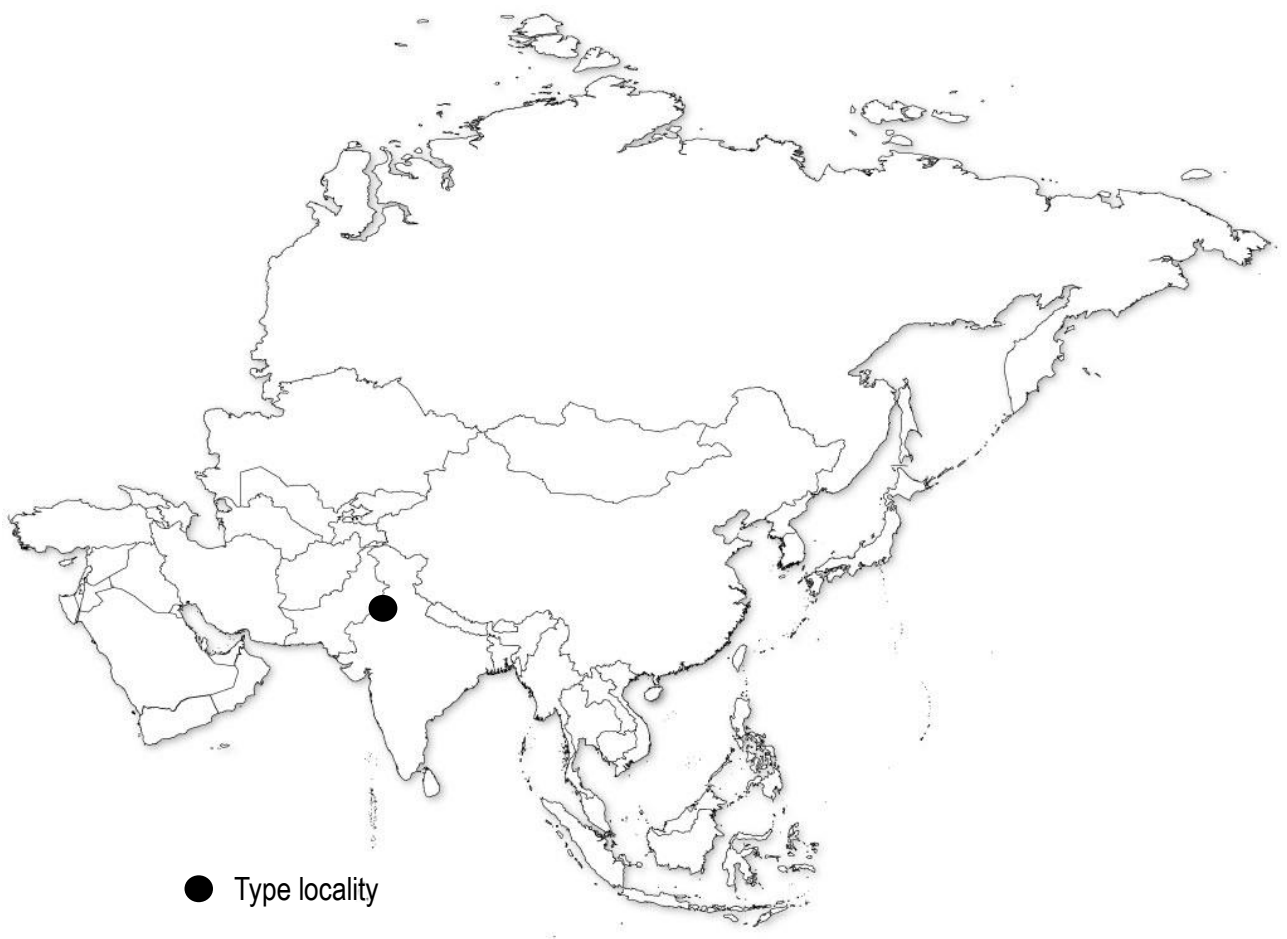


Fig. 193. Map showing the distribution of *Atholus baberii* (Lewis, 1901) in the Oriental and Far Eastern Asian Regions.



Fig. 194. Map showing the distribution of *Atholus bakerii* (Bickhardt, 1914) in the Oriental and Far Eastern Asian Regions.

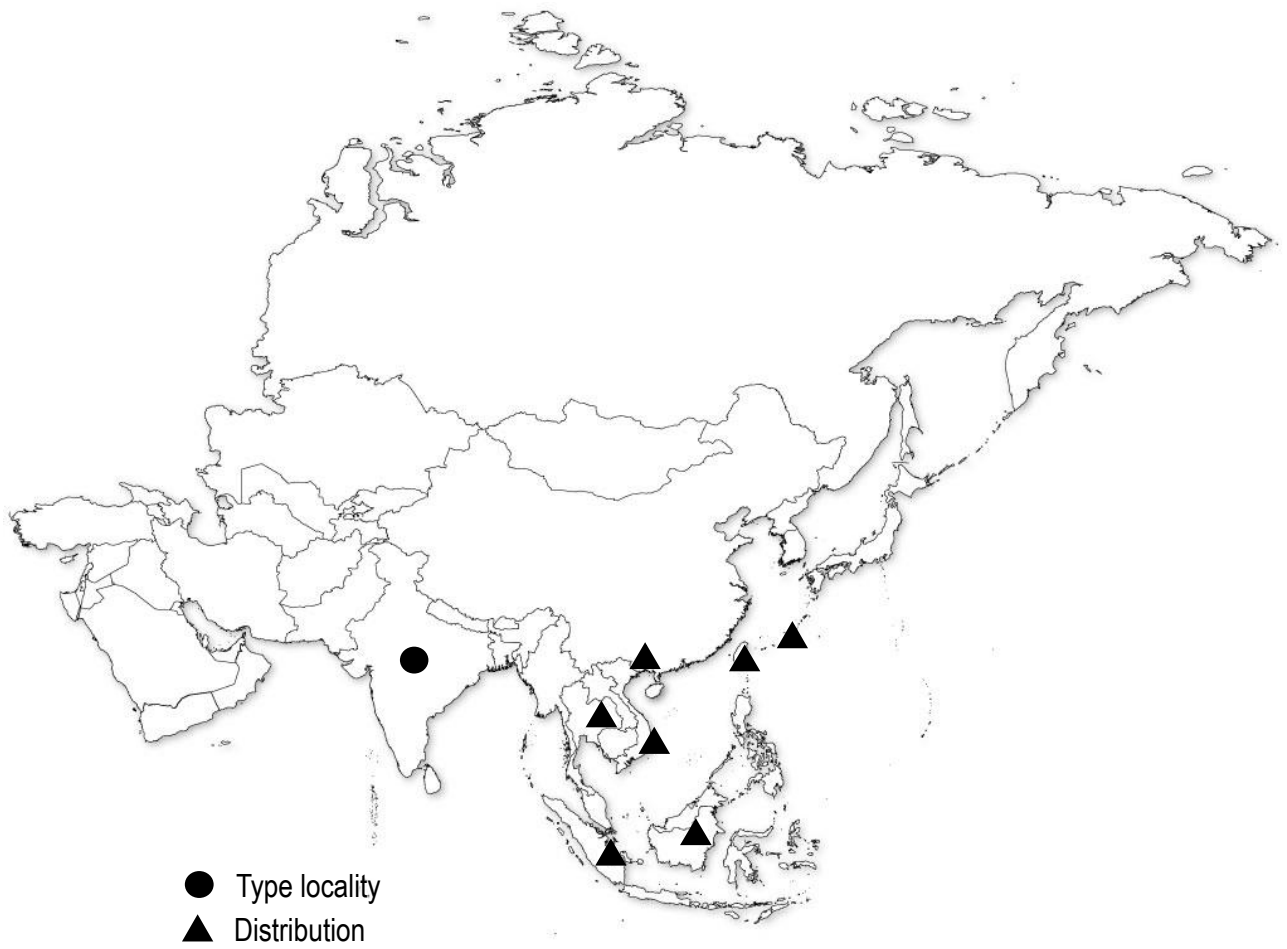


Fig. 195. Map showing the distribution of *Atholus bifrons* (Marseul, 1854) in the Oriental and Far Eastern Asian Regions.

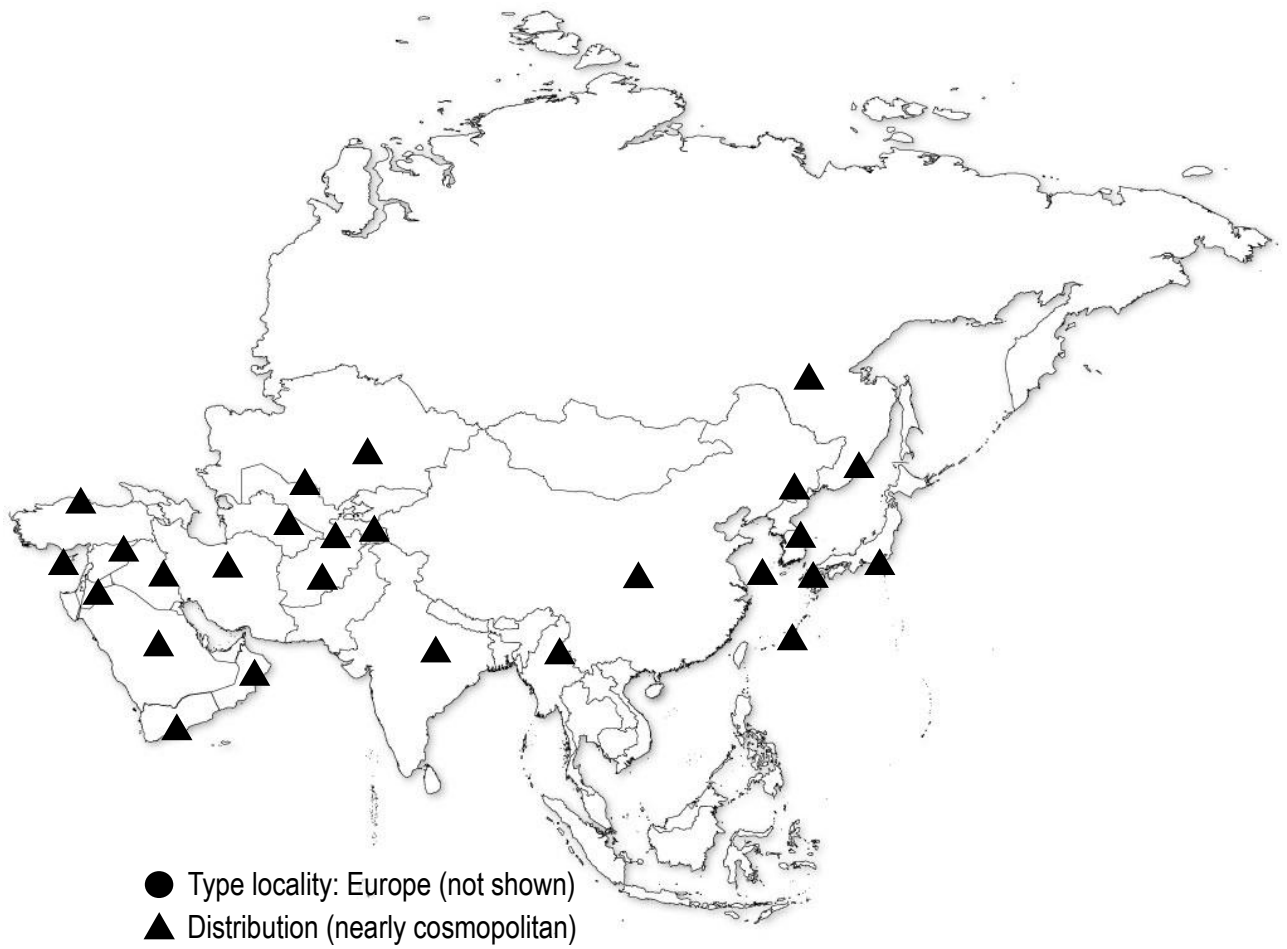


Fig. 196. Map showing the distribution of *Atholus bimaculatus* (Linnaeus, 1758) in the Oriental and Far Eastern Asian Regions.

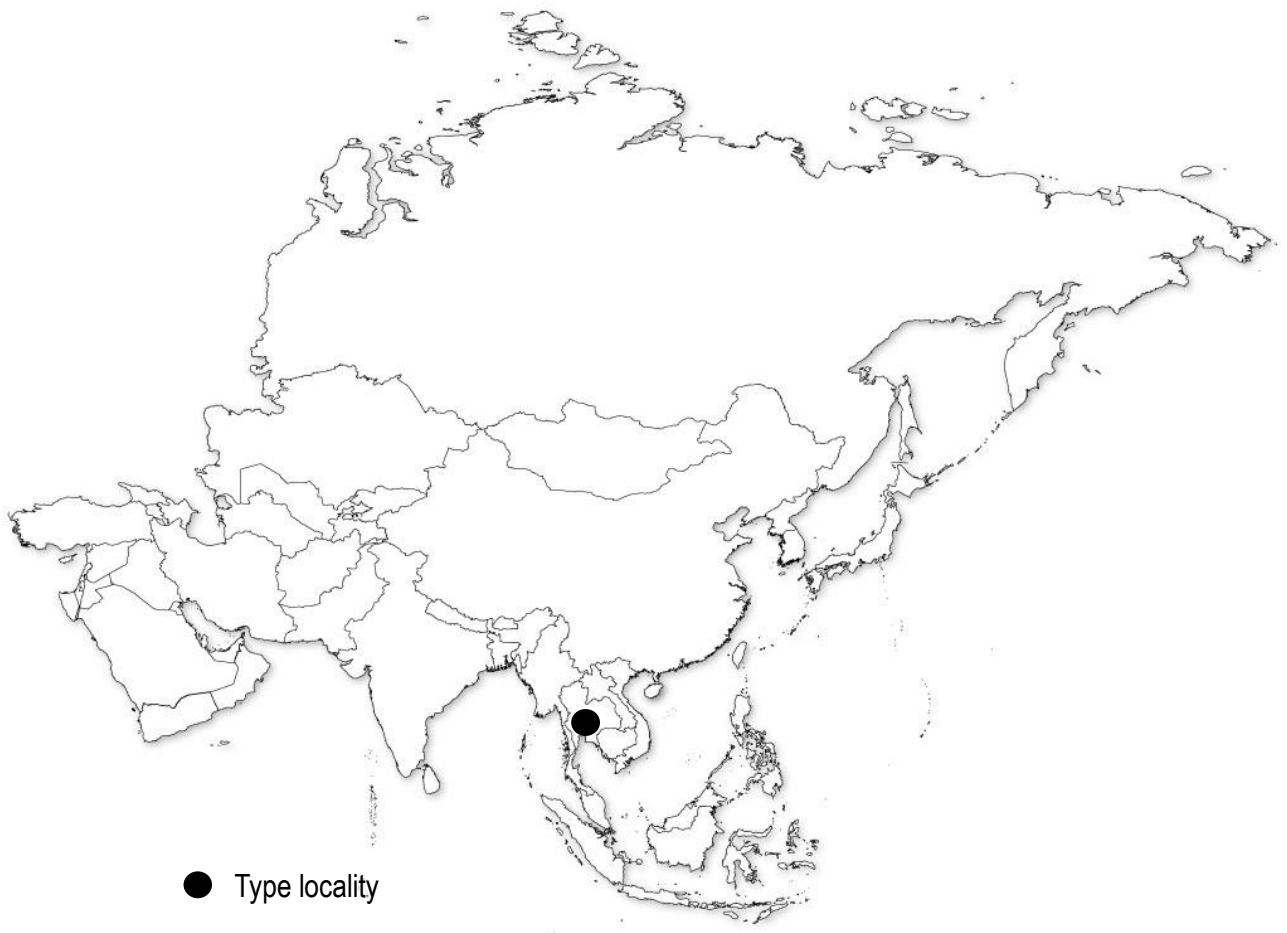


Fig. 197. Map showing the distribution of *Atholus cinctipygus* (Lewis, 1900) in the Oriental and Far Eastern Asian Regions.

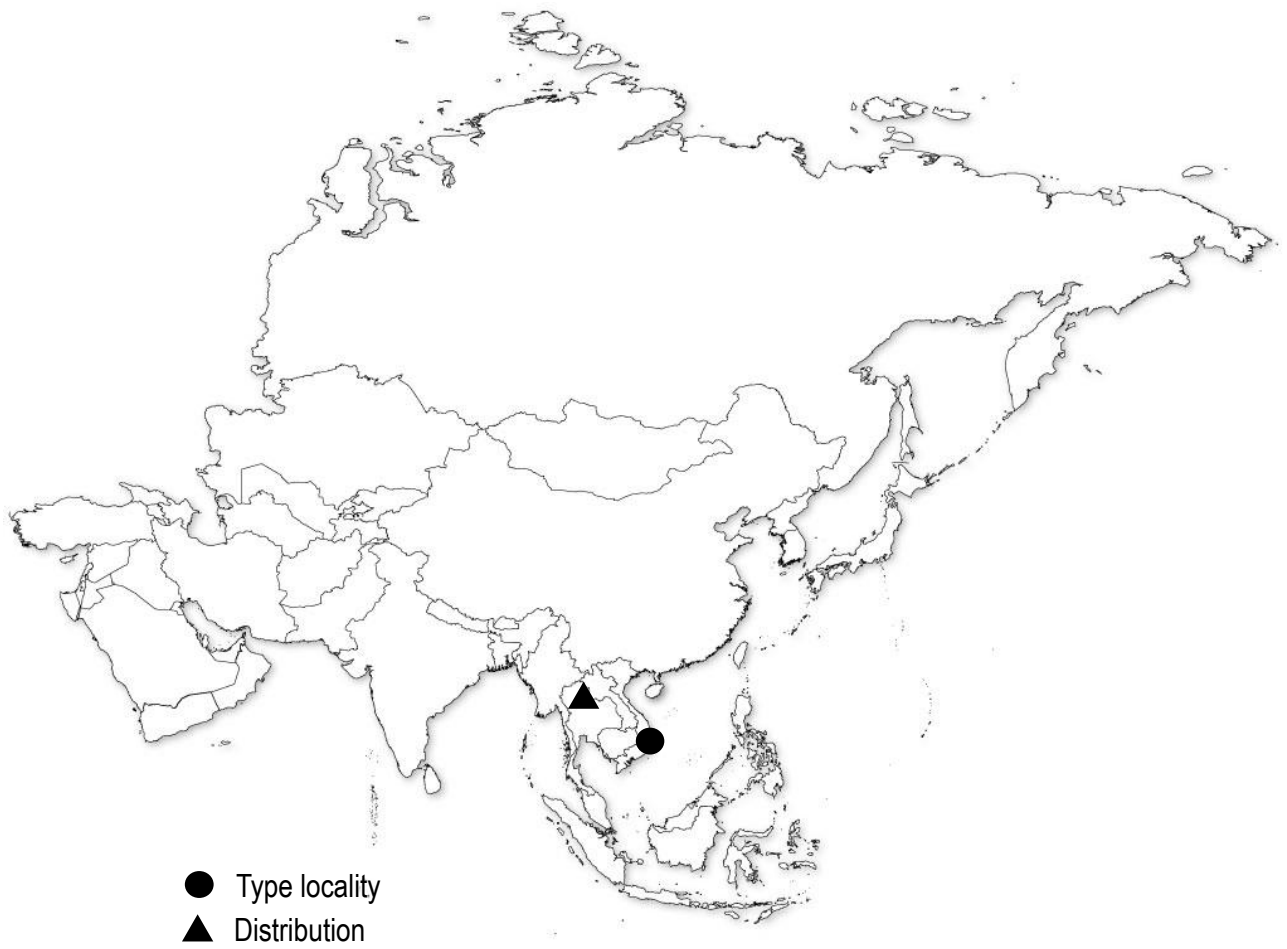


Fig. 198. Map showing the distribution of *Atholus cochinchinae* (Schmidt, 1889) in the Oriental and Far Eastern Asian Regions.

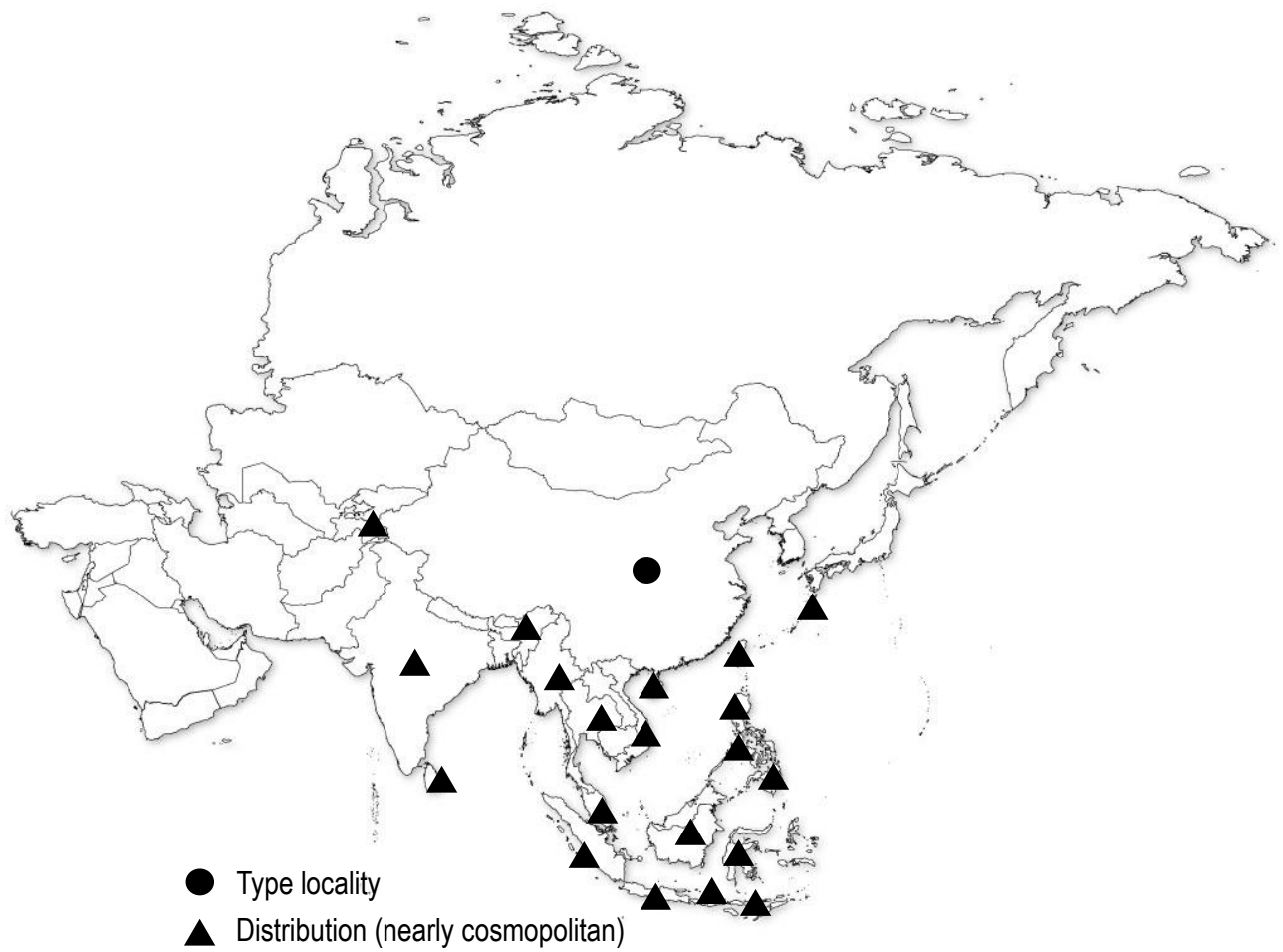


Fig. 199. Map showing the distribution of *Atholus coelestis* (Marseul, 1870) in the Oriental and Far Eastern Asian Regions.

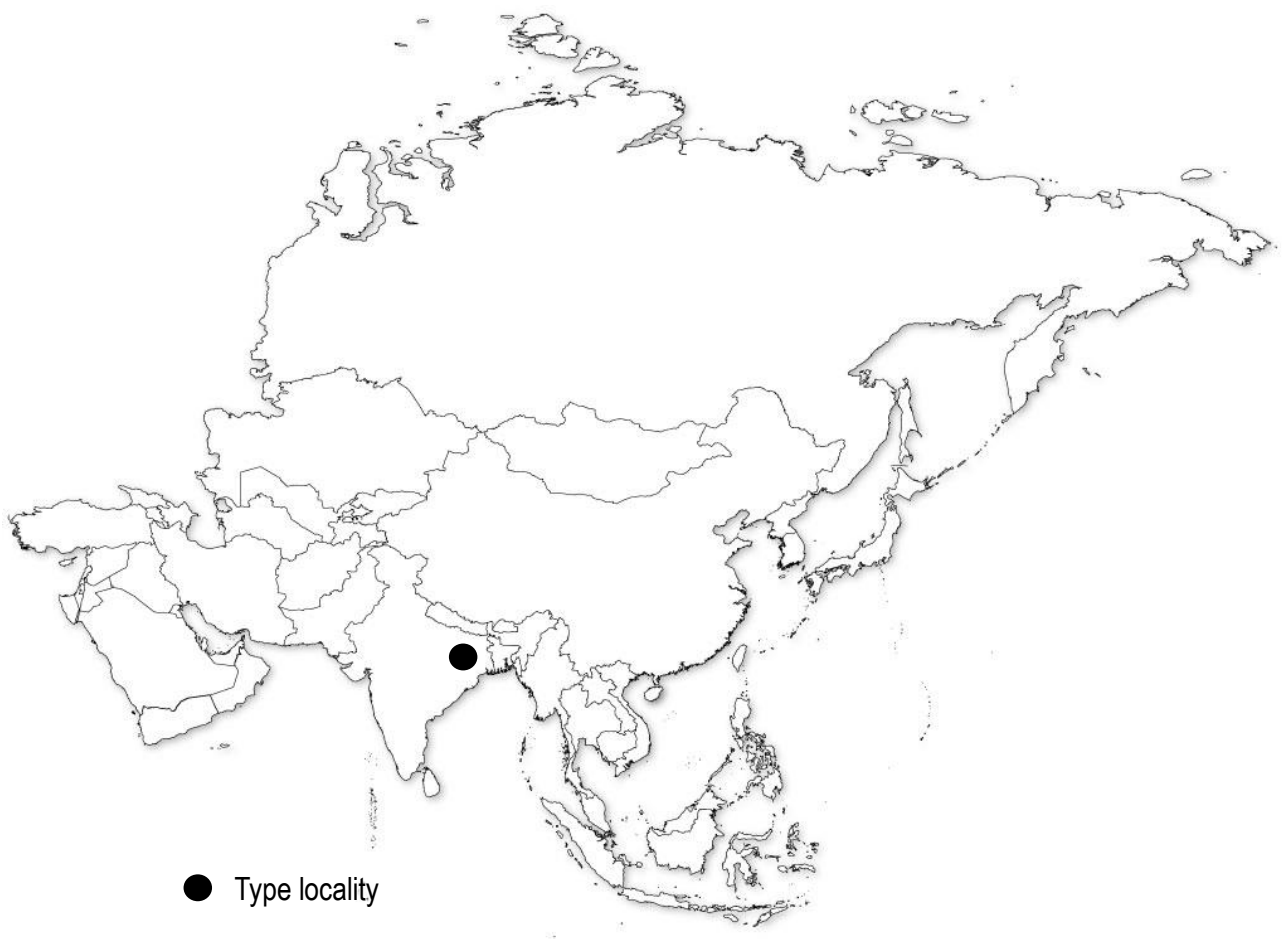


Fig. 200. Map showing the distribution of *Atholus concordans* (Marseul, 1870) in the Oriental and Far Eastern Asian Regions.

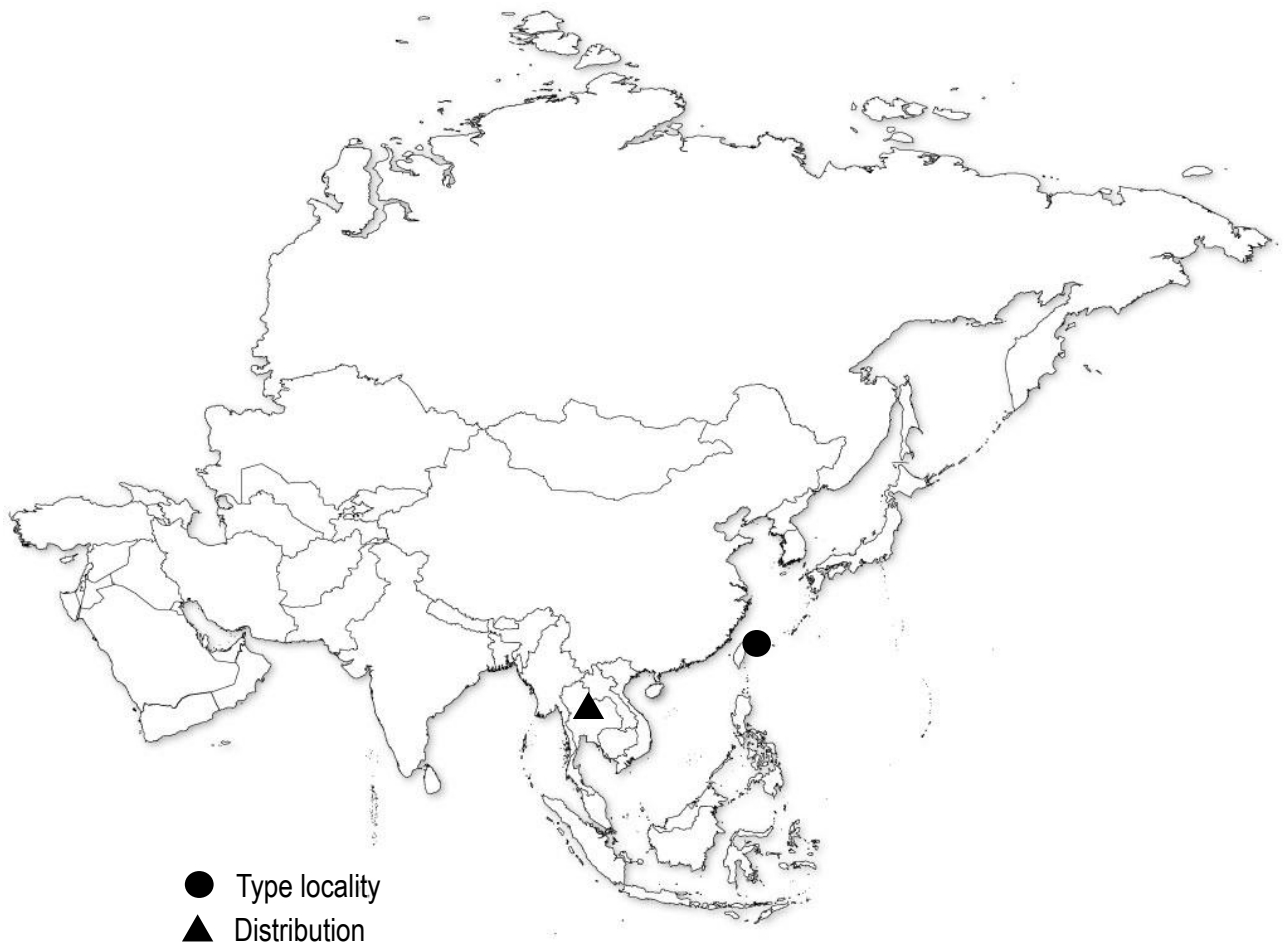


Fig. 201. Map showing the distribution of *Atholus confinis* (Erichson, 1834) in the Oriental and Far Eastern Asian Regions.

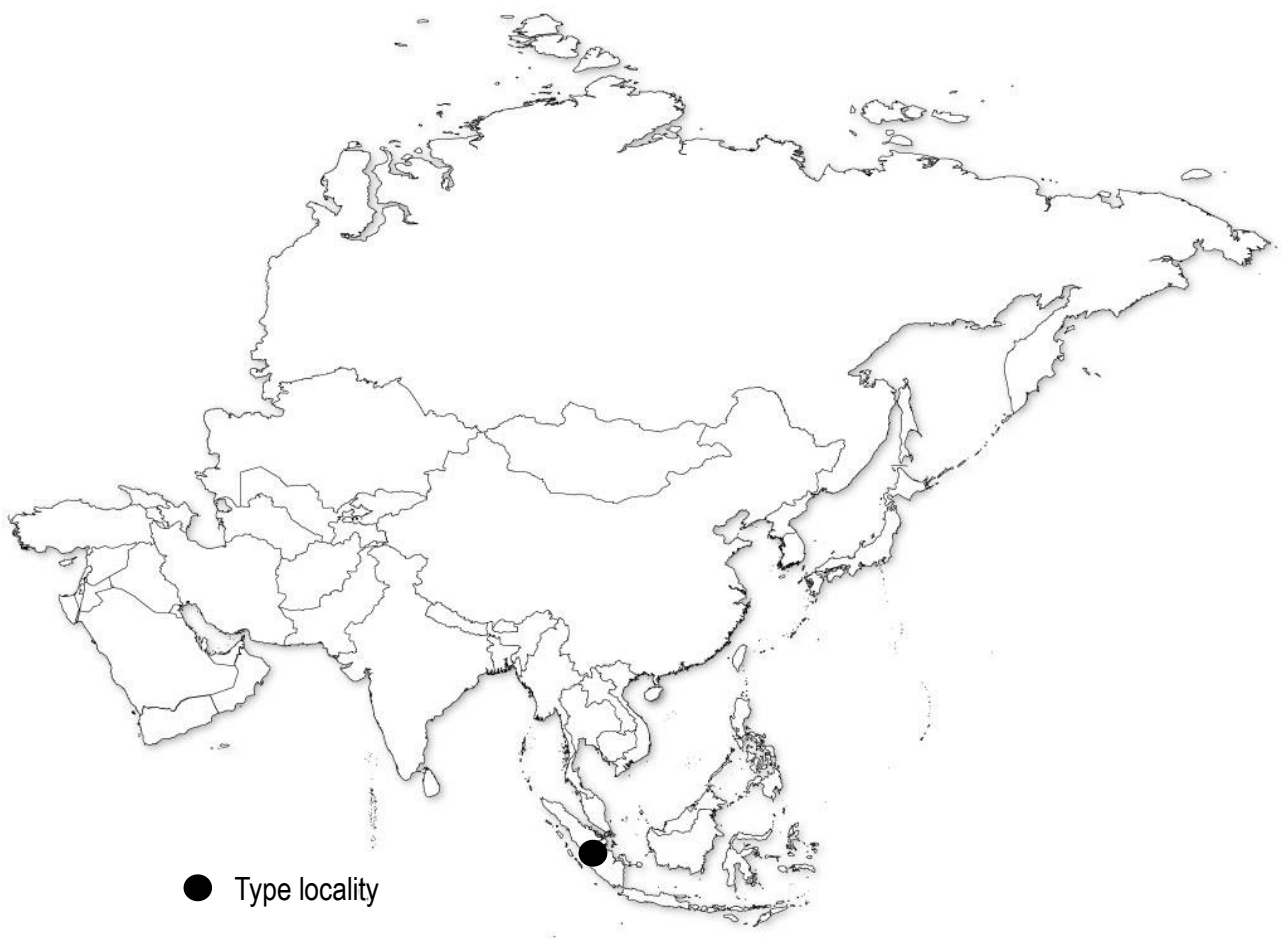


Fig. 202. Map showing the distribution of *Atholus crenatifrons* (Lewis, 1899) in the Oriental and Far Eastern Asian Regions.

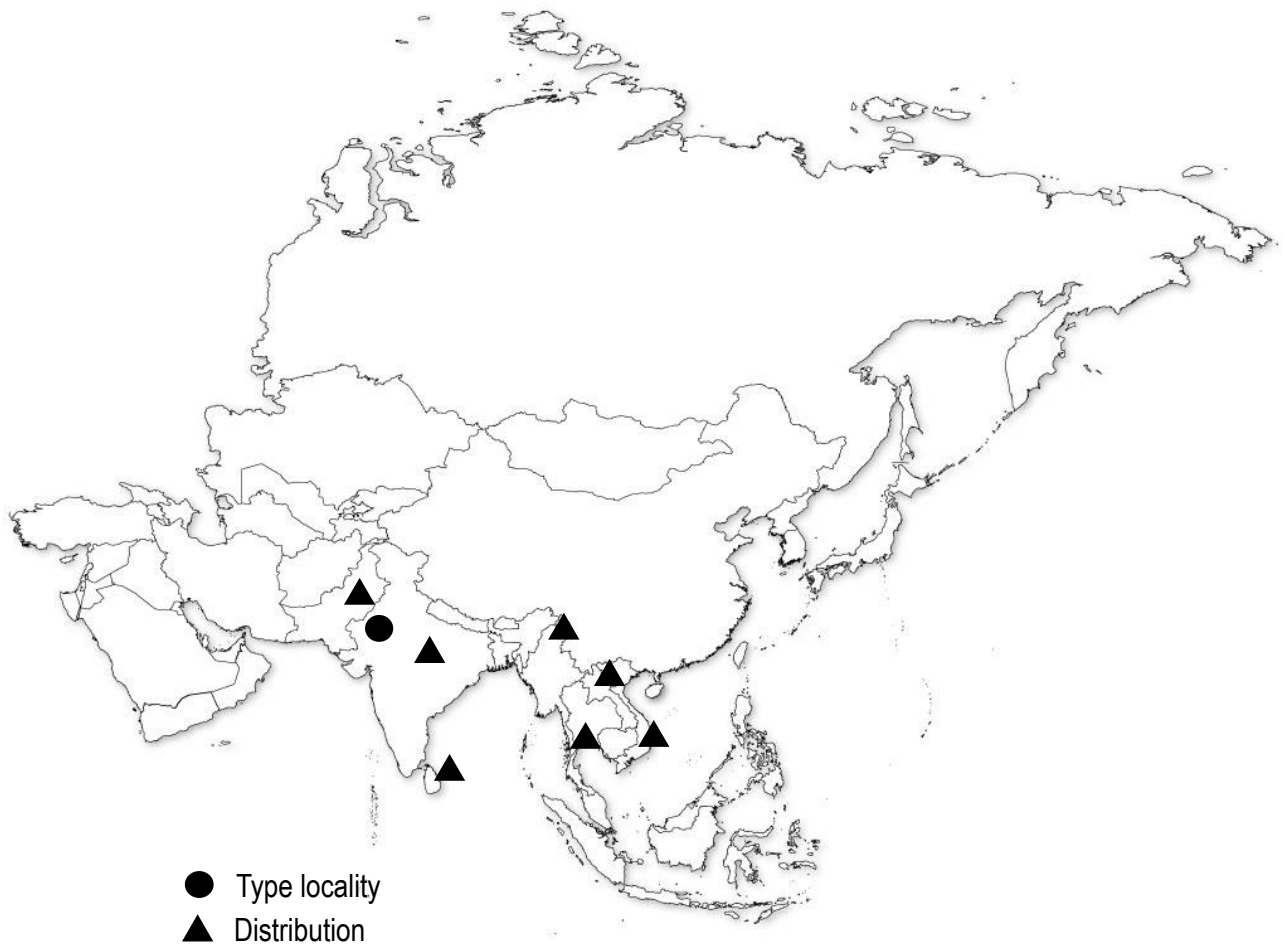


Fig. 203. Map showing the distribution of *Atholus daldorffi* (Bedel, 1906) in the Oriental and Far Eastern Asian Regions.



Fig. 204. Map showing the distribution of *Atholus dentipes* (Lewis, 1892) in the Oriental and Far Eastern Asian Regions.

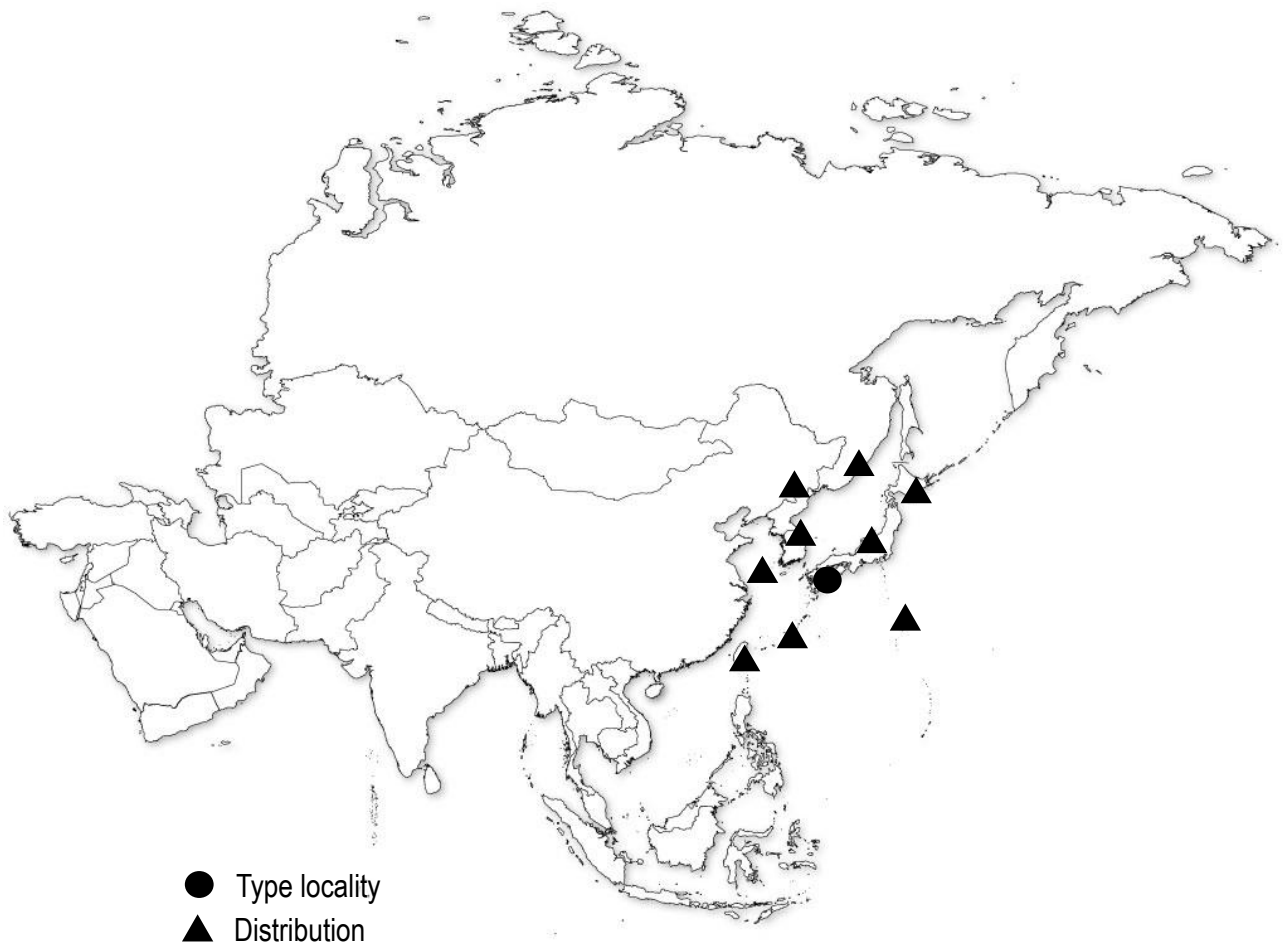


Fig. 205. Map showing the distribution of *Atholus depistor* (Marseul, 1873) in the Oriental and Far Eastern Asian Regions.

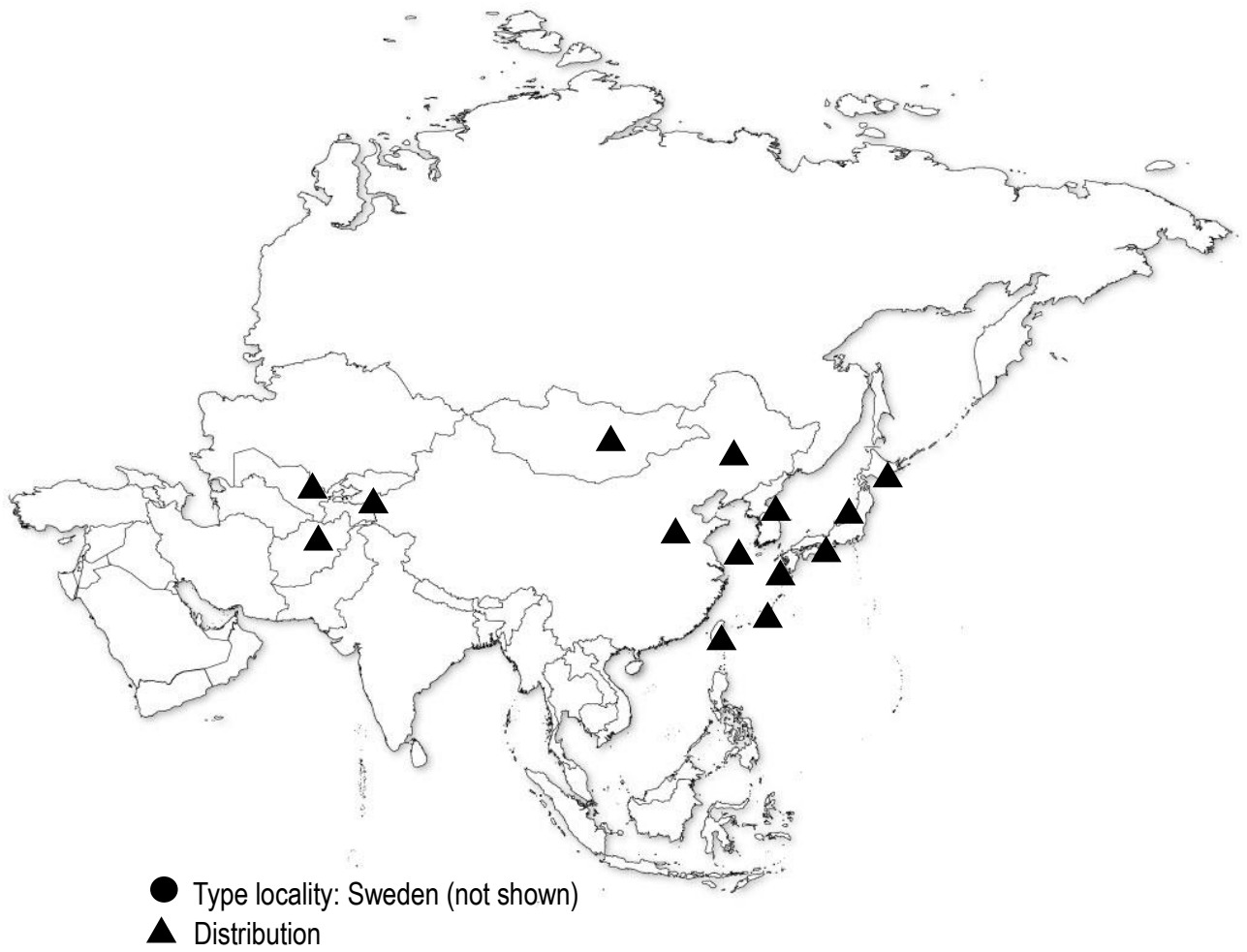


Fig. 206. Map showing the distribution of *Atholus duodecimstriatus quatuordecimstriatus* (Gyllenhal, 1808) in the Oriental and Far Eastern Asian Regions.



Fig. 207. Map showing the distribution of *Atholus famulus* (Lewis, 1892) in the Oriental and Far Eastern Asian Regions.

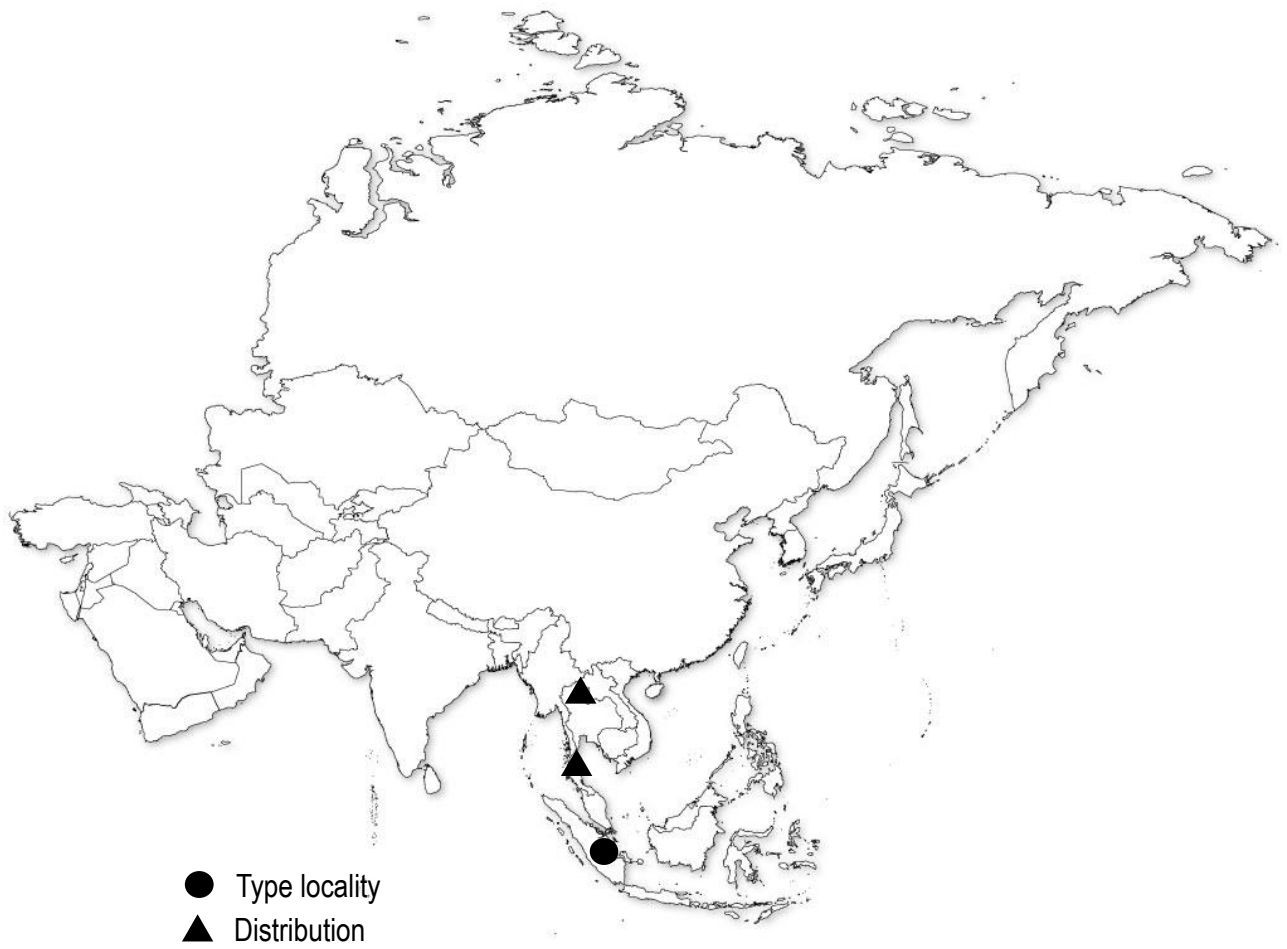


Fig. 208. Map showing the distribution of *Atholus gestroi* (Schmidt, 1897) in the Oriental and Far Eastern Asian Regions.

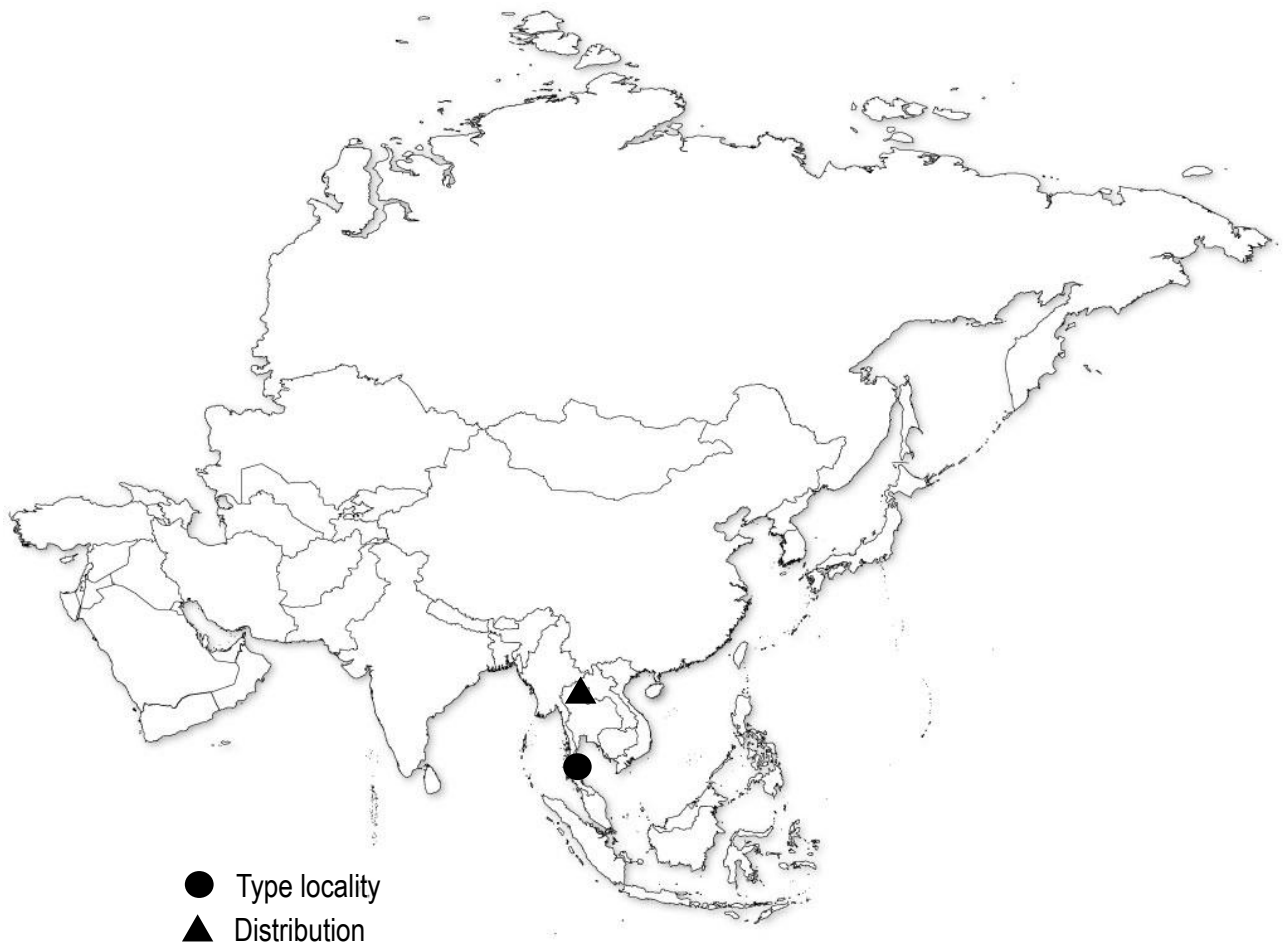


Fig. 209. Map showing the distribution of *Atholus helferi* (Reichardt, 1932) in the Oriental and Far Eastern Asian Regions.



Fig. 210. Map showing the distribution of *Atholus infirmus* (Schmidt, 1889) in the Oriental and Far Eastern Asian Regions.



Fig. 211. Map showing the distribution of *Atholus lao* Mazur, 2013 in the Oriental and Far Eastern Asian Regions.

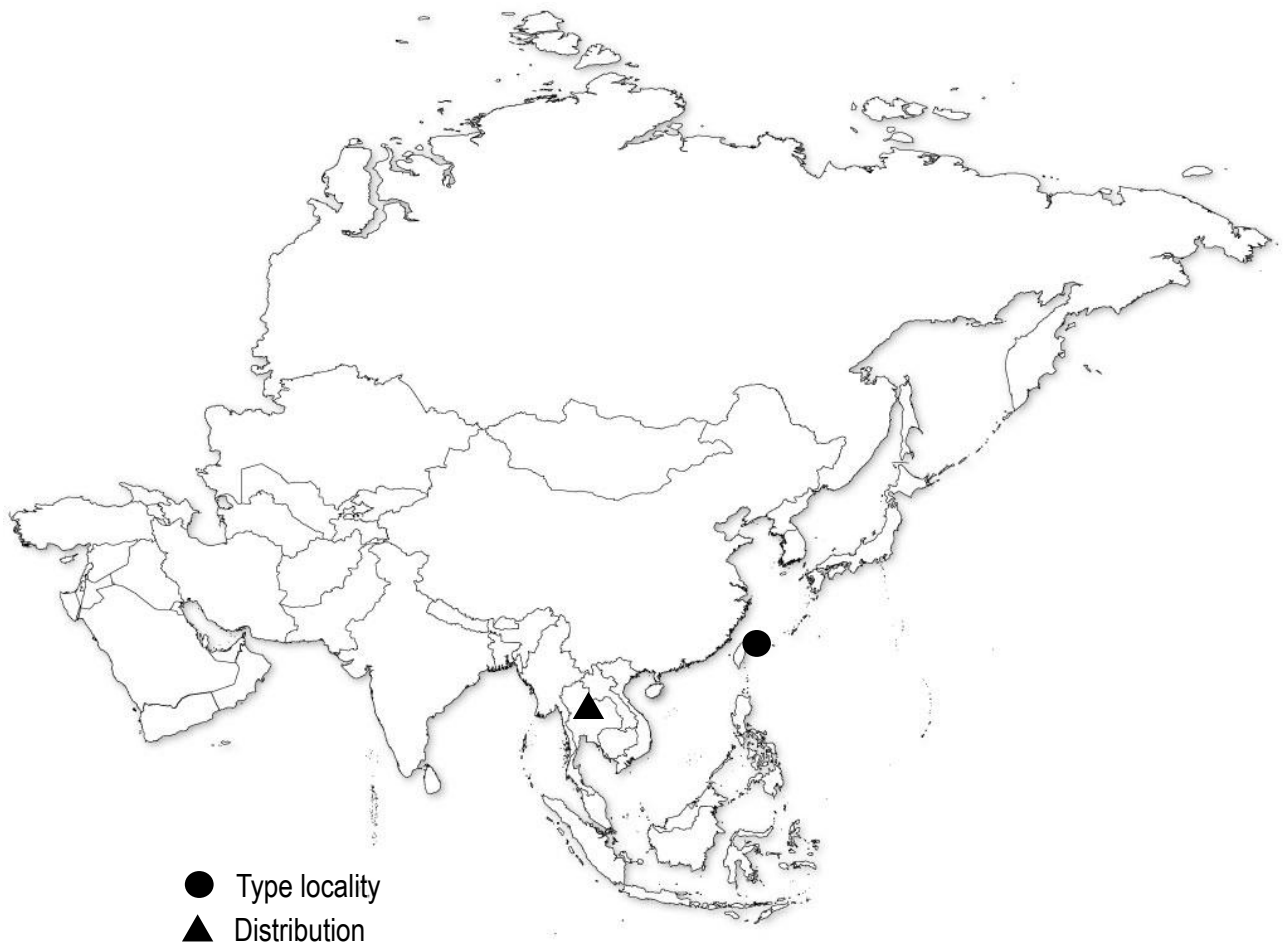


Fig. 212. Map showing the distribution of *Atholus levis* Mazur, 2015 in the Oriental and Far Eastern Asian Regions.

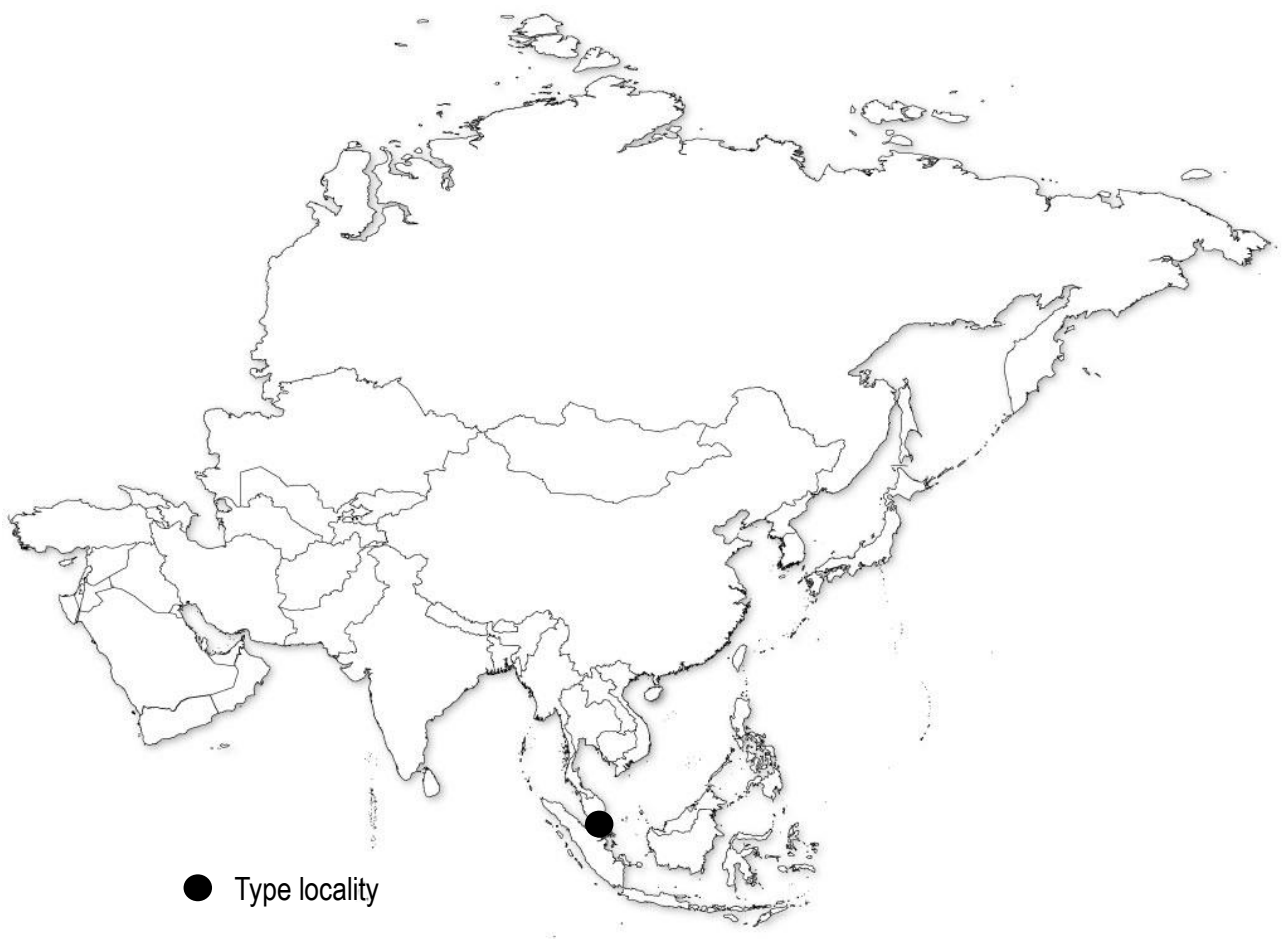


Fig. 213. Map showing the distribution of *Atholus malaysi* Lewis, 1908 in the Oriental and Far Eastern Asian Regions.

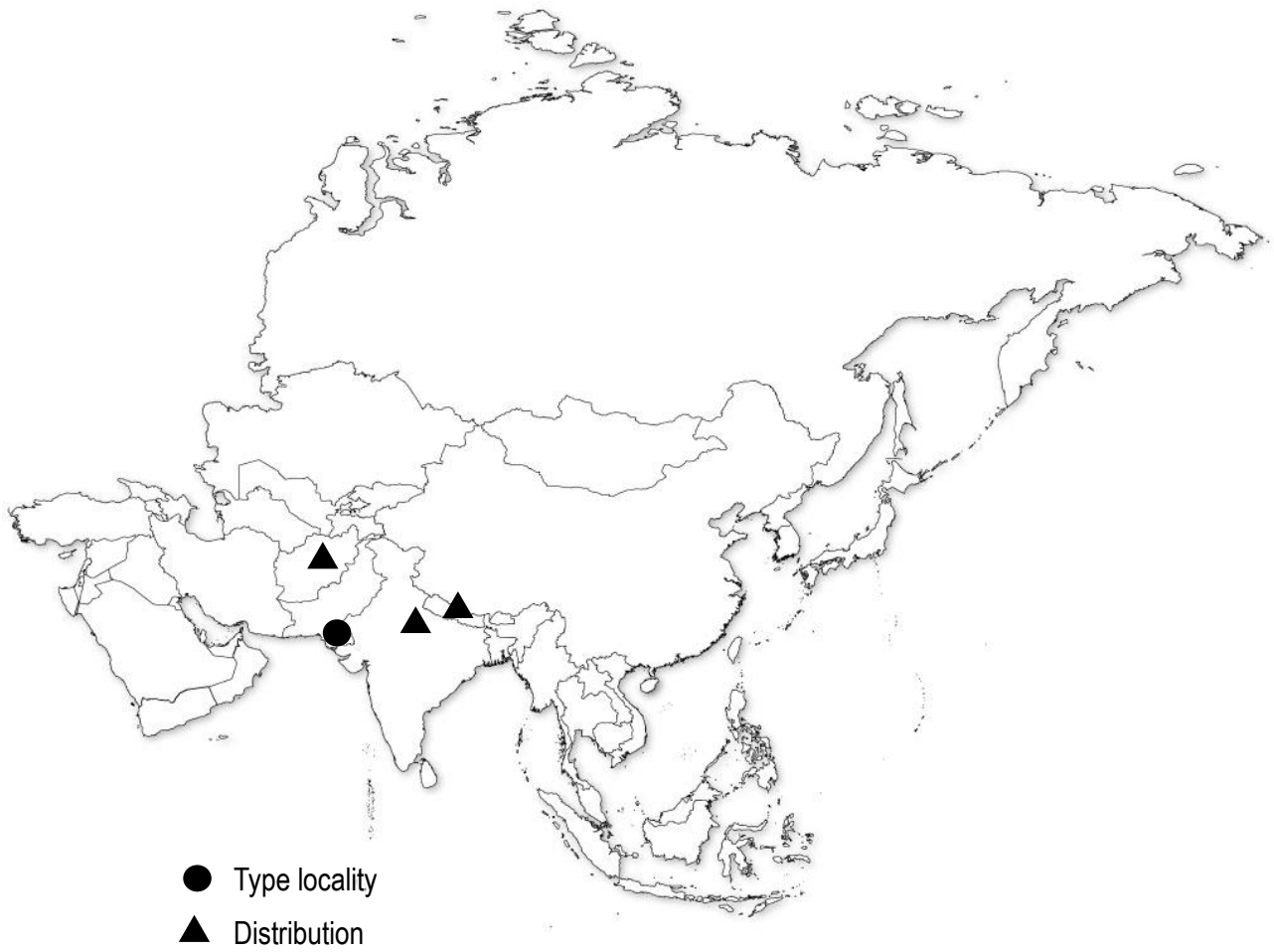


Fig. 214. Map showing the distribution of *Atholus maindronii* (Lewis, 1901) in the Oriental and Far Eastern Asian Regions.

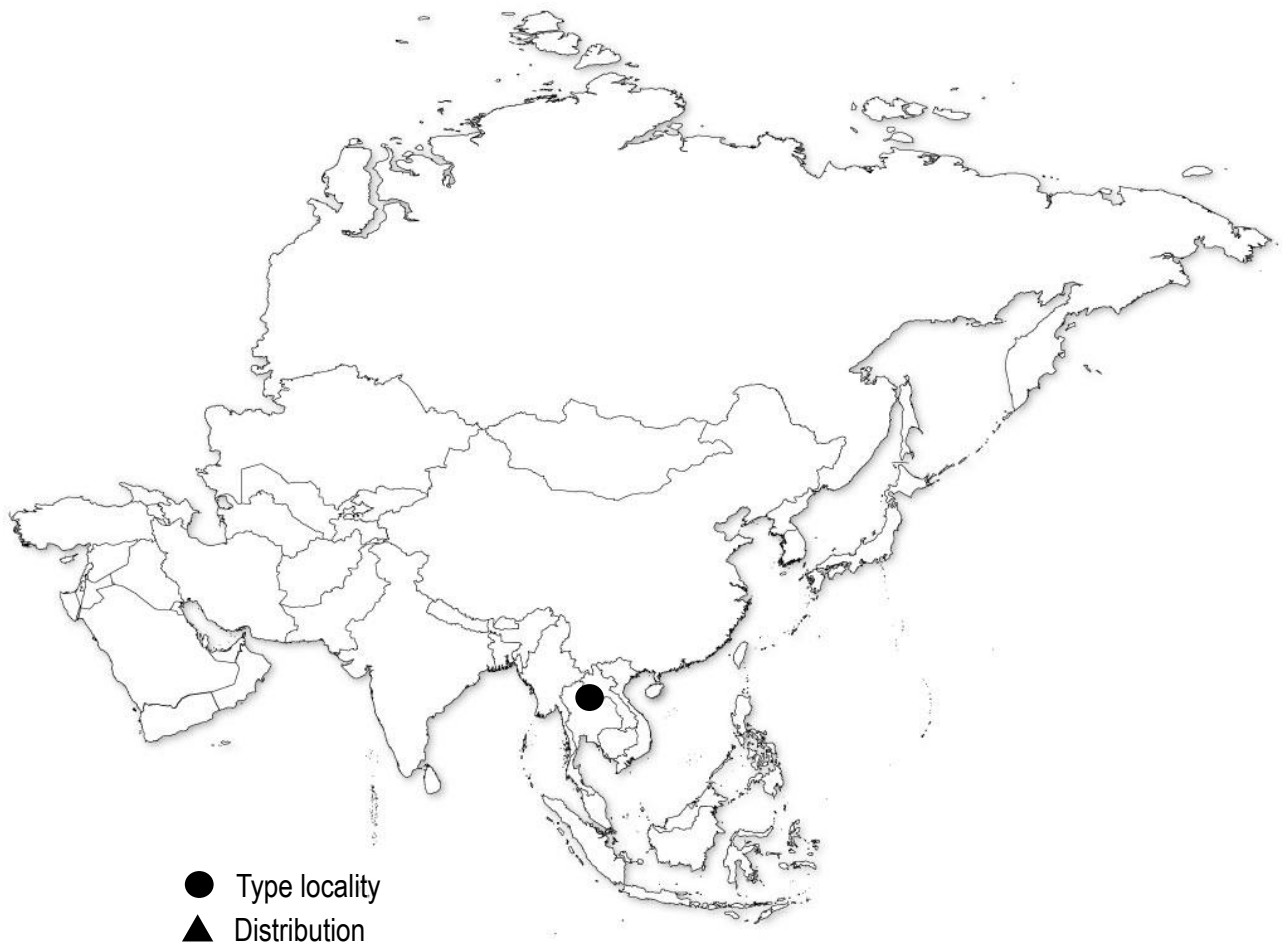


Fig. 215 Map showing the distribution of *Atholus* sp. 1 in the Oriental and Far Eastern Asian Regions.

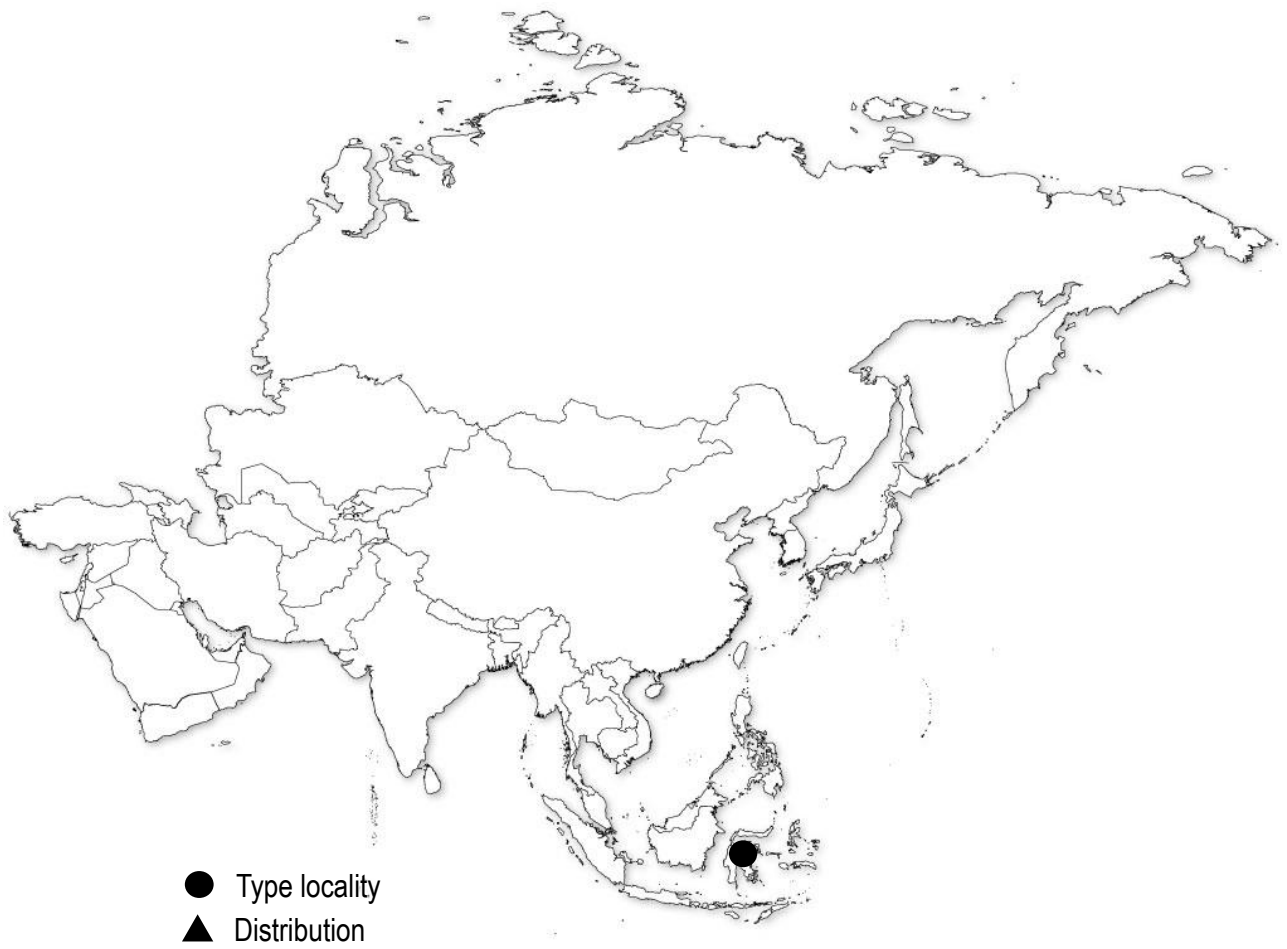


Fig. 216. Map showing the distribution of *Atholus myrmidon* (Marseul, 1861) in the Oriental and Far Eastern Asian Regions.

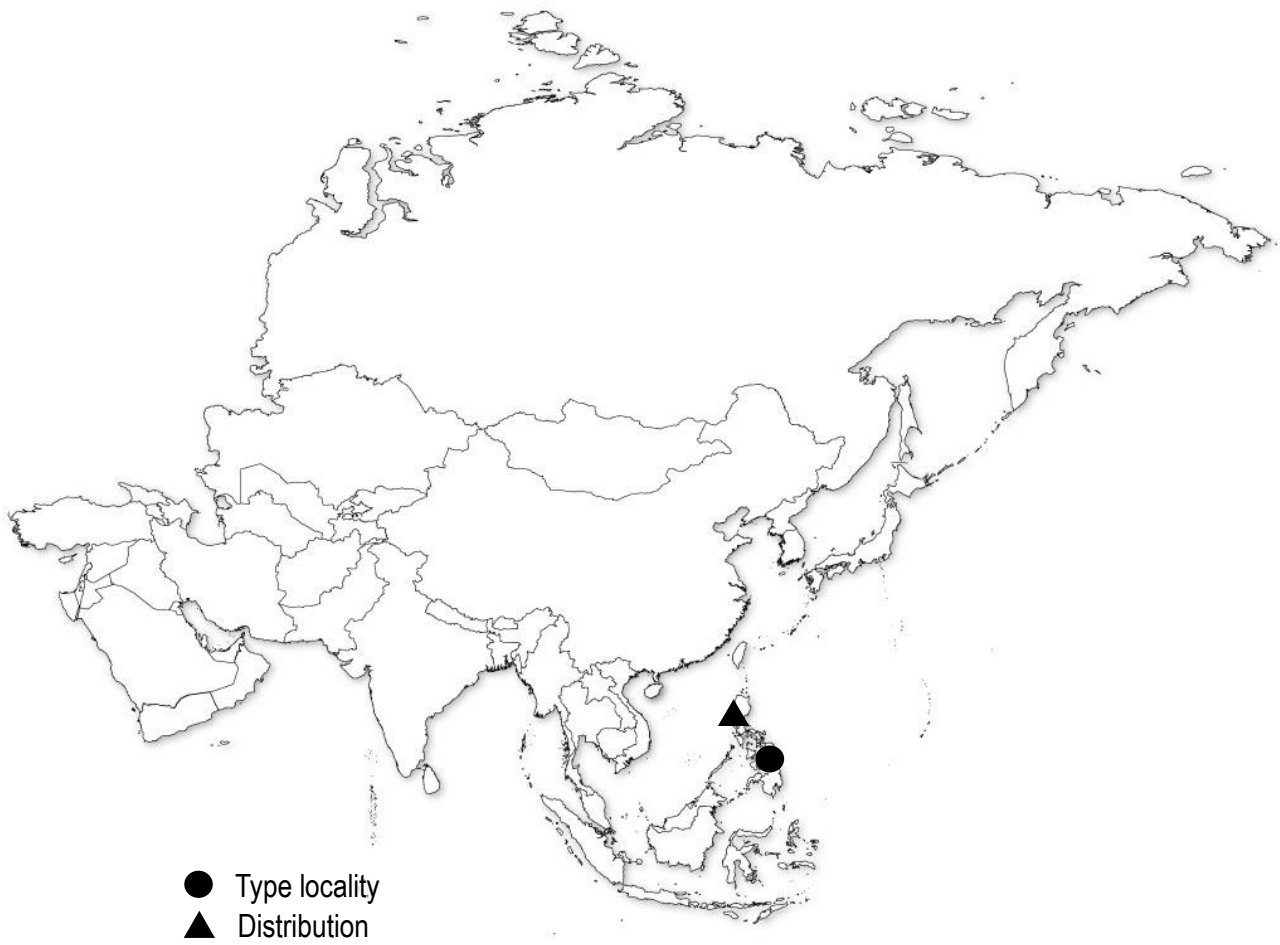


Fig. 217. Map showing the distribution of *Atholus nitidissimus* Desbordes, 1925 in the Oriental and Far Eastern Asian Regions.

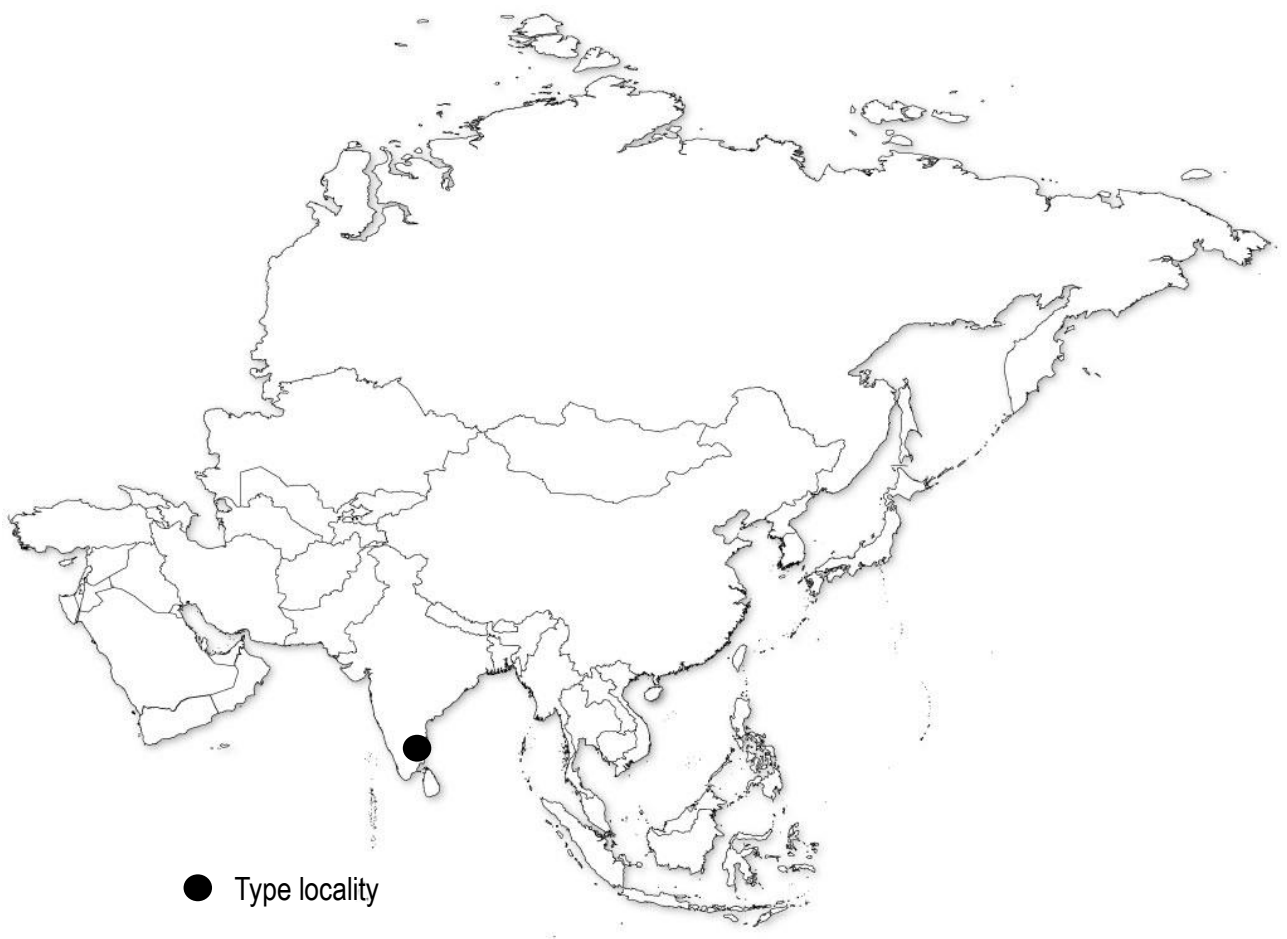


Fig. 218. Map showing the distribution of *Atholus omar* (Lewis, 1913) in the Oriental and Far Eastern Asian Regions.

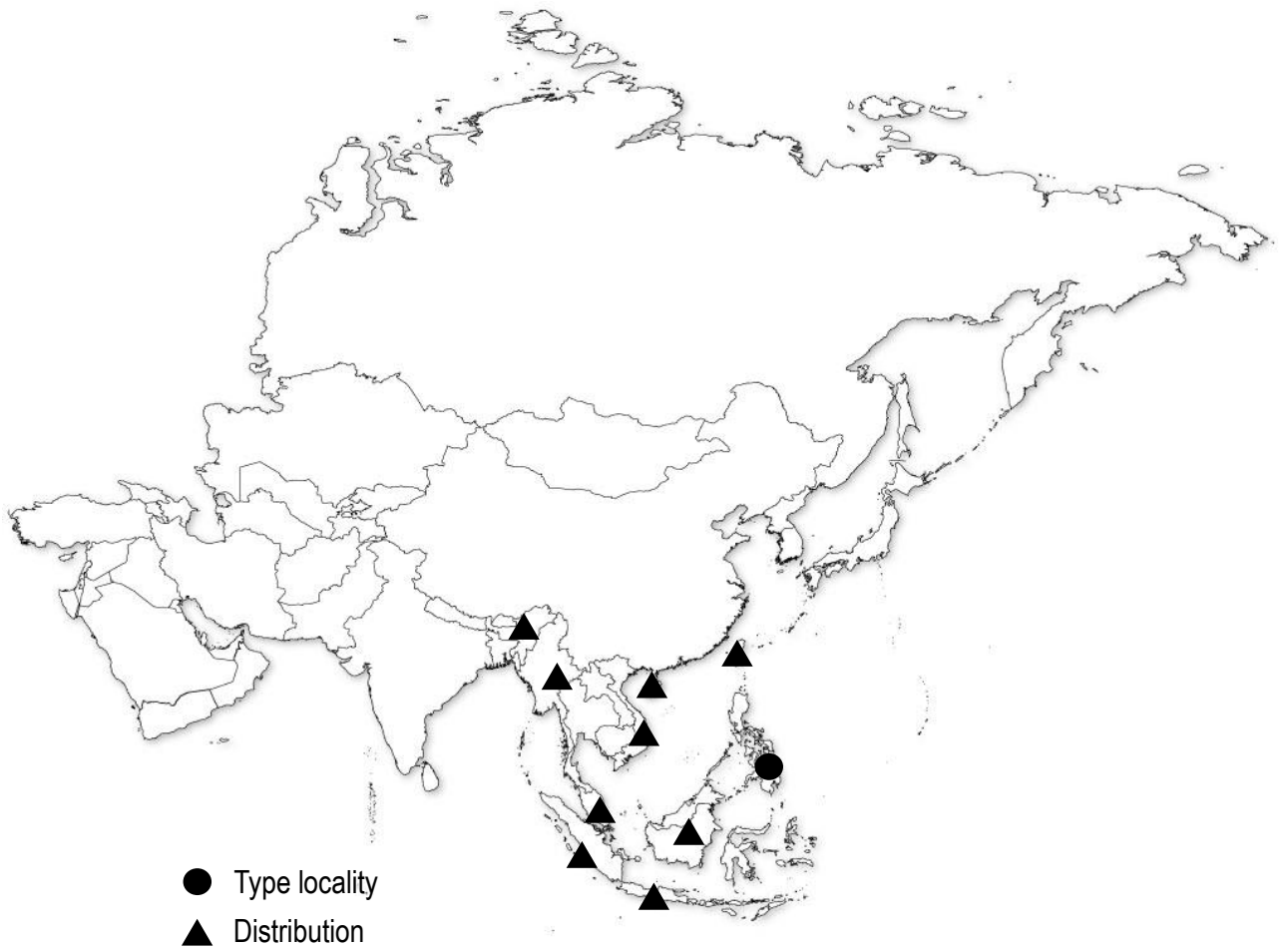


Fig. 219. Map showing the distribution of *Atholus philippinensis* (Marseul, 1854) in the Oriental and Far Eastern Asian Regions.

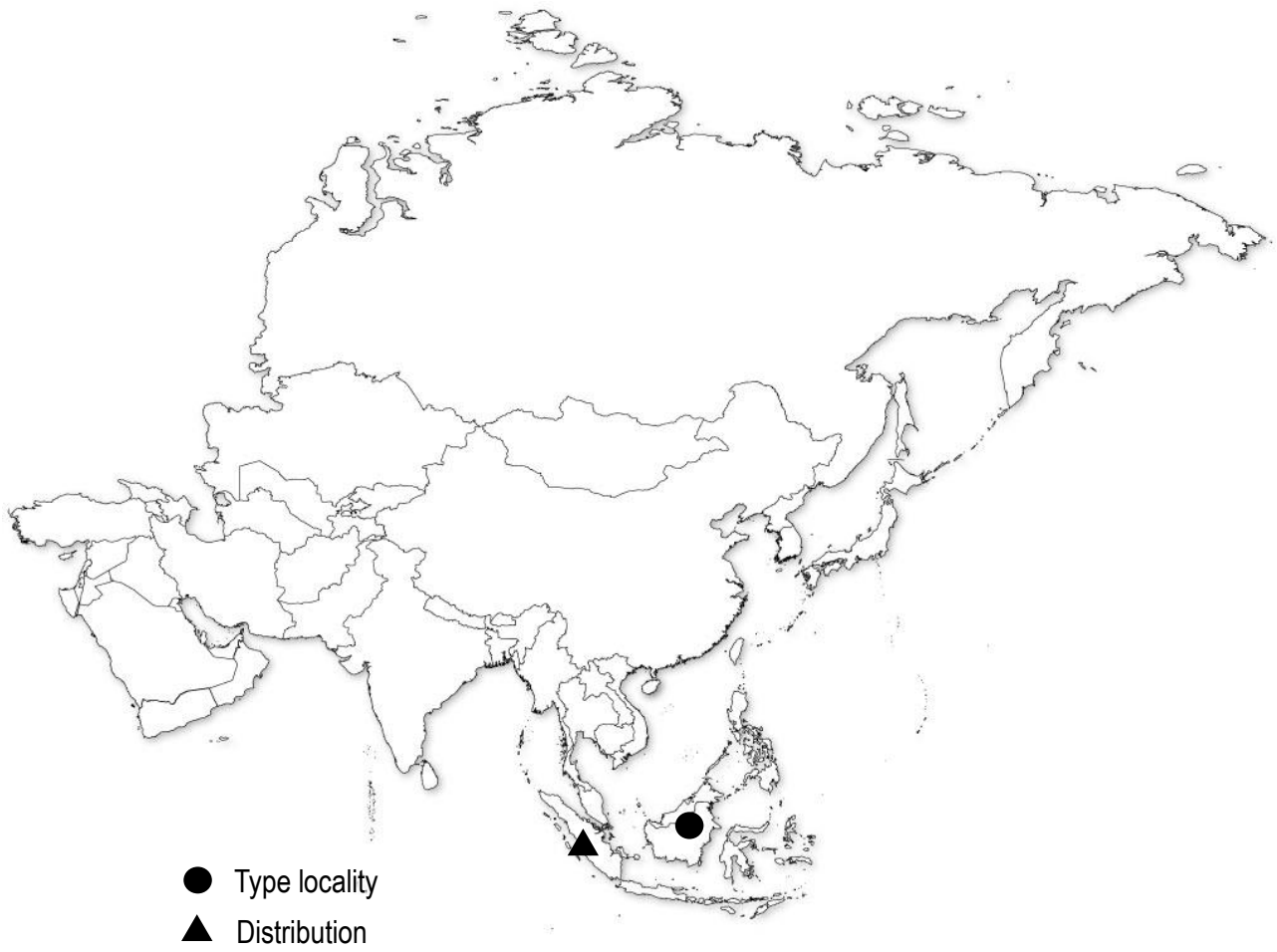


Fig. 220. Map showing the distribution of *Atholus pinnulae* (Lewis, 1900) in the Oriental and Far Eastern Asian Regions.

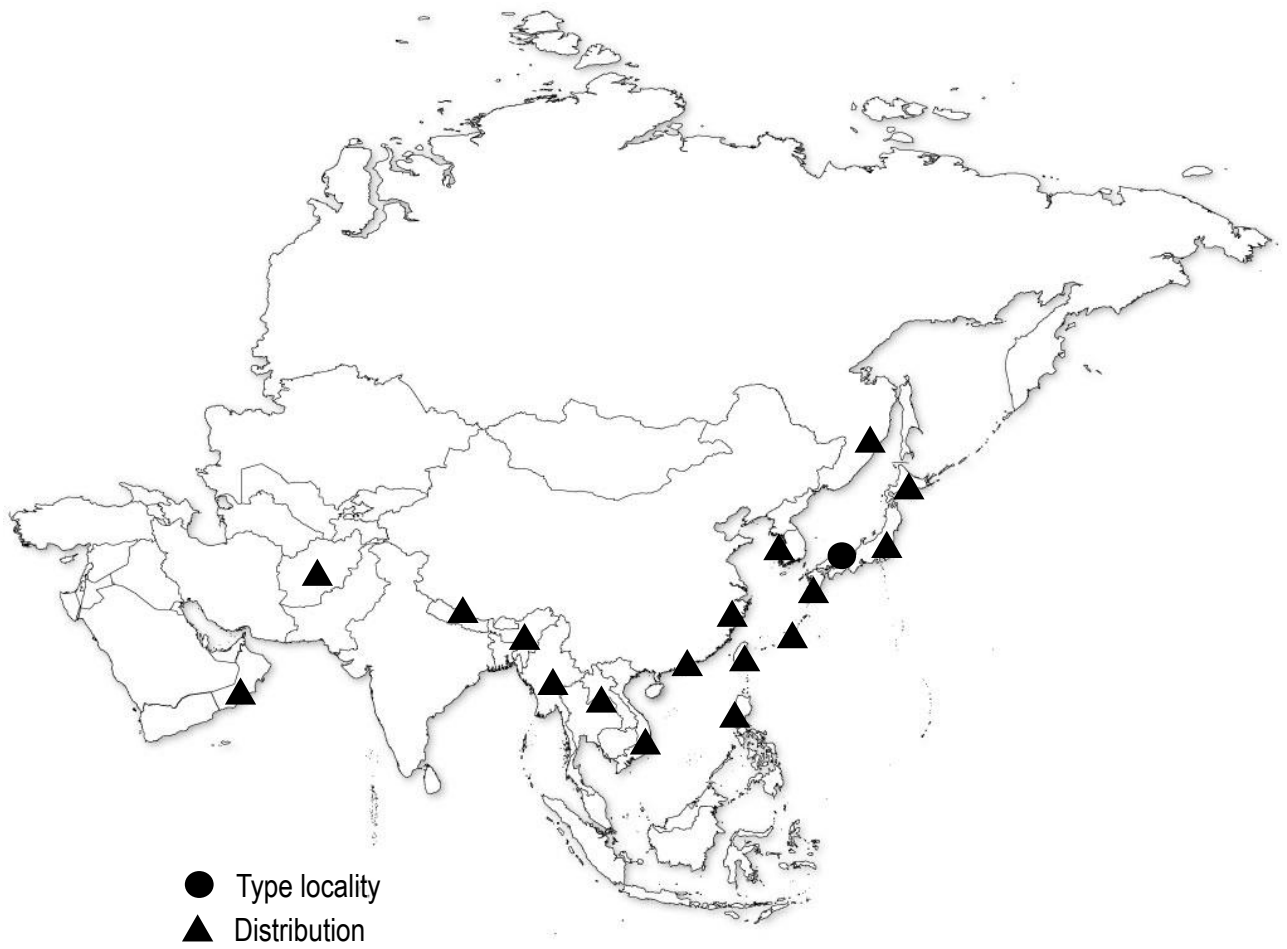


Fig. 221. Map showing the distribution of *Atholus pirithous* (Marseul, 1873) in the Oriental and Far Eastern Asian Regions.

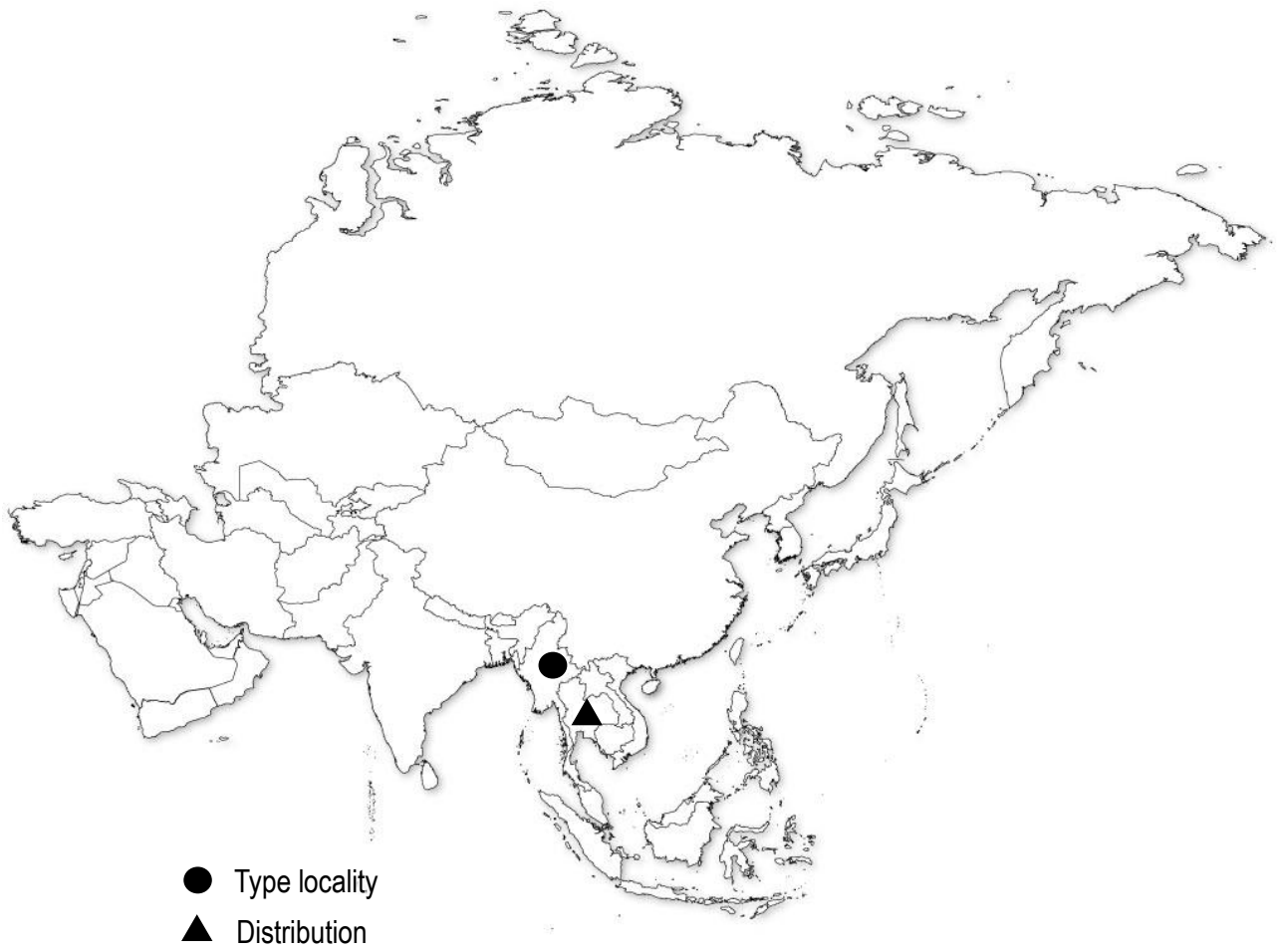


Fig. 222. Map showing the distribution of *Atholus sessilis* (Lewis, 1899) in the Oriental and Far Eastern Asian Regions.

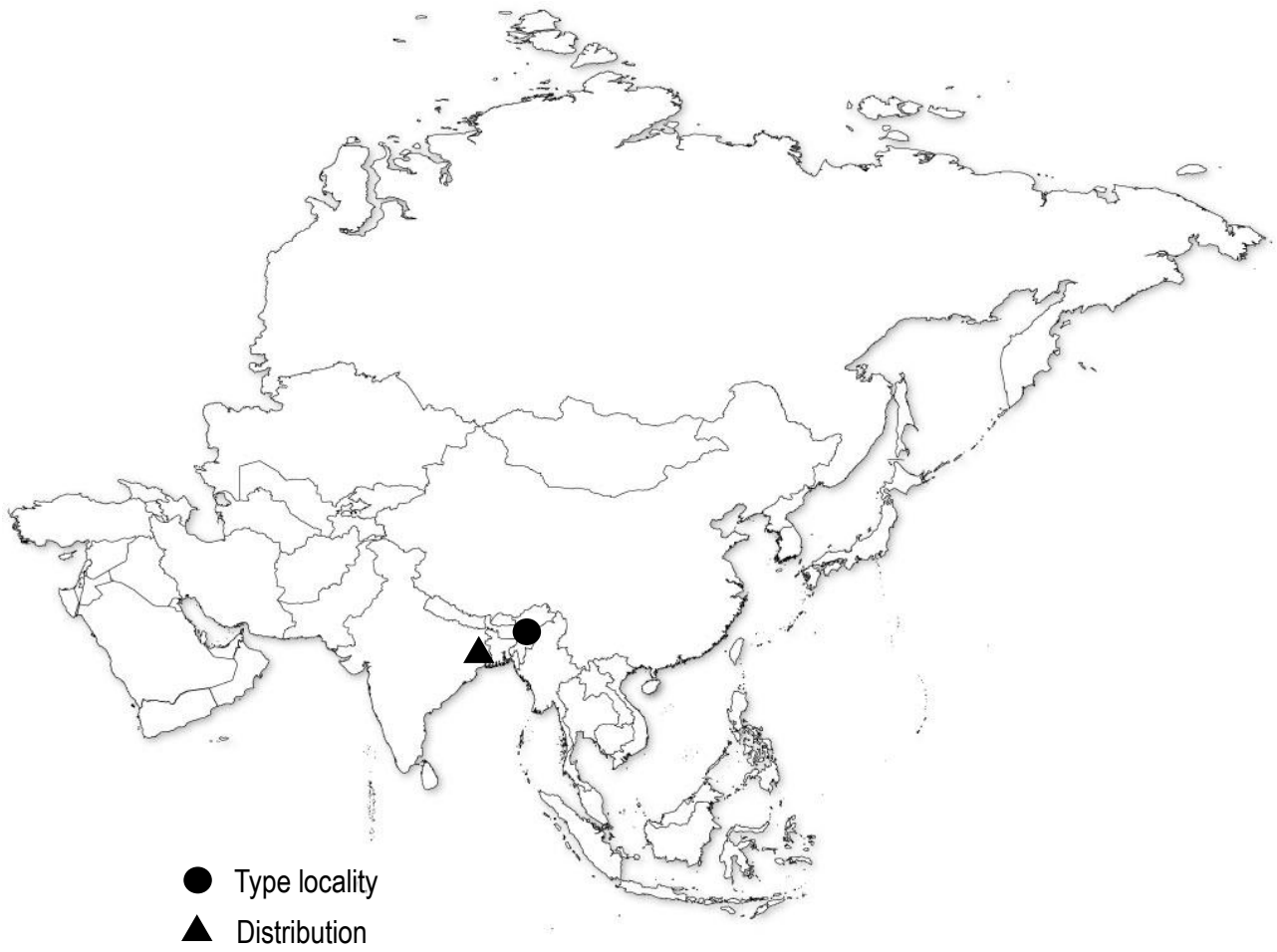


Fig. 223. Map showing the distribution of *Atholus silvicola* (Lewis, 1901) in the Oriental and Far Eastern Asian Regions.

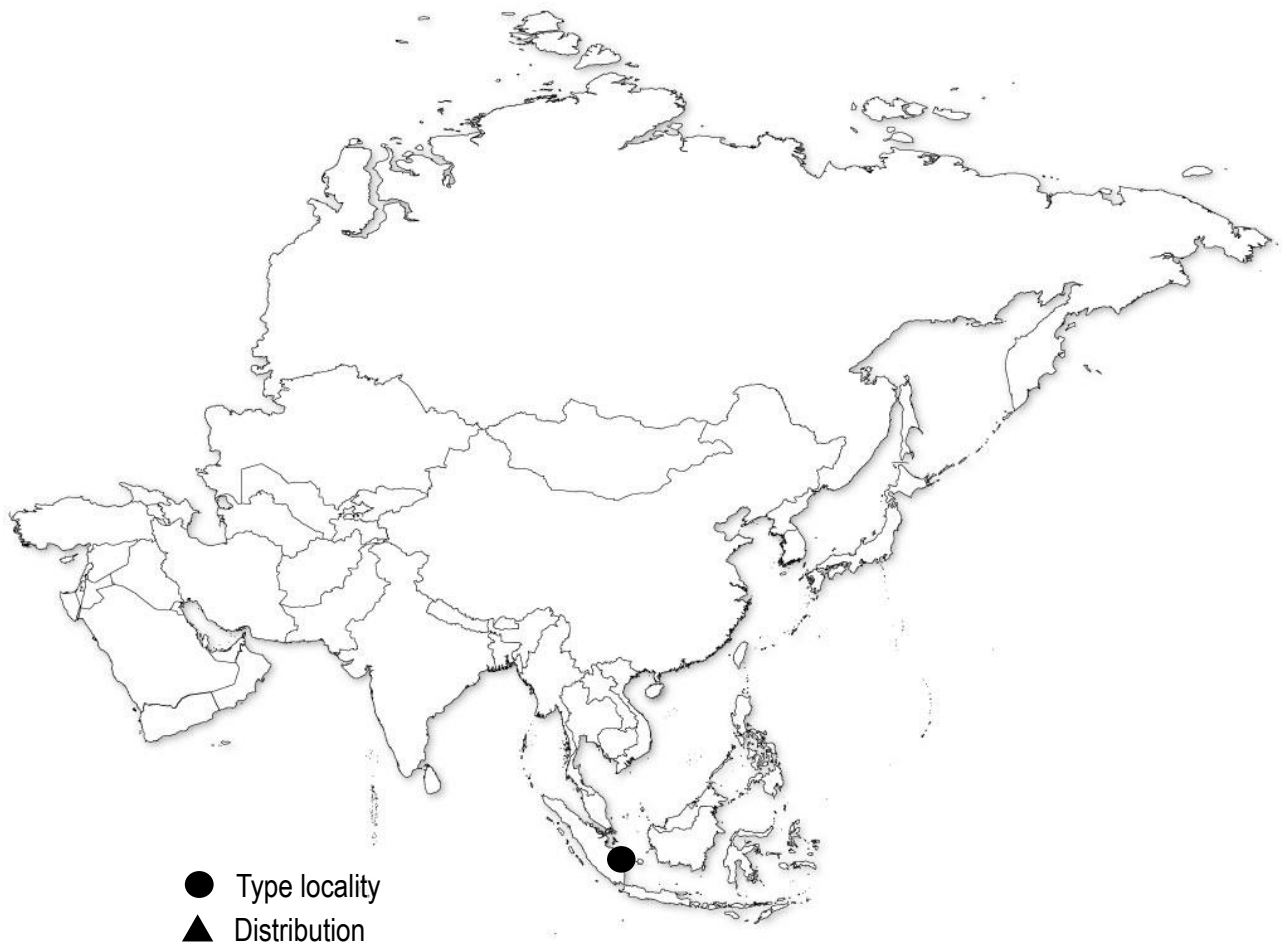


Fig. 224. Map showing the distribution of *Atholus singalanus* (Marseul, 1880) in the Oriental and Far Eastern Asian Regions.

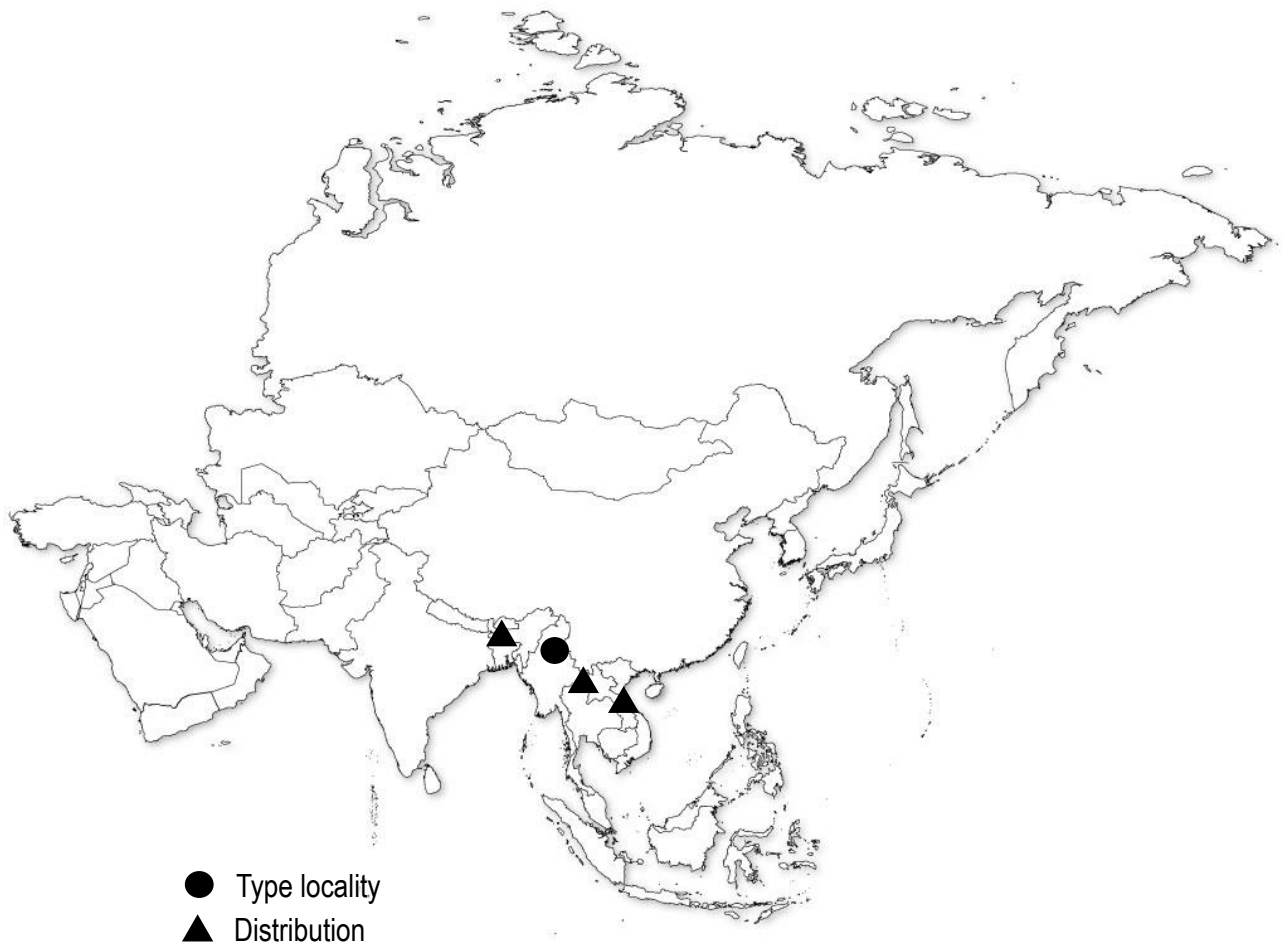


Fig. 225. Map showing the distribution of *Atholus striatipennis* (Lewis, 1892) in the Oriental and Far Eastern Asian Regions.



Fig. 226. Map showing the distribution of *Atholus tenuistriatus* (Lewis, 1889) in the Oriental and Far Eastern Asian Regions.

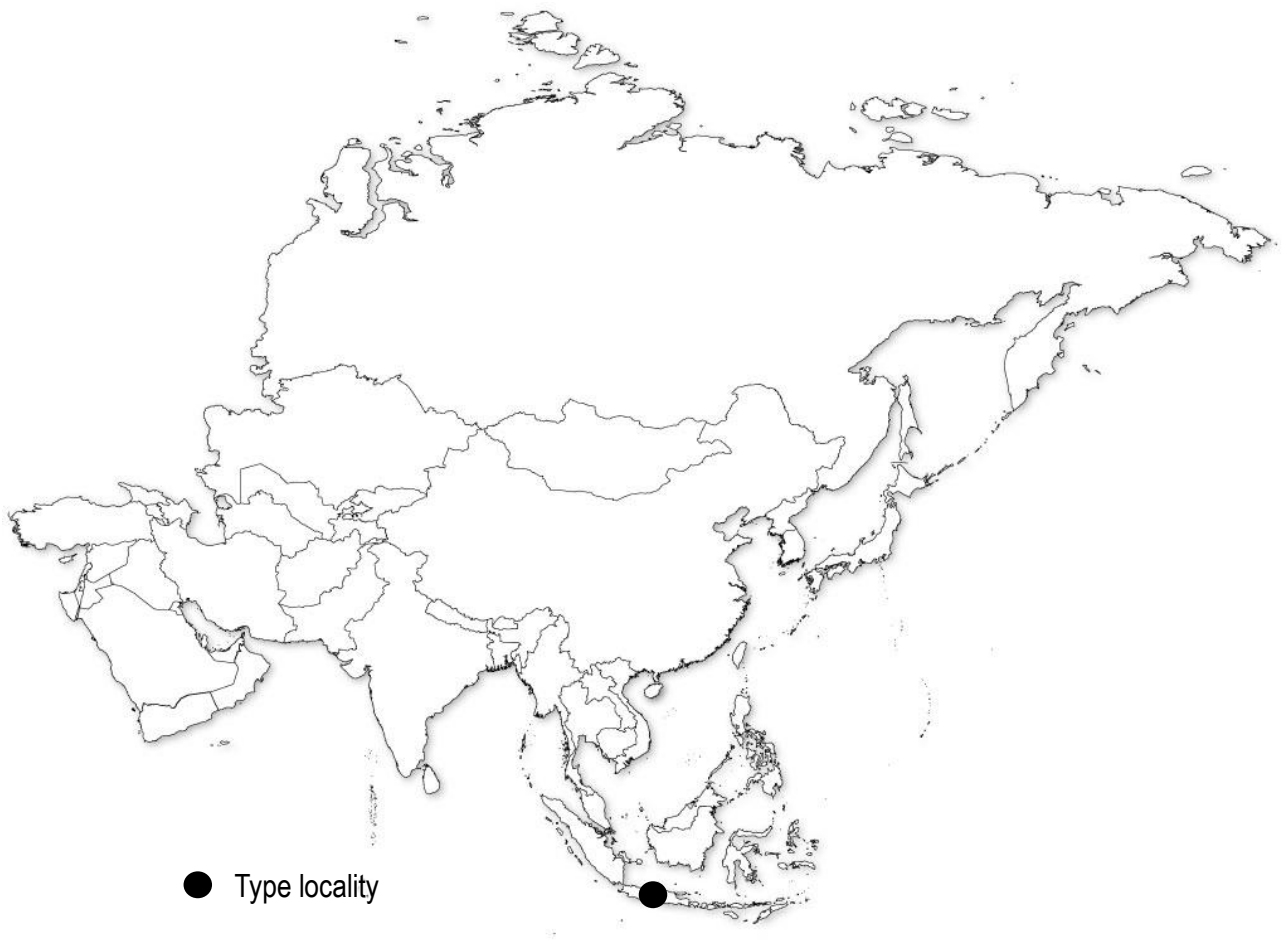


Fig. 227. Map showing the distribution of *Atholus terraemotus* (Lewis, 1900) in the Oriental and Far Eastern Asian Regions.



Fig. 228. Map showing the distribution of *Atholus tetricus* (Lewis, 1902) in the Oriental and Far Eastern Asian Regions.



Fig. 229. Map showing the distribution of *Atholus* sp. 2 in the Oriental and Far Eastern Asian Regions.

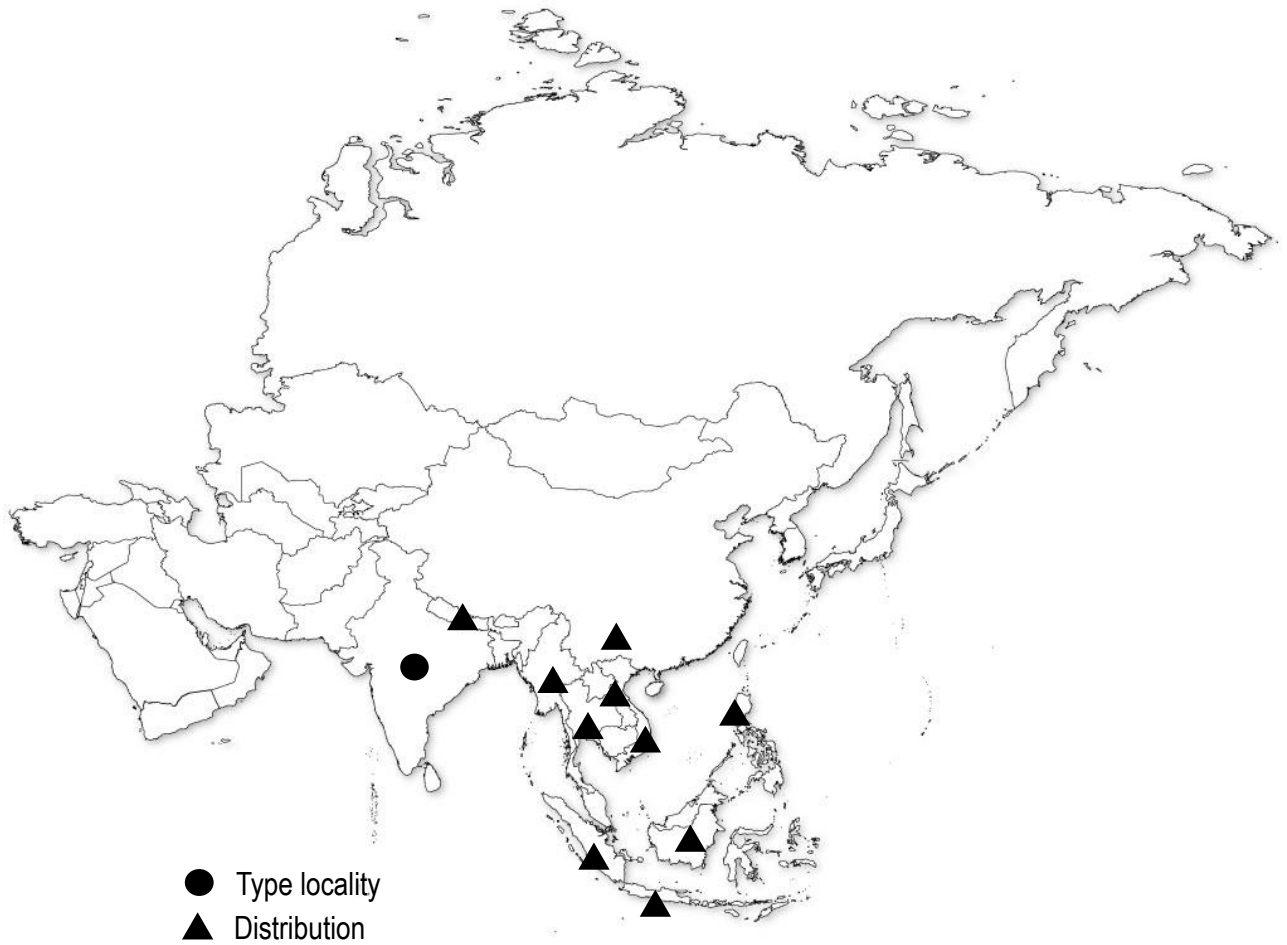


Fig. 230. Map showing the distribution of *Atholus torquatus* (Marseul, 1854) in the Oriental and Far Eastern Asian Regions.



Fig. 231. Map showing the distribution of *Atholus vacillans* (Lewis, 1900) in the Oriental and Far Eastern Asian Regions.