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Tenebrionidae (Coleoptera) collected from fruiting bodies of polypores in Sarawak, Malaysia

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ABSTRACT Additional report of Tenebrionidae collected from fruiting bodies of polypores at eight sites, including seven national parks, in Sarawak, with descriptions of nine new species, *Basides nakashizukai* sp. nov., *Basides ornatimarginatus* sp. nov., *Basides rhinoceros* sp. nov., *Boletoxenus persimilis* sp. nov., *Bolitonaeus grimmi* sp. nov., *Menimus* (*Menimus*) *pygmaeus* sp. nov., *Menimus* (*Menimus*) *sphaericus* sp. nov., *Neomida sarawakensis* sp. nov., *Pentaphyllus lambirensis* sp. nov.; Three synonyms are proposed: *Basides flavofasciatus* Pic, 1916 = *Basides bifasciatus* Motschulsky, 1873; *Ischnodactylus sexguttatus* Gebien, 1925c = *Basides trimaculatus* Pic, 1916; *Platydema sexpictum* Kaszab, 1939 = *Basides trimaculatus* Pic, 1916.

KEY WORDS Borneo / faunal checklist / fungivorous tenebrionids / insect diversity / insect inventory / insect taxonomy / Southeast Asian tropics / species diversity

Introduction

Borneo is the third largest island in the world and occupies the largest land part of "Sundaland" as one of the 25 most important global biodiversity hotspots (Myers *et al*. 2000). Sarawak is a Malaysian state, located on the northwestern area of Borneo, with 67 totally protected areas the most of which are covered by tropical rain forests that harbor the unique flora and fauna (Sarawak Forestry Corporation 2022). It is inferred that there would be extremely species-rich flora and fauna in the Sarawakian totally protected areas, with consideration of some pieces of data sets and indirect evidence obtained by several series of studies on vascular plants (Ashton 2005), on butterflies (Itioka *et al*. 2009), on polypore fungi (Yamashita *et al*. 2009), on ants (Yamane *et al*. 2018, 2021), on vascular epiphytes (Komada *et al*. 2020) and so on, at a few primary tropical rain forests in Sarawak. However, it is no doubt that we have not yet obtained sufficient floral and faunal data for inventory works on a wide range of taxa at all totally protected areas all across Sarawak.

Insecta is the most diversified taxonomic group composing at least more than half of species of all living organisms on the earth (Wilson 1992), and Coleoptera is the most species-rich order of Insecta (Bouchard *et al*. 2017). Tenebrionidae is one of the major coleopteran families in terms of species-richness (Lawrence & Britton 1991; Leschen *et al*. 2010). Tenebrionid fauna all over Sarawak remains unknown although the local faunae have been studied at a few areas in Sarawak (e.g. Ando 2010; Ando *et al*. 2017; Grimm 2010, 2011, 2013–2017).

From 2009 till 2018, SY, PM and TI conducted field surveys in order to assess diversities of various insect, plant and fungal taxa at a regional scale all across Sarawak. As part of the

diversity assessment, SY collected polypore fungi and insects inhabiting the fungi at nine sites, including eight national parks, all over Sarawak, and then KA taxonomically studied the collected tenebrionids. In this paper we list all the tenebrionid specimens, as the second part of Tenebrionidae recorded from Sarawak, Malaysia.

Materials and Methods

The specimens used in this study belong to Forest Department Sarawak. They were collected from eight sites in Sarawak, consisting of one upperstream site of the Baram River and the following seven national parks: Gunung Gading National Park, Gunung Mulu National Park, Kubah National Park, Lambir Hills National Park, Loagan Bunut National Park, Niah National Park, Similajau National Park. The upperstream site, Long Semiyang, is located in the upper river basin of the Baram River, and the plots for collecting the target insects there were mainly in primary and secondary forests spreading within a four-kilometer radius from an approximate center (3°06'51.4"N 115°07'42.3"E) of Long Semiyang. The environmental characteristics, such as vegetation, landscape, climate and geography etc., for each of the seven national parks were described by Hazebroek & Morshidi (2006).

The specimens were observed with a Leica MZ16 stereomicroscope. Male and female terminalia were dissected from specimens relaxed in hot water for about one hour, and then cleared in hot KOH solution, neutralized with weak acetic acid, and rinsed with water. The illustrations of genitalia, ventral parts, and legs were drawn with a Leica drawing tube attached to the microscope. The terminalia were glued onto a paper card. Photographs of specimens were taken with a Canon EOS 7D reflex camera with two macro lenses (Canon macro photo lens MP-E65 mm and EF 100 mm), and combined using a digital auto-montage software (Helicon Focus, v. 7.5.1 Pro).

The holotypes and examined specimens proposed in this study are deposited in Research, Development and Innovation Division, Forest Department Sarawak (FDS), Kuching.

Examined types of the known species are deposited in the following institutes:

Muséum National d'Histoire Naturelle, Paris, France (MNHN);
Natural History Museum of Basel, Switzerland (NHMB);
Natural History Museum London (BMNH);
Senckenberg Deutsches Entomologisches Institut, Müncheberg, Germany (SDEI).

Of the examined types, attached labels are separated by double slash (//), separate lines of the same label are demarcated by a slash (/), abbreviations for the types and measurements are: LT — lectotype; PLT — paralectotype; ST — syntype; HT — holotype; PT — paratype.

Body length refers to the median length from the apex of labrum to the apices of elytra. Abbreviations of body parts in the descriptions are as follows: EL — length of elytra along midline, from anterior margin of scutellum to elytral apices; EW — maximum width of

elytra; IE — distance between eyes; PL — length of pronotum along midline; PW — maximum width of pronotum; TD — transverse diameter of an eye in dorsal view; WC — maximum width of clypeus.

Taxonomy

Subfamily Tenebrioninae Latreille, 1802

Tribe Bolitophagini Kirby, 1837

Subtribe Bolitophagina Kirby, 1837

Atasthalus spectrum Pascoe, 1871

Atasthalus spectrum Pascoe, 1871: 348; Gebien, 1914: 2; Gebien, 1925b: 424; Gebien, 1939: 758; Ando, 2010: 152; Ando *et al*., 2017: 130; Grimm & Schawaller, 2019: 63. Type locality: Malacca.

Atasthalus spectrum callosus Gebien, 1925b: 424; Gebien, 1939: 758; Masumoto & Makihara, 1997: 117; Ando, 2010: 152.

Additional specimens examined.

1 ♂, Gunung Gading National Park, Sarawak, Borneo, 10.XII.2016, S. Yamashita leg. [♂: BGGG 16-0183];
1 ♀, Gunung Mulu National Park, Sarawak, Borneo, 21.II.2011, S. Yamashita leg. [♀: 7332];
1 ♀, ditto, 6.VIII.2013, S. Yamashita leg. [♀: 13580];
5 ♂♂, 1 ♀, ditto, 9.VIII.2013, S. Yamashita leg. [♂♂: 13428, 13540, 13541, 13721, 13722; ♀: 13662];
5 ♂♂, 2 ♀♀, ditto, 10.VIII.2013, S. Yamashita leg. [♂♂: 13477, 13677, 13953, 13954, 13955; ♀♀: 13476, 13675];
5 ♂♂, 4 ♀♀, ditto, 25.IX.2017, S. Yamashita leg. [♂♂: BGMS17-0118, BGMS17-0119, BGMS17-0121, BGMS17-0122, BGMS17-0123; ♀♀: BGMS17-0115, BGMS17-0116, BGMS17-0117, BGMS17-0120];
3 ♀♀, Kubah National Park, Sarawak, Borneo, 6.XII.2017, S. Yamashita leg. [♀♀: BGKB17-0028, BGKB17-0058, BGKB17-0060];
2 ♀♀, ditto, 7.XII.2017, S. Yamashita leg. [♀♀: BGKB17-0216, BGKB17-0263];
2 ♀♀, Lambir Hills National Park, Sarawak, Borneo, 1.V.2011, S. Yamashita leg. [♀♀: 10231, 10241];
1 ♂, 1 ♀, ditto, 22.IV.2011, S. Yamashita leg. [♂: 10111; ♀: 10121];
5 ♂♂, ditto, 23.IV.2011, S. Yamashita leg. [♂♂: 10153, 10154, 10160, 10161, 10165];
1 ♀, ditto, 24.IV.2011, S. Yamashita leg. [♀: 10221];
1 ♂, 5 ♀♀, ditto, 17.XI.2012, S. Yamashita leg. [♂: 12655; ♀♀: 12580, 12656, 12660, 12680, 12708];
3 ♂♂, 7 ♀♀, ditto, 18.XI.2012, S. Yamashita leg. [♂♂: 12465, 12519, 12522; ♀♀: 12466, 12495, 12517, 12518, 12520, 12521, 12523];
1 ♂, ditto, 19.XI.2012, S. Yamashita leg. [♂: 12391];
5 ♂♂, 1 ♀, ditto, 20.XI.2012, S. Yamashita leg. [♂♂: 12001, 12004, 12006, 12124, 12330; ♀: 12287];

3 ♀♀, ditto, 5.XII.2012, S. Yamashita leg. [♀♀: 12059, 12161, 12277];
3 ♀♀, ditto, 27.I.2017, S. Yamashita leg. [♀♀: BGLH17-0006, BGLH17-0007, BGLH17-0008];
1 ♂, 3 ♀♀, ditto, 31.I.2017, S. Yamashita leg. [♂: BGLH17-0148; ♀♀: BGLH17-0036, BGLH17-0085, BGLH17-0136];
2 ♂♂, 2 ♀♀, Loagan Bunut National Park, Sarawak, Borneo, 28.IV.2011, S. Yamashita leg. [♂♂: 10272, 10307; ♀♀: 10281, 10321];
2 ♂♂, ditto, 3.XII.2012, S. Yamashita leg. [♂♂: 12851, 12856];
1 ♂, Long Semiyang, Sarawak, Borneo, 29.VII.2009, S. Yamashita leg. [♂: 5255];
1 ♂, ditto, 30.VII.2009, S. Yamashita leg. [♂: 5376];
8 ♂♂, 5 ♀♀, ditto, 19.VII.2011, S. Yamashita leg. [♂♂: 10517, 10577, 10578, 10579, 10580, 10581, 10634, 10792; ♀♀: 10550, 10583, 10594, 10597, 10623];
1 ♂, 1 ♀, ditto, 20.VII.2011, S. Yamashita leg. [♂: 11084; ♀: 11204];
2 ♂♂, ditto, 21.VII.2011, S. Yamashita leg. [♂♂: 11427, 11435];
7 ♀♀, ditto, 23.VII.2011, S. Yamashita leg. [♀♀: 11264, 11266, 11467, 11493, 11494, 11548, 11549];
1 ♂, 1 ♀, Niah National Park, Sarawak, Borneo, 18.III.2011, S. Yamashita leg. [♂: 7582; ♀: 7583];
1 ♂, ditto, 17.II.2013, S. Yamashita leg. [♂: 13348];
3 ♀♀, Similajau National Park, Sarawak, Borneo, 10.II.2011, S. Yamashita leg. [♀♀: 7104, 7105, 7106].
1 ♀, ditto, 12.II.2013, S. Yamashita leg. [♀: 13212];

[*Specimens in form of* ***Atasthalus spectrum callosus*** Gebien, 1925]
3 ♂♂, Gunung Mulu National Park, Sarawak, Borneo, 9.VIII.2013, S. Yamashita leg. [♂♂: 13542, 13723, 13951];
6 ♂♂, 1 ♀, ditto, 10.VIII.2013, S. Yamashita leg. [♂♂: 13673, 13674, 13676, 13934, 13952, 13956; ♀: 13475];
1 ♂, ditto, 11.VIII.2013, S. Yamashita leg. [♂: 13619];
1 ♂, Kubah National Park, Sarawak, Borneo, 7.XII.2017, S. Yamashita leg. [♂: BGKB17-0217];
1 ♂, Lambir Hills National Park, Sarawak, Borneo, 21.IV.2011, S. Yamashita leg. [♂: 10030];
2 ♂♂, ditto, 22.IV.2011, S. Yamashita leg. [♂♂: 10110, 10139];
15 ♂♂, ditto, 23.IV.2011, S. Yamashita leg. [♂♂: 10152, 10155, 10156, 10157, 10158, 10159, 10162, 10163, 10164, 10166, 10167, 10168, 10169, 10170, 10171];
2 ♂♂, ditto, 24.IV.2011, S. Yamashita leg. [♂♂: 10180, 10185];
3 ♂♂, ditto, 1.V.2011, S. Yamashita leg. [♂♂: 10230, 10235, 10254];
2 ♂♂, ditto, 18.XI.2012, S. Yamashita leg. [♂♂: 12222, 12562];
20 ♂♂, ditto, 20.XI.2012, S. Yamashita leg. [♂♂: 12002, 12003, 12005, 12086, 12125, 12126, 12280, 12282, 12283, 12284, 12285, 12286, 12288, 12289, 12290, 12291, 12292, 12293, 12294, 12295];
2 ♂♂, ditto, 5.XII.2012, S. Yamashita leg. [♂♂: 12022, 12619];
2 ♂♂, ditto, 31.I.2017, S. Yamashita leg. [♂♂: BGLH17-0068, BGLH17-0161];
1 ♂, Loagan Bunut National Park, Sarawak, Borneo, 28.IV.2011, S. Yamashita leg. [♂: 10328];
2 ♂♂, ditto, 29.IV.2011, S. Yamashita leg. [♂♂: 10422, 10426];
1 ♂, ditto, 3.XII.2012, S. Yamashita leg. [♂: 12853];
3 ♂♂, Long Semiyang, Sarawak, Borneo, 29.VII.2009, S. Yamashita leg. [♂♂: 5253, 5254, 5256];
3 ♂♂, ditto, 19.VII.2011, S. Yamashita leg. [♂♂: 10525, 10657, 10791];
2 ♂♂, ditto, 20.VII.2011, S. Yamashita leg. [♂♂: 10930, 11083];

2 ♂♂, ditto, 23.VII.2011, S. Yamashita leg. [♂♂: 11482, 11535].

Distribution. Malay Peninsula (Malacca), Sumatra, Java, Borneo (Sabah, Sarawak, Kalimantan).

Atasthalus miles Gebien, 1914

Atasthalus miles Gebien, 1914: 2; Gebien, 1925b: 425; Gebien, 1939: 758; Grimm, 2014: 184; Grimm & Schawaller, 2019: 63. Type locality: Borneo (Kuching & Matang Rd.).

Additional specimens examined.

2 ♂♂, 1 ♀, Gunung Mulu National Park, Sarawak, Borneo, 7.VIII.2013, S. Yamashita leg. [♂♂: 13829, 14130; ♀: 13620];

1 ♀, ditto, 9.VIII.2013, S. Yamashita leg. [♀: 13852];

1 ♂, 1 ♀, Loagan Bunut National Park, Sarawak, Borneo, 28.IV.2011, S. Yamashita leg. [♂: 10319; ♀: 10318];

1 ♀, Long Semiyang, Sarawak, Borneo, 30.VII.2009, S. Yamashita leg. [♀: 5375];

2 ♂♂, 1 ♀, ditto, 19.VII.2011, S. Yamashita leg. [♂♂: 10521, 10845; ♀: 10790];

2 ♂♂, 2 ♀♀, ditto, 20.VII.2011, S. Yamashita leg. [♂♂: 10978, 11043; ♀♀: 10977, 11044].

Distribution. Sumatra, Borneo (Sarawak).

Boletoxenus bifurcus Pascoe, 1871

Bolitoxenus [sic] *bifurcus* Pascoe, 1871: 350; Gebien, 1925b: 435. Type locality: Penang.
Bolitoxenus [sic] *capricornis* Gebien, 1914: 6. Type locality: Kuching.
Boletoxenus bifurcus Pascoe, 1871; Gebien, 1939: 757; Ando, 2010: 156; Grimm, 2014: 184; Grimm & Schawaller, 2019: 63.

Additional specimens examined.

1 ♂, Kubah National Park, Sarawak, Borneo, 6.XII.2017, S. Yamashita leg. [♂: ID: BGKB17-0062];

2 ♂♂, ditto, 9.XII.2017, S. Yamashita leg. [♂♂: ID: BGKB17-0339, BGKB17-0340];

2 ♂♂, Lambir Hills National Park, Sarawak, Borneo, 24.IV.2011, S. Yamashita leg. [♂♂: 10208, 10222];

1 ♂, ditto, 1.V.2011, S. Yamashita leg. [♂: 10229];

3 ♀♀, ditto, 16.XI.2012, S. Yamashita leg. [♀♀: 12649, 12650, 12782];

7 ♂♂, 3 ♀♀, ditto, 17.XI.2012, S. Yamashita leg. [♂♂: 12581, 12681, 12684, 12700, 12713, 12730, 12798; ♀♀: 12701, 12731, 12732];

3 ♂♂, ditto, 18.XI.2012, S. Yamashita leg. [♂♂: 12485, 12494, 12564];

6 ♂♂, 5 ♀♀, ditto, 5.XII.2012, S. Yamashita leg. [♂♂: 12053, 12055, 12056, 12058, 12162, 12326; ♀♀: 12054, 12057, 12062, 12327, 12574];

2 ♂♂, ditto, 27.I.2017, S. Yamashita leg. [♂♂: BGLH-17-0004, BGLH17-0005];

2 ♂♂, 2 ♀♀, ditto, 31.I.2017, S. Yamashita leg. [♂♂: BGLH17-0035, BGLH17-0086; ♀♀: BGLH-17-0134, BGLH-17-0135];

1 ♂, 1 ♀, Loagan Bunut National Park, Sarawak, Borneo, 28.IV.2011, S. Yamashita leg. [♂: 10279; ♀: 10280];

3 ♂♂, 3 ♀♀, ditto, 3.XII.2012, S. Yamashita leg. [♂♂: 12827, 12828, 12842; ♀♀: 12829, 12852, 12873];

6 ♂♂, Long Semiyang, Sarawak, Borneo, 19.VII.2011, S. Yamashita leg. [♂♂: 10582, 10592, 10593, 10595, 10598, 10611];

4 ♂♂, 4 ♀♀, ditto, 20.VII.2011, S. Yamashita leg. [♂♂: 11045, 11046, 11047, 11202; ♀♀: 10876, 11048, 11105, 11203];
2 ♂♂, ditto, 21.VII.2011, S. Yamashita leg. [♂♂: 11417, 11418];
13 ♂♂, ditto, 23.VII.2011, S. Yamashita leg. [♂♂: 11263, 11265, 11267, 11268, 11455, 11488, 11490, 11491, 11492, 11517, 11546, 11547, 11550];
4 ♂♂, 1 ♀, Niah National Park, Sarawak, Borneo, 19.VI.2017, S. Yamashita leg. [♂♂: BGNa17-0164, BGNa17-0297, BGNa17-0420, BGNa17-0421; ♀: BGNa17-0417];
1 ♂, 4 ♀♀, Similajau National Park, Sarawak, Borneo, 11.II.2013, S. Yamashita leg. [♂: 13329; ♀♀: 13242, 13328, 13330, 13331].
10 ♂♂, 5 ♀♀, ditto, 12.II.2013, S. Yamashita leg. [♂♂: 13171, 13172, 13173, 13174, 13175, 13176, 13197, 13213, 13215, 13216; ♀♀: 13186, 13187, 13198, 13199, 13214].

Distribution. Malay Peninsula, Sumatra, Borneo (Sabah, Sarawak, Kalimantan).

Boletoxenus inouei Ando, 2010

Boletoxenus inouei Ando, 2010: 157; Grimm, 2014: 185; Grimm & Schawaller, 2019: 63. Type locality: Borneo (Sarawak).

Additional specimens examined.

9 ♂♂, 7 ♀♀, Kubah National Park, Sarawak, Borneo, 6.XII.2017, S. Yamashita leg. [♂♂: BGKB17-0004, BGKB17-0005, BGKB17-0029, BGKB17-0065, BGKB17-0066, BGKB17-0067, BGKB17-0068, BGKB17-0069, BGKB17-0071; ♀♀: BGKB17-0056, BGKB17-0063, BGKB17-0064, BGKB17-0070, BGKB17-0072, BGKB17-0073, BGKB17-0074];
27 ♂♂, 21 ♀♀, ditto, 7.XII.2017, S. Yamashita leg. [♂♂: BGKB17-0282, BGKB17-0283, BGKB17-0284, BGKB17-0285, BGKB17-0288, BGKB17-0290, BGKB17-0291, BGKB17-0292, BGKB17-0293, BGKB17-0295, BGKB17-0297, BGKB17-0299, BGKB17-0302, BGKB17-0303, BGKB17-0304, BGKB17-0313, BGKB17-0314, BGKB17-0315, BGKB17-0316, BGKB17-0317, BGKB17-0318, BGKB17-0320, BGKB17-0321, BGKB17-0322, BGKB17-0324, BGKB17-0325, BGKB17-0326; ♀♀: BGKB17-0286, BGKB17-0287, BGKB17-0289, BGKB17-0294, BGKB17-0296, BGKB17-0298, BGKB17-0300, BGKB17-0301, BGKB17-0305, BGKB17-0306, BGKB17-0307, BGKB17-0308, BGKB17-0309, BGKB17-0310, BGKB17-0311, BGKB17-0312, BGKB17-0319, BGKB17-0323, BGKB17-0327, BGKB17-0328, BGKB17-0329];
1 ♂, Lambir Hills National Park, Sarawak, Borneo, 24.IV.2011, S. Yamashita leg. [♂: 10209];
1 ♂, ditto, 16.XI.2012, S. Yamashita leg. [♂: 12733];
8 ♂♂, 6 ♀♀, ditto, 17.XI.2012, S. Yamashita leg. [♂♂: 12585, 12586, 12587, 12685, 12687, 12688, 12703, 12705; ♀♀: 12582, 12682, 12683, 12686, 12689, 12707];
1 ♀, ditto, 19.XI.2012, S. Yamashita leg. [♀: 12255];
2 ♂♂, ditto, 31.I.2017, S. Yamashita leg. [♂♂: BGLH17-0087, BGLH17-0133];
2 ♂♂, Long Semiyang, Sarawak, Borneo, 29.VII.2009, S. Yamashita leg. [♂♂: 5257, 5259];
3 ♂♂, 3 ♀♀, ditto, 20.VII.2011, S. Yamashita leg. [♂♂: 10865, 10866, 10867; ♀♀: 10864, 10982, 11041];
4 ♂♂, ditto, 23.VII.2011, S. Yamashita leg. [♂♂: 11314, 11456, 11457, 11551];
2 ♀♀, Niah National Park, Sarawak, Borneo, 16.III.2011, S. Yamashita leg. [♀♀: 7568, 7569];
1 ♂, ditto, 18.III.2011, S. Yamashita leg. [♂: 7573];
3 ♂♂, 3 ♀♀, ditto, 18.VI.2017, S. Yamashita leg. [♂♂: BGNa17-0048, BGNa17-0049, BGNa17-0050; ♀♀: BGNa17-0013, BGNa17-0055, BGNa17-0056];

2 ♀♀, ditto, 19.VI.2017, S. Yamashita leg. [♀♀: BGNa17-0418, BGNa17-0419];
1 ♀, Similajau National Park, Sarawak, Borneo, 9.II.2011, S. Yamashita leg. [♀: 7100];
1 ♀, ditto, 12.II.2011, S. Yamashita leg. [♀: 7182];
1 ♂, ditto, 11.II.2013, S. Yamashita leg. [♂: 13332];
2 ♀♀, ditto, 12.II.2013, S. Yamashita leg. [♀♀: 13179, 13185];
8 ♂♂, 10 ♀♀, ditto, 25.VI.2017, S. Yamashita leg. [♂♂: BGSm17-0159, BGSm17-0160, BGSm17-0161, BGSm17-0162, BGSm17-0164, BGSm17-0166, BGSm17-0168, BGSm17-0214; ♀♀: BGSm17-0155, BGSm17-0156, BGSm17-0157, BGSm17-0158, BGSm17-0163, BGSm17-0165, BGSm17-0167, BGSm17-0169, BGSm17-0213, BGSm17-0215];
1 ♂, ditto, 26.VI.2017, S. Yamashita leg. [♂: BGSm17-0294].

Distribution. Borneo (Sarawak).

Boletoxenus mixtus Grimm, 2014

Boletoxenus mixtus Grimm, 2014: 185; Grimm & Schawaller, 2019: 63. Type locality: Borneo (Sabah, E Kalimantan).

Additional specimens examined.

1 ♂, Kubah National Park, Sarawak, Borneo, 6.XII.2017, S. Yamashita leg. [♂: BGKB17-0061];
2 ♂♂, 1 ♀, Lambir Hills National Park, Sarawak, Borneo, 16.XI.2012, S. Yamashita leg. [♂♂: 12764, 12765; ♀: 12763].

Notes. This species is recorded from Sarawak for the first time.

Distribution. Borneo (Sabah, Sarawak, Kalimantan).

Boletoxenus recticornis Gebien, 1925

Bolitoxenus [sic] *recticornis* Gebien, 1925b: 433. Type locality: Sumatra.
Boletoxenus recticornis Gebien, 1925; Gebien, 1939: 757; Ando, 2010: 157; Grimm, 2014: 185; Grimm & Schawaller, 2019: 63.

Additional specimens examined.

1 ♀, Kubah National Park, Sarawak, Borneo, 6.XII.2017, S. Yamashita leg. [♀: ID: BGKB17-0059];
1 ♀, Lambir Hills National Park, Sarawak, Borneo, 17.XI.2012, S. Yamashita leg. [♀: 12583];
2 ♂♂, ditto, 19.XI.2012, S. Yamashita leg. [♂♂: 12320, 12366];
4 ♂♂, 5 ♀♀, Long Semiyang, Sarawak, Borneo, 19.VII.2011, S. Yamashita leg. [♂♂: 10653, 10654, 10658, 10659; ♀♀: 10652, 10655, 10660, 10661, 10802];
1 ♂, 2 ♀♀, Similajau National Park, Sarawak, Borneo, 12.II.2013, S. Yamashita leg. [♂: 13196; ♀♀: 13181, 13200].

Distribution. Sumatra, Borneo (Sarawak & Kalimantan).

Boletoxenus spectabilis Gebien, 1914

Bolitoxenus [sic] *spectabilis* Gebien, 1914: 4. Type locality: Kuching.
Boletoxenus spectabilis Gebien, 1914; Gebien, 1939: 757; Grimm, 2014: 186; Grimm & Schawaller, 2019: 63.

Additional specimens examined.

1 ♂, Long Semiyang, Sarawak, Borneo, 20.VII.2011, S. Yamashita leg. [♂: 10979];
1 ♀, ditto, 21.VII.2011, S. Yamashita leg. [♀: 11419];
1 ♀, ditto, 23.VII.2011, S. Yamashita leg. [♀: 11470].

Distribution. Malay Peninsula, Sumatra, Borneo (Sarawak), Sunda Isls.

Bolitonaeus crebrepunctaticollis Grimm, 2014

Bolitonaeus crebrepunctaticollis Grimm, 2014: 186; Grimm & Schawaller, 2019: 63. Type locality: Borneo (Sarawak: Kubah National Park).

Additional specimens examined.

10 ♂♂, 14 ♀♀, Gunung Mulu National Park, Sarawak, Borneo, 24.IX.2017, S. Yamashita leg. [♂♂: BGMS17-0044, BGMS17-0045, BGMS17-0046, BGMS17-0051, BGMS17-0052, BGMS17-0055, BGMS17-0097, BGMS17-0100, BGMS17-0104, BGMS17-0108; ♀♀: BGMS17-0043, BGMS17-0047, BGMS17-0048, BGMS17-0049, BGMS17-0050, BGMS17-0053, BGMS17-0054, BGMS17-0056, BGMS17-0099, BGMS17-0101, BGMS17-0102, BGMS17-0103 , BGMS17-0105, BGMS17-0107];

1 ♂, ditto, 25.IX.2017, S. Yamashita leg. [♂: BGMS17-0114];

1 ♀, Kubah National Park, Sarawak, Borneo, 6.XII.2017, S. Yamashita leg. [♀: BGKB17-0030];

1 ♀, ditto, 7.XII.2017, S. Yamashita leg. [♀: BGKB17-0270];

2 ♂♂, 6 ♀♀, Long Semiyang, Sarawak, Borneo, 29.VII.2009, S. Yamashita leg. [♂♂: 5306, 5309; ♀♀: 5303, 5304, 5305, 5307, 5311, 5315];

1 ♀, ditto, 30.VII.2009, S. Yamashita leg. [♀: 5386];

1 ♀, ditto, 31.VII.2009, S. Yamashita leg. [♀: 5483].

8 ♂♂, 7 ♀♀, ditto, 19.VII.2011, S. Yamashita leg. [♂♂: 10523, 10539, 10547, 10549, 10609, 10613, 10620, 10622; ♀♀: 10535, 10536, 10538, 10553, 10612, 10615, 10617];

18 ♂♂, 16 ♀♀, ditto, 20.VII.2011, S. Yamashita leg. [♂♂: 10841, 10879 , 10883 , 10886 , 10887 , 10981, 10989, 10992, 11025, 11051, 11054, 11151, 11163, 11164, 11174, 11175, 11177, 11182; ♀♀: 10877 , 10878 , 10880 , 10881 , 10884 , 10885 , 10888 , 10990, 11017, 11052, 11053, 11150, 11173, 11180, 11183, 11193];

2 ♂♂, 1 ♀, ditto, 21.VII.2011, S. Yamashita leg. [♂♂: 11378, 11379; ♀: 11381];

2 ♀♀, ditto, 23.VII.2011, S. Yamashita leg. [♀♀: 11269, 11498].

Distribution. Borneo (Sarawak).

Bolitonaeus dentipes Gebien, 1925

Bolitonaeus dentipes Gebien, 1925b: 439; Gebien, 1939: 756; Ando, 2010: 159; Grimm, 2014: 188; Grimm & Schawaller, 2019: 63. Type locality: “Nordost Sumatra”.

Additional specimens examined.

1 ♂, 3 ♀♀, Gunung Mulu National Park, Sarawak, Borneo, 20.II.2011, S. Yamashita leg. [♂: 7492; ♀♀: 7493, 7494, 7495];

1 ♂, ditto, 5.VIII.2013, S. Yamashita leg. [♂: 13990];

13 ♂♂, 33 ♀♀, ditto, 7.VIII.2013, S. Yamashita leg. [♂♂: 13582, 13585, 13590, 13593, 13629, 13631, 13632, 13651, 13698, 13702, 13705, 14007, 14136; ♀♀: 13453, 13454, 13531, 13583, 13584, 13586, 13588, 13589, 13591, 13592, 13633, 13634, 13636, 13645, 13646, 13647, 13649, 13650, 13652, 13659, 13697, 13699, 13700, 13701, 13704, 13706, 13707, 13929, 14003, 14004, 14005, 14006, 14135];

9 ♂♂, 9 ♀♀, ditto, 8.VIII.2013, S. Yamashita leg. [♂♂: 13818, 13972, 13989, 14012, 14025, 14026, 14030, 14033, 14034; ♀♀: 13537, 13817, 13971, 13978, 13988, 14027, 14032, 14028, 14119];

8 ♂♂, 10 ♀♀, ditto, 9.VIII.2013, S. Yamashita leg. [♂♂: 13546, 13547, 13555, 13557, 13560, 13724, 13726, 13893; ♀♀: 13436, 13550, 13551, 13554, 13558, 13559, 13716, 13725, 13727, 13890];
11 ♂♂, 21 ♀♀, ditto, 10.VIII.2013, S. Yamashita leg. [♂♂: 13685, 13686, 13687, 13689, 13751, 13753, 13802, 13803, 13838, 13964, 13966; ♀♀: 13682, 13683, 13684, 13688, 13749, 13752, 13754, 13755, 13795, 13797, 13798, 13799, 13801, 13839, 13937, 13958, 13960, 13961, 13962, 13965, 13967];
6 ♂♂, 2 ♀♀, ditto, 11.VIII.2013, S. Yamashita leg. [♂♂: 13538, 13596, 13597, 13598, 13845, 13846; ♀♀: 13599, 13847];
7 ♂♂, 4 ♀♀, Kubah National Park, Sarawak, Borneo, 7.XII.2017, S. Yamashita leg. [♂♂: BGKB17-0219, BGKB17-0220, BGKB17-0221, BGKB17-0222, BGKB17-0245, BGKB17-0256, BGKB17-0259; ♀♀: BGKB17-0218, BGKB17-0223, BGKB17-0224, BGKB17-0257];
3 ♂♂, 2 ♀♀, ditto, 9.XII.2017, S. Yamashita leg. [♂♂: BGKB17-0356, BGKB17-0357, BGKB17-0360; ♀♀: ID: BGKB17-00361, BGKB17-0367];
1 ♀, Lambir Hills National Park, Sarawak, Borneo, 21.IV.2011, S. Yamashita leg. [♀: 10054];
1 ♀, ditto, 22.IV.2011, S. Yamashita leg. [♀: 10122];
1 ♂, ditto, 16.XI.2012, S. Yamashita leg. [♂: 12651];
21 ♂♂, 33 ♀♀, ditto, 18.XI.2012, S. Yamashita leg. [♂♂: 12189, 12194, 12203, 12226, 12230, 12236, 12243, 12309, 12457, 12458, 12524 , 12525, 12534, 12540, 12541, 12543, 12546, 12548, 12550, 12555, 12557; ♀♀: 12190, 12193, 12195, 12196, 12197, 12199, 12200, 12202, 12225, 12229, 12231, 12232, 12233, 12234, 12235, 12238, 12239, 12241, 12244, 12305, 12460, 12469, 12526, 12528, 12535, 12537, 12544, 12547, 12551, 12554, 12556, 12558, 12559];
1 ♂, ditto, 20.XI.2012, S. Yamashita leg. [♂: 12144];
6 ♂♂, 3 ♀♀, ditto, 5.XII.2012, S. Yamashita leg. [♂♂: 12039, 12040, 12041, 12044, 12270, 12577; ♀♀: 12573, 12575, 12576];
4 ♂, 4 ♀♀, Long Semiyang, Sarawak, 19.VII.2011, S. Yamashita leg. [♂♂: 10543, 10584, 10586, 10844; ♀♀: 10513, 10548, 10806, 10842];
18 ♂♂, 12 ♀♀, ditto, 20.VII.2011, S. Yamashita leg. [♂♂: 10894, 10953, 10994, 10998, 10999, 11014, 11016, 11056, 11059, 11060, 11063, 11178, 11184, 11185. 11186, 11187, 11205, 11206; ♀♀: 10955, 11007, 11018, 11020, 11058, 11062, 11102, 11103, 11112, 11120, 11133, 11207];
6 ♂♂, 4 ♀♀, ditto, 23.VII.2011, S. Yamashita leg. [♂♂: 11278, 11521, 11523, 11584, 11585, 11586; ♀♀: 11524, 11575, 11579, 11582];
2 ♀♀, Niah National Park, Sarawak, Borneo, 16.II.2013, S. Yamashita leg. [♀♀: 13407, 13424];
1 ♀, ditto, 18.VI.2017, S. Yamashita leg. [BGNa17-0045];
2 ♂♂, ditto, 19.VI.2017, S. Yamashita leg. [♂♂: BGNa17-0273, BGNa17-0412];
3 ♂♂, 2 ♀♀, Similajau National Park, Sarawak, Borneo, 11.II.2013, S. Yamashita leg. [♂♂: 13234; 13235, 13318; ♀♀: 13237, 13238];
1 ♀, ditto, 26.VI.2017, S. Yamashita leg. [♀: BGSm17-0300].

Distribution. Sumatra, Java, Bali, Lombok, Borneo (Sabah, Sarawak).

Bolitonaeus nasalis (Pascoe, 1871)

Heledona nasalis Pascoe, 1871: 350. Type locality: Penang.
Bolitonaeus nasalis (Pascoe, 1871); Gebien, 1925b: 439; Gebien, 1939: 756; Ando, 2010: 160; Grimm, 2014: 188; Grimm & Schawaller, 2019: 63.

Additional specimens examined.

1 ♀, Gunung Mulu National Park, Sarawak, Borneo, 20.II.2011, S. Yamashita leg. [♀: 7491];

1 ♀, Lambir Hills National Park, Sarawak, Borneo, 1.V.2011, S. Yamashita leg. [♀: 10242];
3 ♂♂, 5 ♀♀, ditto, 16.XI.2012, S. Yamashita leg. [♂♂: 12801, 12805, 12809; ♀♀: 12802, 12803, 12806, 12807, 12808];
1♂, 4 ♀♀, ditto, 17.XI.2012, S. Yamashita leg. [♂: 12716; ♀♀: 12661, 12702, 12714, 12715];
1 ♂, ditto, 18.XI.2012, S. Yamashita leg. [♂: 12486];
1 ♀, ditto, 20.XI.2012, S. Yamashita leg. [♀: 12143];
4 ♂♂, 11 ♀♀, ditto, 5.XII.2012, S. Yamashita leg. [♂♂: 12036, 12065, 12259, 12569; ♀♀: 12018, 12035, 12066, 12163, 12258, 12264, 12265, 12266, 12267, 12268, 12269];
1 ♂, 5 ♀♀, ditto, 31.I.2017, S. Yamashita leg. [♂: BGLH17-0040; ♀♀: BGLH17-0037, BGLH17-0038, BGLH17-0039, BGLH17-0041, BGLH17-0088].
1 ♂, 3 ♀, Long Semiyang, Sarawak, Borneo, 29.VII.2009, S. Yamashita leg. [♂: 5312; ♀♀: 5302, 5310, 5313];
3 ♀♀, ditto, 31.VII.2009, S. Yamashita leg. [♀♀: 5472, 5473, 5474];
2 ♀♀, ditto, 1.VIII.2009, S. Yamashita leg. [♀♀: 5490, 5491];
1 ♂, 1 ♀, ditto, 2.VIII.2009, S. Yamashita leg. [♂: 5528; ♀: 5529];
23 ♂♂, 31 ♀♀, ditto, 19.VII.2011, S. Yamashita leg. [♂♂: 10520, 10530, 10542, 10544, 10546, 10552, 10561, 10610, 10631, 10633, 10785, 10794, 10795, 10805, 10810, 10811, 10812, 10816, 10817, 10819, 10823, 10825, 10827; ♀♀: 10516, 10519, 10524, 10527, 10529, 10532, 10534, 10537, 10541, 10545, 10551, 10619, 10632, 10784, 10786, 10787, 10788, 10793, 10796, 10797, 10803, 10804, 10807, 10808, 10809, 10815, 10818, 10820, 10821, 10824, 10828];
10 ♂♂, 15 ♀♀, ditto, 20.VII.2011, S. Yamashita leg. [♂♂: 10839, 10882, 10973, 10984, 10985, 10987, 10991, 11101, 11162, 11172; ♀♀: 10838, 10840, 10897, 10972, 10983, 11015, 11049, 11050, 11166, 11167, 11168, 11169, 11171, 11176, 11181];
2 ♂♂, 5 ♀♀, ditto, 21.VII.2011, S. Yamashita leg. [♂♂: 11400, 11401; ♀♀: 11375, 11380, 11389, 11398, 11420];
4 ♂♂, 2 ♀♀, ditto, 23.VII.2011, S. Yamashita leg. [♂♂: 11451, 11452, 11519, 11522; ♀♀: 11450, 11520];
1 ♀, Niah National Park, Sarawak, Borneo, 19.VI.2017, S. Yamashita leg. [♀: BGNa17-0270].

Distribution. Malay Peninsula (Penang), Sumatra, Mentawai, Borneo (Sabah, Sarawak).

Bolitonaeus vacca (Motschulsky, 1858)

Boletophagus vacca Motschulsky, 1858: 64. Type locality: Birma.
Bolitonaeus vacca (Motschulsky, 1858); Gebien, 1925b: 438; Gebien, 1939: 756; Ando, 2010: 161; Ando & Yamasako, 2013: 278; Grimm, 2014: 191; Grimm & Schawaller, 2019: 63.
Bolitonaeus simpliciceps Pic, 1922: 19; Gebien, 1939: 756; Grimm, 2014: 191. Type locality: Borneo.

Additional specimens examined.

1 ♂, 1 ♀, Gunung, Mulu National Park, Sarawak, Borneo, 7.VIII.2013, S. Yamashita leg. [♂: 13703; ♀: 13930];
3 ♂♂, ditto, 8.VIII.2013, S. Yamashita leg. [♂♂: 13875, 13974, 14031];
2 ♂♂, 1 ♀, ditto, 9.VIII.2013, S. Yamashita leg. [♂♂: 13556, 13891; ♀: 13888];
1 ♂, ditto, 10.VIII.2013, S. Yamashita leg. [♂: 13750];
10 ♂♂, 17 ♀♀, Kubah National Park, Sarawak, Borneo, 6.XII.2017, S. Yamashita leg. [♂♂: BGKB17-0016, BGKB17-0032, BGKB17-0033, BGKB17-0042, BGKB17-0075, BGKB17-0079, BGKB17-0080, BGKB17-0081, BGKB17-0100, BGKB17-0101; ♀♀: BGKB17-0017, BGKB17-0025, BGKB17-0038, BGKB17-0041, BGKB17-0043, BGKB17-0045, BGKB17-

0076, BGKB17-0077, BGKB17-0078, BGKB17-0082, BGKB17-0083, BGKB17-0084, BGKB17-0096, BGKB17-0097, BGKB17-0098, BGKB17-0099, BGKB17-0109];
3 ♂♂, 4 ♀♀, ditto, 7.XII.2017, S. Yamashita leg. [♂♂: BGKB17-0243, BGKB17-0253, BGKB17-0255; ♀♀: BGKB17-0225, BGKB17-0254, BGKB17-0277, BGKB17-0330];
1 ♀, ditto, 9.XII.2017, S. Yamashita leg. [♀: BGKB17-0358];
8 ♂♂, 1 ♀, Lambir Hills National Park, Sarawak, Borneo, 17.XI.2012, S. Yamashita leg. [♂♂: 12584, 12690, 12691, 12693, 12699, 12704, 12728, 12800; ♀: 12726];
12 ♂♂, 2 ♀♀, ditto, 18.XI.2012, S. Yamashita leg. [♂♂: 12192, 12198, 12227, 12228, 12237, 12242, 12245, 12456, 12536, 12542, 12549, 12563; ♀♀: 12201, 12531];
3 ♂♂, ditto, 19.XI.2012, S. Yamashita leg. [♂♂: 12249, 12250, 12252];
5 ♂♂, 1 ♀, ditto, 5.XII.2012, S. Yamashita leg. [♂♂: 12043, 12070, 12072, 12073, 12588; ♀: 12042];
3 ♂♂, 2 ♀♀, ditto, 31.I.2017, S. Yamashita leg. [♂♂: BGLH17-0089, BGLH17-0090, BGLH17-0092; ♀♀: BGLH17-0043, BGLH17-0091];
2 ♂♂, 1 ♀, Loagan Bunut National Park, Sarawak, Borneo, 28.IV.2011, S. Yamashita leg. [♂♂: 10287, 10288; ♀: 10289];
2 ♂♂, 4 ♀♀, ditto, 3.XII.2012, S. Yamashita leg. [♂♂: 12844, 12860; ♀♀: 12825, 12835, 12846, 12857];
2 ♂♂, Long Semiyang, Sarawak, Borneo, 30.VII.2009, S. Yamashita leg. [♂♂: 5387, 5388];
1 ♂, ditto, 31.VII.2009, S. Yamashita leg. [♂: 5484];
3 ♂♂, 3 ♀♀, ditto, 19.VII.2011, S. Yamashita leg. [♂♂: 10799, 10800, 10837; ♀♀: 10560, 10801, 10826];
10 ♂♂, 11 ♀♀, ditto, 20.VII.2011, S. Yamashita leg. [♂♂: 10889, 10892, 10899, 10974, 10993, 11039, 11040, 11061, 11110, 11116; ♀♀: 10890, 10891, 10893, 10895, 10896, 10898, 11024, 11057, 11107, 11108, 11194];
5 ♂♂, 4 ♀♀, ditto, 21.VII.2011, S. Yamashita leg. [♂♂: 11410, 11412, 11421, 11422, 11424; ♀♀: 11335, 11374, 11414, 11423];
15 ♂♂, 22 ♀♀, ditto, 23.VII.2011, S. Yamashita leg. [♂♂: 11272, 11276, 11279, 11298, 11496, 11497, 11499, 11500, 11501, 11502, 11504, 11570, 11578, 11587, 11589; ♀♀: 11275, 11277, 11280, 11281, 11282, 11283, 11284, 11285, 11286, 11299, 11480, 11503, 11506, 11569, 11571, 11573, 11574, 11576, 11577, 11580, 11581, 11583];
2 ♂♂, 3 ♀♀, Niah National Park, Sarawak, Borneo, 16.II.2013, S. Yamashita leg. [♂♂: 13408, 13425; ♀♀: 13409, 13423, 13426];
2 ♀♀, ditto, 18.VI.2017, S. Yamashita leg. [♀♀: BGNa17-0042, BGNa17-0047];
3 ♂♂, 5 ♀♀, ditto, 19.VI.2017, S. Yamashita leg. [♂♂: BGNa17-0166, BGNa17-0414, BGNa17-0415; ♀♀: BGNa17-0076, BGNa17-0271, BGNa17-0272, BGNa17-0411, BGNa17-0416];
1 ♀, Similajau National Park, Sarawak, Borneo, 9.II.2011, S. Yamashita leg. [♀: 7101];
1 ♂, 3 ♀♀, ditto, 12.II.2011, S. Yamashita leg. [♂: 7184; ♀♀: 7179, 7180, 7183];
5 ♂♂, 2 ♀♀, ditto, 11.II.2013, S. Yamashita leg. [♂♂: 13236, 13243, 13264, 13266, 13267; ♀♀: 13263, 13265];
2 ♂♂, 4 ♀♀, ditto, 12.II.2013, S. Yamashita leg. [♂♂: 13180, 13203; ♀♀: 13177, 13182, 13183, 13184];
5 ♂♂, 6 ♀♀, ditto, 13.II.2013, S. Yamashita leg. [♂♂: 12992, 13152, 13287, 13289, 13293; ♀♀: 12991, 13143, 13155, 13292, 13296, 13297];
7 ♂♂, 10 ♀♀, ditto, 25.VI.2017, S. Yamashita leg. [♂♂: BGSm17-0016, BGSm17-0017, BGSm17-0018, BGSm17-0150, BGSm17-0170, BGSm17-0171, BGSm17-0216; ♀♀:

BGSm17-0013, BGSm17-0014, BGSm17-0015, BGSm17-0019, BGSm17-0151, BGSm17-0152, BGSm17-0172, BGSm17-0173, BGSm17-0217, BGSm17-0243];
3 ♂♂, 7 ♀♀, ditto, 26.VI.2017, S. Yamashita leg. [♂♂: BGSm17-0295, BGSm17-0299, BGSm17-0302; ♀♀: BGSm17-0296, BGSm17-0297, BGSm17-0298, BGSm17-0301, BGSm17-0303, BGSm17-0335, BGSm17-0342].

Distribution. Myanmar, South India, Sri Lanka, Thailand, Malay Peninsula, Sumatra, Borneo (Sabah, Sarawak, Kalimantan), the Philippines, Sulawesi.

Bolitonaeus quadridentatus (Candèze, 1861)

Bolitotherus quadridentatus Candèze, 1861: 368. Type locality: "Ceylan".
Bolitonaeus quadridentatus (Candèze, 1861); Lewis, 1894: 387; Gebien, 1925b: 440; Gebien, 1939: 756; Ando, 2010: 164; Grimm, 2014: 191; Grimm & Schawaller, 2019: 63.

Additional specimens examined.
1 ♂, Gunung Mulu National Park, Sarawak, Borneo, 20.II.2011, S. Yamashita leg. [♂: 7496];
1 ♂, 3 ♀♀, ditto, 7.VIII.2013, S. Yamashita leg. [♂: 13638; ♀♀: 13637, 13927, 14000];
4 ♀♀, ditto, 8.VIII.2013, S. Yamashita leg. [♀♀: 13973, 13987, 14017, 14018];
4 ♂♂, 2 ♀♀, ditto, 9.VIII.2013, S. Yamashita leg. [♂♂: 13736, 13737, 13804, 13811; ♀♀: 13851, 13894];
1 ♂, 1 ♀, ditto, 11.VIII.2013, S. Yamashita leg. [♂: 13843; ♀: 13848];
2 ♂♂, ditto, 24.IX.2017, S. Yamashita leg. [♂♂: BGMS17-0025, BGMS17-0098];
1 ♂, Kubah National Park, Sarawak, Borneo, 6.XII.2017, S. Yamashita leg. [♂: BGKB17-0023];
1 ♀, ditto, 7.XII.2017, S. Yamashita leg. [♀: BGKB17-0265];
1 ♂, 1 ♀, ditto, 9.XII.2017, S. Yamashita leg. [♂: BGKB17-0359; ♀: BGKB17-0368];
1 ♂, Lambir Hills National Park, Sarawak, Borneo, 17.XI.2012, S. Yamashita leg. [♂: 12662];
3 ♂♂, 5 ♀♀, ditto, 18.XI.2012, S. Yamashita leg. [♂♂: 12470, 12488, 12560; ♀♀: 12459, 12468, 12487, 12552, 12553];
4 ♂♂, 1 ♀, ditto, 20.XI.2012, S. Yamashita leg. [♂♂: 12146, 12299, 12301, 12303; ♀: 12300];
6 ♂♂, 2 ♀♀, ditto, 5.XII.2012, S. Yamashita leg. [♂♂: 12168, 12170, 12325, 12568, 12571, 12589; ♀♀: 12260, 12624];
2 ♂♂, 1 ♀, ditto, 31.XII.2017, S. Yamashita leg. [♂♂: BGLH17-0044, BGLH17-0045; ♀: BGLH17-0093];
1 ♂, Loagan Bunut National Park, Sarawak, Borneo, 28.IV.2011, S. Yamashita leg. [♂: 10295];
1 ♂, 3 ♀♀, ditto, 3.XII.2012, S. Yamashita leg. [♂: 12836; ♀♀: 12833, 12837, 12838];
1 ♂, Long Semiyang, Sarawak, Borneo, 29.VII.2009, S. Yamashita leg. [♂: 5308];
2 ♂♂, 1 ♀, ditto, 19.VII.2011, S. Yamashita leg. [♂♂: 10512, 10540; ♀: 10843];
4 ♂♂, 1 ♀, ditto, 20.VII.2011, S. Yamashita leg. [♂♂: 10995, 11000, 11005, 11113; ♀: 11003];
2 ♂♂, 1 ♀, ditto, 21.VII.2011, S. Yamashita leg. [♂♂: 11390, 11399; ♀: 11393];
2 ♂♂, ditto, 23.VII.2011, S. Yamashita leg. [♂♂: 11453, 11458];
1 ♂, 2 ♀♀, Niah National Park, Sarawak, Borneo, 19.VI.2017, S. Yamashita leg. [♂: BGNa17-0274; ♀♀: BGNa17-0361, BGNa17-0413];
2 ♂♂, 1 ♀, Similajau National Park, Sarawak, Borneo, 11.II.2013, S. Yamashita leg. [♂♂: 12988, 13254; ♀: 13244];
1 ♂, 1 ♀, ditto, 12.II.2013, S. Yamashita leg. [♂: 13202; ♀: 13201].

Distribution. Sri Lanka, Thailand, Borneo (Sabah, Sarawak, Kalimantan).

Bolitonaeus yamashitai Ando, 2010

Bolitonaeus yamashitai Ando, 2010: 164; Grimm, 2014: 192; Grimm & Schawaller, 2019: 63. Type locality: Borneo (Sarawak).

Additional specimens examined.

1 ♀, Gunung Mulu National Park, Sarawak, Borneo, 7.VIII.2013, S. Yamashita leg. [♀: 14002];
1 ♂, ditto, 9.VIII.2013, S. Yamashita leg. [♂: 13871];
1 ♀, Kubah National Park, Sarawak, Borneo, 6.XII.2017, S. Yamashita leg. [♀: BGKB17-0044];
1 ♀, Lambir Hills National Park, Sarawak, Borneo, 18.XI.2012, S. Yamashita leg. [♀: 12530];
1 ♀, Long Semiyang, Sarawak, Borneo, 31.VII.2009, S. Yamashita leg. [♀: 5476];
5 ♂♂, ditto, 20.VII.2011, S. Yamashita leg. [♂♂: 11019, 11106, 11111, 11114, 11115].

Distribution. Borneo (Sabah, Sarawak).

Bolitonaeus sp. 1

Specimens examined.

1 ♀, Lambir Hills National Park, Sarawak, Borneo, 17.XI.2012, S. Yamashita leg. [♀: 12692];
5 ♀♀, ditto, 18.XI.2012, S. Yamashita leg. [♀♀: 12224, 12527, 12532, 12538, 12545];
1 ♀, ditto, 19.XI.2012, S. Yamashita leg. [♀: 12251];
1 ♀, Loagan Bunut National Park, Sarawak, Borneo, 28.IV.2011, S. Yamashita leg. [♀: 10290];
3 ♀♀, ditto, 3.XII.2012, S. Yamashita leg. [♀♀: 12834, 12858, 12859];
2 ♀♀, Long Semiyang, Sarawak, Borneo, 20.VII.2011, S. Yamashita leg. [♀♀: 10857, 10997];
2 ♀♀, Similajau National Park, Sarawak, Borneo, 13.II.2013, S. Yamashita leg. [♀♀: 13154, 13286].

Byrsax gibbifer (Wesmael, 1836)

Boletophagus gibbifer Wesmael, 1836: 112; Guérin-Méneville, 1838: 117. Type locality: Java.
Byrsax gibbifer (Wesmael, 1836); Gebien, 1914: 7; Gebien, 1925a: 91; Gebien, 1939: 758; Ando, 2010: 166; Grimm, 2014: 192; Grimm & Schawaller, 2019: 63.
Boletox testudinarius Motschulsky, 1863: 477; Gebien, 1939: 758. Type locality: "Ceylan".
Byrsax coenosus Pascoe, 1860-1862: 42; Gebien, 1939: 758. Type locality: Singapore.
Byrsax quadrinodosus Gebien, 1914: 9. Type locality: Kuching.
Byrsax gibbifer var. *quadrinodosus* Gebien, 1925a: 92; Gebien, 1939: 758.

Additional specimens examined.

9 ♂♂, 7 ♀♀, Gunung Gading National Park, Sarawak, Borneo, 8.XII.2016, S. Yamashita leg. [♂♂: BGGG16-0035, BGGG16-0067, BGGG16-0073, BGGG16-0074, BGGG16-0083, BGGG16-0109, BGGG16-0111, BGGG16-0112, BGGG16-0122; ♀♀: BGGG16-0045, BGGG16-0057, BGGG16-0066, BGGG16-0084, BGGG16-0110, BGGG16-0121, BGGG16-0132];
1 ♂, 1 ♀, ditto, 10.XII.2016, S. Yamashita leg. [♂: BGGG16-0170; ♀: BGGG16-0184];
1 ♂, 1 ♀, Gunung Mulu National Park, Sarawak, Borneo, 9.VIII.2013, S. Yamashita leg. [♂: 13717; ♀: 13718];
5 ♂♂, 3 ♀♀, Kubah National Park, Sarawak, Borneo, 6.XII.2017, S. Yamashita leg. [♂♂: BGKB17-0011, BGKB17-0012, BGKB17-0015, BGKB17-0057, BGKB17-0207; ♀♀: BGKB17-0013, BGKB17-0014, BGKB17-0036];
5 ♂♂, 1 ♀, ditto, 7.XII.2017, S. Yamashita leg. [♂♂: BGKB17-0234, BGKB17-0235, BGKB17-0278, BGKB17-0279, BGKB17-0281; ♀: BGKB17-0280];
2 ♂♂, 1 ♀, Lambir Hills National Park, Sarawak, Borneo, 21.IV.2011, S. Yamashita leg. [♂♂: 10103, 10104; ♀: 10023];
1 ♂, 2 ♀♀, ditto, 24.IV.2011, S. Yamashita leg. [♂: 10227; ♀♀: 10214, 10226];

1 ♀, ditto, 1.V.2011, S. Yamashita leg. [♀: 10251];
5 ♂♂, 4 ♀♀, ditto, 16.XI.2012, S. Yamashita leg. [♂♂: 12745, 12750, 12751, 12768, 12773; ♀♀: 12748, 12759, 12772, 12774];
10 ♂♂, 10 ♀♀, ditto,17.XI.2012, S. Yamashita leg. [♂♂: 12475, 12595, 12635, 12642, 12673, 12695, 12710, 12720, 12724, 12799; ♀♀: 12474, 12591, 12593, 12638, 12641, 12671, 12672, 12694, 12719, 12725];
12 ♂♂, 11 ♀♀, ditto, 18.XI.2012, S. Yamashita leg. [♂♂: 12177, 12178, 12179, 12181, 12182, 12503, 12507, 12510, 12512, 12514, 12515, 12516; ♀♀: 12180, 12183, 12184, 12223, 12504, 12505, 12506, 12508, 12509, 12511, 12513];
5 ♂♂, 2 ♀♀, ditto, 19.XI.2012, S. Yamashita leg. [♂♂: 12276, 12358, 12361, 12377, 12453; ♀♀: 12274, 12359];
4 ♂♂, 6 ♀♀, ditto, 20.XI.2012, S. Yamashita leg. [♂♂: 12007, 12128, 12204, 12206; ♀♀: 12000, 12121, 12122, 12123, 12129, 12205];
3 ♂♂, 2 ♀♀, ditto, 5.XII.2012, S. Yamashita leg. [♂♂: 12012, 12015, 12618; ♀♀: 12011, 12148];
1 ♂, 2 ♀♀, ditto, 30.I.2017, S. Yamashita leg. [♂: BGLH17-0015; ♀♀: BGLH17-0013, BGLH17-0016];
3 ♂♂, 6 ♀♀, ditto, 31.I.2017, S. Yamashita leg. [♂♂: BGLH17-0075, BGLH17-0083, BGLH17-0126; ♀♀: BGLH17-0069, BGLH17-0070, BGLH17-0080, BGLH17-0082, BGLH17-0124, BGLH17-0125];
5 ♂♂, 2 ♀♀, Loagan Bunut National Park, Sarawak, Borneo, 28.IV.2011, S. Yamashita leg. [♂♂: 10358, 10393, 10398, 10423, 10428; ♀♀: 10429, 10432];
2 ♀♀, Long Semiyang, Sarawak, Borneo, 1.VIII.2009, S. Yamashita leg. [♀♀: 5489, 5511];
4 ♂♂, 2 ♀♀, ditto, 19.VII.2011, S. Yamashita leg. [♂♂: 10563, 10642, 10673, 10686; ♀♀: 10562, 10643];
3 ♂♂, 3 ♀♀, ditto, 20.VII.2011, S. Yamashita leg. [♂♂: 11068, 11126 , 11201; ♀♀: 10926, 11035, 11069];
1 ♂, 1 ♀, Niah National Park, Sarawak, Borneo, 15.III.2011, S. Yamashita leg. [♂: 7564; ♀: 7565];
1 ♀, ditto, 17.II.2013, S. Yamashita leg. [♀: 13416];
5 ♂♂, 5 ♀♀, ditto, 19.VI.2017, S. Yamashita leg. [♂♂: BGNa17-0255, BGNa17-0266, BGNa17-0268, BGNa17-0298, BGNa17-0310; ♀♀: BGNa17-0242, BGNa17-0254, BGNa17-0265, BGNa17-0267, BGNa17-0309];
1 ♂, 1 ♀, Similajau National Park, Sarawak, Borneo, Sarawak, Borneo, 12.II.2011, S. Yamashita leg. [♂: 7172; ♀: 7173];
1 ♂, 1 ♀, ditto, 12.II.2013, S. Yamashita leg. [♂: 13324; ♀: 13325];
2 ♀♀, ditto, 25.VI.2017, S. Yamashita leg. [♀♀: BGSm17-0001, BGSm17-0025];
1 ♂, ditto, 26.VI.2017, S. Yamashita leg. [♂: BGSm17-0372].

Distribution. Sri Lanka, Malay Peninsula, Singapore, Sumatra, Java, Borneo (Sabah, Sarawak, Kalimantan).

Byrsax excisicollis Gebien, 1914

Byrsax excisicollis Gebien, 1914: 9; Gebien, 1925a: 85; Gebien, 1939: 757; Masumoto & Makihara, 1997: 117; Ando & Yamasako, 2013: 284; Grimm & Schawaller, 2019: 63. Type locality: Kuching, Sumatra.

Additional specimens examined.

1 ♂, Similajau National Park, Sarawak, Borneo, 25.VI.2017, S. Yamashita leg. [♂: BGSm17-0212].

Distribution. Malay Peninsula (Malacca), Sumatra, Java, Borneo (Sarawak), Sulawesi.

Subtribe Rhipidandrina J. L. LeConte, 1862

Rhipidandrus crenipennis (Motschulsky, 1858)

Xyloborus ? *crenipennis* Motschulsky, 1858: 64. Type locality: "Birma".
Rhipidandrus crenipennis (Motschulsky, 1858); Gebien, 1939: 522; Kompantseva, 1995: 55; Merkl & Kompantseva, 1996: 100; Masumoto & Makihara, 1997: 117; Grimm & Schawaller, 2019: 63.
Rhipidandrus similis Kaszab, 1955: 462 by Merkl & Kompantseva, 1996: 100. Type locality: Philippines (Luzon), Borneo, Ceylon.
Rhipidandrus zaitzevi Kompantseva & Merkl, 1992: 89 by Merkl & Kompantseva, 1996: 100. Type locality: Vietnam.

Additional specimens examined.

1 ♂, Lambir Hills National Park, Sarawak, Borneo, 19.XI.2012, S. Yamashita leg. [♂: 12367];

1 ♂, Long Semiyang, Sarawak, Borneo, 29.VII.2009, S. Yamashita leg. [♂: 5314];

1 ♂, Similajau National Park, Sarawak, Borneo, 25.VI.2017, S. Yamashita leg. [♂: BGSm17-0174].

Notes. Motschulsky's type locality "Indes orientales", mentioned by Merkl & Kompantseva, 1996, was misread of the original description.

Distribution. Myanmar, Sri Lanka, Vietnam, Indonesia, Borneo (Sabah, Sarawak), Philippines.

Rhipidandrus speculifrons (Gebien, 1922)

Cherostus speculifrons Gebien, 1922: 288.
Rhipidandrus speculifrons (Gebien, 1922); Gebien, 1939: 522; Masumoto & Makihara, 1997: 117.
Rhipidandrus dybasi Kulzer, 1957: 204.
Rhipidandrus sodalis Kulzer, 1957: 206.
Rhipidandrus similis Kaszab, 1979: 76 (nec Kaszab, 1955).
Rhipidandrus crenipennis by Kaszab, 1979: 77 (nec Motschulsky, 1858).
Rhipidandrus scolytoides Chûjô, 1985: 62.

Additional specimen examined.

1 ♂, Niah National Park, Sarawak, Borneo, 19.VI.2017, S. Yamashita leg. [♂: BGNa17-0362].

Distribution. Indo-Malayan Region to Ryukyus, Micronesia and Australia (Merkl & Kompantzeva, 1996).

Tribe Amarygmini Gistel, 1848

Amarygmus* (*Amarygmus*) *nigrofasciatus Pic, 1915

Amarygmus nigrofasciatus Pic, 1915: 22; Gebien, 1943: 504; Bremer, 2001: 263; Bremer, 2004: 215; Bremer, 2005: 16; Bremer & Lillig, 2014: 48; Grimm & Schawaller, 2019: 66. Type locality: Malacca (Perak).

Additional specimens examined.

1 ex., Lambir Hills National Park, Sarawak, Borneo, 1.V.2011, S. Yamashita leg. [10243];

1 ♂, Similajau National Park, Sarawak, Borneo, 25.VI.2017, S. Yamashita leg. [♂: BGSm17-0218].

Distribution. Malay Peninsula, Sumatra, Borneo (Sabah, Sarawak).

Subfamily Diaperinae Latreille, 1802

Subtribe Diaperina Latreille, 1802

Platydema detersa (Walker, 1858)

Crypticus detersus Walker, 1858: 284. Type locality: Ceylon.
Platydema annamita Fairmaire, 1893: 24. Type locality: Vietnam (Saigon, Mytho).
Platydema laticornis Fairmaire, 1882: 222; Gebien, 1914: 15. Type locality: Sumatra (Palembang).
Platydema malaccus Marseul, 1876:108. Type locality: Malacca.
Ceropria valga Pascoe, 1869: 281. Type locality: Queensland.
Platydema detersum (Walker, 1858); Gebien, 1925d: 583; Gebien, 1940: 410; Schawaller, 2003: 270; Schawaller, 2004: 7; Schawaller, 2008: 415; Löbl *et al*., 2008: 309; Grimm & Schawaller, 2019: 69.
Platydema detersa (Walker, 1858); Ando *et al*., 2016: 44; Ivanov *et al*., 2017: 14; Iwan *et al*., 2020: 402.

Additional specimens examined.

1 ♀, Lambir Hills National Park, Sarawak, Borneo, 19.XI.2012, S. Yamashita leg. [♀: 12362].

Distribution. Sri Lanka, NE India, Thailand, Laos, Vietnam, Russian far east, Yunnan, Taiwan, Sunda Islands, Borneo (Sabah, Sarawak, Kalimantan), Philippines, Sulawesi, New Guinea, Moluccan Islands, Renell Island, Australia.

Platydema perpolita Gebien, 1925

Platydema perpolitum Gebien, 1925d: 554; Schawaller, 2004: 15; Ando *et al*., 2017: 132; Grimm & Schawaller, 2019: 69. Type locality: Java.

Additional specimens examined.

1 ♂, Kubah National Park, Sarawak, Borneo, 6.XII.2017, S. Yamashita leg. [♂: BGKB17-0002];
1 ♂, 1 ♀, Lambir Hills National Park, Sarawak, Borneo, 5.XII.2012, S. Yamashita leg. [♂: 12076; ♀: 12074];
2 ♀♀, ditto, 31.I.2017, S. Yamashita leg. [♀♀: BGLH17-0131, BGLH17-0132];
1 ♀, Long Semiyang, Sarawak, Borneo, 23.VII.2011, S. Yamashita leg. [♀: 11297].

Distribution. Java, Sumatra, Borneo (Sabah, Sarawak), Thailand, Sulawesi.

Platydema tricuspis (Motschulsky, 1873)

Neomida tricuspis Motschulsky, 1873: 479. Type locality: "Indes orientales".
Platydema tricuspis (Motschulsky, 1873); Gebien, 1925d: 578; Gebien, 1940: 409; Masumoto & Makihara, 1997: 117; Schawaller, 2004: 20; Schawaller, 2008: 417; Ando *et al*., 2016: 46; Grimm & Schawaller, 2019: 69; Iwan *et al*., 2020: 404.
Platydema reflexum Chevrolat, 1878b: 222. Type locality: "India orientalis (Malacca)".
Platydema timorensis Marseul, 1876: 108. Type locality: Timor.

Additional specimens examined.

1 ♀, Lambir Hills National Park, Sarawak, Borneo, 19.XI.2012, S. Yamashita leg. [♀: 12321].

Distribution. Widespread in SE Asia, Philippines, Timor, New Guinea, Moluccan Island, Australia (Schawaller, 2008).

Platydema waterhousei Gebien, 1925

Platydema plagiatum Waterhouse, 1894: 70 (nec Motschulsky, 1873): Gebien, 1914: 16. Type locality: Damma Island (Timor).
Platydema waterhousei Gebien, 1925d: 553; Gebien, 1940: 408; Masumoto & Makihara, 1997: 118; Schawaller, 2004: 21; Schawaller, 2008: 417; Ando, 2010: 172; Grimm & Schawaller, 2019: 69.

Additional specimens examined.

1 ex., Long Semiyang, Sarawak, Borneo, 19.VII.2011, S. Yamashita leg. [10664];

2 exs., Similajau National Park, Sarawak, Borneo, 25.VI.2017, S. Yamashita leg. [BGSm17-0021, BGSm17-0023].

Distribution. Widespread in SE Asia, Sulawesi, Philippines, Moluccan Island (Schawaller, 2008).

Basides bifasciatus Motschulsky, 1873
(Fig. 1)

Basides bifasciatus Motschulsky, 1873: 472. Type locality: "Indes orientales".
Platydema bifasciatum (Motschulsky, 1873); Gebien, 1925d: 559; Gebien, 1940: 408.
Ischnodactylus bifasciatus (Motschulsky, 1873); Schawaller, 2004: 47; Grimm & Schawaller, 2019: 69.
Basides flavofasciatus Pic, 1916: 12; Gebien, 1940: 419; Ando, 2001: 191. **Syn nov**. Type locality: "Zanguebar [= Zansibar]".

Type examined.

1 ♂ (Type of *Basides flavofasciatus*), Zansibar / (Raffrey) // *Basides* / *flavofasciatus* / Pic // type // TYPE (MNHN).

Additional specimens examined.

1 ♂, Sungai Dua, Gemes, Malaysia, 19.IV.1975, Y. Kiyoyama leg. M102. *Platydema bifasciatum* Det. K. Ando, 1987, *Ischnodactylus bifasiatus* M., det. Schawaller 2003 (= cum typo comp.).

Notes. After examined the type-specimen of Pic, 1916, we recognised that the characteristic cephalic horn and elytral fasciae coincide with *Basides bifasciatus* Motschulsky.

Distribution. "India or.", Thailand, Malay Peninsula, Vietnam, Sumatra; ? Zansibar.

Basides apicalis Pic, 1916

Basides apicalis Pic, 1916: 13; Pic, 1925b: 432, 435, 437. Type locality: Sumatra.
Ischnodactylus apicalis (Pic, 1916); Gebien, 1940: 419; Ando, 2001: 184.

Additional specimen examined.

1 ♀, Similajau National Park, Sarawak, Borneo, 9.II.2011, S. Yamashita leg. [♀: 7042].

Notes. This species is recorded from Borneo for the first time.

Distribution. Sumatra, Borneo (Sarawak).

Basides batesi batesi (Chevrolat, 1878)

Ischnodactylus batesi Chevrolat, 1878a: 88; Gebien, 1925c: 426, 432; Gebien, 1940: 419; Masumoto & Makihara, 1997: 119; Ando, 2001: 186; Ando, 2010: 173; Grimm & Schawaller, 2019: 69. Type locality: Sumatra.
Basides andamansis Pic, 1916: 13; Ando, 2001: 186. Type locality: Andaman.
Basides andamensis [sic] Pic, 1925b: 432, 435, 436.
Ischnodactylus andamanensis [sic] (Pic, 1925); Gebien, 1940: 419.

Additional specimens examined.

5 ♂♂, 2 ♀♀, Gunung Gading National Park, Sarawak, Borneo, 8. XII.2016, S. Yamashita leg. [♂♂: BGGG 16-0060, BGGG 16-0065, BGGG 16-0095, BGGG 16-0102, BGGG 16-0119; ♀♀: BGGG 16-0059, BGGG 16-0120];

2 ♀♀, Gunung Mulu National Park, Sarawak, Borneo, 20.II.2011, S. Yamashita leg. [♀♀: 7324, 7472];

2 ♂♂, 3 ♀♀, ditto, 7.VIII.2013, S. Yamashita leg. [♂♂: 13605, 13606; ♀♀: 13608, 13830, 14008];

1 ♀, ditto, 10.VIII.2013, S. Yamashita leg. [♀: 14009];

6 ♂♂, 4 ♀♀, Kubah National Park, Sarawak, Borneo, 6.XII.2017, S. Yamashita leg. [♂♂:

BGKB17-0167, BGKB17-0177, BGKB17-0184, BGKB17-0185, BGKB17-0188, BGKB17-0197; ♀♀: BGKB17-0003, BGKB17-0125, BGKB17-0161, BGKB17-0163];
2 ♀♀, Lambir Hills National Park, Sarawak, Borneo, 17.XI.2012, S. Yamashita leg. [♀♀: 12678, 12718];
3 ♂♂, 2 ♀♀, ditto, 19.XI.2012, S. Yamashita leg. [♂♂: 12382, 12384, 12454; ♀♀: 12383, 12405];
2 ♂♂, ditto, 30.I.2017, S. Yamashita leg. [♂♂: BGLH17-0022, BGLH17-0024];
1 ♀, ditto, 31.I.2017, S. Yamashita leg. [♀: BGLH17-0081];
1 ♂, Loagan Bunut National Park, Sarawak, Borneo, 28.IV.2011, S. Yamashita leg. [♂: 10270];
1 ♀, ditto, 29.IV.2011, S. Yamashita leg. [♀: 10434];
1 ♂, ditto, 3.XII.2012, S. Yamashita leg. [♂: 12867];
1 ♂, Long Semiyang, Sarawak, Borneo, 31.VII.2009, S. Yamashita leg. [♂: 5458];
1 ♂, ditto, 2.VIII.2009, S. Yamashita leg. [♂: 5526];
1 ♀, ditto, 19.VII.2011, S. Yamashita leg. [♀: 10567];
3 ♂♂, 2 ♀♀, ditto, 20.VII.2011, S. Yamashita leg. [♂♂: 10964, 11086, 11087; ♀♀: 10965, 11088];
3 ♂♂, 6 ♀♀, ditto, 21.VII.2011, S. Yamashita leg. [♂♂: 11351, 11357, 11406; ♀♀: 11350, 11356, 11358, 11407, 11436, 11437];
4 ♂♂, 8 ♀♀, ditto, 23.VII.2011, S. Yamashita leg. [♂♂: 11291, 11293, 11296, 11486; ♀♀: 11292, 11294, 11295, 11495, 11511, 11530, 11531, 11536];
4 ♂♂, 2 ♀♀, Niah National Park, Sarawak, Borneo, 15.III.2011, S. Yamashita leg. [♂♂: 7528, 7529, 7531, 7533; ♀♀: 7530, 7532];
1 ♂, ditto, 17.II.2013, S. Yamashita leg. [♂: 13375];
4 ♂♂, 5 ♀♀, ditto, 19.VI.2017, S. Yamashita leg. [♂♂: BGNa17-0218, BGNa17-0219, BGNa17-0248, BGNa17-0291; ♀♀: BGNa17-0216, BGNa17-0217, BGNa17-0302, BGNa17-0303, BGNa17-0304];
3 ♂♂, 1 ♀, Similajau National Park, Sarawak, Borneo, 9.II.2011, S. Yamashita leg. [♂♂: 7015, 7026, 7035; ♀: 7012];
1 ♂, ditto, 12.II.2011, S. Yamashita leg. [♂: 7169];
2 ♂♂, 2 ♀♀, ditto, 11.II.2013, S. Yamashita leg. [♂♂: 12891, 12901; ♀♀: 12896, 12899];
3 ♂♂, 8 ♀♀, ditto, 25.VI.2017, S. Yamashita leg. [♂♂: BGSm17-0042, BGSm17-0043, BGSm17-0044; ♀♀: BGSm17-0045, BGSm17-0058, BGSm17-0084, BGSm17-0091, BGSm17-0092, BGSm17-0256, BGSm17-0257, BGSm17-0258].

Distribution. Sumatra, Andaman, Borneo (Sabah, Sarawak).

Basides bicoloricornis Pic, 1925

Basides bicoloricornis Pic, 1925a: 16; Pic, 1925b: 435, 437, 438 (named "*tricoloricornis*" in his key). Type locality: Andaman.
Ischnodactylus bicoloricornis (Pic, 1925); Gebien, 1940: 419; Ando, 2001: 186.

Additional specimens examined.

3 ♂♂, 1 ♀, Kubah National Park, Sarawak, Borneo, 6.XII.2017, S. Yamashita leg. [♂♂: BGKB17-0146, BGKB17-0174, BGKB17-0182; ♀: BGKB17-0112];
5 ♂♂, 1 ♀, Similajau National Park, Sarawak, Borneo, 9.II.2011, S. Yamashita leg. [♂♂: 7017, 7037, 7038, 7045, 7052; ♀: 7018];
1 ♂, 1 ♀, ditto, 25.VI.2017, S. Yamashita leg. [♂: BGSm17-0074; ♀: BGSm17-0057].

Notes. The specimens examined from Sarawak are slightly different from the types of nominotypical species in having the following characters: the elytral intervals

entirely flat, and more coarsely punctate, with basal fasciae not arcuate; basal three antennomeres reddish brown instead of basal four ones in the types.

Distribution. Andaman, Borneo (Sarawak).

Basides bisetiger (Gebien, 1925)

Ischnodactylus bisetiger Gebien, 1925c: 426, 440; Gebien, 1940: 419; Pic, 1925b: 436; Ando, 2001: 187; Ando, 2010: 174; Grimm & Schawaller, 2019: 69. Type locality: Sumatra (Soekaranda, Tebing-tinggi).

Additional specimens examined.

1 ♀, Lambir Hills National Park, Sarawak, Borneo, 24.IV.2011, S. Yamashita leg. [♀: 10184];

2 ♀♀, ditto, 16.XI.2012, S. Yamashita leg. [♀♀: 12784, 12785];

11 ♂♂, 16 ♀♀, ditto, 20.XI.2012, S. Yamashita leg. [♂♂: 12098, 12105, 12106, 12209, 12281, 12332, 12334, 12335, 12338, 12342, 12352; ♀♀: 12088, 12089, 12090, 12093, 12097, 12100, 12108, 12211, 12296, 12297, 12333, 12341, 12344, 12346, 12348, 12351];

1 ♂, 1 ♀, Long Semiyang, Sarawak, Borneo, 29.VII.2009, S. Yamashita leg. [♂: 5291; ♀: 5288];

1 ♂, 8 ♀♀, ditto, 30.VII.2009, S. Yamashita leg. [♂: 5351; ♀♀: 5352, 5354, 5355, 5358, 5412, 5413, 5414, 5435];

1 ♀, ditto, 31.VII.2009, S. Yamashita leg. [♀: 5460];

1 ♂, 1 ♀, Niah National Park, Sarawak, Borneo, 19.VI.2017, S. Yamashita leg. [♂: BGNa17-0108; ♀: BGNa17-0106];

3 ♂♂, Similajau National Park, Sarawak, Borneo, 9.II.2011, S. Yamashita leg. [♂♂: 7011, 7014, 7025];

1 ♂, 8 ♀♀, ditto, 11.II.2013, S. Yamashita leg. [♂: 12894; ♀♀: 12889, 12893, 12895, 12904, 12906, 12995, 12996, 12998].

Distribution. Sumatra, Borneo (Sarawak).

Basides diversicornis diversicornis Pic, 1916

Basides rufopiceus diversicornis Pic, 1916: 14. Type locality: Sumatra.

Ischnodactylus diversicornis (Pic, 1916); Gebien, 1940: 419; Ando, 2001: 187; Ando, 2010: 173; Grimm & Schawaller, 2019: 69.

Basides diversicornis Pic,1925b: 432, 434.

Additional specimens examined.

1 ♂, Gunung Mulu National Park, Sarawak, Borneo, 20.II.2011, S. Yamashita leg. [♂: 7471];

10 ♂♂, 37 ♀♀, Kubah National Park, Sarawak, Borneo, 6.XII.2017, S. Yamashita leg. [♂♂: BGKB17-0116, BGKB17-0124, BGKB17-0130, BGKB17-0137, BGKB17-0139, BGKB17-0140, BGKB17-0145, BGKB17-0148, BGKB17-0149, BGKB17-0194; ♀♀: BGKB17-0111, BGKB17-0113, BGKB17-0121, BGKB17-0128, BGKB17-0129, BGKB17-0131, BGKB17-0133, BGKB17-0134, BGKB17-0138, BGKB17-0143, BGKB17-0144, BGKB17-0147, BGKB17-0150, BGKB17-0151, BGKB17-0152, BGKB17-0153, BGKB17-0154, BGKB17-0156, BGKB17-0157, BGKB17-0158, BGKB17-0159, BGKB17-0165, BGKB17-0166, BGKB17-0170, BGKB17-0171, BGKB17-0172, BGKB17-0175, BGKB17-0178, BGKB17-0180, BGKB17-0181, BGKB17-0186, BGKB17-0187, BGKB17-0189, BGKB17-0190, BGKB17-0191, BGKB17-0193, BGKB17-0195];

1 ♂, 3 ♀♀, ditto, 7.XII.2017, S. Yamashita leg. [♂: BGKB17-0236; ♀♀: BGKB17-0237, BGKB17-0238, BGKB17-0239];

17 ♂♂, 19 ♀♀, Lambir Hills National Park, Sarawak, Borneo, 19.XI.2012, S. Yamashita leg. [♂♂: 12394, 12399, 12402, 12403, 12406, 12410, 12415, 12416, 12419, 12420, 12421, 12423, 12426,

12427, 12433, 12436, 12438; ♀♀: 12392, 12393, 12395, 12398, 12407, 12408, 12409, 12411, 12412, 12417, 12418, 12425, 12428, 12430, 12431, 12437, 12440, 12441, 12444];
1 ♂, 1 ♀, ditto, 30.I.2017, S. Yamashita leg. [♂: BGLH17-0025; ♀: BGLH17-0026];
1 ♀, Long Semiyang, Sarawak, Borneo, 30.VII.2009, S. Yamashita leg. [♀: 5448];
7 ♂♂, 14 ♀♀, ditto, 19.VII.2011, S. Yamashita leg. [♂♂: 10728, 10732, 10733, 10738, 10745, 10746, 10750; ♀♀: 10729, 10730, 10731, 10734, 10735, 10736, 10737, 10739, 10740, 10741, 10748, 10751, 10752, 10753];
1 ♂, 1 ♀, ditto, 23.VII.2011, S. Yamashita leg. [♂: 11537; ♀: 11510];
1 ♂, 5 ♀♀, Niah National Park, Sarawak, Borneo, 19.VI.2017, S. Yamashita leg. [♂: BGNa17-0293; ♀♀: BGNa17-0283, BGNa17-0284, BGNa17-0290, BGNa17-0299, BGNa17-0300];
5 ♂♂, 5 ♀♀, Similajau National Park, Sarawak, Borneo, 9.II.2011, S. Yamashita leg. [♂♂: 7024, 7032, 7034, 7048, 7055; ♀♀: 7043, 7046, 7049, 7050, 7054];
3 ♂♂, 3 ♀♀, ditto, 11.II.2013, S. Yamashita leg. [♂♂: 12910, 12912, 12915; ♀♀: 12903, 12913, 12914].

Distribution. Sumatra, Borneo (Sabah, Sarawak).

Basides consobrinus (Ando, 2010)

Ischnodactylus consobrinus Ando, 2010: 176; Grimm & Schawaller, 2019: 69. Type locality: Borneo (Sarawak).

Additional specimens examined.

10 ♂♂, 17 ♀♀, Kubah National Park, Sarawak, Borneo, 6.XII.2017, S. Yamashita leg. [♂♂: BGKB17-0115, BGKB17-0117, BGKB17-0118, BGKB17-0126, BGKB17-0127, BGKB17-0135, BGKB17-0142, BGKB17-0160, BGKB17-0168, BGKB17-0173; ♀♀: BGKB17-0114, BGKB17-0119, BGKB17-0120, BGKB17-0122, BGKB17-0123, BGKB17-0132, BGKB17-0136, BGKB17-0141, BGKB17-0155, BGKB17-0162, BGKB17-0164, BGKB17-0169, BGKB17-0176, BGKB17-0179, BGKB17-0183, BGKB17-0192, BGKB17-0196];
1 ♀, Lambir Hills National Park, Sarawak, Borneo, 17.XI.2012, S. Yamashita leg. [♀: 12600];
3 ♂♂, 7 ♀♀, ditto, 19.XI.2012, S. Yamashita leg. [♂♂: 12413, 12404, 12429; ♀♀: 12386, 12400, 12422, 12424, 12432, 12434, 12443];
1 ♀, ditto, 30.I.2017, S. Yamashita leg. [♀: BGLH17-0021];
1 ♂, 2 ♀♀, Niah National Park, Sarawak, Borneo, 19.VI.2017, S. Yamashita leg. [♂: BGNa17-0301; ♀♀: BGNa17-0289, BGNa17-0292];
6 ♂♂, 9 ♀♀, Similajau National Park, Sarawak, Borneo, 9.II.2011, S. Yamashita leg. [♂♂: 7009, 7010, 7022, 7040, 7041, 7047; ♀♀: 7013, 7027, 7028, 7029, 7030, 7033, 7036, 7039, 7044];
2 ♂♂, 6 ♀♀, ditto, 11.II.2013, [♂♂: 12907, 12911; ♀♀: 12897, 12902, 12905, 12908, 12909, 12916];
1 ♂, 1 ♀, ditto, 25.VI.2017, S. Yamashita leg. [♂: BGSm17-0083; ♀: BGSm17-0082].

Remarks. *Basides rufopiceus* Motschulsky, 1873 was transferred to the genus *Platydema* by Gebien (1925d). Recently, the species was reassigned to *Ischnodactylus* by Schawaller (2004), who examined the type species. However, the genus *Basides* was recognised as an independent genus (Bouchard *et al*., 2021), and *Ischnodactylus* remains a junior synonym of *Basides* to the present day. In this study, we re-read Motschulsky's description and found that *Basides rufopiceus* shares many traits with *Basides consobrinus*. Unfortunately, we have not examined Motschulsky's type specimen and cannot provide a clear definition of *Basides consobrinus*. The original description of *Basides rufopiceus* is reproduced below.

Basides rufopiceus Motsch., *statura praecedentis sed paulo minor, immaculatus; breviter-ellipticus, vix convexus; nitidus rufopiceus, palpis, antennis, corpore subtus pedibusque dilutioribus; capite in ♂ bicurnuto, cornibus curvatis, valde approximatis, basi lamelliforme angulatim dilatatis; thorace vix punctulato; elytris punctato-striatis, interstitiis subtilissime punctulatis. Long. 1 3/5 l – lat. 5/6 l.*

Tout-à-fait comme le precedent, mais sans taches rouses déterminées sur les élytres et avec les cornes sur la tête du mâle anguleusement dilatées á la base. Indes orientales.

Distribution. Borneo (Sarawak).

Basides fenestratus (Gebien, 1925)

Ischnodactylus fenestratus Gebien, 1925c: 426, 436; Gebien, 1940: 418; Pic, 1925b: 436, 438; Ando, 2001: 188; Ando, 2010: 174; Grimm & Schawaller, 2019: 69. Type locality: Borneo, N. Sumatra (Tandjong Morawu, Serdang).

Additional specimens examined.

1 ex., Kubah National Park, Sarawak, Borneo, 7.XII.2017, S. Yamashita leg. [BGKB17-0240];

2 exs., Long Semiyang, Sarawak, Borneo, 1.VIII.2009, S. Yamashita leg. [5503, 5504];

5 exs., ditto, 23.VII.2011, S. Yamashita leg. [11471, 11472, 11473, 11474, 11475];

1 ex., Niah National Park, Sarawak, Borneo, 19.VI.2017, S. Yamashita leg. [BGNa17-0305].

Distribution. Philippines? Borneo (Sabah, Sarawak), Sumatra.

Basides hutanicolus (Ando, 2010)

Ischnodactylus hutanicolus Ando, 2010: 176; Grimm & Schawaller, 2019: 69. Type locality: Borneo (Sarawak).

Additional specimens examined.

1 ♀, Long Semiyang, Sarawak, Borneo, 19.VII.2011, S. Yamashita leg. [♀: 10747].

Distribution. Borneo (Sarawak).

Basides malaccanus malaccanus Pic, 1916

Basides malaccanus Pic, 1916: 12; Pic, 1925b: 432, 436. Type locality: Malacca.
Ischnodactylus malaccanus (Pic, 1916); Gebien, 1940: 419; Ando, 2001: 189; Grimm & Schawaller, 2019: 69.
Basides bisbimaculatus Pic, 1925b: 436, 437. Type locality: Sumatra.
Ischnodactylus bisbimaculatus (Pic, 1925); Gebien, 1940: 419.

Additional specimens examined.

2 ♀♀, Lambir Hills National Park, Sarawak, Borneo, 20.IV.2011, S. Yamashita leg. [♀♀: 10000, 10001];

2 ♂♂, 2 ♀♀, Long Semiyang, Sarawak, Borneo, 19.VII.2011, S. Yamashita leg. [♂♂: 10755, 10756; ♀♀: 10749, 10754].

Distribution. Malay Peninsula (Malacca), Sumatra, Borneo (Sabah, Sarawak).

Basides quadrioculatus (Chevrolat, 1877)

Ischnodactylus quadrioculatus Chevrolat, 1877: 178; Gebien, 1925c: 426, 441; Gebien, 1940: 418; Ando, 2001: 189; Grimm & Schawaller, 2019: 69. Type locality: Java.
Ischrtodactylus quadri-dentatus Chevrolat, 1877: 173. Type locality: Java.

Additional specimens examined.

3 ♂♂, 1 ♀, Long Semiyang, Sarawak, Borneo, 31.VII.2009, S. Yamashita leg. [♂♂: 5457, 5459,

5463; ♀: 5462].

1♀, Similajau National Park, Sarawak, Borneo, 9.II.2011, S. Yamashita leg. [♀: 7016];

Distribution. Java, Borneo (Sabah, Sarawak).

Basides rubromarginatus rubromarginatus (Chevrolat, 1878)

Histeropsis rubro-marginatus Chevrolat, 1878b: 242. Type locality: Sarrow.
Ischnodactylus rubromarginatus (Chevrolat, 1878); Gebien, 1925c: 429; Gebien, 1940: 418; Ando, 2001: 189; Ando, 2010:172; Grimm & Schawaller, 2019: 69.
Basides unimaculatus Pic, 1916: 12; Pic, 1925b: 432, 435, 437,438; Ando, 2001: 190. Type locality: Sumatra.
Ischnodactylus unimaculatus (Pic, 1916); Gebien, 1940: 419.

Additional specimens examined.

4 ♀♀, Lambir Hills National Park, Sarawak, Borneo, 19.XI.2012, S. Yamashita leg. [♀♀: 12397, 12401, 12435, 12439];

1 ♂, Long Semiyang, Sarawak, Borneo, 31.VII.2009, S. Yamashita leg. [♂: 5465];

1 ♂, ditto, 19.VII.2011, S. Yamashita leg. [♂: 10744];

6 ♀♀, Similajau National Park, Sarawak, Borneo, 9.II.2011, S. Yamashita leg. [♀♀: 7019, 7021, 7023, 7031, 7051, 7053].

Distribution. Malay Peninsula (Malacca, Perak, Penang), Sumatra, Borneo (Sarawak).

Basides trimaculatus Pic, 1916
(Figs. 2–4)

Basides trimaculatus Pic, 1916: 13; Pic, 1925b: 433, 435. Type locality: Banguey Is.
Ischnodactylus trimaculatus (Pic, 1916); Gebien, 1940: 419; Ando, 2001: 190.
Ischnodactylus sexguttatus Gebien, 1925c: 426, 438; Gebien, 1940: 419 (544). **Syn. nov.** — Pic, 1925b: 433; Ando, 2001: 190; Ando, 2010: 175; Grimm & Schawaller, 2019: 69. Type locality: Sumatra (Soekaranda, Ober Langkat, Deli, Tebing-tinggi), Borneo (Sandakan).
Platydema sexpictum Kaszab, 1939: 98; Gebien, 1925c: 408. **Syn. nov.** Type locality: Sumatra (Tebing-tinggi).
Ischnodactylus sexpicutus (Kaszab, 1939); Schawaller, 2004: 48.

Types examined.

1 ex. (*Basides trimaculatus*: sex is not fixed since missing the head), Banguey // *Basides* / *trimaculatus* / Pic // type (MNHN);

1 ♀ (*Ischnodactylus sexguttatus*), Sandakan / Borneo / Baker // Ischnodactyl. / 6–guttatus / Geb // 289 // Type: / No.1237 // Sammluug / H. Gebien (NHMB);

1 ♂ (*Platydema sexpictum*), N.O. Sumatra / Tebing-tinggi / D[r.] Schultheiss // Holotypus // Typus / Platydema / 6-pictum m. / 1938. Kaszab // Platydema / 6-pictum m. / det. dr. Kaszab // Coll. Kraatz // coll. DEI / Eberswalde // Ischnodactylus / sexpictus n. comb. // det. SCHAWALLER, 2004 (SDEI).

Additional specimens examined.

3 ♂♂, 5 ♀♀, Gunung Mulu National Park, 7.VIII.2013, S. Yamashita leg. [♂♂: 13497, 13498, 13499; ♀♀: 13490, 13491, 13494, 13495, 13496];

1 ♂, Lambir Hills National Park, Sarawak, Borneo, 1.V.2011, S. Yamashita leg. [♂: 10262];

2 ♀♀, ditto, 16.XI.2012, S. Yamashita leg. [♀♀: 12746, 12795];

3 ♂♂, 2 ♀♀, ditto, 17.XI.2012, S. Yamashita leg. [♂♂: 12590, 12596, 12598; ♀♀: 12597, 12599];

8 ♂♂, 9 ♀♀, ditto, 20.XI.2012, S. Yamashita leg. [♂♂: 12094, 12099, 12103, 12107, 12210, 12213, 12343, 12349; ♀♀: 12095, 12096, 12101, 12102, 12104, 12131, 12340, 12345, 12347];

2 ♂♂, 3 ♀♀, ditto, 5.XII.2012, S. Yamashita leg. [♂♂: 12149, 12153; ♀♀: 12019, 12150, 12151];

1 ♂, 1 ♀, ditto, 30.I.2017, S. Yamashita leg. [♂: BGLH17-0020, ♀: BGLH17-0023];
1 ♀, Long Semiyang, Sarawak, Borneo, 29.VII.2009, S. Yamashita leg. [♀: 5289];
15 ♂♂, 12 ♀♀, ditto, Sarawak, Borneo, 30.VII.2009, S. Yamashita leg. [♂♂: 5345, 5356, 5416, 5426, 5427, 5428, 5429, 5432, 5434, 5436, 5437, 5438, 5439, 5440, 5464; ♀♀: 5350, 5359, 5407, 5417, 5418, 5419, 5430, 5431, 5433, 5441, 5447, 5461];
1 ♂, ditto, 19.VII.2011, S. Yamashita leg. [♂: 10624];
1 ♀, ditto, 23.VII.2011, S. Yamashita leg. [♀: 11556];
4 ♂♂, 4 ♀♀, Niah National Park, Sarawak, Borneo, 19.VI.2017, S. Yamashita leg. [♂♂: BGNa17-0104, BGNa17-0105, BGNa17-0109, BGNa17-0116; ♀♀: BGNa17-0107, BGNa17-0110, BGNa17-0115, BGNa17-0120].
1 ♂, 1 ♀, Similajau National Park, Sarawak, Borneo, 9.II.2011, S. Yamashita leg. [♂: 7020; ♀: 7008];
1 ♂, 4 ♀♀, ditto, 11.II.2013, S. Yamashita leg. [♂: 12900; ♀♀: 12892, 12898, 12994, 12997].

Distribution. Sumatra, Borneo (Sabah, Sarawak, Banguey Is.).

Basides sp. 1

Specimens examined.
1 ♀, Lambir Hills National Park, Sarawak, Borneo, 20.XI.2012, S. Yamashita leg. [♀: 12087].

Notes. This species is similar to *B. quadrioculatus* (Chevrolat, 1877), but the elytral fasciae are different in shape.

Basides sp. 2

Specimens examined.
1 ♀, Long Semiyang, Sarawak, Borneo, 2.VIII.2009, S. Yamashita leg. [♀: 5522];
1 ♀, Similajau National Park, Sarawak, Borneo, 10.II.2011, S. Yamashita leg. [♀: 7132].

Notes. This species is also similar to *B. quadrioculatus* (Chevrolat, 1877), but the elytral fasciae are smaller and the body colour is darker.

Neomida tricornis (Gebien, 1925)

Hoplocephala tricornis Gebien, 1925c: 449; Gebien, 1939: 768. Type locality: Sumatra.
Neomida tricornis (Gebien, 1925); Schawaller, 2002: 283; Ando, 2010: 180; Grimm, 2016: 187; Grimm & Schawaller, 2019: 69.

Additional specimens examined.
2 ♀♀, Gunung Mulu National Park, Sarawak, Borneo, 8.VIII.2013, S. Yamashita leg. [♀♀: 14010, 14016];
1 ♀, Kubah National Park, Sarawak, Borneo, 6.XII.2017, S. Yamashita leg. [♀: BGKB17-0031];
1 ♀, Lambir Hills National Park, Sarawak, Borneo, 16.XI.2012, S. Yamashita leg. [♀: 12804];
1 ♀, ditto, 19.XI.2012, S. Yamashita leg. [♀: 12364];
2 ♂♂, 1 ♀, Long Semiyang, Sarawak, Borneo, 19.VII.2011, S. Yamashita leg. [♂♂: 10666, 10822; ♀: 10665];
3 ♂♂, 3 ♀♀, Niah National Park, Sarawak, Borneo, 19.VI.2017, S. Yamashita leg. [♂♂: BGNa17-0407, BGNa17-0409, BGNa17-0410; ♀♀: BGNa17-0405, BGNa17-0406, BGNa17-0408];
1 ♂, Similajau National Park, Sarawak, Borneo, 12.II.2011, S. Yamashita leg. [♂: 7181];
1 ♂, 1 ♀, ditto, 25.VI.2017, S. Yamashita leg. [♂: BGSm17-0175; ♀: BGSm17-0176].

Distribution. Sumatra, Borneo (Sabah, Sarawak, Kalimantan), Sulawesi.

Pentaphyllus quadricornis Gebien, 1914

Pentaphyllus quadricornis Gebien, 1914: 23; Gebien, 1925e: 125; Shibata, 1978: 22; Masumoto & Makihara, 1997: 120; Löbl *et al*., 2008: 309; Ando & Merkl, 2011: 288; Grimm & Schawaller, 2019: 69; Iwan *et al*., 2020: 402. Type locality: Borneo (Banguey).

Pentaphyllus philippinensis Kaszab, 1956: 94; Shibata, 1978: 22; Löbl *et al*., 2008: 309; Ando & Merkl, 2011: 288. Type locality: Philippines (Binaluan).

Pentaphyllus tokarensis Nakane, 1963: 27; Löbl *et al*., 2008: 309; Ando & Merkl, 2011: 288. Type locality: Tokara Is. (Takarajima; Nakanoshima).

Additional specimens examined.

2 ♂♂, Kubah National Park, Sarawak, Borneo, 6.XII.2017, S. Yamashita leg. [♂♂: BGKB17-0086, BGKB17-0103];
1 ♂, ditto, 7.XII.2017, S. Yamashita leg. [♂: BGKB17-0335];
1 ♂, Lambir Hills National Park, Sarawak, Borneo, 24.IV.2011, S. Yamashita leg. [♂: 10217];
1 ♂, ditto, 17.XI.2012, S. Yamashita leg. [♂: 12711];
2 ♂♂, ditto, 18.XI.2012, S. Yamashita leg. [♂♂: 12491, 12492];
4 ♂♂, ditto, 19.XI.2012, S. Yamashita leg. [♂♂: 12254, 12256, 12257, 12365];
2 ♂♂, ditto, 5.XII.2012, S. Yamashita leg. [♂♂: 12077, 12169];
3 ♂♂, ditto, 31.I.2017, S. Yamashita leg. [♂♂: BGLH17-0053, BGLH17-0055, BGLH17-0060];
6 ♂♂, Long Semiyang, Sarawak, Borneo, 19.VII.2011, S. Yamashita leg. [♂♂: 10505, 10830, 10832, 10833, 10834, 10836];
10 ♂♂, ditto, 20.VII.2011, S. Yamashita leg. [♂♂: 10901, 10903, 10976, 11004, 11006, 11023, 11066, 11121, 11152, 11156];
1 ♂, ditto, 21.VII.2011, S. Yamashita leg. [♂: 11426];
3 ♂♂, ditto, 23.VII.2011, S. Yamashita leg. [♂♂: 11460, 11552, 11553];
1 ♂, Niah National Park, Sarawak, Borneo, 19.VI.2017, S. Yamashita leg. [♂: BGNa17-0338].

Distribution. Widespread in SE Asia, Pacific islands, and southern area of Palaearctic Region.

Pentaphyllus tonkinensis Kulzer, 1950

Pentaphyllus tonkinensis Kulzer, 1950: 42; Grimm & Schawaller, 2019: 69. Type locality: "Tonkin (Hoa Binh)".

Additional specimens examined.

2 ♂♂, Lambir Hills National Park, Sarawak, Borneo, 16.XI.2012, S. Yamashita leg. [♂♂: 12817, 12820];
1 ♂, ditto, 19.XI.2012, S. Yamashita leg. [♂: 12368];
1 ♂, Long Semiyang, Sarawak, Borneo, 29.VII.2009, S. Yamashita leg. [♂: 5262];
1 ♀, Similajau National Park, Sarawak, Borneo, 11.II.2013, S. Yamashita leg. [♀: 13333];
1 ♀, ditto, 13.II.2013, S. Yamashita leg. [♀: 13192];
3 ♂♂, ditto, 25.VI.2017, S. Yamashita leg. [♂♂: BGSm17-0177, BGSm17-0178, BGSm17-0179].

Distribution. Vietnam, Borneo (Sarawak).

Tribe Gnathidiini Gebien, 1921

Subtribe Gnathidiina Gebien, 1921

Menimus* (*Menimus*) *sabahicus Schawaller et Bigalk, 2021

Menimus sabahicus Schawaller et Bigalk, 2021: 44. Type locality: Borneo (Sabah).

Additional specimens examined.

2 ♀♀, Loagan Bunut National Park, Sarawak, Borneo, 28.IV.2011, S. Yamashita leg. [♀♀: 10366, 10368].

Remarks. Although two specimens collected in Loagan Bunut National Park were identified this species by us, some characteristics are different from the original description. We describe some different and additional characters as follows:

Body length. 2.3–2.7 mm, body dorsal side reddish brown. Head with small punctation, not sparser but slightly smaller on clypeus. Clypeal membrane exposed in part; clypeus gently emarginate at apex. Eyes weakly convex. Mentum transversely obtrapezoidal. Pronotum 1.48 times as wide as long; posterior corners obtusely angulate; lateral margins evenly convergent in apical half, with moderate dentations; basal margin very finely beaded; surface with punctation similar to that on frons. Scutellum large and semicircular, with punctures similar in size to on pronotal disc. Prothoracic hypomera depressed. Elytra 1.62 times as long as wide, widest behind middle, with punctation regularly arranged in rows; intervals almost flat, sparsely with large punctures; humeral angles scarcely pronounced; humeral calli very weakly humped; epipleura smooth. Abdominal ventrites with sparse punctures.

Distribution. Borneo (Sabah, Sarawak).

Tribe Scaphidemini Reitter, 1922

Spiloscapha medvedevi Grimm, 2010

Spiloscapha medvedevi Grimm, 2010: 265; Grimm & Schawaller, 2019: 70. Type locality: Gunung Gading Park, Sarawak.

Additional specimen examined.

1 ex., Lambir Hills National Park, Sarawak, Borneo, 17.XI.2012, S. Yamashita leg. [12643].

Distribution. Borneo (Sarawak).

Tribe Leiochrinini Lewis, 1894

Stethotrypes glaber Gebien, 1914

Stethotrypes glaber Gebien, 1914: 27; Kaszab, 1946: 34; Kaszab, 1961: 359, 377; Schawaller, 1998: 4; Grimm & Schawaller, 2019: 70. Type locality: Borneo (Kinabalu).

Additional specimens examined.

1 ex., Long Semiyang, Sarawak, Borneo, 1.VIII.2009, S. Yamashita leg. [5509];

1 ex., ditto, 23.VII.2011, S. Yamashita leg. [11270].

Distribution. Borneo (Sabah, Sarawak).

Stethotrypes dorotheae Schawaller, 1998

Stethotrypes dorotheae Schawaller, 1998: 4; Grimm & Schawaller, 2019: 70. Type locality: Borneo (Sabah, Kinabalu).

Additional specimens examined.

1 ex., Gunung Mulu National Park, Sarawak, Borneo, 10.VIII.2013, S. Yamashita leg. [13681];
1 ex., Kubah National Park, Sarawak, Borneo, 7.XII.2017, S. Yamashita leg. [BGKB17-0267];
1 ex., Lambir Hills National Park, Sarawak, Borneo, 5.XII.2012, S. Yamashita leg. [12278].

Distribution. Borneo (Sabah, Sarawak).

Descriptions of New Species

Boletoxenus persimilis sp. nov.

(Figs. 5, 7–8)

Boletoxenus serratus by Ando, 2010: 157; Grimm, 2014: 186 (nec Gebien, 1913).

Type specimens.

Holotype: ♂, Gunung Gading National Park, Sarawak, Borneo, 7.XII.2016, S. Yamashita leg., BGGG16-0004.

Paratypes: 1 ♂, 1 ♀, Lambir Hills National Park, Sarawak, Borneo, 6.VIII.2008, S. Yamashita leg. [♂: myco2895; ♀: myco3064].

Diagnosis. The new species is similar to *Boletoxenus serratus* (Gebien, 1913) from the Philippines, but is different from the latter in having less rounded pronotum; larger and very sparse dentations at lateral margins of pronotum and those of elytra, and strongly incurved pronotal horns, which are more densely tuberculate.

Etymology. The specific name implies that it is very similar to the allied species.

Description. Body oblong, robust, strongly convex above, shiny. Colour black with derma, mouthparts, antennae, and legs dark reddish brown. Body length: 11.5–11.6 mm in male (n = 2); 12.0 mm in female (n = 1).

Male. Head transverse, about 1.90 times as wide as long (n = 2); clypeus transversely elliptical, depressed, sparsely and coarsely punctate, with two pairs of conical tubercles along anterior margin, of which inner two are much larger than the outer two; genae transverse, lamellately and triangularly produced laterad in front of eyes, irregularly with several tubercles in each inner half; frons strongly depressed, covered with dense microsculpture, with punctures coarse and moderate in density, IE/TD 3.67–4.16 (n = 2); vertex with a pair of short processes; eyes rather large and distinctly convex, with a conical tubercle at each inner posterior corner. Antennae short, reaching basal third of pronotum; 1st antennomere very long and robust, nearly as long as 2nd to 4th combined; 6th and 7th triangular; distal six antennomeres distinctly dilated and forming a club. Ultimate maxillary palpomeres elongate, subfusiform, with long and robust setae externally. Mentum obtrapezoidal (Fig. 8), rounded at sides, longitudinally elevated in middle and flattened laterally, coarsely punctate on median elevated area, with fine setae.

Pronotum transverse, densely microsculptured, widest at middle, PW/PL 1.95–2.09 (n = 2), strongly convex, gently sloping laterally, with broadly deplanate fringes at sides; anterior margin gently and deeply emarginate; sides weakly arcuate, lateral fringe with five to six finger-shaped teeth; disc distinctly convex, coarsely and slightly sparsely punctate, irregularly bearing conical tubercles, in which six to seven median tubercles drawing a pair

of oblique lines; a pair of large pronotal horns bearing behind anterior margin, the horns obliquely produced forwards, strongly incurved, covered with irregular tubercles and short setae, each apex with a tuft of short and dense hairs. Scutellum suboval, flattened, with setae.

Elytra subparallel-sided, strongly convex, EL/EW 1.12–1.20 (n = 2); humeral calli distinctly humped, with several tubercles; sides hardly deplanate, fringed with rather sparse finger-like teeth; surface covered with short and sparse yellow setae and irregular punctures, irregularly with large and subconical tubercles, and with three pairs of large and slightly lamellate tubercles on middle, in which posterior two pairs are larger than anterior pair and each with two peaks; a pair of oblique tubercles situated at outer side between posterior pairs; epipleura broad, unevenly depressed, with irregular and transversely oval depressions.

Prothoracic hypomera depressed, coarsely and rather densely punctate. Prosternum short, distinctly depressed, densely microsculptured, finely punctate along thickly beaded apex; prosternal process setiferous, strongly adunc behind coxae and rounded at apex, with a small and rounded hump between coxae. Mesoventrite with posterior ridge weak, with a coarsely punctate and setiferous oval tubercle between mesocoxae. Metaventrite strongly but unevenly convex, with coarse and large setiferous punctures. Abdomen finely microsculptured, with large and dense setiferous punctures; 5th ventrite with minute and dense punctures along apical margin.

Aedeagus 0.23–0.25 times as long as elytra (Fig. 7); basale slightly shorter than apicale, gently convergent posteriorly; apicale slender, triangular, pointed at apex, 1.16–1.26 times (n = 2) as long as basale.

Legs with dense and setiferous punctures. Femora ancipital on anterior (for profemora) or posterior margins (for meso- and metafemora). Tibiae short, weakly rugulose, each widest near middle. Tarsi simple.

Female. Head 1.88 times as wide as long (n = 1), without clypeal tubercles; genal tubercles weak; pronotum widest at basal third, pronotal horns very short and slightly incurved, without apical tufts of dense hairs; PW/PL 1.87; elytra widest at basal third, 1.19 times as long as wide.

Distribution. Borneo (Sarawak).

Bolitonaeus grimmi sp. nov.

(Figs. 6, 9 & 10)

Type specimens.

Holotype: ♂, Kubah National Park, Sarawak, Borneo, 9.XII.2017, S. Yamashita leg. BGKB17-0347.

Paratypes. 5 ♂♂, 11 ♀♀, same data as for the holotype except for each of the identification codes [♂♂: ID: BGKB17-0342, ID: BGKB17-0345, ID: BGKB17-0346, ID: BGKB17-0350, ID: BGKB17-0351; ♀♀: ID: BGKB17-0341, ID: BGKB17-0343, ID: BGKB17-0344, ID: BGKB17-0348, ID: BGKB17-0349, ID: BGKB17-0352, ID: BGKB17-0353, ID: BGKB17-0354, ID: BGKB17-0355, ID: BGKB17-0362, ID: BGKB17-0366];

22 ♂♂, 30 ♀♀, Gunung Mulu National Park, Sarawak, Borneo, 7.VIII.2013, S. Yamashita leg. [♂♂: Myco13439, Myco13443, Myco13623, Myco13644, Myco13654,

Myco13656, Myco13657, Myco13658, Myco13694, Myco13695, Myco13910, Myco13913, Myco13916, Myco13918, Myco13919, Myco13920, Myco13921, Myco13922, Myco13931, Myco13933, Myco14131, Myco14132; ♀♀: Myco13440, Myco13441, Myco13444, Myco13445, Myco13446, Myco13447, Myco13449, Myco13450 (without head), Myco13451, Myco13452, Myco13459, Myco13621, Myco13622, Myco13624, Myco13625, Myco13626, Myco13627, Myco13628, Myco13648, Myco13653, Myco13655, Myco13693, Myco13696, Myco13911, Myco13915, Myco13917, Myco13923, Myco13925, Myco14133, Myco14134];

7 ♂♂, 8 ♀♀, ditto, 8.VIII.2013, S. Yamashita leg. [♂♂: Myco13709, Myco13710, Myco13980, Myco13981, Myco13982, Myco13985, Myco14011; ♀♀: Myco13711, Myco13712, Myco13713, Myco13970, Myco14013, Myco14014, Myco14015, Myco14024];

8 ♂♂, 10 ♀♀, ditto, 9.VIII.2013, S. Yamashita leg. [♂♂: Myco13544, Myco13729, Myco13730, Myco13850, Myco13865, Myco13866, Myco13868, Myco13889; ♀♀: Myco13437, Myco13728, Myco13807, Myco13808, Myco13809, Myco13862, Myco13863, Myco13867, Myco13869, Myco13892];

2 ♂♂, 2 ♀♀, ditto, 10.VIII.2013, S. Yamashita leg. [♂♂: Myco13837, Myco13935; ♀♀: Myco13678, Myco13679];

1 ♂, 3 ♀♀, ditto, 11.VIII.2013, S. Yamashita leg. [♂: Myco13595; ♀♀: Myco13876, Myco13877, Myco13878];

1 ♂, Long Semiyang, Sarawak, Borneo, 19.VII.2011, S. Yamashita leg. [♂: Myco10813];

2 ♂♂, ditto, 20.VII.2011, S. Yamashita leg. [♂♂: Myco10980, Myco10988];

*1 ♂, 1 ♀, Sarawak, Ex. Ganoderma sp, NR Kuching, 16.XI.66, col. Type 17, 6146, Pres by Com Inst Ent, BM 1971-I (BMNH).

* During the course of our study, the Natural History Museum in London sent us a number of tenebrionid specimens for identification. As a result of our research, two specimens of this new species were included among these specimens, and we added them to the type series (paratypes). It has already confirmed that these specimens were collected from the fungi.

Differential diagnosis. The new species resembles *Bolitonaeus nasalis* (Pascoe, 1871) from Penang, but is different from the latter in having the following characters: leafy horn of epistome convergent towards truncated apex; the narrowest point of eyes as long as about length of three facets; pronotum of male without anterior horns; aedeagus with apicale shorter than basale.

Etymology. The new species is dedicated to the late Dr. Roland Grimm (Neuenbürg), who was a very close friend of the senior author (K. A), and made a great contribution to the Bornean Tenebrionidae.

Description. Oblong, subparallel-sided, surface covered with minute precipitate of fruiting bodies, and it becomes shiny when the precipitate is removed. Colour dark brown to blackish brown; mouthparts and legs dark reddish brown; antennae reddish brown. Body length: 4.4–5.9 mm in male (n = 48; HT: 5.1 mm; av: 5.4 mm); 4.0–6.0 mm in female (n = 62; av: 4.9 mm).

Male. Head transversely pentagonal, with punctures dense, fine on clypeus and genae, coarse and large on frons; clypeus with a large and transversely spatulate horn, which is

convergent towards truncated apex, with asperate surface and dense punctures; frontoclypeal suture fine, not angulate; genae short and transverse, depressed, roundly produced laterad; frons uneven, sloping forwards, depressed in part, with a longitudinal row of several tubercles along inner margin of each eye; IE/TD 4.71–6.67 (n = 48; HT: 5.41; av: 5.64); temples moderately convex, with coarse punctures; eyes small and slightly transverse in dorsal view, with the narrowest point between dorsal and ventral parts as long as about length of three facets. Antennae short, reaching about apical third of pronotum; each inner-basal corner of 6th to 10th antennomeres with short thorn; distal five antennomeres distinctly dilated and forming a club; 11th embedded into 10th one. Ultimate maxillary palpomeres slender, elongate conical. Mentum hexagonal (Fig. 9), slightly emarginate at apex, longitudinally carinate in middle and depressed at sides, finely punctate.

Pronotum transverse, widest at the following five points: 1, widest at middle (HT & 28 PTs), 2, at apical third (11 PTs), 3, behind middle (2 PTs), 4, at basal third (4 PTs), 5, just before middle (3 PTs); PW/PL 1.36–1.65 (n = 48; HT: 1.46; av: 1.49); disc very strongly convex, subvertical in each lateral fourth, faintly depressed behind middle of anterior margin, coarsely and densely punctate, moderately covered with tubercles; anterior margin weakly emarginate and not beaded; anterior corners rounded, weakly produced; lateral margins roundly divergent forwards, serrated by small and irregular teeth; posterior corners obtusely rounded; basal margin weakly bisinuate, unbeaded. Scutellum transversely semicircular, flat or depressed, with some obscure punctures.

Elytra strongly convex, subparallel-sided, weakly serrated at sides, with rows of punctures instead of striae, widest at the following six points: 1, widest at apical third (27 PTs), 2, at middle (2 PTs), 3, behind base (5 PTs), 4, at humeri (6 PTs), 5, behind humeri (HT & 2 PTs), 6, before apical third (5 PTs); EL/EW 1.08–1.28 (n = 48; HT: 1.22; av: 1.18); punctures in rows large and dense, larger than on pronotum, becoming slightly smaller in apical declivity; intervals unevenly convex, each with longitudinal row of irregular tubercles; humeral calli absent; epipleura broad and slightly depressed, asperate, transversely rugulose, reaching near apex of 5th abdominal ventrite.

Prothoracic hypomera depressed for receiving antennae, sparsely and coarsely punctate, with fine microsculpture. Prosternum short and depressed, punctate; prosternal process lanceolate, pointed at apex, strongly bent inwards behind coxae. Mesoventrite with a short triangular process just before mesocoxae. Metaventrite very short, densely punctate, distinctly elevated in median fourth, thence closely contact with linguiform process of 1st abdominal ventrite. Abdomen strongly convex, coarsely, irregularly and very densely punctate; 5th ventrite distinctly depressed along base.

Aedeagus slender, fusiform (Fig. 10), 0.27–0.35 times as long as elytra (n = 48; HT: 0.29; av: 0.30); basale longer than apicale, 1.03–1.53 times as long as apicale (n = 48; HT: 1.26; av: 1.18), dilated in middle; apicale evenly tapering to apex, with each paramere thinned and somewhat styloid in apical third in lateral view.

Legs short and robust. Femora densely with setiferous punctures. Tibiae with outer margins ancipital, roundly dilated at middle or behind middle; dorsal edge of protibiae, ventral edges of meso- and metatibiae minutely serrate. Ultimate tarsomere longer than preceding tarsomeres combined.

Female. Head without epistomal horn; clypeus strongly convex, finely and densely punctate; 6th to 10th antennomeres without inner-basal thorns; IE/TD 4.76–6.62 (n = 62;

av: 5.57); pronotum widest at the following four points: 1, widest at middle (45 PTs), 2, at apical third (5 PTs), 3, at basal third (7 PTs), 4, behind middle (4 PTs); PW/PL 1.31–1.57 (n = 62; av: 1.43); elytra widest at the following six points: widest at apical third (41 PTs), 2, at humeri and apical third (1 PT), 3, at humeri (9 PTs), 4, behind humeri (7 PTs), 5, at middle (3 PTs), 6, just behind middle (1 PT); EL/EW 1.08–1.34 (n = 62; av: 1.20).

Distribution. Borneo (Sarawak).

Basides rhinoceros sp. nov.
(Figs. 11, 14–16)

Type specimens.

Holotype: ♂, Gunung Mulu National Park, Sarawak, Borneo, 9.VIII.2013, S. Yamashita leg., Myco13660.

Paratypes: 2 ♂♂, 3 ♀♀, same data as for the holotype except for each of the identification codes [♂♂: Myco13667, Myco13668; ♀♀: Myco13661, Myco13663, Myco13664];

1 ♂, Niah National Park, Sarawak, Borneo, 2017 Jun 19, S. Yamashita leg. [♂: BGNa17-0269].

Differential diagnosis. The new species is similar to *Basides nasutus* (Gebien, 1925) from the Philippines, but differs from the latter in having occipital bifurcate uni-horn, smaller epistomal tooth, and elytra only with transverse anterior fasciae, without posterior fasciae. Also, this new species is similar in having bifurcate uni-horn to *Basides bifasciatus* Motschulsky, 1873 from "Indes orientales", but is readily separable from the latter in having more darkened body, not lamellate occipital horn and elytra without posterior fasciae.

Etymology. The specific name is derived from rhino-like horn.

Description. Oblong-oval, gently convex, lustrous. Colour dark reddish brown; elytra black to blackish brown, with a pair of transverse basal fasciae, the fasciae reddish brown, slightly arcuate, occupying the following three types of space: (1) between 2nd stria and 6th stria (HT), (2) between 2nd stria and 5th stria (1 male & 1 female PTs), and (3) between 2nd stria and lateral margin (2 male & 2 female PTs); legs reddish brown. Body length: 6.6–7.7 mm in male (n = 4); 6.7–7.6 mm in female (n = 3).

Male. Head subtrapezoidal, gently produced forwards, weakly reflexed at outer margin of frontal third, with fine microsculpture; clypeus weakly convex in middle, distinctly depressed on each side, finely and densely punctate, with a short vertical horn at middle of apical margin, which is rounded at apex; frontoclypeal suture fine, feebly engraved; genae large and weakly depressed, roundly produced forwards, densely and irregularly punctate, punctures slightly larger than on clypeus; frons narrow and depressed, finely rugulose and very sparsely with microscopic punctures; vertex depressed and smooth, with a thick and vertical horn, which is bifurcate near middle, and each twig tapering towards apex, without apical hairs; posterior portion behind eyes covered with fine setiferous punctures; eyes very large and transverse, roundly produced laterad, without inner ocular sulci, TD/IE 1.60–1.76 (n = 4; av: 1.69). Antennae barely reaching base of pronotum; 4th antennomere large, longer than 3rd; 5th and 6th transversely conical; 7th to penultimate antennomeres transverse; 11th elongate triangular. Ultimate maxillary palpomeres slender securiform. Mentum transversely quadrate (Fig. 14), rounded at apex, almost flat though weakly

convex antero-medially, with dense setae within transversely rounded pore in posterior half. Submentum pentagonal, with coarse and large punctures. Gula triangular, weakly convex, densely covered with transverse microscopic lines; gular sutures clearly engraved. Space between buccal plate and gula with many transverse ridges and dense setiferous punctures.

Pronotum transversely trapezoidal, weakly convex, widest at base, PW/PL 2.16–2.21 (n = 4; av: 2.19), without microsculpture; disc gently convex in median portion and steeply sloping laterally, not sulcate along lateral margins, finely and densely punctate, punctures slightly finer than on clypeus; basal foveae weakly impressed; anterior margin gently emarginate, finely and entirely beaded; anterior corners obtusely rounded; lateral margins weakly convergent in basal third and roundly evenly so in the rest, narrowly and evenly beaded; posterior corners slightly obtuse than rectangular; basal margin clearly bisinuate. Scutellum flattened, rounded at sides, almost smooth.

Elytra elongate, distinctly convex, widest at basal third in HT, widest behind base or widest at basal 2/9 in PTs, EL/EW 1.30–1.36 (n = 4; av: 1.34), striate, with beads of lateral margins slightly broadened in apical half; striae fine, slightly deepened laterally and apically; strial punctures distinct and close, more or less finer apically; intervals almost flat in inner three ones, slightly convex in 4th and 5th ones, gently convex in 6th to 9th ones, finely and densely punctate; humeral calli scarcely humped; epipleura evenly and distinctly depressed, with coarse and sparse punctures and transverse rugulosities.

Prothoracic hypomera weakly depressed, longitudinally rugulose and coarsely punctate. Prosternum gently raised towards middle, densely and irregularly punctate, moderately beaded at apex; prosternal process narrow rhombic (Fig. 15), depressed in middle and acutely pointed at apex. Mesoventral V-shaped ridge narrow, sparsely scattered with piligerous punctures, with anterior angles obtusely rounded in lateral view. Metaventrite short, rather weakly convex, finely and sparsely punctate, punctures on median area smaller and denser, each with long fine hair. Abdominal ventrite weakly convex, covered with dense punctures, each puncture bearing long and fine hair; 5th ventrite distinctly and transversely depressed along base.

Aedeagus slender and thin (Fig. 16), 0.28–0.38 (n = 3, av: 0.33) times as long as elytra; basale strongly curved ventrad, 4.21–5.5 (n = 3, av: 4.83) times as long as apicale, gently convergent towards base; apicale short and thickly fusiform, convex dorsad.

Legs simple; tarsi slender and long.

Female. Body more convex; frons wider, coarsely and densely punctate; vertex weakly depressed, without horn; eye in dorsal view 1.74–2.22 (n = 3, av: 2.02) times as wide as the space between eyes; pronotum 2.07–2.13 (n = 3, av: 2.09) times as wide as long; elytra 1.41–1.48 (n = 3, av. 1.43) times as long as wide.

Distribution. Borneo (Sarawak).

Basides ornatimarginatus sp. nov.

(Figs. 12, 17–19)

Type specimens.

Holotype: ♂, Loagan Bunut National Park, Sarawak, Borneo, 3.XII.2012, S. Yamashita leg., Myco12845.

Paratypes: 2 ♀♀, same data as for the holotype except for each of the identification codes [♀♀: Myco12824, Myco12843];
2 ♀♀, Gunung Mulu National Park, 9.VIII.2013, S. Yamashita leg. [♀♀: Myco13665, Myco13666];
1 ♀, Similajau National Park, Sarawak, Borneo, 11.II.2013, S. Yamashita leg. [♀: Myco12986].

Differential diagnosis. This new species is similar to *Basides pici* (Ando, 2001) from Sumatra, but is readily separable from the latter in having conical tubercle on clypeus, subhorizontal short horns on vertex, more coarsely punctate and less convex elytral intervals, and presence of reddish-brown lateral stripe on elytral 9th interval.

Etymology. The specific epithet is derived from the lateral stripes of elytra.

Description. Oblong, moderately convex, weakly so anteriorly, lustrous. Colour dark reddish brown though more or less lighter in legs; dorsal surface black or dark reddish brown; elytra with a pair of reddish yellow basal spots, and reddish brown lateral stripe on 9th interval which is reaching apex of elytron, the spot weakly transverse, situate between about 2nd stria and 6th stria, but in some cases, reaching lateral margin and contact with lateral stripe, normally, nearly as long as the space before spot, but a single case, much longer than the space before spot. Body length: 5.6 mm in male (n = 1); 5.7–6.8 mm in female (n = 5).

Male. Head transversely trapezoidal, weakly reflexed at outer margin of frontal half, slightly sinuous in middle of outer margin, with fine microsculpture; clypeus moderately convex, coarsely and moderately punctate, with a conical tubercle at middle of apical margin, which is directed dorso-anteriad; frontoclypeal suture very fine and obscure; genae large, widened posteriorly, depressed, finely and densely punctate, with outer margins evenly convergent in basal half and roundly so in apical half; frons narrow, gently depressed, with some microscopic punctures; vertex raised laterally, coarsely punctate, with a pair of short horns, which are thick and conical, subhorizontal, pointed and without hairs at apices, area behind horns transversely depressed; eyes large and transverse, weakly convex, produced laterad, TD/IE 2.22, without inner ocular sulci. Antennae just reaching base of pronotum, distal seven antennomeres moderately dilated and wider than long, respectively; 11th triangular. Ultimate maxillary palpomeres elongate-securiform. Mentum obtrapezoidal (Fig. 17), emarginate at apex and rounded at sides, weakly convex in middle, covered with setiferous punctures; mentum pore transversely quadrate before base, densely setiferous. Submentum pentagonal, flat.

Pronotum transverse, widest at base, PW/PL 2.15; disc distinctly convex, steeply sloping laterally, not sulcate along lateral margins, with punctures minute and dense in the same manner as those on clypeus; basal foveae rudimental; anterior margin entirely and finely beaded, roundly and weakly emarginate; anterior corners obtusely rounded, slightly produced; lateral margins narrowly beaded, weakly rounded and convergent in basal half, evenly convergent in apical half; posterior corners obtusely angulate; basal margin moderately bisinuate, with bead rather thick in middle. Scutellum transverse, flat, finely punctate, with compact microsculpture.

Elytra oblong, gently convex, slightly convergent posteriorly, widest before apical third, narrow and hardly sulcate along lateral margins, striate, EL/EW 1.32; striae weakly impressed in inner three ones and distinctly so in the rest; strial punctures distinct and rather

close; intervals almost flat in inner four ones, slightly convex in 5th and 6th, weakly so in 7th to 9th, finely and densely punctate; humeral calli weakly humped; elytral epipleura flat, finely microsculptured, with sparse and microscopic piligerous punctures.

Prothoracic hypomera strongly and unevenly depressed, longitudinally rugulose and compactly microsculptured, with very fine and obscure piligerous punctures. Prosternum strongly raised towards middle, finely microsculptured and obscurely punctate, narrowly beaded at apex; prosternal process navicular (Fig. 18), acutely produced and pointed at apex, subhorizontal. Mesoventro-ridge narrow V-shaped, slightly sloping forwards, without anterior angles in lateral view. Metaventrite very short in middle, compactly microsculptured, densely and minutely punctate in median half, punctures in median fourth each bearing long hair. Abdomen moderately convex; basal three ventrites longitudinally rugulose and densely covered with piligerous punctures; punctures on 4th and 5th ventrites microscopic and piligerous; 5th transversely depressed along base.

Aedeagus slender (Fig. 19), 0.37 times as long as elytra; basale long and almost flattened, strongly produced ventrally beyond apex of apicale, 5.52 times as long as apicale; apicale short and thick, pointed at apex.

Legs slender, without any appendages.

Female. Head without horns, rather densely punctate from frons to vertex; antennae shorter; TD/IE 1.63–1.76 (n = 5; av: 1.71); mentum more rounded, with pore shallower; PW/PL 2.15–2.28 (n = 5; av: 2.21); EL/EW 1.30–1.43 (n = 5; av: 1.37); puncture on metaventrite sparser.

Distribution. Borneo (Sarawak).

Basides nakashizukai sp. nov.

(Figs. 13, 20–22)

Type specimens.

Holotype: ♂, Lambir Hills National Park, Sarawak, Borneo, 19.XI.2012, S. Yamashita leg., Myco12414.

Paratype: 1 ♀, same data as for the holotype except for the identification code [♀: Myco 12396].

Differential diagnosis. This new species is similar to *Basides trigonalis* (Gebien, 1925) from Borneo, but is readily separable from the latter in having head in male wider than long; posterior portion of frons in female without tubercles; pronotum with lateral margins not parallel-sided in basal half; anterior corners of pronotum entirely rounded; elytra scarcely striate, with serial punctures fine and weak; elytral intervals entirely flat, not convex in apical declivity; posterior fascia of each elytron oblong and slightly obscure.

Etymology. The specific epithet is dedicated to Dr. Tohru Nakashizuka, who has been studying forest ecology for more than 40 years and led several big research projects in the academic fields in Sarawak, Borneo.

Description. Oblong-oval, weakly convex, shiny. Colour black, blackish brown in female; each elytron with yellow basal and apical spots; the basal spot large and rounded, occupying about external portion of 2nd interval to 8th interval, much larger than the space before it; the apical spot oblong, slightly obscure, not contact with marginal portions,

situated between 1st and 7th striae. Body length: 6.7 mm in male (n = 1); 6.4 mm in female (n = 1).

Male. Head triangular, strongly produced in anterior half and pointed at apex, finely and rather sparsely punctate, punctures piligerous; clypeus weakly and triangularly convex in middle, deeply excavate at sides, strongly reflexed at anterior margin; frontoclypeal suture fine and obscure; genae large and flat, ascendent laterad and sloping forwards, with outer margins evenly and weakly roundly convergent forwards; frons narrow, strongly excavate, almost smooth with a few fine punctures, gradually ascendent towards vertex, which bears two lamellate vertical horns, the horns tapering towards apices and slightly sigmoidal in lateral view, without apical tufts; areas posterior sides of the horns finely and densely punctate; eyes large and transverse, flattened in the front and roundly produced laterad, without inner ocular sulci, TD/IE 2.33. Antennae asymmetrical in length, just reaching base of elytra in the right one and surpassing it enough in the left one, distinctly dilated in distal seven antennomeres. Ultimate maxillary palpomeres oblong, weakly securiform. Mentum obtrapezoidal (Fig. 20), convex forwards, with π-shaped carina at middle along apex; mentum pore large and rounded before base, bearing a bold seta at middle. Submentum obtriangular, coarsely punctate, scarcely margined posteriorly.

Pronotum transverse, flat, widest at base, PW/PL 2.38; disc feebly convex, gently sloping in apical area near anterior corners and feebly so laterally, not sulcate along lateral margins, very finely and rather densely punctate, punctures slightly smaller than on head; basal foveae very feeble; anterior margin gently emarginate, entirely and narrowly beaded; anterior corners very obtuse; lateral margins moderately, roundly convergent from base to apex, narrowly beaded; posterior corners slightly obtuse than rectangular; basal margin weakly bisinuate. Scutellum lunate, weakly depressed and smooth.

Elytra oblong, weakly convex anteriorly, widest at basal third, EL/EW 1.26, serially punctate, shallowly striate apically, with lateral margins broadly flattened throughout; serial punctures distinct and fine, rather sparse, denser and more or less larger in lateral three ones and becoming slightly finer apically; intervals flat, minutely and moderately punctate, 3rd and 5th intervals broadened on the basal spot; humeral calli scarcely humped; epipleura strongly depressed, impunctate, with very fine microsculpture.

Prothoracic hypomera evenly depressed, finely microsculptured, with sparse and microscopic piligerous punctures. Prosternum distinctly convex, beaded at apex, densely with fine piligerous punctures; prosternal process sharp rhombic (Fig. 21), flat and subhorizontal, acutely pointed at apex. Mesoventro-ridge distinctly raised, narrow V-shaped; anterior angles obtusely angulate in lateral view. Metaventrite rather short in middle, distinctly convex towards middle, triangularly depressed at middle before apex, with hair-bearing punctures fine and dense, the hairs of punctures becoming much longer in median third. Abdomen weakly convex, densely covered with hair-bearing punctures, the hairs very long in part; 5th ventrite setiferous along posterior margin.

Aedeagus slender, 0.27 times as long as elytra (Fig. 22); basale flat, 2.89 times as long as apicale, broadly dehiscent at apex dorsally; apicale short and conical, weakly carinate in middle of dorsal surface.

Legs rather slender; trochanters scarcely punctate and setiferous; femora thick.

Female. Head rounded, and subtrapezoidal in anterior half, almost straight in median half of apex, not triangular and without horns; clypeus roundly convex in middle; frons and vertex finely and densely punctate; TD/IE 2.93; mentum triangular, rounded at sides,

without π-shaped carina; mentum pore large, occupying the most of all surface, roundly convex in middle and without setae; PW/PL 2.31; scutellum flat, but not depressed; EL/EW 1.18; metaventral depression weaker; abdomen longitudinally rugulose in part.

Distribution. Borneo (Sarawak).

Neomida sarawakensis sp. nov.

(Figs. 23, 27, 31)

Type specimen.

Holotype: ♂, Long Semiyang, Sarawak, Borneo, 19.VII.2011, S. Yamashita leg. myco10814.

Differential diagnosis. This new species is similar to *Neomida tricornis* (Gebien, 1925), but is different from the latter in having the following characteristics: epistomal process short, without horn; cephalic horns triangular, perpendicular, short and lamellate; punctures on pronotum larger; elytral intervals less convex, with punctures sparser; aedeagus slender, basale not dilated in middle.

Etymology. The new species is derived from type locality, Sarawak, a state of Malaysia on Borneo.

Description. **Male**. Elongate, subparallel-sided, distinctly convex, shiny; chestnut brown, with mouthparts and legs more or less paler. Body length: 4.4 mm (n = 1).

Head transverse, acutely pointed at middle of epistome, with a pair of symmetrical horns at inner margins of eyes, the horns perpendicular, lamellately triangular, with blunt tips; surface weakly convex on clypeus and flattened on genae, finely and rather densely punctate, with fine microsculpture, space between horns deeply excavate, almost smooth and shiny, with some microscopic punctures and transverse rugosities; eyes coarsely facetted, IE/TD 1.69 (n = 1). Antennae slender, surpassing basal third of pronotum; third antennomere nearly as long as 4th which is strongly humped; distal seven antennomeres distinctly dilated, wider than long, respectively except for trapezoidal ultimate antennomere. Ultimate maxillary palpomeres fusiform. Mentum obtrapezoidal (Fig. 27), roundly convex in middle, and setiferous behind the convexity.

Pronotum trapezoidal, widest at base, PW/PL 2.00 (n = 1); disc strongly convex, steeply sloping laterally, finely and densely punctate, punctures larger than on head; anterior margin slightly emarginate, very finely beaded; anterior corners obtuse; lateral margins weakly convergent forwards in basal half and steeply so in apical half, finely beaded; posterior corners rounded, rectangular; basal margin moderately bisinuate, slightly reflexed and scarcely beaded. Scutellum semicircular, flattened, with a few fine punctures.

Elytra strongly convex, slightly dilated posteriorly, widest just before apical third, EL/EW 1.42 (n = 1); striae fine throughout, strial punctures dense and distinct, larger than on pronotum and becoming smaller in apical declivity; intervals slightly convex, with punctures fine and dense, smaller and sparser than on pronotum; lateral margins narrowly beaded, almost visible from above; humeral calli scarcely humped; epipleura weakly depressed, finely punctate, rugulose in posterior third. Wings present.

Prothoracic hypomera depressed, densely with setiferous punctures. Prosternum longitudinally elevated in middle, microsculptured and sparsely punctate, finely beaded at apex; prosternal process slender and curved inwards behind coxae. Mesoventral V-shaped

ridge gently declined forwards, without anterior angles in lateral view. Metaventrite strongly convex, with fine and sparse piligerous punctures. Abdomen gently convex, finely microsculptured, with punctures dense, piligerous on basal three ventrite and not so on apical two ventrites.

Aedeagus slender (Fig. 31), 0.24 times as long as elytra; basale 2.89 times as long as apicale, gently convergent posteriad, weakly produced at anterior corners; apicale short and tumid triangular, rounded at apex.

Legs short. Posterior margins of meso- and metafemora ancipitate, and distinctly depressed between ancipital edges. Outer margins of tibiae with small serrations.

Female. Unknown.

Distribution. Borneo (Sarawak).

Pentaphyllus lambirensis sp. nov.

(Figs. 24, 28, 32)

Type specimens.

Holotype: ♂, Lambir Hills National Park, Sarawak, Borneo, 16.XI.2012, S. Yamashita leg., Myco12737.

Paratypes: 1 ♂, 6 ♀♀, same data as for the holotype except for each of the identification codes [♂: Myco12740; ♀♀: Myco12734, Myco12735, Myco12736, Myco12738 (lacking head), Myco12739, Myco12741].

Differential diagnosis. This new species is similar to *Pentaphyllus biconiger* Gebien, 1914 from Borneo, but is readily separable from the latter in having the following characters: body slenderer, longer and subparallel-sided; head pubescent but pronotum and elytra glabrous; male perpendicular horns on head occupied on whole genae, thin and triangular, not conical as in the latter; ultimate antennomeres free from 10th antennomeres; pronotum beaded at anterior margin; elytra shiny, without pubescence.

Etymology. The new species is named after type locality, Lambir Hills National Park in Sarawak, Borneo.

Description. Oblong, subparallel-sided, distinctly convex, shiny; reddish brown, with slightly paler in part of venter and basal five antennomeres. Body length: 3.3–3.4 mm in male (n = 2); 3.1–3.6 mm in female (n = 5; av: 3.3 mm).

Male. Head transverse, finely and densely punctate, punctures larger on frons than on clypeus; clypeus flat, distinctly sloping forwards, gently arcuate at apex, with dense pubescence along anterior margin; frontoclypeal suture fine and distinct, angulate at posterior corners; genae each with a perpendicular horn, which is triangular and rather thin, with sparse and setiferous fine punctures on external and internal surface; frons weakly elevated in middle, and very strongly depressed beside inner margins of eyes, IE/TD 2.86–3.20 (n = 2); eyes oblique and coarsely facetted, without inner ocular sulci; temples moderately convex, with sparse and piligerous punctures. Antennae reaching apical third of pronotum; distal five antennomeres distinctly dilated, forming a moderate club; 11th short triangular. Ultimate maxillary palpomeres spindle-form, acute at apex. Mentum obtrapezoidal (Fig. 28), longer than wide, strongly conglobate, with an umbilication in middle and long setae before base.

Pronotum transversely quadrate, widest at middle or apical third, finely and tenuously beaded on marginal portion, PW/PL 1.44–1.50 (n = 2); disc strongly convex, subvertically falling laterally, densely and finely punctate, punctures larger than on frons; anterior margin almost straight and slightly reflexed; anterior corners quite obtuse; lateral margins weakly rounded, weakly serrate, with fine setae on each serration; posterior corners obtusely rounded; basal margin gently rounded, scarcely sinuate. Scutellum large, semicircular, flat and finely punctate.

Elytra subparallel-sided, strongly convex, widest at apical third, without striae, densely and irregularly punctate, punctures nearly as large as and/or slightly smaller than on pronotum, piligerous in part, space between the punctures with fine microsculpture, EL/EW 1.28–1.48 (n = 2); humeral calli scarcely humped.

Prothoracic hypomera weakly depressed, covered with dense and long pubescence. Prosternum short, flat and almost smooth, with long pubescence along anterior margin; prosternal process strongly arcuate in lateral view and curved inwards at its apex. Mesoventrite without posterior ridge. Metaventrite moderately convex, with punctures sparse, each with a long seta. Abdomen weakly convex, with punctures piligerous, dense and coarse.

Aedeagus short (Fig. 32), 0.22–0.23 times as long as elytra (n = 2); basale subparallel-sided, 0.94–0.97 times as long as apicale, depressed in dorso-apical half; apicale depressed dorsally, moderately tapering apicad, rounded at apex.

Legs short; coxae, trochanters and femora with moderate and long pubescence; tibiae strongly dilated apicad, with outer margins bearing dentations.

Female. Head densely pubescent, without genal horns; frons weakly depressed; pubescence of femora sparser; IE/TD 2.76–3.08 (n = 5; av: 2.90); PW/PL 1.36–1.53 (n = 6; av: 1.41); EL/EW 1.15–1.43 (n = 6; av: 1.32).

Distribution. Borneo (Sarawak).

Menimus* (*Menimus*) *sphaericus sp. nov.

(Figs. 25, 29, 33)

Type specimens.

Holotype: ♂, Gunung Mulu National Park, Sarawak, Borneo, 24.IX.2017, S. Yamashita leg., BGMS17-0079.

Paratypes: 1 ♂, 2 ♀♀, same data as for the holotype except for each of the identification codes [♂: BGMS17-0086; ♀♀: BGMS17-0080, BGMS17-0085];

1 ♀, ditto, 25.IX.2017, S. Yamashita leg. [♀: BGMS17-0112].

Differential diagnosis. This new species is similar in having 3-segmented club and external morphology to some known species, *Menimus* (*Menimus*) *riedeli* Schawaller, 2016 from Malaysia, *M.* (*M.*) *jacobsoni* Schawaller et Bigalk, 2021 from Sumatra, *M.* (*M.*) *kadazan* Schawaller et Bigalk, 2021 from Borneo (Sarawak), and *M.* (*M.*) *dayak* Schawaller et Bigalk, 2021 from Borneo (Sarawak).

From *Menimus* (*M.*) *riedeli*, the new species is different in having the presence of small eyes and elytral coarse punctures irregular and not seriate. From *M.* (*M.*) *jacobsoni*, the new species is different in having the pronotum widest at base, with anterior corners obtusely angulate, lateral margins feebly sinuate before base, basal margin unbeaded, with punctures larger and coarser than on head; elytra entirely without rows of punctation,

elytral epipleura depressed, reaching behind base of 5th abdominal ventrite, with a row of large punctures along inner margin; prothoracic hypomera with dense and large punctures, smooth along lateral margins; prosternal process angularly spatulate, depressed. From *M.* (*M.*) *kadazan*, the new species is different in having the body more rounded; head with larger punctures; pronotum widest at base, angulate at anterior corners, with lateral margins feebly sinuate in basal third and evenly convergent forwards in apical half, and with punctation coarser and larger than on head; prothoracic hypomera with large and dense punctures; prosternal process angularly spatulate, depressed; elytra rounded, not parallel-sided, with coarse and irregular punctures distinctly larger than on pronotum. From *M.* (*M.*) *dayak*, the new species is different in having the head with punctures piligerous along anterior margin and laterally; antennal club fused in apical two; pronotum with anterior corners obtusely angulate, lateral margins of pronotum sinuate in basal third, with feeble dentations; elytra coarsely punctate, with setations in lateral margins; prosternal process angularly spatulate, depressed.

Etymology. The specific name is derived from rounded body shape.

Description. Apterous, short oval, strongly convex above, shining; colour reddish brown, slightly paler on mouthparts, antennae and legs. Body length: 1.7–1.8 mm in male (n = 2); 1.7–2.5 mm in female (n = 3; av: 2.0 mm).

Male. Head transverse, evenly convex, finely and densely punctate, slightly sparsely so on clypeus, without setation; clypeus weakly convex, subtruncate at apex, clypeal membrane exposed in part; IE/WC 1.21–1.44 (n = 2); eyes small, moderately glabrous; temples rounded, weakly humped. Antennae short, 10-segmented with compact 3-segmented club, distal two antennomeres strongly dilated and joined together. Mentum oval though emarginate at base (Fig. 29), narrowly carinate in middle and deeply excavate at sides, with setiferous punctures.

Pronotum transverse, widest at base or basal two-fifths, PW/PL 1.81–1.94 (n = 2); disc strongly convex, densely and finely punctate, punctures almost in the same manner as those on head; anterior margin very shallowly emarginate, roundly produced in median three-fifths, finely beaded in lateral fourths; anterior corners rounded and not produced, slightly obtuse than rectangular, posterior corners acutely pointed, slightly produced; lateral margins explanate, weakly sinuate in basal two-fifths, steeply and evenly convergent or feebly emarginate and convergent in apical three-fifths, with weak dentation; basal margin bowed, unbeaded, slightly reflexed laterally. Scutellum transverse, very short and smooth, 2.43–2.67 times as wide as long.

Elytra oval, strongly convex, widest at middle, EL/EW 1.00–1.04 (n = 2), rather acute at apices, without humeral calli, and with punctures irregular, dense and coarse, larger and denser than on pronotum; lateral margins with moderate dentation, and visible only anterior half in dorsal view; humeral corners produced angularly; epipleura distinctly broadened, depressed, reaching beside posterior margin of 4th abdominal ventrite, nearly smooth but with a row of large punctures along inner margin.

Prothoracic hypomera densely and irregularly punctate, smooth along lateral portions. Prosternal process board, strongly divergent posteriorly and steeply convergent before apex, coarsely and densely punctate. Abdomen finely and sparsely punctate; 5th ventrite large and long, depressed, more than twice as long as the preceding ventrite.

Aedeagus (Fig. 33) 0.41 to 0.48 times as long as elytra (n = 2); basale short and dilated, humped posteriorly, 0.89 to 0.93 times as long as apicale; apicale very slender and long, scarcely convex dorsally, curved ventrad at apex.

Female. No external differences from male are recognised; IE/WC 1.30–1.45 (n = 3; av: 1.38); PW/PL 1.68–2.00 (n = 3; av: 1.87); EL/EW 1.03–1.16 (n = 3; av: 1.09).

Distribution. Borneo (Sarawak).

Menimus* (*Menimus*) *pygmaeus sp. nov.
(Figs. 26, 30, 34)

Type specimen.

Holotype: ♂, Loagan Bunut National Park, Sarawak, Borneo, 28.IV.2011, S. Yamashita leg., myco10386.

Differential diagnosis. This new species resembles *Menimus* (*M.*) *kinabalicus* Schawaller et Bigalk, 2021, but is different from the latter in having the following characteristics: distinctly globose eyes; and not striate elytra; body smaller; pronotum 1.69 times as wide as long, with posterior corners obtusely angulate, not triangular, and with moderately beaded basal margin; prosternal process not conical; elytra widest behind middle, with rows of punctures regularly arranged, elytral lateral margins visible only basal half in dorsal view; elytral epipleura impunctate, diminishing beside basal fourth of 5th abdominal ventrite; abdomen with punctures smaller than those in elytral rows.

Etymology. The specific name is derived from the small body.

Description. **Male**. Pterous. Body shape elongate, subparallel-sided. Chestnut brown without colour pattern or metallic shine; mouthparts and antennae yellowish brown. Body length: 2.1 mm (n = 1).

Head finely and sparsely punctate, punctures somewhat oblong on frons; clypeal membrane exposed in part; epistome rounded though gently emarginate in median half; clypeus sparsely with long setae; eyes small and distinctly globose; temples weakly convex. Antennae reaching before middle of pronotum, 10-segmented with loosely articulate 4-segmented club. Mentum obtriangular (Fig. 30), rounded at base, with some microscopic punctures.

Pronotum transverse, widest at middle, PW/PL 1.69 (n = 1); anterior margin slightly emarginate though roundly produced in median half; anterior corners rounded and not protruding, posterior corners obtusely angulate; lateral margins weakly rounded, with fine dentation; basal margin almost straight, moderately beaded; disc convex and shiny with punctation sparse, larger than on head. Scutellum large triangular, slightly convex and almost smooth.

Elytra elongate, weakly convex, widest behind middle, EL/EW 1.43 (n = 1), scarcely striate, with rows of punctures, punctures in rows feebly larger than pronotal punctures; intervals flat, uneven behind base, almost smooth, but bearing a few setiferous punctures which are as large as those in rows; lateral margins with fine dentation and visible in dorsal view only in the anterior half of the elytra; humeral calli weakly humped; epipleura diminishing beside basal fourth of 5th abdominal ventrite, unevenly flat and impunctate.

Prothoracic hypomera almost smooth and shiny, with sparse microscopic punctures; prosternal process short and cuneate, rounded at apex. Abdominal ventrites with

punctation sparse, as large as on pronotum and smaller than those in elytral rows; 5th ventrite unbeaded, with posterior margin weakly angulate at each lateral eighth.

Aedeagus fusiform (Fig. 34), 0.22 times as long as elytra; basale slender, narrower than apicale, 1.64 times as long as apicale; apicale lanceolate, sulcate dorsally in middle, weakly pointed at apex.

Legs short, without specific characters.

Female. Unknown.

Distribution. Borneo (Sarawak).

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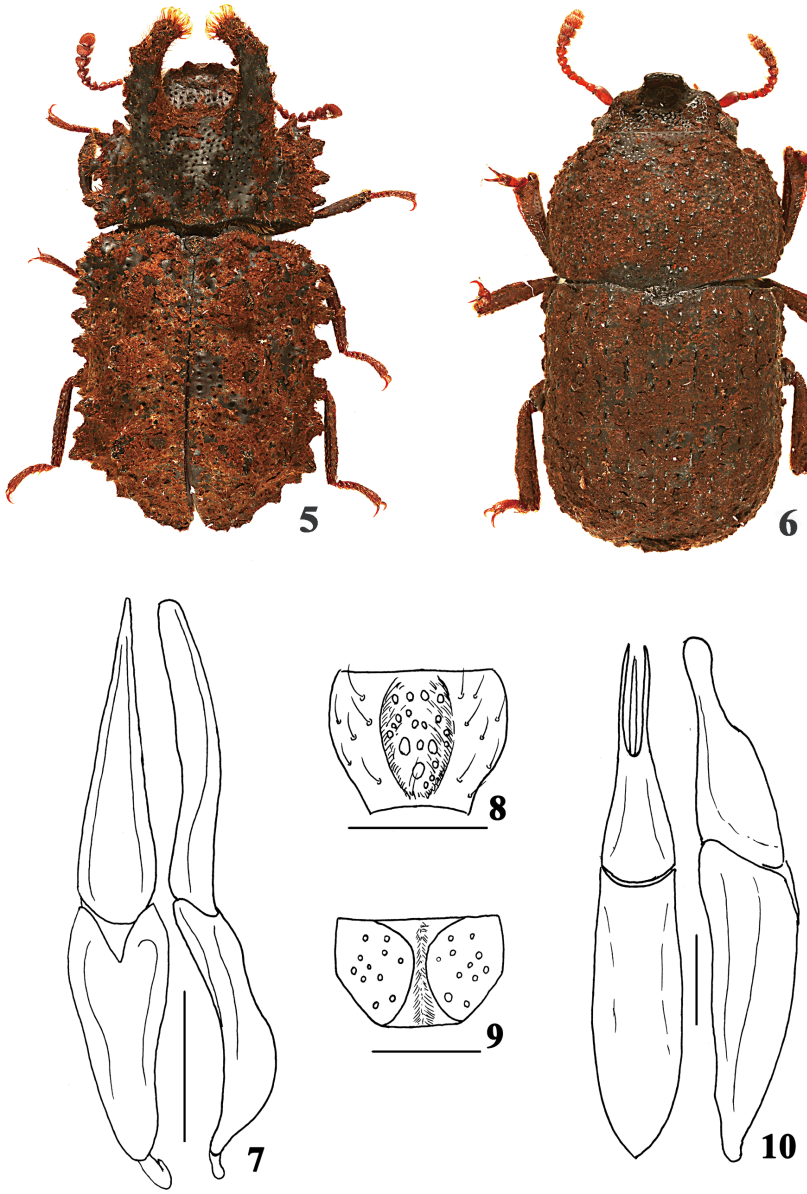
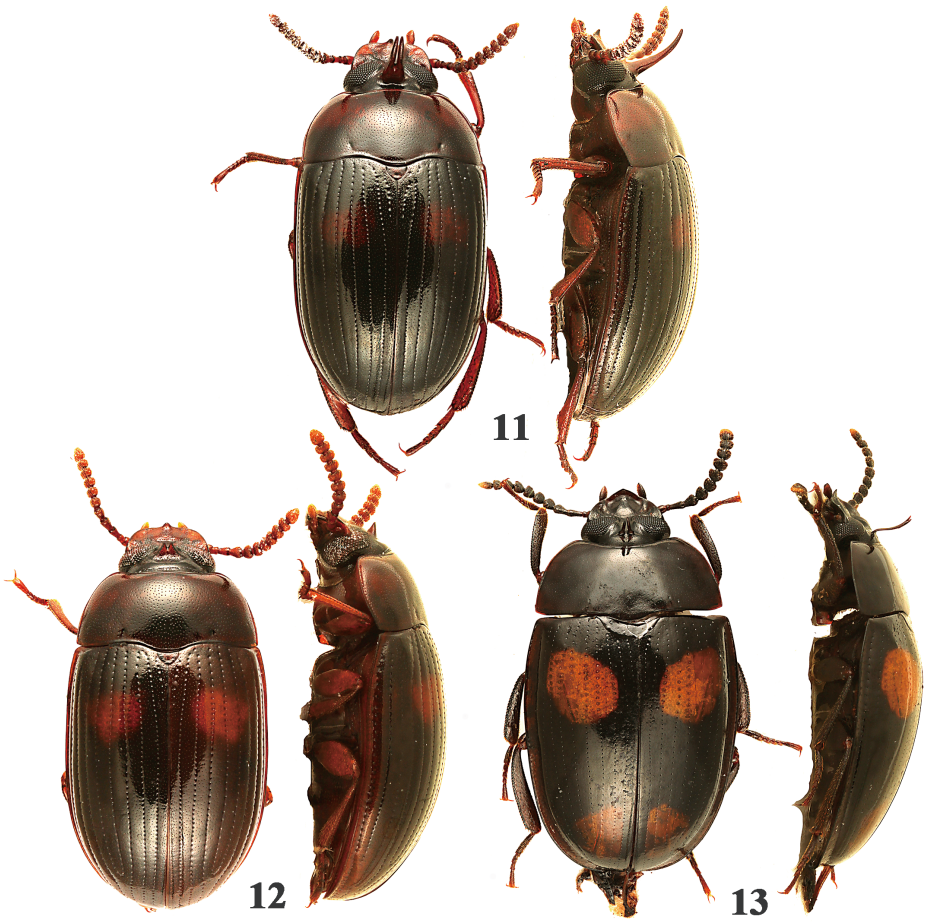
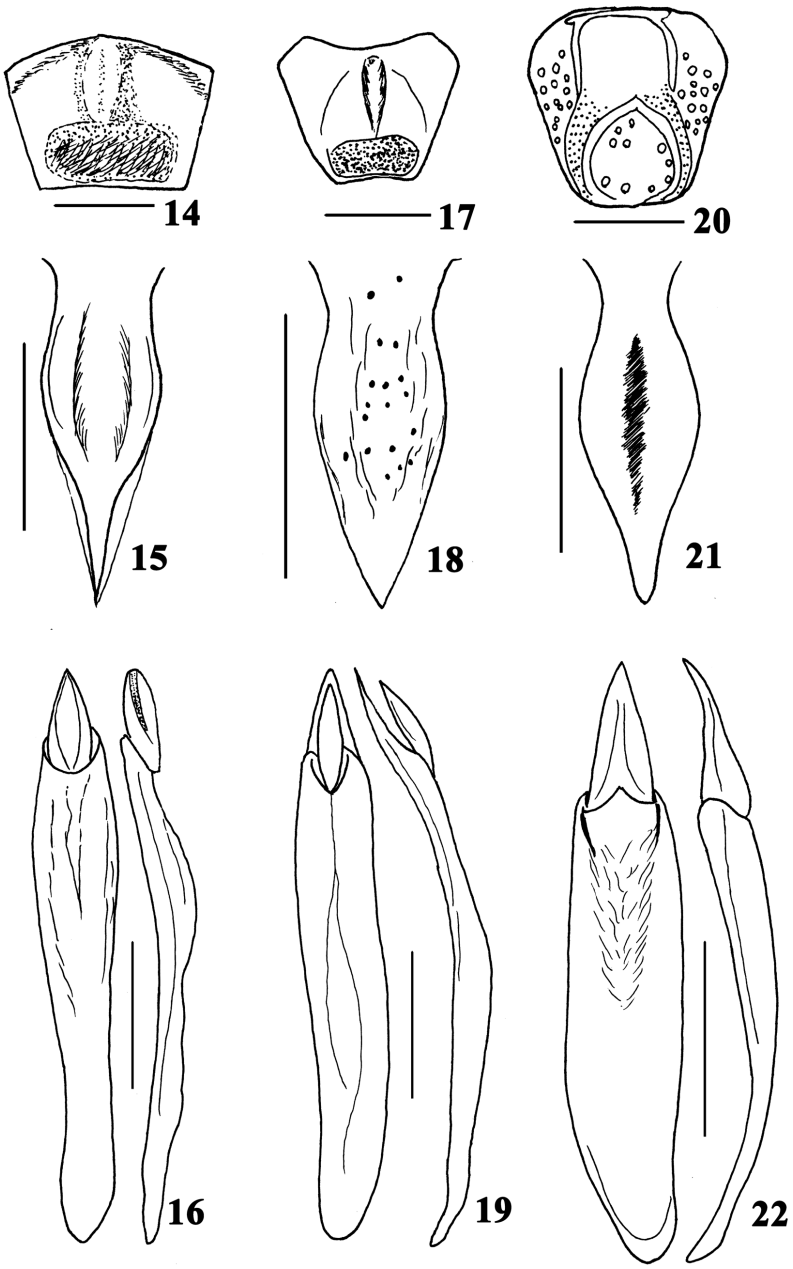
Figs. 1–4. *Basides* spp. — **1,** *Basides flavofasciatus* Pic, 1916, syntype with labels (= *Basides bifasciatus* Motschulsky, 1873); **2**, *Basides trimaculatus* Pic, 1916, syntype with labels; **3,** *Ischnodactylus sexguttatus* Gebien, 1925c, HT with labels (= *Basides trimaculatus* Pic, 1916); **4,** *Platydema sexpictum* Kaszab, 1939, HT with labels (= *Basides trimaculatus* Pic, 1916).



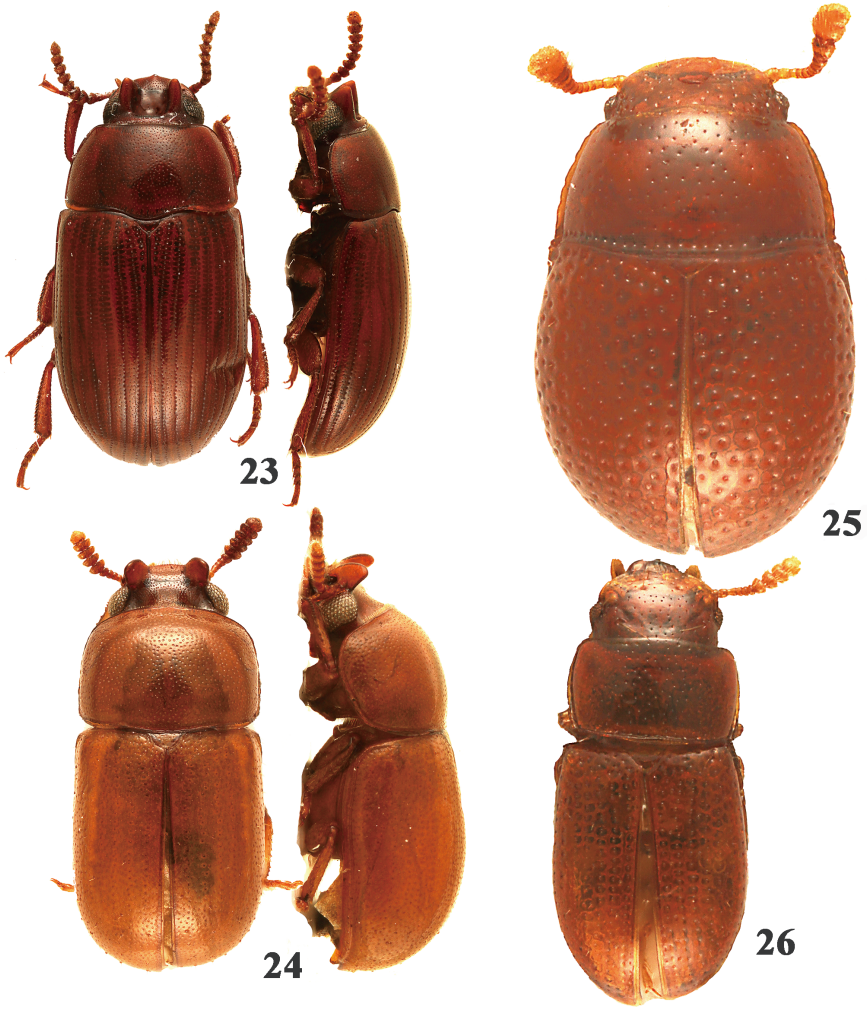
Figs. 5–10. Tenebrionidae spp. — **5, 7–8,** *Boletoxenus persimilis* sp. nov., HT; **6, 9–10,** *Bolitonaeus grimmi* sp. nov., HT. — **5 & 6,** Habitus; **7 & 10,** aedeagi (right: lateral; left: dorsal); **8 & 9,** mentum. Scales: 0.2 mm for figs. **9 & 10**; 0.3 mm for figs. **7 & 8**.



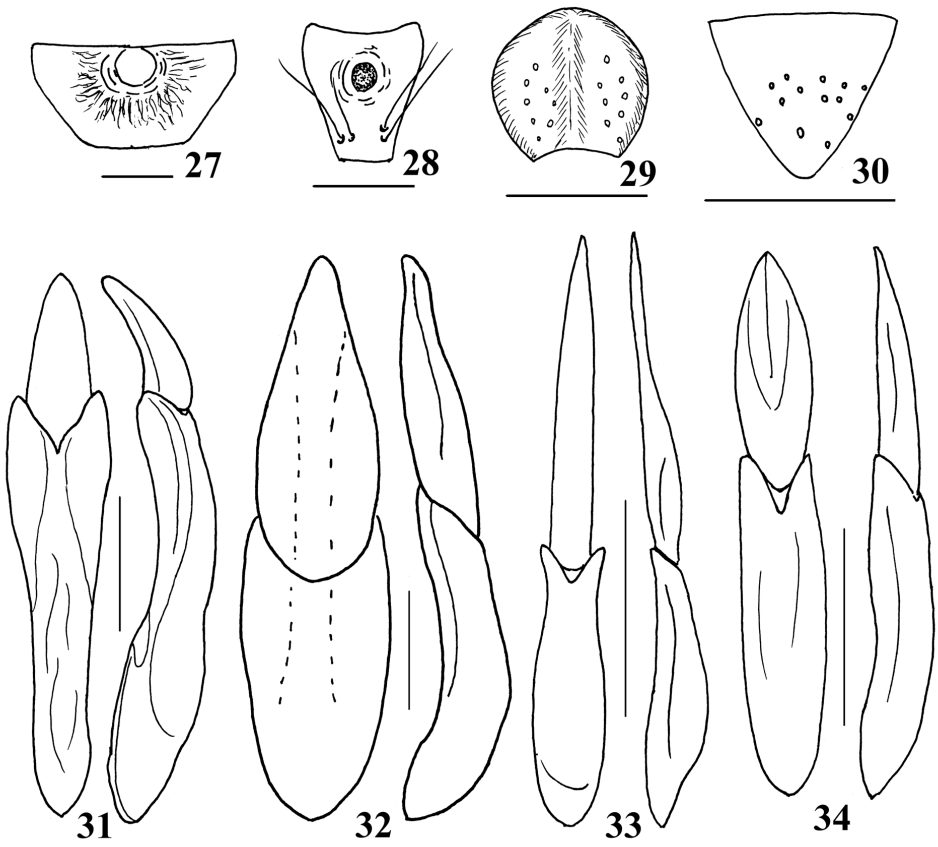
Figs. 11–13. *Basides* spp. — **11,** *Basides rhinoceros* sp. nov., HT (right: lateral; left: dorsal); **12,** *Basides ornatimarginatus* sp. nov., HT (right: lateral; left: dorsal); **13,** *Basides nakashizukai* sp. nov., HT (right: lateral; left: dorsal).



Figs. 14–22. *Basides* spp. — **14–16,** *Basides rhinoceros* sp. nov.; **17–19,** *Basides ornatimarginatus* sp. nov.; **20–22**, *Basides ibanorum* sp. nov. — **14, 17 & 20,** Mentum; **15, 18 & 21,** prosternal process; **16, 19 & 22,** aedeagi (right: lateral; left: dorsal). Scales: 0.2 mm for figs. **14, 17, 20**; 0.5 mm for figs. 1**5–16, 18–19 & 21–22**.



Figs. 23–26. Tenebrionidae spp. — **23,** *Neomida sarawakensis* sp. nov., HT (right: lateral; left: dorsal); **24,** *Pentaphyllus lambirensis* sp. nov., HT (right: lateral; left: dorsal); **25,** *Menimus* (*Menimus*) *sphaericus* sp. nov., HT; **26,** *Menimus* (*Menimus*) *pygmaeus* sp. nov., HT.



Figs. 27–34. Tenebrionidae spp. — **27 & 31,** *Neomida sarawakensis* sp. nov.; **28 & 32,** *Pentaphyllus lambirensis* sp. nov.; **29 & 33,** *Menimus* (*Menimus*) *sphaericus* sp. nov.; **30 & 34,** *Menimus* (*Menimus*) *pygmaeus* sp. nov. — **27–30,** Mentum; **31–34,** aedeagi (right: lateral; left: dorsal). Scales: 0.1 mm for figs. **27–30, 32 & 34**; 0.2 mm for figs. **31 & 33**.

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