

Odacanthini (Coleoptera: Carabidae) of Vietnam: genera *Ophionaea*, *Archicolliuris* and *Anacolliuris*

Odacanthini (Coleoptera: Carabidae) Вьетнама: роды *Ophionaea*, *Archicolliuris* и *Anacolliuris*

D.N. Fedorenko
Д.Н. Федоренко

A.N. Severtsov Institute of Ecology and Evolution, Russian Academy of Sciences, Leninsky pr. 33, Moscow 119071 Russia.

Институт проблем экологии и эволюции им. А.Н. Северцова РАН, Ленинский пр-т, 33, Москва 119071 Россия.

Dmitri Fedorenko: dmitri-fedorenko@yandex.ru; ORCID <https://orcid.org/0000-0003-1814-3635>

KEY WORDS: Coleoptera, Carabidae, Odacanthini, new species, new synonym, Vietnam, Oriental region.

КЛЮЧЕВЫЕ СЛОВА: Coleoptera, Carabidae, Odacanthini, новый вид, новый синоним, Вьетнам, Ориентальная область.

ABSTRACT. Nine species from Vietnam, belonging to the genera *Ophionaea* Eschscholtz, 1829 (= *Ophionea* auct., non Klug, 1821; = *Casnoidea* Laporte, 1834), *Archicolliuris* Liebke, 1931, and *Anacolliuris* Liebke, 1938, are reviewed. *Anacolliuris nitida* **sp.n.** is described from Vietnam. New synonymy is established: *O. bhamoensis* (Bates, 1892) = *O. malickyi* (Baehr, 1996), **syn.n.**; *O. interstitialis* (Schmidt-Göbel, 1846) = *O. ceylonica* (Baehr, 1996), **syn.n.**; = ? *O. ishii* (Habu, 1962) = *O. celebensis* (Baehr, 1996), **syn.n.**

РЕЗЮМЕ. Дан обзор 9 отмеченных во Вьетнаме видов *Ophionaea* Eschscholtz, 1829 (= *Ophionea* auct., non Klug, 1821; = *Casnoidea* Laporte, 1834), *Archicolliuris* Liebke, 1931, и *Anacolliuris* Liebke, 1938, включая описанный из Вьетнама *Anacolliuris nitida* **sp.n.** Установлена новая синонимика: *O. bhamoensis* (Bates, 1892) = *O. malickyi* (Baehr, 1996), **syn.n.**; *O. interstitialis* (Schmidt-Göbel, 1846) = *O. ceylonica* (Baehr, 1996), **syn.n.**; = ? *O. ishii* (Habu, 1962) = *O. celebensis* (Baehr, 1996), **syn.n.**

Introduction

In this paper, we review odacanthine species from Vietnam, which belong to the genera *Archicolliuris* Liebke, 1931; *Anacolliuris* Liebke, 1938; and *Ophionaea* Eschscholtz, 1829 (Coleoptera, Carabidae). The former genus is Palearctic in distribution, while ranging east to New Guinea and Australia, and the latter two have wide ranges in the Oriental region. Of the species reviewed, many are widespread and, besides, very common in Indochina if not throughout the Oriental region. These peculiarities are certain to be due to habits of their hygrophilous adults that are associated with various wa-

ters. For the reason they fly well and thence often come to light in numbers, thus being easy to observe or collect. In contrast, the species of *Anacolliuris* are rather rare insects.

Some part of material was collected during expeditions to many regions of Vietnam, sponsored by the Joint Russia-Vietnam Tropical Centre, Moscow-Hanoi. Species not recorded in Vietnam are in square brackets in the text.

Acronyms used are as follows: ISEA — Institute of Systematics and Ecology of Animals, Russian Academy of Sciences, Novosibirsk; MPSU — the Moscow Pedagogical State University; SIEE — the author's reference collection at A.N. Severtsov Institute of Ecology & Evolution, Russian Academy of Sciences, Moscow; ZMMU — Zoological Museum of the Moscow State University; ZISP — Zoological Institute, Russian Academy of Sciences, St. Petersburg.

The following parameters were analyzed (Table 1, 2): maximum body length measured from apices of closed mandibles to apex of elytra (BL); length of head from neck constriction to apical margin of clypeus (HL); width of head across eyes (HW); length of gena (GL) and length of eye (OL), both projected onto sagittal plane; length of pronotum along median line (PL); maximum width of pronotum (PW); length of elytron, measured from the highest point of basal margin to apical margin of apical membrane (EL); maximum width of elytra (EW). Widths (measured along interval 4) of transverse red (fpL) and preapical dark (fdL) fasciae, as well as length of posterior whitish spot (swL) were analyzed in some species only. The means are in round brackets, followed by the number of specimens measured (**n**) only given for the first ratio in the description. Other abbreviations in the text include umbilical seta series (USS)

Table 1. Body ratios in species of Odacanthini.
Таблица 1. Пропорции тела видов Odacanthini.

Species	n	GL / OL	mean	HL / HW	mean	PW / HW	mean
<i>O. indica</i>	4♂♂ 4♀♀	1.19–1.25 1.30–1.32	1.22 1.31	1.27–1.38	1.33	0.67–0.72	0.69
<i>O. interstitialis</i>	4	0.95–1.17	1.05	1.08–1.18	1.12	0.65–0.71	0.66
<i>O. i. ishii</i> Vietnam	4♂♂ 4♀♀	1.05–1.20	1.12	1.19–1.24 1.23–1.28	1.21 1.26	0.69–0.75	0.73
Java, Bali	4♂♂ 2♀♀	1.0–1.10 1.15	1.04	1.14–1.19 1.20–1.26	1.16 1.23	0.69–0.72	0.70
Sumatra	3♂♂ 3♀♀	1.05–1.27	1.13	1.19–1.23	1.22	0.69–0.75	0.72
Celebes	2♂♂ 4♀♀	1.10–1.30	1.17	1.19–1.26	1.22	0.72–0.76	0.74
<i>O. nigrofasciata</i>	4♂♂ 4♀♀	1.17–1.27 1.24–1.27	1.22 1.25	1.24–1.36	1.30	0.63–0.69	0.66
<i>O. bhamoensis</i>	2♂♂ 5♀♀	1.24–1.32 1.30–1.47	1.28 1.40	1.29–1.41	1.35	0.71–0.72	0.72
<i>O. vvrei</i>	3♂♂	1.08–1.35	1.22	1.27–1.32	1.29	0.65–0.71	0.68
<i>Ar. bimaculata</i>	4♂♂ 4♀♀	1.05–1.06 1.07–1.17	1.05 1.12	1.22–1.27	1.25	0.61–0.68	0.65
<i>Ar. distigma</i>	4♂♂ 4♀♀	1.33–1.40 1.30–1.44	1.35 1.38	1.30–1.37	1.34	0.70–0.73	0.71
<i>An. tetraspilota</i>	♂\♀	0.73 \ 0.59		1.21 \ 1.15		0.65 \ 0.67	
<i>An. nitida</i>	♀	0.76		1.31		0.71	

Table 2. Body ratios in species of Odacanthini.
Таблица 2. Пропорции тела видов Odacanthini.

Species	n	PL / PW	mean	EW / PW	mean	EL / EW	mean
<i>O. indica</i>	4♂♂ 4♀♀	2.09–2.14	2.09	2.13–2.21 2.25–2.32	2.18 2.29	2.09–2.14 1.94–2.0	2.11 1.96
<i>O. interstitialis</i>	4	1.75–1.92	1.82	2.36–2.56	2.45	1.76–1.86	1.81
<i>O. i. ishii</i> Vietnam	4♂♂ 4♀♀	1.83–1.88	1.85	2.16–2.23 2.30–2.43	2.20 2.35	1.86–1.97 1.76–1.87	1.92 1.82
Java, Bali	4♂♂ 2♀♀	1.81–1.89	1.85	2.26–2.32 2.46–2.47	2.28 2.47	1.79–1.90 1.71–1.76	1.84 1.74
Sumatra	3♂♂ 3♀♀	1.73–1.92	1.84	2.21–2.29 2.34–2.43	2.26 2.39	1.89–1.98 1.76–1.83	1.94 1.80
Celebes	2♂♂ 4♀♀	1.73–1.77	1.76	2.13–2.21 2.27–2.34	2.17 2.32	1.85–1.89 1.79–1.86	1.92 1.83
<i>O. nigrofasciata</i>	4♂♂ 4♀♀	2.10–2.32	2.20	2.26–2.35 2.31–2.43	2.30 2.38	1.94–2.02 1.86–1.93	1.98 1.89
<i>O. bhamoensis</i>	2♂♂ 5♀♀	1.93–2.06	2.01	2.14–2.23 2.26–2.44	2.19 2.31	1.89–1.97 1.85–1.93	1.92 1.88
<i>O. vvrei</i>	3♂♂	1.96–2.26	2.07	2.31–2.48	2.39	1.89–1.94	1.91
<i>Ar. bimaculata</i>	4♂♂ 4♀♀	2.20–2.37	2.30	2.36–2.52	2.42	1.88–1.91 1.81–1.88	1.90 1.85
<i>Ar. distigma</i>	4♂♂ 4♀♀	2.06–2.19	2.11	2.25–2.42 2.39–2.48	2.36 2.44	1.77–1.87 1.73–1.80	1.83 1.77
<i>An. tetraspilota</i>	♂\♀	2.32 \ 2.02		2.39 \ 2.28		2.03 \ 1.90	
<i>An. nitida</i>	♀	2.37		2.54		1.83	

running along elytral interval 9 and consisting of a particular number of umbilical setigerous pores/setae, US_n, n=1, 2, 3, etc., means running number of a seta.

Measurements were taken using an eyepiece micrometer within the accuracy of two decimal places. All labels are printed. Data on labels of type specimens are in quotes, new line is marked with slash, and a handwritten text is italicized.

Male aedeagi were boiled for two minutes in diluted KOH solution, then rinsed and afterwards examined in glycerin.

Results

Ophionaea Eschscholtz, 1829

Eschscholtz, 1829: 5; Schmidt-Göbel, 1846: 20 (*Ophionea*); Chaudoir, 1848: 30, 43; Lacordaire, 1854: 73; Maindron, 1910: 34; Sloane, 1917: 414; Liebknecht, 1937: 39, 79. — *Ophionea* (non Klug, 1821): Andrewes, 1919: 475; Habu, 1962: 112; 1967: 30; Lorenz, 1998: 417; 2005: 133; Baehr, 2003: 58; 2009: 206; Anichtchenko, Sciaky, 2024: 335. — *Casnoidea* Laporte, 1834: 40 (type species: *C. cyanocephala* (Fabricius, 1798), by original designation); Bedel, 1910: 72; Csiki, 1932: 1534; Jedlička, 1964: 498; Darlington, 1968: 207; Baehr, 1996; 1997. — *Setophionea* Habu, 1962: 118 (*Ophionea* subg.; type species: *O. ishii* Habu, 1962).

Type species: *Attelabus indicus* Thunberg, 1784 = *O. cyanocephala* (Fabricius, 1798), by subsequent designation [Andrewes, 1919].

DIAGNOSIS. Readily recognizable by bilobed tarsomere 4, its lobes being long, narrow and slightly diverging apicad. Distinctive character combination otherwise includes prothorax vasiform and long, about twice as long as wide, with no or vague lateral bead, mostly single or no (sometimes several) lateral setae present on each side; head long, rhomboid, with distinct supra-ocular carina and two setae on each side; elytra subparallel-sided, with lateral bead complete yet very little extended inside humerus so that basal ridge is nearly obliterate; striae shallow and finely punctate, 8th not or barely deeper than 7th; ventral side impunctate, except for mesothoracic peduncle, extreme base and apex of prothorax, as well as a few punctures along sternopleural sutures. Additional characters are as follows: elytral interval 3 with three to multiple setae and sometimes interval 5 with one to a few setae; body mostly reddish-yellow to red, with head except base, abdominal sternites II–IV, antennae except basal 3.5–4 segments, femora toward apices, base and/or wide transverse band of elytra black or bluish-black; elytra each with small whitish spots, these being either two, anterior and posterior, or posterior spot only present.

REDESCRIPTION. Supplemental characters only. When present, dorsal meshed microsculpture isodiametric in front of the level of posterior margin of eye and closer to base of head, with moderately transverse meshes in between; pronotal microsculpture mostly coarse and moderately transverse, elytral microsculpture consisting of isodiametric meshes mixed with barely longitudinal ones or the latter prevail.

Genae long, varying from slightly convex throughout to (mostly) very gently sinuate just in front of neck constriction and thence giving head slightly petiolate appearance. Frontoclypeal suture deep. Gula convex in basal half. Elytral setation: parascutellar seta and two apical setae present; USS consisting of 14 US: 1,2,3,4,5–6–7–8–9–10,11,12,13,14 (more seldom — 7–8–9–), US4–13 adjoining stria 8, US14 adjoining stria 9. Protibia anterior face distinctly longitudinally sulcate proximal to antennal cleaner. Mesotarsomeres 1–2 and metatarsomeres

1–3 faintly longitudinally grooved and indistinctly carinate at outer (anterior) margin; lateral and ventral setae arranged in single or two rows, respectively, tarsomere 1 at base and at apex with very few lateral extra setae. Obligatory leg setation: procoxa unisetose, meso- and metacoxa bisetose (inner seta missing in the latter), trochanteric seta present, tarsomere 5 setose ventrally, tarsomeres 1–3 with dorso-apical setae. Femora bisetose, with basal and medioventral setae present on either posterior (profemur) or anterior (meso- and metafemur) face, complemented by medioventral setae on profemur anterior face in *O. interstitialis*.

Female genitalia and reproductive tract as for many Odacanthini. Laterotergite IX deeply concave latero-apically and densely setulose over apical membranous area; gonosubcoxite with a row of strong setae along apical margin, gonocoxite triangular, with a preapical nematiform seta, single dorsal (medial) and four, sometimes five unilateral, ventral (lateral) ensiform setae.

Reproductive tract: *bursa copulatrix* (*bc*) subdivided into two rather short sections, proximal (*bcp*) and distal (*bcd*); *bcp* is wide, obtrapezoidal and, when folded, oblique to the left due to its anteriormost part (apex) being invaginated together with narrow and telescoped *bcd*; this latter with a round dilation on right side at bursal-oviduct junction. Spermatheca (*spm*) closely associated with and extended through this dilation into a narrow basal sclerite onto common oviduct; *spm* bipartite, its basal bulb being very large, balloon-like, with a thin duct-like base, and much larger than a very small apical bulb associated apically with spermathecal gland.

Secondary sexual characters: protarsomeres 1–3 biserially squamose on ventral side, yet not dilated in male. Sternite VII glabrous, round at apical margin, with a small median emargination and two apical setae, in male, minutely to indistinctly setulose (ciliate), with truncate apical margin and four apical setae, in female. Elytra longer in male than in female (Table 1, 2).

Aedeagus (Figs 12–27): median lobe cylindric or nearly so, evenly sclerotized, apical orifice apical, small, more or less round or elliptic, with a large, more or less round, slightly sclerotized dorsal ligule as an apical extension of dorsal wall. Two aedeagus types have been observed in five species from mainland Asia: median lobe either (1) straight at right margin, with apex large and apical orifice dorso-apical in position, set at obtuse angle with dorsal margin (*O. nigrofasciata*, *O. bhamoensis*, *O. vvrei*), or (2) convex preapically at right margin, with apex small, more curved to the right, and with apical orifice apical, set perpendicular to or at acute angle with dorsal margin (*O. indica*, *O. interstitialis*).

DISTRIBUTION. 13 species of the genus are evenly distributed over Indo-Australian region west to India and Sri Lanka and east to Japan, the Philippines and North Australia. At least four Oriental species range throughout the Oriental region, and the remainder, including those from the Papuan region, are more local. The monotypic subgenus *Procasnoidea* Baehr, 1996, is confined to the Greater Sunda Isles and the Philippines.

HABITATS AND HABITS. The member species of this genus inhabit open wet places in plains, such as grasslands and cultivated fields along rivers and by pools. Adults come to light at night, for which reason many species are easy to collect in numbers and thence common in collections.

COMMENTS. The bilobed fourth tarsomere is generally considered as the main distinctive feature of the genus. However, this character was ambiguously described by Klug [1821] for *Ophionea*, suggesting an apically truncate rather than bilobed tarsomere, and the type species was not originally selected from three species included in the genus. Be-

del [1910] mentioned and thence designated *O. pensylvanica* (Linnaeus, 1767) as the type species of *Ophionea*, thereby synonymizing it with *Cosnania* Dejean, 1821, and making *Casnoidea* the valid name. Yet, Andrewes [1919] disagreed with Bedel's point of view. He demonstrated that many authors [Schmidt-Göbel, 1846; Chaudoir, 1848; Lacordaire, 1854; Maindron, 1910; Sloane, 1917], as did also some others afterwards [Liebke, 1937; Jedlička, 1964], appealed to Eschscholtz [1829] as the author of *Ophionea* because it was Eschscholtz who diagnosed the genus by a bilobed fourth tarsomere. Even though Eschscholtz had listed no species within his genus, Andrewes had no doubt about *O. cyanocephala* F. as the only and thence type species of *Ophionea* at that time. This apparent fixation of the type species was then attributed by Habu [1962] to Eschscholtz [1829] with certainty and afterwards wrongly qualified as effected by subsequent monotypy [Lorenz, 2005].

Unfortunately, nobody paid attention to the fact that Eschscholtz, while keying and referring to Klug as the author of the genus, did introduced the name *Ophionaea* (instead of *Ophionea*), which was never in use since. He used this name twice, i.e., intentionally, which prevented it from being qualified as *lapsus calami*. Nor it can be qualified as *nomen oblitum* because but one (ICZN 23.9.1.1.) of two necessary conditions is kept. Furthermore, ICZN [1999] does not allow *Cicindela cyanocephala* Fabricius, 1798, to be the type species of *Ophionea* by subsequent monotypy, since ICZN art.69.3. requires no species originally included in a genus (vs. actual three in the case of *Ophionea*).

Accordingly I believe that the only solution of the nomenclatural problem under consideration is the recognition of *Ophionaea* Eschscholtz, 1829, a senior synonym of *Casnoidea*, as the valid name of the genus discussed. Its type species is *O. indica*, fixed by subsequent designation [Andrewes, 1919] or perhaps by (original) monotypy, if one follows Andrewes in his considerations; yet these do not seem to me well-documented.

1. *Ophionaea indica* (Thunberg, 1784), **comb.n.**

Figs 7, 12–13.

Thunberg, 1784: 68, fig.81 (*Attelabus*; 'India orientali'); Andrewes, 1919: 476 (*Ophionea*); 1924: 116; 1930a: 241; 1947: 10; Liebke, 1938: 79; Louwerens, 1956: 45; Habu, 1961: 296; 1962: 113; 1967: 31; 1982: 96; Jedlička, 1964: 499 (*Casnoidea*); Baehr, 1996: 1055; 2003: 58 (*Ophionea*); Lorenz, 1998: 417; Terada, Wu, 2014: 25; Anagha, Sabu, 2024: 529; Anichtchenko, Sciaky, 2024: 339. — *cyanocephala* Fabricius, 1798: 68 (*Cicindela*; 'India orientali'); 1801: 229 (*Odacantha*); Dejean, 1825: 173; Brullé, 1834: 139 (*Colliuris* et *Casnoidea*); Schmidt-Göbel, 1846: 20 (*Ophionea*); Chaudoir, 1848: 44; Bates, 1873: 303; 1886: 199; 1889: 279; 1892: 380; Gestro, 1875: 855; Maindron, 1910: 35; Andrewes, 1919: 476; 1921: 161; 1923: 4.

MATERIAL. Over 300 ex. from various localities: 1 ex. (ZISP), Sri Lanka ('Ceylon'); 1 ex. (ISEA), **India**, Goa, Calangut, near Hotel Village Royale, at light, h=10 m, 15.54°N 73.77°E, 28.X.2013 (V. Zinchenko); 1 ex. (SIEE), Karnataka, Western Ghats, Shimoga District, Jog Falls, at light, h=530 m, 14°13.240'N 74°48.471'E, 1–3.XI.2013 (S. Saluk); ♀ (SIEE), Orissa, 40 km W of Puri, Kornak vill., 21–23.VII.2005 (A. Sokolov); ♂ (MPSU), Uttarakhand, Sang, Nan Sambung vill., 30.1°N 78.2°E, 3–5.IX.2011 (N. Vikhrev); ♂ (MPSU), **Nepal**, Chitwan, Narayami Sauraga, Bagmar Forest, 27–30.VI.1999 (V. Patrikeev); 2 ex. (ZISP), Tanahu, 25 km E of Pokhara, Chitwan, Rapti River, 27°28.79'N 84°52.54'E, 277 m, 25.IV.2000 (A. Konstantinov, S. Lingafelter, M. Volkovitch); 2 ♀♀ (MPSU), **Nepal**, Pokhara, lake shore, 10–17.V.1996 (P. Udovichenko); 2 ex. (SIEE), **Myanmar**, Tule Lake, 26–30.XI.2009 (N. Vikhrev); 4 ex. (ZISP), Yangon [= Rangoon,

Birmanian], XII.1888 (L. Fea); 3 ex. (ISEA), **Thailand**, 1 ex. (SIEE), Chiang Mai env., 19.094°N 98.854°E, 12–16.XI.2009 (N. Vikhrev); 1 ex. (SIEE), Mae Hong Son Province, Pai env., 10.XI.2009 (N. Vikhrev); 3 ♂♂, 2 ♀♀ (SIEE), Nakhon Savan Province, 13 km N of Mae Wong vill., 15°54'N 99°33'E, h=113 m, at light, 10.VIII.2009 (V. Zinchenko); Province Nakhon Ratchasima (Korat), Nong Bun Nak, deciduous gallery forest, h=200 m, 14°41'25"N 102°27'45.7"E, 26–31.X.2011 (A. Korsunov); 3 ex. (SIEE), **Laos**, Van Vieng, 18°55'12"N 102°26'E, 7–9.XI.2015 (I. Melnik); 137 ex. (SIEE), **Vietnam**, Dong Nai Province, Cat Tien National Park, Expedition of Russia-Vietnam Tropical Centre, at light HQL450, 21.X–4.XII.2004; 5 ex. (SIEE), same data except 17.V–5.VI.2005; ♂, ♀ (SIEE), 75 km NE of Ho Chi Minh City, La Nga, at light, 30.X.1990 (N. Belyaeva); 5 ex. (MPSU, SIEE), Binh Duong Province, ca. 60 km N of Ho Chi Minh City, env. Phu Giao, 3–13.X.1994 (A. Napolov, D. Volkov); 1 ex. (MPSU), Ho Chi Minh City, Thanh Da, XI–XII.1988 (I. Korzun); ♂, ♀ (MPSU), Minh Hoa District, Ke Bang 8 km SE of Yen Hop, at light, 17.IV.1999 (S. Kruskop); 112 ex. (SIEE), Phu Tho Province, ~90 km W of Hanoi, Xuan Son National Park, 21°07'29"N, 104°57'28"E, h=400 m, at light HQL250, 6–15.VI.2014 (D. Fedorenko); 14 ex. (SIEE), Thanh Hoa Province, Thach Thanh District, 20°17'44"N 105°33'06"E, h=40 m, at light HQL250, 16–26.IV.2024 (D. Fedorenko); 16 ex. (SIEE), Hoa Binh Province, 1.5 km SSW of Mai Chau, 20°38'57"N 105°03'59"E, h=180 m, at light, 17–24.IV.2019 (A. Prosvirov); 4 ex. (ZISP), Hanoi, 6.X.1961, 29.III. or 16.V.1962, 20.IV.1963 (O. Kabakov); 1 ex. (ZISP), Vinh Phuc Province, Tam Dao [Son Zuong] Mt. Ridge, W of Tam Dao, 300 m, 20.II.1962 (O.N. Kabakov); 3 ex. (ZISP), Thanh Hoa Province, Bai Thuong, lang Thanh, 25–30.IV.1963 (O. Kabakov); 1 ex. (ZISP), **China**, 'Hong-Kong'; 3 ex. (ZISP), **Celebes**, Bantimurang, 1882 (G. Ribbe). Also, 1 ex. (ZISP) from '**Java**'.

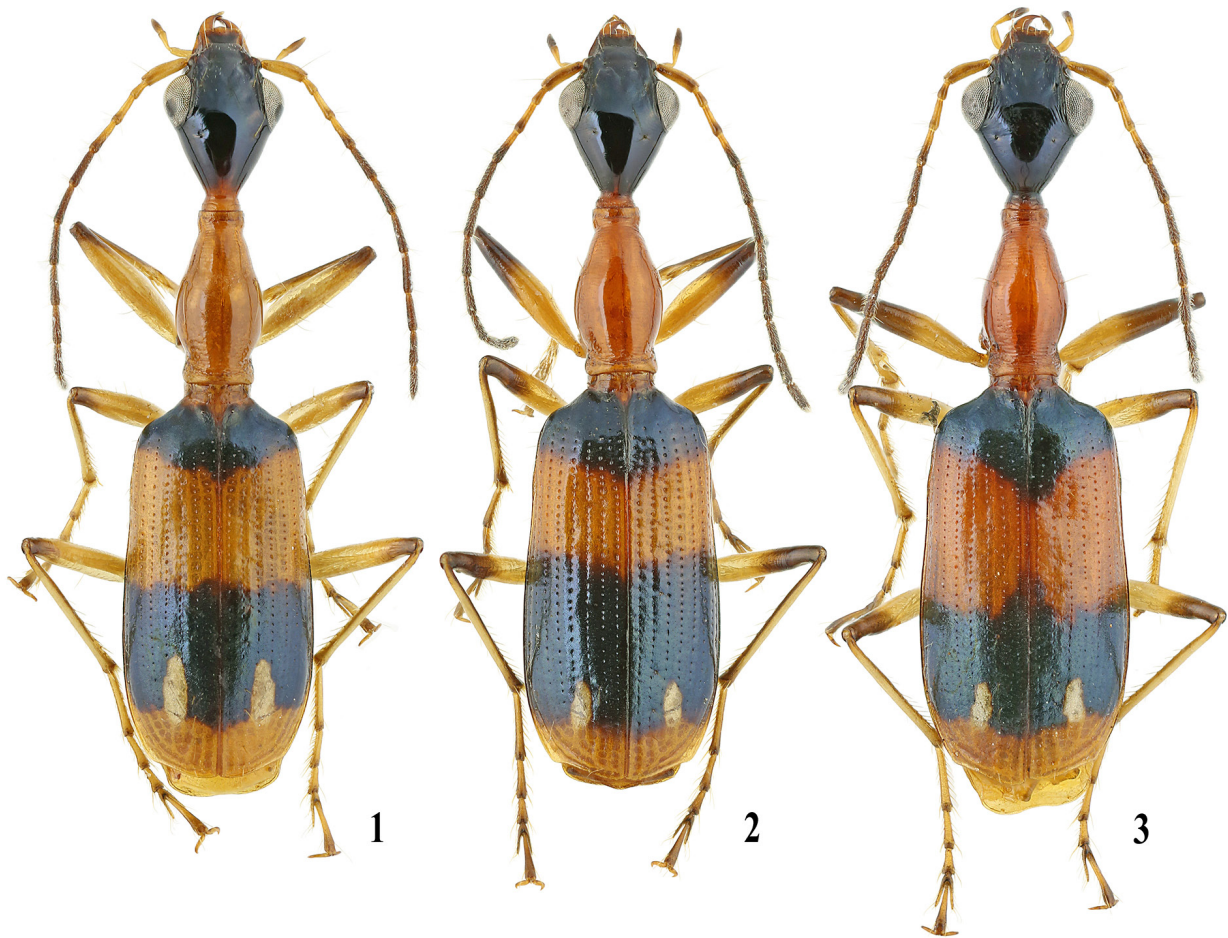
Aedeagus examined in five males, genitalia and reproductive tract examined in three females.

DIAGNOSIS. A slender species (Fig. 7) distinguished by asetose red pronotum and red elytra, with two bluish-black transverse bands, postmedian being complete, basal not quite reaching peduncle and interrupted along suture; each elytron with two small spots, anterior in interval 5 being oblong and slightly convex, preapical round and spanning intervals 4–5, no discal setae other than four in interval 3. Dorsum rather dull from coarse microsculpture, head more shiny in apical than in basal half due to microsculpture more superficial apically.

REDESCRIPTION. BL 6.8–8 mm. Femora mostly more (in apical half in fore leg and in apical third in hind two legs) to less (at extreme apices only) infuscated. Both whitish spots small, either tangential to or anterior spot slightly separate from postmedian bluish-black band; anterior spot 1/3–2/5 distant from base, wider than interval 5, enclosed by convex striae on each side, posterior spot a fifth from apex.

Head long; genae long, shorter in male than in female, barely convex throughout or almost indistinctly concave in basal third. Frontal V-shaped impression faint, frontal foveae deep, slightly oblong before, diverging to anterior supra-ocular seta behind.

Pronotum slightly more than twice as long as wide and slightly more than two thirds as wide as head, broadest two fifths from base, slightly sinuate on sides in front, finely cross-striate close to base and to apex. Lateral bead hardly traceable, very fine close to apex and in basal fourth. Sides finely and sparsely punctate in basal third. Median line just traceable. Disc in lateral view from slightly and evenly convex to flattened in basal 1/2–2/3.



Figs 1–3. Dorsal habitus of *Ophionaea interstitialis*, ♂♂ from Cat Tien NP (1), Sumatra (2), Goa, India (3).

Рис. 1–3. Габитус *Ophionaea interstitialis* дорзально, ♂♂ из нац. парка Катъен (1), с Суматры (2), из Гоа, Индия (3).

Elytra parallel-sided and very long, more or barely less than twice as long as wide in male and female, respectively, with no or indistinct transverse impression a third from base; apical truncation slightly oblique, very gently sinuate inside just traceable, very obtuse and rounded outer angle; sutural angles blunt, slightly more than right, with a very obtuse re-entrant angle in between. Striae as rows of moderately coarse punctures decreasing apicad to indistinct in size. Intervals flat, outwardly subcarinate.

Ventral side smooth, mesothoracic peduncle and propleura posterior to basal constriction coarsely and densely punctate, prosternum (together with propleura) apically with a small group of uneven, coarse and dense, punctures, some of them sometimes extended about midway between procoxae and apex; a few fine to moderate punctures traceable just in front of procoxae.

Aedeagus (Figs 12–13): apex of median lobe very short, apical orifice set perpendicular to dorsal margin.

DISTRIBUTION. Throughout the Oriental Region, ranging from India, Nepal and Sri Lanka as far east as South China, Korea and Japan, south as the Malay Peninsula, and south-east as Celebes and the Philippines. Anichtchenko and Sciaky [2024] doubt about the Philippine record [Baehr, 1996].

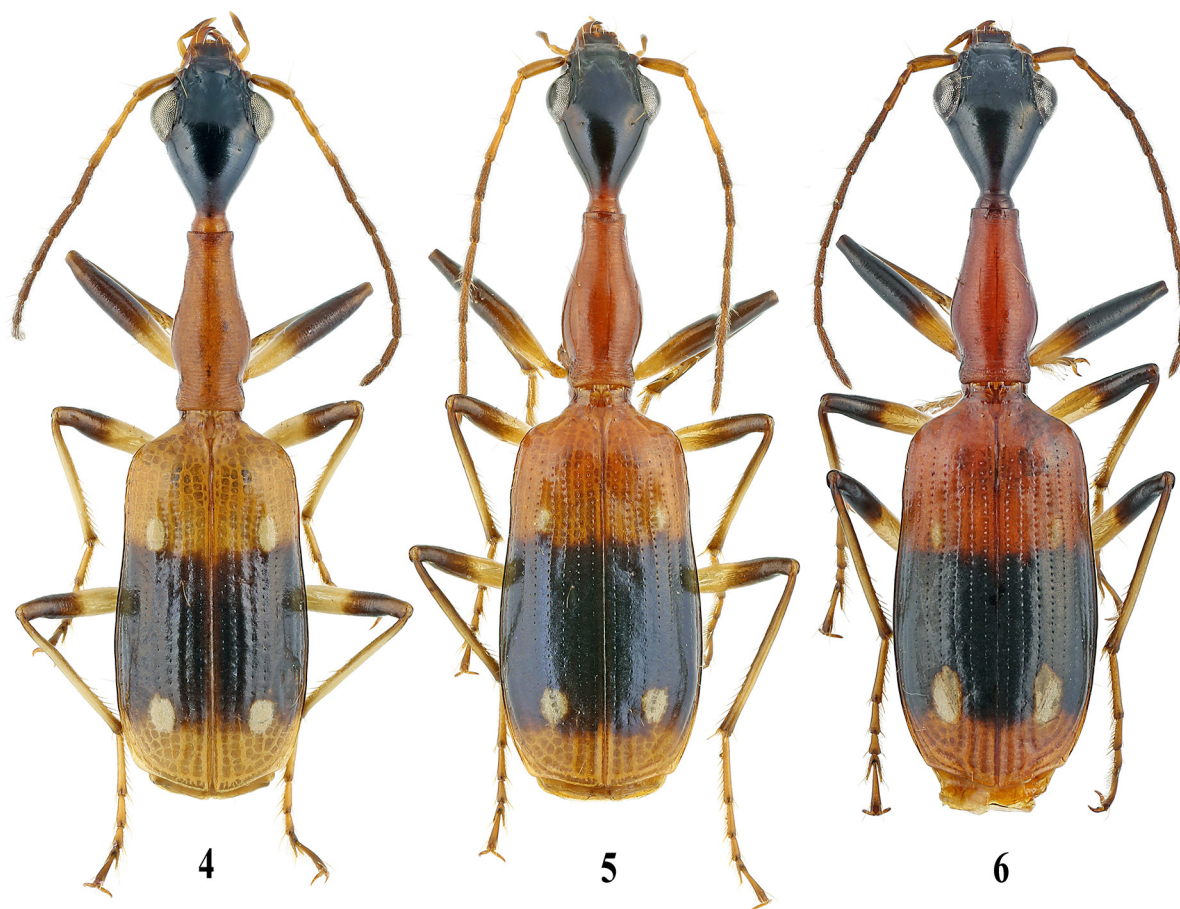
HABITATS AND HABITS. Very common; adults occur in various open wet habitats, including paddy-fields, and often fly to light in numbers.

COMMENTS. No or very slight variation in morphology, as well as in body colour, has been observed within the species range.

2. *Ophionaea interstitialis* (Schmidt-Göbel, 1846), **comb.n.** Figs 1–3, 14–21.

Schmidt-Göbel, 1846: 20 (*Ophionea*; Martaban, Burma); Bates, 1886: 199; 1892: 380; Maindron, 1910: 35; Liebke, 1938: 80; Andrewes, 1923: 4; 1930a: 241; 1947: 10; Louwerens, 1956: 45; 1964: 180; Habu, 1961: 297; Jedlička, 1964: 499 (*Casnoidea*); Anagha, Sabu, 2024: 532 (*Ophionea*). — *ceylonica* Baehr, 1996: 1062 (*Casnoidea*); Kandy, Ceylon); Anagha, Sabu, 2024: 528, **syn.n.** — ?ssp. *ishii* Habu, 1962: 118 (*Ophionea*; Okinawa Is.); 1967: 35; 1982: 98; Terada, Wu, 2014: 24; Anichtchenko, Sciaky, 2024: 338. — *hoashii* Habu, 1962: 122 (*ishii* ssp.; Mindanao, Philippines); 1967: 31; 1982: 96. — *leytensis* Baehr, 1996: 1064 (*Casnoidea*; Leyte, Philippines). — *celebensis* Baehr, 1996: 1060 (*Casnoidea*; Celebes), **syn.n.**; Anichtchenko, Sciaky, 2024: 336. — *interstitialis*: Bates, 1889: 279; 1892: 380 (part.); Gestro, 1875: 855; Andrewes, 1929a: 310; 1933: 359; Baehr, 1996: 1059 (*Casnoidea*).

MATERIAL. Paratype ♀ of *O. celebensis* (ZISP), with labels 'Sulawesi/ Sengkang/ 10.4.1995/ leg. Gerstmeier' and red 'PARATYPE/ Casnoidea/ celebensis, sp.nov./ det. M. Baehr 1995'. Holotype of *O. ishii hoashii* (National Institute for



Figs 4–6. Dorsal habitus: 4 — *Ophionaea nigrofasciata*, ♀ from Cat Tien NP; 5 — *O. bhamoensis*, ♀ from Bao Loc; 6 — *O. vvrei*, ♂ from Sri Lanka.

Рис. 4–6. Габитус дорзально: 4 — *Ophionaea nigrofasciata*, ♀ из нац. парка Каттъян; 5 — *O. bhamoensis*, ♀ из Баолок; 6 — *O. vvrei*, ♂ с Шриланки.

Agro-Environmental Sciences; digital images from <https://www.naro.affrc.go.jp>, labelled: 'III 14, 1957/ Magallanes Butuan/ Mindanao Philippine/ N. Hoashi', red 'Holotype/ *Ophionaea ishii/ hoashii/ HABU*'.

Other material: over 100 ex. from various localities: ♂ (SIEE), **India**, Goa, Ashwem Beach Area, 24.I–26.III.2013 (A. Sokolov); ♂ (ZISP), **Myanmar** ('Burma'); 1 ex. (ZISP), **Laos**, Vientiane, 21.I.1986 (O. Kabakov); 51 ex. (SIEE), **Vietnam**, Dong Nai Province, Cat Tien National Park, Expedition of Russia-Vietnam Tropical Centre, at light HQL450, 21.X–4.XII.2004 (D. Fedorenko); 9 ex. (SIEE), same data except 17.V–5.VI.2005; 6 ex. (SIEE), Gia Lai Province, ~40 km NEE of Pleiku, 14°12'11"N 108°18'54"E, Kon Ka Kinh National Park, h = 890 m, at light HQL250, 9–22.V.2016 (D. Fedorenko); 1 ex. (ZISP), Quang Binh Province, Dong Hoi, 28.II.1961 (O. Kabakov); ♀ (MPSU), Minh Hoa District, Ke Bang 8 km SE of Yen Hop, at light, 17.IV.1999 (S. Kruskop); 1 ex. (ZISP), Mts nr. Lai Chau, 600 m, 1.VII.1962 (O. Kabakov); ♀ (SIEE), Ninh Binh Province, 7.5 km SSW of Nho Quan, Dong Tam vill., 20°15'08"N 105°44'09"E, h~100 m, at light, 1–5.V.2019 (A. Prosvirov); ♀ (SIEE), 4.5 km SW of Ninh Binh, Thon Ka Luong vill., 20°13'30"N 105°56'11"E, h=130 m, 26–30.IV.2019 (A. Prosvirov); 8 ex. (ZISP), Hanoi, 6–8.VI. or 20.IX., or 10.XI.1962 (O. Kabakov); 3 ex. (ZISP), Vinh

Phuc Province, Tam Dao [Son Zuong] Mt. Ridge, W of Tam Dao, 300 m, 20.II.1962 (O.N. Kabakov); 1 ex. (MPSU), 10 km N of Thai Nguen, 1.XII.1976 (SIEE Expedition); ♂ (SIEE), Thanh Hoa Province, Thach Thanh District, 20°17'44"N 105°33'06"E, h~40 m, at light HQL250, 16–26.IV.2024 (D. Fedorenko); 3 ex. (ZISP), Bai Thuong, lang Thanh, 25–30.IV.1963 (O. Kabakov); 1 ex. (ZISP), same locality, Mts. near Bai Thuong, 300 m, 28.XII.1961 (O. Kabakov); 2 ♂♂, 2 ♀♀ (ZISP), **China**, Fujian, Foochow, Kushan, 2. or 23.VIII., or 12.X.1957 (M.S. Yang); 3 ♂♂, 2 ♀♀ (SIEE), 2 ♂♂ (SIEE), **Sumatra**, West Sumatra Prov., 3 km W of Bukitting, 0°18'19"S 100°20'33"E, h=810 m, 23–24.II.2017 (A. Prosvirov); ♂, 3 ♀♀ (ZISP), W.K., Duku, near Padang, 6.III.1913 (O. John); **Java**, Bosor, Parung Churuk, at UV-light, 17.VI–15.VII.2005 (S. Alekseev); 2 ♂♂ (SIEE), **Bali**, D'Sawah villa, 8.6098°S 115.087°E, 11–16.XII.2016 (N. Vikhrev); 2 ♂♂, 3 ♀♀ (ZISP), **Sulawesi**, nr. Kendari, at light, 10.XI.2011 (D. Gapon).

Aedeagus examined in 20 males from India (1), Myanmar (1), Vietnam (8), China (1), Sumatra (3), Java (3), Bali (1) and Celebes (2); genitalia and reproductive tract examined in two females.

DIAGNOSIS. Similar to *O. indica* in colour pattern (Figs 1–3), being distinctive from that species in having a slightly more robust appearance, head and pronotum shiny due to no microsculpture, pronotal lateral seta present, elytral basal blu-



Figs 7–9. Dorsal habitus: 7 — *Ophionaea indica*, ♀ from Cat Tien NP; 8 — *Archicolliuris bimaculata*, ♂ from Bi Doup — Nui Ba Nature Reserve; 9 — *A. distigma*, ♀ from Kon Ka Kinh NP.

Рис. 7–9. Габитус дорзально: 7 — *Ophionaea indica*, ♀ из нац. парка Катъен; 8 — *Archicolliuris bimaculata*, ♂ из заповедника Бидуп — Нуйба; 9 — *A. distigma*, ♀ из нац. парка Конкакинъ.

ish-black band complete, posterior whitish spot only present, interval 3 with 6–10 setae, interval 5 with 0–2 setae at base, prothorax impunctate ventrally; profemur anterior face with ventromedial seta (vs. none in the other species reviewed).

REDESCRIPTION. BL 6.3–7.2 mm. Femora coloured as in *O. indica*, more rarely profemur infuscated in apical two fifths. Whitish spot on intervals 4–5 very oblong, mostly running on apical 1/3–1/2 posterior bluish-black band, sometimes shorter or longer.

Head mostly a fifth longer than wide and slightly longer in female than in male in some populations, genae nearly straight to very convex, short to long, shortest in western, longest in eastern populations. Frontal V-shaped impression conspicuous to missing, frontal foveae deep anteriorly, from deep and diverging to obliterate behind.

Pronotum short, almost three fourths as wide as head, broadest two fifths from base, with sides straight up to apical constriction in front, finely cross-striate close to base and to apex. Lateral bead very fine posterior to basal constriction, totally obliterate in front. Sides finely and sparsely punctate in basal third. Median line just traceable except basally and apically. Disc in lateral view flattened in basal two thirds.

Elytra subparallel-sided, longest in populations from Sumatra and Vietnam, shortest in specimens from Java and Bali, intermediate in those from Celebes, otherwise as for *O. indica*, except for striae sometimes coarsely punctate and intervals not outwardly carinate at all.

Aedeagus (Figs 14–21): apex of median lobe short and round, apical orifice set at acute angle to dorsal margin.

DISTRIBUTION. Throughout the Oriental Region: Indochina east to South China, Korea and Japan, south to Java, Bali, and southeast to Celebes and Philippines. The nominotypical subspecies is confined to Sri Lanka and India east to Myanmar, from which country *O. interstitialis ishii* is also known (the only specimen examined, without no data indicated other than 'Burma'); recorded in Chiang Mai, Thailand [Habu, 1961a].

HABITATS AND HABITS. Just as for *O. indica*.

COMMENTS. Many characteres vary considerably, both individually and geographically, in this species, among them fasciate colour pattern, size of whitish spots, body setation and pilosity, depth and punctuation of the elytral striae, as well as the ratios HL/HW and GL/OL. As a result, the species synonymy is reach in names, and some other reasons have affected this synonymy, too. In particular, Habu [1962] stressed differ-



Figs 10–11. Dorsal habitus: 10 — *Anacolliuris tetraspilota*, ♂ from Khao Sok, Thailand; 11 — *A. nitida* **sp.n.**, holotype.
Рис. 10–11. Габитус дорзально: 10 — *Anacolliuris tetraspilota*, ♂ из Кхаосок, Таиланд; 11 — *A. nitida* **sp.n.**, голотип.

ences between two specimens of *O. interstitialis* from Burma and Ceylon on one hand, and many others from South Japan, Taiwan and Java, on the other. He assigned these latter to a separate species, *O. ishii*, distinctive chiefly in having no setae at base of the elytral interval 5 vs. 1–2 setae in *O. interstitialis*, as was specified by Andrewes [1923] for its two syntypes and some non-type specimens without localities indicated. Baehr [1996] then surprisingly ignored this distinctive feature and treated the two species quite otherwise. Because *O. ishii* sensu Baehr [1996] corresponded with *O. interstitialis*, he had to re-describe *O. interstitialis* under the name *O. ceylonica*. Of two

more closest allies of *O. ishii* described by him from either Philippines or Celebes, one has been synonymized under *O. ishii* just recently [Anichtchenko, Sciaky, 2024] and the other is synonymized here.

The species from Celebes has no distinctive features to overreach variation range of *O. interstitialis ishii*, including that coarsely punctate elytral striae have also been observed in specimens from other localities, mostly Sumatra and South China. Some other specimens from Celebes, listed under ‘Material’ above, are even more different from *O. ishii*, as they have obliterate elytral microsculpture and the genae still more

convex than specified originally for *O. ishii hoashii*. The pronotum is shorter than in specimens outside Celebes, which corresponds well with Baehr's data given for 'Prothorax' (PL/PW > 1.75), not under 'Measurements' (PL/PW 1.81–1.92). Specimens with shorter pronota, PL/PW 1.73–1.76, are known to me from India and Sumatra, and have also been reported from Taiwan [Terada, Wu, 2014].

The aedeagus varies very little, if at all, between local populations of *O. interstitialis* in both shape and structure, yet subtle differences in size have been observed nevertheless: the aedeagus is barely larger in males from the Sunda Isles, with no difference observed between males from Sumatra and Celebes.

Fasciate body pattern varies much both individually and geographically. Specimens with the shortest red band, fpL/fdL 0.50–0.6, have been recorded in both India and Sumatra, and with the longest red band, fpL/fdL 1.2–1.26, in both India and Vietnam. A slight morphocline, if at all, is traceable toward the transverse red and posterior bluish bands becoming shorter or longer, respectively: from fpL/fdL 0.54–1.26 (0.91; 4) and 0.76–1.20 (0.92; 8) in continental populations (India and Vietnam) through 0.61–0.92 (0.80; 12) on Java, Bali and Celebes, to 0.50–0.81 (0.70) on Sumatra. Whitish spot is less variable in length. It is longer in specimens from Vietnam, swL/fdL 0.41–0.65 (0.48), than in those from India and the Sunda Isles, swL/fdL 0.29–0.48 (0.37–0.39).

The elytral interval 5, which is either setose or glabrous basally, serves good to discriminate *O. i. interstitialis* from *O. interstitialis ishii*, respectively. The former character defines specimens from India and Sri Lanka east to Myanmar, including those mentioned by Andrewes [1923] or two from Yangon (Rangoon) or Colombo, examined by Habu [1961], as well as four specimens of *O. ceylonica* recorded just recently from three localities in Kerala, South India [Anagha, Sabu, 2024]. Additional and to some extent interdependent distinctive features of *O. i. interstitialis* are a shorter head and shorter and convex genae. The head and/or the genae of similar shape and proportions have been observed in adults from some eastern or southern populations: the shortest head, with short and very convex genae, HL/HW 1.16, GL/OL 1.04, in the holotype of *O. hoashii*; the same, except for less convex genae, in four males from Java and Bali; very convex genae, combined with longer head, in three, all female, specimens of totally six examined ones from Celebes. Finally, Anichtchenko et Sciaky [2024] mention some specimens from the Philippines, which have setose elytral interval 5. This, together with very slight, if at all, differences found between the only examined male from India and many others in the aedeagus shape and structure, makes me consider *O. i. interstitialis* hardly more than a nebulous western subspecies of the widespread species.

3. *Ophionaea nigrofasciata* (Schmidt-Göbel, 1846), **comb.n.**

Figs 4, 24–25.

Schmidt-Göbel, 1846: 21 (*Ophionea*; Burma); Bates, 1892: 380; Maindron, 1910: 35; Andrewes, 1923: 4 (*Ophionea*); 1929a: 310; 1930a: 241; 1930b: 334; 1931: 437; 1933: 359; Liebke, 1938: 80; Habu, 1961: 296; 1962: 116; 1967: 33; 1982: 97; Jedlička, 1964: 499 (*Casnoidea*); Baehr, 1996: 1052; 2003: 59 (*Ophionea*); Anagha et Sabu, 2024: 530. — ssp. *fortestriata* Baehr, 2003: 59 (*Ophionea*; Sulawesi).

MATERIAL. Over 100 ex. from various localities: 29 ex. (SIEE), **Vietnam**, Dong Nai Province, Cat Tien National Park, at light HQL450, 23.X–4.XII.2004 or 3–5.VI.2005 (D. Fedorenko); ♀ (SIEE), 70 km NE of Ho Chi Minh City, Ma Da, at light, 30.V.1990 (N. Belyaeva); ♀ (MPSU), 120 km NNE of Ho Chi Minh City, Cat Tien env., 2–8.IV.1994

(A. Napolov, D. Volkov); ♂ (MPSU), Binh Duong Province, ca. 60 km N of Ho Chi Minh, env. Phu Giao, 3–13.X.1994 (A. Napolov, D. Volkov); 2 ♀♀ (SIEE), Lam Dong Province, 35 km NW of Bao Loc, Loc Bao env., 11°50'12"N 107°38'25"E, h=650 m, at light HQL250, 17–22.IV.2012 (D. Fedorenko); 15 ex. (SIEE), Gia Lai Province, ~40 km NEE of Pleiku, 14°12'11"N 108°18'54"E, Kon Ka Kinh National Park, h = 890 m, at light HQL250, 9–22.V.2016 (D. Fedorenko); 41 ex. (SIEE), same data, except for ~55 km ENE of Pleiku, 14°17'45"N 108°26'57"E, h = 600 m, 12–22.V.2017; 1 ex. (ZISP), N of An Khe, Buon Loi, 15.XI.1993 (A. Gorokhov); 1 ex. (ZISP), Nghe An Province, Mts. SW of Quy Chau, 400 m, 18.XII.1963 (O.N. Kabakov); 1 ex. (ZISP), Mts near Tuyen Quan, 31.XI.1962 (O. Kabakov); ♀ (MPSU), Quang Binh Province, Minh Hoa District, Ke Bang 8 km SE of Yen Hop, at light, 12–13.IV.1989 (S. Kruskop); 1 ex. (ZISP), Vinh Phuc Province, NW of Tam Dao [Son Zuong] Mt. Ridge, 11.I.1962 (O. Kabakov); 4 ex. (SIEE), **Laos**, Vang Vieng, 18°55'12"N 102°26'E, 7–9.XI.2015 (I. Melnik); 1 ex. (SIEE), same locality, 30.III–5.IV.2010 (A. Sokolov); 3 ex. (SIEE), **Thailand**, Mae Hong Son Prov., env. Pai, 10.XI.2009 (N. Vikhrev); ♂, ♀ (SIEE), Ta Phraya Prov., La Lu National Park, 14°02'2"N 102°34'5.6"E, h=130 m, at light, 16.V.2010 (V. Zinchenko); ♂ (SIEE), **Malay Peninsula**, Selangor, env. Sungai Pelek, 2.6°N 101.7°E, 6–7.II.2014 (N. Vikhrev); 1 ex. (ZISP), **Philippines**, Palawan, ca. 20 km NNW of Puerto Princesa, 9°55'55.6"N 118°40'04.8"E, at light, 22–23.X.2022 (D. Gapon).

Aedeagus examined in four males; genitalia and reproductive tract examined in two females.

DIAGNOSIS. A slender species (Fig. 4) distinguished from *O. indica* by the elytra with a single, wide, black, transverse band, and from related species with a similar, unifasciate and quadrimaculate, pattern by the pronotal lateral setae missing. Other distinctive features include pronotum impunctate and dull from coarse microsculpture and dense cross-striation, 1–5 coarse punctures mostly present along prothoracic sternopleural suture between procoxa and apical constriction, elytral striae shallow and very finely punctate to nearly imperceptible except within a distinct transverse impression a third from base, no discal setae other than four in interval 3.

According to the description, the subspecies *O. n. forttestriata* is distinctive chiefly in having the pronotum shorter and the elytral striae more distinctly punctate.

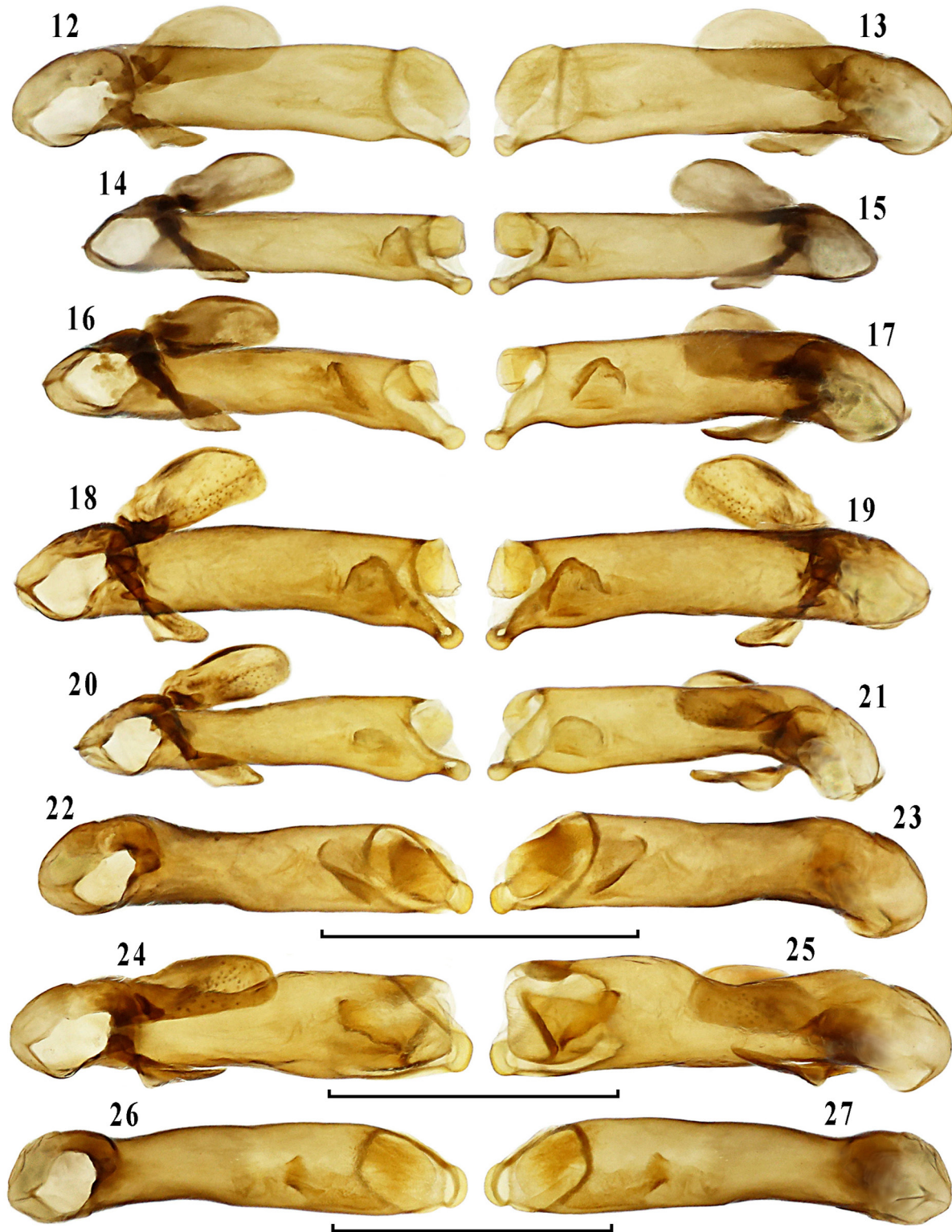
REDESCRIPTION. As for *O. indica* except the following. BL 6.5–8 mm. Apical 2/3 profemur, 1/2 mesofemur and 1/3 metafemur mostly nfusated. Both whitish spots small, tangential to black band, anterior in interval 5 a third from base convex and oblong, posterior a fifth from apex round. Head with microsculpture very distinct throughout, slightly to moderately transverse along middle behind eyes, with very small meshes, nearly isodiametric toward, narrow close to neck constriction.

Genae barely shorter in male than in female.

Pronotum longer, with sides distinctly sinuate behind apical constriction. Lateral bead just traceable throughout, more distinct basally. Disc in lateral view slightly concave a third from apex.

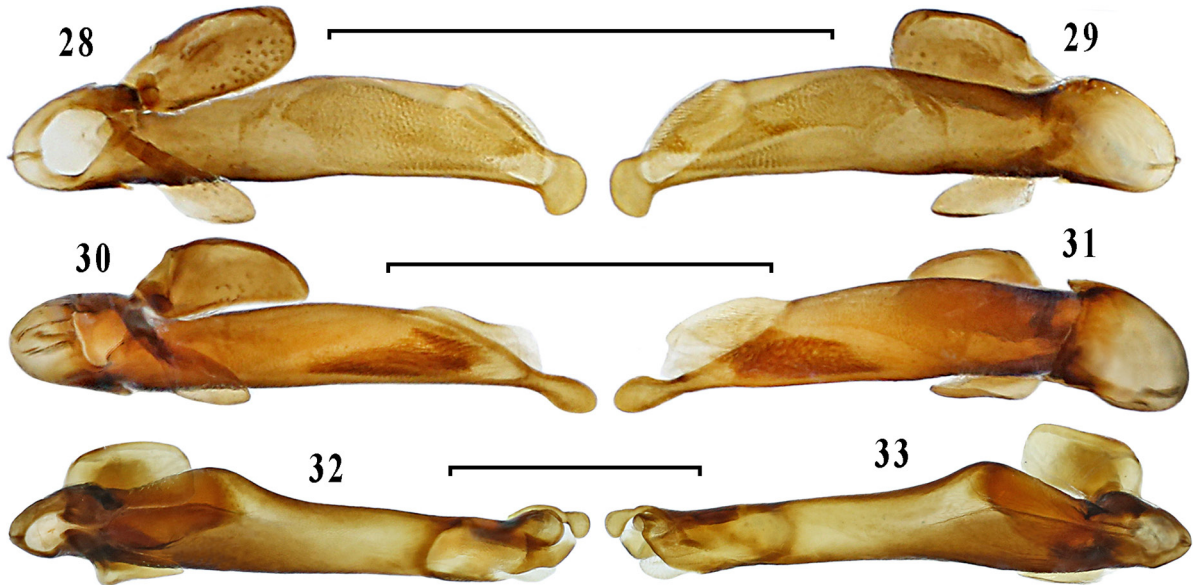
Elytra slightly shorter and wider. Intervals flat to barely convex, sometimes interval 5 outwardly subcarinate in a short distance in basal half.

Aedeagus (Figs 24–25): median lobe conspicuously constricted at about middle of dorsal-to-left lateral margin; its apex subrectangular, short and wide; apical orifice large and uneven, divided basally by a large dorsal ligule as apical extension of dorsal wall, this ligule is moved onto right side and unevenly sclerotized.



Figs 12–27. Aedeagus or its median lobe (22–23, 26–27): 12–13 — *Ophionaea indica*; 14–21 — *O. interstitialis*; 22–23 — *O. bhamoensis*; 24–25 — *O. nigrofasciata*; 26–27 — *O. vvrei*, from Sri Lanka; 12, 14, 16, 18, 20, 22, 24, 26 — ventral aspect; 13, 15, 17, 19, 21, 23, 25, 27 — dorsal or right dorsolateral aspect; 12–15, 22–25 — ♂♂ from Cat Tien NP; 16–17 — ♂ from Java; 18–19 — ♂ from Sumatra; 20–21 — ♂ from Goa, India. Scale bars 1 mm.

Рис. 12–27. Эдеагус или его средняя доля (22–23, 26–27): 12–13 — *Ophionaea indica*; 14–21 — *O. interstitialis*; 22–23 — *O. bhamoensis*; 24–25 — *O. nigrofasciata*; 26–27 — *O. vvrei*, с Шриланки; 12, 14, 16, 18, 20, 22, 24, 26 — вентрально; 13, 15, 17, 19, 21, 23, 25, 27 — дорзально или дорзолатерально справа; 12–15, 22–25 — из нац. парка Каттхьен; 16–17 — ♂ с Явы; 18–19 — ♂ с Суматры; 20–21 — ♂ из Гоа, Индия. Масштаб 1 мм.



Figs 28–33. Aedeagus: 28–29 — *Archicolliuris bimaculata*, ♂ from Cat Tien NP; 30–31 — *A. distigma*, ♂ from Kon Ka Kinh NP; 32–33 — *Anacolliuris tetraspilota*, ♂ from Khao Sok, Thailand; 28, 30, 32 — ventral aspect; 29, 31, 33 — dorsal aspect. Scale bars 1 mm.

Рис. 28–33. Эдеагус: 28–29 — *Archicolliuris bimaculata*, ♂ из нац. парка Катъен; 30–31 — *A. distigma*, ♂ из нац. парка Конкакин; 32–33 — *Anacolliuris tetraspilota*, ♂ Кхаосок, Таиланд; 28, 30, 32 — вентрально; 29, 31, 33 — дорзально. Масштаб 1 мм.

DISTRIBUTION. Ranging from Sri Lanka and India east to Indochina and Hainan in China and south to Sumatra, Borneo, Celebes, Buru, and Philippines (Palawan).

HABITATS AND HABITS. As for the genus.

4. *Ophionaea bhamoensis* (Bates, 1892), **comb.n.**

Figs 5, 22–23.

Bates, 1892: 380 (*Ophionea*; Bhamo, Burma); Maindron, 1910: 35; Dupuis, 1913: 270 (*Casnoidea*); Liebke, 1938: 80; Baehr, 1996: 1045 (*Casnoidea*); Anichtchenko, Sciaky, 2024: 336. — *bakeri* Dupuis, 1913: 270 (*Casnoidea*; Luzon, Philippines); Andrewes, 1926: 353 (*Ophionea*); Kirschenhofer, 1996: 782; Baehr, 1996: 1045, 1054 (*Casnoidea*). — *malickyi* Baehr, 1996: 1053 (*Casnoidea*; Northern Thailand), **syn.n.** — *taiwanensis* Terada, Wu, 2014: 24 (*Ophionea*; Taiwan). — *nigrofasciata*: Andrewes, 1930a: 242 (*Ophionea*; var.).

MATERIAL. Paratype (digital images), with labels: circle edged with green 'Co-/type', 'Bhamo/ Birmania/ Fea VII 1885' edged with black, 'Oph./ Bhamoen/ -sis, B./ n.sp.', 'H.E.Andrewes Coll./ B.M.1945-97.', 'NHMUK 010796812' [Natural History Museum, 2014].

Other material: 2 ♂♂, 4 ♀♀ (SIEE), **Vietnam**, Dong Nai Province, Cat Tien National Park, Expedition of Russia-Vietnam Tropical Centre, at light HQL450, 21.X–2.XII.2004 (D. Fedorenko); ♀ (SIEE), Lam Dong Province, 35 km NW of Bao Loc, Loc Bao env., 11°50'12"N 107°38'25"E, h=650 m, at light HQL250, 17–22.IV.2012 (D. Fedorenko); ♂, ♀ (MPSU), **Thailand**, Surat Thani Province, Khao Sok, at light, 20–28.VII.1996 (M. Mostovsky). — Aedeagus examined in one male.

DIAGNOSIS. Only different from *O. nigrofasciata* in having pronotal lateral seta and bluish-black colour of head and of elytral transverse band. Other differences include posterior elytral whitish spot being within this transverse band, elytral striae barely deeper and slightly more coarsely punctate, pronotum not or indistinctly cross-striated but basally and apically, and prothorax with coarse punctures apically. Besides,

antennomeres 5–11 less infuscated and apical 3/4 (vs. 2/3) pro-femur brown black.

REDESCRIPTION. As for *O. nigrofasciata* except the following points (Fig. 5). BL 7–7.5 mm. Genae slightly shorter in male than in female. Pronotum shorter and wider, often with a few medium-sized punctures on sides just in front of basal constriction. Lateral bead vague yet traceable in front of lateral seta. Disc in lateral view evenly subconvex. Elytra not or barely longer. Often intervals 2–5 outwardly subcarinate in basal half.

Aedeagus (Figs 22–23): median lobe cylindrical; apical orifice oblong, dorsal ligule oblong and unevenly sclerotized.

DISTRIBUTION. Indochina (Myanmar, Thailand, Vietnam), South China (Taiwan), Philippines (Luzon, Mindanao, Mindoro, Palawan).

HABITATS AND HABITS. As for the genus.

COMMENTS. Baehr [1996] described *O. malickyi* from a single female, without seeing type specimen(s) of *O. bhamoensis*. In both the key to species and the description subsection 'Colour', he discriminated *O. malickyi* and *O. nigrofasciata* from *O. bhamoensis* and *O. bakeri* by black (vs. blue) head and transverse elytral band, but diagnosed *O. malickyi* by a black blue elytral band under 'Diagnosis'. Whether the latter is correct or not, two of totally six examined specimens from Vietnam have the head and the elytra black or nearly so, with a very slight bluish lustre seen in the others. A photograph of *O. malickyi* holotype in Anagha and Sabu [2024] otherwise corresponds well with *O. bhamoensis* in all characters, including body ratios, from which the two names are here considered as conspecific.

[5. *Ophionaea vvrei* (Bates, 1892), **comb.n.**]

Figs 6, 26–27.

Anagha, Sabu, 2024: 527 (*Ophionea*; Kerala, India).

MATERIAL. 2 ♂♂ (SIEE), **Sri Lanka**, Sabaragamuwa Province, PinnaVala Millenium Foundation Orphanage,

17°16'26"N 80°23'12"E, h = 100 m, 19–22.XII.2012 (I. Melnik). — Aedeagus examined in one male.

DIAGNOSIS. No differences from *O. bhamoensis* other than black head and transverse elytral band, femora contrastingly bicolour (Fig. 6), and dorsal microsculpture coarser; aedeagus is distinctive besides. BL 7.3–7.4 mm. Aedeagus (Figs 26–27): median lobe with apex rounded, wide and very short in dorsal view; internal sac with preapical sclerite rather small and about a third distant from apex.

DISTRIBUTION. South India (Kerala), Sri Lanka.

REDESCRIPTION. Not necessary.

HABITATS AND HABITS. No data other than the type specimens were collected in a light trap.

COMMENTS. All the distinctive features specified under 'Remarks' in the original description serve only good for separating between three specimens of *O. vvrei* and the paratype of *O. bhamoensis*, not between the two species, because individual variation overreaches interspecific differences. In particular, the fasciate and maculate patterns vary much so that the specimens of *O. vvrei* from Sri Lanka are very little different from many specimens of *O. bhamoensis* in these characters. Besides, the pronotum is much shorter in the listed specimens from Sri Lanka than in the type specimens, suggesting similar body proportions in the species compared.

Archicolliuris Liebke, 1931

Liebke, 1931: 291 (*Colliuris* subg.); 1938: 49, 61; Jeannel, 1948: 754 (gen. bon., part.); Habu, 1962: 108; Habu, 1967: 26; Jedlička, 1964: 497 (*Colliuris* subg.); Donabauer, 1996: 6; Kirschenhofer, 1996: 772 (gen. bon.); Lorenz, 1998: 418 (part.); Anichtchenko, Sciaky, 2024: 329. — *Paracolliuris* (non Liebke, 1938): Kirschenhofer, 1994: 1037 (*Colliuris* subg.), **n.nud.** — *Odacantha*: Andrewes, 1930a: 229 (part.). — ? *Eucasonia* Liebke, 1938: 51, 62 (*Colliuris* subg., type species: *C. crabricollis* (Andrewes, 1929)).

Type species: *Colliuris bimaculata* (Redtenbacher, 1844), by original designation.

DIAGNOSIS. Slender species similar to those of *Ophiomaea* and of *Mimocolliuris* in appearance, and distinguishable by the combination of tarsomere 4 subtruncate, head long, rhomboid and slightly petiolate, with supra-ocular carina and two setae on each side; pronotum vasiform, with single, basal, constriction and lateral seta on each side, lateral groove indistinct inside vestigial lateral bead, disc cross-striated; elytra with striae and lateral bead complete, the latter inwardly reaching base of stria 5, intervals: 3rd with 5–7 setae, 5th with 0–1 seta, 7th with single seta, outer angles rounded. Tarsomeres 1–3 and metatarsomere 4 with dorso-apical setae.

Dorsum dull from coarse meshed microsculpture and sparsely ciliate. Pronotum red, elytra with a pale bimaculate pattern.

Aedeagus median lobe slightly twisted to the right (Figs 28–31), with apical orifice left dorsolateral. Gonocoxite IX with four ventral ensiform setae in female.

REDESCRIPTION. Supplemental characters only, these as for *Ophiomaea* except the following. USS: 1,2,3,4,5,6–7–8,9,10,11,12,13,14. Profemur with two, basal and ventromedial, setae on posterior face and ventromedial seta on anterior face. Tarsomere 1 at base with very few and very short lateral extra setae.

Abdominal sternite VII distinctly ciliate in female, with a small yet deep median emargination of apical margin in male. Aedeagus with apex flattened and curved to the right, basal bulb curved ventrad. Female reproductive tract similar to that described for *Ophiomaea*.

DISTRIBUTION. Widespread in the Oriental region. Both species are at least partly sympatric, sharing at least some locality records in Vietnam and Thailand.

HABITATS AND HABITS. According to Habu [1961], *A. bimaculata* is 'common in Japan, living in marshes among reeds and in paddy fields'. Adults of both species of the nominotypical subgenus fly to light at night.

COMMENTS. This genus is here adopted in a strict sense, as corresponding with the nominate subgenus, which only includes two species that match well the diagnosis above. When treated widely [Lorenz, 1998], *Archicolliuris* is generally recognized to be a heterogeneous taxon that needs a revision elsewhere [Anichtchenko, Sciaky, 2024]. Thus treated, it includes five genus-group taxa, two Oriental (*Anacolliuris* Liebke, 1938, and *Eucasonia*) and three Afrotropical (*Panapiodera* Liebke, 1933; *Archicasonia* Liebke, 1938; and *Stenidiomorpha* Liebke, 1938), considered as synonymous or subordinate to.

Anacolliuris is here treated as a very distinctive and thence separate genus.

The name *Paracolliuris* Kirschenhofer, 1994, was introduced without type species designated, thus being unavailable, not synonym or homonym, name, as some authors believed [Donabauer, 1996; Anichtchenko, Sciaky, 2024].

6. *Archicolliuris bimaculata* (Redtenbacher, 1844) Figs 8, 28–29.

Kollar et Redtenbacher, 1844: 498, t.23, f.2 (*Casonia*; Kashmir); Bates, 1892: 381; Andrewes, 1924: 116 (*Arame*); 1930a: 229 (*Odacantha*); Liebke, 1938: 61 (*Colliuris*); Habu, 1961: 109 (*Archicolliuris*); Jedlička, 1964: 497 (*Colliuris*); Terada, Wu, 2014: 16 (*Archicolliuris*); Anichtchenko, Sciaky, 2024: 331; Donabauer, 1996: 6. — *kashmirica* Jakobson, 1908: 407 (*Colliuris*; Kashmir). — *jaechi* Kirschenhofer, 1994: 1038 (*Colliuris*; Mindoro, Philippines); 1996: 773 (*Archicolliuris bimaculata* ssp.). — ssp. *nipponica* Habu, 1963: 174 (Honshu, Japan); 1967: 27; 1982: 94.

MATERIAL. ♂, ♀ (SIEE), **India**, Uttarakhand, Sang, Nan Sambung vill., 30.1°N 78.2°E, 3–5.IX.2011 (N. Vikhrev); 1 ex. (ISEA), **Thailand**, Province Nakhon Ratchasima (Korat), Nong Bun Nak, deciduous gallery forest, h=200 m, 14°41'25"N 102°27'45.7"E, 26–31.X.2011 (A. Korshunov); 1 ex. (ISEA), Nakhon Sawan Province, 13 km N of Mae Wong vill., h=113 m, at light, 15.9°N 99.55°E, 14–15.VIII.2012 (V. Zinchenko); ♂ (MPSU), Phetchaburi Province, Kaeng Krachan, 30–31.VI.1996 (M. Mostovsky); 4 ♂♂, 5 ♀♀ (SIEE), **Vietnam**, Dong Nai Province, Cat Tien National Park, Expedition of Russia-Vietnam Tropical Centre, at light HQL450, 19.X–29.XI.2004 (D. Fedorenko); ♀ (SIEE), same data but 10–11.VI.2005; ♂ (SIEE), 75 km NE of Ho Chi Minh City, La Nga, at light, 30.X.1990 (N. Belyaeva); ♀ (MPSU), Binh Duong Province, ca. 60 km N of Ho Chi Minh City, env. Phu Giao, 3–13.X.1994 (A. Napolov, D. Volkov); ♀ (SIEE), Lam Dong Province, Bi Doup – Nui Ba Nature Reserve, env. Long Lanh, 12°10'44"N 108°40'44"E, h=1400–1600 m, at light HQL250, 28.IV–10.V.2009 (D. Fedorenko). — Aedeagus examined in three males, genitalia and reproductive tract examined in two females.

DIAGNOSIS. Body colouration characteristic (Fig. 8), black, with prothorax, basal 2/5 elytra, antennomeres 1–3 and base of 4th red; pronotum deeply cross-striated and finely punctate on sides in basal half, sides of prothorax, mostly propleura, moderately and very densely punctate; elytra with an oblong preapical spot spanning intervals 5–6, 5–7 setae in interval 3, single seta in interval 5 1/3–2/5 from base, and another one in interval 7 a third from apex. Aedeagus very distinctive. For smaller features see 'Re-description' below.

According to the description, *A. (A.) b. nipponica* is distinctive in having head and genae both longer than in the nominotypical subspecies.

REDESCRIPTION. BL 6.5–7.6 mm. Genae slightly shorter in male than in female. Pronotum slightly broadened a third from base, with sides slightly sinuate in front. Lateral bead and groove vaguely traceable in about middle two fourths. Disc in lateral view shallowly sinuate a third from apex in addition to basal and apical constrictions. Elytra barely longer in male than in female. Intervals 2–6 subcarinate outwardly in basal half.

Aedeagus (Figs 28–29): median lobe by comparison small, apex in dorsal/ventral view wide, rounded, slightly asymmetrical; left paramere apically wide, subtruncate and rounded.

DISTRIBUTION. Sri Lanka, India, Indochina (Myanmar, Thailand, Cambodia, Vietnam), China (Taiwan), Korea; Java, Borneo, Celebes, Philippines. *Archicolliuris b. nipponica* is confined to Japan (Honshu, Shikoku, Kyushu).

HABITATS AND HABITS. As for the genus.

7. *Archicolliuris distigma* (Chaudoir, 1850)

Figs 9, 30–31.

Chaudoir, 1850: 26 (*Casnonia*; nom. pro *bimaculata* [non Redtenbacher, 1844]; Schmidt-Göbel, 1846: 18; Chaudoir, 1848: 47); Bates, 1892: 381; Andrewes, 1923: 3 (*Arame*); 1928: 588 (*Odacantha*); 1930a: 230; 1933: 357; Liebke, 1938: 61 (*Colliuris*); Jedlička, 1964: 498; Donabauer, 1996: 6; Kirschenhofer, 1996: 773. — *subapicalis* Oberthur, 1883: 216 (*Casnonia*; Sumatra). — *languida* Kirschenhofer, 1994: 1039 (*Colliuris*; Langkawi Is., Malay Peninsula).

MATERIAL. ♂, ♀ (SIEE), Vietnam, Dong Nai Province, Cat Tien National Park, Expedition of Russia-Vietnam Tropical Centre, at light HQL450, 22.X–24.XI.2004 (D. Fedorenko); 2♂♂, ♀ (SIEE), same data, except for 21.V–25.VI.2005; ♂, ♀ (MPSU), Binh Duong Province, ca. 60 km N of Ho Chi Minh City, env. Phu Giao, 3–13.X.1994 (A. Napolov, D. Volkov); ♀ (SIEE), Binh Phuoc Province, Bu Gia Map National Park, 12°11'37"N 107°12'21"E, h=350–540 m, at light HQL250, 12–23.IV.2009 (D. Fedorenko); 25 ex. (SIEE), Gia Lai Province, ~55 km ENE of Pleiku, 14°17'45"N 108°26'57"E, h = 600 m, at light HQL250, 8–20.V.2017 (D. Fedorenko); ♀ (MPSU), Thailand, Surat Thani Province, Khao Sok, at light, 20–28.VII.1996 (M. Mostovsky). — Aedeagus examined in four males, genitalia and reproductive tract examined in five females.

DIAGNOSIS. Distinguished from the previous species by the body (Fig. 9) dull black, with prothorax deep red and impunctate; elytra with a large and slightly oblong spot spanning intervals 4–6 a third from apex, interval 5 without setae; aedeagus very distinctive.

REDESCRIPTION. As for *A. bimaculata* except the following. BL 6.5–7.7 mm. Genae barely shorter in male than in female. Pronotum broadened much a third from base, with sides distinctly sinuate in front. Elytra wider.

Aedeagus (Figs 30–31): median lobe long, apex in dorsal/ventral view elliptic, constricted basally; left paramere apically narrow, triangular. Internal sac in dorsal/ventral view with a preapical sclerotized patch toward right margin.

DISTRIBUTION. Indochina (Myanmar, Thailand, Vietnam), Malay Peninsula, Sumatra, Borneo.

HABITATS AND HABITS. As for the genus.

Anacolliuris Liebke, 1938

Liebke, 1938: 51, 61 (*Colliuris* subg.); Jedlička, 1964: 491, 493; Kirschenhofer, 1996: 777 (gen. bon.); Lorenz, 1998: 418 (*Archicolliuris*, part.); Anichtchenko, Sciaky, 2024: 329 (*Archicolliuris* subg.).

Type species: *Colliuris tenuis* (Andrewes, 1926), by original designation.

DIAGNOSIS. Similar to *Archicolliuris* (s.str.) in many characters, including body shape and proportions, being dis-

tinguishable by having head shorter and non-petiolate due to rounded to nearly straight genae; pronotum with two, basal and apical, constrictions (vs. basal constriction only) and lateral groove distinct (vs. indistinct) inside vestigial lateral bead; elytral outer angles toothed (vs. rounded), apical truncations minutely tuberculate (vs. smooth), only interval 3 with four (vs. 5–7) setae, and intervals 7 and 8 raised a third from apex in form of an oblong, more or less distinct boss (fairly distinct in the two species reviewed, imperceptible in *Archicolliuris* s.str.). Tarsomeres 1–2 and metatarsomere 4 with dorso-apical setae. Dorsum shiny, with microsculpture superficial to missing or nearly so (vs. dull from coarse meshed microsculpture). Body dark brown to black, elytra each with 1–2 slender, whitish, elytral maculae or stripes.

Aedeagus median lobe dilated much a third from base of right margin and markedly counterrotated so that apical orifice is moved onto ventral side (Figs 32–33). Gonocoxite IX with two ventral ensiform setae in female.

REDESCRIPTION. Not yet ripe because of very limited material.

DISTRIBUTION. Eastern India (Assam) to the Sunda Isles and the Philippines.

HABITATS AND HABITS. No exact data.

COMMENTS. This genus is here treated in a strict sense, with seven Oriental species included in. Except for *A. albomaculata* (Anichtchenko et Sciaky, 2024), these have the pronotal lateral seta neither indicated in the description nor observed by me in tree specimens of the following two species examined.

[8. *Anacolliuris tetraspilota* (Schmidt-Göbel, 1846)]

Figs 10, 32–33.

Schmidt-Göbel, 1846: 19 (*Casnonia*; Burma); Chaudoir, 1848: 49; Andrewes, 1923: 3 (*Arame*); 1930a: 232 (*Odacantha*); Liebke, 1938: 62 (*Colliuris* subg. *Anacolliuris*); Jedlička, 1964: 493; Lorenz, 1998: 418 (*Archicolliuris*); Kirschenhofer, 1996: 777 (*Anacolliuris*).

MATERIAL. ♂, ♀ (MPSU), Thailand, Suratthani Province, Khao Sok, at light, 3.XI.1996 (M. Mostovsky).

DIAGNOSIS. Body shiny black, large, BL 8.7–8.8 mm in all specimens examined (or seen from digital images), and slender, pronotum very slender, elytra each with two pale spots and distinct, though superficial, isodiametric microsculpture, legs red.

REDESCRIPTION. Body (Fig. 10) shiny black, elytra dark brown, each with two whitish-yellow spots, anterior oblong, on interval 5 two fifths from base, enclosed with striae convex on each side, posterior slightly oblong, almost round on intervals 5–6 a fourth from apex; brown colour slightly extended from outside of anterior spots toward humeri. Legs and antennomeres 1–4 reddish-yellow, mandibles, rest of antennae, elytral epipleura in their posterior, narrow parts, and reflexed lateral-to-apical margins except at extreme edges reddish-brown rather pale. Meshed microsculpture absent from head, very superficial, partly obliterate, consisting of moderately transverse meshes, over pronotum, superficial yet distinct on elytra, more distinct at their bases.

Head round, slightly longer than wide, genae convex, almost indistinctly sinuate just in front of neck constriction, slightly shorter than large eyes. Frontal foveae as fairly wide, fairly deep, round pits extended behind into wide, rather shallow, divergent grooves separated by an oblique convexity from anterior supra-ocular seta; V-shaped impression obliterate anteriorly, deep behind. Supra-ocular carina as long as 2/3 eye. Posterior supra-ocular seta on a level with posterior margin of eye.

Prothorax oblong and tapered, with a deeper basal constriction and a shallow apical one, densely cross-striated, with moderately dense yet rather fine punctures, in basal three fourths, almost smooth in front. Lateral groove shallow in about apical half, obliterate, with fine to vestigial notopleural suture only traceable, behind. Sides (corresponding to prothoracic notopleura) and prosternum except along middle coarsely and densely punctate. Median line obliterate basally and apically, vestigial in between.

Elytra long, wider and shorter in female than in male, with a distinct impression across striae 1–5 a third from base; apical truncations sinuate inside obtuse and sharp outer angles, minutely tuberculate; sutural angles slightly acute, with extreme apices blunted. Striae fine, deeper close to apex, moderately punctate in basal half, more finely behind. Intervals flat, those 7 and 8 outside preapical spot, stria 7 more shallow within this spot than before and behind.

Aedeagus (Figs 32–33) and female genitalia as described for the genus above. Female reproductive tract similar to that of *Archicolliuris*, *Ophionaea* and *Essora* due to apical bulb of a bipartite spermatheca is small, much smaller than a balloon-like basal bulb.

DISTRIBUTION. Myanmar, Thailand, India (Garó Hills, Meghalaya; Andaman Is.).

HABITATS AND HABITS. No data.

COMMENTS. The dorsal microsculpture was not originally described for this species, nor mentioned afterwards [Andrewes, 1923]. Dr. J. Hájek has kindly inform me that both syntypes have the elytra with a distinct polygonal microsculpture, which may be true of three specimens compared by Andrewes with the syntypes, including two from either 'Tura, Garó Hills...', or 'Andaman Is.' Natural History Museum [2014].

9. *Anacolliuris nitida* Fedorenko, sp.n.

Fig. 11.

MATERIAL. Holotype ♀ (SIEE), 'S[outh] Vietnam, N[orthern part of] Dong Nai Pr[ovince]./ Nam Cat Tien Nat[ional]. Park/ Exped[ition of]. Russ[ia].-Vietnamese/ Tropical Centre/ W[indow]T[traps] 1–3 26.X–17/ leg. D. Fedorenko .XI.2004'.

DIAGNOSIS. No differences from *A. tetraspilota* other than elytral microsculpture only traceable at base, with vague traces just in front of apical truncations, and anterior spot small (Fig. 11). For other details see below.

DESCRIPTION. BL 8.8 mm. Body shiny black, elytra each with two, round, yellowish spots, anterior very small. Lateral groove traceable in apical two thirds, notopleural suture imperceptible.

Elytra with outer angle minutely toothed and sutural angles pointed, anterior transverse impression spanning striae 1–4. DISTRIBUTION. Known from the type locality only.

NAME. Refers to shiny dorsum.

HABITATS AND HABITS. The only female specimen was taken by window-trapping in a semideciduous monsoon tropical forest gap.

COMMENTS. Great similarity between this species and *A. tetraspilota* may suggest their subspecies status.

Compliance with ethical standards

Ethical approval: No ethical issues were raised during our research.

Acknowledgements. I am much obliged to Dr. Boris Kataev (ZISP), Dr. Kirill Makarov (MPSU), Dr. Roman Dudko (ISEA), Mr. Igor Melnik, Dr. Alexander Prosvirov,

and Mr. Alexander Sokolov (Moscow) for the loan of material under their care and/or specimens donated. I express my cordial thanks also to Dr. Jiří Hájek (Národní Muzeum, Praha) for information about type specimens of *Anacolliuris tetraspilota*.

References

- Anagha V.S.S., Sabu Th.K. 2024. Additions to the taxonomy of the genus *Ophionea* Klug, 1821 (Coleoptera: Carabidae: Lebiinae) and a new species from India // Zootaxa. Vol.5437. No.4. P.523–536.
- Andrewes H.E. 1919. Papers on Oriental Carabidae. — I // Ann. Mag. Nat. Hist. Ser.9. Vol.3. P.469–483.
- Andrewes H.E. 1921. Notes on synonymy and on some types of Oriental Carabidae in various foreign collections // Trans. Ent. Soc. Lond. P.145–195.
- Andrewes H.E. 1923. On the types of Carabidae described by Schmidt-Goebel in his Faunula Coleopterorum Birmaniae // Trans. Ent. Soc. Lond. P.1–63.
- Andrewes H.E. 1924. Insectes Coleopteres, Carabidae // Mission Guy Babault dans les provinces centrales de l'Inde et dans la région occidentale de l'Himalaya 1914. Résultats scientifiques. Paris. P.1–123, pl.1–4.
- Andrewes H.E. 1928. Papers on Oriental Carabidae. — XXI // Ann. Mag. Nat. Hist. Ser.10. Vol.2. P.586–590.
- Andrewes H.E. 1929a. Fauna Sumatrensis. (Beitrag Nr.64). Carabidae (Col.) // Tijdschr. Entomol. Jg.72. S.303–340.
- Andrewes H.E. 1929b. Papers on Oriental Carabidae. — XXI // Ann. Mag. Nat. Hist. Ser.10. Vol.4. P.353–371.
- Andrewes H.E. 1930a. Catalogue of Indian Insects. Calcutta: Government of India. XXII + 389 + 4 pp.
- Andrewes H.E. 1930b. Fauna Buruana. Coleoptera, Fam. Carabidae // Treubia. Vol.7, Suppl. P.331–347.
- Andrewes H.E. 1933. A Catalogue of the Carabidae of Sumatra // Tijdschr. Entomol. Jg.76. P.319–382.
- Andrewes H.E. 1947. Entomological results from the Swedish Expedition 1934 to Burma and British India // Arkiv zool. Bd.38A. Nr.20. P.1–49. Pl.1–6.
- Anichtchenko A., Sciaky R. 2024. Contribution to the knowledge of the Philippines species of the tribe Odacanthini Laporte, 1834 (Coleoptera: Carabidae) // Zootaxa. Vol.5493. No.4. P.328–344.
- Baehr M. 1996. The Ground Beetle Genus *Casnoidea* Castelnau: Taxonomy, Phylogeny and Zoogeography (Insecta: Coleoptera: Carabidae: Odacanthinae) // Invertebrate Taxonomy. Vol.10. P.1041–1084.
- Baehr M. 1997. A new species of the genus *Casnoidea* Castelnau from Java (Coleoptera, Carabidae, Odacanthinae) // Entomofauna. Bd.18. H.22. P.385–392.
- Baehr M. 2003. New taxa and new records of Odacanthinae from Sulawesi (Insecta, Coleoptera, Carabidae) // Spixiana. Bd.26. H.1. P.57–63.
- Baehr M. 2009. New genera and species and new records of odacanthine carabid beetles from the Australian, Papuan, and Oriental Regions (Coleoptera, Carabidae, Odacanthini) // Spixiana. Vol.32. Is.2. P.201–229.
- Bates H.W. 1873. On the Geodephagous Coleoptera of Japan // Trans. Ent. Soc. Lond. P.219–322.
- Bates H.W. 1886. On the geodephagous Coleoptera collected by Mr. George Levis in Ceylon // Ann. Mag. Nat. Hist. London. Ser.5. Vol.17. P.199–212.
- Bates H.W. 1889. Contributions a la faune Indo-Chinoise. 3^e Mémoire. Carabidae // Ann. Soc. Ent. France. Sér.6. T.9. P.261–286.
- Bates H.W. 1892. Viaggio di Leonardo Fea in Birmania e regione vicine. XLIV. List of the Carabidae // Ann. Mus. Stor. Nat. Genova. Ser.2. Vol.12(32). P.267–428.
- Bedel L. 1910. Sur l'*Ophionea Chaudoiri* Bohem. et sur quelques genres du groupe des *Colliuris* Degeer (Col. Carabidae) propre à la Nouvelle-Guinée // Bull. Soc. Ent. Fr. P.71–72.
- Brullé A. 1834 / Audouin J. V., Brullé G. A. Histoire naturelle des insectes, traitant de leur organisation et de leurs moeurs en général, et comprenant leur classification et la description des espèces. T.4. Coléoptères. I. Paris: F.D. Pillot. P.1–240.

- Chaudoir M. 1848. Mémoire sur la famille des Carabiques // Bull. Soc. Nat. Mosc. T.21. No.1. P.3–134.
- Chaudoir M. 1850. Mémoire sur la famille des Carabiques, 2 // Bull. Soc. Nat. Mosc. T.23. No.1. P.1–85.
- Csiki E.v. 1932. Carabidae. Harpalinae VII / W. Junk, S. Schenklung (Hrsg.). Coleopterorum Catalogus. Vol.3. Pt.124. Berlin: W. Junk. S.1279–1598.
- Darlington P.J. 1968. The Carabid beetles of New Guinea Part III. Harpalinae (continued): Perigonini to Pseudomorphini // Bull. Mus. Harvard. V.137. N.1. P.1–253.
- Dejean P.F.M.A. 1825. Species général des Coléoptères de la Collection de M. le Comte Dejean. T.1. Paris. xxx + 463 p.
- Donabauer M. 1996. Beschreibung zweier philippinischer Colliurinen (Coleoptera: Carabidae) // Koleopt. Rundsch. Bd.66. S.1–6.
- Dupuis P. 1913. Notes sur les carabiques des Iles Philippines // Ann. Soc. Ent. Belg. T.57. P.270–277.
- Eschscholtz J.F. von. 1829. Zoologischer Atlas, enthaltend Abbildungen und Beschreibungen neuer Thierarten, während des Flottcapitains von Kotzebue zweiter Reise um die Welt, auf der Russisch-Kaiserlichen Kriegsschiff Predpriaetie in den Jahren 1823–1826. H.1. Berlin: G. Reimer. iv + 17 S. Pl.1–5.
- Fabricius J.C. 1798. Supplementum entomologiae systematicae. Hafniae: C.G. Proft et Storch. ii + 572 p.
- Fabricius J.C. 1801. Systema eleutheratorum secundum ordines, genera, species; adiectis synonymis, locis, observationibus, descriptionibus. Kiliae: Bibliopolii Academici Novi. T.1. xxiv + 506 p.
- Gestro R. 1875. Note sopra alcuni carabici appartenenti al Museo Civico di Genova con descrizioni di specie nuove // Ann. Mus. Stor. Nat. Genova. Vol.7. P.850–894.
- Habu A. 1961. 1. Family Carabidae // Chûjô M. Coleoptera from Southeast Asia. Nature and life in Southeast Asia, 1. P.265–300.
- Habu A. 1962 [1961]. Odacanthini of Japan (Coleoptera, Carabidae) // Bull. Nat. Inst. Agr. Sci. Ser.C. No.13. P.91–126.
- Habu A. 1963. On *Archicolliuris bimaculata* (Redtenbacher) from Japan // Kontyû. Vol.31. P.174–175.
- Habu A. 1967. Carabidae Truncatipenne group (Insecta, Coleoptera). Fauna Japonica. Biogeographical Society of Japan. Tokyo. xiv + 338 pp + 27 pl.
- Habu A. 1982. Revised and supplementary notes on and descriptions of the Truncatipennes group of Japan (II) (Coleoptera, Carabidae) // Ent. Rev. Japan. Vol.37. No.2. P.83–118.
- ICZN. 1999. International Code of Zoological Nomenclature. 4th Edition. London: The International Trust for Zoological Nomenclature. 124 p.
- Jakobson G.G. 1908. [Beetles of Russia and West Europe] Zhuki Rossii i Zapadnoi Evropy. Fasc.6. Saint-Petersburg: A.F. Devrien. P.401–480 [in Russian].
- Jeannel R. 1948. Coléoptères Carabiques de la Région Malgache. (Pt.2) // Faune de l'Empire Français. T.10. Paris. P.373–765.
- Jedlička A. 1964. Monographie der Truncatipennen aus Ostasien. Lebiinae — Odacanthinae — Brachininae (Coleoptera, Carabidae) // Ent. Abh. Mus. Dresden. [1963–1964] Bd.28. Nr.7. S.305–579.
- Kirschenhofer E. 1994. Neue und wenig bekannte Carabidae aus der paläarktischen und orientalische Region (Col. Carabidae, Lebiinae, Odacanthinae, Brachininae, Panagaeinae) // Linzer biol. Beitr. Bd.26. H.2. S.99–1067.
- Kirschenhofer E. 1996. Weitere neue und wenig bekannte Carabidae aus Süd- und Südostasien (Coleoptera: Carabidae: Lebiinae, Colliurinae, Callistinae, Hexagoninae, Brachininae, Panagaeinae). II. Teil. // Linzer biol. Beitr. Bd.28. H.2. S.757–799.
- Kollar V., Redtenbacher L. 1844. Aufzählung und Beschreibung der von Freiherrn Carl v. Hügel auf seiner Reise durch Kaschmir und das Himalayagebirge gesammelten Insecten // Hügel C. Kashmir und das Reich der Siek, von Carl Freiherrn von Hügel in vier Bänden. Bd.4. Abt.2. Stuttgart: Hallberger. S.395–564, 28 pls.
- Klug J.C.F. 1821. Entomologiae Brasilianae specimen // Verh. Kaiser. Leop.-Carol. Akad. Naturf. Bd.10. Abt.2. S.279–324.
- Laporte F.L.N. de Castelnau. 1834. Etudes entomologiques, ou description d'insectes nouveaux; et observations sur leur synonymie. Paris: Mequignon-Marvis. 159 p., 4 pls.
- Lacordaire J.T. 1854. Histoire naturelle des insectes. Genera des Coléoptères ou exposé méthodique et critique de tous les genres proposés jusqu'ici dans cet ordre d'insectes. T.1., contenant les familles des cincidélètes, carabiques, dytiscides, gyridés et palpicornes. Paris: Roret. XX+486 pp.
- Liebke M. 1931. Die afrikanischen Arten der Gattung *Colliuris* Degeer (col. Car.) // Rev. zool. bot. Afr. Vol.20. Fasc.3. S.280–301.
- Liebke M. 1938. Denkschrift über die Carabiden-Tribus Colliurini // Festschrift zum 60. Geburtstage von Professor Dr. Embrik Strand. Riga. Bd.4. S.37–141.
- Lorenz W. 1998. Systematic list of extant ground beetles of the world (Insecta Coleoptera "Geadephaga": Trachypachidae and Carabidae incl. Paussinae, Cicindelinae, Rhysodinae). 1st ed. Tutzing. 502 pp.
- Lorenz W. 2005. Nomina Carabidarum. A directory of the scientific names of ground beetles. (Insecta, Coleoptera "Geadephaga": Trachypachidae incl. Paussinae, Cicindelinae, Rhysodinae). 2nd Edition. Tutzing. 993 p.
- Louwerens C.J. 1956. Carabidae (Col.) from Ceylon. Results of a voyage to Ceylon 1953/54 by F. Keiser // Verh. Natur. Ges. Basel. Vol.67. P.41–48.
- Louwerens C.J. 1964. An annotated list of the Carabidae, chiefly collected in East Borneo by Dr Eric Mjöberg with descriptions of new species // Entomol. Tijds. Arg.85. H.3–4. P.181–189.
- Maindron M. 1910. Description d'une nouvelle espèce du genre *Ophionaea* Eschsch. (Col. Carabidae) prope à la Nouvelle-Guinée // Bull. Soc. Ent. Fr. P.34–35.
- Natural History Museum. 2014. *Specimens* (from *Collection specimens*) [Data set resource]. Natural History Museum. <https://data.nhm.ac.uk/dataset/collection-specimens/resource/05ff2255-c38a-40c9-b657-4ccb55ab2feb>.
- Oberthur R. 1883. Carabides nouveaux récoltés a Serdang (Sumatra oriental) par M. B. Hagen // Not. Leyd. Mus. Vol.5. P.215–224.
- Schmidt-Göbel H.M. 1846. Faunula Coleopterorum Birmaniae, adjectis nonnullis Bengaliae indigenis. P.i–viii, 1–94, 3 pls.
- Sloane T.G. 1917. Carabidae from tropical Australia. (New Genera and Species, notes and synonymy, and synoptic tables. Tribes Scaritini, Harpalini, Odacanthini, Lebiini, and Helluonini) // Proc. Linn. Soc. N.S.W. Vol.42. P.406–438.
- Terada K., Wu Wen-Jer. 2014. Notes on Taiwanese Caraboidea (Coleoptera) V. Review of the tribe Odacanthini (Carabidae) in Taiwan, with description of *Ophionaea bhamoensis taiwanensis* subsp. nov. // Coll. and Res. Vol.27. P.15–41.
- Thunberg C.P. 1784. Dissertatio entomologica novae insectorum species sistens. ... Upsaliae: Joh. Edman. P.53–68 + 1, Pl.3.