

Contribution to the knowledge of Oriental and Austro-Papuan *Eophileurus* Arrow (Coleoptera: Scarabaeidae: Dynastinae), with descriptions of two new species

Stanislav JÁKL & Jiří ZÍDEK

stanley.jakl@seznam.cz, jrsidek@gmail.com

Scarabaeidae, Dynastinae, *Eophileurus*, Oriental Region, Austro-Papuan Region, taxonomy, new species, checklist, new records

Abstract. *Eophileurus tanimbaricus* sp. n. from the Tanimbar Archipelago and *E. mentawaicus* sp. n. from the Mentawai Archipelago are described, illustrated and compared with their closest congeners. An updated checklist of the genus is presented, and new records are provided for *Eophileurus javanus* Prell, 1913, *E. sondaicus* Prell, 1913 and *E. spinosus* Lamant-Voirin, 1995. Aedeagi of *Eophileurus fenicheli* Endrödi, 1977, *E. montanus* Prell, 1913 and *E. nilgirensis* Arrow, 1908 are re-illustrated to supplement the available schematic and inaccurate drawings.

INTRODUCTION

The genus *Eophileurus* was established by Arrow (1908). Two more comprehensive studies were published by Endrödi (1977a, 1985), and subsequently the genus was reviewed by Yamaya & Muramoto (2008a), who illustrated the habitus and aedeagi of about two-thirds of the species, described five new species, and tentatively divided the genus into three species groups and three subgroups. Most recently, Dupuis (2014) described two new species from India.

The genus is characterized by the clypeus in front obtusely pointed and slightly upturned, frons with a short median horn or a tubercle, antenna 10-segmented and with a short club, mandibles nearly triangular and laterally acuminate, pronotum with all margins bordered and in males with a small to large frontomedial depression, elytra more-or-less flattened and punctate, propygidium without a stridulatory area, legs slender, protibia tridentate, male protarsi thickened and the inner claw broad, strongly curved and cleft, and metatibial termination strongly spinose. Species-level characters include the sculpture of the dorsum, shape of the clypeus, shape and size of the frontal horn and of the pronotal depression, shape, size and number of spines on the meso- and metatibial terminations, and structure of the aedeagus. Males are easier to identify than females, whose habitus is so similar that identification often requires precise locality data. According to Endrödi (1985: 662) such data are helpful because usually only one species occurs at a locality.

Two Indonesian species, one from the Yamdena Island in Tanimbar Archipelago and the other from the Siberut Island in Mentawai Archipelago, are described below as new. They both have been collected by sifting through debris of hollowed dying trees and logs. Entomological survey of both type localities spanned several months with daily light trapping, yet not even a single specimen of *Eophileurus* came to lights although the trees and logs which produced live specimens were only 20-50 m away from the traps.

MATERIAL AND METHODS

Specimens of the new species are provided with one printed red label for the holotype and one printed yellow label for the paratypes. Each holotype and paratype label gives the name of the species, sex symbol, paratype number, and "Stanislav Jákł & Jiří Zídek det. 2014". Exact label data are cited for the material examined. Labels are separated by double slashes and their lines are separated by single slashes. All specimens are deposited in the first author's collection.

The following species were compared with those described in the present paper: *Eophileurus baliensis* Yamaya & Muramoto, *E. dentatus* Blackburn, *E. fenicheli* Endrödi, *E. howdeni* Yamaya & Muramoto, *E. javanus* Prell, *E. sondaicus* Prell and *E. sumbalianus* Endrödi.

TAXONOMY

Eophileurus tanimbaricus sp. nov.

(Figs. 1-5)

Type locality. Indonesia, S. Moluccas, Tanimbar Archipelago, Yamdena Island, 21 km NE of Saumlaki.

Type material. Holotype male labelled "Indonesia, Tanimbar isls., 150 m / YAMDENA isl., Lorulun vill.env. / 21 km NE of Saumlaki, 10.-23. / 12.2006, St. Jakl lgt." Paratypes Nos. 1-2 (females) labelled same as holotype. Paratypes Nos. 3-4 (males) and Nos. 5-6 (females) labelled "Indonesia, Tanimbar isls., 150 m / YAMDENA isl., Lorulun vill. env. / 21 km NE of Saumlaki, 15.12.06 / - 15.1.07, St. Jakl lgt."

Description of holotype. Length (measured from apex of clypeus to apex of elytra) 24 mm, maximum elytra width (in posterior third) 12 mm. Black, glossy, elongate oval.

Head. Black with strong lustre, punctation very fine and sparse, laterally with few transverse wrinkles. Apex of clypeus nearly straight, very slightly rounded, front margin briefly elevated. Mandibles triangular, sharp, reflexed. Frontal horn robust and rather sharp. Antennae short, black, with reddish setae.

Pronotum. Black, glossy, all margins bordered. Punctation fine and sparse, spaces between punctures exceed three to eight times puncture diameters. Anterolateral margins finely wrinkled. Frontal depression large and deep, reaching approximately midlength, its punctures sparse and semicircular. Posterior half of disc with indistinct sagittal furrow. Setation absent except reddish setae on lateral margins.

Scutellum. Semioval, black, glossy, impunctate, central part depressed.

Elytra. Black, glossy, nearly parallel-sided. Punctation denser than on pronotum. Disc with irregular lines of fine and simple and horse-shoe shaped punctures. Sides more densely sculptured, but shape and size of punctures similar. Punctation of apex denser, punctures larger and mostly circular. Sutural ridge flat throughout length, its lustre stronger, punctation very fine and sparse, some micropunctures present. Humeral calli flat. Apical calli distinct, their punctation very sparse. Reddish setae present throughout length, all setae very short and fine, their density increases in posterior half.

Pygidium. Rather obtuse, dark brown. Punctation fine, simple, sparse, laterally with fine striolae. Setae short, yellowish to reddish.

Venter. Chestnut brown, with reddish setation. Abdomen with simple sparse punctures on each ventrite, sides with medium long reddish setae. Punctation and setation of mesosternum and prosternum much denser. Metasternum with simple, rather large and deep punctures. Sides of mesosternum deeply and densely granulate, with abundant reddish setae. Metasternal process simple, small, triangular, impunctate, black. Prosternum partly granulate and partly striolate, mentum deeply punctured.

Legs. Femora and coxae chestnut brown, with fine, sparse punctures. Posterior carina of femur with reddish setation. Tibiae and tarsi black, glossy. Protibia tridentate, all teeth sharp, robust and evenly spaced. Mesotibia with three lateral carinae, proximal carina rather indistinct, middle carina with four spines, distal carina with six spines. Metatibia similarly carinate. Protarsi

thickened, claws asymmetrical. Meso- and metatarsi more slender. Dense reddish setation present especially on medial sides of meso- and metatibiae.

Aedeagus. Parameres complex, most similar to *E. fenicheli* Endrödi and *E. dentatus* Blackburn, differing from them mainly by lateral parts in distal half less extended and apices straight.

Variability. Both male paratypes slightly smaller (23.5 mm), otherwise do not differ from the holotype.

Sexual dimorphism. Females 23-25.3 mm long. Pronotal depression absent, protarsi not thickened. Head with rather dense transverse striolation (in males fine, sparse punctation). Anterior margin of pronotum with deep transverse striolation (in males punctation). Elytra and venter with deeper and denser punctation than in males.

Differential diagnosis. Two species are relatively close to the new species: *E. dentatus* Blackburn (Figs. 6-9) from Cape York and N. Queensland, Australia, and *E. fenicheli* Endrödi (Figs. 10-13) from Papua New Guinea. *Eophileurus dentatus* can be easily separated from the new species by its much bigger size (26-32 mm), denser punctation of pronotum, elytra and pygidium with larger puncture diameters, and differently shaped parameres (Figs. 8-9). *Eophileurus fenicheli* can be distinguished from the new species also by denser punctation of pronotum, elytra and pygidium with larger puncture diameters, smaller pronotal depression (not reaching midlength), black colour of dorsum (brownish tinge in *E. tanimbaricus*) and differently shaped parameres (Figs. 12-13). Distributions of the three species also differ. Females of these species can be separated on colour of the venter, density of punctation, and size. Brown venter, fine punctation of the abdomen and finer punctation of the head, pronotum and elytra result in more glossy appearance and distinguish females of the new species from its two congeners.

Etymology. Named for the remote Tanimbar Archipelago in the southern Moluccas.

Distribution. Indonesia, S. Moluccas, Tanimbar Archipelago, Yamdena Island.

***Eophileurus mentawaiicus* sp. nov.**

(Figs. 14-18)

Type locality. Indonesia, Mentawai Islands, Siberut Island (north part), Bojakan vill. env., 150 m alt.

Type material. Holotype male labelled "Indonesia, MENTAWAI ISLS. / N.SIBERUT, BOJAKAN env. / 150 m alt., 12.2007 / St. Jakl Igt." Paratype No.1 (female) labelled "Indonesia, Mentawai isls. / SIBERUT ISL., north, 50-200 m / BOJAKAN VILL.ENV.5.2004 / St. Jakl Igt." Paratypes Nos. 2-3 (females) labelled same as holotype.

Description of holotype. Black, medially glossy, slender, elongate oval. Length (measured from apex of clypeus to apex of elytra, excluding pygidium) 21.3 mm, maximum width of elytra 10 mm (in posterior third).

Head. Black, glossy, striolate throughout length. Frons with shorter, more-or-less longitudinal striolation, clypeus with longer, more-or-less transverse striolae. Frontal horn slightly inclined backwards. Medial margin of clypeus rounded, slightly elevated. Mandibles rather sharp, with lateral edges weakly emarginate. Antennae short, scape and club reddish brown, rest of pedicel and funicle dark brown, setation sparse, short, yellowish.

Pronotum. Black, glossy, widest approximately at midlength. Punctuation simple, rather deep, medially dense. Spaces between punctures on disc approximately two to five times puncture diameters, laterally less. Anterior and anterolateral margins with dense, more-or-less transverse striolation. All margins bordered. Frontomedial depression shallow and short, reaching approximately one-fifth pronotal length.

Scutellum. Black, small, as long as wide, base with few simple punctures, apex and centre impunctate.

Elytra. Black, glossy, more-or-less oval. Punctuation medially dense, each elytron with seven lines (including sutural ridge line) lines of mostly horse-shoe shaped punctures and some small simple punctures scattered throughout length. Sides without wrinkles. Punctuation of apex denser, punctures rather large, circular, combined with tiny simple punctures. Suture flat, its punctuation simple and rather dense. Humeral calli obtuse, apical calli more distinct.

Pygidium. Black, convex, covered with short yellowish setae. Base striolate, disc with semicircular punctures, apex almost glabrous.

Venter. Dark brown to black, punctuation medially present, setae short, very sparse. Anterior margins of ventrites with closely spaced semicircular punctures, midparts and posterior margins with sparse, simple punctures. Setation of abdomen nearly absent. Mesosternum more densely punctate, its sides striolate, medially with rather dense, simple punctuation. Setae very scarce. Prosternum and mentum striolate at sides, densely punctate medially, setation brownish, very short but rather dense.

Legs. Long and slender. Femora and coxae dark brown, tibiae and tarsi black. Protibia tridentate, all teeth sharp, evenly spaced. Meso- and metatibiae with three subhorizontal carinae and two terminal spurs, metatibial spurs distinctly longer. Terminations of meso- and metatibiae with seven and eight small spines, respectively. Protarsi thickened, meso- and metatarsi slender, elongate.

Aedeagus. Belongs to group of species with simpler parameres, medial side of each paramere bears 10 (some very small) sharp denticles (Figs. 9-10).

Variability. See sexual dimorphism.

Sexual dimorphism. Females 21.9-24.8 mm long. Pronotal depression absent, protarsi not thickened. Punctuation of venter slightly denser. Other dimorphism absent, punctuation and striolation of head, pronotum and elytra very similar to the male.

Differential diagnosis. The new species is close to *E. javanus* Prell (Figs. 19-22) and *E. baliensis* Yamaya & Muramoto (Figs. 23-26), from which it can be distinguished by the shape of the parameres. Whereas in the two named species the parameres run in the apical third almost in parallel and medially bear six to eight denticles (Figs. 21, 25), in the new species they gradually taper and bear 10 denticles (Fig. 17). The pronotal depressions of *E. javanus* and *E. baliensis* span one-third of length, while in the new species the depression spans only one-fifth the pronotal length. The meso- and metatibiae of *E. javanus* and *E. baliensis* always bear rather long brownish setae on medial sides (15 females of *E. javanus* and *E. baliensis* were available for study), which are absent in the new species.

Etymology. Named for the Mentawai Archipelago.

Distribution. Indonesia, West Sumatra Province, Mentawai Archipelago, Siberut Island (north part).

NEW DATA ON OTHER SPECIES

Of the 48 to 50 valid species over 30 are known from only a few specimens and some from only one sex. The reasons for the scarcity of specimens in collections are cryptic habits (most of the adult life is spent in hollows of old trees), the need for undisturbed habitat, and very weak or no attraction to lights.

Yamaya & Muramoto (2008a) stated that for the species they illustrated males of *E. fenicheli*, *E. gracilis*, *E. platypterus* and *E. quadrigeminatus* are not known, which is true only of *E. gracilis*. Males of the other three species were known already to Endrödi (1985) who illustrated their aedeagi, but only in dorsal (his frontal) views and quite schematically. Species for which males remain unknown are only *E. convexus*, *E. gracilis* and *E. variolipennis*, but since Endrödi's drawings of aedeagi of some other species are inaccurate, we supplement them with photos of at least those presently available to us – *E. fenicheli* (Figs. 12-13), *E. montanus* (Figs. 29-30) and *E. nilgirensis* (Figs. 33-34), which were not included by Yamaya & Muramoto (2008a). Paramere-wise, *E. fenicheli* groups with *E. tanimbaricus* and *E. dentatus*, and *E. montanus* is very similar to *E. assamensis*. Parameres of *E. nilgirensis* are not similar to any other species.

The following three species have been collected in locations other than those previously published:

Eophileurus javanus Prell, 1913 (Figs. 19-22) was described from Java. Yamaya & Muramoto (2008) reported this species also from the Nias Island west of Sumatra, but the insect fauna there is rather different and misidentification thus cannot be ruled out. We examined one male collected in the Bawean Island north of central Java, labelled "Indonesia, Java / BAWEAN ISL. / IX.2010/local collector leg", and two males from the Kangean Archipelago labelled "INDONESIA, E Java pr. / KANGEAN ISLS. / V.2005 / Local collectors leg" and "Indonesia, XII.2006 / East Java prov. / KANGEAN ISLS. / local collector lgt". These three specimens represent **new island records**.

Eophileurus sondaicus Prell, 1913 (Figs. 35-38) was described from the Lesser Sunda and recently found also in Lombok and Flores. We examined two males and one female from the Sanggeang Island north of Sumbawa Island, all three labelled "Indonesia, SANGGEANG ISL. / SW coast, N of Sumbawa / 1.-2.2007, local collectors lgt". They represent a **new island record**.

Eophileurus spinosus Lamant-Voirin, 1995 (Figs. 39-42) was described from northern Thailand and reported by Yamaya & Muramoto (2008) also from the Yunnan Province of China. We examined five males and three females from "NE LAOS, Huaphanne Pr. / MT. PHU PANE 1200 / -1900 m, 31.V.-11.Vi.2011 / 20 12N 103 59 E / St.Jákl et lao collectors leg", which represent a **new country record**.

UPDATED CHECKLIST

Invalid names are offset by emdashes. All papers containing original descriptions are cited in the References.

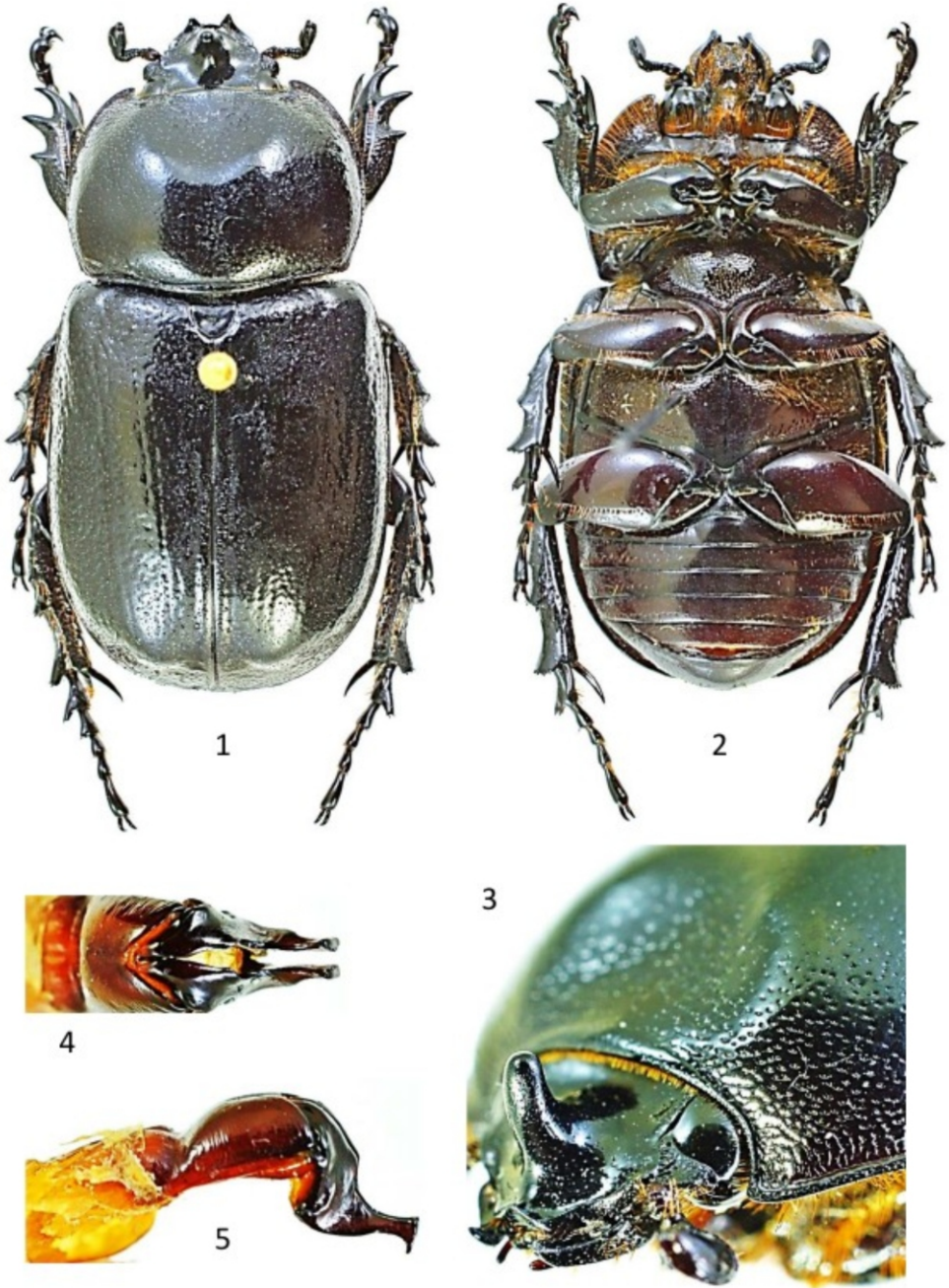
***Eophileurus* Arrow, 1908: 332** (type sp. *Geotrupes planatus* Wiedemann)
akitai Yamaya & Muramoto, 2008a: 9; Malay Peninsula, Sumatra
-andamanicus Arrow, 1914: 261; = *E. gracilis*
assamensis (Fairmaire, 1898: 384), *Trionychus*; e. India
-australicus Prell, 1913: 119; = *E. dentatus*
?baliensis Yamaya & Muramoto, 2008a: 9; Bali [= *E. javanus*?]

- baolocensis* Muramoto, 2004: 21; Vietnam
birmanicus Lamant-Voirin, 1995: 147; Burma
borneensis Endrödi, 1977a: 108; Borneo (Kalimantan)
celebensis Arrow, 1914: 259; Sulawesi
chinensis chinensis (Faldermann, 1835: 370), *Phileurus*; China, Japan, Korea, Taiwan, e. Siberia
chinensis ssp. *okinawanus* Nomura, 1964: 57; Okinawa
cingalensis Arrow, 1910: 333; Sri Lanka
cingalensis ssp. *decatenatus* Arrow, 1910: 291, as sp.; s. India [comb. n. Endrödi 1977a: 101]
confinis Prell, 1913: 114; Cambodia, China, Thailand, Vietnam
convexus (Arrow, 1900: 320), *Phileurus*; Australia (Christmas I.) [male unknown]
dechambrei Dupuis, 2014: 16; India (Bengal)
–*decipiens* Prell, 1913: 115; = *E. confinis*
dentatus (Blackburn, 1895: 43), *Semanopterus*; n. Queensland
felschei Prell, 1913: 111; India (Delhi, Madras)
fenicheli Endrödi, 1977a: 109; Papua New Guinea (Oriomo River)
forsteri Endrödi, 1971: 13; Nepal
gracilis Prell, 1913: 116; India (Andaman Is.) [male unknown]
grossepunctatus Dupuis, 2014: 13; India (Shimoga)
heyrovskyi Král & Strnad, 1992: 3; China, Vietnam
himalayanus Endrödi, 1977a: 105; e. India
howdeni Yamaya & Muramoto, 2008a: 8; Malay Peninsula, Borneo, Sumatra
–*irregularis* Prell, 1913: 23; = *E. chinensis*
iwasei Muramoto, 1995: 225; Philippines (Luzon, Leyte, Mindanao)
javanus Prell, 1913: 118; Bawean I., Java, Kangean Is., Nias, Sumatra
kachinensis Yamaya & Maeda, 2006: 42; Burma
–*katsurai* Muramoto, 1995: 223; = *E. heyrovskyi*
malayanus Yamaya & Muramoto, 2008a: 7; Malay Peninsula
malyi Endrödi, 1978: 184; Laos, Thailand
mentawaicus Jákl & Zidek, **sp. nov.**; Indonesia (Siberut I.)
montanus Prell, 1913: 113; e. India
–*morio* (Faldermann, 1835: 371), *Phileurus*; = *E. chinensis* female
multidentatus Miyake & Yamaya, 1993: 38; Borneo (Sabah)
nicobarensis Endrödi, 1977a: 106; India (Nicobar Is.)
niii Yamaya & Muramoto, 2008b: 95; Java
nilgirensis Arrow, 1908: 334; India
oblongus Lamant-Voirin, 1995: 150; Burma
? *pectoralis* Arrow, 1914: 260; India (Assam), Thailand [= *E. variolipennis*?]
perforatus Arrow, 1908: 332; s. India
planatus (Wiedemann, 1823: 5), *Geotrupes*; Burma, e. India
platypterus (Wiedemann, 1823: 5), *Geotrupes*; e. India
–*poteli* (Fairmaire, 1898: 384), *Trionychus*; = *E. chinensis*
quadrigeminatus Arrow, 1914: 260; Vietnam (Tonkin)
–*siamensis* Arrow, 1914: 261; = *E. confinis*
sondaicus Prell, 1913: 118; Lesser Sunda, Flores, Lombok, Sanggeang Is.
spatulicornis Lamant-Voirin, 1995: 150; China, Thailand
spinus Lamant-Voirin, 1995: 148; China (Yunnan), Laos, Thailand
sukitti Yamaya & Maeda, 2006: 43; Burma
sumbainus Endrödi, 1977b: 8; Indonesia (Sumba I.)
takakuwai Yamaya & Muramoto, 2008a: 10; Burma
tanimbaricus Jákl & Zidek, **sp. nov.**; Indonesia (Yamdena I.)
tenuiformis Yamaya & Maeda, 2006: 42; Burma
tetraspermexitus Ratcliffe, 1988: 46; China, Burma
thailandensis Endrödi, 1978: 183; Thailand
–*tibialis* Y.-W. Zhang, 1991: 182, as *Tetradontus* sg. n.; = *E. tetraspermexitus*
variolipennis Prell, 1913: 117; Patadalu(?) [male unknown, female similar to *E. pectoralis*]

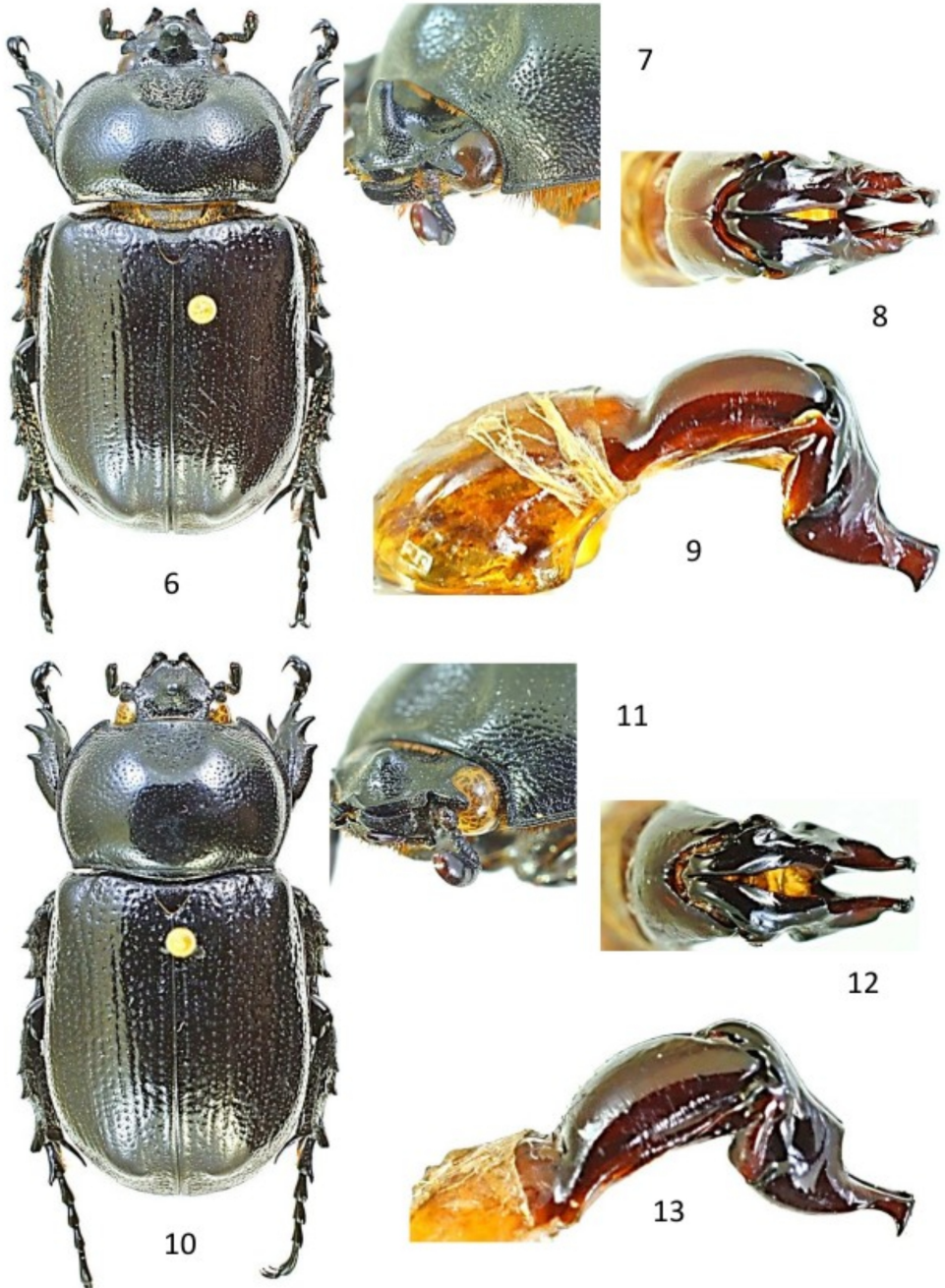
ACKNOWLEDGEMENTS. Reviewers are thanked for critical reading and improving the manuscript.

REFERENCES

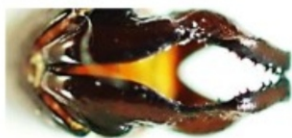
- ARROW G. J. 1900: Appendix, pp. 319-320 in C. W. Andrews, *A monograph of Christmas Island (Indian Ocean)*. British Museum (Natural History), London, 331 pp.
- ARROW G. J. 1908: Contribution to the classification of the coleopterous family Dynastidae. *Transactions of the Entomological Society of London* 1908(2): 321-358.
- ARROW G. J. 1910: *The fauna of British India, Ceylon and Burma, Coleoptera Lamellicornia (Cetoniinae and Dynastinae), Vol. I*. London: Taylor & Francis, 322 pp., 2 pls.
- ARROW G. J. 1914: Some further notes on lamellicorn beetles of the subfamily Dynastinae. *Annals and Magazine of Natural History* (8) 14: 257-276, pl. 3.
- BLACKBURN T. 1887-1897: Notes on Australian Coleoptera with descriptions of new species. *Transactions of the Royal Society of South Australia* 10: 177-287 (1887), 13: 82-93 (1889-1890), 15: 207-261 (1891-1892), 18: 139-168 (1893-1894), 19: 27-60 (1894-1895), 20: 233-259 (1895-1896), 21: 28-39 (1896-1897).
- DUPUIS F. 2014: Deux nouvelles espèces d'*Eophileurus* Arrow, 1908 (Coleoptera, Dynastidae). *Coléoptères* 20(3): 13-18.
- ENDRÖDI S. 1971: Über Lamellicornia aus Nepal. 2. Mitteilung: Lucanidae und Dynastinae. Khumbu Himal. *Ergebnisse des Forschungsunternehmens Nepal Himalaya* 4(1): 10-16.
- ENDRÖDI S. 1976: *Heteronychus krombeini* n. sp. und *Eophileurus decatenatus* Arrow, neue Arten für die Fauna Ceylons (Coleoptera: Melolonthidae). *Entomologica Scandinavica* 7: 159-160.
- ENDRÖDI S. 1977a: Monographie der Dynastinae. VIII. Tribus: Phileurini (Coleoptera, Lamellicornia). *Staatliches Museum für Tierkunde in Dresden, Entomologische Abhandlungen* 41(4): 93-114.
- ENDRÖDI S. 1977b: *Eophileurus sumbaianus* sp. n. (Col. Melolonthidae, Dynastinae). *Mitteilungen der Entomologischen Gesellschaft Basel (N. S.)* 27: 8-9.
- ENDRÖDI S. 1978: Zwei neue *Eophileurus*-Arten aus Thailand (Coleoptera, Melolonthidae: Dynastinae). *Annales Historico-Naturales Musei Nationalis Hungarici (N. S.)* 70: 183-185.
- ENDRÖDI S. 1985: *The Dynastinae of the World*. Akadémiai Kiadó, Budapest, and W. Junk Publishers, Dordrecht / Boston / Lancaster, 800 pp., 45 pls.
- FAIRMAIRE L. 1898: Descriptions de Coléoptères d'Asie et de Malaisie. *Annales de la Société Entomologique de France* 67: 382-400.
- FALDERMANN F. 1835: Coleopterorum ab illustrissimo bungio in China boreali, Mongolia, et Montibus Altaicis collectorum, nec non ab ill. Turczaninoffio et Stichukino e provincia Irkutsk missorum illustrationes. *Mémoires de l'Académie Impériale des Sciences de Saint-Petersbourg* (6) 3(1): 337-464, pls. 1-5.
- KRÁL D. & STRNAD J. 1992: New *Eophileurus* species from Vietnam (Scarabaeidae, Dynastinae). *Folia Heyrovskyana* 1: 3-6.
- LAMANT-VOIRIN K. 1995: Sept nouvelles espèces de Phileurini (Col. Scarabaeoidea – Dynastinae). *Mitteilungen der Schweizerischen Entomologischen Gesellschaft* 68: 143-152.
- MIYAKE Y. & YAMAYA S. 1993: Some new scarabaeid species from southern Asia preserved in the Nagaoka Municipal Science Museum. *Bulletin of the Nagaoka Municipal Science Museum* 28: 35-45.
- MURAMOTO R. 1995: Two new species of the genus *Eophileurus* Arrow (Coleoptera, Scarabaeidae, Dynastinae) from Southeast Asia. *Japanese Journal of Systematic Entomology* 1: 223-226.
- MURAMOTO R. 2004: Notes on the genus *Eophileurus* Arrow (Coleoptera, Scarabaeidae, Dynastinae) from Southeast Asia. *Kogane* 5: 21-24.
- NOMURA S. 1964: Some new forms of the Scarabaeoidea from the Loochoo Island. *Entomological Review of Japan* 17: 47-57, pl. 3.
- PRELL H. 1913: Beiträge zur Kenntnis der Dynastinen. VIII. Über das Genus *Eophileurus* Arrow. *Mémoires de la Société Entomologique de Belgique* 22: 103-124.
- RATCLIFFE B. C. 1988: New species and distribution of Neotropical Phileurini and a new Phileurini from Burma. *Coleopterists Bulletin* 42(1): 43-55.
- WIEDEMANN C. R. W. 1823: Zweihundert neue Käfer von Java, Bengalen und dem Vorgebirge der Guten Hoffnung. *Zoologisches Magazin* 2(1): 1-164.
- YAMAYA S. & MAEDA T. 2006: On the genus *Eophileurus* Arrow, 1908 (Dynastinae, Phileurini) from northern Myanmar, with descriptions of three new species. *Gekkan Mushi* 421: 39-43.
- YAMAYA S. & MURAMOTO R. 2008a: On the genus *Eophileurus* Arrow, 1908 (Scarabaeidae, Dynastinae), with descriptions of five new species. *Kogane (Tokyo), Supplement* 2: 1-34.
- YAMAYA S. & MURAMOTO R. 2008b: A new species of the genus *Eophileurus* Arrow, 1908 from Java, Indonesia (Coleoptera, Scarabaeidae, Dynastinae). *Kogane* 9: 95-97.
- ZHANG Y.-W. 1991: *Revision of the family Dynastidae from China (Coleoptera: Scarabaeoidea)*. Scientific Treatise on Systematic and Evolutionary Zoology 1: 173-188.



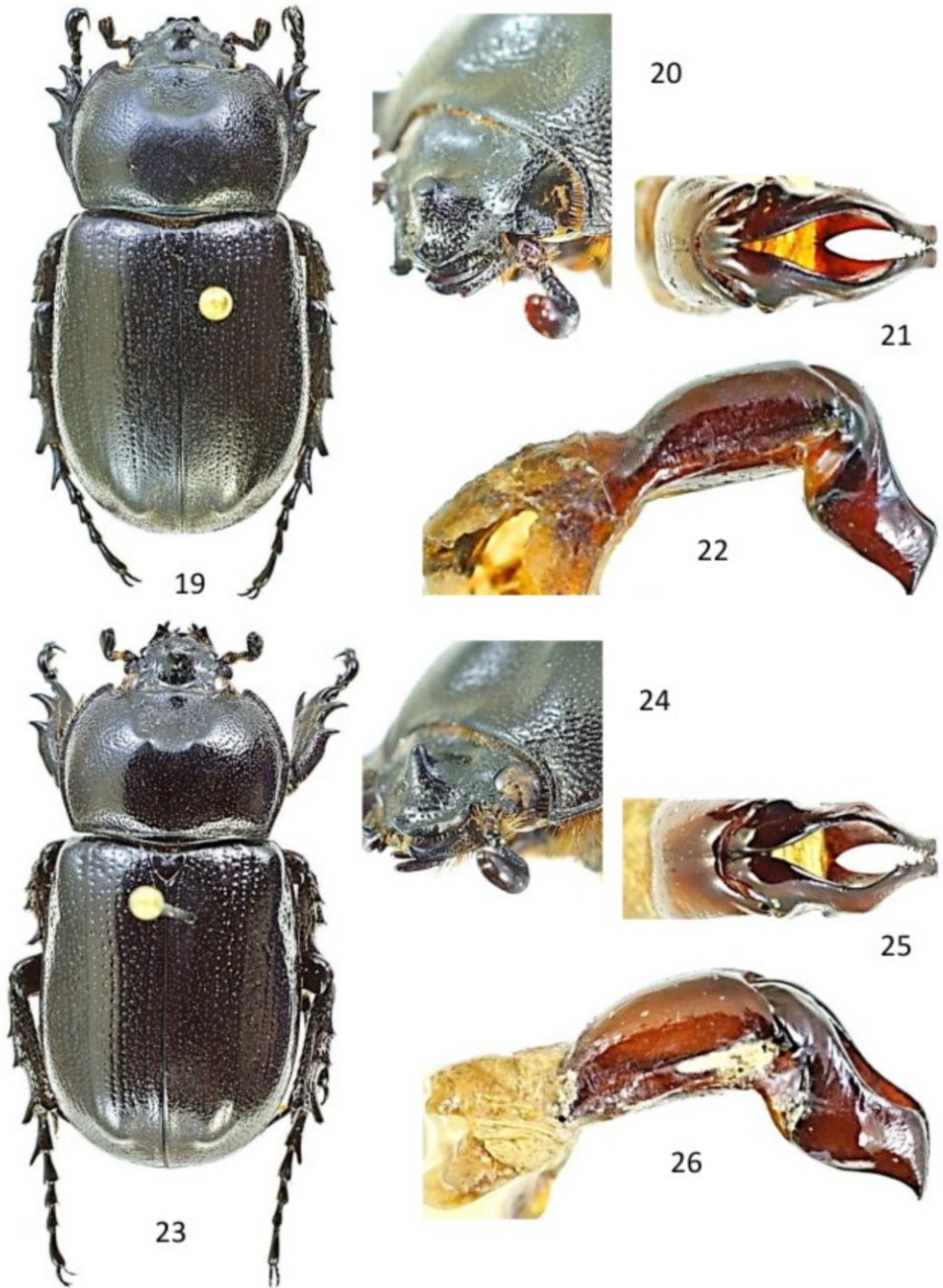
Figs. 1-5. *Eophileurus tanimbaricus* sp. n., holotype male, 24 mm, Yamdena Island. 1) Dorsal habitus. 2) Ventral habitus. 3) Head and pronotal depression. 4) Aedeagus, dorsal view. 5) Aedeagus, left lateral view.



Figs. 6-13. *Eophileurus dentatus* Blackburn (6-9), male, 32 mm, Queensland; and *E. fenicheli* Endrödi (10-13), male, 22 mm, PNG. 6, 10) Dorsal habitus. 7, 11) Head and pronotal depression. 8, 12) Aedeagus, dorsal view. 9, 13) Aedeagus, left lateral view.



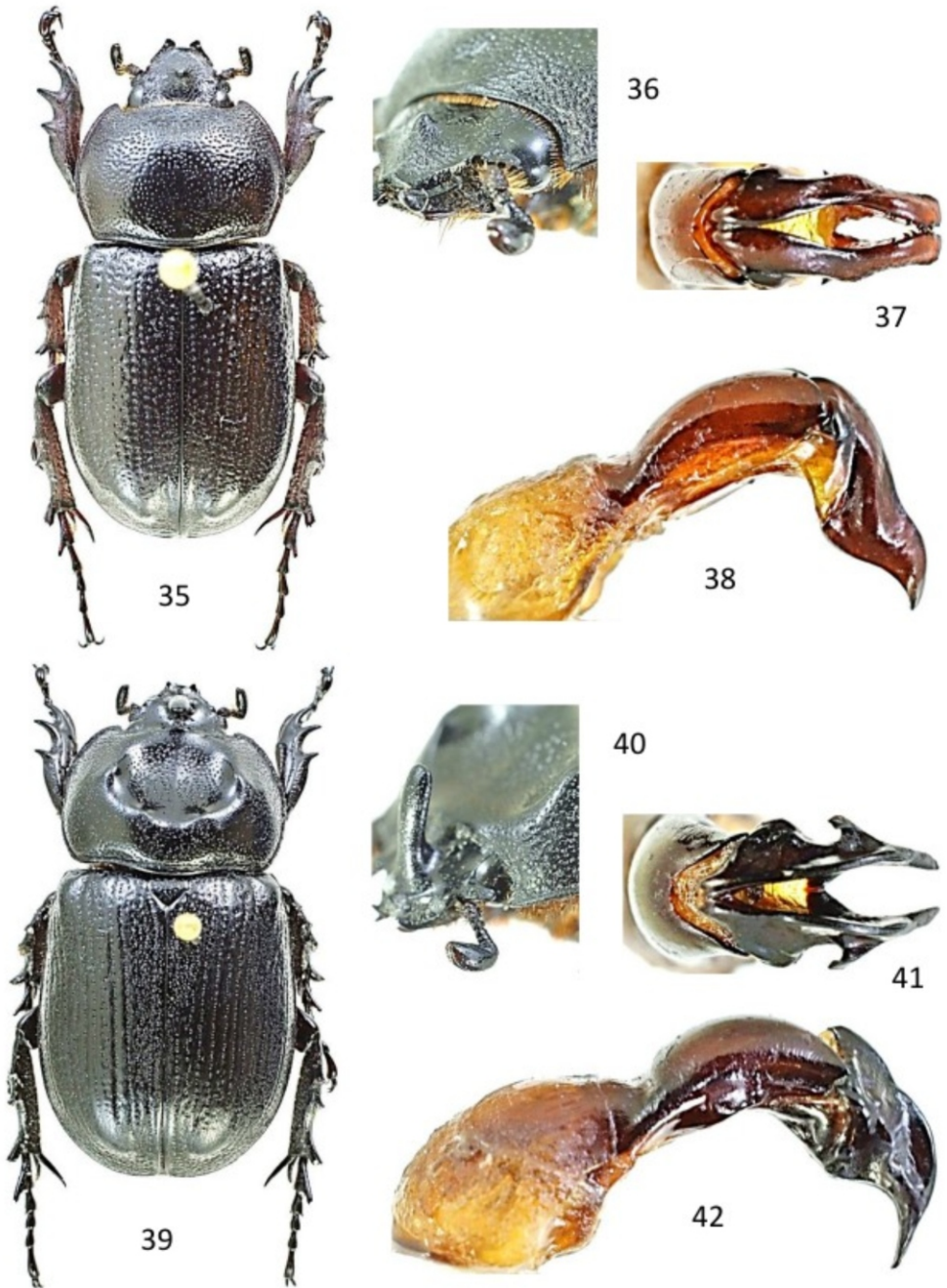
Figs. 14-18. *Eophileurus mentawaicus* sp. n., holotype male, 21.3 mm, Siberut Island. 14) Dorsal habitus. 15) Ventral habitus. 16) Head and pronotal depression. 17) Aedeagus, dorsal view. 18) Aedeagus, left lateral view.



Figs. 19-26. *Eophileurus javanus* Prell (19-22), male, 22.5 mm, Java; and *E. baliensis* Yamaya & Muramoto (23-26), male, 22 mm, Bali. 19, 23) Dorsal habitus. 20, 24) Head and pronotal depression. 21, 25) Aedeagus, dorsal view. 22, 26) Aedeagus, left lateral view.



Figs. 27-34. *Eophileurus montanus* Prell (27-30), male, 23 mm, India; and *E. nilgirensis* Arrow (31-34), male, 22 mm, India. 27, 31) Dorsal habitus. 28, 32) Head and pronotal depression. 29, 33) Aedeagus, dorsal view. 30, 34) Aedeagus, left lateral view.



Figs. 35-42. *Eophileurus sondaicus* Prell (35-38), male, 18 mm, Sanggeang Island; and *E. spinosus* Lamant-Voirin (39-42), male, 22 mm, Laos. 35, 39) Dorsal habitus. 36, 40) Head and pronotal depression. 37, 41) Aedeagus, dorsal view. 38, 42) Aedeagus, left lateral view.