New genera of Alleculinae (Coleoptera: Tenebrionidae: Alleculinae: Alleculini) from the Oriental Region. Part XVII - *Erzacula* gen. nov.

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Abstract. A new genus of Alleculinae (subtribe Alleculina Laporte, 1840) *Erzacula* gen. nov. with the species *Erzacula insolita* sp. nov. as a type species from south Thailand (Phang-nga Province) is described, illustrated and compared with a similar genus. The new species of the new genus *Erzacula* gen. nov. differ from other species of Alleculini mainly by distinct teeth in the middle of the lower side of metafemora in both males and females, by a small teeth in the male protibia and by *Leptura*- or *Allecula* shaped body.

INTRODUCTION

The new species *Erzacula insolita* gen. and sp. nov. from south Thailand (Phang-nga Province) with its *Leptura*- or *Allecula*-shaped body distinctly belongs to the subtribe Alleculina Laporte, 1840 and is habitually similar to the species and genera near *Allecula* Fabricius, 1801. No presently known species with teeth on protibiae (male) and large teeth in the middle of lower side of metafemora (in both males and females) is presently known. Only males of a similar genus *Barbucha* Novák, 2021 have angularly widened apex of metafemora.

Erzacula insolita gen. and sp. nov. is described, illustrated and distinguished from similar genera and compared with species of the most similar genus *Barbucha* Novák, 2021.

MATERIAL AND METHODS

Two important morphometric characteristics used for the descriptions of species of the subfamily Alleculinae, the 'ocular index' dorsally (Campbell & Marshall 1964) and 'pronotal index' (Campbell 1965), are also used in the present paper. The ocular index equals (100 × minimum dorsal distance between eyes) / (maximum width of head across eyes). The pronotal index is calculated as (100 × length of pronotum along midline) / (width across basal angles of pronotum).

In the list of type material, a slash (/) separates data in separate rows.

The following collection codes are used:

ASHG private collection of Andre Skale, Hof, Germany;
NMEG collection of Naturkundemuseum, Erfurt, Germany;
VNPC private collection of Vladimír Novák, Praha, Czech Republic.

Measurements of body parts and corresponding abbreviations used in text are as follows: AL - total antennae length, BL - maximum body length, EL - maximum elytral length, EW - maximum elytral width, HL - maximum length of head (visible part), HW - maximum width of head, OI - ocular index dorsally, PI - pronotal index dorsally, PL - maximum pronotal length, PW - pronotal width at base, RLA - ratios of relative lengths of antennomeres 1-11 from base to apex (3=1.00), RL/WA - ratios of length / maximum width of antennomeres 1-11 from base to apex, RLT - ratios of relative lengths of tarsomeres 1-5 respectively 1-4 from base to apex (1=1.00).

Other abbreviations are used as follows: wl= white label; yl= yellow label.

Measurements were made with Olympus SZ 40 stereoscopic microscope with continuous magnification and with Soft Imaging System AnalySIS. Snapshots were taken by using camera Canon EOS 550 D and Canon Macro Photo Lens MP-E and software Helicon Focus 5.2.

TAXONOMY

DESCRIPTION OF THE GENUS *ERZACULA* GEN. NOV.

***Erzacula* gen. nov.**

(Figs. 1-8)

Type species. *Erzacula insolita* sp. nov.

Description. Habitus as in Fig. 1, body outline as in Fig. 2, body narrow, elongate, dorsal surface with pale setation, punctuation and microgranulation, widest near humeri. Head (Fig. 4) slightly wider than long, widest through the eyes, approximately as wide as anterior margin of pronotum. Clypeus half heart shaped, rounded laterally with excision in the middle of apex. Mandibles strong, glabrous, shiny. Eyes very large, transverse, excised, space between eyes narrow, distinctly narrower than diameter of one eye; approximately as wide as length of antennomere 1. Antenna long and narrow, antennomeres filiform, antennomere 2 shortest, antennomeres 4-11 distinctly longer than antennomere 3. Ultimate palpomere widely triangular. Pronotum (Fig. 4) slightly wider than long, slightly convex, slightly narrower than elytra at humeri. Lateral margins straight and parallel in basal half, slightly arcuate and narrowing in apical part. Base finely bisinuate, posterior and anterior angles obtuse. Elytra narrow, elongate, widest near humeri, almost parallel in basal half. Elytral striae with distinct rows of punctures. Scutellum pentagonal. Elytral epipleura well developed, widest near base, distinctly narrowing to ventrite 1, narrow and parallel leading in apical part. Legs longer, protibiae (Fig. 5) with a teeth in the middle of inner side. Metafemora with teeth in the middle of lower part (as in Fig. 6). Metatibiae (Fig. 6) with fine double depression and distinctly widened apically. Protarsomeres 2-4, mesotarsomeres 3, 4 and metatarsomeres 3 widened and lobed. Metatarsomere 1 relatively short, not longer than metatarsomeres 2-4 together. Both protarsal claws with visible teeth. Aedeagus as in Figs. 7, 8.

Female (Fig. 3) has body wider and more robust, pronotum wider (PI approximately 74) and space between eyes wider than in male (OI approximately 33). Protibiae without teeth on inner side, metafemora with teeth in the middle of lower part, protarsal claws have only 13-15 teeth.

Differential diagnosis. The new species of the new genus *Erzacula* gen. nov. is with its *Leptura* or *Allecula* shaped body habitually similar to the species and genera near *Allecula* Fabricius, 1801. No presently known species with teeth in protibiae (male) and large teeth in the middle of lower side of metafemora (in both males and females) is presently known. Males of similar genus *Barbucha* Novák, 2021 have angularly widened apices of metafemora.

Species of *Erzacula* gen. nov. distinctly differs from the species of *Barbucha* Novák, 2021 mainly by large (BL 10.2 mm in male and 12-13.2 mm in female) *Leptura* or *Allecula* shaped body (widest at humeri), by elytra almost parallel in basal half, by space between eyes wider (OI 24 in

male and OI 31.9-33.4 in female), by pronotum with distinct anterior angles, by protibiae of male with thorn in inner side, by metafemora of both males and females with teeth in middle of lower side; while species of *Barbucha* have body small (6.8 mm in male; 6.6 mm in female), elongate oval (widest near middle elytra length), space between eyes is very narrow (OI male 12.9; OI female 19.9), pronotum is arcuate in apical half, protibiae of male have no thorn on inner side, metafemora of male has angularly widened apex on inner side, metafemora of female have no teeth on inner side.

Etymology. The compound name *Erzacula* is taken from *Erza* (home name of our dog Erzika) and ending *-cula* indicating a similarity to the genus *Allecula*.

Distribution. Thailand (Phang-nga Province).

***Erzacula insolita* sp. nov.**

(Figs. 1-8)

Type locality. South Thailand, Phang-nga Province, Takua Pa district, Khao Lak, 08°37´N, 98°15´E, 40-80 m.

Type material. Holotype (♂): S-THAILAND, Phang-nga / Prov. Takuapa distr., vic. / Khao Lak, 40-80 m, / 03.-16.VIII.2012 / 08°37´N, 98°15´E / leg. A. Weigel, (NMEG). Paratypes: (2 ♀♀): S-THAILAND, Phang-nga Prov. / Takuapa distr., vic. Khao Lak, / 08°37´N, 98°15´E, 40-80 m, / 03.-16.VIII.2012, leg. A. Skale, (ASHG, VNPC); (1 ♀): S-THAILAND, Phang-nga Prov. / Thimung distr., 5 km S Khao Lak / 08°36´N, 98°15´E, 10-50 m, / 03.-16.VIII.2012, leg. A. Skale, (ASHG). The types are provided with a printed red label: '*Erzacula / insolita* sp. nov. / HOLOTYPUS [or PARATYPUS] / V. Novák det. 2021'.

Description of holotype. Habitus as in Fig. 1, body outline as in Fig. 2, body narrow, elongate, from pale brown to dark brown, slightly shiny, dorsal surface with pale setation, punctuation and microgranulation, BL 10.20 mm. Widest near humeri; BL/EW 3.21.

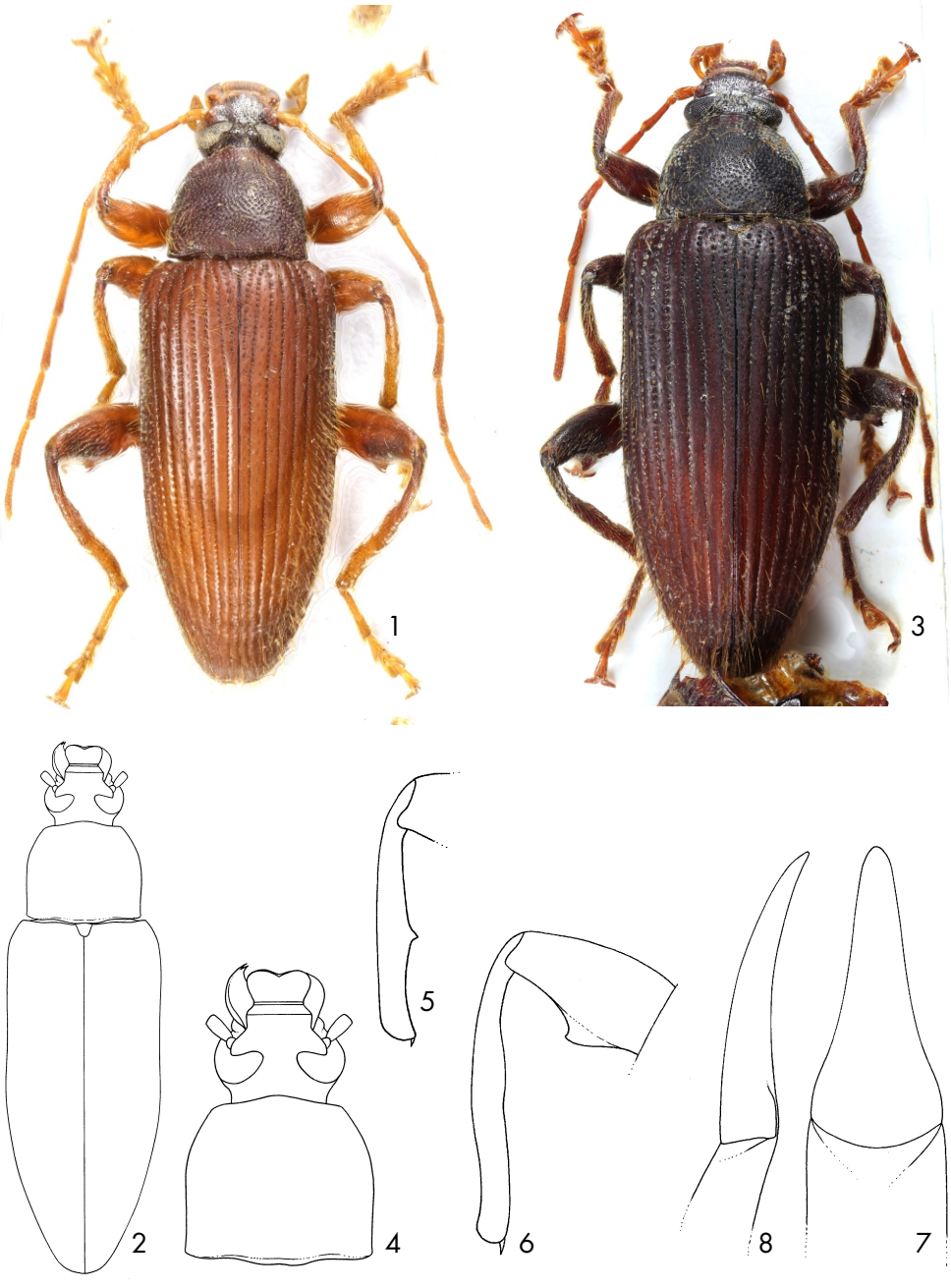
Head (Fig. 4) slightly wider than long, widest through the eyes, approximately as wide as anterior margin of pronotum. Dorsal surface slightly shiny with long, sparser, pale setation and punctuation. Posterior part dark brown with a few dark setae behind eyes and punctures larger than those in brown anterior part with pale brown sides. Clypeus pale brown, half heart shaped, rounded laterally with excision in the middle of apex. Mandibles strong, pale brown, glabrous, shiny with a few pale setae on sides and dark apex. HW 1.54 mm; HW/PW 0.68; HL (visible part) 1.46 mm. Eyes very large, transverse, excised, space between eyes narrow, distinctly narrower than diameter of one eye; approximately as wide as length of antennomere 1; OI equal to 24.41.

Antenna. Pale brown (antennomeres 1 and 2 ochre yellow), long and narrow (distinctly exceeding three quarters body length, AL 7.95 mm; AL/BL 0.78), antennomeres filiform (antennomeres 3-10 very slightly widened apically), dorsal surface with relatively short, recumbent, pale setation, microgranulation and small punctures. Antennomeres 1-3 slightly shiny, antennomeres 4-11 rather matte, antennomere 2 shortest, antennomere 4 longest, antennomeres 4-11 distinctly longer than antennomere 3.

RLA(1-11): 0.65 : 0.30 : 1.00 : 1.92 : 1.49 : 1.43 : 1.41 : 1.68 : 1.65 : 1.56 : 1.58.

RL/WA(1-11): 2.00 : 1.46 : 4.61 : 6.00 : 5.64 : 6.78 : 6.70 : 6.59 : 6.04 : 6.35 : 7.26.

Maxillary palpus ochre yellow, rather matte, with pale setation and fine microgranulation. Palpomeres 2 and 3 distinctly narrowest at base and widest at apex, penultimate palpomere with two long, pale setae on inner side, ultimate palpomere widely triangular.



Figs. 1-8. *Erzacula insolita* sp. nov.: Figs. 1, 2, 4-8: male holotype: 1- Habitus; 2- body outline; 3- habitus of female paratype; 4- head and pronotum; 5- protibia; 6- metafemur and metatibia; 7- apical piece of aedeagus, dorsal view; 8- apical piece of aedeagus, lateral view.

Pronotum (Fig. 4) dark brown, slightly wider than long, slightly convex, matte, slightly narrower than elytra at humeri. Dorsal surface with long, semierect, pale setation (distinctly denser near lateral margins), fine microgranulation and dense punctuation, punctures relatively large but smaller than those on head between eyes. Intervals between punctures narrow. PL 2.01 mm; PW 2.27 mm; PI equal to 88.54. Border lines narrow, distinct, only in the middle of anterior margin not clearly conspicuous. Lateral margins straight and parallel in basal half, slightly arcuate and narrowing in apical part. Base finely bisinuate, posterior and anterior angles obtuse.

Elytra. Reddish brown, narrow, elongate, rather matte, widest near humeri, almost parallel in basal half, with long, pale setation denser near lateral margins. EL 6.73 mm; EW 3.18 mm; EL/EW 2.12. Elytral striae with distinct rows of punctures approximately as large as those on pronotum. Interspaces between punctures in rows narrower than diameter of punctures. Elytral interspaces more flat with fine microgranulation and relatively sparse, small punctures.

Scutellum. Reddish brown, pentagonal, with microgranulation, shallow punctures and a few pale setae, slightly shiny.

Elytral epipleura well developed, reddish brown, widest near base, distinctly narrowing to ventrite 1, with dense and long, pale setation and punctures, narrow and parallel leading in apical part.

Legs (Figs. 5, 6). Longer, ochre yellow, femora pale reddish brown, surface with fine microgranulation, pale setation and small, shallow punctures. Protibiae (Fig. 5) with one teeth in the middle of inner side. Metafemora with teeth in the middle of lower part (as in Fig. 6). Metatibiae (Fig. 6) with fine double depression and distinctly widened apically. Protarsomeres 2-4, mesotarsomeres 3, 4 and metatarsomeres 3 widened and lobed. Metatarsomere 1 relatively short, not longer than metatarsomeres 2-4 together. RLT: 1.00 : 0.63 : 0.98 : 1.19 : 1.92 (protarsus), 1.00 : 0.43 : 0.48 : 0.56 : 1.21 (mesotarsus), 1.00 : 0.41 : 0.44 : 0.83 (metatarsus).

Both protarsal claws with 23 visible teeth.

Ventral side of body reddish brown, with dense punctuation and pale setation, prothorax dark reddish brown with a sparser, pale setation. Abdomen reddish brown with pale setation denser near sides and fine microgranulation, punctuation indistinct. Ultimate ventrite black, shiny with large, shallow, matte impression in middle.

Aedeagus (Figs. 7, 8) ochre yellow, matte, apical piece slightly darker. Basal piece slightly rounded laterally and narrowing in dorsal view. Apical piece elongate triangular, beak-shaped dorsally and knife-shaped in lateral view. Ratio of length of apical piece to length of basal piece in dorsal view 1: 2.69.

Female (Fig. 3) has body slightly wider and more robust, pronotum wider (PI approximately 74), space between eyes wider than in male (OI approximately 33). Protibiae without teeth in inner part, protarsal claws have only 13-15 teeth. Two females distinctly darker than male holotype (one of them as in Fig. 3).

Mesurements of female body. BL 11.94 mm; HL 1.71 mm; HW 1.80 mm; OI 31.86; PL 1.95 mm; PW 2.71 mm; PI 71.96; EL 8.28 mm; EW 3.97 mm; AL 9.28 mm; AL/BL 0.78; HW/ PW 0.66; BL/EW 3.01; EL/EW 2.09. RLA(1-11): 0.59 : 0.22 : 1.00 : 1.30 : 1.44 : 1.59 : 1.61 : 1.56 : 1.52 : 1.53 : 1.50. RL/WA(1-11): 2.24 : 1.08 : 4.00 : 5.53 : 5.41 : 6.80 : 6.87 : 7.69 : 9.70 : 7.54 : 9.60. RLT: 1.00 : 0.79 : 0.72 : 0.95 : 1.61 (protarsus), 1.00 : 0.48 : 0.65 : 0.87 : 1.43 (mesotarsus), 1.00 : 0.57 : 0.66 : 1.07 (metatarsus).

Variability. The type specimens somewhat vary in size; each character is given as its mean value, with full range in parentheses. Females (n= 3). BL 12.44 mm (11.94-13.24 mm); HL 1.72

mm (1.69-1.77 mm); HW 1.81 mm (1.78-1.86 mm); OI 32.84 (31.86-33.43); PL 2.05 mm (1.95-2.30 mm); PW 2.53 mm (2.66-2.99 mm); PI 73.66 (71.96-75.59); EL 8.66 mm (8.28-9.27 mm); EW 4.12 mm (3.96-4.43 mm).

Differential diagnosis. See the differential diagnosis of the genus *Erzacula* gen. nov.

Etymology. The name *insolita* is taken from Latin (unusual).

Distribution. Thailand (Phang-nga Province).

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