

New *Oracula* Novák, 2019 species from Laos (Coleoptera: Tenebrionidae: Alleculinae: Alleculini)

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Abstract

New species of the Alleculine genus *Oracula* Novák, 2019 are described as follows: *Oracula* (*Duocula*) *aeterna* sp. nov., *Oracula* (*Duocula*) *obscura* sp. nov., *Oracula* (*Duocula*) *vaga* sp. nov., *Oracula* (*Duocula*) *valida* sp. nov., *Oracula* (*Oracula*) *attapuica* sp. nov., *Oracula* (*Oracula*) *imperita* sp. nov. and *Oracula* (*Oracula*) *pseudoclara* sp. nov. all from Laos. The new species are illustrated including male genitalia and keyed together and with other Laotian species. A list of Laotian *Oracula* species is added.

Zusammenfassung

Folgende neue Arten der Alleculinen-Gattung *Oracula* Novák, 2019 werden beschrieben: *Oracula* (*Duocula*) *aeterna* sp. nov., *Oracula* (*Duocula*) *obscura* sp. nov., *Oracula* (*Duocula*) *vaga* sp. nov., *Oracula* (*Duocula*) *valida* sp. nov., *Oracula* (*Oracula*) *attapuica* sp. nov., *Oracula* (*Oracula*) *imperita* sp. nov. und *Oracula* (*Oracula*) *pseudoclara* sp. nov. alle aus Laos. Die neuen Arten werden illustriert, einschließlich männlicher Genitalien und zusammen und ein Bestimmungsschlüssel aller laotischen Arten präsentiert. Eine Liste der laotischen *Oracula*-Arten wird hinzugefügt.

Key words: Taxonomy, new species, descriptions, Coleoptera, Tenebrionidae, Alleculinae, Alleculini, *Oracula*, *Duocula*, Laos, Oriental Region

Introduction

The genus *Oracula* was introduced by NOVÁK (2019) with *Oracula bicolor* Novák, 2019 as the type species. Species of this genus occur in the southeastern Palearctic Region (NOVÁK 2020) and in the Oriental Region (NOVÁK 2019). At present there are four described species from Nepal and Yunnan Province in China (NOVÁK 2019, 2020 and 2021) and a further six

species are known from the Oriental Region (NOVÁK 2019). Species of the genus *Oracula* have an elongate *Leptura* shaped body, the space between eyes is almost narrower than the diameter of one eye, males have long and hollow protarsal claws with many teeth from both sides of hollow claw (subgenus *Duocula* Novák, 2019) or teeth only on one side of hollow claw (subgenus *Oracula* s. str.). NOVÁK (2019) described the species *Oracula* (*Duocula*) *clara* Novák, 2019, *Oracula* (*Duocula*) *pulchra* Novák, 2019 and *Oracula* (*Oracula*) *venusta* Novák, 2019 from Laos. A further seven new species from Laos are here described as follows: *Oracula* (*Duocula*) *aeterna* sp. nov., *Oracula* (*Duocula*) *obscura* sp. nov., *Oracula* (*Duocula*) *vaga* sp. nov., *Oracula* (*Duocula*) *valida* sp. nov., *Oracula* (*Oracula*) *attapuica* sp. nov., *Oracula* (*Oracula*) *imperita* sp. nov. and *Oracula* (*Oracula*) *pseudoclara* sp. nov.

New species are illustrated (including male genitalia) and keyed, together with other Laotian species. A list of *Oracula* species known from Laos is provided.

Material and Methods

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

‘Type material’ information is taken from locality labels.

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

The following collection codes are used:

ERMI	private collection of Enrico Ruzzier, Verona, Italy;
NMEG	collection of Naturkundemuseum, Erfurt, Germany;
NMPC	collection of National Museum, Praha, Czech Republic;
NMTJ	collection of National Museum, Tokyo, Japan;
SMNS	collection of Staatliches Museum für Naturkunde, Stuttgart, Germany;
VNPC	private collection of Vladimír Novák, Praha, Czech Republic.

Measurements of body parts and corresponding abbreviations used in the text are as follows: AL – total antennal 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 ($1 = 1.00$).

Measurements were made using an Olympus SZ 40 stereoscopic microscope with continuous magnification and with Soft Imaging System Analysis. Snapshots were taken using a Canon EOS 550 D camera and a Canon MP-E Macro Photo Lens, and Helicon Focus 7.7.5 software.

Taxonomy

Genus *Oracula* Novák, 2019

Type species: *Oracula bicolor* Novák, 2019.

Subgenus *Duocula* Novák, 2019

Type species: *Oracula clara* Novák, 2019.

Oracula (Duocula) aeterna sp. nov.

(Figs. 1–4)

Type locality. Northeastern Laos, Houaphanh Province, Ban Saleuy, Phou Pane Mountain, $20^{\circ}12'–13.5^{\circ}N$, $103^{\circ}59.5'–104^{\circ}01'E$, 1340–1870 m.

Type material. Holotype (♂): LAOS-NE, Houa Phan prov., / $20^{\circ}12'–13.5^{\circ}N$, $103^{\circ}59.5'–104.01'E$ / Ban Saleuy→Phou Pane Mt., / 1340–1870 m, 2.–22.vi.2011, / Vít. Kubáň & Lao coll. leg. // Primary mountain forest, / *at light* + *individual collecting*. / **Laos 2011** Expedition / National Museum Prague, / Czech Republic, (NMPC). Paratypes: (5 ♂♂, 4 ♀♀): same data as holotype, (NMPC, VNPC); (1 ♂, 2 ♀♀): LAOS-NE, Houa Phan prov., / $20^{\circ}12'–13.5^{\circ}N$, $103^{\circ}59.5'–104.01'E$, 1340–1870 m, / Phou Pane Mt., 1.–24.vi.2012, / Vít. Kubáň & Lao coll. leg. // Primary mountain forest, / *individual collecting*. / Laos 2011 Expedition / National Museum Prague, / Czech Republic, (NMPC); (8 ♂♂, 8 ♀♀): LAOS-NE, Houa Phan prov., / $20^{\circ}12'–13.5^{\circ}N$, $103^{\circ}59.5'–104.01'E$, / Ban Saleui→Phou Pane Mt., / 1340–1870 m, 15.vi.–15.v. / 2008, Lao collectors leg., (NMPC); (2 ♂♂, 1 ♀): NE LAOS: Hua Phan prov. / Ban Saleui env. / MT. PHU PANE / 1200–1600m, 6.–20.5.2014 / P. Viktora et local coll. lgt., (VNPC); (14 ♂♂, 16 ♀♀): LAOS, NE, P: Hua Phan / Ban Saleui, Phou Pan / (Mt.), 1300–1900m, 03.– / 30.IV.2014, $20^{\circ}12'N$ / $104^{\circ}01'E$, lg. Holzschuh, (NMEG, VNPC); (2 ♂♂): NE LAOS, Hua Phan prov., / Ban Saleui, Phu Phan Mt. env., / $20^{\circ}13'N$ $103^{\circ}59'E$, 1300–2000 m, / 6.–18.v.2004, J. Bezděk leg., (SMNS); (1 ♀): NE LAOS, Hua Phan prov. / Ban Saleui, Phu Pan Mt. / $20^{\circ}13'N$ $103^{\circ}59'E$; 6.–18.v. / 2004; 1300–2000m; / F. & L. Kantner lgt., (VNPC). The types are provided with a printed red label: "*Oracula (Duocula) aeterna* sp. nov. / HOLO-TYPUS [or PARATYPUS] / V. Novák det. 2022".

Description

Male holotype. Habitus as in Fig. 1, body larger, narrow, elongate, *Leptura* shaped, shiny, from yellow to black, dorsal surface with pale setation, punctuation and fine microgranulation, BL 10.84 mm. Widest near middle elytra length; BL/EW 3.40.

Head (Fig. 2) almost as long as wide, through the eyes distinctly wider than anterior margin, finely nar-

rower than base of pronotum. Dorsal surface slightly shiny with long, pale setation, fine microgranulation and large, coarse punctures. Posterior part blackish brown, darker than dark reddish brown anterior part with ochre yellow apex. Clypeus wide, transverse, half heart shaped, pale reddish brown with apex excised in middle. Dorsal surface with shallow punctures, long and dense, pale setae, microgranulation and microrugosities, shiny. Mandibles reddish brown with darker sides and apex, glabrous, shiny, with pale setae in sides. HW 1.63 mm; HW/PW 0.78; HL (visible part) 1.66 mm. Eyes large, transverse, excised, space between eyes narrow, distinctly narrower than diameter of one eye; slightly narrower than length of antennomere 1; OI equal to 20.10.

Antenna. Long, narrow, ochre yellow (AL 8.50 mm, distinctly exceeding three quarters body length – AL/BL 0.77). Antennomeres 1–3 slightly shiny, rest rather matt, antennomeres 1 and 5–11 slightly darker than antennomeres 2–4. Surface with dense, pale setation, microgranulation and small punctures. Antennomere 2 shortest, antennomeres 4–11 shorter than antennomere 3.

RLA(1–11): 0.47 : 0.16 : 1.00 : 0.86 : 0.84 : 0.88 : 0.90 : 0.90 : 0.89 : 0.87 : 0.67.

RL/WA(1–11): 2.36 : 1.28 : 7.89 : 7.80 : 7.77 : 7.38 : 7.16 : 6.40 : 8.47 : 8.20 : 6.15.

Maxillary palpus ochre yellow, rather matt, with long, pale setation and very fine microgranulation. Palpomeres 2 and 3 distinctly narrowest at base and widest at apex, ultimate palpomere pale brown, widely triangular.

Pronotum (Fig. 2) dark brown, semi-matt, convex, widest in base, distinctly narrower than elytra at humeri. Dorsal surface with fine microgranulation, dense smaller punctuation and relatively dense pale setation, with a few dark setae near lateral margins. PL 1.83 mm; PW 2.09 mm; PI equal to 87.56. Border lines very narrow, margins conspicuous from dorsal view, only in the middle of anterior margin not clearly distinct. Lateral margins finely excised in basal part, arcuate in apical half. Base finely bisinuate, anterior margin almost straight, anterior and posterior angles obtuse.

Elytra. Black, narrow, elongate, slightly convex, shiny, widest near middle. Dorsal surface with pale setation. EL 7.35 mm; EW 3.19 mm; EL/EW 2.30. Elytral striae with rows of coarse punctures distinctly larger than those in pronotum, intervals between punctures in rows

narrower than diameter of punctures. Elytral intervals finely convex, with fine microgranulation and very small punctures.

Scutellum. Dark brown, roundly triangular, semi-matt, with a few shallow punctures and microgranulation.

Elytral epipleura well-developed, dark brown, with punctures and pale setae distinctly narrowing to ventrite 1, then relatively narrow and parallel in apical part.

Legs. Long and narrow, ochre yellow, with long, pale setation, femora yellow with black apex and partly dark setation, base of tibiae narrowly black. Dorsal surface with fine microgranulation and small, shallow punctures. Tibiae normally shaped, slightly widened apically. Pro- and mesotarsomeres 3 and 4 and metatarsomere 3 widened and lobed. RLT: 1.00 : 0.62 : 0.64 : 0.90 : 1.24 (protarsus), 1.00 : 0.53 : 0.41 : 0.57 : 1.02 (mesotarsus), 1.00 : 0.46 : 0.39 : 0.70 (metatarsus).

Tarsal claws large with teeth from both sides of hollow claw, both upper protarsal claws with more than 30 visible teeth.

Ventral side of body dark brown or blackish brown with pale setae and small punctures. Abdomen black, shiny, with sparse, pale setae denser near lateral margins, fine microgranulation and small punctures. Ultimate ventrite rather matt, dark brown with large, shallow impression in paler apex.

Aedeagus (Figs. 3, 4) large, ochre yellow, semi-matt. Basal piece strong, rounded laterally and slightly narrowing in dorsal view. Apical piece elongate triangular from dorsal view, beak shaped dorsally and laterally. Ratio of length of apical piece to length of basal piece from dorsal view 1: 3.16.

Female. Body, pronotum and space between eyes wider, both protarsal claws with only 16 visible teeth on upper side.

Measurements of female body. BL 11.95 mm; HL 1.92 mm; HW 1.95 mm; OI 26.64; PL 2.00 mm; PW 2.55 mm; PI 78.43; EL 8.03 mm; EW 3.99 mm; AL(1–11) 9.45 mm; AL/BL(1–11) 0.79; HW/PW 0.77; BL/EW 3.00; EL/EW 2.01.

RLA(1–11): 0.44 : 0.15 : 1.00 : 0.96 : 0.88 : 0.89 : 0.87 : 0.94 : 0.89 : 0.88 : 0.90.

RL/WA(1–11): 2.33 : 1.42 : 5.89 : 6.33 : 6.67 : 6.41 : 6.04 : 8.33 : 6.71 : 7.00 : 7.15.

RLT: 1.00 : 0.65 : 0.80 : 0.83 : 1.47 (protarsus), 1.00 : 0.54 : 0.45 : 0.65 (metatarsus).

Variability. The type specimens somewhat vary in size; each character is given as its mean value, with full range in parentheses. Males (n = 33). BL 10.97 mm (10.54–11.33 mm); HL 1.57 mm (1.52–1.72 mm); HW 1.62 mm (1.53–1.69 mm); OI 20.73 (19.53–22.44); PL 1.88 mm (1.77–2.05 mm); PW 2.15 mm (2.05–2.27 mm); PI 87.29 (84.51–88.79); EL 8.03 mm (7.15–7.89 mm); EW 3.27 mm (3.19–3.34 mm). Females (n = 32). BL 11.40 mm (11.16–11.95 mm); HL 1.78 mm (1.70–1.92 mm); HW 1.81 mm (1.73–1.95 mm); OI 23.97 (21.05–26.44); PL 1.90 mm (1.70–2.00 mm); PW 2.39 mm (2.19–2.55 mm); PI 79.68 (77.63–82.92); EL 7.71 mm (7.23–8.03 mm); EW 3.75 mm (3.41–3.99 mm).

Differential diagnosis. (For details see the key above). Similar species is *Oracula (Duocula) tenebrosa* Novák, 2019 from China (Yunnan).

Oracula (Duocula) aeterna sp. nov. clearly differs from the similar species *O. (D.) tenebrosa* mainly by punctures in rows of elytral striae larger than those in pronotum, by tibiae and femora yellow (femora with black apex) and by shape of apical piece of aedeagus (Figs. 3 and 4); while *O. (D.) tenebrosa* has punctures in rows of elytral striae as large as those in pronotum, tibiae and femora are ochre yellow (apex of femora is reddish brown) and apical piece of aedeagus is as in NOVÁK 2019: 70: figs. 19 and 20.

Etymology. From Latin *aeterna* (meaning ‘eternal’).

Distribution. Laos (Houaphanh Province).

***Oracula (Duocula) obscura* sp. nov.**

(Figs. 5–8)

Type locality. Northeastern Laos, Houaphanh Province, Phu Loei National Preserve, Ban Sakok, 20°12'N 103°12'E.

Type material. Holotype (♂): L A O S - NE; HUA PHAN prov.; /PHU LOEI N.P.; BAN SAKOK; / 20°12'N 103°12'E; J. Bezděk leg.; 23.–26.v.2001, (VNPC). The type is provided with a printed red label: "Oracula / (Duocula) obscura sp. nov. / HOLOTYPUS / V. Novák det. 2022".

Description

Male holotype. Habitus as in Fig. 5, body large, elongate, *Leptura* shaped, rather matt, from pale brown to black, dorsal surface with dark and pale setation, punctation and fine microgranulation, BL 12.36 mm. Widest near two thirds elytra length; BL/EW 3.24.

Head (Fig. 6) almost as long as wide, through the eyes distinctly wider than anterior margin, finely narrower than base of pronotum. Dorsal surface with microgranulation, few, pale setae and dark setae behind eyes. Posterior part black with coarse punctures, anterior half blackish brown with shallow punctures. Apex of anterior part ochre yellow. Clypeus wide, transverse, half heart shaped, reddish brown with apex excised in middle. Dorsal surface with larger, shallow punctures, pale setae and microgranulation, rather matt. Mandibles pale reddish brown with darker sides and apex, glabrous, shiny, with pale setae in sides. HW 1.85 mm; HW/PW 0.82; HL (visible part) 1.92 mm. Eyes large, transverse, excised, space between eyes narrow, distinctly narrower than diameter of one eye; approximately as wide as length of antennomere 2; OI equal to 14.66.

Antenna. Long, narrow, ochre yellow, rather matt (AL 9.84, distinctly exceeding three quarters body length – AL/BL 0.80). Surface with short and dense, recumbent, pale setation, microgranulation and small, shallow punctures. Antennomeres 1–6 dark brown, distinctly darker than pale brown antennomeres 7–11. Antennomere 2 shortest, antennomere 6–11 approximately as long as antennomere 3.

RLA(1–11): 0.40 : 0.18 : 1.00 : 1.08 : 1.09 : 1.01 : 0.97 : 0.97 : 1.02 : 1.01 : 0.97.

RL/WA(1–11): 1.63 : 1.12 : 7.43 : 7.68 : 7.73 : 6.87 : 6.57 : 6.57 : 6.63 : 6.87 : 7.60.

Maxillary palpus brown, slightly shiny, with pale setation, fine microgranulation and small, shallow punctures. Palpomeres 2 and 3 distinctly narrowest at base and widest at apex, ultimate palpomere widely triangular.

Pronotum (Fig. 6) black, semi-matt, convex, widest near middle, distinctly narrower than elytra at humeri. Disc with two small and shallow oblique impressions from both sides between middle and posterior angles and one shallow impression in ante scutellar area. Dorsal surface with sparse, short, pale and dark setae, very fine microgranulation and dense, small sized punctures, intervals between them almost narrower than diameter

of punctures. PL 2.06 mm; PW 2.25 mm; PI equal to 91.56. Border lines very narrow, margins conspicuous from dorsal view, only in the middle of anterior margin not clearly conspicuous. Lateral margins straight in basal half, arcuate in apical part. Base finely bisinuate, anterior margin arcuate, anterior and posterior angles distinct, obtuse.

Elytra. Blackish brown, elongate, slightly convex, matt, widest around two thirds from base to apex. Dorsal surface with long dark and shorter grey setation. EL 8.38 mm; EW 3.42 mm; EL/EW 2.19. Elytral striae with rows of coarse punctures, approximately as large as those on pronotum. Elytral intervals finely convex, with fine microgranulation.

Scutellum. Blackish brown, semielliptical, matt, with small punctures, microgranulation and grey setae.

Elytral epipleura well-developed, blackish brown, with punctures relatively wide in basal part, distinctly narrowing to ventrite 1, then with dark setae, relatively wide and parallel in apical part.

Legs. Long and narrow, blackish brown, tarsi partly pale brown. Dorsal surface with fine microgranulation dark and pale setation. Tibiae with denser and longer setation straight, normally shaped. Pro- and mesotarsomeres 3 and 4 and metatarsomere 3 widened and lobed. RLT: 1.00 : 0.61 : 0.65 : 0.80 : 1.44 (protarsus), 1.00 : 0.52 : 0.56 : 0.91 : 1.44 (mesotarsus), 1.00 : 0.44 : 0.42 : 0.71 (metatarsus).

Tarsal claws large with teeth from both sides of hollow claw, both upper protarsal claws with more than 40 visible teeth.

Ventral side of body blackish brown with sparse pale setae and small punctures. Abdomen blackish brown with sparse, pale setae, small, shallow punctures and fine microgranulation.

Aedeagus (Figs. 7, 8) ochre yellow, shiny, basal piece strong, slightly darker, rounded laterally and narrowing in dorsal view. Apical piece elongate triangular with rounded top from dorsal view, beak shaped dorsally and laterally. Ratio of length of apical piece to length of basal piece from dorsal view 1 : 2.85.

Female unknown.

Differential diagnosis. (For details see the key above). *Oracula (Duocula) obscura* sp. nov. is a unique species. It differs from all other known species of subge-

nus *Duocula* Novák, 2019 by matt black or blackish brown dorsal surface of elytra and pronotum, by blackish brown or brown legs, by elytra with double setation (long dark and short grey).

Etymology. From Latin *obscura* (meaning 'dark').

Distribution. Laos (Houaphanh Province).

***Oracula (Duocula) vaga* sp. nov.**

(Figs. 9–12)

Type locality. Northeastern Laos, Houaphanh Province, environ of Ban Saluei, Mount Phu Pane, 1200–1600 m.

Type material. Holotype (♂): NE LAOS: Hua Phan prov. / Ban Saluei env. / MT. PHU PANE / 1200–1600m, 6.–20.5.2014 / P. Viktora et local coll. lgt., (VNPC). Paratypes: (4 ♂♂, 2 ♀♀): LAOS-NE, Houa Phan prov., / 20°12–13.5'N, 103°59,5'–104.01'E, / Ban Saleuy→Phou Pane Mt., / 1340–1870 m, 2.–22.vi.2011, / Vít. Kubáň & Lao coll. leg. // Primary mountain forest, / *at light + individual collecting*. / **Laos 2011 Expedition** / National Museum Prague, / Czech Republic, (NMPC, VNPC); (1 ♂): LAOS-NE, Houa Phan prov., / 20°12–13.5'N, 103°59,5'– / 104.01'E, 1340–1870 m, / Phou Pane Mt., 1.–24.vi.2012, / Vít. Kubáň & Lao coll. leg. // Primary mountain forest, / *individual collecting*. / Laos 2011 Expedition / National Museum Prague, / Czech Republic, (NMPC, VNPC); (5 ♂♂, 4 ♀♀): LAOS-NE, Houa Phan prov., / 20°12–13.5'N, 103°59,5'– / 104.01'E, / Ban Saleui→Phou Pane Mt., / 1340–1870 m, 15.vi.–15.v. / 2008, Lao collectors leg., (NMPC, VNPC); (1 ♂): NE LAOS, Hua Phan prov., / Ban Saluei, Phu Phan Mt. env., / 20°13'N 103°59'E, 1300–2000 m, / 6.–18.v.2004, J. Bezděk leg., (SMNS); (14 ♂♂, 2 ♀♀): LAOS, NE, P: Hua Phan / Ban Saleui, Phou Pan / (Mt.), 1300–1900m, 03.– / 30.IV.2014, 20°12'N / 104°01'E, lg. Holzschuh, (NMEG, VNPC); (1 ♂): NE-LAOS, Hua Phan / prov. Ban Saleui, Phou Pan / (Mt.), 1300–1900m, 11.IV.– / 15.V.2012, 20°12'N, 104° / 01'E, leg. C. Holzschuh, (NMEG). The types are provided with a printed red label: "*Oracula (Duocula) vaga* sp. nov. / HOLOTYPUS [or PARATYPUS] / V. Novák det. 2022".

Description

Male holotype. Habitus as in Fig. 9, body smaller, elongate, *Leptura* shaped, shiny, from yellow to black, dorsal surface with dark setation, punctuation and very fine microgranulation, BL 9.04 mm. Widest near middle elytra length; BL/EW 3.22.

Head (Fig. 10) slightly wider than long, through the eyes wider than anterior margin, narrower than base of pronotum. Dorsal surface shiny with dark setae and coarse punctures. Microgranulation of black posterior part indistinct, blackish brown anterior half with fine microgranulation. Clypeus wide, transverse, half heart shaped, blackish brown with ochre yellow apex excised in middle. Dorsal surface with punctures, long, dark setae and microgranulation, shiny. Mandibles reddish brown with darker sides and apex, glabrous, shiny. HW 1.48 mm; HW/PW 0.81; HL (visible part) 1.35 mm. Eyes large, transverse, excised, space between eyes narrow, distinctly narrower than diameter of one eye; wider than length of antennomere 2; approximately as wide as length of antennomere 1, OI equal to 17.70.

Antenna. Long, narrow, black (AL 6.84 mm, AL/BL 0.76 - reaching three quarters body length). Surface with dense, dark setation, microgranulation and shallow punctures. Antennomere 2 shortest, antennomeres 1-3 slightly shiny, rest of antennomeres matt.

RLA(1-11): 0.48 : 0.23 : 1.00 : 0.95 : 1.01 : 0.92 : 1.03 : 0.94 : 0.94 : 0.88 : 0.94.

RL/WA(1-11): 1.88 : 1.30 : 4.59 : 4.50 : 4.96 : 4.36 : 4.72 : 4.17 : 5.00 : 5.32 : 5.95.

Maxillary palpus black, semi-matt, with dark and pale setation and very fine microgranulation. Palpomeres 2 and 3 distinctly narrowest at base, ultimate palpomere widely triangular.

Pronotum (Fig. 10) black, shiny, convex, widest near middle, distinctly narrower than elytra at humeri, almost as long as wide. Dorsal surface with long, dark, erect setae and relatively sparse, small punctures. PL 1.65 mm; PW 1.83 mm; PI equal to 90.16. Border lines very narrow, margins distinct from dorsal view, only in the middle of anterior margin not clearly conspicuous. Lateral margins finely arcuate. Base finely bisinuate, anterior margin slightly arcuate in middle, anterior and posterior angles obtuse.

Elytra. Black, elongate, slightly convex, shiny, widest near middle. Dorsal surface with long, dark setation.

EL 6.04 mm; EW 2.81 mm; EL/EW 2.15. Elytral striae with rows of coarse punctures, almost larger than those in pronotum. Elytral intervals finely convex, with very fine microgranulation and small punctures.

Scutellum. Black, pentagonal, shiny, with punctures.

Elytral epipleura well-developed, dark brown, with small punctures in basal part, distinctly narrowing to ventrite 1, then reddish brown relatively wide and parallel in apical part.

Legs. Long and narrow, black, femora yellow with black apex. Dorsal surface with long, dark setation, fine microgranulation and small punctures. Tibiae straight, normally shaped, widened apically. Pro- and mesotarsomeres 3 and 4 and metatarsomere 3 widened and lobed. RLT: 1.00 : 0.56 : 0.67 : 0.88 : 1.78 (protarsus), 1.00 : 0.54 : 0.42 : 0.71 : 1.12 (mesotarsus), 1.00 : 0.48 : 0.42 : 0.86 (metatarsus).

Tarsal claws large with teeth from both sides of hollow claw, both upper protarsal claws with more than 40 visible teeth.

Ventral side of body blackish brown with a few pale setae and very small punctures. Abdomen black, shiny with small, shallow punctures. Ultimate ventrite blackish brown, matt with fine microgranulation and large shallow, triangular shaped impression in apex.

Aedeagus (Figs. 11, 12) ochre yellow, slightly shiny. Basal piece rounded laterally and narrowing in dorsal view. Apical piece elongate triangular from dorsal view, beak shaped dorsally and laterally. Ratio of length of apical piece to length of basal piece from dorsal view 1: 2.85.

Female. Body, pronotum and space between eyes wider, elytra widest near two thirds from base to apex, both protarsal claws with only 18 visible teeth on upper side. Measurements of female body. BL 9.27 mm; HL 1.35 mm; HW 1.50 mm; OI 25.20; PL 1.55 mm; PW 1.98 mm; PI 78.18; EL 6.37 mm; EW 3.17 mm; AL(1-11) 6.58mm; AL/BL(1-11) 0.71; HW/PW 0.76; BL/EW 2.92; EL/EW 2.01.

RLA(1-11): 0.64 : 0.40 : 1.00 : 0.97 : 0.88 : 0.88 : 0.86 : 0.85 : 0.89 : 0.84 : 0.94.

RL/WA(1-11): 1.56 : 1.15 : 3.76 : 3.87 : 3.30 : 3.63 : 4.19 : 4.04 : 4.23 : 4.00 : 4.33.

RLT: 1.00 : 0.57 : 0.53 : 0.70 : 1.52 (protarsus), 1.00 : 0.51 : 0.40 : 0.78 (metatarsus).

Variability. The type specimens somewhat vary in size; each character is given as its mean value, with full range in parentheses. Males (n= 27). BL 8.77 mm (8.38-9.41 mm); HL 1.31 mm (1.25-1.40 mm); HW 1.43 mm (1.34-1.53 mm); OI 18.87 (16.00-21.81); PL 1.61 mm (1.50-1.79 mm); PW 1.81 mm (1.71-1.93 mm); PI 88.95 (86.71-92.75); EL 5.85 mm (5.54-6.22 mm); EW 2.77 mm (2.71-2.91 mm). Females (n= 8). BL 9.62 mm (9.27-10.15 mm); HL 1.38 mm (1.35-1.44 mm); HW 1.53 mm (1.50-1.59 mm); OI 25.23 (25.20-25.28); PL 1.67 mm (1.55-1.86 mm); PW 2.07 mm (1.98-2.24 mm); PI 80.64 (78.18-83.33); EL 6.57 mm (6.37-6.85 mm); EW 3.23 mm (3.13-3.40 mm).

Differential diagnosis. (For details see the key above). *Oracula* (*Duocula*) *vaga* sp. nov. is a unique species. It differs from all other known species of subgenus *Duocula* Novák, 2019 by tibiae, tarsi and antenna black and by surface with long, black, erect setae.

Etymology. From Latin *vaga* (it is a noun in apposition, it means ‘wanderer’).

Distribution. Laos (Huaphanh Province).

***Oracula* (*Duocula*) *valida* sp. nov.**

(Figs. 13-16)

Type locality. North Laos, Xieng Khouang Province, Phou Sam Soum, 19°14270’N, 103°780480’E, 2026 m.

Type material. Holotype (♂): [Laos] XIENG KHOUANG, / Phou Sam Soum, alt. 2026 m / 19.142740° 103.780480° / April 27-May 11, 2018 / leg. T. HIGURASHI, N. KANEKO / & Y. NAKASE / FIT / Permit No. 09-05-2018, (NMTJ). Paratype: (1 ♀): [Laos] XIENG KHOUANG, / Phou Sam Soum / alt. 2103 m / 19.142559° 103.784050° / 11-13 V 2019 / leg. M. KOBAYASHI / Permit No. 08-05-2019, (VNPC). The types are provided with a printed red label: "Oracula / (*Duocula*) *valida* sp. nov. / HOLOTYPUS [or PARATYPUS] / V. Novák det. 2022".

Description

Male holotype. Habitus as in Fig. 13, body large, elongate, strong, *Leptura* shaped, shiny, from ochre yellow

to dark brown, dorsal surface with pale setation, punctuation and very fine microgranulation, BL 12.85 mm. Widest near middle elytra length; BL/EW 3.60.

Head (Fig. 14) slightly wider than long, through the eyes distinctly wider than anterior margin, narrower than base of pronotum. Dorsal surface shiny with pale setae and coarse punctuation, punctures medium sized. Microgranulation of posterior part not clearly distinct. Clypeus wide, transverse, half heart shaped, pale reddish brown, yellow apex excised in middle. Dorsal surface with dense, relatively coarse punctuation, long, pale setation and microgranulation, shiny. Mandibles pale reddish brown with darker sides and apex, glabrous, shiny, with pale setae in sides. HW 1.87 mm; HW/PW 0.80; HL (visible part) 1.72 mm. Eyes large, transverse, excised, space between eyes narrow, distinctly narrower than diameter of one eye; narrower than length of antennomere 1, slightly wider than length of antennomere 2; OI equal to 18.76.

Antenna. Long, narrow, ochre yellow, rather matt (AL 10.49, distinctly exceeding three quarters body length – AL/BL 0.82). Surface with microgranulation, small, shallow punctures and pale setation. Antennomere 2 shortest, antennomeres 4-11 as long or shorter than antennomere 3.

RLA(1-11): 0.39 : 0.19 : 1.00 : 1.00 : 0.94 : 0.98 : 0.93 : 0.95 : 1.00 : 0.84 : 0.95.

RL/WA(1-11): 2.00 : 1.46 : 7.04 : 7.63 : 7.17 : 7.63 : 7.13 : 7.57 : 7.91 : 7.29 : 8.65.

Maxillary palpus ochre yellow, semi-matt, with pale setation and fine microgranulation. Palpomeres 2 and 3 distinctly narrowest at base and widest at apex, ultimate palpomere widely triangular.

Pronotum (Fig. 14) dark brown, shiny, convex, widest in posterior part, slightly wider than long, distinctly narrower than elytra at humeri. Dorsal surface with semierect, pale setae, very fine microgranulation and dense punctuation, punctures small, intervals between punctures wider than diameter of punctures. PL 2.08 mm; PW 2.35 mm; PI equal to 88.51. Border lines very narrow, margins conspicuous from dorsal view. Lateral margins straight and parallel in basal part, with distinct angle in middle, narrowing in apical half. Base finely bisinuate, anterior margin almost straight, anterior and posterior angles obtuse.

Elytra. Brown, elongate, slightly convex, shiny, widest near middle. Dorsal surface with pale setation and fine

microgranulation. EL 9.05 mm; EW 3.59 mm; EL/EW 2.52. Elytral striae with rows of coarse punctures, distinctly larger than those in pronotum, intervals between punctures in rows almost narrower than diameter of punctures. Elytral intervals with sparse and small punctures. Scutellum. Dark brown, roundly triangular, shiny, with microgranulation and long, pale setae.

Elytral epipleura well-developed, brown, with long, pale setae, large punctures in basal part, distinctly narrowing to ventrite 1, narrowest in middle, then wide in apical part.

Legs. Long and narrow, ochre yellow with pale setation, femora reddish brown with darker and shorter setation. Dorsal surface with fine microgranulation and shallow punctures. Tibiae straight, normally shaped, widened apically. Pro- and mesotarsomeres 3 and 4 and metatarsomere 3 widened and lobed. RLT: 1.00 : 0.71 : 0.78 : 1.11 : 1.79 (protarsus), 1.00 : 0.53 : 0.55 : 0.89 : 1.48 (mesotarsus), 1.00 : 0.55 : 0.50 : 0.87 (metatarsus). Tarsal claws large with teeth from both sides of hollow claw, both upper protarsal claws with more than 50 visible teeth.

Ventral side of body dark brown, shiny with pale setae and sparse, small punctures. Abdomen dark reddish brown with sparse, pale setae, fine microgranulation and small, shallow punctures.

Aedeagus (Figs. 15, 16) large, ochre yellow, shiny. Basal piece strong, slightly rounded laterally and narrowing in dorsal view. Apical piece narrow, elongate triangular dorsally, beak shaped from dorsal and lateral views. Ratio of length of apical piece to length of basal piece from dorsal view 1: 3.37.

Female. Body, pronotum and space between eyes slightly wider than in male, elytra widest near two thirds from base to apex. Protarsal claws with only 16 teeth.

Measurements of female body. BL 13.19 mm; HL 1.74 mm; HW 1.94 mm; OI 23.66; PL 2.08 mm; PW 2.49 mm; PI 83.53; EL 9.37 mm; EW 4.16 mm; AL(1–11) 11.04 mm; AL/BL(1–11) 0.84; HW/PW 0.78; BL/EW 3.17; EL/EW 2.25.

RLA(1–11): 0.35 : 0.15 : 1.00 : 1.01 : 0.88 : 0.95 : 0.90 : 0.84 : 0.88 : 0.84 : 0.89.

RL/WA(1–11): 1.82 : 1.25 : 6.84 : 8.19 : 7.90 : 7.71 : 7.65 : 5.72 : 7.14 : 6.81 : 9.50.

RLT: 1.00 : 0.58 : 0.66 : 0.90 : 1.89 (protarsus), 1.00 : 0.45 : 0.40 : 0.54 : 0.84 (mesotarsus); 1.00 : 0.49 : 0.34 : 0.64 (metatarsus).

Differential diagnosis. (For details see the key above). *Oracula (Duocula) valida* sp. nov. is a unique species. It differs from all other known species of subgenus *Duocula* Novák, 2019 by dorsal surface of elytra and pronotum brown and shiny and femora of one colour (reddish brown).

Etymology. From Latin *valida* (meaning 'robust').

Distribution. Laos (Houaphanh Province).

Subgenus *Oracula* Novák, 2019

Type species: *Oracula bicolor* Novák, 2019.

Oracula (Oracula) attapuica sp. nov.

(Figs. 17–20)

Type locality. Southern Laos, Attapu Province, Bolaven Plateau, 15 km Southeast of Ban Houaykong, environ of Nong Lom lake, N 15°02', E 106°35', 800 m.

Type material. Holotype (♂): L A O S South., Attapu Prov., / Bolaven Plateau, 18.–30.IV.1999 / 15 km SE of Ban Houaykong, / NONG LOM (lake) env., / N 15°02', E 106°35', alt. 800m / E. Jendek & O. Šauša leg., (VNPC). Paratypes: (6 ♂♂, 10 ♀♀): same data as holotype, (VNPC). The types are provided with a printed red label: "*Oracula (Oracula) attapuica* sp. nov. / HOLOTYPUS [or PARATYPUS] / V. Novák det. 2022".

Description

Male holotype. Habitus as in Fig. 17, body smaller, elongate, *Leptura* shaped, shiny, from yellow to blackish brown, dorsal surface with pale setation, punctuation and fine microgranulation, BL 7.86 mm. Widest near middle elytra length; BL/EW 3.48.

Head (Fig. 18) approximately as long as wide, through the eyes distinctly wider than anterior margin, slightly narrower than base of pronotum. Dorsal surface almost shiny with sparse, long, pale setae and coarse punctures. Posterior half black, anterior part with distinct microgranulation dark reddish brown and pale reddish brown gena and apex. Clypeus wide, transverse, half heart shaped, dark reddish brown with apex excised in middle. Dorsal surface semi-matt, with shallow punctures, long and relatively dense, pale setae and micro-

granulation. Mandibles pale reddish brown with darker sides and apex, glabrous, shiny. HW 1.17 mm; HW/PW 0.80; HL (visible part) 1.23 mm. Eyes large, transverse, excised, space between eyes narrow, distinctly narrower than diameter of one eye; wider than length of antennomere 2; narrower than length of antennomere 1, OI equal to 15.52.

Antenna. Long and narrow, ochre yellow (AL 6.06, distinctly exceeding three quarters body length – AL/BL 0.77). Surface with pale setation and shallow punctures. Antennomere 2 shortest, antennomeres 4–11 longer than antennomere 3.

RLA(1–11): 0.66 : 0.49 : 1.00 : 1.35 : 1.35 : 1.43 : 1.47 : 1.42 : 1.41 : 1.30 : 1.46.

RL/WA(1–11): 2.04 : 2.00 : 4.63 : 5.56 : 6.25 : 6.24 : 6.41 : 6.18 : 6.50 : 5.33 : 6.35.

Maxillary palpus ochre yellow, rather matt, with pale setae and fine microgranulation. Palpomeres 2 and 3 distinctly narrowest at base and widest at apex, ultimate palpomere widely triangular.

Pronotum (Fig. 18) pale reddish brown, shiny, slightly convex, widest in base, distinctly narrower than elytra at humeri. Dorsal surface with sparse and long, pale setae, very fine microgranulation and punctuation, punctures larger. PL 1.23 mm; PW 1.47 mm; PI equal to 83.67. Border lines very narrow, margins conspicuous from dorsal view, only in the middle of anterior margin not clearly distinct. Base finely bisinuate, anterior margin almost straight, anterior and posterior angles obtuse.

Elytra. Ochre yellow, narrow, elongate, slightly convex, shiny, widest near middle. Dorsal surface with long and dense, pale setation. EL 5.40 mm; EW 2.26 mm; EL/EW 2.39. Elytral striae with rows of coarse punctures as large as those in pronotum, intervals between punctures in rows narrower than diameter of punctures. Elytral intervals slightly convex, with very fine microgranulation and sparse, small and shallow punctures.

Scutellum. Ochre yellow, roundly triangular.

Elytral epipleura well-developed, pale reddish brown, with one row of punctures in basal part distinctly narrowing to ventrite 1, then relatively narrow and parallel in apical part.

Legs. Long and narrow, ochre yellow, apex of femora darker. Dorsal surface with long and dense pale setation. Pro- and mesotarsomeres 3 and 4 and metatarsomere 3 widened and lobed. RLT: 1.00 : 0.55 : 0.65 :

0.86 : 1.10 (protarsus), 1.00 : 0.47 : 0.55 : 0.72 : 1.04 (mesotarsus), 1.00 : 0.61 : 0.49 : 0.94 (metatarsus).

Tarsal claws large, both protarsal with more than 30 visible teeth only in one side of hollow claw.

Ventral side of body ochre yellow or pale reddish brown with short, pale setae and punctures. Abdomen pale reddish brown with fine microgranulation, small and shallow punctures and sparse, pale setae. Ultimate ventrite with triangular shaped shallow impression in the middle of apex.

Aedeagus (Figs. 19, 20) large, ochre yellow, rather matt. Basal piece slightly rounded laterally and slightly narrowing in dorsal view. Apical piece elongate triangular with rounded top or beak shaped from dorsal view, hook shaped laterally. Ratio of length of apical piece to length of basal piece from dorsal view 1: 2.26.

Female. Body, pronotum and space between eyes wider, elytra widest near two thirds from base to apex, both protarsal claws with only 15 visible.

Measurements of female body. BL 8.74 mm; HL 1.32 mm; HW 1.33 mm; OI 24.72; PL 1.37 mm; PW 1.71 mm; PI 80.12; EL 6.05 mm; EW 2.72 mm; AL(1–11) 6.10 mm; AL/BL(1–11) 0.70; HW/PW 0.78; BL/EW 3.21; EL/EW 2.22.

RLA(1–11): 0.52 : 0.21 : 1.00 : 1.04 : 0.96 : 0.97 : 0.96 : 1.03 : 1.07 : 1.05 : 1.01.

RL/WA(1–11): 2.20 : 1.22 : 5.83 : 5.19 : 4.21 : 4.25 : 4.21 : 4.50 : 4.67 : 4.78 : 4.82.

RLT: 1.00 : 0.43 : 0.42 : 0.63 : 1.22 (protarsus), 1.00 : 0.38 : 0.43 : 0.46 : 0.95 (mesotarsus); 1.00 : 0.39 : 0.33 : 0.68 (metatarsus).

Variability. The type specimens somewhat vary in size; each character is given as its mean value, with full range in parentheses. Males (n = 7). BL 7.95 mm (7.62–8.50 mm); HL 1.21 mm (1.15–1.23 mm); HW 1.20 mm (1.14–1.28 mm); OI 18.13 (15.52–19.38); PL 1.26 mm (1.23–1.32 mm); PW 1.52 mm (1.43–1.57 mm); PI 83.19 (81.05–85.72); EL 5.48 mm (5.23–5.93 mm); EW 2.32 mm (2.20–2.43 mm). Females (n = 10). BL 8.26 mm (7.98–8.74 mm); HL 1.24 mm (1.17–1.32 mm); HW 1.26 mm (1.20–1.33 mm); OI 23.88 (22.56–25.19); PL 1.28 mm (1.20–1.37 mm); PW 1.60 mm (1.51–1.71 mm); PI 80.29 (79.17–81.17); EL 5.73 mm (5.47–6.05 mm); EW 2.55 mm (2.46–2.72 mm).

Differential diagnosis. (For details see the key above). Similar species in the subgenus *Oracula* Novák, 2019 is *Oracula* (*O.*) *pseudoclara* sp. nov. from Houaphanh Province (Laos).

Oracula (*Oracula*) *attapuica* sp. nov. clearly differs from the similar species *O.* (*O.*) *pseudoclara* mainly by its smaller body (BL approximately 8 mm in males and 8.3 mm in females), by the apex of femora blackish and by each of antennomeres 5–11 1.3–1.5 times longer than antennomere 3; while *O.* (*O.*) *pseudoclara* has larger body (BL approximately 10.6 mm in males and 11.4 mm in females), legs are completely pale and each of antennomeres 5–11 is approximately as long as antennomere 3.

Etymology. Toponymic, named after the type locality Attapu Province in Laos.

Distribution. Laos (Attapu Province).

***Oracula* (*Oracula*) *imperita* sp. nov.**

(Figs. 21–24)

Type locality. Northeastern Laos, Houaphanh Province, Ban Saleui, Phou Pan Mt., 20°12'N, 104°01'E, 1300–1900 m.

Type material. Holotype (♂): LAOS, NE, P: Hua Phan / Ban Saleui, Phou Pan / (Mt.), 1300–1900m, 03.– / 30.IV.2014, 20°12'N / 104°01'E, lg. Holzschuh, (NMEG). Paratypes: (2 ♂♂, 3 ♀♀): same data as holotype, (NMEG, VNPC); (1 ♀): NE LAOS: Hua Phan prov. / Ban Saleui env. / MT. PHU PANE / 1200–1600m, 6.–20.5.2014 / P. Viktora et local coll. lgt., (VNPC); (1 ♂): NE LAOS, Hua Phan prov. / Ban Saleui, Phou Pan Mt. / 20°13'N 103°59'E; 6.–18.v. / 2004; 1300–2000m; / F. & L. Kantner lgt., (VNPC); (1 ♀): LAOS-NE, Houa Phan prov., / 20°12'–13.5'N, 103°59.5'–104.01'E, / Ban Saleui→Phou Pane Mt., / 1340–1870 m, 15.vi.–15.v. / 2008, Lao collectors leg., (NMPC); (1 ♂): [LAOS] XIENG KHOUANG, / Hot Spring, alt. 570 m / 19.559172° 103.687003° / May 4, 2015 / leg. T. HIGURASHI / Permit No. 25–04.2015, (NMTJ). The types are provided with a printed red label: "*Oracula* / (*Oracula*) *imperita* sp. nov. / HOLOTYPUS [or PARATYPUS] / V. Novák det. 2022".

Description

Male holotype. Habitus as in Fig. 21, body smaller, narrow, elongate, *Leptura* shaped, shiny, from ochre yellow to black, dorsal surface with pale setae, punctures and fine microgranulation, BL 8.83 mm. Widest near middle elytra length; BL/EW 3.52.

Head (Fig. 22) as long as wide, through the eyes distinctly wider than anterior margin, finely narrower than base of pronotum. Dorsal surface semi-matt with pale setae. Posterior half black with coarser punctures than those in reddish brown anterior part with distinct microgranulation. Clypeus wide, transverse, half heart shaped, pale reddish brown with apex excised in middle. Dorsal surface with shallow punctures, long, pale setae and microgranulation, rather matt. Mandibles pale reddish brown with darker sides and apex, glabrous, shiny. HW 1.33 mm; HW/PW 0.85; HL (visible part) 1.32 mm. Eyes large, transverse, excised, space between eyes narrow, distinctly narrower than diameter of one eye; wider than length of antennomere 1; OI equal to 22.91.

Antenna. Long, narrow, pale reddish brown, rather matt (AL 6.15 mm; AL/BL 0.70 – distinctly exceeding two thirds body length). Dorsal surface with long and dense, pale setation, microgranulation and small, shallow punctures. Antennomere 2 shortest, antennomeres 4–11 shorter than antennomere 3.

RLA(1–11): 0.40 : 0.25 : 1.00 : 0.96 : 0.83 : 0.96 : 0.89 : 0.91 : 0.90 : 0.89 : 0.91.

RL/WA(1–11): 1.81 : 1.48 : 6.32 : 5.36 : 4.60 : 5.15 : 4.92 : 4.89 : 5.44 : 5.39 : 6.35.

Maxillary palpus ochre yellow, rather matt, with pale setation and very fine microgranulation. Palpomeres 2 and 3 distinctly narrowest at base, ultimate palpomere widely triangular.

Pronotum (Fig. 22) black, shiny, slightly convex, widest near middle, distinctly narrower than elytra at humeri, almost as long as wide. Dorsal surface with a few, pale and dark setae, fine microgranulation and dense punctation, punctures large, intervals between punctures almost narrower than diameter of punctures. PL 1.44 mm; PW 1.56 mm; PI equal to 92.31. Border lines very narrow, margins conspicuous from dorsal view. Lateral margins finely arcuate. Base finely bisinuate, anterior margin almost straight, anterior and posterior angles obtuse.

Elytra. Black, narrow, elongate, slightly convex, shiny, widest near middle. Dorsal surface with pale setae. EL 6.07 mm; EW 2.51 mm; EL/EW 2.42. Elytral striae with rows of large and coarse punctures, approximately as large as those in pronotum, intervals between punctures in rows narrower than diameter of punctures. Elytral intervals finely convex, with microgranulation and small, shallow punctures.

Scutellum. Black, semielliptical, shiny, with punctures and fine microgranulation.

Elytral epipleura well-developed, blackish brown, with row of punctures in basal part, distinctly narrowing to ventrite 1, then leads parallel in apical part.

Legs. Long and narrow, ochre yellow, apex of femora pale reddish brown. Dorsal surface with pale setation and fine microgranulation. Tibiae straight, normally shaped, slightly widened apically. Pro- and mesotarsomeres 3 and 4 and metatarsomere 3 widened and lobed. RLT: 1.00 : 0.49 : 0.64 : 0.94 : 1.68 (protarsus), 1.00 : 0.50 : 0.36 : 0.53 : 1.02 (mesotarsus), 1.00 : 0.44 : 0.39 : 0.81 (metatarsus).

Tarsal claws large, both protarsal claws with more than 30 visible teeth only on one side of hollow claw.

Ventral side of body blackish brown with small punctures and pale setae. Abdomen black, shiny, almost glabrous, with very fine microgranulation and small, shallow punctures.

Aedeagus (Figs. 23, 24) ochre yellow, slightly shiny. Basal piece finely rounded laterally, apical part finely narrowing in dorsal view. Apical piece beak shaped from dorsal and lateral views. Ratio of length of apical piece to length of basal piece from dorsal view 1: 3.36.

Female. Body slightly wider, protarsal claws with only 14 and 12 visible teeth.

Measurements of female body. BL 9.29 mm; HL 1.40 mm; HW 1.43 mm; OI 24.91; PL 1.41 mm; PW 1.63 mm; PI 86.50; EL 6.48 mm; EW 2.90 mm; AL(1–11) 6.25 mm; AL/BL(1–11) 0.68; HW/PW 0.88; BL/EW 3.19; EL/EW 2.24.

RLA(1–11): 0.52 : 0.26 : 1.00 : 0.94 : 0.88 : 1.00 : 1.05 : 1.05 : 1.05 : 1.02 : 1.10.

RL/WA(1–11): 1.67 : 1.13 : 3.74 : 3.41 : 3.64 : 3.87 : 3.70 : 3.49 : 3.59 : 3.69 : 4.41.

RLT: 1.00 : 0.51 : 0.55 : 0.74 : 1.46 (protarsus), 1.00 : 0.48 : 0.35 : 0.52 : 1.08 (mesotarsus); 1.00 : 0.55 : 0.45 : 0.86 (metatarsus).

Variability. The type specimens somewhat vary in size; each character is given as its mean value, with full range in parentheses. Males (n = 5). BL 9.53 mm (8.60–11.03 mm); HL 1.45 mm (1.32–1.68 mm); HW 1.47 mm (1.33–1.70 mm); OI 24.08 (22.91–25.97); PL 1.51 mm (1.37–1.66 mm); PW 1.66 mm (1.55–1.83 mm); PI 90.92 (88.39–92.40); EL 6.57 mm (5.86–7.69 mm); EW 2.70 mm (2.45–3.01 mm). Females (n = 5). BL 9.52 mm (9.29–9.72 mm); HL 1.44 mm (1.40–1.50 mm); HW 1.47 mm (1.43–1.53 mm); OI 27.97 (24.91–32.19); PL 1.49 mm (1.41–1.54 mm); PW 1.75 mm (1.63–1.83 mm); PI 85.03 (84.15–86.50); EL 6.59 mm (6.48–6.68 mm); EW 2.97 mm (2.90–3.09 mm).

Differential diagnosis. (For details see the key above). Similar species in the subgenus *Oracula* Novák, 2019 is *Oracula* (*O.*) *venusta* Novák, 2019 from Laos (Houaphanh Province).

Oracula (*Oracula*) *imperita* sp. nov. clearly differs from similar species *O.* (*O.*) *venusta* mainly by dorsal surface of elytra black and semi-matt and by shape of apical piece of aedeagus as in Figs. 23 and 24; while *O.* (*O.*) *venusta* has dorsal surface of elytra with green or goldenish green metallic lustre and shape of apical piece of aedeagus is as in Novák 2019: 82: figs. 36 and 37.

Etymology. From Latin *imperita* (meaning ‘inexperienced’).

Distribution. Laos (Houaphanh Province).

Oracula (*Oracula*) *pseudoclara* sp. nov.

(Figs. 25–28)

Type locality. Laos, Houaphanh Province, Salemi.

Type material. Holotype (♂): LAOS SALEMI, HUA / PHAN, 15.7.2013 / X. GOUVERNEUR lgt., (ERMI). Paratypes: (6 ♂♂, 2 ♀♀): same data as holotype, (ERMI, VNPC). The types are provided with a printed red label: "*Oracula* / (*Oracula*) *pseudoclara* sp. nov. / HOLOTYPE [or PARATYPE] / V. Novák det. 2022".

Description

Male holotype. Habitus as in Fig. 25, body larger, narrow, elongate, *Leptura* shaped, shiny, from yellow to brown, dorsal surface with pale setation, punctuation

and very fine microgranulation, BL 10.21 mm. Widest near middle elytra length; BL/EW 3.66.

Head (Fig. 26) approximately as long as wide, through the eyes distinctly wider than anterior margin, finely narrower than base of pronotum. Dorsal surface shiny with a few pale setae and punctures. Microgranulation of brown posterior part with coarser punctures indistinct, pale reddish brown anterior half with fine shallower punctures and microgranulation. Clypeus wide, transverse, half heart shaped, yellow with apex excised in middle. Dorsal surface with punctures, long, yellow setae and microgranulation, rather matt. Mandibles ochre yellow with sides and apex darker, glabrous, shiny. HW 1.51 mm; HW/PW 0.79; HL (visible part) 1.48 mm. Eyes large, transverse, excised, space between eyes narrow, distinctly narrower than diameter of one eye; slightly narrower than length of antennomere 1; OI equal to 21.92.

Antenna. Long, narrow, yellow, rather matt (AL8.11 mm; AL/BL0.79 – exceeding three quarters body length). Surface with yellow setation, microgranulation and shallow punctures. Antennomere 2 shortest, antennomere 4 longest, antennomeres 5–10 approximately as long as antennomere 3.

RLA(1–11): 0.50 : 0.19 : 1.00 : 1.24 : 0.92 : 0.92 : 1.02 : 0.98 : 1.02 : 0.97 : 1.10.

RL/WA(1–11): 2.27 : 1.40 : 6.48 : 8.04 : 6.91 : 6.23 : 6.13 : 5.84 : 7.24 : 7.25 : 8.63.

Maxillary palpus yellow, rather matt, with yellow setation, shallow punctures and fine microgranulation. Palpomeres 2 and 3 distinctly narrowest at base, ultimate palpomere widely triangular.

Pronotum (Fig. 26) reddish brown, shiny, slightly convex, widest in base, distinctly narrower than elytra at humeri. Disc with two small and shallow oblique impressions from both sides of middle to posterior angles. Dorsal surface with sparse, pale setae, very fine microgranulation and punctuation, punctures medium sized, intervals between punctures wider than diameter of punctures. PL 1.64 mm; PW 1.92 mm; PI equal to 85.42. Border lines very narrow, margins conspicuous from dorsal view. Lateral margins finely excised before posterior angles, in apical part arcuate. Base finely bisinuate, anterior margin slightly arcuate in middle, anterior and posterior angles obtuse.

Elytra. Pale brown, narrow, elongate, slightly convex, shiny, widest near middle. Dorsal surface with pale se-

tation. EL 7.09 mm; EW 2.79 mm; EL/EW 2.54. Elytral striae with rows of coarse punctures, approximately as large as those in pronotum, intervals between punctures in rows mostly narrower than diameter of punctures. Elytral intervals finely convex, with very small punctures. Scutellum. Pale brown with sides darker, semielliptical, shiny, with microgranulation and a few small, shallow punctures.

Elytral epipleura well-developed, reddish brown, with sparse, long, pale setae and punctures in basal part, distinctly narrowing to ventrite 1, then pale reddish brown, relatively wide and parallel in apical part.

Legs. Yellow, long and narrow. Dorsal surface with long, yellow setation, fine microgranulation and very small punctures. Tibiae straight, normally shaped, widened apically. Pro- and mesotarsomeres 3 and 4 and metatarsomere 3 widened and lobed. RLT: 1.00 : 0.52 : 0.42 : 0.71 : 1.56 (protarsus), 1.00 : 0.41 : 0.26 : 0.37 : 1.15 (mesotarsus), 1.00 : 0.52 : 0.39 : 0.85 (metatarsus). Tarsal claws large, both protarsal claws with more than 40 visible teeth only on one side of hollow claw.

Ventral side of body reddish brown with small punctures and pale setae. Abdomen pale brown, shiny with sparse, pale setae, fine microgranulation and shallow punctures. Ultimate ventrite with large, shallow impression in apical part.

Aedeagus (Figs. 27, 28) ochre yellow, rather matt. Basal piece finely rounded laterally and narrowing in dorsal view. Apical piece elongate triangular from dorsal view, beak shaped dorsally and laterally. Ratio of length of apical piece to length of basal piece from dorsal view 1: 2.34.

Female. Body and space between eyes wider, both protarsal claws with only 16 visible teeth.

Measurements of female body. BL 11.50 mm; HL 1.64 mm; HW 1.65 mm; OI 33.75; PL 1.98 mm; PW2.30 mm; PI 86.09; EL 7.88 mm; EW 3.39 mm; AL(1–11) 10.17 mm; AL/BL(1–11) 0.88; HW/PW 0.72; BL/EW 3.39; EL/EW 2.33.

RLA(1–11): 0.41 : 0.21 : 1.00 : 1.24 : 1.29 : 1.28 : 1.27 : 1.27 : 1.25 : 1.22 : 1.09.

RL/WA(1–11): 1.84 : 1.75 : 8.10 : 9.59 : 9.52 : 12.11 : 12.71 : 12.65 : 12.47 : 10.35 : 8.21.

RLT: 1.00 : 0.63 : 0.69 : 1.15 : 1.78 (protarsus), 1.00 : 0.32 : 0.43 : 0.50 : 1.73 (mesotarsus); 1.00 : 0.35 : 0.55 : 0.97 (metatarsus).

Variability. The type specimens somewhat vary in size; each character is given as its mean value, with full range in parentheses. Males (n = 7). BL 10.61 mm (10.21–10.86 mm); HL 1.48 mm (1.42–1.60 mm); HW 1.51 mm (1.46–1.62 mm); OI 20.29 (19.17–21.92); PL 1.73 mm (1.64–1.82 mm); PW 1.98 mm (1.92–2.09 mm); PI 87.03 (85.42–88.27); EL 7.39 mm (7.09–7.56 mm); EW 2.89 mm (2.74–3.02 mm). Females (n = 2). BL 11.41 mm (11.31–11.50 mm); HL 1.59 mm (1.54–1.64 mm); HW 1.61 mm (1.56–1.65 mm); OI 33.47 (33.18–33.75); PL 1.85 mm (1.71–1.98 mm); PW 2.19 mm (2.08–2.30 mm); PI 84.15 (82.21–86.09); EL 7.97 mm (7.88–8.06 mm); EW 3.41 mm (3.39–3.43 mm).

Differential diagnosis. (For details see the key above). Similar species is *Oracula (Duocula) clara* Novák, 2019 from Houaphanh Province (Laos). *Oracula (Oracula) pseudoclara* sp. nov. clearly differs from the similar species *O. (D.) clara* mainly by protarsal claws with teeth only in one side of hollow claw (clearly belonging to the subgenus *Oracula* Novák, 2019); while *O. (D.) clara* has teeth on both sides of hollow claw (clearly belonging to the subgenus *Duocula* Novák, 2019).

Etymology. Compound name – *pseudo-* (false) and *clara-* indicating its resemblance to the species *Oracula (Duocula) clara* Novák, 2019.

Distribution. Laos (Houaphanh Province).

List of *Oracula* species from Laos

genus *Oracula* Novák, 2019

subgenus *Duocula* Novák, 2019

Oracula (Duocula) aeterna sp. nov.
Oracula (Duocula) clara Novák, 2019
Oracula (Duocula) obscura sp. nov.
Oracula (Duocula) pulchra Novák, 2019
Oracula (Duocula) vaga sp. nov.
Oracula (Duocula) valida sp. nov.

subgenus *Oracula* Novák, 2019

Oracula (Oracula) attapuica sp. nov.
Oracula (Oracula) imperita sp. nov.
Oracula (Oracula) pseudoclara sp. nov.
Oracula (Oracula) venusta Novák, 2019

Key to the Laotian species of the genus *Oracula*

- | | | | |
|----|------|--|---|
| 1 | (2) | Protarsal claws of male with teeth from both sides of hollow claw subgenus <i>Duocula</i> Novák, 2019 ... | 3 |
| 2 | (1) | Protarsal claws of male with teeth only from one side of hollow claw subgenus <i>Oracula</i> Novák, 2019 ... | 13 |
| 3 | (4) | Dorsal surface pale (ochre yellow, pale brown or pale reddish brown). See NOVÁK 2019: 62: habitus as in fig. 5, head and pronotum (fig. 6), apical piece of aedeagus (figs. 7 and 8).
..... <i>Oracula (Duocula) clara</i> Novák, 2019 | 5 |
| 4 | (3) | Dorsal surface dark. | 5 |
| 5 | (6) | Dorsal surface with goldenish green metallic lustre. See NOVÁK 2019: 62: habitus as in fig. 13, head and pronotum (fig. 14), apical piece of aedeagus (figs. 15 and 16)
..... <i>Oracula (Duocula) pulchra</i> Novák, 2019 | 9 |
| 6 | (5) | Dorsal surface without goldenish green metallic lustre. | 7 |
| 7 | (8) | Dorsal surface matt. Habitus as in Fig. 5, head and pronotum (Fig. 6), apical piece of aedeagus as in Figs. 7 and 8. | <i>Oracula (Duocula) obscura</i> sp. nov. |
| 8 | (7) | Dorsal surface shiny. | 9 |
| 9 | (10) | Femora of one colour (reddish brown). Habitus as in Fig. 13, head and pronotum (Fig. 14), apical piece of aedeagus as in Figs. 15, 16. | <i>Oracula (Duocula) valida</i> sp. nov. |
| 10 | (9) | Femora bicolor. | 11 |
| 11 | (12) | Tibiae, tarsi and antenna pale (yellow, ochre yellow), surface with shorter, almost pale setae. Habitus as in Fig. 1, head and pronotum (Fig. 2), apical piece of aedeagus as in Figs. 3, 4
..... <i>Oracula (Duocula) aeterna</i> sp. nov. | |

- 12 (11) Tibiae, tarsi and antenna black, surface with long, black, erect setae. Habitus as in Fig. 9, head and pronotum (Fig. 10), apical piece of aedeagus as in Figs. 11, 12. *Oracula (Duocula) vaga* sp. nov.
- 13 (14) Dorsal surface pale. 15
- 14 (13) Dorsal surface dark. 17
- 15 (16) Smaller species (BL approximately 8 mm in males and 8.3 mm in females), apex of femora blackish, each of antennomeres 5-11 1.3-1.5 times longer than antennomere 3. Habitus as in Fig. 17, head and pronotum (Fig. 18), apical piece of aedeagus as in Figs. 19, 20. *Oracula (Oracula) attapuica* sp. nov.
- 16 (15) Larger species (BL 10.6 mm in males and 11.4 mm in females), legs completely pale, each of antennomeres 5-11 approximately as long as antennomere 3. Habitus as in Fig. 25, head and pronotum (Fig. 26), apical piece of aedeagus as in Figs. 27, 28. *Oracula (Oracula) pseudoclara* sp. nov.
- 17 (18) Dorsal surface of elytra with green or goldenish green metallic lustre. See NOVÁK 2019: 82; habitus as in fig. 34, head and pronotum (fig. 35), apical piece of aedeagus (figs. 36 and 37). *Oracula (Oracula) venusta* Novák, 2019
- 18 (17) Dorsal surface of elytra black and semi-matt. Habitus as in Fig. 21, head and pronotum (Fig. 22), apical piece of aedeagus as in Figs. 23, 24. *Oracula (Oracula) imperita* sp. nov.

Acknowledgements

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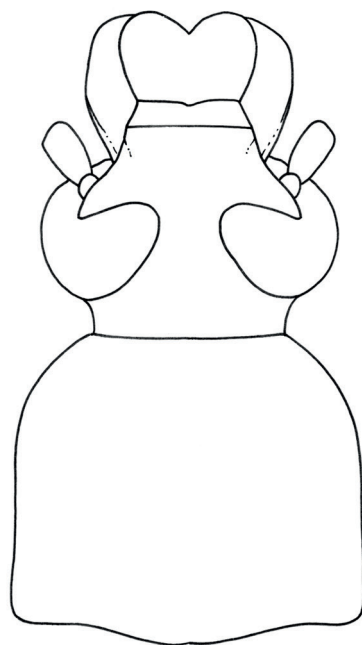
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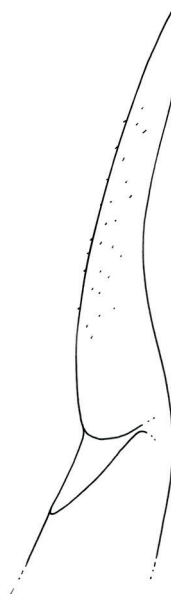
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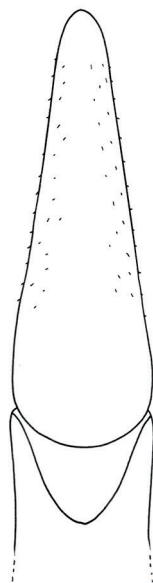
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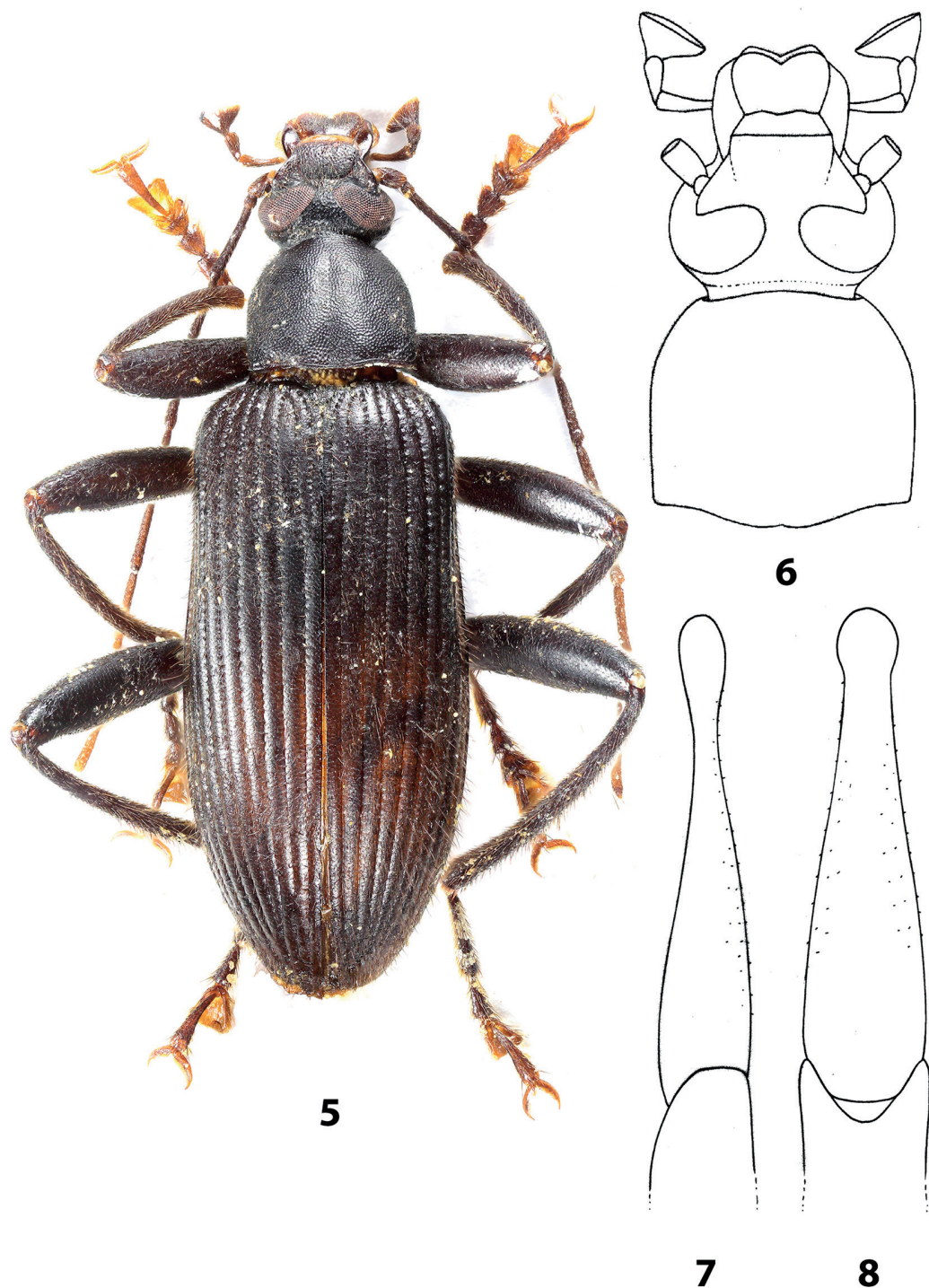


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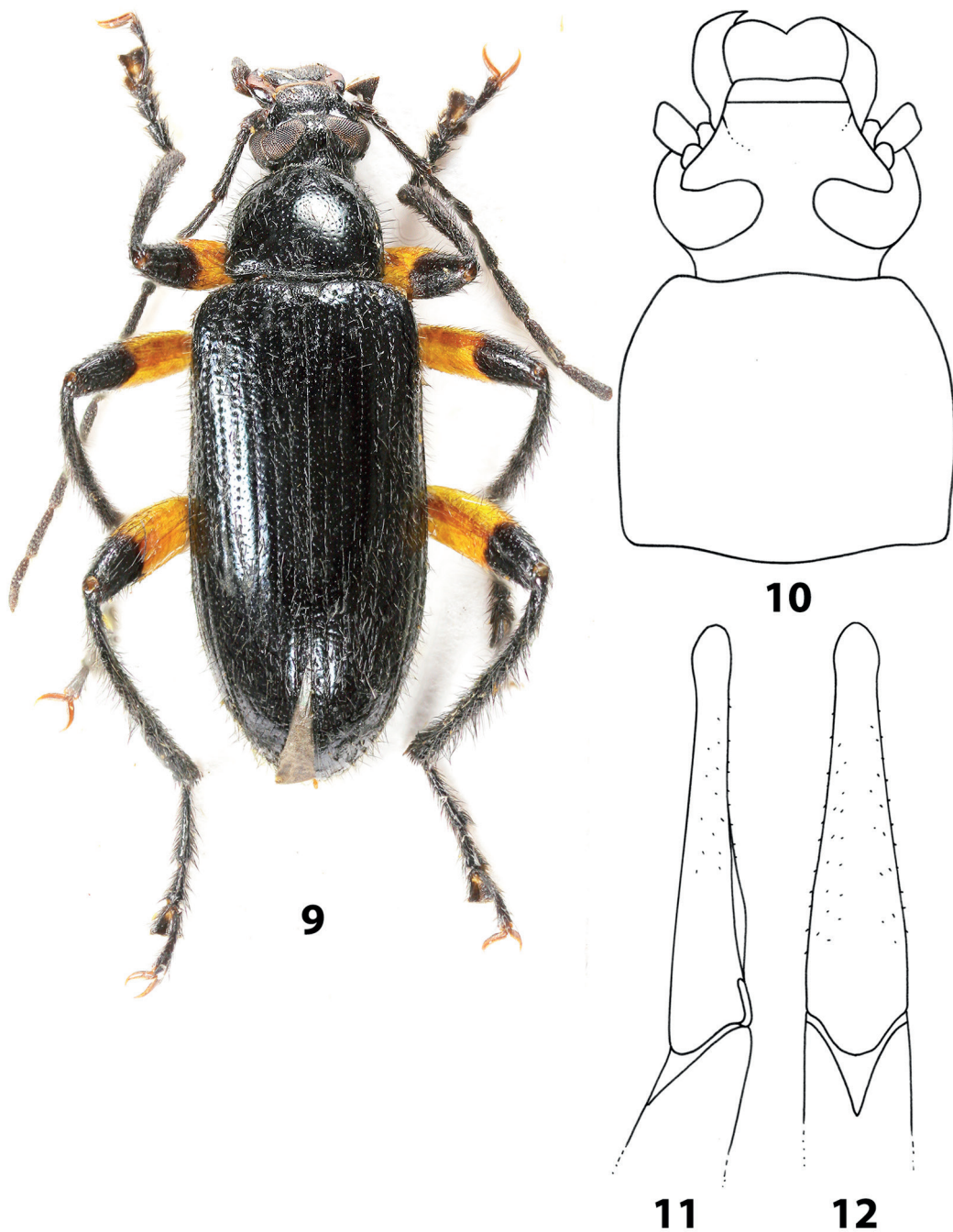


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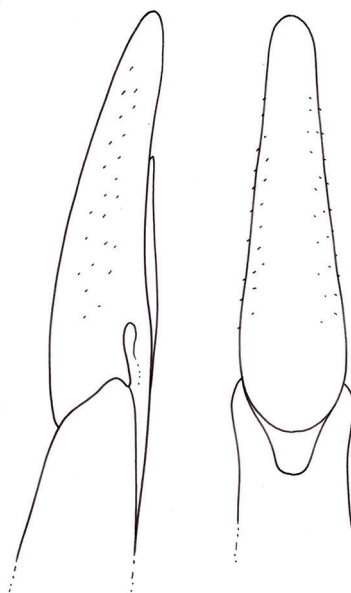
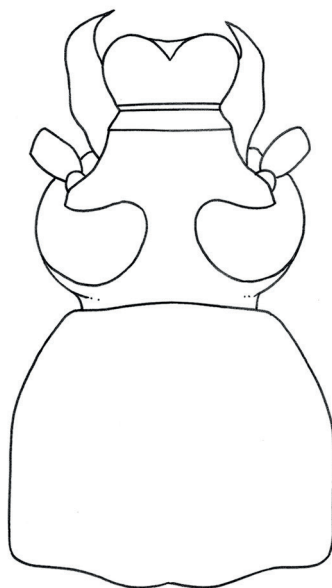
Figs. 1–4: *Oracula (Duocula) aeterna* sp. nov. (Figs. 1, 2: holotype): **1** – habitus; **2** – head and pronotum; **3** – apical piece of aedeagus, lateral view; **4** – apical piece of aedeagus, dorsal view.



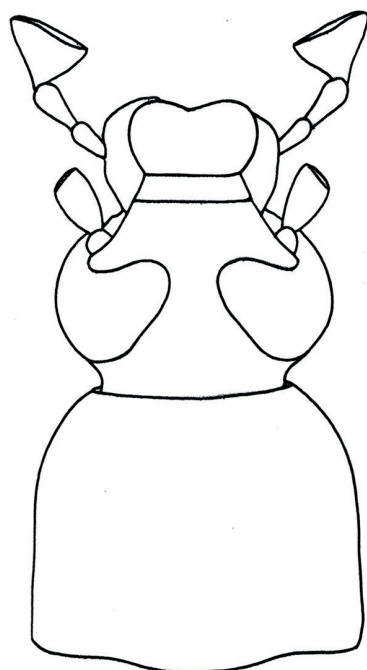
Figs. 5–8: *Oracula (Duocula) obscura* sp. nov. (holotype): 5 – habitus; 6 – head and pronotum; 7 – apical piece of aedeagus, lateral view; 8 – apical piece of aedeagus, dorsal view.



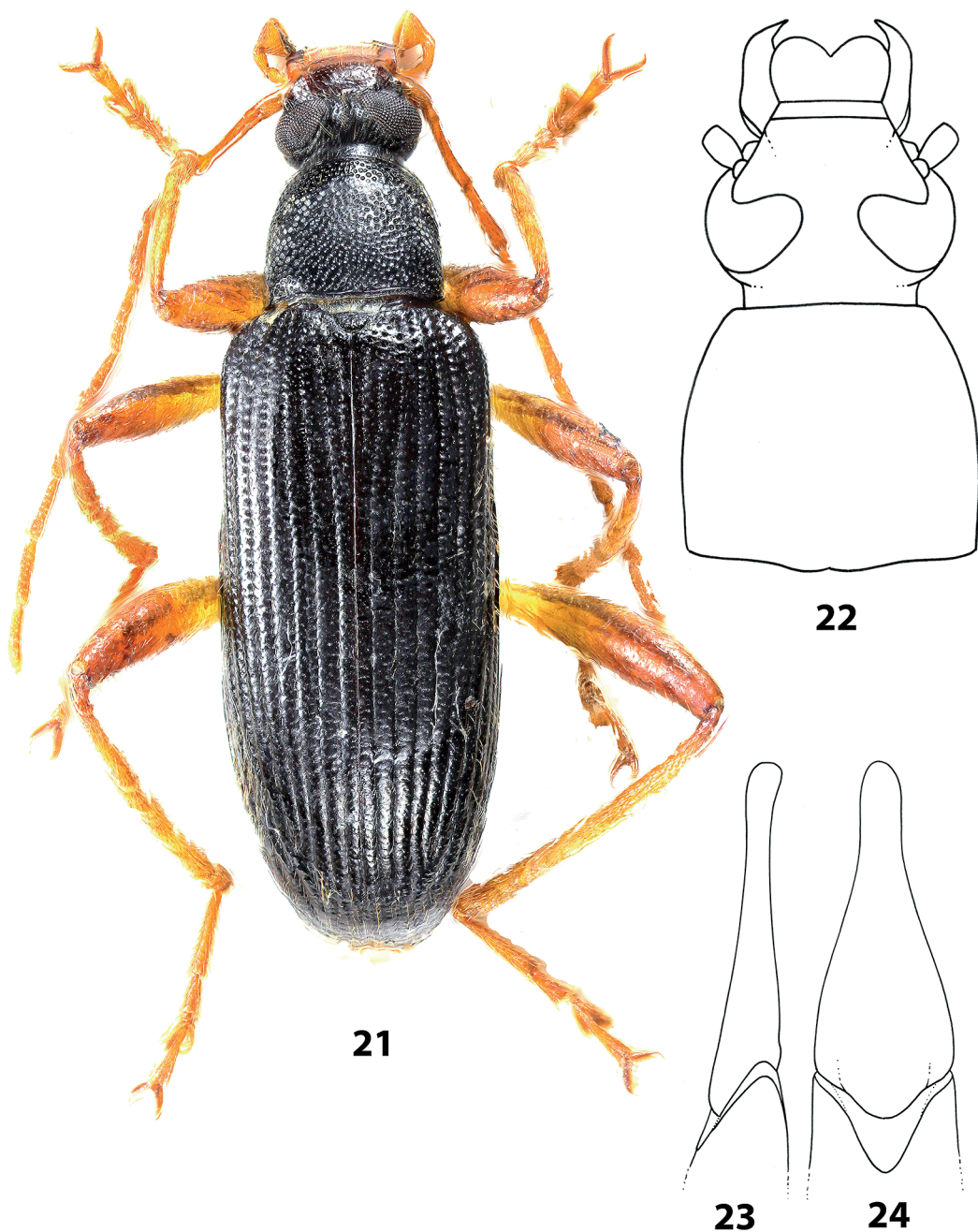
Figs. 9–12: *Oracula (Duocula) vaga* sp. nov. (Figs. 9, 10: holotype): **9** – habitus; **10** – head and pronotum; **11** – apical piece of aedeagus, lateral view; **12** – apical piece of aedeagus, dorsal view.



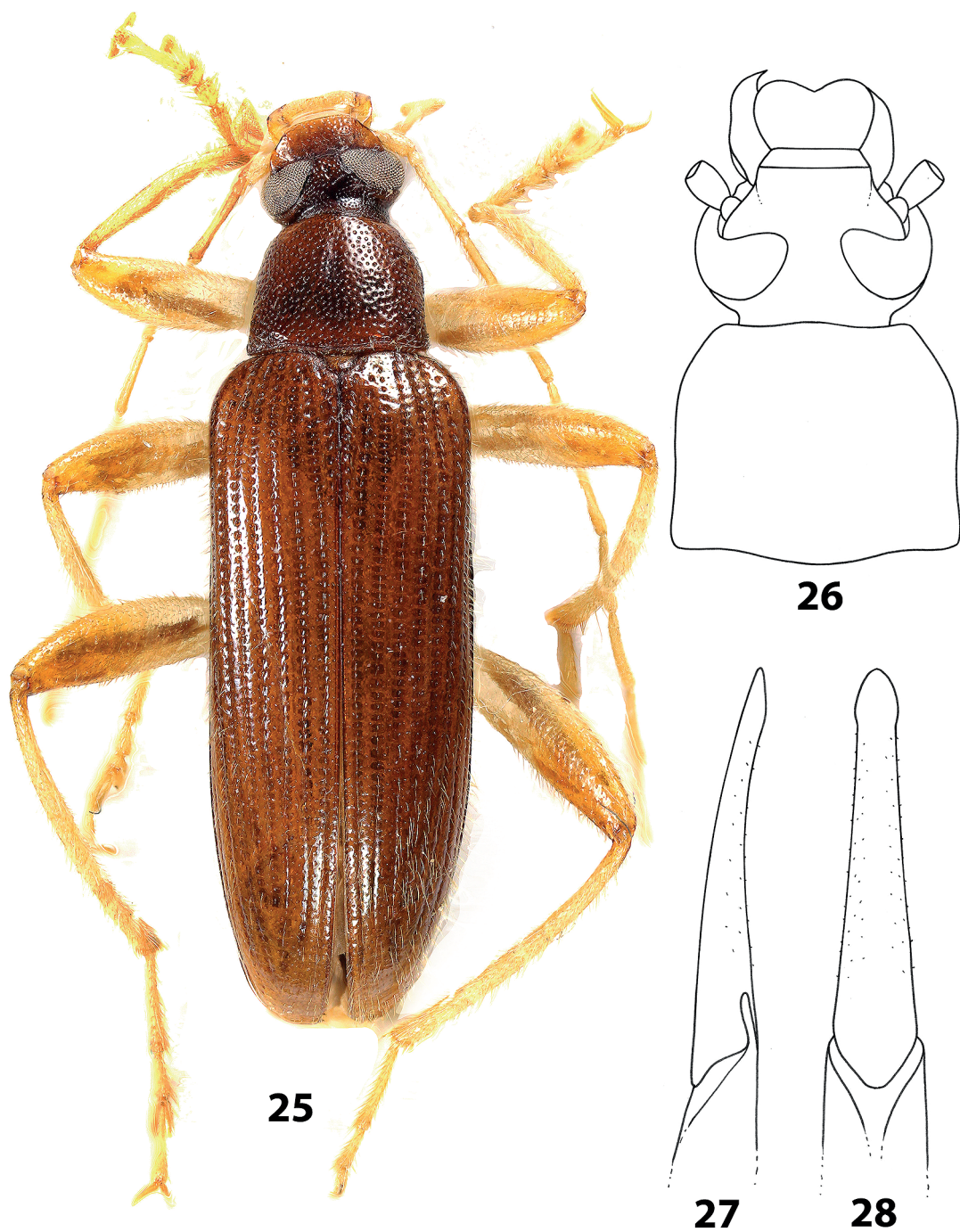
Figs. 13–16: *Oracula (Duocula) valida* sp. nov. (holotype): **13** – habitus; **14** – head and pronotum; **15** – apical piece of aedeagus, lateral view; **16** – apical piece of aedeagus, dorsal view.



Figs. 17–20: *Oracula (Oracula) attapuica* sp. nov. (Figs. 17, 18: holotype): 17 – habitus; 18 – head and pronotum; 19 – apical piece of aedeagus, lateral view; 20 – apical piece of aedeagus, dorsal view.



Figs. 21–24: *Oracula (Oracula) imperita* sp. nov. (Figs. 21, 22: holotype): 21 – habitus; 22 – head and pronotum; 23 – apical piece of aedeagus, lateral view; 24 – apical piece of aedeagus, dorsal view.



Figs. 25–28: *Oracula (Oracula) pseudoclara* sp. nov. (Figs. 25, 26: holotype): 25 - habitus; 26 - head and pronotum; 27 - apical piece of aedeagus, lateral view; 28 - apical piece of aedeagus, dorsal view.