New and little known species of *Falsolucidota* Pic, 1921 from New Guinea (Coleoptera: Lycidae)

Новые и малоизвестные виды *Falsolucidota* Pic, 1921 из Новой Гвинеи (Coleoptera: Lycidae)

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КЛЮЧЕВЫЕ СЛОВА: Coleoptera, Lycidae, новые виды, Папуасская область.

**ABSTRACT:** Five new species of net-winged beetles from a metriorrhynchine genus *Falsolucidota* Pic, 1921: *F. curticollis*, *F. paula*, *F. planipennis*, *F. rajampatensis* and *F. telnovi* spp.n. are described from New Guinea and adjacent islands. Autapomorphies of *Falsolucidota* are discussed. *Falsolucidota testaceicollis* Pic, 1921, the type species of *Falsolucidota*, and *Marena tristis* Kazantsev, 2007, the type species of *Marena* Kazantsev, 2007, are illustrated.


**Material and Methods**

Collecting methods yielding the examined net-winged beetles were light traps and canopy fogging (used by Dr. O. Missa from the Institut Royal de Sciences naturelles de Belgique) and beating from tree branches and hand collecting from low-strata vegetation (used by Dr. D. Telnov and other members of the Entomological Society of Latvia Expedition to New Guinea).

The studied specimens were glued on cardboard or transparent plastic mounting plates. For detailed examination they were relaxed in water; then the detached ultimate abdominal segments were treated for several hours in 10% KOH at room temperature, and, with the extracted genitalia, placed in microvials with glycerin. MSP-1 zoom stereoscopic dissecting microscope with x8–80 magnification range was used. Photographs were taken with Canon EOS 6D camera and Canon MP-E 65 mm lens.

The following acronyms are used in the paper: ICM — Insect Center, Moscow; IRSN — Institut Royal de Sciences naturelles de Belgique, Bruxelles; MNHN — Museum national d’Histoire naturelle, Paris; NME — Naturkundemuseum, Erfurt.

**Taxonomy**

*Falsolucidota* Pic, 1921

*Falsolucidota* Pic, 1921: 9 type species: *Falsolucidota testaceicollis* Pic, 1921.

= *Hemiconderis* Kleine, 1926: 162 type species: *Hemiconderis expilicatus* Kleine, 1926: 162.

**DISTRIBUTION.** New Guinea and adjacent islands.

*Falsolucidota testaceicollis* Pic, 1921

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**Figure 1.**

*Falsolucidota testaceicollis* Pic, 1921

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**MATERIAL:** Lectotype, "Roon" (printed label), "Falsolucidota n.g. testaceicollis n.sp." (Pic’s manuscript label) (MNHN).

**REMARKS.** The description of *Falsolucidota testaceicollis* Pic, 1921 is very brief and the taxon is not illustrated [Pic, 1921]. Although an illustration of the aedeagus of the lectotype...
S.V. Kazantsev has already been published [Kazantsev, 2010a], a habitus photo of the lectotype is provided to add to the clarity of the taxon (Fig. 1). It differs from *Falsolucidota explicata* (Kleine, 1926) by the shorter antennae, which do not reach the elytral apices, and double rows of cells in all elytral interstices (in *F. explicata* interstices 3 and 4, except at humeri, bear single rows of cells, although the third primary elytral costa is similarly prominent only in the humeral area. Additionally, the penultimate ventrite in *F. testaceicollis* is medially without median dent, and the penultimate tergite is fused, not divided into two sclerites (as in Figs 14–15), whereas in *F. explicata* the penultimate ventrite is medially dentate, and the penultimate tergite is divided into two sclerites (Figs 2–3). The aedeagus in *F. testaceicollis* has two one-level spine-bearing rings in a scissors-like structure (similar to Fig. 16), while in *F. explicata* the spine-bearing rings are located at different levels (Fig. 4).

**DISTRIBUTION.** Known only from the island of Roon, just off the northern coast of New Guinea.

**Falsolucidota paula** Kazantsev, *sp.n.*

*MATERIAL:* Holotype, ♀, Papua New Guinea, 38 km N Madang, 2 km NW Matukar, 6.III.1989, M. Holyńska leg. (ICM)

**DESCRIPTION. Male.** Uniformly dark brown to black. Vertex with conspicuous longitudinal impression behind antennal prominence. Eyes moderately large, interocular distance ca. 1.1 times greater than eye diameter. Labrum small, transverse. Palps slender; ultimate palpomeres relatively small, subquadrate, flattened and glabrous at apex. Antennal sockets separated by narrow lamina. Antennae almost attaining to elytral apices, from antennomere 3 flattened; antennomere 2 short, transverse, antennomere 3 ca. 1.2 times longer than antennomere 4; antennomeres 3–11 with short semi-erect pubescence (Fig. 5).

Pronotum transverse, ca. 1.7 times as wide as long, with almost straight sides, bisinuate basally, with long acute posterior and conspicuous blunt anterior angles, anteriorly considerably produced forward; median cell diamond-shaped,
moderately broad, slightly rounded in the middle, reaching both anterior and posterior margins; lateral carinae almost obsolete, anterior cells absent; anterior fifth coarsely and sparsely punctate. Scutellum subquadrate, slightly narrowing distally, with small semi-circular notch at apex (Fig. 5).

Elytra long, 3.3 times longer than wide at humeri, flattened, slightly widened distally, with strong primary costa 2 and weakened, except at base, primary costa 3; interstices with double rows of irregular subquadrate cells, except interstices between primary costae 2 and 3 with single row of cells in the middle; bottom of cells velvety; pubescence mostly along costae, short and decumbent (Fig. 5). Tibiae and femurs straight, relatively narrow; tarsi short, ca. 0.5 length of tibiae, narrow.

Penultimate ventrite medially without dent; penultimate tergite fused, not divided into two sclerites (Figs 6–7). Aedeagus with straight, almost parallel-sided and conspicuously narrowed distally median lobe; inner sac with two two-level ring-like structures bearing two spines (Figs 8–9).

**Female.** Unknown.

Length: 4.2 mm. Width (humerally): 1.0 mm.

**ETYMOLOGY.** The name of the new species is derived from the Latin for "short", alluding to its size.

**DIAGNOSIS.** *Falsolucidota paula* sp.n. can be readily separated from the similarly coloured *F. paula* sp.n. by the short posterior pronotal angles, weaker elytral reticulation, as well as by the shape of the aedeagus, with rounded distally median lobe with two comma-like inner sac structures (Figs 10–11).

**DISTRIBUTION.** Known only from Misool.

*Falsolucidota curticollis* Kazantsev, sp.n.

**Fig. 12.**

**MATERIAL:** Holotype, ′E, Indonesia, Irian Jaya, Nabire area, road Nabire-Ilaga, 3°29.517′S, 135°43.913′E, ~750 m, LEK, X.1997, M. Balke leg. (NME).

**DESCRIPTION.** **Female.** Dark brown to black; ultimate palpmes, ventrum, pronotum, scutellum, elytra proximally along suture, abdomen basally, coxae, trochanters, basal halves of femoris and bases of tibiae orange testaceous.

Vertex with inconspicuous transverse impression behind antennal prominence. Elytral margins somewhat rounded, with small semi-circular notch at apex. Antennae almost exceeding elytral apices by two ultimate antennomeres, antennomeres from antennomere 3 flattened, elongate, almost parallel-sided; antennomere 2 short, transverse, antennomere 3 subequal in length to antennomere 4; antennomeres 3–11 with short semi-erect pubescence (Fig. 12).

Pronotum transverse, ca. 1.5 times as wide as long, with slightly concave sides, bisinuate basally, with long acute posterior and conspicuous blunt anterior angles, anteriorly moderately semi-circularly produced forward; median cell diamond-shaped, broad, reaching posterior and connected to margin by short costa; lateral carinae pronounced, almost straight, anterior cells absent; anterior fifth coarsely and sparsely punctate. Scutellum transverse, parallel-sided, with triangular incision at apex (Fig. 12).

Elytra narrow, long, ca. 4 times longer than wide at humeri, concave in the middle, diverging posteriorly, with primary costa 1 weakened in distal half and primary costa 3 weakened in distal four thirds; interstices with double rows of irregular subquadrate cells, except interstices 1 and 2 with single row of cells in distal third and interstices 3 and 4 with single row of cells in distal three fourths; pubescence scarce and short (Fig. 12). Tibiae and femurs straight, narrow; tarsi short, ca. 0.5 length of tibiae, narrow; tarsomere 1 without plantar pad, tarsomeres 2–4 with apical plantar pad.

**Male.** Unknown.

Length: 7.2 mm. Width (humerally): 1.4 mm.

**ETYMOLOGY.** The name of the new species is derived from the Latin for "with short neck", alluding to the relative size of its pronotum.

**DIAGNOSIS.** *Falsolucidota curticollis* sp.n., belonging in the *explicatus*-group, can be readily separated from all its members by the short and transverse pronotum and narrow and concave in the middle elytra (Fig. 12).

**DISTRIBUTION.** Known only from the Nabire area, Irian Jaya.

*Falsolucidota planipennis* Kazantsev, sp.n.

**Figs 13–17.**

**MATERIAL:** Holotype, ′E, Indonesia, Raja Ampat Prov., Waigeo Island, 10–13 km NE Waisai, 00°21′17″S, 130°54′37″E, –

Рис. 10–18. Общий вид и детали строения Falsolucidota, голотипы: 10–11 — F. telnovi sp.n.; 12 — F. curticolis sp.n.; 13–17 — F. planipennis sp.n.; 18 — F. rajampatensis sp.n.; 10, 12–13, 18 — общий вид; 11, 16–17 — эдеагус; 14 — предпоследний вентрит; 15 — вершинные сегменты брюшка; 10–11, 13–17 — самец; 12, 18 — самка; 10, 12–14, 16, 18 — сверху; 11, 15 — снизу; 17 — сбоку. Масштабные линейки: 0.5 мм.
New and little known species of Falsolucidota from New Guinea

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70 m, primeval lowland rainforest, on limestone, 16.II.2012, D. Telnov leg. (NME); paratype, c², same label (ICM).

DESCRIPTION. Male. Dark brown; pronotal margins, wider at sides, more narrow anterior and posteriorly, and basal halves of femoris testaceous.

Vertex with conspicuous trident impression behind antennal prominence. Eyes large, interocular distance ca. 1.4 times shorter than eye diameter. Labrum small, transverse, short, slightly emarginate anteriorly. Palps slender; ultimate palpomeres elongate, slightly narrowed and flattened at apex. Antennal sockets separated by minute lamina. Antennae almost attaining to elytral apices, from antennomere 3 flattened; antennomere 2 short, transverse, antennomere 3 ca. 1.15 times longer than antennomere 4; antennomeres 3–11 with short decumbent pubescence (Fig. 13).

Pronotum transverse, ca. 1.3 times as wide as long, with almost straight sides, bisinuate basally, with long acute posterior and conspicuous blunt anterior angles, anteriorly triangularly produced forward; median cell diamond-shaped, moderately broad, slightly rounded in the middle, reaching posterior and connected to margin by short costa; lateral carinae greatly reduced, anterior cells absent; anterior fifth coarsely and sparsely punctate. Scutellum transverse, trapezoidal, slightly narrowed distally, slightly triangularly emarginate at apex (Fig. 13).

Elytra long, ca. 3.5 times longer than wide at humeri, relatively broad, flattened, parallel-sided, with strong primary costa 2 and weakened, except at proximal fourth, primary costae 1 and 3; all interstices with double rows of irregular subquadrate cells; pubescence short and scarce (Fig. 13). Tibiae and femurs straight, relatively narrow; tarsi short, ca. 0.55 length of tibiae, tarsomeres relatively narrow.

Male. Unknown.

LENGTH: 5.2 mm. Width (humerally): 1.2 mm.

ETYMOLOGY. The name of the new species is derived from the Latin for “with even and/or flat body”, alluding to its antenna prominence.

DIAGNOSIS. Falsolucidota rajampatensis sp.n. can be readily separated from the similarly coloured congeners by the weak irregular elytral reticulation (Fig. 18).

DISTRIBUTION. Known only from Misool Island, Raja Ampat Province, in East Indonesia.

Marena Kazantsev, 2007

Marena Kazantsev, 2007: 297 type species: Marena tristis

Kazantsev, 2007

Falsolucidota rajampatensis Kazantsev, sp.n.

Fig. 18.

MATERIAL: Holotype, E Indonesia, Raja Ampat Prov., SW Misool, distr. Misool Utara, −2.5 km NNW Adavey (Adau) village, Hakau River valley, 01°58′46″S, 129°43′37″E, primeval lowland forest, river valley, beaten from branches, 29.III.2009, D. Telnov & K. Greke leg. (NME).

DESCRIPTION. Female. Dark brown; antennomere 2, narrow pronotal sides and basal two thirds of femoris testaceous.

Vertex with two small, but deep round impressions behind antennal prominence. Eyes small, interocular distance ca. 1.4 times greater than eye diameter. Labrum small, transverse. Palps slender; ultimate palpomeres relatively small, elongate, narrow and glabrous at apex. Antennal sockets separated by minute lamina. Antennae almost attaining to elytral apices, from antennomere 3 flattened; antennomere 2 short, transverse, antennomere 3 subequal in length to antennomere 4; antennomeres 3–11 with short semi-erect pubescence (Fig. 18).

Pronotum transverse, ca. 1.6 times as wide as long, trapezoidal, almost straight basally and anteriorly, with acute posterior and rounded blunt anterior angles; median cell oval, moderately broad, slightly reaching both anterior and posterior margins; lateral carinae obsolete, anterior cells absent; anterior fifth coarsely and sparsely punctate. Scutellum transverse, slightly narrowing distally, slightly broadly emarginate at apex (Fig. 18).

Elytra long, 3.6 times longer than wide at humeri, flattened, parallel-sided, with stronger primary costa 2 and weakened, except at base, primary costa 3; interstices with double rows of irregular subquadrate cells, except interstice 2, with single row of cells in the middle, and interstices 3 and 4, with single row of cells in distal twi thirds; pubescence mostly along costae, short and erect (Fig. 18). Tibiae and femurs straight, relatively narrow; tarsi short, ca. 0.55 length of tibiae, tarsomeres relatively narrow.
REMARKS. Three species of this genus are known [Kazantsev, 2007]. *Marena* looks somewhat similar to *Falsolucidota*, having similarly shaped antennae and quite similar elytral and, partly, pronotal structure. However, the aedeagus of *Marena* is quite unlike that of *Falsolucidota*: it has no sclerotized inner sac structures, its inner sac actually located outside the median lobe of the aedeagus (Figs 20–21). Besides, its median pronotal cell never attains the anterior margin (Fig. 19).

**DISTRIBUTION.** Madang, New Guinea.

*Marena tristis* Kazantsev, 2007

Figs 19–21.

*Marena tristis* Kazantsev, 2007: 299


**DISTRIBUTION.** Known only from Madang, New Guinea.

**Discussion**

The genus *Falsolucidota* has two principal morphological types, the *testaceicollis* type, characterized by complete double rows of cells in elytral interstices 3 and 4, and the *explicata* type, with a single row of cells in elytral interstices 3 and 4, except at humeri. The two type species of the group, *F. testaceicollis* and *F. explicata*, also differ in the length of their antennae, which is fully developed in *F. explicata* and reduced in *F. testaceicollis*.

The structure of the penultimate tergite, which is divided into two sclerites in *F. explicata* and fused in *F. testaceicollis*, and the aedeagus, with one-level spine-bearing ring-like structures in the median lobe in *F. testaceicollis* and two-level similar structures in *F. explicata*, — which may seem to testify to the occurrence of two distinct genus-level taxa within this group. Some species of the genus, i.e., *F. planipennis* sp.n. or *F. curticollis* sp.n., can be easily attributed to one of these types, e.g., the former to the *testaceicollis* type, the latter to the *explicata* type. However, some of their congeners, e.g., *F. paula* sp.n., occupy an intermediate position between the two groups, possessing elytral structure as in the *explicata* type and pronotal structure and antennal length as in the *testaceicollis* type. While its aedeagal structure corresponds to the *explicata* type, the structure of its penultimate tergite and ventrite is as in the *testaceicollis* type. This does not allow identifying reliable autapomorphies for the two lineages and regarding them as separate genus-level taxa, at least at the current level of knowledge of the group.

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**References**


