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Nine new Wakarumbia Bocak, 1999 species (Coleoptera: Lycidae) from Sulawesi

Девять новых видов Wakarumbia Bocak, 1999 (Coleoptera: Lycidae) с Сулавеси

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Key words: Coleoptera, Lycidae, Metriorrhynchini, new species, Papuan region, Wallacea. *Ключевые слова:* Coleoptera, Lycidae, Metriorrhynchini, новые виды, Папуасская область, Уоллесия.

Abstract. Nine new species of net-winged beetles of the genus Wakarumbia Bocak, 1999, W. brunneimarginata Kazantsev sp.n., W. minuta Kazantsev sp.n., W. nigronitens Kazantsev sp.n., W. nigrosimilis Kazantsev sp.n., W. olivacea Kazantsev sp.n., W. puririmbensis Kazantsev sp.n., W. silvicola Kazantsev sp.n., W. tenggaraensis Kazantsev sp.n. and W. wartabonensis Kazantsev sp.n., are described from Sulawesi. The number of species of Wakarumbia which is endemic to Sulawesi is increased to 40.

Резюме. С Сулавеси описываются девять новых видов жуков-краснокрылов из рода Wakarumbia Bocak, 1999, W. brunneimarginata Kazantsev **sp.n.**, W. minuta Kazantsev **sp.n.**, W. nigronitens Kazantsev **sp.n.**, W. nigrosimilis Kazantsev **sp.n.**, W. olivacea Kazantsev **sp.n.**, W. puririmbensis Kazantsev **sp.n.**, W. silvicola Kazantsev **sp.n.**, W. tenggaraensis Kazantsev **sp.n.** и W. wartabonensis Kazantsev **sp.n.** Число видов эндемичного для Сулавеси рода Wakarumbia увеличивается до 40.

Introduction

The Metriorrhynchini are by far the most diverse and species-rich group of net-winged beetles in the Papuan region, including its westernmost part, Wallacea, where the relatively low number of higher taxonomic groups is set off by the diversity of Lycidae at alphataxonomic level [Masek et al., 2018]. The island of Sulawesi, which represents the largest part of Wallacea, is no exception. Its metriorrhynchine species also outnumber other groups of Lycidae, but unlike in other parts of the sub-region, the island boasts four endemic metriorrhynchine genera, Broxylus Waterhouse, 1879, Wakarumbia Bocak, 1999, Sulabanus Dvorak et Bocak, 2007 and Mangkutanus Kubecek, Dvorak et Bocak, 2011, with many (and apparently more not yet described) species in each. The genus Wakarumbia, for example, one of the endemic four, was erected several years ago just for one species [Bocak, 1999], but the number of its species rapidly increased to 31 shortly afterwards [Bocak, 2000; 2001; Dvorak, Bocak, 2007].

An opportunity to study the Lycidae material collected in Sulawesi recently allows adding more new species to *Wakarumbia*. Altogether 70 specimens were studied, yielding nine new species, which brings the total number of *Wakarumbia* species to 40. Most of the new taxa described below were collected in two mountain localities in South Sulawesi: Mountain Pangopango near Makale, at 1740–1780 m above sea level, and the Latimojong Mountains, at about 2000 m above sea level.

Material and Methods

The studied specimens were glued on cardboard 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 for easier genitalia extraction, then the extracted genitalia were placed in microvials with glycerin for photographing.

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; ZIN — Zoological Institute, St-Petersburg; ZMUU — Zoological Museum of Moscow University.

Taxonomy

Metriorrhynchini Kleine, 1926 Wakarumbia Bocak, 1999

Wakarumbia Bocak, 1999: 166.

Type species: Wakarumbia gracilis Bocak, 1999 (by original designation).

Distribution. Sulawesi.

Wakarumbia brunneiomarginata Kazantsev, **sp.n.**

Figs 1–3.

Material. Indonesia, *Sulawesi:* Holotype — ♂, South Sulawesi, N slopes [of] Mt. Pangopango, 3°09'46" S, 119°49'45" E,

1740–1780 m a.s.l., 9–11.I.2020, S. Kazantsev leg. (ICM); paratypes: 18♂♂, 11°, idem (ICM, ZIN and ZMMU).

Description. Male. Dark brown to black; narrow pronotal margins brownish testaceous; pronotal and elytral pubescence greyish to light olive.

Vertex very finely and relatively densely punctate, with deep narrow median groove behind antennal prominence and distinct straight eye ridges. Eyes moderately large, eye diameter to interocular distance ratio ca. 1.0. Labrum small, short, truncate anteriorly; epistoma slightly concave. Palps slender; ultimate palpomeres small, subquadrate, noticeably widened distally. Antennal tubercles conspicuous; antennal sockets separated by narrow lamina. Antennae long, attaining to elytral four fifths, feebly serrate; antennomere 3 ca. 8 times longer than antennomere 2 and ca. 1.25 times shorter than antennomere 4; antennomeres 3–11 with dense short decumbent pubescence (Fig. 1).

Pronotum transverse, ca. 1.3 times wider than long, with slightly convex sides, conspicuously bisinuate basally and strongly triangularly produced anteriorly, with relatively small acute posterior and distinct blunt anterior angles; median areole reaching anterior margin. Scutellum transverse, widening distally and emarginate at apex (Fig. 1).

Elytra narrow and long, ca. 4.5 times longer than wide at humeri, parallel-sided, with primary costae 2 and 4 noticeably stronger, except humerally; interstices with transverse cells; pubescence relatively dense, short and sub-erect (Fig. 1).

Legs long, slender; tibiae and femoris straight, narrow; tibiae subequal in length to femoris (Fig. 1).

Aedeagus with conspicuously widened in the middle and twisted apically median lobe, with prominent, insignificantly curved inner sac spine in the middle portion; basal tubular portion long and narrow; apical process also relatively long and narrow (Figs 2–3).

Female similar to male, but eyes smaller, eye diameter to interocular distance ratio ca. 1.0, and antennae shorter, attaining to just elytral three fourths.

Length: 7.9-11.7 mm. Width (humerally): 1.3-2.2 mm.

Etymology. The name of the new species is derived from the Latin for 'with brown margins', alluding to its pronotal coloration.

Diagnosis. Wakarumbia brunneiomarginata sp.n. resembles W. kalamensis Bocak, 2001, separable by the uniformly dark brown to black legs and distinctly smaller eyes (eye diameter ca. 1.7 times greater than interocular distance in W. kalamensis), as well as by the straight median lobe of the aedeagus (Figs 1–3).

Wakarumbia minuta Kazantsev, **sp.n.** Figs 4–6.

Material. Indonesia, *Sulawesi:* Holotype — \bigcirc [¬], South Sulawesi, Latimojong Mts, N slopes [of] Sinaji Mt., env. Uluway, 3°17'48" S, 119°59'55" E, 1100−1300 m a.s.l., 18–20.I.2020, S. Kazantsev leg. (ICM).

Description. Male. Dark brown to black; palps, except ultimate palpomeres, yellow testaceous; narrow pronotal margins, trochanters and bases of femora brownish testaceous.

Vertex shining, very finely punctate, with inconspicuous longitudinal groove behind antennal prominence. Eyes large, eye diameter to interocular distance ratio ca. 1.3. Labrum small, short, convex anteriorly; epistoma slightly concave. Palps slender; ultimate palpomeres small, slightly elongate, noticeably widened distally. Antennal tubercles inconspicuous; antennal sockets separated by minute lamina. Antennae long, attaining to elytral three fourths, feebly serrate; antennomere 3 ca. 7.7 times longer than antennomere 2 and subequal in length to antennomere 4; antennomeres 3-11 with dense short decumbent pubescence (Fig. 4).

Pronotum transverse, ca. 1.4 times wider than long, with conspicuously concave sides, bisinuate basally and moderately produced anteriorly, with relatively long acute posterior and distinct blunt anterior angles; median areole reaching anterior margin. Scutellum transverse, widening distally and truncate at apex (Fig. 4).

Elytra long, ca. 4.1 times longer than wide at humeri, parallel-sided, with primary costae 2 and 4 noticeably stronger, except in proximal fifth; interstices with sub-quadrate to elongate cells; pubescence relatively dense, short and suberect (Fig. 4).

Legs long, slender; tibiae and femora straight, narrow; tibiae subequal in length to femora (Fig. 4).

Aedeagus with skittle-like median lobe, with small and inconspicuously curved inner sac spine near the bottom; basal tubular portion short; apical process relatively long and narrow; inner sac apical membranous process elongate (Figs 5–6). *Female* unknown.

Length: 5.0 mm. Width (humerally): 0.9 mm.

Etymology. The name of the new species is derived from the Latin for 'small', alluding to its relatively small size.

Diagnosis. Wakarumbia minuta sp.n. resembles W. kundratai Dvorak et Bocak, 2009, separable by the larger eyes and uniformly black elytra, as well as by the more skittle-like shape of the median lobe of the aedeagus with longer inner sac membranous process (Figs 4–6).

Wakarumbia nigronitens Kazantsev, **sp.n.** Figs 7–9.

Material. Indonesia, *Sulawesi:* Holotype — \bigcirc , South Sulawesi, N slopes [of] Mt. Pangopango, 3°09'46" S, 119°49'45" E, 1740–1780 m a.s.l., 9–11.I.2020, S. Kazantsev leg. (ICM); paratypes: 12 \bigcirc [¬], 1 \bigcirc , idem (ICM).

Description. Male. Dark brown to black; trochanters and bases of femora testaceous.

Vertex shining, almost glabrous, with inconspicuous oval impression behind antennal prominence and very narrow eye ridges. Eyes relatively small, eye diameter to interocular distance ratio ca. 0.8. Labrum exposed, transverse, convex anteriorly; epistoma concave. Palps slender; ultimate palpomeres small, subquadrate, noticeably widened distally. Antennal tubercles conspicuous; antennal sockets separated by narrow lamina. Antennae long, attaining to elytral six sevenths, feebly serrate; antennomere 3 ca. 7.3 times longer than antennomere 2 and ca. 1.1 times shorter than antennomere 4; antennomeres 3–11 with dense short sub-erect pubescence (Fig. 7).

Pronotum transverse, ca. 1.3 times wider than long, shining, with slightly concave sides, conspicuously bisinuate basally and semi-circularly produced anteriorly, with narrow long acute posterior and rounded anterior angles; median areole not reaching anterior margin, but collected to it by longitudinal rib. Scutellum transverse, parallel-sided, triangularly emarginate at apex (Fig. 7).

Elytra narrow and long, ca. 4.2 times longer than wide at humeri, parallel-sided, with primary costae 2 and 4 noticeably stronger, except at humeral fifth; interstices with transverse cells; pubescence relatively dense, short and sub-erect (Fig. 7).

Legs long, slender; tibiae and femora straight, narrow; tibiae subequal in length to femora (Fig. 7).

Aedeagus with long and straight, non-twisted, skittleshaped distad of relatively long basal tubular part, median



Figs 1-12. General view and aedeagi of *Wakarumbia*, holotype males: 1-3 - Wakarumbia brunneimarginata sp.n.; 4-6 - W. minuta sp.n.; 7-9 - W. nigronitens sp.n.; 10-12 - W. nigrosimilis sp.n.; 1, 4, 7, 10 - general view; 2-3, 5-6, 8-9, 11-12 -aedeagi; 1-2, 4-5, 7-8, 10-11 -dorsally; 3, 6, 9, 12 -laterally. Scale bar 0.5 mm.

Рис. 1–12. Общий вид и эдеагусы Wakarumbia, голотипы, самцы: 1–3 — Wakarumbia brunneimarginata sp.n.; 4–6 — W. minuta sp.n.; 7–9 — W. nigronitens sp.n.; 10–12 — W. nigrosimilis sp.n.; 1, 4, 7, 10 — общий вид; 2–3, 5–6, 8–9, 11–12 — эдеагусы; 1–2, 4–5, 7–8, 10–11 — сверху; 3, 6, 9, 12 — сбоку. Масштабная линейка 0,5 мм.

lobe, abruptly bent above basal tubular part in lateral view, with strongly curved inner sac spine; apical process relatively short; inner sac apical process transverse (Figs 8–9).

Female similar to male, but body broader, eyes smaller, eye diameter to interocular distance ratio ca. 0.6, and antennae shorter, attaining to just elytral three fourths.

Length: 5.3–8.4 mm (males); 8.4 mm (female). Width (humerally): 1.0–1.5 mm (males); 1.7 mm (female).

Etymology. The name of the new species is derived from the Latin for 'black and shining', alluding to its upperside appearance.

Diagnosis. Wakarumbia nigronitens sp.n. is somewhat similar to *W. petri* Bocak, 2001, separable by the non-twisted apically median lobe of the aedeagus, with short basal tubular part (Figs 7–9).

Wakarumbia nigrosimilis Kazantsev, **sp.n.** Figs 10–12.

Material. Indonesia, *Sulawesi:* Holotype - \bigcirc ³, South Sulawesi, N slopes [of] Mt. Pangopango, 3°09'46" S, 119°49'45" E, 1740–1780 m a.s.l., 9–11.I.2020, S. Kazantsev leg. (ICM); paratypes $-6 \bigcirc$ [?] \bigcirc ³, idem (ICM).

Description. Male. Dark brown to black; palps, except ultimate palpomeres, yellow testaceous; apices of trochanters and very bases of femora light brown.

Vertex shining, almost glabrous, with shallow transverse impression behind antennal prominence. Eyes small, eye diameter to interocular distance ratio ca. 0.6. Labrum transverse, convex anteriorly; epistoma concave. Palps slender; ultimate palpomeres elongate, slightly widened, flattened and dentate distally. Antennal tubercles conspicuous; antennal sockets separated by minute lamina. Antennae long, attaining to elytral four fifths, feebly serrate; antennomere 3 ca. 8.5 times longer than antennomere 2 and subequal in length to antennomere 4; antennomeres 3–11 with dense short suberect pubescence (Fig. 10).

Pronotum transverse, ca. 1.3 times wider than long, with conspicuously concave sides, bisinuate basally and semicircularly produced anteriorly, with relatively small acute posterior and distinct blunt anterior angles; median areole reaching anterior margin. Scutellum transverse, almost parallel-sided, triangularly emarginate at apex (Fig. 10).

Elytra narrow and long, ca. 4.7 times longer than wide at humeri, almost parallel-sided, slightly dehiscent below scutellar area, with primary costae 2 and 4 noticeably stronger, except humerally; interstices with sub-quadrate cells; pubescence relatively dense, short and sub-erect (Fig. 10).

Legs long, slender; tibiae and femoris straight, narrow; tibiae subequal in length to femoris (Fig. 10).

Aedeagus with relatively short, straight, skittle-shaped and insignificantly twisted median lobe, with prominent, inconspicuously curved inner sac spine near the bottom; basal tubular portion practically absent; apical process long and narrow (Figs 11–12).

Female unknown.

Length: 5.7-8.5 mm. Width (humerally): 1.1-1.5 mm.

Etymology. The name of the new species is derived from the Latin for 'black and similar', alluding to its upperside appearance and similarity to *W. nigronitens* sp.n.

Diagnosis. Wakarumbia nigrosimilis sp.n. is quite similar to *W. nigronitens* sp.n., separable by the smaller eyes, distinctly shorter and less acute posterior pronotal angles, as well as by the shorter median lobe of the aedeagus, with practically absent basal tubular part (Figs 10–12). It also resembles *W. petri* Bocak, 2001, separable by the much less

twisted median lobe of the aedeagus, with actually no basal tubular part (Figs 10–12).

Wakarumbia olivacea Kazantsev, **sp.n.** Figs 13–15.

Material. Indonesia, *Sulawesi:* Holotype — \bigcirc , South Sulawesi, Latimojong Mts, N slopes [of] Sinaji Mt., env. Uluway, 3°18'36" S, 120°01'40" E, 1600 m a.s.l., 19−20.I.2020, S. Kazantsev leg. (ICM); paratype — \bigcirc , ibidem, 2000 m a.s.l., 19−20.I.2020, S. Kazantsev leg. (ICM).

Description. Male. Dark brown to black; pronotal and elytral pubescence grevish to light olive.

Vertex very finely punctate, with inconspicuous median groove behind antennal prominence and distinct curved eye ridges. Eyes relatively large, eye diameter to interocular distance ratio ca. 1.1. Labrum short, truncate anteriorly; epistoma almost truncate. Palps slender; ultimate palpomeres small, subquadrate, noticeably widened and rounded distally. Antennal tubercles conspicuous; antennal sockets separated by narrow lamina. Antennae long, attaining to elytral five sixths, feebly serrate; antennomere 3 ca. 9.7 times longer than antennomere 2 and subequal in length to antennomere 4; antennomeres 3–11 with dense short decumbent pubescence (Fig. 13).

Pronotum transverse, ca. 1.3 times wider than long, with concave sides, bisinuate basally and noticeably produced anteriorly, with relatively long acute posterior and distinct blunt anterior angles; median areole reaching anterior margin. Scutellum transverse, parallel-sided, rounded and emarginate at apex (Fig. 13).

Elytra long, ca. 4.2 times longer than wide at humeri, parallel-sided, with primary costae 2 and 4 noticeably stronger, except at humeri; interstices with transverse cells; pubescence relatively dense, short and sub-erect (Fig. 13).

Legs long, slender; tibiae and femora straight, narrow; tibiae subequal in length to femora (Fig. 13).

Aedeagus with straight, narrow, ca. 180° rotated median lobe, with abruptly widened above basal tube middle part and prominent, insignificantly curved spine; basal tube relatively long and narrow; apical process also relatively short and broad (Figs 14–15).

Female similar to male, but body broader, eyes much smaller, eye diameter to interocular distance ratio ca. 0.5, and antennae shorter, attaining to just elytral three fourths.

Length: 8.5–9.1 mm. Width (humerally): 1.6–2.0 mm.

Etymology. The name of the new species is derived from the Latin for 'olive', alluding to its upperside coloration.

Diagnosis. Wakarumbia olivacea sp.n. also resembles W. kalamensis, separable by the uniformly black pronotum and smaller eyes (eye diameter ca. 1.7 times greater than interocular distance in W. kalamensis), as well as by the straight, narrow, rotated at ca. 180° median lobe of the aedeagus, with abruptly widened above basal tube middle part (Figs 13–15).

Wakarumbia puririmbensis Kazantsev, **sp.n.** Figs 16–18.

Material. Indonesia, *Sulawesi:* Holotype $- \circ^3$, South Sulawesi, W Palopo, Puri Rimba Resort, 2°57'33" S, 120°05'12" E, 780 m a.s.l, at light, 7.I.2020, S. Kazantsev leg. (ICM).

Description. Male. Orange testaceous; head and distal half of femora ventrally light brown; antennae, antennal tubercles, tarsi and abdomen dark brown.

Vertex flat, finely punctate, with inconspicuous median groove behind antennal prominence and distinct concave eye



Figs 13-24. General view and aedeagi of *Wakarumbia*, holotype males: 13-15 — *Wakarumbia olivacea* sp.n; 16-18 — W. *puririmbensis* sp.n; 19-21 — W. *silvicola* sp.n; 22-24 — W. *tenggaraensis* sp.n; 13, 16, 19, 22 — general view; 14-15, 17-18, 20-21, 23-24 — aedeagi; 13-14, 16-17, 19-20, 22-23 — dorsally; 15, 18, 21, 24 — laterally. Scale bar 0.5 mm. Рис. 13-24. Общий вид и эдеагусы *Wakarumbia*, голотипы, самцы: 13-15 — *Wakarumbia olivacea* sp.n; 16-18 — W. *puririmbensis* sp.n; 19-21 — W. *silvicola* sp.n; 22-24 — W. *tenggaraensis* sp.n; 13, 16, 19, 22 — oбщий вид; 14-15, 17-18, 20-21, 23-24 — эдеагусы; 13-14, 16-17, 19-20, 22-23 — сверху; 15, 18, 21, 24 — сбоку. Масштабная линейка 0,5 мм.

ridges. Eyes large, eye diameter to interocular distance ratio ca. 1.4. Labrum small, short, almost truncate anteriorly. Palps slender; ultimate palpomeres small, slightly longer than wide, noticeably widened and dentate distally. Antennal tubercles relatively small; antennal sockets separated by minute lamina. Antennae long, almost attaining to elytral apices, feebly serrate; antennomere 3 ca. 10 times longer than antennomere 2 and subequal in length to antennomere 4; antennomeres 3– 11 with dense short decumbent pubescence (Fig. 16).

Pronotum transverse, ca. 1.3 times wider than long, with distinctly concave sides, bisinuate basally and semi-circularly produced anteriorly, with relatively short acute posterior and distinct blunt anterior angles; median areole almost reaching anterior margin. Scutellum transverse, parallel-sided, triangularly emarginate at apex (Fig. 16).

Elytra narrow and long, ca. 4 times longer than wide at humeri, parallel-sided, with primary costae 2 and 4 noticeably stronger, except at humeri; interstices with strongly transverse cells; pubescence relatively scarce and very short (Fig. 16).

Legs long, slender; tibiae and femora straight, narrow; tibiae subequal in length to femora (Fig. 16).

Aedeagus with straight and long, noticeably twisted and widened basally median lobe, with narrow, insignificantly curved inner sac spine near the bottom; basal tube practically absent; apical process relatively short and broad (Figs 17–18).

Female unknown.

Length: 8.0 mm. Width (humerally): 1.5 mm.

Etymology. The name of the new species is derived from 'Puri Rimba', the Indonesian for 'Jungle Castle', where its type specimen was collected.

Diagnosis. Wakarumbia puririmbensis sp.n. resembles W. obstinata Dvorak et Bocak, 2009, separable by the uniformly yellow testaceous upperside, as well as the distinctly broader basal part of the median lobe of the aedeagus and longer and more narrow inner sac spine (Figs 16–18).

Wakarumbia silvicola Kazantsev, **sp.n.** Figs 19–21.

Material. Indonesia, *Sulawesi:* Holotype — \bigcirc ³, South Sulawesi, N slopes [of] Mt. Pangopango, 3°09'46" S 119°49'45" E, 1740−1780 m, 9−11.I.2020, S. Kazantsev leg. (ICM); paratypes — 90° \bigcirc ³ and 1 \bigcirc , idem (ICM).

Description. Male. Dark brown to black; narrow pronotal margins, trochanters and bases of femora light brown; pronotal and elytral pubescence greyish to light olive.

Vertex very finely and relatively densely punctate, with deep narrow median groove behind antennal prominence and distinct straight eye ridges. Eyes large, eye diameter to interocular distance ratio ca. 1.25. Labrum small, short, slightly convex anteriorly; epistoma distinctly concave. Palps slender; ultimate palpomeres small, subquadrate, noticeably widened distally. Antennal tubercles inconspicuous; antennal sockets separated by minute lamina. Antennae long, attaining to elytral five sixths, feebly serrate; antennomere 3 ca. 8.7 times longer than antennomere 2 and subequal in length to antennomere 4; antennomeres 3–11 with dense short decumbent pubescence (Fig. 19).

Pronotum ca. 1.1 times wider than long, with slightly concave sides, bisinuate basally and triangularly produced anteriorly, with long acute posterior and distinct blunt anterior angles; median areole reaching anterior margin. Scutellum transverse, slightly widening distally and triangularly emarginate at apex (Fig. 19).

Elytra narrow and long, ca. 4.6 times longer than wide at humeri, parallel-sided, with primary costae 2 and 4 noticeably stronger, except humerally; interstices with transverse cells; pubescence relatively dense, short and sub-erect (Fig. 19).

Legs long, slender; tibiae and femora straight, narrow; tibiae subequal in length to femora (Fig. 19).

Aedeagus with skittle-like and somewhat curved (in lateral view) median lobe, with non-tubular basal part and low location of robust and insignificantly curved inner sac spine; apical process relatively short and narrow (Figs 20–21).

Female similar to male, but somewhat broader and eyes smaller, eye diameter to interocular distance ratio ca. 1.0.

Length: 6.8–8.0 mm (males); 7.8 mm (female). Width (humerally): 1.3–1.5 mm (males); 1.6 mm (female).

Etymology. The name of the new species is derived from the Latin for 'inhabiting woods', according to its biotope.

Diagnosis. Wakarumbia silvicola sp.n. externally is very similar to *W. brunneiomarginata* sp.n., separable by the somewhat larger eyes and less transverse pronotum with distinctly longer and more acute posterior angles (Figs 19–21), while the aedeagal structure of the new species is close to that of *W. nigronitens* sp.n., from which it may distinguished by the noticeably curved (in lateral view) median lobe, with non-tubular basal part and lower location of the spine (Figs 19–21). *W. silvicola* sp.n. also resembles *W. linearis* Dvorak et Bocak, 2009, differing in the smaller eyes (eye diameter to interocular distance ratio over 1.6 in *W. linearis*), less transverse pronotum and more skittle-like and curved shape of the median lobe (Figs 19–21).

Wakarumbia tenggaraensis Kazantsev, **sp.n.** Figs 22–24.

Material. Indonesia, *Sulawesi:* Holotype — ♂^{*}, East Sulawesi, NE Kolaka, Mt. Watowilla, 3°49' S, 121°40' E, 1600 m a.s.l., at light, V.1997, S. Khvylya leg. (ICM).

Description. ♂. Yellow testaceous; head, palps, antennae, meso- and metaventrite, tibiae, except at base, tarsi and abdomen dark brown.

Vertex finely and relatively densely punctate, with narrow median groove behind antennal prominence and straight eye ridges. Eyes moderately large, eye diameter to interocular distance ratio ca. 1.0. Labrum small, short, truncate anteriorly; epistoma slightly concave. Palps slender; ultimate palpomeres small, subquadrate, slightly widened distally, glabrous and dentate at apex. Antennal tubercles inconspicuous; antennal sockets separated by minute lamina. Antennae long, attaining to elytral three fifths, feebly serrate; antennomere 3 ca. 6.5 times longer than antennomere 2 and ca. 1.1 times shorter than antennomere 4; antennomeres 3–11 with dense short semi-erect pubescence (Fig. 22).

Pronotum transverse, ca. 1.3 times wider than long, with distinctly concave sides, bisinuate basally and strongly triangularly produced anteriorly, with relatively short acute posterior and conspicuous blunt anterior angles; median areole reaching anterior margin. Scutellum transverse, parallel-sided and triangularly emarginate at apex (Fig. 22).

Elytra narrow and long, ca. 4.7 times longer than wide at humeri, parallel-sided, with primary costae 2 and 4 noticeably stronger, except in humeral fourth; interstices with subquadrate to elongate cells; pubescence scarce and short (Fig. 22).

Legs long, slender; tibiae and femora straight, narrow; tibiae subequal in length to femora (Fig. 22).

Aedeagus with conspicuously widened in the middle part and twisted median lobe, with relatively small, insignificantly curved inner sac spine; basal tubular portion moderately long; apical process relatively long and parallel-sided (Figs 23–24). *Female* unknown. Length: 5.6 mm. Width (humerally): 0.9 mm.

Etymology. The name of the new species is derived from the Indonesian for 'east', according to the name of the province, Sulawesi Tenggara, where its type specimen was collected.

Diagnosis. Wakarumbia tenggaraensis sp.n. resembles W. pallescens Bocak, 2000, also with asymmetric apical portion of the median lobe of the aedeagus, distinguishable by the uniformly yellow testaceous elytra, smaller eyes (eye diameter to interocular distance ratio over 1.4 in W. pallescens), as well as by the distinctly more curved and more twisted median lobe of the aedeagus (Figs 22–24).

Wakarumbia wartabonensis Kazantsev, **sp.n.** Figs 25–27.

Material. Indonesia, Sulawesi: Holotype $- \vec{O}$, North Sulawesi, Bogani Nani Wartabone N.P., Alia Lake, 1300 m a.s.l., 21.IX.2012, O. Jakonen leg. (ICM); paratypes $-1\vec{O}$, 1 $\stackrel{\circ}{\uparrow}$, idem (ICM).

Description. Male. Dark brown.

Vertex flat, very finely punctate, with indistinct median groove behind antennal prominence and concave eye ridges. Eyes relatively small, eye diameter to interocular distance ratio ca. 0.9. Labrum relatively large, semi-circular anteriorly; epistoma truncate. Palps slender; ultimate palpomeres small, subquadrate, noticeably widened distally. Antennal tubercles conspicuous; antennal sockets separated by narrow lamina. Antennae long, attaining to elytral four fifths, feebly serrate; antennomere 3 ca. 7 times longer than antennomere 2 and ca. 1.1 times shorter than antennomere 4; antennomeres 3–11 with dense short erect pubescence (Fig. 25).

Pronotum subquadrate, just ca. 1.1 times wider than long, with distinctly concave sides, conspicuously bisinuate basally and semi-circularly produced anteriorly, with long acute posterior and distinct blunt anterior angles; median areole reaching anterior margin. Scutellum transverse, parallel-sided, deeply emarginate at apex (Fig. 25).

Elytra narrow and long, ca. 4.3 times longer than wide at humeri, parallel-sided, with primary costae 2 and 4 noticeably stronger, except in humeral fifth; interstices with subquadrate to elongate cells; pubescence scarce, short and suberect (Fig. 25).

Legs long, slender; tibiae and femora straight, narrow; tibiae subequal in length to femora (Fig. 25).

Aedeagus with evenly widened basally median lobe, with prominent, strongly curved spine near the bottom; apical process relatively short and broad (Figs 26–27).

Female similar to male, but eyes somewhat smaller.

Length: 5.7-6.0 mm. Width (humerally): 1.0-1.2 mm.

Etymology. The name of the new species is derived from 'Bogani Nani Wartabone', a national park in North Sulawesi where its type series was collected.

Diagnosis. Wakarumbia wartabonensis sp.n. resembles W. montana Bocak, 2001, from Mt. Lompobatang in South Sulawesi, distinguishable by the somewhat more elongate body, non-trapezoidal pronotum, as well as by the evenly widened basally median lobe of the aedeagus (Figs 25–27).



Figs 25–27. General view and aedeagus of *Wakarumbia wartabonensis* sp.n., holotype male: 25 — general view; 26– 27 — aedeagus; 25–26 — dorsally; 27 — laterally. Scale bar 0.5 mm.

Рис. 25–27. Общий вид и эдеагус Wakarumbia wartabonensis sp.n., голотип, самец: 25 — общий вид; 26–27 — эдеагус; 25–26 — сверху; 27 — сбоку. Масштабная линейка 0,5 мм.

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References

- Bocak L. 1999. New taxa of the subtribe Hemiconderina (Coleoptera: Lycidae) from Indonesia and New Guinea // Entomologische Blätter. Vol.95. Nos 2/3. P.166–170.
- Bocak L. 2000. Revision of the genus *Wakarumbia* (Coleoptera: Lycidae) // European Journal of Entomology. Vol.97. P.271– 278.
- Bocak L. 2001. New species of the genus *Wakarumbia* from Sulawesi (Coleoptera: Lycidae) // The Raffles Bulletin of Zoology. Vol.49. No.2. P.259–267.
- Dvorak M., Bocak L. 2007. Ten new species of *Wakarumbia* Bocak, 1999 from Sulawesi (Coleoptera: Lycidae), with a key to males of the genus // Zootaxa. Vol.2282. P.51–61.
- Masek M., Motyka M., Kusy D., Bocek M., Li Y., Bocak L. 2018. Molecular Phylogeny, Diversity and Zoogeography of Net-Winged Beetles (Coleoptera: Lycidae) // Insects. Vol.9. No.154. P.1–18.

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