

NEW AND POORLY-KNOWN TAXA OF LAGRIINAE LATREILLE, 1825 (COLEOPTERA: TENEBRIONIDAE) FROM THE COLLECTIONS OF THE NATURKUNDEMUSEUM ERFURT. 2

Dmitry Telnov*

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Abstract

In the second paper of the series devoted to the study of lagriine material deposited at the Naturkundemuseum Erfurt, the following three species from the subtribe Lagriina Latreille, 1825, are described and illustrated: *Lagria* (s. str.) *arfaka* sp. nov., *L.* (s. str.) *hatam* sp. nov., *L.* (s. str.) *undulata* sp. nov. (all from New Guinea).

Keywords: Taxonomy, long-jointed beetles, Papuan Region.

*Corresponding author: *Dmitry Telnov. Department of Life Sciences, Natural History Museum, Cromwell Road, SW7 5BD, London, United Kingdom. E-mail: anthicus@gmail.com. Coleopterological Research Center, Institute of Life Sciences and Technology, Daugavpils University, Parādes Str. 1A, LV-5401, Daugavpils, Latvia; Institute of Biology, University of Latvia, O. Vācieša Str. 4, LV-1004, Rīga, Latvia. ORCID: 0000-0003-3412-0089*

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INTRODUCTION

The long-jointed beetle subfamily Lagriinae Latreille, 1825, is nearly cosmopolitan in distribution (Matthews & Lawrence 2019), with approximately 1300 extant species (Telnov 2022). The present composition of lagriine genera is suboptimal: several morphological features of dubious evolutionary value were used by earlier authors (Borchmann 1916, Borchmann 1936) to define a significant proportion of lagriine genera (Telnov 2022, Telnov 2023).

The Lagriinae of the Papuan Region (see definition in Gressitt 1982; Riedel 2002; Telnov

2011) remain understudied, with only a handful of papers focusing on this region published within the past four decades (Merkl 1987, 1988a, 1988b, 1988c, 1990, 1999, Telnov 2022, 2023).

The aim of the present paper is to present the following descriptions of three new Papuan species of the subtribe Lagriina Latreille, 1825, on the basis of material from Naturkundemuseum Erfurt: *Lagria* (s. str.) *arfaka* sp. nov., *L.* (s. str.) *hatam* sp. nov., *L.* (s. str.) *undulata* sp. nov. (all - New Guinea).

MATERIAL AND METHODS

All the species are listed in alphabetical order since a phylogenetic arrangement is not yet possible. Paired morphological structures are generally treated as singular in text. All labels are reproduced *verbatim*. Labels, if more than one on the same specimen, are separated by a double slash. Each type specimen of a new species described herein is provided with a black framed label on red paper with “HOLOTYPE” or “PARATYPE”, respectively. Author’s comments are provided in square brackets.

For morphological studies, a Leica S6D binocular stereomicroscope (Leica Microsystems, Wetzlar, Germany) was used. Habitus images were produced with a Canon EOS 5D SLR camera and, for habitus images, a Canon MP-E 65 mm lens (Canon Co., Tokyo, Japan), or, for genitalia, a Laowa 25-mm Ultra Macro lens (Anhui Changing Optics Technology Co., Hefei, China). Genitalia were relaxed in KOH solution, mounted on separate cards placed on the same pins underneath the corresponding specimens. Helicon Focus 7 software (Helicon Soft, Kharkiv, Ukraine) was used for image stacking. Further image manipulations were performed via the GNU Image Manipulation Program (GIMP).

Acronyms of material repositories:

DTC – Collection Dmitry Telnov, Rīga, Latvia;
NME – Naturkundemuseum Erfurt, Germany.

RESULTS

New descriptions

Lagria (s. str.) *arfaka* sp. nov. (Figs 1–2)
urn:lsid:zoobank.org:act:A1F98A27-28D3-4968-98CE-222D2679837D

Type material designated. Holotype ♂ NME (Fig. 1A–B): W - PAPUA, Prov. Manokwari, vic. Mokwam (Siyoubbrig.)

1400–1800m, 1° 06.26S 133°54, 41°E, 24.–28. II.2007, leg. A. Weigel [printed] // collection Naturkundemuseum Erfurt [printed, label yellowish] [the terminal antennomere of the right antenna is missing].

Paratypes 2 specimens. 1♂ NME: Neu Guinea, West–Papua Arfak Mts, Mokwam Siyoubbrig) 1400–1800 m S0106.25.86° E13354.40.86 24.–28.2.2007, R. Gerstmeier [printed]; 1♀ NME: W PAPUA Manokwari Pr. ca. 10 km NW Ransiki, Kali Way, 1300m 01°25.03’S, 134°01.49’E 03.III.2007 leg.A.Weigel [printed].

Derivatio nominis. Toponymic. Named after the Arfak Mountains, where the new species occurs. Feminine.

Measurements. Holotype male, total body length 13.3 mm; head length 1.8 mm, maximum head width across compound eyes 2 mm, pronotal length 1.8 mm, pronotal width across anterior edge 2 mm, maximum pronotal width across anterior third 2.2 mm and across base 2.2 mm, elytral length 9.7 mm, combined maximum elytral width across postmedium 5.2 mm. Paratype male, 13 mm; paratype female, 17 mm long.

Description. Holotype male. Head and pronotum dark brown with weak green metallic shine. Elytra brown with inconspicuous green metallic shines. Mouthparts, antenna and legs brown, femora with inconspicuous green metallic shine. Head broadly subtrapezoidal, transverse, slightly glossy dorsally and ventrally. Labrum emarginate medially at anterior margin. Epistoma strongly U-shapedly emarginate at anterior margin. Frontoepistomal impression deep, slightly arched. Insertion of antenna not concealed. Compound eye large, nearly holoptic, strongly kidney-shaped, strongly emarginate at anterior, subtruncate at posterior margin in lateral view, not touching insertion of antenna, moderately prominent in lateral and dorsal aspect. Interfacetal setae not observed. Minimum interocular distance about 0.6× as wide as dorsal eye portion. Tempus broadly rounded, nearly half as long as dorsal eye

portion, head base subtruncate. Head dorsum densely and coarsely punctate with deep circular punctures. Intervening spaces smooth and glossy, narrower than punctures. Head dorsal setation yellowish, long, suberect to erect, dense, in part effectively concealing dorsal surface of head. Antenna long, filiform, exceeds slightly beyond metacoxa when directed posteriorly. Basal antennomere rather short, slightly thickened, about $1.7\times$ as long as second antennomere. Second antennomere longer than wide. Third antennomere about $2.1\times$ as long as second antennomere, $0.8\times$ as long as fourth antennomere, the longest of 1–10. Antennomeres 5–10 filiform, antennomeres 9–10 slightly widened distally. Penultimate antennomere distinctly longer than wide. Terminal antennomere strongly elongate, about 2.2 mm long, asymmetrical, slightly arched, apically pointed, about $4.6\times$ as long as penultimate antennomere and nearly as long as combined length of four preceding antennomeres, surface sparsely microtuberculate. Terminal maxillary palpomere small, securiform. Pronotum subtrapezoidal, transverse, glossy and flattened dorsally, truncate at anterior and posterior margin, lateral margin declivous, emarginate laterally in basal portion. Maximum width in anterior and basal third, lateral margins converging anteriorly and emarginated prebasally. Anterior and posterior edge not margined or rimed. Lateral margin not visible in dorsal view. Anterolateral angles broadly rounded, posterolateral - obtuse in dorsal view. Pronotal disc anterolaterally with a large circular impression on each side (Fig. 1B). Dorsal pronotal punctures smaller but denser than those on dorsal head, deep. Intervening spaces smooth and glossy, narrower than punctures. Dorsal pronotal setae as those on head. Scutellar shield small, triangular, apically rounded, densely punctured. Elytron widened postmedium, dorsally flattened, moderately glossy. Apical sutural angle narrowly rounded in dorsal view. Elytral lateral margin visible in dorsal view in posthumeral portion of elytron. Elytral punctures dense, moderately deep, on

posterior portion of elytron arranged into irregular, short, sinuous transverse rows. Intervening spaces glossy, in part elevated, generally narrower than punctures, in part forming short and glabrous transverse wrinkles, especially on basal and posterior portions of elytron between irregular transverse rows of punctures. Elytral setae yellowish, moderately long, dense, not fully appressed, rather effectively concealing sculpture of elytra. Epipleuron complete, broad at most of its length except at elytral apex, densely punctured and transversely wrinkled. Metathoracic wings fully developed (functional). Abdominal sternites with dense golden setae. Legs long, slender, subopaque, tibiae and tarsi with dense yellowish setae. Femur not clavate. Tibia slightly widened distally, male metatibia hardly arched at external and inner edge. Protarsomeres widened. Male basal metatarsomere shorter than combined length of remaining metatarsomeres. Male tergite VII and sternite VII broadly rounded at posterior margin. Aedeagus as in Fig. 2.

Sexual dimorphism. Female (Fig. 1C) comparatively larger, minimum interocular distance $1.2\times$ as wide as dorsal eye length, compound eye comparatively smaller and tempus - longer, second antennomere comparatively shorter, about as long as wide, third antennomere $3.3\times$ as long as second antennomere and slightly shorter than fourth antennomere, terminal antennomere 1.2 mm long, apically pointed, about as long as antennomeres 9–10 combined, pronotum without anterolateral impressions, elytra comparatively stronger constricted apicad posterior to widest postmedian area.

Differential diagnosis. No similar species are known from the Papuan Region or surrounding areas. The large body, the dense, nearly appressed pale elytral setae, the in part finely transversely wrinkled elytra, the large male eyes, the comparatively small basal antennomere (in both sexes), and the slightly shiny metallic green forebody are the main distinguishing features of the new species compared to other congeners. *Lagria heurni* Borchmann, 1924 (New

Guinea) has the male terminal antennomere significantly less elongate (about as long as two penultimate antennomeres combined *versus* four in *L. arfaka* sp. nov.), the pronotum is subrectangular (not emarginate laterally before base) and without the anterolateral impressions but with a vague paired posteromedian impression (the latter not present in *L. arfaka* sp. nov.), the minimum interocular distance in male is much greater (wider than the length of dorsal eye portion *versus* 0.6× as wide in *L. arfaka* sp. nov.), the epistoma is only shallowly and broadly emarginate at anterior margin (deeply, U-shapely emarginate in *L. arfaka* sp. nov.), and the aedeagus broadly pointed apically (narrowly pointed in *L. arfaka* sp. nov.). *Lagria leopoldi* Pic, 1932 (New Guinea) has the male terminal antennomere significantly less elongate (about as long as two penultimate antennomeres combined *versus* four in *L. arfaka*

sp. nov.), the pronotum is transversely wrinkled (only punctate in *L. arfaka* sp. nov.), without anterolateral impressions, and the head is comparatively slenderer with less strongly convex compound eyes. *Lagria ligulata* Merkl, 1988 (New Guinea) sometimes has brown, slightly green metallic shiny elytra but is significantly smaller (6.5–10 mm), the male terminal antennomere is less elongate (about as long as three penultimate antennomeres combined *versus* four in *L. arfaka* sp. nov.), the epistoma is very broadly emarginate (the shape of an inverted Π), the pronotal disc medially with a subopaque, densely microscopically punctate field (not present in *L. arfaka* sp. nov.), the pronotum without anterolateral impressions.

Ecology. Diurnal, occurs at about 1300–1800 m in primary mid-montane rainforests.

Distribution. Arfak Mountains, Doberai Peninsula, New Guinea.



Figure 1. *Lagria* (s. str.) *arfaka* sp. nov., dorsal view. A – Holotype ♂, habitus; B – ditto, forebody; C – Paratype ♀, habitus [not to scale]. Images courtesy D. Telnov.



Figure 2. *Lagria* (s. str.) *arfaka* sp. nov., paratype ♂, aedeagus in dorsal (A), ventral (B) and lateral (C) view. Images courtesy D. Telnov.

***Lagria* (s. str.) *hatam* sp. nov.** (Figs. 3–4)
urn:lsid:zoobank.org:act:8EA41D3E-0494-4CDB-B133-F1D9D8DBF270

Type material designated. Holotype ♂ NME (Fig. 3): W–PAPUA Manokwari ca. 10 km NW Ransiki, Kali Way, 1300 m 01°25.03'S, 134°01.49'E 03.III.2007 leg. A. Weigel [printed].

Derivatio nominis. Named after Hatam, a local language in the Ransiki area where the new species was found. Noun in apposition.

Measurements. Holotype male, total body length 6.9 mm; head length 1 mm, maximum head width across compound eyes 1.1 mm, pronotal length 0.9 mm, maximum pronotal width across median area 1.1 mm, maximum pronotal width across base 1.1 mm, elytral length 5 mm, combined maximum elytral width across postmedium 2.9 mm.

Description. Holotype male. Dorsum and venter uniformly dark brown to black, dorsum with dark blue metallic shine. Head subtrapezoidal, hardly transverse, glossy dorsally and ventrally.

Labrum emarginate medially at anterior margin. Epistoma strongly, deeply and broadly emarginate at anterior margin in a shape of an inverted Π. Frontoepistomal impression deep, slightly arched. Insertion of antenna not concealed. Frons slightly convex between compound eyes. Compound eye large, deeply emarginate at anterior, subtruncate at posterior margin in lateral view, touching insertion of antenna, moderately prominent in lateral and dorsal aspect. Interfacetal setae not observed. Minimum interocular distance narrow, about 0.5–0.6× as long as dorsal eye portion. Tempus slightly converging towards head base, rather long, temporal angle rounded, head base concave. Head dorsum coarsely punctate with deep variably shaped punctures. Intervening spaces smooth and glossy on frons, microscopically strigose on tempora (Fig. 3B), narrower than to as wide as punctures. Head dorsal setation whitish to yellowish, long, suberect, sparse, not concealing dorsal surface of head. Antenna long, filiform, exceeds slightly beyond metacoxa when directed posteriad. Basal antennomere short, slightly thickened, about 1.3× as long as second antennomere. Second antennomere longer than wide. Third antennomere about 1.6× as long as second antennomere, slightly shorter than fourth antennomere, the longest of 1–10. Antennomeres 3–8 filiform, 9–10 widened distally. Penultimate antennomere longer than wide. Terminal antennomere elongate, about 1 mm long, asymmetrical, apically obliquely pointed, about 1.8× as long as penultimate antennomere and slightly shorter than combined length of two preceding antennomeres. Terminal maxillary palpomere small, securiform. Pronotum subtrapezoidal, slightly transverse, glossy and flattened dorsally, rounded at anterior, truncate at posterior margin. Maximum width in median and basal portion, lateral margins slightly converging anteriorly and barely emarginated prebasally. Anterior and posterior edge not margined or rimed. Lateral margin not visible in dorsal view. Anterolateral angles obtuse in dorsal view. Pronotal disc uneven,

declivous on lateral sides, shallowly transverse-ly impressed in anterior third (Fig. 3B). Dorsal pronotal punctures deep, large and sparse on anterior portion, large and dense on lateral sides, small and dense medially on basal portion. Intervening spaces smooth and glossy, variably wide – much wider than punctures on anterior, narrower than those on basal portion. Dorsal pronotal setae as those on head. Scutellar shield small, apically rounded, densely punctured. Elytron widened postmedium, dorsally slightly convex, glossy. Apical sutural angle rounded in dorsal view. Elytral lateral margin visible in dorsal view in posthumeral portion of elytron, sinuous in lateral view. Elytral punctures dense, deep, in part subconfluent. Intervening spaces smooth and glossy, slightly elevated, in part appear shortly transversely wrinkled, narrower than to twice as wide as punctures. Elytral setae yellowish, moderately long, moderately dense, suberect, not concealing sculpture of elytra. Epipleuron complete, broad at most of its length except at elytral apex, glossy, moderately densely punctured. Metathoracic wings fully developed (functional). Legs long, slender, moderately glossy, tibiae and tarsi with long and dense yellowish setae. Femur not clavate. Tibia not widened distally, straight, male meso- and metatibia with acute denticles on inner edge, longest denticles positioned at midlength of tibiae (Fig. 3C–D). Pro- and mesotarsomeres slightly widened. Male basal metatarsomere shorter than combined length of remaining metatarsomeres. Male tergite VII and sternite VII broadly rounded at posterior margin. Aedeagus as in Fig. 4.

Sexual dimorphism. Female is unknown.

Differential diagnosis. This rather small, dorsally uniformly dark blue species appears similar to several congeners. *Lagria australis* Champion, 1895 (northern Australia) and *L. gressitti* Merkl, 1988 (New Guinea) both have significantly thicker and shorter antenna only reaching mesocoxa when directed posteriad, the compound eye is comparatively smaller and the interocular distance – comparatively

wider, the tempus is distinctly constricted towards head base and not microscopically strigose on the intervening spaces, the pronotum is longer than wide, regularly punctate, not impressed dorsally. *Lagria brassi* Merkl, 1990 (New Guinea) has much slenderer pronotum without the densely punctured prebasal area, the frons is somewhat impressed between the compound eyes, the elytra got paler preapical spot, and the male terminal antennomere is stronger elongate, about as long as 2.5 preceding antennomeres combined. *Lagria cyanea* MacLeay, 1872 (Australia: Queensland and the northern part of the continent) has pale brown to yellowish venter and most of the femora, the antenna is significantly thicker and shorter only reaching mesocoxa when directed posteriad, the pronotum is longer than wide, regularly punctate and not transversely impressed dorsally, the compound eye is comparatively smaller and the interocular distance – comparatively wider, the tempus is constricted towards head base, not microscopically strigose. *Lagria ligulata* Merkl, 1988 (New Guinea) has the pronotum without anterior transverse dorsal impression but with an elliptical median field of very dense micropunctures, the antennomeres 1–2 to 1–6 are pale, the tempus is microscopically strigose in this species similarly like in *L. hatam* sp. nov.

Ecology. Occurs at about 1300 m in mid-montane rainforests.

Distribution. Arfak Mountains, Doberai Peninsula, New Guinea.

***Lagria* (s. str.) *undulata* sp. nov.** (Figs. 5–7)
urn:lsid:zoobank.org:act:272D0F64-1AD7-453E-B8D4-FDC636C67CB4

Type material designated. Holotype ♂ NME (Fig. 5A–B): W-PAPUA Manokwari Prov.vic. Mokwam (Siyoubri) 1400–1800m, 01°06.26'S, 133°54.41'E, 24.–28.II.2007 leg. A. Skale [printed].

Paratypes 21 specimen. 2♀ NME & 1♀ DTC: same label as holotype; 1♂, 2♀ NME & 1♂ DTC: W PAPUA Manokwari Pr. Vic.

Mokwam(Siyoubrig) 1400-1800m, 01°06.26'S, 133°54.41'E, 24-28.ii.2007 leg. A. Weigel UWS/UWP [printed, black frame] // collection Naturkundemuseum Erfurt [printed, label yellowish]; 1♀ NME: WESTPAPUA, Prov. Manokwar [sic!], vic. Mokwam,Slyoubrig [sic!]. 1400-1800 m NN [printed] // 01°06.26'S 133°54,41'E, 24.-28.ii.2007 leg. A. Skale // collection Naturkundemuseum Erfurt [printed, label yellowish]; 1♂ & 5♀ NME, 1♀ DTC: W - PAPUA, Prov. Manokwari, vic. Mokwam (Siyoubrig.) 1400-1800m, 1° 06.26S 133°54, 41'E, 24.-28.II.2007, leg. A. Weigel [printed] // collection Naturkundemuseum Erfurt [printed, label yellowish]; 1♀ NME: W - PAPUA, P: Manokwari 14 km NE Ransiki Warbiati (Oransbari) 1°18'25''S, 134°14'14''E, 02.III.2007, leg. A. Weigel, secondary forest, light trap [printed] // collection Naturkundemuseum Erfurt [printed,

label yellowish]; 1♀ NME: W - PAPUA, Prov. Manokwari, 24km SSE Warami, 1°10.50'S, 134°09. 16''E, 02.III.2007, leg. A. Weigel cutting area at coast [printed] // collection Naturkundemuseum Erfurt [printed, label yellowish]; 2♀ NME: WESTPAPUA,Prov. Manokwari, 14km NE Ransiki, Warbiati, (Oransari) 1°18.25'S 134°14.14'E 02.III.2007,leg. A. Weigel fresh cutting area [printed] // collection Naturkundemuseum Erfurt [printed, label yellowish]; 1♂ NME: WESTPAPUA,Prov. Manokwari ca. 10km NW Ransiki,Kali Way 1300m, 1°25.03>S 134°01.49>E,03.III.2007 leg.A. Weigel, river-side [printed] // collection Naturkundemuseum Erfurt [printed, label yellowish]; 1♀ NME: W-PAPUA Manokwari ca. 10km NW Ransiki, Kali Way,1300m 01°25.03'S, 134°01.49'E 03.III.2007 leg.A. Weigel [printed].



Figure 3. *Lagria* (s. str.) *hatam* sp. nov., holotype ♂. A – Habitus, dorsal view; B – Forebody, laterodorsal view; C – Mesotibia; D – Metatibia [not to scale]. Images courtesy D. Telnov.



Figure 4. *Lagria* (s. str.) *hatam* sp. nov., holotype ♂, aedeagus in dorsal (A), ventral (B) and lateral (C) view. Images courtesy D. Telnov.

Derivatio nominis. Named from Latin ‘undulatus’ (wavy, uneven) to point on the uneven elytral surface with several impressions. Feminine.
Measurements. Holotype male, total body length 7.1 mm; head length 1.1 mm, maximum head width across compound eyes 1.2 mm, pronotal length 1 mm, pronotal width across anterior edge 0.9 mm, maximum pronotal width across base 1.2 mm, elytral length 5 mm, combined maximum elytral width across postmedium 3.4 mm. Male paratypes 6.9–7.5 mm, female paratypes 8.6–9.6 mm long.

Description. Holotype male. Dorsum and venter uniformly brown to black-brown. Dorsal head with golden to reddish metallic shine, pronotum with reddish to purple and elytra with inconspicuous khaki green metallic shine. Mouthparts, antenna and legs pale brown to brown, terminal antennomeres slightly darker. Head elliptical, hardly transverse, glossy dorsally and ventrally. Labrum deeply emarginate medially at anterior margin. Epistoma strongly and deeply U-shapedly emarginate at anterior margin. Frontoepistomal impression deep. Insertion

of antenna not concealed. Compound eye large, nearly holoptic, deeply but narrowly emarginate at anterior, subtruncate at posterior margin in lateral view, touching insertion of antenna, strongly prominent in lateral and dorsal aspect. Interfacetal setae not observed. Minimum interocular distance very narrow, about $0.4\times$ as wide as dorsal eye portion. Tempus converging towards head base, less than half eye length, temporal angle rounded, head base concave. Head dorsum densely and coarsely punctate with deep variably shaped punctures. Intervening spaces smooth and glossy, narrower than to as wide as punctures. Head dorsal setation whitish to yellowish, long, suberect, rather sparse, not concealing dorsal surface of head. Antenna long, filiform, touching metacoxa when directed posteriad. Basal antennomere short, slightly thickened, about $1.4\times$ as long as second antennomere. Second antennomere longer than wide. Third antennomere about twice as long as second antennomere, $0.9\times$ as long as fourth antennomere, the longest of 1–10. Antennomeres 5–10 filiform. Penultimate antennomere slightly longer than wide, shortened, widened distally. Terminal antennomere (Fig. 6B) elongate, about 0.9 mm long, asymmetrical, flattened on all edges, apically obliquely pointed, about $4.2\times$ as long as penultimate antennomere and about as long as combined length of 3.5 preceding antennomeres, surface sparsely microtuberculate. Terminal maxillary palpomere small, securiform. Pronotum subtrapezoidal, slightly transverse, glossy and flattened dorsally, subtruncate at anterior, truncate at posterior margin. Maximum width in basal portion, lateral margins gradually widen towards base. Anterior and posterior edge not margined or rimed. Lateral margin not visible in dorsal view. Antero- and posterolateral angles obtuse in dorsal view. Pronotal disc uneven, declivous on lateral sides, shallowly transversely impressed in anterior third (Fig. 6A). Dorsal pronotal punctures large and dense, rather flat. Intervening spaces smooth and glossy, narrower than punctures. Dorsal pronotal setae as those

on head. Scutellar shield small, apically rounded, densely punctured. Elytron widened post-medium, dorsally moderately convex, glossy. Apical sutural angle narrowly rounded in dorsal view. Elytral lateral margin visible in dorsal view in posthumeral portion of elytron. Elytra with common posthumeral transverse impression on disc; each elytron additionally with four moderately deep lateral impressions, each becoming shallower towards median portion of elytral disc where they disappear; posthumeral impression is smallest and shallowest. Elytral punctures moderately dense, moderately deep. Intervening spaces smooth and glossy, about as wide as to 1.5–2× as wide as punctures. Elytral setae whitish, moderately long, moderately dense, suberect, not concealing sculpture of elytra. Lateral margin of elytra appears somewhat sinuous in lateral view because of elytral impressions. Epipleuron complete, broad at most of its length except at elytral apex, glossy, moderately densely punctured. Metathoracic wings fully developed (functional). Legs long, slender, moderately glossy, tibiae and tarsi with moderately dense whitish to yellowish setae. Femur not clavate. Tibia not to hardly widened distally, male meso- and metatibia hardly arched at external and inner edge, on distal inner margin with some acute denticles (Fig. 6C–D). Protarsomeres slightly widened. Male basal metatarsomere shorter than combined length of remaining metatarsomeres. Male tergite VII and sternite VII broadly rounded at posterior margin. Aedeagus as in Fig. 7.

Sexual dimorphism. Female (Fig. 5C) comparatively larger, elytra stronger convex dorsally, minimum interocular distance about 0.8× as wide as dorsal eye length, third antennomere about 2.4× as long as second antennomere, about 1.1–1.2× as long as fourth antennomere, terminal antennomere 0.7 mm long, apically rounded, thicker cylindrical, about 2.6× as long as penultimate antennomere, slightly longer than antennomeres 9–10 combined, meso- and metatibia without obvious denticles, metatibia hardly arched at external and inner edge.

Intraspecific variability. Head with strong blue or purple metallic shine in some paratypes.

Differential diagnosis. This species falls into *Bothrionota* Borchmann, 1936 following the only available key to lagriine genera (Borchmann 1936). However, the *Bothrionota* species have margined anterior and posterior pronotal margin, the terminal antennomere is not elongated, the elytra are comparatively stronger elongate and the male meso- and metatibiae not denticulate in this genus (Borchmann 1936; Telnov & Ruzzier 2024). I therefore tentatively arrange the new species to the genus *Lagria* Fabricius, 1775 *sensu stricto*, which is known to be variable in external morphology, until a comprehensive revision of Lagriinae genera becomes available. No congeners with multiimpressed elytra are known from the Papuan Region and surrounding areas. *Bothrionota ruzzieri* Telnov, 2022 from the North Moluccas (Halmahera) has the elytra comparatively stronger elongate with the conspicuous pale setae, the pronotum is longer than wide, the male terminal antennomere significantly shorter than the combined length of three previous antennomeres (about as long as 3.5 previous antennomeres in *L. undulata* sp. nov.), the eyes comparatively smaller, and the apex of aedeagus rounded (nearly pointed in *L. undulata* sp. nov.).

Ecology. Occurs at about 1300–1800 m in primary and degraded mid-montane rainforests, collected both at daytime and attracted to light at night.

Distribution. Arfak Mountains, Doberai Peninsula, New Guinea.

DISCUSSION

The Lagriinae of New Guinea are particularly poorly known in the western portion of the island including the Doberai (or Bird's Head) Peninsula, from where only a handful of species are recorded, all very recently (Telnov 2023). The lagriine fauna of Doberai Peninsula appears

different from that of the main part of New Guinea island, but this might be at least partially explained by the lack of data. Discovery of additional new species in the material sampled in Arfak Mountains was therefore expected and more lagriine records from western New

Guinea are likely to follow. Providing a key to species or genera of Lagriinae from the Papuan Region appears premature considering the low level of knowledge and potentially high species richness of this biogeographical area.



Figure 5. *Lagria* (s. str.) *undulata* sp. nov. A – Holotype ♂, habitus, dorsal view; B – ditto, laterodorsal view; C – Paratype ♀, habitus, dorsal view [not to scale]. Images courtesy D. Telnov.

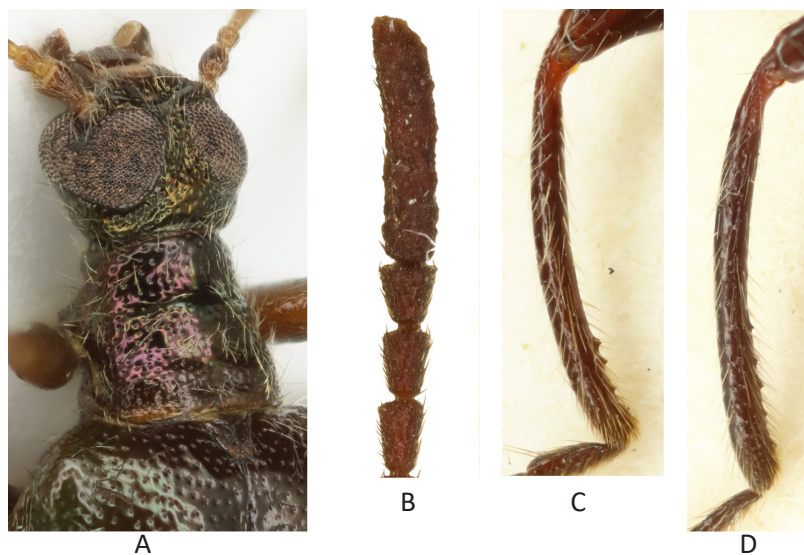


Figure 6. *Lagria* (s. str.) *undulata* sp. nov. A – Holotype ♂, forebody, laterodorsal view; B – Paratype ♂, antennomeres 8–11; C – Mesotibia; D – Metatibia [not to scale]. Images courtesy D. Telnov.



Figure 7. *Lagria* (s. str.) *undulata* sp. nov., paratype ♂, aedeagus in dorsal (A), ventral (B) and lateral (C) view. Images courtesy D. Telnov.

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