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New species of Lagriinae Latreille, 1825 (1820) (Coleoptera: Tenebrionidae) from the Central Cordillera of New Guinea in the collection of the Natural History Museum Stuttgart

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Gronophora jayawijaya sp. nov., *G. nigronitida* sp. nov., *G. riedeli* sp. nov., *Lagria* (s. str.) *maoke* sp. nov., all from New Guinea's Central Cordillera, are described and illustrated. A male is described and illustrated for *Kaindilagria opposita* Telnov, 2022. New records are provided for five poorly known New Guinean lagriine species. A key to species of *Gronophora* Borchmann, 1916 is presented.

Keywords: taxonomy, long-jointed beetles, Papuan Region

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INTRODUCTION

The long-jointed beetle subfamily Lagriinae Latreille, 1825 (1820) is nearly cosmopolitan in distribution (Matthews & Lawrence 2019), represented in the extant fauna by approximately 1300 species (Telnov 2022). The Lagriinae of the Papuan Region (see definition in Gressitt 1982; Riedel 2002; Telnov 2011) gained limited attention in the last five decades compared to their mates from the Oriental realm. Telnov (2024) briefly summarized works on the Papuan lagriines published since 1985. Several new species-rank discoveries were made in New Guinea recently and many more are expected. Therefore, providing a key to species of Lagriinae from the Papuan Region appears premature. However, a key to species of *Gronophora* Borchmann, 1916, a genus endemic to the Papuan Region, is presented herein.

The aim of the present paper is to present the descriptions of *Gronophora jayawijaya* sp. nov., *G. nigronitida* sp. nov., *G. riedeli* sp. nov. and *Lagria* (s. str.) *maoke* sp. nov. – all highland species from New Guinea – as well as the description of male *Kaindilagria opposita* Telnov, 2022, supplemented with new faunistics records for five Papuan species of Lagriinae. A key to species of *Gronophora* Borchmann, 1916 is presented. Images of the type material of *G. gravida* Borchmann, 1916 and *G. monstrata* Borchmann, 1924 are presented for the first time.

MATERIAL AND METHODS

Paired morphological structures are generally treated as singular in text. Label text is reproduced *verbatim*. Each type specimen of the new species described herein is provided with a black framed label on red paper with "HOLOTYPUS" or "PARATYPUS", 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), and, 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).

The new studied material is stored at Staatliches Museum für Naturkunde Stuttgart, Germany (SMNS) and the author's collection in Rīga, Latvia (DTC). The examined type material comes from the Natural History Museum London, United Kingdom and the Museum der Natur Hamburg, Germany.

The approximate location of Diuremna, misspelt 'Djuremna' on the labels, is 04°22′S 139°53′E. The approximate location of a track between Kono and Pinji villages is 04°15′S 139°37′E.

Although female-only based descriptions are still considered obsolete in coleopterology, females of new species described herein are peculiar among their congeners and worth describing without males. Moreover, the modern molecular methods already allowing specimens comparison based on DNA, therefore arranging a male to these species, would those be discovered in the future, should be feasible.

RESULTS

New descriptions and records

***Bothrichara doberai* Telnov, 2023**

New material examined. 7♀ SMNS & 2DTC: IRIAN JAYA: Anggi, Iray Gn. Disbehey 1900-19.-20.III.1993 2100m leg. A.RIEDEL [printed, label blue].

Distribution. So far only known from the Arfak Mountains, Doberai Peninsula, New Guinea. First record since the original description.

***Gronophora gravida* Borchmann, 1916** (Fig. 1)

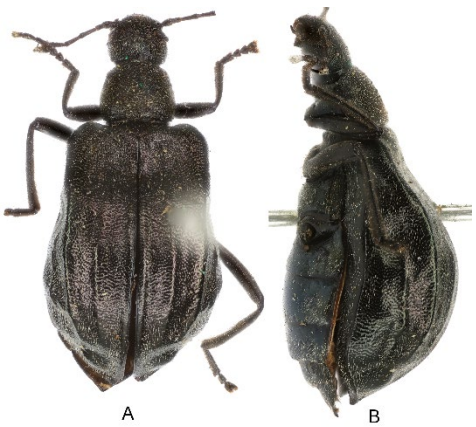

Fig. 1. *Gronophora gravida* Borchmann, 1916, holotype ♀ Natural History Museum London. A – Habitus, dorsal view; B – ditto, lateral view. Images by D.Telnov.

Type material examined. Holotype [monotypy] ♀ Natural History Museum London (Fig. 1): Type H. T. [printed, label circular, red framed] // Batchian 82-47 [handwritten] // Gronophora gravida m. [handwritten, label black framed].

Distribution. Only known from the type locality, Bacan Island in the North Moluccan Archipelago.

***Gronophora jayawijaya* sp. nov.** (Fig. 2)

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Type material designated. Holotype ♀ SMNS (Fig. 2): IRIAN-JAYA: Prov. Jayawijaya, Djuremna [sic!] 9.–11.9. 1992 1900- leg. A. RIEDEL 2100m [printed, label blue]. The correct name for the type locality is Diuremna (also Diduemna), not 'Djuremna'.
Paratype 1♀ SMNS: same label as holotype.

Derivatio nominis. Toponymic. Named after the Jayawijaya Range of the Maoke Mountains, where the new species occurs. Feminine.

Measurements. Holotype female, total body length 13.9 mm; head length 1.8 mm, maximum head width across compound eyes 1.8 mm, pronotal length 1.9 mm, maximum pronotal width across anterior half 2.25 mm and across base 2.35 mm, elytral length 10.2 mm, combined maximum elytral width across postmedium 6 mm. Paratype 15 mm long.

Description. Holotype female. Dorsum almost uniformly dull black. Three last visible sternites castaneous. Legs dark black-brown. Head as long as wide, opaque dorsally and ventrally. Labrum subtruncate at anterior margin. Epistoma broadly and deeply U-shapely emarginated medially at anterior margin. Frontoepistomal impression weak, poorly visible. Insertion of antenna not concealed from above. Compound eye moderate, strongly kidney-shaped, broadly emarginate at anterior, subtruncate at posterior margin in lateral view, not touching insertion of antenna, slightly prominent in lateral aspect. Interfacetal setae not present. Minimum interocular distance ~ 1.2× as wide as maximum length of dorsal eye portion. Tempus nearly as long as narrowest point of eye in dorsal view, slightly converging towards base, posterior temporal angle rounded. Head base subtruncate. Head dorsum densely and flat punctate, punctures smaller on labrum and epistoma. Punctures variably large, mainly circular in shape. Intervening spaces smooth to microscopically corrugated, generally narrower than puncture diameters except on anterior frons and epistoma, where intervals are wider than punctures. Head dorsal setation yellowish, short except for some long suberect tactile setae on labrum, appressed, effectively concealing dorsal surface of posterior head portion. Antenna moderate, filiform, almost touches to touches metacoxa when directed posteriorly. Basal antennomere rather short, thickened, ~ 1.7–1.8× as long as second antennomere. Second antennomere longer than wide. Third antennomere ~ 2.8× as long as second antennomere, 0.85× as long as fourth antennomere, the longest of 1–10. Antennomeres 9–10 slightly widened distally. Penultimate antennomere distinctly longer than wide. Terminal antennomere slightly elongate, ~ 1.1 mm long, apically scalene and pointed, 2.2× as long as penultimate antennomere and as long as combined length of two preceding antennomeres. Terminal maxillary palpomere moderate, strongly securiform. Pronotum irregularly shaped, slightly transverse, opaque and flattened dorsally, broadly emarginate at anterior, subtruncate at posterior margin, lateral margin distinctly carinate in anterior portion including at anterior lateral expansion but very finely

carinate in posterior portion of pronotum, visible in dorsal view on anterior third of pronotum. Maximum width at base, pronotum laterally broadly and moderately constricted posterior to anterior lateral expansion and widened again at base. Anterolateral angles obtuse angulate, posterolateral angles rounded in dorsal view. Disc of pronotum with rather deep paired slightly transverse premedian impression and another smaller and shallower postmedian impression. Medially pronotal disc with shallowly, broadly longitudinally impressed midline except at anterior margin. Dorsal pronotal punctures irregularly shaped, shallow, dense, puncture background opaque. Intervening spaces microscopically corrugated, narrower than puncture diameters. Dorsal pronotal setae inconspicuous, greyish to yellowish, short, appressed, arranged transversely on anterior fourth of pronotal disc. Scutellar shield small, apically rounded, densely punctured and covered with dense dirty yellowish appressed setae. Elytron widened postmedium, dorsally strongly convex, opaque to subopaque. Deep, wide postbasal transverse impression and deep lateral premedian impression on each elytron, postbasal impression is not interrupted on suture. Humeral callosity strongly developed. Apical sutural angle narrowly rounded, subangulate in dorsal view. Elytral lateral margin only slightly carinate, barely visible in dorsal view. Elytral punctures dense, flat, irregularly shaped. Intervening spaces microscopically corrugated, narrower than to (rarely) as wide as puncture diameters. Elytral setae inconspicuous, greyish to whitish, dense (significantly denser on postmedian portion of elytron), appressed, in part effectively concealing sculpture of elytra. Epipleuron complete, extraordinarily wide in anterior portion of elytron, densely and roughly punctured and appressedly setose. Epipleuron poorly delimited from elytral humerus and humeral callosity by inconspicuous carina. Metathoracic wings not studied. Abdominal sternites with short, moderately dense whitish setae. Legs long, slender, subopaque. Femora not clavate. Tibiae distally and tarsi with dense yellowish setae, femora inconspicuously setose. Tibiae subequal in length to corresponding femora. Penultimate tarsomeres widened, subtriangular, not bilobate. Terminal tarsomere long, curved. Pretarsal claws with basal angulation. Basal metatarsomere shorter than combined length of remaining metatarsomeres. Mesoventrite anteriorly with short, glossy longitudinal carina touching anterior edge of mesoventrite. Metaventrite bulged in ventral aspect. Three first visible abdominal sternites slightly convex in ventral aspect. Tergite VII and sternite VII broadly rounded at posterior margin.

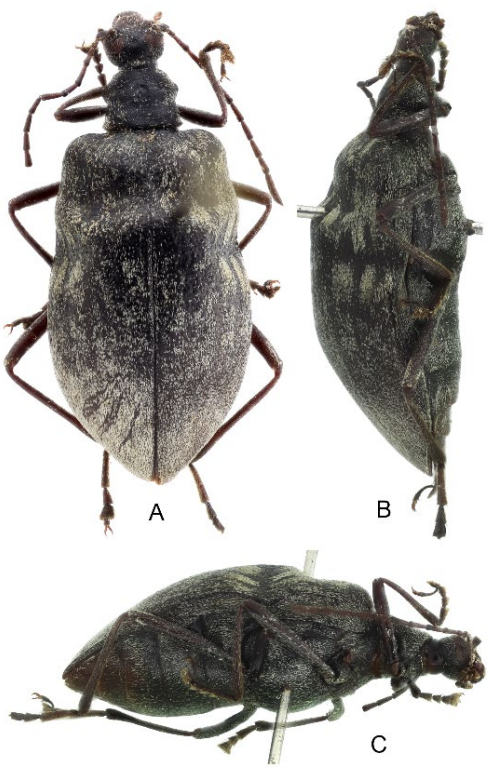

Fig. 2. *Gronophora jayawijaya* sp. nov., holotype ♀ SMNS. A – Habitus, dorsal view; B – ditto, lateral view; C – Forebody, dorsal view [not to scale]. Images by D.Telnov.

Sexual dimorphism. Male is unknown.

Differential diagnosis. The new species is morphologically similar to *G. riedeli* sp. nov. (described below; see the differential diagnosis of the latter).

Ecology. Diurnal, occurs at ~ 1900–2100 m in mid montane rainforests.

Distribution. Jayawijaya Range, Maoke Mountains, Central Cordillera, New Guinea.

***Gronophora monstrata* Borchmann, 1924** (Fig. 3)

Type material examined. Syntype 1♀ Museum der Natur Hamburg (Fig. 3): Type [handwritten, label red] // D.N. Guinea [printed] 276 [handwritten] Hunsteinspitze [printed] 25 [handwritten]. II.13 Kais.Augustafl.Exp. Bürgers S. G. [printed] [label greyish] // Gronophora monstrata m. [handwritten] // Sammlung F. Borchmann Eing. Nr.5,1943 [printed, border dash-framed] // ZMH 66825 [printed].

New material examined. 2♀ SMNS: IRIAN-JAYA: Prov. Jayawijaya, Bommela 30.8.–1.9.1992 leg. A. RIEDEL 1750m [printed, label blue].

Morphology. Male of this species remains unknown. The two examined specimens in general morphology strongly agree with the studied syntype but the elytral impressions are very vague, indistinct.

Distribution. Originally described from the Hunstein Range ("Hunsteinspitze") in what is now East Sepik Province of Papua New Guinea (Borchmann 1924). First record since the original description and from Jayawijaya Range of Maoke Mountains of the Central Cordillera of New Guinea.

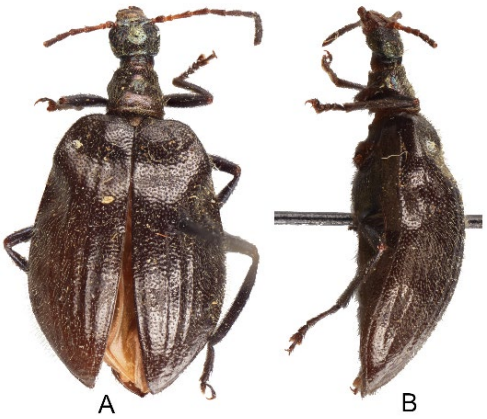

Fig. 3. *Gronophora monstrata* Borchmann, 1924, syntype ♀ Museum der Natur Hamburg. A – Habitus, dorsal view; B – ditto, lateral view. Images by J.-H. Pamin.

***Gronophora nigronitida* sp. nov.** (Fig. 4)

urn:lsid:zoobank.org:act:D5C86D29-2C57-40B5-A6C9-E2FB1A44A447

Type material designated. Holotype ♀ SMNS (Fig. 4): Papua N.G. Southern Highland [sic!] Prov. Tari – Koroba, Hedemari 1700-1900m 6.-9.V,1988, leg. A. Riedel [printed].

Derivatio nominis. Named from the combination of Latin 'niger' (black) and 'nitidus' (shiny) to point on the glossy black dorsum and venter of the new species. Feminine.

Measurements. Holotype female, total body length 10.1 mm; head length 1.4 mm, maximum head width across compound eyes 1.45 mm, pronotal length 1.3 mm, maximum pronotal width across anterior margin ~ 1.2 mm, across anterior half 1.5 mm and across base 1.6 mm, elytral length 7.4 mm, combined maximum elytral width across postmedium 4.3 mm.

Description. Holotype female. Dorsum and venter uniformly glossy black, weak greenish-reddish metallic shine on dorsal forebody. Second and basal portion of third antennomere brown. Labrum emarginated medially at anterior margin. Epistoma broadly and deeply Π-shapely emarginated medially at anterior margin. Fronto-epistomal impression weak, poorly visible. Insertion of antenna not concealed from above. Compound eye moderate, strongly kidney-shaped, broadly emarginate at anterior, subtruncate at posterior margin in lateral view, not touching insertion of antenna, slightly prominent in lateral aspect. Interfacetal setae not present. Minimum interocular distance hardly wider than maximum length of dorsal eye portion. Tempus almost twice as long as narrowest point of eye in dorsal view, hardly converging towards base, posterior temporal angle rounded. Head base truncate. Head dorsum densely and moderately deeply punctate, punctures much smaller on labrum. Punctures variably large. Intervening spaces smooth and glossy, narrower than puncture diameters except on labrum and vertex. Head dorsal setation whitish, moderately long, sparse, suberect to erect, not concealing dorsal surface of posterior head portion. Some slightly longer erect tactile setae scattered on head dorsum. Antenna moderate, filiform, reaches beyond mesocoxa when directed posteriorly. Basal antennomere rather short, thickened, twice as long as second antennomere. Second antennomere nearly as wide as long. Third antennomere the longest of antennomeres 1–10, ~ 3.6× as long as second antennomere, slightly longer than fourth antennomere. Penultimate antennomere slightly shortened and distally widened, 1.6–1.7× as long as long as wide. Penultimate antennomere distinctly longer than wide. Terminal antennomere not studied (not present in the holotype). Terminal maxillary palpomere small, moderately securiform. Pronotum irregularly shaped, slightly transverse, glossy dorsally and laterally, subtruncate at anterior and posterior margin, lateral margin hardly carinate including at anterolateral angle, not visible in dorsal view, lateral sides declivous. Maximum width at base, pronotum laterally constricted towards anterior margin with indistinct median expansion. Antero- and posterolateral angles rounded in dorsal view. Disc of pronotum with shallow transverse impression in anterior third and prebasally. Medially pronotal disc with a small flattened and densely microscopically punctured-wrinkled areas. Dorsal pronotal punctures dense, moderately deep to deep. Intervening spaces slightly elevated, smooth and glossy, narrower than puncture diameters. Pronotal hypomeron sparsely and minutely punctate. Dorsal pronotal setae similar to those on head dorsum, pointed to various directions. Scutellar shield small, apically rounded, densely punctured and covered with dense appressed setae. Elytron widened postmedium, dorsally strongly convex, glossy. Shallow, wide postbasal transverse impression and moderately deep lateral premedian impression on each elytron, postbasal impression is not interrupted on suture. Humeral callosity moderate. Apical sutural angle narrowly rounded in dorsal view. Elytral lateral margin slightly carinate, visible in dorsal view except in humeral and posthumeral area. Seven slightly elevated, dorsally rounded, glossy and glabrous ‘costae’ on each elytron. Elytral punctures dense, deep, irregularly shaped, in part subconfluent, therefore some intervening spaces appear like irregular short transverse wrinkles. Intervening spaces smooth and glossy, generally narrower than puncture diameters. Elytral setae whitish, moderately dense, erect, not concealing sculpture of elytra. Epipleuron complete, wide in anterior portion of elytron, densely and roughly punctured. Epipleuron well delimited from elytral humerus and humeral callosity as well. Metathoracic wings fully developed (functional). Abdominal sternites with short,

moderately dense yellowish setae. Legs long, slender, subopaque. Femora not clavate, sparsely suberect setose. Tibiae distally and tarsi with dense yellowish setae, femora inconspicuously setose. Tibiae subequal in length to corresponding femora, densely suberect setose. Metatibia on inner edge denser and shorter setose than on outer edge. Penultimate tarsomeres widened, subtriangular, not bilobate. Terminal tarsomere long, curved. Pretarsal claws with basal angulation. Basal metatarsomere shorter than combined length of remaining metatarsomeres. Mesoventrite anteriorly with short, glossy longitudinal carina touching anterior edge of mesoventrite. Metaventrite bulged in ventral aspect. Three first visible abdominal sternites convex in ventral aspect. Tergite VII and sternite VII broadly rounded at posterior margin.

Sexual dimorphism. Male is unknown.

Differential diagnosis. The new species is morphologically similar to *G. monstrata* Borchmann, 1924. In the new species the pronotal setae are whitish (yellowish in *G. monstrata*) and comparatively shorter; the dorsal punctures on the pronotum and elytra are comparatively denser and rougher than in *G. monstrata* (cf. figs. 3 & 4), the female penultimate antennomere is ~ 1.6–1.7× as long as wide (~ 2–2.1× as long in *G. monstrata*) and the elytral costae are complete, starting from the base (starting from the postbasal transverse impression of elytra in *G. monstrata*).

Ecology. Diurnal, occurs at ~ 1700–1900 m in mid montane rainforests.

Distribution. Central Cordillera, New Guinea.

***Gronophora riedeli* sp. nov.** (Fig. 5)

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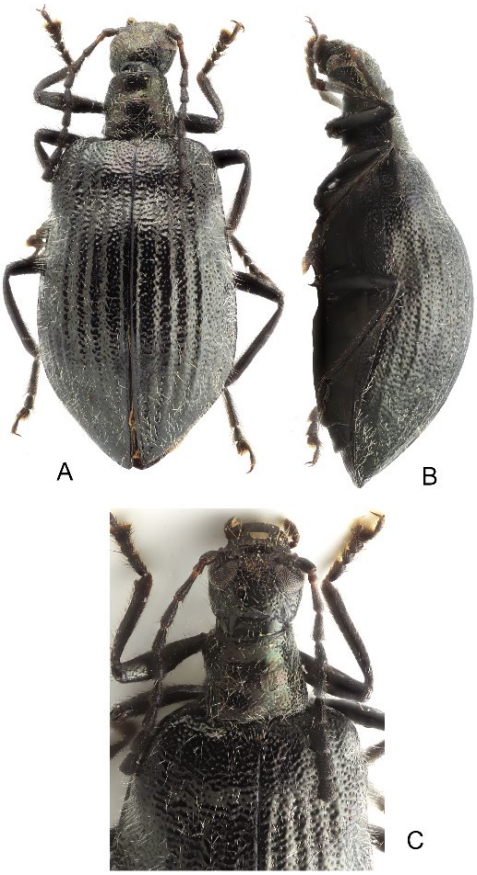

Fig. 4. *Gronophora nigronitida* sp. nov., holotype ♀ SMNS. A – Habitus, dorsal view; B – ditto, lateral view; C – Forebody, dorsal view [not to scale]. Images by D.Telnov.

Type material designated. Holotype ♀ SMNS (Fig. 5): Irian Jaya: Jayawijaya, Kono-Pnji 6. 10. 1993 2800m leg. A.RIEDEL [printed, label blue].

Derivatio nominis. Patronymic. Named after the first collector, famous specialist on the Wallacean and Papuan curculioinds, Alexander Riedel (Staatliches Museum für Naturkunde Karlsruhe, Germany).

Measurements. Holotype female, total body length 14.4 mm; head length 1.7 mm, maximum head width across compound eyes

1.6 mm, pronotal length 1.9 mm, maximum pronotal width across anterior half 2.1 mm and across base 2 mm, elytral length 8.9 mm, combined maximum elytral width across postmedium 4.9 mm.

Description. Holotype female. Dorsum almost uniformly dull black. Base of elytra narrowly and indistinctly paler black yellowish and a median lateral spot on each elytron more prominently yellowish but covered by dense greyish setae. Ventral pterothorax and abdomen dark rufous brown. Head slightly longer than wide, opaque dorsally and ventrally. Labrum subtruncate at anterior margin. Epistoma broadly and deeply V-shapely emarginated medially at anterior margin. Fronto-epistomal impression weak, poorly visible. Insertion of antenna not concealed from above. Compound eye moderate, strongly kidney-shaped, broadly emarginate at anterior, subtruncate at posterior margin in lateral view, not touching insertion of antenna, slightly prominent in lateral and dorsal aspect. Interfacetal setae not not present. Minimum interocular distance ~ 1.5× as wide as maximum length of dorsal eye portion. Tempus twice as long as narrowest point of eye in dorsal view, slightly converging towards base, posterior temporal angle rounded. Head base subtruncate. Head dorsum densely punctate, punctures smaller on labrum and epistoma. Punctures variably large, rather deep, circular to strongly elliptical. Intervening spaces smooth to microscopically corrugated, narrower than puncture diameters. Head dorsal setation yellowish, short except for some very long suberect tactile setae, not concealing dorsal surface of head. Antenna moderate, filiform, reaches metacoxa when directed posteriorly. Basal antennomere rather short, thickened, ~ 1.7× as long as second antennomere. Second antennomere longer than wide. Third antennomere ~ 2.5× as long as second antennomere, 0.95× as long as fourth antennomere, the longest of 1–10. Antennomeres 9–10 slightly widened distally. Penultimate antennomere distinctly longer than wide. Terminal antennomere slightly elongate, ~ 0.8 mm long, asymmetrical, slightly arched, apically pointed, twice as long as penultimate antennomere and as long as combined length of two preceding antennomeres. Terminal maxillary palpomere moderate, strongly securiform. Pronotum irregularly shaped, slightly transverse, opaque and flattened dorsally, subtruncate at anterior and posterior margin, lateral margin finely carinate, visible in dorsal view on anterior half of pronotum. Maximum width in anterior third, pronotum laterally broadly and shallowly constricted posterior to widest point and widened again at base. Antero- and posterolateral angles broadly rounded in dorsal view. Disc of pronotum with deep paired slightly transverse premedian impression and another smaller and shallower postmedian impression. Medially pronotal disc with shallowly, moderately broadly longitudinally impressed midline except at anterior margin. Dorsal pronotal punctures shallow, dense. Intervening spaces microscopically corrugated, narrower than puncture diameters. Dorsal pronotal setae inconspicuous, greyish to yellowish, short, curved, appressed. Scutellar shield moderate, apically rounded, densely punctured. Elytron widened postmedium, dorsally strongly convex, slightly glossy. Moderately deep, wide postbasal transverse impression and deep lateral premedian impression on each elytron, postbasal impression is not interrupted on suture. Humeral callosity strongly developed. Apical sutural angle narrowly rounded in dorsal view. Elytral lateral margin partially visible in dorsal view in posthumeral and median portions of elytron. Elytral punctures dense, moderately deep, irregularly shaped. Intervening spaces smooth, moderately glossy, generally narrower than to as wide as puncture diameters. Elytral setae

inconspicuous, whitish, short, curved, moderately dense, appressed, not concealing sculpture of elytra. Impressed areas on elytron nearly glabrous, appear contrastingly glossy to the rest of elytral surface. Elytral suture rather deeply elliptically impressed preapically. Epipleuron complete, extraordinarily wide in anterior portion of elytron, densely and roughly punctured. Epipleuron poorly delimited from elytral humerus and humeral callosity by inconspicuous carina. Metatho-racic wings not studied. Abdominal sternites with short, moderately dense whitish setae. Legs long, slender, subopaque. Femora not clavate. Tibiae distally and tarsi with dense yellowish setae, femora inconspicuously setose. Tibiae subequal in length to corresponding femora. Penultimate tarsomeres widened, subtriangular, not bilobate. Terminal tarsomere long, curved. Pretarsal claws with indistinct basal swelling. Basal metatarsomere shorter than combined length of remaining metatarsomeres. Metaventrite bulged in ventral aspect. Three first visible abdominal sternites slightly convex in ventral aspect. Tergite VII and sternite VII broadly rounded at posterior margin.

Sexual dimorphism. Male is unknown.

Differential diagnosis. The new species is morphologically similar to *G. jayawijaya* sp. nov. (described above) but differs in the pale maculate elytra (uniformly black in *G. jayawijaya* sp. nov.), the comparatively wider frons (the minimum interocular distance ~ 1.5×compared to ~ 1.2× in *G. jayawijaya* sp. nov.), the comparatively shorter female fourth antennomere and the somewhat shorter and less dense dorsal vestiture.

Ecology. Diurnal, occurs at ~ 2800 m in mid- to upper montane rainforests.

Distribution. Jayawijaya Range, Maoke Mountains, Central Cordillera, New Guinea.

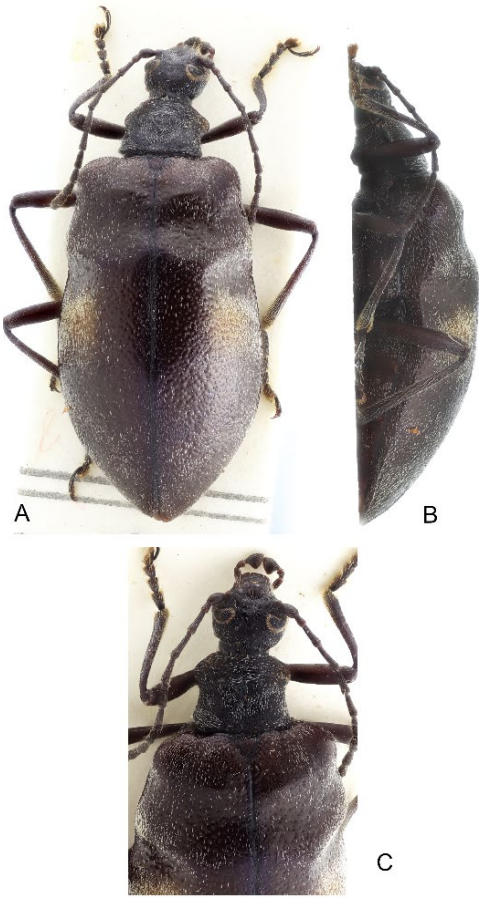

Fig. 5. *Gronophora riedeli* sp. nov., holotype ♀ SMNS. A – Habitus, dorsal view; B – ditto, lateral view; C – Forebody, dorsal view [not to scale]. Images by D.Telnov.

***Kaindilagria opposita* Telnov, 2022** (Figs 6–7)

New material examined. 1♂ SMNS: IRIAN-JAYA: Prov. Jayawijaya, Anguruk 23.9.1992 1200- leg. A.RIEDEL 1500m [printed, label pink]; 1♀ SMNS: Irian Jaya: Jayawiyaja. Wamena, Jiwika 29.9. 1992 1900- leg. A.RIEDEL 2300m [printed, label blue]; 1♀ SMNS: IRIAN-JAYA: Prov. Jayawijaya, Djuremna [sic!] 9.–11.9. 1992 1900- leg. A.RIEDEL 2100m [printed, label blue]; 4♂ SMNS & 1♂ DTC: Irian Jaya:

Jayawiyaja Wamena, Jiwika 5.7.1994 1750-2100m A. RIEDEL leg. [printed, label blue]. The correct name for one of the localities is Diuremna (also Diduemna), not 'Djuremna'; 1♂ SMNS: Irian Jaya: Paniai Mulia(s.) Wuyuneeri 1900-2200m, 6.-7.VII. A.RIEDEL leg. 1994 [printed, label blue].

Note. This species was described from a single female. The new material allows a supplementary description.

Measurements. Male from Mulia, total body length 4.6 mm; head length 0.6 mm, maximum head width across compound eyes 0.7 mm, pronotal length 0.6 mm, maximum pronotal width across midlength 0.6 mm and across base 0.6 mm, elytral length 3.3 mm, combined maximum elytral width across postmedium 1.6 mm. Other studied males 4.2–4.3 mm, females 4.8–5 mm long.

Supplementary description. Male. Head dark brown, mouthparts yellowish brown. Pronotum brown with anterior and posterior margins and scutellar shield pale yellowish brown. Elytron yellowish brown with a tiger-like pattern of irregular, subtransverse, dark brown markings covering the elevated areas of elytron. Antenna brown, antennomeres 2–5 somewhat paler. Legs yellowish brown, femora dark brown ringed predistally. Prothorax and abdomen pale brown, ventral pterothorax darker brown. Head subspherical with attenuate mouthparts, moderately glossy dorsally and ventrally. Mandible apex bidentate. Labrum broadly emarginated at anterior margin. Epistoma deeply U-shapely emarginated medially at anterior margin. Frontoepistomal suture deep, strongly arched. Frons flat in dorsal aspect, anterolateral margins somewhat produced dorsolaterally. Compound eye large, high, deeply emarginate at anterior, broadly – at posterior margin in lateral view, touching insertion of antenna, strongly prominent laterally and dorsally. Interfacetal setae not present. Minimum interocular distance narrow, ~ 0.3× length of dorsal eye portion. Tempus very short, slightly constricted, posterior temporal angles rounded. Head base subtruncate. Head dorsum densely, deeply punctate with variably large punctures. Intervening spaces generally much narrower than punctures (much wider than small punctures between antennal insertions), glabrous, moderately glossy, slightly elevated. Anterior portion of frons with elongated punctures between eyes. Head dorsal setae long, yellowish, suberect to erect. Several much longer erect tactile setae scattered on head dorsum. Antenna long, filiform basally, submoniliform in posterior half, reaching metacoxa when directed posteriorly. Basal antennomere ~ 1.8× as long as second antennomere, half the distance between antennal insertions. Third antennomere ~ 1.8× as long as second, slightly longer than fourth antennomere. Fourth antennomere approximately same length as sixth, fifth antennomere shorter than any of those. Antennomeres 5–10 thickened with uneven surface. Nineth antennomere shortened, transverse, asymmetrically trapezoidal. Penultimate antennamere strongly shortened and strongly transverse, strongly asymmetrical, scalene at posterior edge to accumulate scalene anterior edge of terminal antennomere. Surface of antennomeres 8–10 irregularly denticulate and with numerous sensorial fields. Terminal antennomere (Fig. 6B) ~ 1.7 mm long, slightly arched, anterior edge scalene and slightly produced anteriorly at outer anterior angle, with several acute angulate denticles on surface, somewhat impressed dorsoventrally, very dense and short setose, approximately as long as combined length of 4.5 preceding antennomeres. Terminal maxillary palpomere broadly triangular. Cranial 'neck' smooth, densely punctured only at contact area with occiput. Pronotum narrowly trapezoid, as long as wide, glossy dorsally and laterally, dorsally flattened, subtruncate at anterior,

truncate at posterior margin, maximum width across base and medially, lateral margins gradually widen posteriad but stronger produced laterally also at midlength. Anterior and posterior margin not beaded or rimed. Antero- and posterolateral angle rounded in dorsal view. Dorsal punctures large and deep, more regularly circular than those on dorsal head, denser on lateral sides than on disc. Intervening spaces glossy, glabrous, on pronotal disc generally wider than puncture diameters closer to base. Dorsal pronotal setation as on head, sparse. Scutellar shield rather large, apically rounded, opaque, densely minutely punctured and densely, appressedly, shortly setose. Elytron slightly widened in apical third, dorsally flattened, glossy, with a series of irregular, transverse, slightly elevated, variably shaped, glossy and almost impunctate areas resembling a tiger-like, striped pattern. Elytral lateral margin slightly deflected, visible at most length of elytron except under slightly prominent humeral callosity. Elytral punctures similarly large and deep but much denser than those on pronotal disc. Intervening spaces generally narrower than puncture diameters, rarely as wide as those, glossy and glabrous; elevated areas of elytron are strongly less dense punctate. Elytral setae yellowish, moderately dense and long, suberect, directed posteriorly. Numerous longer, stronger erect tactile setae scattered over surface of elytron. Apical sutural angle narrowly rounded. Epipleuron wide, complete, densely punctured. Metathoracic wings fully developed (functional). Legs long, slender, femora and tibiae moderately glossy, with long whitish to yellowish suberect setae. All femora slender, not clavate or thickened. Posterior edge of mesofemur with a row of short, apically acute to rounded, slightly oblique denticles (Fig. 6C). All tibiae subequally long to corresponding femora. Metatibia on inner edge with a row of short, appressed, slightly thickened dense setae. Protarsomeres widened. Penultimate meso- and metatarsomere strongly subtriangularly widened but not bilobate. Basal metatarsomere distinctly shorter than combined length of remaining metatarsomeres. Terminal tarsomere long, curved. Pretarsal claw with hardly distinct basal angulation. Tergite VII broadly rounded at posterior margin, sternite VII shallowly emarginate at posterior margin. Aedeagus as in fig. 7.

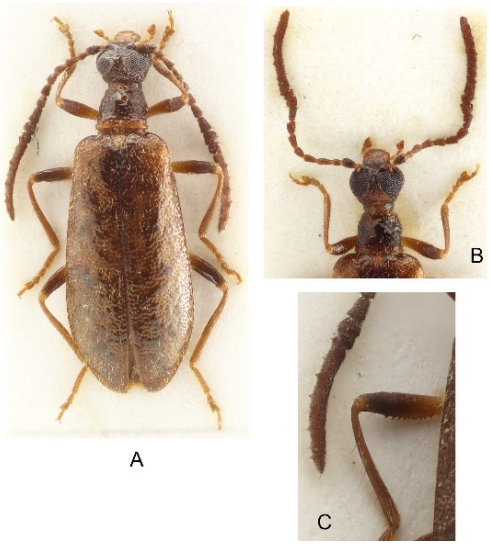

Fig. 6. *Kaindilagria opposita* Telnov, 2022, ♂♂. A – Specimen from Mulia, habitus, dorsal view; B – Specimen from Jiwika, forebody, dorsal view; C – Specimen from Mulia, left mesofemur- and tibia and three left terminal antennomere [not to scale]. Images by D.Telnov.

Sexual dimorphism. Female is generally slightly lager than male, minimum interocular distance 0.5× length of dorsal eye portion, tempus comparatively longer, antenna distinctly shorter than in male, reaching beyond mesocoxa when directed posteriorly, antennomeres more or less symmetrical and not transverse, terminal antennomere 0.55 mm long, approximately as long as combined length of 2.5 preceding antennomeres, mesofemur without

modifications, metatibia without dense short setae on inner edge.

Interspecific variability. In the specimen from Anguruk the elytra are lacking elevations and are also uniformly yellowish brown coloured.

Ecology. Diurnal, occurs at 1200–2300 m in mid-montane rainforests.

Distribution. Baliem Valley and Jayawijaya Range, Maoke Mountains, Central Cordillera and Arfak Mountains, Doberai peninsula, New Guinea.

Fig. 7. *Kaindilagria opposita* Telnov, 2022, specimen from Jiwika, aedeagus in dorsal (A), ventral (B) and lateral (C) view. Images by D.Telnov.

***Lagria* (s. str.) *arfaka* Telnov, 2024**

New material examined. 1♀ SMNS: IRIAN JAYA: Anggi, Tetaho Kosmena 1400–1750m 26.-28.III.1993 leg. A. RIEDEL.

Distribution. First record since the original description. Only known from the Arfak Mountains, Doberai Peninsula, New Guinea (Telnov 2024).

***Lagria* (s. str.) *maoke* sp. nov.** (Figs 8–9)
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Type material designated. Holotype ♂ SMNS (Figs 8–9): Irian Jaya: Prov. Jayawijaya, Wamena, Kosarek, 25.9.1991 1650–1700m leg. A.RIEDEL [printed, label blue].
Paratypes 4 specimens. 1♂ SMNS: IRIAN-JAYA: Jayawijaya, Membahan 23.9. 1991 leg. A.RIEDEL [printed, label pink]; 1♂ SMNS: IRIAN-JAYA: Jayawijaya Anguruk, Tanggeam 28.9.1991 1500-1800m leg. A.RIEDEL [printed, label pink]; 1♂ SMNS: IRIAN-JAYA: Jayawijaya Anguruk, Tanggeam 29.10.1991 1500-1800m leg. A.RIEDEL [printed, label pink]; 1♂ SMNS: Irian Jaya: Jayawijaya, Okloma 30.9. -1.10.1993 1650- leg. A.RIEDEL 1800m [printed, label blue].

Derivatio nominis. Toponymic. Named after the Maoke Mountains, where the new species occurs. Noun in apposition.

Measurements. Holotype male, total body length 14.4 mm; head length 1.7 mm, maximum head width across compound eyes 2 mm, pronotal length 1.9 mm, maximum pronotal width across anterior third 2.4 mm and across base 2.4 mm, elytral length 10.8 mm, combined maximum elytral width across postmedium 5.9 mm. Male paratypes 13–14 mm.

Description. Holotype male. Head and pronotum dark brown, head with strong dark khaki to bluish green metallic shine, dorsa pronotum with weak greenish metallic shine. Elytra brown, with indistinct greenish metallic shine. Mouthparts, antenna and legs brown, femora with dark khaki metallic shine except on six terminal antennomeres.

Head slightly transverse, slightly glossy dorsally and ventrally. Labrum emarginated medially at anterior margin. Epistoma U-shapely emarginated medially at anterior margin. Frontoepistomal impression moderate, nearly straight. Insertion of antenna not concealed from above. 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 present. Minimum interocular distance ~ 0.9× as wide as maximum length of dorsal eye portion. Tempus nearly half as long as narrowest point of eye in dorsal view, converging towards base, posterior temporal angle rounded. Head base subtruncate. Head dorsum densely and coarsely punctate posteriad to anterior eye margin, less coarse and sparser punctate on anterior portion. Punctures variably large, rather deep, circular to strongly elliptical. Intervening spaces smooth and glossy, as wide as to narrower than puncture diameters. Head dorsal setation yellowish, long to moderate, suberect, dense, in part effectively concealing dorsal surface of head. Antenna long, filiform, extending slightly beyond metacoxa when directed posteriorly. Basal antennomere rather short, slightly thickened, ~ 1.6× as long as second antennomere. Second antennomere distinctly longer than wide. Third antennomere ~ 2.4× as long as second antennomere, 0.95× as long as fourth antennomere, the longest of 1–10. Antennomeres 5–10 shorter than any of 3 and 4, antennomeres 9–10 slightly widened distally. Penultimate antennomere distinctly longer than wide. Terminal antennomere strongly elongate, ~ 2.6 mm long, asymmetrical, slightly arched, apically pointed, ~ 5.7× as long as penultimate antennomere and as long as combined length of four preceding antennomeres, surface sparsely microtuberculate. Terminal maxillary palpomere small, securiform. Pronotum trapezoidal, transverse, glossy and flattened dorsally, subtruncate at anterior and posterior margin, lateral margin declivous. Maximum width in anterior third and at base, lateral margins of pronotum converging anteriorly and shallowly emarginated prebasally. Anterior and posterior edge of pronotum not margined or rimed, shallow impression dorsally along with basal margin. Lateral margin not visible in dorsal view. Antero- and posterolateral angles broadly rounded in dorsal view. Dorsal pronotal punctures variably large, moderately deep, dense. Intervening spaces smooth and glossy, narrower than to (rarely) twice as wide as puncture diameters. Dorsal pronotal setae as those on head, directed in main part posteriorly or obliquely medio-posteriorly. Scutellar shield small, apically rounded, densely punctured. Elytron widened postmedium, dorsally slightly convex, slightly glossy. Apical sutural angle rounded in dorsal view. Elytral lateral margin visible in dorsal view except in humeral and apical portion of elytron. Elytral punctures dense, moderately deep, in part arranged into irregular, short, sinuous transverse groups. Intervening spaces moderately glossy, in part microstrigose (mainly on basal portion of elytra), generally narrower than punctures, in part slightly elevated and forming short and glabrous transverse wrinkles between transverse groups of punctures. Elytral setae whitish, moderately long, dense, not fully appressed, rather effectively concealing sculpture of elytra. Epipleuron complete, very broad at most of its length except at elytral apex, densely punctured and transversely wrinkled. Metathoracic wings fully developed (functional). Abdominal sternites with moderately dense yellowish setae. Legs long, slender, subopaque due to microreticulated femora and densely punctured tibiae. Tibiae and tarsi with dense yellowish setae, femora sparsely and stronger appressedly setose. Femora not clavate. Tibia slightly widened distally, male meso- and metatibia hardly arched,

metatibia distally subclavate-like inflated. Tarsi widened, especially protarsomeres. Basal metatarsomere shorter than combined length of remaining metatarsomeres. Tergite VII and sternite VII broadly rounded at posterior margin. Aedeagus as in fig. 9.

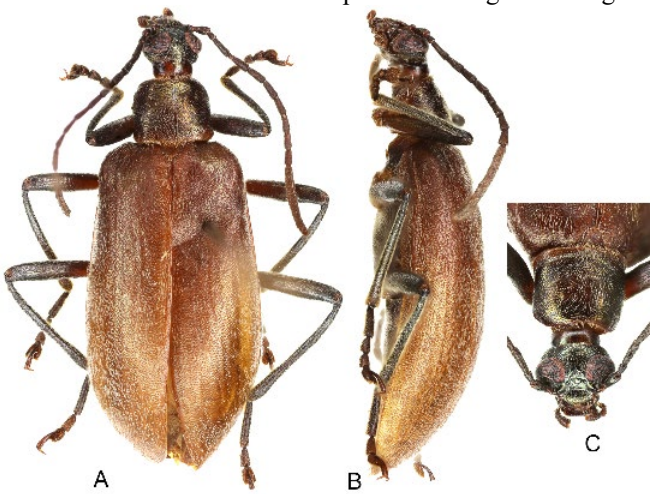

Fig. 8. *Lagria* (s. str.) *maoke* sp. nov., holotype ♂. A – Habitus, dorsal view; B – Forebody, dorsal view; C – Habitus, lateral view [not to scale]. Images by D.Telnov.

Fig. 9. *Lagria* (s. str.) *maoke* sp. nov., holotype ♂, aedeagus in dorsal (A), ventral (B) and lateral (C) view. Images by D.Telnov.

Sexual dimorphism. Female is unknown.

Differential diagnosis. The new species is morphologically similar to *L. arfaka* Telnov, 2024 (Arfak Mountains, Doberai Peninsula, New Guinea). The shape of the aedeagus is different in the new species – stronger narrowed postmedially than in *L. arfaka*, the male pronotum is lacking the anterolateral impressions, the male terminal antennomere nearly 6× as long as penultimate antennamere (approximately 5× as long in *L. arfaka*), minimum interocular distance in male ~ 0.9× as wide as length of dorsal eye portion (~ 0.6× as wide in *L. arfaka*), the frontoepistomal suture is comparatively shallower.

Ecology. Diurnal, occurs at 1500–1800 m in mid-montane rainforests.

Distribution. Jayawijaya Range, Maoke Mountains, Central Cordillera, New Guinea.

***Lagria* (s. str.) *undulata* Telnov, 2024**

New material examined. 1♀ SMNS: IRIAN JAYA: Manokwari Minyambou/

Warmare 4.9.1991 Arfak Mt. leg.A.RIEDEL [printed, label pink].

Distribution. First record since the original description. So far only known from the Arfak Mountains, Doberai Peninsula, New Guinea.

Key to species of *Gronophora* Borchmann, 1916

The genus *Gronophora* was erected by Borchmann (1916) based primarily on unstable morphological features of dubious phylogenetic value, such as (translated from German) the strongly transversely impressed elytra near base ('Flügeldecken an der Basis stark niedergedrückt'), the compete lateral elytral costa separating epipleuron from elytral disc ('der starke Schulterrand setzt sich rippenförmig bis zur Spitze fort'). Borchmann's differential diagnose of the genus are typically concise: *Gronophora* closely resembles *Lagria* Fabricius, 1775 (Lagriini Latreille, 1825 (1820)) but is different in the 'peculiar' body shape and the 'formation' of elytra ('Nahe mit *Lagria* F. verwandt, abweichend durch die eigentümliche Körperform und Flügeldeckenbildung' (Borchmann 1916: 103), 'Die Gattung ist nahe mit *Lagria* verwandt, weicht aber durch die eigentümliche Körperform und die Flügeldeckenbildung bedeutend ab.') (Borchmann 1936: 80)). This genus, like many others in Lagriinae, requires proper definition, which was not among the aims of the present work. I follow Borchmann (1916, 1936) and consider lagriines from the Papuan Region with postbasal transverse and premedium lateral impressions on elytra and nearly complete elytral lateral costa (which is weak in humeral area in some *Gronophora*, including type of the genus) as members of this genus.

Additional features of *Gronophora* appear the extraordinarily wide epipleuron in humeral and posthumeral area of elytron and a comparatively weak lateral elytral costa separating it from elytral disc (in all known species of this genus but *G. nigronitida* sp. nov., the elytral lateral costa completely disappears prehumerally), the ventrally convex metaventrite and first three visible abdominal sternites and the shallow impression at place of frontoepistomal suture.

The key presented herein is suboptimal since it is based mainly on female features, since males are unknown for all species of *Gronophora*.

1 Pronotum distinctly widened (expanded) laterally in anterior half, here nearly as wide as at base (Figs 2A, 5C); elytron with or without weakly elevated longitudinal costae ……..2

- Pronotum slightly or not at all widened laterally in anterior half, distinctly widest at base (Figs 1A, 3A, 4A & C) ……4

2 Area posterior to lateral impression on elytron of same colour as rest of elytral disc or nearly so ……..….3

- Elytron posterior to lateral impression with dull yellowish brown spot… *G. riedeli* sp. nov.

3 Elytron with 3–4 incomplete, sometimes interrupted, weakly elevated and dorsally rounded longitudinal costae; pronotum slightly widens from anterior margin towards postmedium …….. *G. gravida* Borchmann, 1916

- Elytron without tracks of longitudinal costae; pronotum expanded laterally in anterior portion, here approximately as wide as at base ……*G. jayawijaya* sp. nov.

4 Female antennomere ten ~ 2–2.1× as long as wide; pronotal setae yellowish, comparatively longer; dorsal punctures on pronotum and elytra comparatively

sparser; elytral costae starting from postbasal transverse impression of elytra ……*G. monstrata* Borchmann, 1924
- Female antennomere ten ~ 1.6–1.7× as long as wide; pronotal setae whitish, comparatively shorter; dorsal punctures on pronotum and elytra comparatively denser and rougher; elytral costae starting from base of elytra ……*G. nigronitida* sp. nov.

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