

A NEW *LEISTUS* FRÖHLIG, 1799 FROM THE CANARY ISLANDS (COLEOPTERA: CARABIDAE, NEBRIINAE)

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ABSTRACT

Leistus kratkyi n. sp. is described from the island of La Gomera, in the Canary archipelago. It belongs to the subgenus *Nebrileistus* Banninger, 1925, a Macaronesian endemism with two further species known: *Leistus (Nebrileistus) ellipticus* Wollaston, 1854 from Madeira, and *L. (Nebrileistus) nubivagus* Wollaston, 1864, from Tenerife and Gran Canaria. The new species shares characters from both taxa, and is characterised by the presence of four setae on the prementum; pronotum and elytra with testaceous margins: very transverse pronotum, and elytra broadened near their base.

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Keywords. Taxonomy, ground-beetles, *Leistus (Nebrileistus) kratkyi* n. sp., La Gomera, Garajonay National Park, new species, laurisilva.

RESUMEN

Nueva especie de *Leistus* Fröhlig, 1799 de las Islas Canarias (Coleoptera: Carabidae, Nebriinae)

Se describe *Leistus kratkyi* n. sp. de la isla de La Gomera, en el archipiélago canario. Pertenece al subgénero *Nebrileistus* Banninger, 1925, endémico de la Macaronesia, que cuenta con otras dos especies: *Leistus (Nebrileistus) ellipticus* Wollaston, 1854 de Madeira, y *Leistus (Nebrileistus) nubivagus* Wollaston, 1864 de Tenerife y Gran Canaria. La nueva especie comparte caracteres de ambos taxones y se caracteriza por la presencia de cuatro setas en el prementón, el pronoto y los élitros con los márgenes testáceos, pronoto muy transversal y los élitros ensanchados cerca de su base.

Palabras clave. Taxonomía, *Leistus (Nebrileistus) kratkyi* n. sp., La Gomera, Parque Nacional de Garajonay, especie nueva, laurisilva.

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Introduction

Leistus Fröhlig, 1799 is a species-rich genus (aprox. 190 spp., *f.* Lorenz 2005) widely distributed in the Palaearctic and Nearctic regions. The primitive subgenus *Nebrileistus* Banninger, 1925 is endemic to Macaronesia, with two species so far known: *L. ellipticus* Wollaston, 1854 from Madeira, and *L. nubivagus* Wollaston, 1864 from Tenerife and Gran Canaria, in the

Canary Islands (Machado 1992). *Nebrileistus* is characterised by mandibles not expanded laterally and without ventral fringe of setae; reduced paraglossae, and ligula with long arms, not carinate ventrally, and bearing two very fine setae inserted on little tubercles just before the arms junction (Perrault 1981). Recently, a new species of this subgenus has been discovered in the laurel forests of La Gomera, at the National Park of Garajonay, in the Canary Islands. The description of this striking

novelty is the purpose of the present short contribution. The holotype has been deposited in the Natural History Museum of Santa Cruz de Tenerife (TFCM).

Leistus (Nebrileistus) kratkyi n. sp.

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Figs 1A, 2A–B.

TYPE MATERIAL. Holotype: 1♂, Spain, Canary Islands, La Gomera, El Cedro, 28°07'48" N, 17°13'06" W, 31 Oct. 2018, V. Dušánek leg., genitalia embedded in alcohol-polyvinyl on plastic card (TFMC//CO-16044).

Paratypes: 1♀, La Gomera, El Cedro, Gollada del Camino Viejo, 28°07'51" N, 17°12'49" W, alt. 982 m, 10 Feb. 2020, J. Krátký leg., beaten at night from *Phyllis nobla* (Collection J. Krátký, Czech Republic, Hradec Králové); 1♀, La Gomera, El Cedro, Descanso de la Virgen, 28°07'51" N, 17°13'04" W, alt. 875 m,

18 Feb. 2020, A. Machado leg., beaten at night from *Pericalis papyracea* (Collection A. Machado, Spain, La Laguna, #10.391).

DIAGNOSIS. *Leistus* of moderate size (6.5–6.7 mm), piceous colour with margins of elytra and pronotum testaceous or reddish; mandibles not expanded laterally and without ventral fringe of setae (*Nebrileistus*); prementum with 4 robust basal setae; pronotum very transverse (length/wide ratio 0.62), little constricted at base; elytra sub-acuminate, broadest at basal fifth.

DESCRIPTION. Length 6.5–6.7 mm, body elongate, teguments brilliant, of dark piceous colour except margins of pronotum and elytra which are testaceous or of pale brown-reddish colour, same as mouthparts, legs, and ventrites 4 and 5. Micro-reticulation isodiametric on head, a little transverse on pronotum and elytra. Winged.

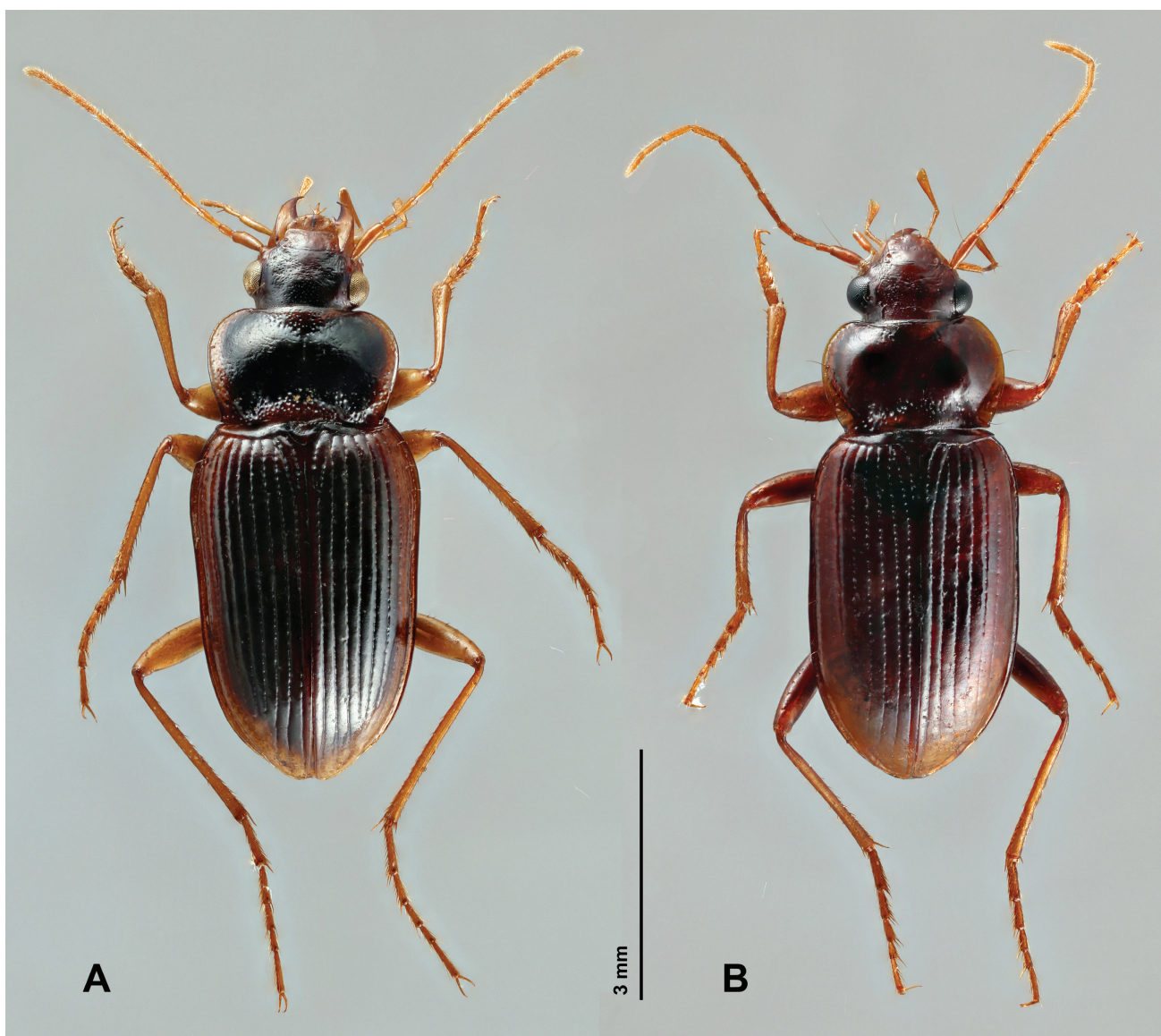


Fig. 1.— A. *Leistus (Nebrileistus) kratkyi* n. sp., holotype. B. *Leistus (Nebrileistus) nubivagus* Wollaston, 1864.
Fig. 1.— A. *Leistus (Nebrileistus) kratkyi* n. sp. holotipo. B. *Leistus (Nebrileistus) nubivagus* Wollaston, 1864.

Head robust, broad at base; dorsal integument with disperse small punctures; frontal furrows rugulose; eyes large, round and prominent (45% convexity); temples short, oblique; one supraorbital seta; mandibles long, acute-pointed and simple (not expanded at outer margin and without ventral fringe of setae); paraglossae reduced; ligula trifid, long, overpassing mandibles when closed, with median branch (bent downwards) almost twice as long as lateral branches, not carinate basally and with two fine long hairs before cross; prementum with 4 robust median setae; mentum with 4–5 deep transverse furrows at middle third, one seta at each side of dent's indentation, and 2 robust median setae at base (plus 3 smallish setae between) (Fig. 2A). Antennae long and slender ($2.7\times$ length of pronotum).

Pronotum notably transverse ($L/W = 0.62$); subconvex; sides more curved anteriorly and less posteriorly, widest above middle (coincident with lateral seta); anterior angles hardly protruding; base broad, slightly shorter as base of elytra, little emarginate at middle third; posterior angles obtuse, with small acute dent; lateral foveae deep and wide; median line very fine. Punctures coarse, moderately dense along base (partly foveolate) and anterior submarginal arch, shallower and scarcer on lateral margins, and even less (mostly effaced) on disc, which has coriaceous superficial impressions (not completely smooth).

Scutellum large, broad ogival, convex.

Elytra oblong ($L/W = 1.54$), near $3\times$ length of pronotum, laterally expanded and widest at basal fifth, then sides slightly sinuate and subconvergent to apex (not parallel); basal carina arcuate; smallish humeral

dent; disc flattened but less at base and on apical third; lateral channel narrow. Striae punctulate-crenulate with crenulation less impressed nearing apex, striae 7 and 8 almost effaced except at basal third; interstriae moderately convex, 3 discal points on 3rd interstriae.

Ventral parts moderately shiny, with deep separate punctures on all episternites, lateral margins of metasternum, ventrite 1 and part of ventrite 2.

Aedeagus (Fig. 2B) with median lobe uniformly curved, broad blunt tip (opened to the right), and sagittal process of basal bulb as high as median lobe at middle; right paramer as long as median lobe without sagittal process.

ETYMOLOGY. The species is named after my Czech colleague Jiří Krátký (Hradec Králové), who is deeply interested in the Canarian coleoptera fauna and showed me the first specimen of this remarkable new ground-beetle.

REMARKS. *Leistus (N.) kratkyi* n. sp. looks most similar in size and shape to *L. (N.) nubivagus* (Fig. 1B), whereas the latter is of more uniformly reddish-brown colour (margins paler) and in the new species the testaceous or reddish margins of pronotum and elytra are better delimited and more contrasting with the dark piceous colour of the body. Moreover, its elytra are less flattened distally, shorter and clearly expanded laterally before their base, with sides weakly bisinuate and subconvergent to apex (not parallel or subparallel); length ratio elytra/pronotum = 3.0 (instead of > 3.3); the 7th stria is not completely effaced; the punctures of pronotum and head are better impressed,

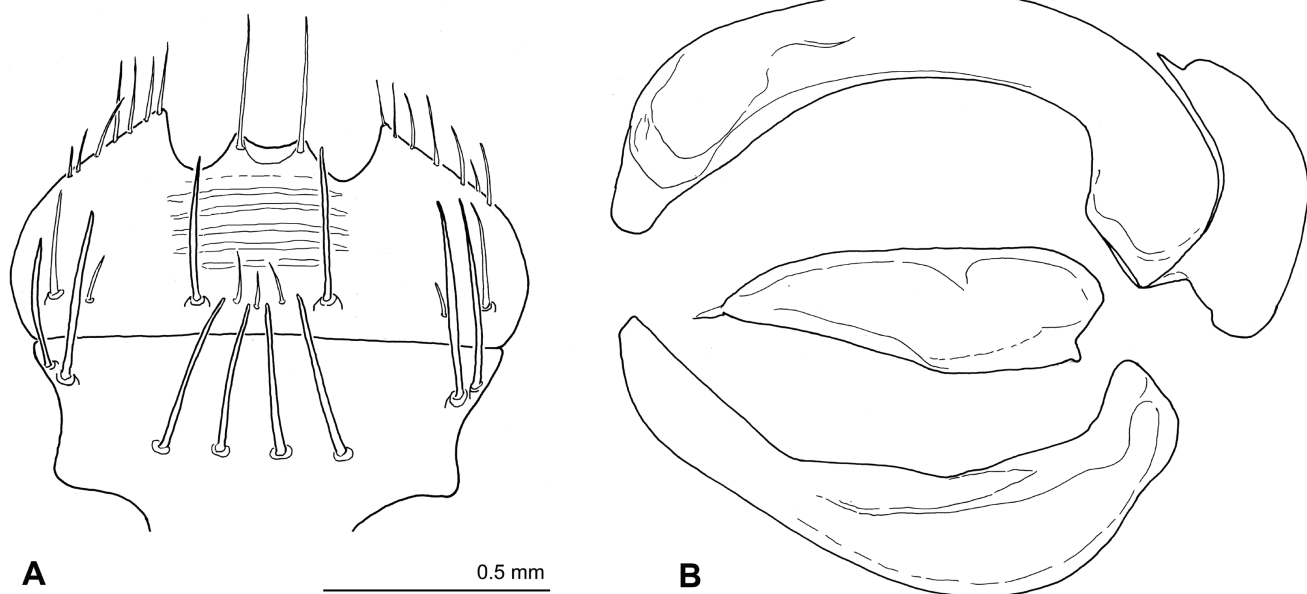


Fig. 2.— *Leistus (Nebrileistus) kratkyi* n. sp. A. Mentum and prementum. B. Aedeagus.

Fig. 2.— *Leistus (Nebrileistus) kratkyi* n. sp. A. Mentón y prementón. B. Edeago.

denser and more amply distributed; the prementum has 4 setae instead of 3; the mentum bears 2 basal median setae and 2 (not 4) on its dent; the mandibles are longer and more sharp-pointed; the ligula is much longer; the eyes are slightly less prominent, the elytral striae more crenulate than puncturate and less effaced apically, etc. According to Perrault (1981), *L. (N.) ellipticus* has also 4 (exceptionally 6) setae at base of prementum and long sharp-pointed mandibles, but it is of larger size and easy to be distinguished by the narrower elliptical elytra (shoulders almost effaced) and less transverse pronotum ($L/W = 0.7$).

There are no significant differences between the aedeagi of *L. (N.) kratkyi* n. sp. and *L. (N.) nubivagus*, both with a largely developed sagittal process of the basal bulb (small in *L. ellipticus*), suggesting a closer relationship despite the differences in the mentum-prementum chaetotaxy. The drawings of the aedeagi presented by Perrault (op. cit. figs 3-4) for *L. (N.) ellipticus* and *L. (N.) nubivagus* seem to have been interchanged.

DISTRIBUTION AND ECOLOGY. The three specimens known of *L. kratkyi* n. sp. have been collected separately in the margins of the humid laurel-forest (El Cedro), on the island of La Gomera, at about 900 m altitude. *Leistus nubivagus* lives in similar conditions on Tenerife, but it dwells also at higher altitude (600-1600 m) inhabiting the humid Canary pine-forest, a habitat not naturally present in the island of La Gomera. These *Leistus* are scarce —according to Wollaston (1865) “one of the rarest Canarian coleoptera”— and can be found occasionally under stones, but with better chances at night, when they are active and climb for hunting on lower plants or bushes that grow in the clearings of the forest. As its congeners, *L. (N.) kratkyi* n. sp. is hygrophilous and apparently a winter animal.

Key to species of subgenus *Nebrileistus* Banninger, 1925

- 1 Elytra elliptical, pronotum less transverse ($L/W > 0.65$). Madeira *L. (N.) ellipticus* Wollaston, 1854
- Elytral parallel or subacuminate; pronotum clearly transverse ($L/W < 0.65$) 2
- 2 Pronotum reddish-brown, almost unicolour; elytra parallel-sided; prementum with tree basal setae. Tenerife, Gran Canaria *L. (N.) nubivagus* Wollaston, 1854
- Pronotum piceous with testaceous lateral margins; elytra widest at basal fifth with sides weakly bisinuate and subconvergent to apex; prementum with four basal setae. La Gomera *L. (N.) kratkyi* n. sp.

Clave de especies del subgénero *Nebrileistus* Banninger, 1925

- 1 Élitros elípticos, pronoto menos transverso ($L/A > 0.65$). Madeira *L. (N.) ellipticus* Wollaston, 1854
- Élitros paralelos o subacuminados; pronoto claramente transversal ($L/A < 0.65$) 2
- 2 Pronoto pardo rojizo, prácticamente unicolor. Élitros paralelos; prementón con tres setas basales. Tenerife, Gran Canaria *L. (N.) nubivagus* Wollaston, 1854
- Pronoto píceo con márgenes laterales testáceos; élitros con máxima anchura en el quinto basal, ligeramente bisinuados y subconvergentes hacia el ápice; prementón con cuatro setas basales. La Gomera *L. (N.) kratkyi* n. sp.

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