

New records of the enigmatic species — *Ronhuberia eurytarsipennis* (W. Horn, 1905) (Coleoptera: Cicindelidae)

Новые находки таинственного вида — *Ronhuberia eurytarsipennis* (W. Horn, 1905) (Coleoptera: Cicindelidae)

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KEY WORDS. Coleoptera, Cicindelidae, Odontocheilina, tiger beetles, *Ronhuberia*, *R. eurytarsipennis*, new records, Охараппа, Перу.

КЛЮЧЕВЫЕ СЛОВА. Coleoptera, Cicindelidae, Odontocheilina, жуки скакуны, *Ronhuberia*, *R. eurytarsipennis*, новые находки, Охапампа, Перу.

ABSTRACT. *Ronhuberia eurytarsipennis* (W. Horn, 1905) from the subtribe Odontocheilina W. Horn, 1899 sensu Moravec [2012] known only by the two types from Ukayali (Peru) has been found recently in the Peruvian province Охараппа. Additional data, measurements and illustrations of diagnostic characters of the newly collected specimens, as well as of the type specimens, are presented.

РЕЗЮМЕ. *Ronhuberia eurytarsipennis* (W. Horn, 1905) из подтрибы Odontocheilina W. Horn, 1899 sensu Moravec [2012], известный только по двум типам из Укаяли (Перу), найден в перуанской провинции Охараппа. Представлены линейные размеры и иллюстрации важнейших морфологических признаков вновь найденных особей и типовых экземпляров.

Introduction

There are several cases within Cicindelidae when a new species was described according to the study of a sole or unit (only two) specimens, particularly by historical authors, such as Walther Horn. Sometimes, new exemplars of such species are subsequently collected in the nature or are found in the museum collections. However, a number of species remains known only

from the type specimens. *Ronhuberia eurytarsipennis* (W. Horn, 1905), based on *Odontochila eurytarsipennis* W. Horn, 1905, described from two syntypes (male and female) from the Peruvian region of Ucayali, is a good example. During next 115 years after its description [Horn, 1905] and illustration [Horn, 1910] this species was not found in nature or in the museum collections [Mandl, 1951; Moravec, Kudrna, 2002; Erwin, Pearson, 2008]. Its previous records from Ecuador by Pearson et al. [1999] and by Cassola, Pearson [2001] (as *Pentacomia eurytarsipennis*) was based on a misidentification, as they recorded in fact a different species which was described later as *Pentacomia (Pentacomia) fernandezi* Cassola, 2000 from Colombia and was subsequently recorded from Ecuador [Cassola, Onore, 2002; Moravec, Kudrna, 2002].

In October 2017 three specimens of *R. eurytarsipennis* were rediscovered in the Peruvian province Охараппа. The additional data on their morphological features and measurements are given and discussed below.

Material and methods

The recently collected specimens are kept in the collection of Moscow State Pedagogical University, Moscow, Russia (MPU). The type specimens are de-

posited in the Senckenberg Deutsches Entomologisches Institut, Müncheberg, Germany (SDEI).

Measurements were made with an ocular-micrometer on the stereoscopic microscope Leica M165c (Carl Zeiss) as follows: TL — total body length without labrum (from anterior margin of clypeus to the apex of elytra along the suture), HW — width of head with the eyes (in the widest place), LL — length of labrum with apical teeth (along the midline), LW — width of labrum (in the widest place), PL — length of pronotum (along the midline), PW — width of pronotum (in the widest place), EL — length of elytra with apical spine (from the base of scutellum along the suture), EW — width of elytra (in the widest place), SL — length of sutural spine, AL — length of aedeagus (from the base to the apex).

The photographs of habitus and details of the recently collected specimens (Figs 1–9) were taken by the first author with a Canon EOS 40D camera with a MP-E 65 mm macro lens. Aedeagus photos were taken with Canon EOS 6D camera attached to a Carl Zeiss AXIO Scope.A1 microscope. All photos were processed using

Zerene Stacker software. The photographs of the two type specimens (Figs 10–20) were taken by the second author with a Nikon Coolpix 990 digital camera through a MBS-10 stereo microscope. For preparing the slides the aedeagi were consistently stand in 10% KOH (24 h.), 4% acetic acid (5 min.) and washed with cold distilled water (5 min.), and then were preserved with Euparal (D ~ 1.05) media.

Ronhuberia eurytarsipennis (W. Horn, 1905)
Figs 1–20.

Odontochila eurytarsipennis W. Horn, 1905: 148 (type locality — Ucayali, Peru; see below).

Pentacomia (*Pentacomia*)? *eurytarsipennis*: Wiesner 1992: 83.

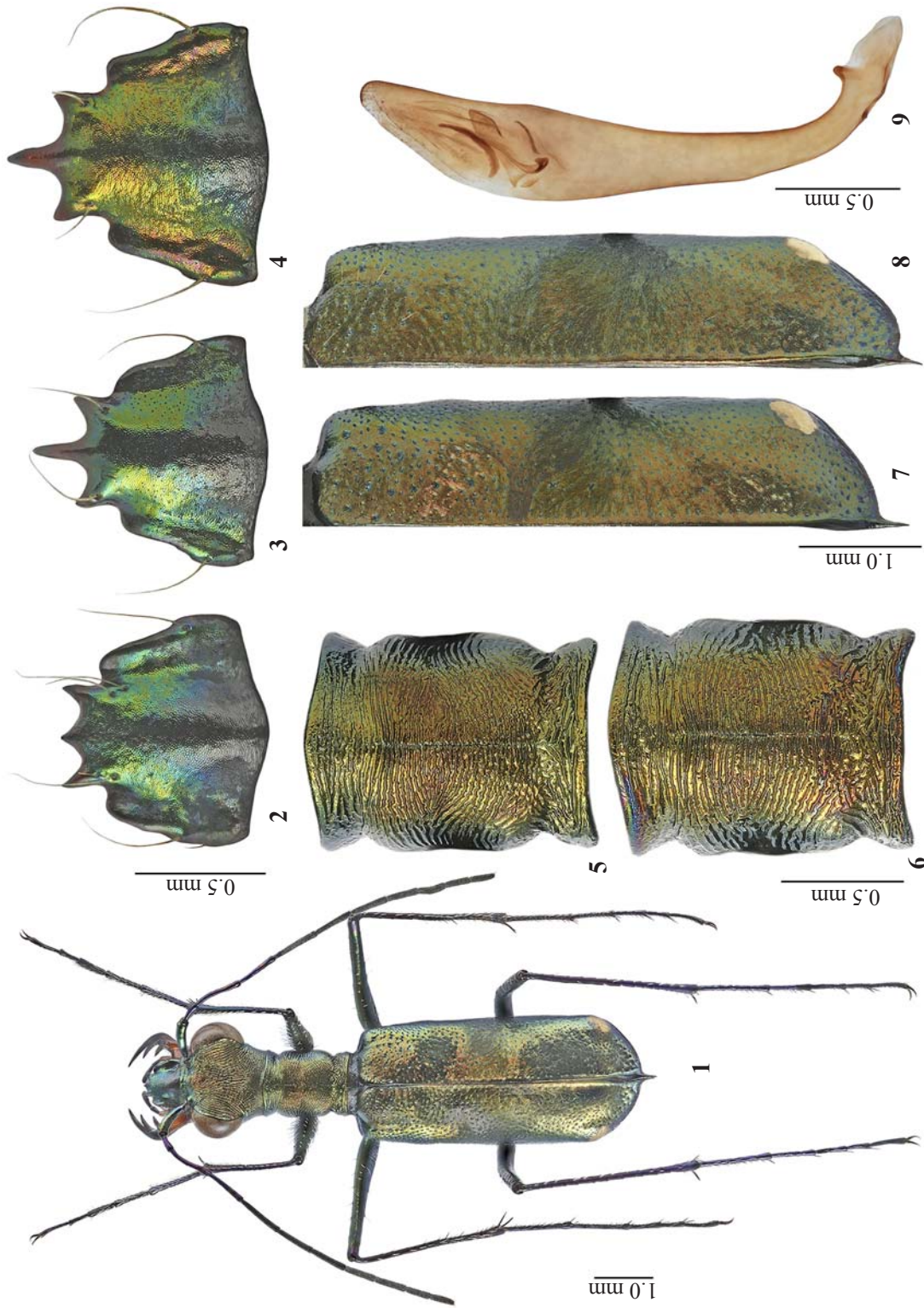
Ronhuberia eurytarsipennis: Moravec, Kudrna, 2000: 32–33 (Fig. 2b), 24 (Fig. 3), 26 (Figs 15–19).

non *Pentacomia eurytarsipennis* sensu Pearson et al., 1999 [nec Cassola, Pearson, 2001], which is *Ronhuberia fernandezi* (Cassola, 2000).

TYPE MATERIAL. Lectotype ♂ and paralectotype ♀ of *Odontochila eurytarsipennis* W. Horn, 1905 designated by Moravec [2020] (both SDEI) — come from Peruvian Amazonia, a long way from the localities of the newly collected adults, providing that the

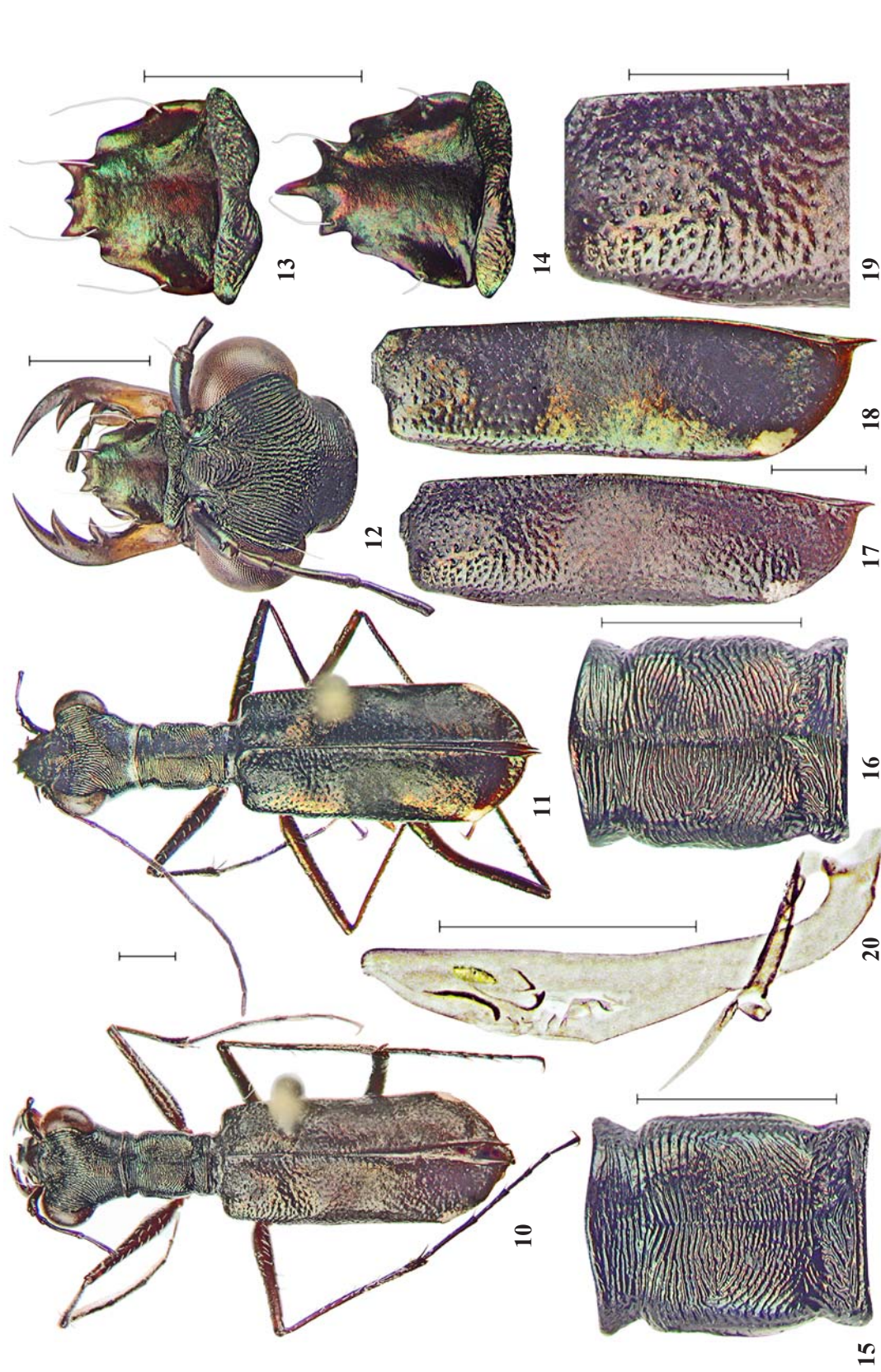
Table 1. The color and morphological features of the specimens of *R. eurytarsipennis*.
Таблица 1. Особенности строения и окраски особей *R. eurytarsipennis*.

Features	Type specimens (old, partly faded or tarnished)	Newly recorded specimens
Genae	metallic black with feeble green lustre	metallic black with feeble green or bluish-green lustre
Clypeus	metallic green with purple reflection	metallic golden-green with cupreous reflection and light purple tinge in one female
Labrum	metallic green with black-purple basal and anterior margin in male and metallic black with purple and green reflection in female; with two pairs of setae	metallic black with green anterior two-thirds and blue luster along inner sides of basal impressions in male and first female, but with bright golden-green anterior two-thirds, purple lateral margins and light blue tinge along inner sides of basal impressions in second female; apical teeth and apices of lateral tooth brown in females; with three pairs of setae (anterior pair is double) in male and two pairs of setae in females
Scape	metallic-black with bright green lustre	metallic-black with bright blue luster in basal third, golden-green reflection in apical two-thirds and purple-tinged apex
Antennomeres 2 nd –4 th	metallic purple-violaceous with bronze-green iridescence	metallic bluish-violaceous or purple-violaceous with purple or golden-green iridescence in apical third
Pronotum	metallic olivaceous-green with bronze lustre in male and bronze-cupreous lustre in female	metallic olivaceous-green with bronze or bronze-cupreous lustre in both sexes; in female anterior margin sometimes with bright rainbow luster
Mesepisterna	metallic black	metallic black with purple-bronze or purple-gold reflection in females and purple-golden-green reflection in male
Elytra	sublateral anterior area and posterior declivity iridescent-green in male and golden-bronze to cupreous in female	sublateral anterior area and posterior declivity iridescent- golden-bronze to cupreous in both sexes
Coxae	metallic black-brown	metallic black-brown; fore with bluish-green, middle and hind with golden-green reflection
Trochanters	ochre-brown	fore and middle ochre-brown, hind dark-brown



Figs 1–9. *Ronhuberia eurytarsipennis* (specimens from Ocharapra province): 1 — habitus; 2–4 — labrum; 5–6 — pronotum; 7–8 — right elytron, 9 — aedeagus with internal sac, left view; 1–2, 5, 7, 9 — male; 3–4, 6, 8 — females.

Рис. 1–9. *Ronhuberia eurytarsipennis* (экземпляры из провинции Охапампа): 1 — габитус; 2–4 — верхняя губа; 5–6 — переднеспинка; 7–8 — правое надкрылье; 9 — эдеагус с внутренним мешком, слева; 1–2, 5, 7, 9 — самец; 3–4, 6, 8 — самки.



Figs 10-20. *Ronhuberia eurytarsipennis* (type specimens of *Odontochila eurytarsipennis*, SDEI): 10-11 — habitus; 12 — head; 13-14 — labrum; 15-16 — elytron; 17-18 — pronotum; 19 — detail of left elytral base; 20 — aedeagus with internal sac, left view; 10, 12-13, 15, 17, 19-20 — male, lectotype; 11, 14, 16, 18 — female, paralectotype. Scale bars: 1 mm [adapted from Moravec, 2020].

Рис. 10-20. *Ronhuberia eurytarsipennis* (типовые экземпляры *Odontochila eurytarsipennis*, SDEI): 10-11 — габитус; 12 — голова; 13-14 — верхняя губа; 15-16 — переднеспинка; 17-18 — левое надкрылье; 19 — основание левого надкрылья; 20 — эдегус с внутренним мешком, слева; 10, 12-13, 15, 17, 19-20 — самец, лектотип; 11, 14, 16, 18 — самка, паралектотип. Масштаб: 1 мм [по Moravec, 2020].

type locality name “Ucayali, Peru” stated by HORN [1905] and added in writing by hand on the printed label “Staudinger”, is correct [Moravec, 2020].

ADDITIONAL MATERIAL: 1♀ — Peru, Pasco Department, Oxapampa Province, Pozuzo District, 5 km S Santa Rosa vill., h ~ 1560 m, 10°00'23"S 75°27'36"W, 5–12.10.2017, leg. A. Sokolov (MPU); 1♂1♀ — Peru, Pasco Department, Oxapampa Province, Pozuzo District, Santa Rosa vill., h ~ 1600 m, 13–16.10.2017, leg. A. Petrov (MPU).

DIFFERENTIAL DIAGNOSIS. The two known species of *Ronhuberia* Moravec, Kudrna, 2002 are characterized by their elytral surface which is almost smooth and chatoyant-coloured posteriad of discal impression with widely diffusing, velvety black central zone that may change to iridescent gold-bronze (depending on light-angles). *Ronhuberia fernandezi* (Cassola, 2000), the type species of the genus, differs in a complex of diagnostic characters [Moravec, Kudrna, 2002; Moravec, 2020], yet immediately in having immaculate elytra and an extremely coarse sculpture on the elytral base and pronotal surface.

New data about some morphological features as (Table) well as the basic measurements of newly recorded specimens of this extremely rare species are presented below. The coloration and measurements of the types are given after Moravec, Kudrna [2002]; it must be noted here that the type specimens are partly tarnished and faded as usual in very old specimens (Figs 10–20).

DIMENSION. With the data on newly collected exemplars the sizes (mm) and proportions of all known specimens of *R. eurytarsipennis* are as follows (males/females): TL — 8.0/7.8–8.5; HW — 2.1–2.15/2.1–2.3; LL — 0.8/0.9–1.05; LW — 0.9/0.9–1.0; LL/LW — 0.89/1.0–1.11; PL — 1.5/1.4–1.6; PW — 1.25/1.1–1.25; PL/PW — 1.2–1.3/1.24–1.28; EL — 4.9–5.0/4.8–5.2; EW — 2.2–2.3/2.2–2.4; EL/EW — 2.13–2.27/2.17–2.18; SL — 0.2–0.25/0.2–0.25; AL — 1.97–2.2.

REMARKS. It is noteworthy that Wiesner [1992] catalogued *R. eurytarsipennis* (with a question mark) in a diagnostically very different genus *Pentacomia* Rivalier, 1969. Similarly, *R. fernandezi* was originally described by Cassola [2000] as *Pentacomia*, despite its distinct characters of which he stressed the metallic coloured labrum only. Moravec, Kudrna [2002] thoroughly re-described and additionally illustrated these two species, and for their remarkable diagnostic characters, the authors transferred them to a separate genus *Ronhuberia*.

It must be noted here that the genus *Pentacomia* Bates, 1872 diagnostically differs from all other genera of the subtribe Odontocheilina W. Horn, 1899 sensu Moravec [2012], including all genera which were originally described as subgenera of *Pentacomia* by Rivalier [1969], as demonstrated by Moravec [2018a–b, 2020]. The illustrations of the two type specimens of *R. eurytarsipennis* (Figs 10–20) are the originals taken by the second author of this present paper, also published in Moravec, Kudrna [2002] and Moravec [2020].

Acknowledgements. We are very grateful to Dr. Alexander Petrov and Mr. Alexander Sokolov (both from Moscow,

Russia) who very kindly loaned material for this study. The second author would also like to thank the staff of the SDEI collection for their kind assistance during his visits to the collection and for loans of the type specimen.

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