Two new species of South America *Neocherentes* Tippmann, 1960 (Coleoptera: Cerambycidae: Lamiinae: Onciderini)

Eugenio H. Nearns

Miguel A. Monné
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Eugenio H. Nearns
National Identification Services (NIS)
USDA APHIS PPQ Plant Health Programs
National Museum of Natural History, Smithsonian Institution
Washington, DC 20560 USA

Miguel A. Monné
Departamento de Entomologia
Museu Nacional, Universidade Federal do Rio de Janeiro – UFRJ
Quinta da Boa Vista, São Cristóvão, CEP 20940-040
Rio de Janeiro, RJ, Brazil

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Eugenio H. Nearns and Miguel A. Monné
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Eugenio H. Nearns  
National Identification Services (NIS)  
USDA APHIS PPQ Plant Health Programs  
National Museum of Natural History, Smithsonian Institution  
Washington, DC 20560 USA  
eugenio.h.nearns@usda.gov

Miguel A. Monné  
Departamento de Entomologia  
Museu Nacional, Universidade Federal do Rio de Janeiro – UFRJ  
Quinta da Boa Vista, São Cristóvão, CEP 20940-040  
Rio de Janeiro, RJ, Brazil  
monne@uol.com.br

Abstract. Two new species of Onciderini Thomson, 1860 (Coleoptera: Cerambycidae: Lamiinae) are described and illustrated: *Neocherentes adrianoi* Nearns and Monné, from Brazil, and *Neocherentes pergeri* Nearns and Monné, from Bolivia. The male of *Neocherentes dilloniorum* Tippmann, 1960 is redescribed and the female is described for the first time. *Neocherentes dilloniorum* is excluded from the Brazilian fauna. A key to the known species of *Neocherentes* Tippmann, 1960 is provided.

Key words. Longhorned beetles; Neotropical region; taxonomy.


Palabras claves. Escarabajos longicorneos; región neotropical; taxonomía.

Introduction

The monotypic genus *Neocherentes* (Cerambycidae: Lamiinae: Onciderini) was described by Tippmann (1960) for *N. dilloniorum* Tippmann, 1960, based on a single male specimen collected in Cusco, Peru. Specimens of this genus are rarely collected and only eight specimens are known from museum collections. In naming the genus *Neocherentes*, Tippmann was apparently referring to *Cherentes niveilateris* (Thomson, 1868), another onciderine with a distinct pattern formed by curved and sinuate stripes of contrasting colors on the elytra and lateral margins.

Many years ago, the second author discovered a new species of *Neocherentes* from Brazil in the MNRJ collection. Visits to several museum collections in the USA, Brazil, and Europe by the first author revealed additional specimens of this new species. In addition, four specimens of a second new species from Santa Cruz de la Sierra, Bolivia were discovered in the ACMT and RPPC collections. The two new species are described herein and a key to the three known species is provided. The male of *Neocherentes dilloniorum* is redescribed and the female is described for the first time.

Materials and Methods

Specimens of adult *Neocherentes* in the following collections were examined and the following codens are used throughout the paper:

ACMT American Coleoptera Museum (James E. Wappes), San Antonio, TX, USA
FSCA Florida State Collection of Arthropods, Gainesville, FL, USA
Observations of specimens were made using a Nikon SMZ18 stereomicroscope with 10× eyepieces. Photographs were taken with Visionary Digital’s Passport Storm imaging system fitted with a Canon EOS 50D. Figure plates were edited with the Adobe Photoshop CS5. Distribution maps were created in Esri ArcMap 10.3. Classification and distributional data are based on Monné (2018) and Tavakilian and Chevillotte (2018). Separate labels are separated with a double slash (//).

Taxonomy

**Neocherentes** Tippmann, 1960

**Type species.** *Neocherentes dilloniorum* Tippmann, 1960: 156.

The genus *Neocherentes* currently contains a single species. The following key treats all currently known species of *Neocherentes* including two new species described herein.

1. Apical 1/3 of elytra without distinct punctuation; mesosternal process medially concave; mesosternum and abdominal sternites with similar coloration and striped pattern as elytra (Fig. 4b, e); usually found in lower elevation habitats, below 1,000 m (Brazil) ..............

   — Apical 1/3 of elytra with distinct punctuation; mesosternal process medially flat; mesosternum and abdominal segments with similar coloration and striped pattern as elytra or not; found in a wide range of elevations

   .......................... 2

2. Abdominal segments with mottled whitish-grey coloration, without striped pattern as in elytra (Fig. 4c, f); usually found in lower elevation habitats, below 1,000 m (Bolivia) ..........

   — Mesosternum and abdominal segments with similar coloration and striped pattern as elytra (Fig. 4a, d); usually found in high elevation Andean habitats, above 1,000 m (Bolivia, Peru) ....

   .......................... 2

**Neocherentes dilloniorum** Tippmann, 1960: 156

(Fig. 1a−d, 4a, d)

**Redescription. Male.** Length 11.5–9.0 mm (measured from vertex to elytral apices), width 4.4–4.0 mm (measured across humeri). Habitus as in Fig. 1a. General form elongate-oblong, moderately sized. Integument dark-brown to almost black, with white, gray, ochraceous, testaceous, and dark-brown pubescence; elytra with distinct pattern formed by curved and sinuate stripes of contrasting colors, forming almost an “X” shape extending from humeri to apices; mesosternum and abdominal sternites with similar stripes and colors.

**Head.** Frons subquadrate, about 4 times width of lower eye lobes. Eyes with lower lobes moderately sized, narrow, elongate; narrowest area connecting upper and lower eye lobes about 2 ommatidia wide. Genae elongate, about 1/2 as tall as lower eye lobes. Antennae distinctly longer than body, surpassing elytral apices by 5 antennomeres; antennal tubercles prominent, widely separated; tubercles armed at apex with short, blunt horn; scape clavate; antennomere III slightly sinuate. Antennal formula based on antennomere III: scape = 0.63; II = 0.18; IV = 0.87; V = 0.62; VI = 0.52; VII = 0.44; VIII = 0.37; IX = 0.36; X = 0.37; XI = 0.38.
Two new species of Neocherentes

Thorax. Pronotum roughly cylindrical, transverse, about 1.25 times as wide as long; disk densely pubescent, with two large, subround tumescences, one on each side of midline, each tumescence depressed obliquely by shallow furrow; each side of disk with short, glabrous line extending obliquely from base to about basal 1/3. Mesosternal process about 2/3 as wide as mesocoxal cavity, medially flat, emarginate apically. Scutellum transverse, apex rounded. Elytra. Slightly more than 2 times as long as width at humeri, about 3.7 times as long as pronotal length, about 1.5 times broader basally than pronotum at its widest (at base); lateral margins slightly attenuate, gradually rounded to apices at apical 1/3, apices

Figure 1. Neocherentes dilloniorum Tippmann, 1960, holotype male. a) Dorsal habitus. b) Lateral habitus. c) Close-up of head. d) Close-up of abdominal ventrites.
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**Neocherentes dilloniorum**

**Abdomen.** Fifth abdominal ventricle about 1.25 times longer than IV.

**Female.** Length 13.0–9.0 mm (measured from vertex to elytral apices), width 5.3–3.7 mm (measured across humeri). Similar to male except antennae slightly longer than body; antennomeres X and XI decreasing in length compared to IX; basal 1/3 of profemora not transversely rugose; ventricle V with a median triangular impression.


**Diagnosis and remarks.** *Neocherentes dilloniorum* can be separated from its congeners by the following combination of characters: apical 1/3 of elytra with punctation, mesosternal process medially flat, and mesosternum and abdominal sternites with distinct striped pattern similar to dorsal surface (Fig. 4a, d). This species is known from a total of eight specimens (2 males, 6 females). All known specimens of this species were collected in Peru and Bolivia (Fig. 5) at relatively high elevation (1,400–2,558 m). Monné (2005) was the first to report this species from Bolivia, followed by Wappes et al. (2006). Lingafelter et al. (2014) provided color photographs of the holotype specimen.

**Neocherentes adrianoi** Nearns and Monné, sp. nov.  
(Fig. 2a–d, 4b, e)

*Neocherentes dilloniorum*; Nearns and Swift (2011)

**Description. Female.** Length 15.0–14.0 mm (measured from vertex to elytral apices), width 6.0–5.4 mm (measured across humeri). Habitus as in Fig. 2a. General form elongate-oblong, moderately sized. Integument dark-brown to almost black, with white, gray, ochraceous, testaceous, and dark-brown pubescence; elytra with distinct pattern formed by curved and sinuate stripes of contrasting colors, forming almost an “X” shape extending from humeri to apices; mesosternum and abdominal sternites with similar stripes and colors.

**Head.** Frons subquadrate, about 4 times width of lower eye lobes. Eyes with lower lobes moderately sized, narrow, elongate; narrowest area connecting upper and lower eye lobes about 2 ommatidia wide. Genae elongate, about 1/2 as tall as lower eye lobes. Antennae slightly longer than body; antennal tubercles prominent, widely separated; tubercles not armed at apex; scape clavate; antennomere III moderately sinuate. Antennal formula based on antennomere III: scape = 0.63; II = 0.18; IV = 0.8; V = 0.62; VI = 0.5; VII = 0.44; VIII = 0.34; IX = 0.31; X = 0.22; XI = 0.21.

**Thorax.** Pronotum roughly cylindrical, transverse, about 1.3 times as wide as long; disk densely pubescent, with two large, subround tumsences, one on each side of midline, each tumsence depressed obliquely by shallow furrow; each side of disk with short, glabrous line extending obliquely from base to about basal 1/3. Mesosternal process nearly as wide as mesoscohal cavity, medially concave, emarginate apically. Scutellum transverse, apex rounded. **Elytra.** About 1.8 times as long as width at humeri, about 3.6 times as long as pronotal length, about 1.5 times broader basally than pronotum at its widest (at base); lateral margins slightly attenuate, gradually rounded to apices at apical 1/3, apices jointly rounded; basal 1/3 with sparse, shallow punctation; humeri prominent, anterior margin arcuate. **Legs.** Short; femora robust; metatibia clavate apically; tibiae slightly expanded apically; metatibiae about 1/3 as long as elytra; tarsomere V about as long as I–IV combined. Procoxae large, globose; apex of prosternal process subtriangular.
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Abdomen. Fifth abdominal ventrite with a median triangular impression; ventrite V about 1.5 times longer than IV.

Male. Length 12.0 mm (measured from vertex to elytral apices), width 4.5 mm (measured across humeri). Similar to female except antennae distinctly longer than body, surpassing elytral apices by 4 antennomeres; antennal tubercles armed with short, blunt horns; basal 1/3 of profemora transversely rugose; ventrite V without a median triangular impression.

Figure 2. *Neocherentes adrianoi* sp. nov., holotype female. a) Dorsal habitus. b) Lateral habitus. c) Close-up of head. d) Close-up of abdominal ventrites.
Type material. Holotype, ♀ (Fig. 2a–d), BRAZIL: Espírito Santo, Linhares, Maio 1970, Fragoso // Coleção Fragoso // comp. con foto de holotipo de Paracherentes ferruginea Breun. MNHN Paris (MNRJ). Allotype, ♂, BRAZIL: Rio, Riachuelo, vii 1932, M. Souza Gomes coll. (MNRJ). Two paratypes, 1 ♀ BRAZIL: Minas Gerais, Mar de Hespanha (MNHN); 1 ♀, “Shrt” [handwritten label on green paper] (NHMW).

Etymology. This species is named in memory of the late José Adriano Giorgi (1970–2018), longhorned beetle expert and friend, who will be missed. The epithet is a noun in the genitive case.

Diagnosis and remarks. Neocherentes adrianoi can be separated from its congeners by the combination of the following characters: apical 1/3 of elytra without punctation, mesosternal process medially concave, and mesosternum and abdominal sternites with distinct striped pattern similar to dorsal surface (Fig. 4b, e). In both N. dilloniorum and N. pergeri, the apical 1/3 of elytra has punctation and the mesosternal process is flat. This species is described from four specimens (one male, three females), three of which were collected in Brazil from near sea level to approximately 500 m (Fig. 5). One of the two female paratypes (NHMW) contains only a handwritten label on green paper which reads “Shrt,” which we believe is short for Heinrich Wilhelm Schott (1794–1865), Austrian botanist and royal gardener who spent many years in Brazil (1817–1821) collecting specimens (Antonio Santos-Silva, pers. comm.). The late Stephen Breuning recognized the Mar de Hespanha (Minas Gerais) female paratype (MNHN) as distinct from N. dilloniorum, which he labeled with the manuscript name “Paracherentes ferruginea.” To the best of our knowledge, this name was never published. The female holotype from Linhares (Espírito Santo) was incorrectly listed as a male N. dilloniorum by Nearns and Swift (2011), in recording a new country record for Brazil. Accordingly, N. dilloniorum is formally excluded from the Brazilian fauna.

Neocherentes pergeri Nearns and Monné, sp. nov.
(Fig. 3a–d, 4c, f)

Description. Female. Length 14.0–13.1 mm (measured from vertex to elytral apices), width 6.0 mm (measured across humeri). Habitus as in Fig. 3a. General form elongate-oblong, moderately sized. Integument dark-brown to almost black, with white, gray, ochraceous, testaceous, and dark-brown pubescence; elytra with distinct pattern formed by curved and sinuate stripes of contrasting colors, forming almost an “X” shape extending from humeri to apices; mesosternum and abdominal sternites with similar stripes and colors.

Head. Frons subquadrate, about 4.5 times width of lower eye lobes. Eyes with lower lobes moderately sized, narrow, elongate; narrowest area connecting upper and lower eye lobes about 2 ommatidia wide. Genae elongate, nearly 2/3 as tall as lower eye lobes. Antennae slightly longer than body; antennal tubercles prominent, widely separated; tubercles not armed at apex; scape clavate; antennomere III moderately sinuate. Antennal formula based on antennomere III: scape = 0.56; II = 0.16; IV = 0.84; V = 0.62; VI = 0.44; VII = 0.38; VIII = 0.35; IX = 0.33; X = 0.28; XI = 0.26.

Thorax. Pronotum roughly cylindrical, transverse, about 1.25 times as wide as long; disk densely pubescent, with two large, subround tumescences, one on each side of midline, each tumescence depressed obliquely by shallow furrow; each side of disk with short, glabrous line extending obliquely from base to about basal 1/3. Mesosternal process nearly as wide as mesocoal cavity, medially flat, emarginate apically. Scutellum transverse, apex rounded. Elytra. About 1.6 times as long as width at humeri, about 3.3 times as long as pronotal length, about 1.6 times broader basally than pronotum at its widest (at base); lateral margins slightly attenuate, gradually rounded to apices at apical 1/3, apices jointly rounded; basal 1/3 with sparse, shallow punctuation; humeri prominent, anterior margin arcuate. Legs. Short; femora robust; metafemora clavate apically; tibiae slightly expanded apically; metafemora about 1/3 as long as elytra; tarsomere V about as long as I–IV combined. Procoxae large, globose; apex of prosternal process subtriangular. Abdomen. Fifth abdominal ventrite with a median triangular impression; ventrite V nearly 2 times longer than IV.

Male. Length 11.3–10.5 mm (measured from vertex to elytral apices), width approx. 4.4 mm (measured
Two new species of *Neocherentes*

Similar to male except antennae distinctly longer than body, surpassing elytral apices by 5 antennomeres; antennal tubercles armed with short, blunt horns; basal 1/3 of profemora transversely rugose.

**Type material.** Holotype, ♀, BOLIVIA, Santa Cruz de la Sierra, Buena Vista, Nov.– Dec. 1992, R. Clarke, coll. (ex ACMT, to be deposited in NMNH). Allotype, ♀, BOLIVIA, Santa Cruz de la Sierra, Potrerillos del Guendá; 17°40.26′ S, 63°27.44′ W, 9–29-XI-2006, B.K. Dozier collector (FSCA). Two paratypes, 1 ♂

**Figure 3.** *Neocherentes pergeri* sp. nov., holotype male. **a**) Dorsal habitus. **b**) Lateral habitus. **c**) Close-up of head. **d**) Close-up of abdominal ventrites.
and 1 ♀, BOLIVIA, Santa Cruz: La Guardia (pre-Andean Chiquitano forest; 17°52′59″ S, 63°19′04″ W; 480 m a.s.l.), XI–XII.2015, beating tray, R. Perger col. (RPPC).

**Etymology.** This species is named for our friend Robert Perger (Santa Cruz de la Sierra, Bolivia), who collected part of the type series, for his spirit of collaboration and contributions to the study of Neotropical longhorned beetles. The epithet is a noun in the genitive case.

Figure 4. Three species of *Neocherentes* Tippmann, 1960, holotype specimens. a) *N. dilloniorum*, lateral view. b) *N. adrianoi*, lateral view. c) *N. pergeri*, lateral view. d) *N. dilloniorum*, close-up of abdominal ventrites. e) *N. adrianoi*, close-up of abdominal ventrites. f) *N. pergeri*, close-up of abdominal ventrites.
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Diagnosis and remarks. *Neocherentes pergeri* can easily be separated from its congeners by the metasternum and abdominal ventrites with mottled whitish-grey coloration (in *N. dilloniorum* and *N. adrianoi*, the metasternum and abdominal ventrites continue the distinct pattern found on the elytra (Fig. 4c, f)). This species is known from four specimens (one male, three females) collected in pre-Andean Chiquitano transition forest in Santa Cruz de la Sierra, Bolivia at approximately 480 m (Fig. 5). Nothing is known about the biology of this species. The allotype male of this species was recently figured in a beautifully illustrated photographic guide to longhorned beetles of Bolivia by Lingafelter et al. (2017) as *N. dilloniorum*.

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