

## *Ctenostoma (Neoprocephalus) antonkozlovi* sp. n. from Bolivia (Coleoptera: Carabidae: Cicindelinae)

Riccardo Sciaky

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*Ctenostoma (Neoprocephalus) antonkozlovi* sp. n. from Bolivia is described and compared with the most related species. This new species belongs to the *cylindratum*-group and in particular seems near *C. germaini* in general shape of the body, elytral punctuation and shape of the head. A list of the species of *Ctenostoma* described after Naviaux' revision (1998) and of the species of *Ctenostoma* presently known from Bolivia are also provided.

Key words: Carabidae, Cicindelinae, Collyridini, Ctenostomina, Bolivia, new species

Riccardo Sciaky. Via Fiamma 13, 20129 Milano, Italy; e-mail: riccardo.sciaky@virgilio.it

### INTRODUCTION

The Neotropical tiger beetle genus *Ctenostoma* is still inadequately known, in spite of the excellent revision proposed by our regretted colleague Naviaux (1998). Specimens are seldom collected in the field, usually just by chance when beating under storey vegetation for other purposes, and consequently they are poorly represented in the entomological collections. Many species are flightless or only fly rarely. In just a few instances specimens have been collected at light by night. Naviaux (1998) revised the entire genus, recognizing eight different subgenera with 107 species. After his revision, *Procephalus* Castelnau, 1834 was regarded as a junior synonym of *Ctenostoma* s. str. and was replaced with the new name *Naviauxiana* Erwin, 2007. Additionally, after Naviaux' revision some isolated species were described (Cassola 2001, 2011; Gebert & Naviaux 2014; Naviaux, 2002, 2005; Naviaux

and Schüle 2008; Naviaux & Brzoska 2005, 2009):

*C. (Neoprocephalus) vairai* Cassola, 2001  
*C. (Euctenostoma) monnei* Naviaux, 2002  
*C. (Myrmecilla) minusculum* Naviaux, 2002  
*C. (Naviauxiana) panamense* Naviaux & Brzoska, 2005  
*C. (Neoprocephalus) hovorei* Naviaux & Brzoska, 2005  
*C. (Euctenostoma) ferum* Naviaux, 2005  
*C. (Naviauxiana) crudelum* Naviaux & Schüle, 2008  
*C. (Ctenostoma) quechua* Naviaux and Brzoska, 2009  
*C. (Naviauxiana) trinidadense* Naviaux and Brzoska, 2009  
*C. (Neoprocephalus) brulei* Cassola, 2011  
*C. (Myrmecilla) dalensi* Cassola, 2011  
*C. (Naviauxiana) bettinae* Gebert & Naviaux, 2014

It is probably that many more unknown species are still to be discovered from all over the large geographical range (from southern Mexico to the northern border of Argentina) where the genus is known from.

My very kind Russian colleague, Mr. Anton O. Kozlov (Moscow, Russia), kindly submitted to me for identification a single male specimen from his private collection. This specimen turned out to represent a further new species, whose description is given below.

***Ctenostoma (Neoprocephalus) antonkozlovi* sp. n.**

**Type series:** **Holotypus** male labelled: "Bolivia, Cotapata" "16° 16.5' S 67° 51.6' W, H = 3200m. Leg.coll. Viktor & Svetlana Sinyaev - Alexei Zamesov"; this locality is in the Amboro Nat.Park. In Author's collection.

**Derivatio nominis.** This new species is dedicated to the well-known Russian field entomologist Anton Olegovich Kozlov, Moscow (Russia), in gratitude for a long-term friendly cooperation, who submitted for identification and generously donated to me the single holotype specimen.

**Diagnosis.** A black species of the subgenus *Neoprocephalus* Naviaux, 1998 (group *immaculatus*), with a subparallel cylindrical body shape, immaculated, metallic blue elytra, and an elytral macrosculpture constituted by dense, large points irregularly distributed on the anterior three fourths of elytra.

**Description.** Body length: 10.5 mm (without labrum). Head approximately as wide as long, black, shiny, a bit raised and rounded on vertex, fully smooth; longitudinal pre-ocular grooves apparent, well-marked, deeper in front, then progressively diverging and shallower behind, abruptly ending before the hind border of eyes; glabrous, just a row of 5-7 long, fine, erect setae near both eyes. Clypeus black, transverse, glabrous, with four long, fine, erect setae (two

in middle, two at sides). Labrum pitchy black, short, six-haired, sub-triangular in shape, its anterior margin with seven teeth. Mandibles rather long, arc-shaped, pitchy-black, with just one inner tooth visible in left mandible, and two in right one. Palpi and mouth appendages yellowish-brown, second segment of maxillary palpi slightly broadened in its basal half, notched, with two rows of five dark hairs at sides and three additional whitish finer setae on the outer half. Antennae rather long, reaching approximately two thirds of elytral length; scape black, glabrous, with two setigerous puncture near apex; joints 2-4 reddish-brown at base and apex, blackish in middle, with some fine obliquely-directed hairs at sides; antennomeres 5-11 yellowish-brown, markedly narrower towards apex, evenly covered by very short, fine, whitish pubescence.

Pronotum black, longer than wide, fully smooth and glabrous; front and hind lobes equally wide, middle lobe very globose, sub-spherical, with the notopleural sutures fully effaced, not visible.

Elytra completely dark-blue, only slightly brownish at apex; elongate, sub-parallel sided, wider than pronotum, with well-marked shoulders, slightly emarginate before apex and forming doubled flattened elytral margin below. Surface coarsely and densely punctate in anterior three fourths, punctures becoming abruptly fewer and shallower before back slope of elytra, which is almost smooth; frontal third of elytra with few (6-7) sparse, very fine, erect sensorial setae.

Trochanters and femora black, tibiae blackish-brown at base, then brownish, tarsi rufescent; scattered long sensory setae on femora and tibiae, some additional spiniform hairs on apex of tibiae and on tarsi.

**Aedeagus.** Similar to that of *C. germani*, short and thick, with apex prolonged, but shorter and rectilinear instead of turned upwards at apex.

Female unknown.



Fig. 1: *Ctenostoma (Neoprocephalus) antonkozlovi* n. sp., Holotypus, habitus.



Fig. 2: *Ctenostoma (Neoprocephalus) antonkozlovi* n. sp., Holotypus, head

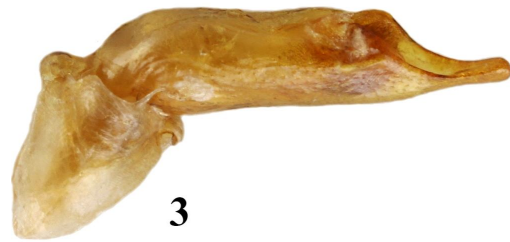


Fig. 3: *Ctenostoma (Neoprocephalus) antonkozlovi* n. sp., Holotypus, median lobe of aedeagus.

**Systematic position.** This new species can be placed in the subgenus *Neoprocephalus*; based on the general shape of the body, elytral punctation and shape of the head, the nearest species from the systematic point of view is probably *C. germaini*. This species, initially placed in the *immaculatum*-group (Naviaux, 1998) on the basis of the single female type specimen collected in Bolivia (“prov. Cochabamba”) was later moved to the *cylindratum*-group by Naviaux & Brzoska (2009), on the basis of a male specimen collected in “Santa Cruz, Refugio los Volcanes”. The examination of the aedeagus, in fact, allowed to see a structure similar to that of *C. cylindratum*, with the apex turned upwards. Therefore now the *cylindratum* group includes three species: *C. cylindratum* Naviaux, 1998, *C. germaini* Horn, 1902 and *C. antonkozlovi* n. sp.

*C. antonkozlovi* can be distinguished from *C. germaini* by the coloration (*C. germaini* has the head and pronotum dark-reddish or violet and the elytra dark-green, while the new species has black forebody and metallic blue elytra) and by the different shape of the labrum.

**Remarks.** The species of *Ctenostoma* presently known to occur in Bolivia are rather few. They are:

- Subgenus *Ctenostoma* sensu stricto  
*C. transversum* Naviaux, 1998  
*C. quechua* Naviaux and Brzoska, 2009

- Subgenus *Myrmecilla* Lacordaire, 1843  
*C. obliquatum* Chaudoir, 1860
- Subgenus *Naviauxiana* Erwin, 2007  
*C. ebeninum* Bates, 1868  
*C. nigrum* ssp. *lecourti* Naviaux, 1998  
*C. subtilesulptum* W. Horn, 1913
- Subgenus *Neoprocephalus* Naviaux, 1998  
*C. germaini* W. Horn, 1902  
*C. nitidum* Naviaux, 1998

From the other species of the subgenus *Neoprocephalus* known from Bolivia, *C. antonkozlovi* can be reliably distinguished by shiny black head and pronotum and completely metallic blue elytra, without pale markings. *C. nitidum* has an evident pale oval patch in the middle of elytra, while head and pronotum of *C. germaini* are dark violet, and the elytra are dark green.

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