

**A NEW SPECIES OF *PERICOMPSUS* LECONTE
(CARABIDAE: BEMBIDIINI, TACHYINA) FROM ARGENTINA**

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Abstract

A new species of the genus *Pericompso* Le Conte (Coleoptera: Carabidae: Bembidiini) is described from Catamarca province, Argentina. It is found long the borders of rivers and creeks in this arid region of western Argentina. The morphological characters of the new species place it within the subgenus *Pericompso* (*Pericompso*), and allow its recognition as a new species of the *hirsutus* species group. The discovery of this species extends the geographical range of the *hirsutus* group to the parallel 27° South. A description and illustration of the new species, together with a key to differentiate it from other *hirsutus* group species are provide.

Bembidiine beetles are one of the richest Argentinian groups of Carabidae in number of species (Roig-Juñent 1998). Most species diversity in Argentina is found in humid regions (Roig-Juñent *et al.* 2002). However, these small carabids are also abundant in arid lands, particularly in riparian habitats such as the borders of streams, creeks or rivers. This Bembidiini fauna from arid regions has been partially described based on material collected from few localities (Jensen-Haarup 1910; Jeannel 1962). Through the last 15 years, the entomological collection of the Instituto Argentino de Investigaciones de Zonas Áridas (IADIZA) has acquired several species of this tribe, collected in arid environments of western Argentina. Within this material several new species can be recognized. In the present paper we describe a new species of *Pericompso* Le Conte, found in Catamarca province, of northwestern Argentina. Some genera, such as *Notaphus* Stephens and *Peryphus* Stephens require a full revision of the South American species, so other new taxa will be the subject of future papers.

Materials and Methods

Material. This study is based on the examination of 20 adult specimens of *Pericompso*. Specimens were deposited in the entomological collections of the following institutions (indicated in the text by codens). Names of curators from which loans were received are in parentheses.

AMNH: American Museum of Natural History, New York, USA (Lee Hermance);

IADIZA: Instituto Argentino de Investigaciones de Zonas Anidas Mendoza, Argentina (Sergio Roig-Juñent);

IMLA: Instituto Miguel Lillo, Tucumán, Argentina (Arturo Terán);

MLPA: Museo de La Plata, La Plata, Argentina (Juan Schnack);

UASM: Strickland Entomological Museum, National Museum, Department of Biological Sciences, University of Alberta, Edmonton, Alberta, Canada (George Ball).

Methods. Dissections were made following the techniques recorded in previous revisions of South American Bembidiini (Cicchino and Roig-Juñent 2001; Roig-Juñent and Gianuca 2001). Drawings were made using a camera lucida.

Measurements. The only measurement reponed is overall length, and was taken from the clypeus to the apex of the elytra.

Terminology. For morphological terminology, we follow that proposed by Erwin (1974:3-5), who published an excellent revision of the genus *Pericompsus*.

Systematics

Pericompsus (Pericompsus) catamarcensis, new species

Type Material. HOLOTYPE male labelled: Catamarca, 28 Km SE Tinogasta, 20-X-1997, 28°14.89 S, 67°27.49 W, col. S. Roig (IADIZA). **PARATYPES.** 16 specimens labelled: Catamarca, 28 Km SE Tinogasta, 20-X-1997, 28°14.89 S, 67°27.49 W, col. S. Roig (IADIZA; AMNH, ILMA, MLPA, UASM); 1 specimen labelled: Catamarca, San Fernando, 17-X-97, 27°20.41 S, 66°54.46 W, col. S. Roig (IADIZA); 2 specimens labelled: Catamarca, 5 Km N de Belén, 19-X-97, 27°37.19 S, 67°1.01 W, col. S. Roig (IADIZA).

Specific Epithet. The word *catamarcensis* is the latinized adjectival from Catamarca, the Argentinean province where the new species has been found.

Diagnosis. Three supraorbital setae; pronotum with six setae; intemeur 8 with two foveae, one small at the basal third and deeper one at the middle; antennomeres 1-3 yellow or reddish, 7-11 black.

Description. Length 2.6-2.8 mm. Habitus as in Figure 1: short, forebody narrow, narrower than elytra, subpedunculate; elytra slightly inflated, with broad marginal explanations, convex.

Color.—Head, pronotum and elytral color base orange-reddish; elytra with a red brownish subhumeral maculae; central region also red brownish, with a yellow macula extended from the 7 intemeur to the intemeur 2; apex of elytra orange-reddish. Venter of head and prothorax yellow-reddish; meso and metathorax venter orange-reddish. Pro and mesocoxa yellow-orange, metacoxa reddish; legs yellow. Labial and maxillary palpomeres yellow.

Head.—Across eyes slightly narrower than width of pronotum; three supraorbital setae per eye; frontal furrows well impressed and arcuate, posteriorly extending to the posterior margin of eye; eyes large and prominent.

Prothorax.—Pronotum chordate, sides sinuate and strongly sinuate in basal half; base broadly lobed; hind angles rounded; sides margins not reflexed, each with six (seven in one specimen) setigerous punctures, five in the anterior half, and one in the hind angle; disk convex.

Elytra.—Each elytron with 6 punctate intemeurs; punctures weak; all rows effaced at apical third; intervals plurisetose; intemeur 7 effaced externally throughout; intemeur 8 well impressed with two fovea, one small on the basal third, and second at middle; deep, rounded and half as large in diameter as width of the elytral explanation; humeral margin strongly rounded curved at base, but not connected to base of intemeur 4; sides margins setose from base to apex; setae 1.5 or more as long as width of elytral explanation, side margin not serrate; chaetotaxy Eo-1 a, 2a, 3a, 4c, 5c, 6a, 7, 8a, and Ed-1, disc plurisetose, 7c, 8; plica short and well developed externally. Microsculpture mostly effaced except at extreme elytral apex, where it shows an isodiametric reticulation.

Male Genitalia (Fig. 2).—Similar to *P. hirsutus* Schaum, but with the apex of median lobe more elongate and acute.

Variation. The dorsal body color is variable. Some specimens are almost dark red brown, except the antennomeres 1-3, the apical macula of elytra, and legs that are paler. Other specimens are almost pale yellow, except the antennomeres 7-11 and the subhumeral and central maculae of elytra.

Distribution. The specimens are from three different localities of the Catamarca Province in Argentina (Fig. 3), between parallels 27° and 28° South. The combined range known for the other species of the *hirsutus* group was between parallels 3° and 23° South (Erwin 1974). The discovery of *Pericompsus catamarcensis* extends this range about 500 km South to 28°S latitude.

Habitat. All specimens of *Pericompsus catamarcensis* were found under rocks, on the borders of creeks and rivers. The vegetation that surrounded those margins is

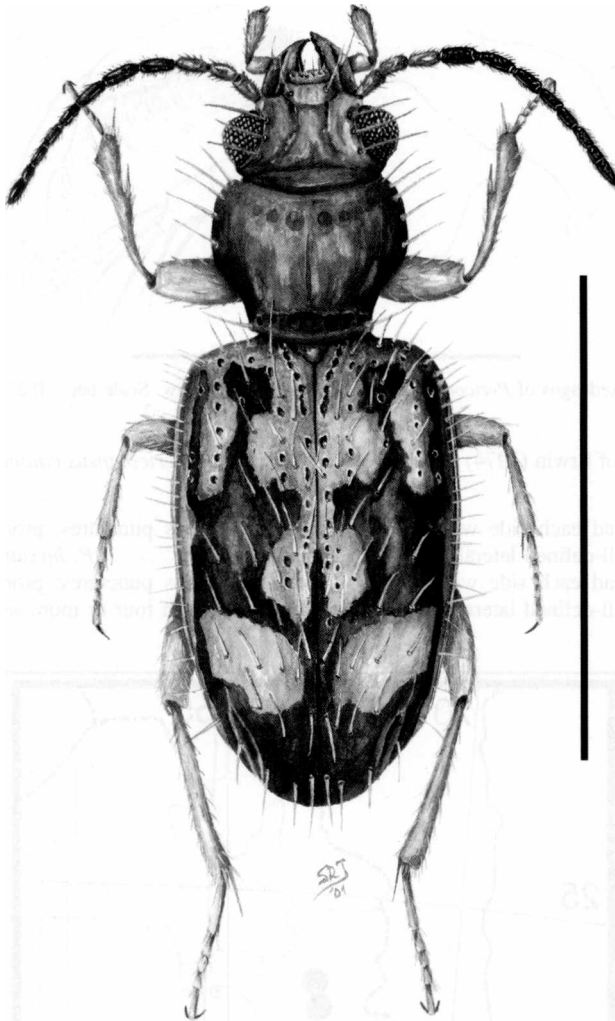


Fig. 1. Habitus of *Pericompsus catamarcensis* new species. Scale bar = 1 mm.

a shrubby steppe of *Larrea* Cavanilles (Creosote bush), corresponding to the habitat of the northern part of Monte Biogeographical province (Roig-Juñent *et al.* 2001). In this dry area, the Monte desert, bembidines are found near rivers or small creeks.

Relationship to Other Species of *Pericompsus*. The presence of a deep fovea on the intermural 8 in the middle of elytron places this new species within the subgenus *Pericompsus*. Within this subgenus it is placed in the *hirsutus* group due to the presence of numerous long setae arranged in rows along the intervals, and also by the presence of accessory setae along elytral and pronotal margins. *Pericompsus catamarcensis* also has three supraorbital setae per eye, a character shared exclusively within the genus with two species of the *hirsutus* group: *Pericompsus polychaetus* Erwin and *Pericompsus grosseopunctatus* Bates.

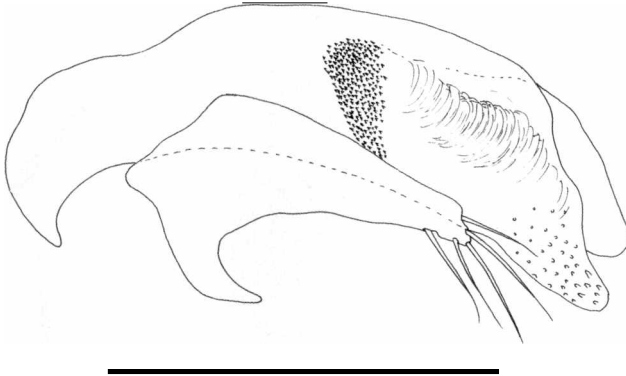


Fig. 2. Aedeagus of *Pericompsus catamarcensis*, lateral view. Scale bar = 0.25 mm.

The key of Erwin (1974) must be modified to include *Pericompsus catamarcensis* as follows:

- 26(25) Head each side with two supraorbital setiferous punctures; pronotum with well-defined lateral bead, with three setae ----- *P. hirsutus* Schaum.
- Head each side with three supraorbital stiferous punctures; pronotum with well-defined lateral bead in basal two-thirds, with four or more setae -- 27

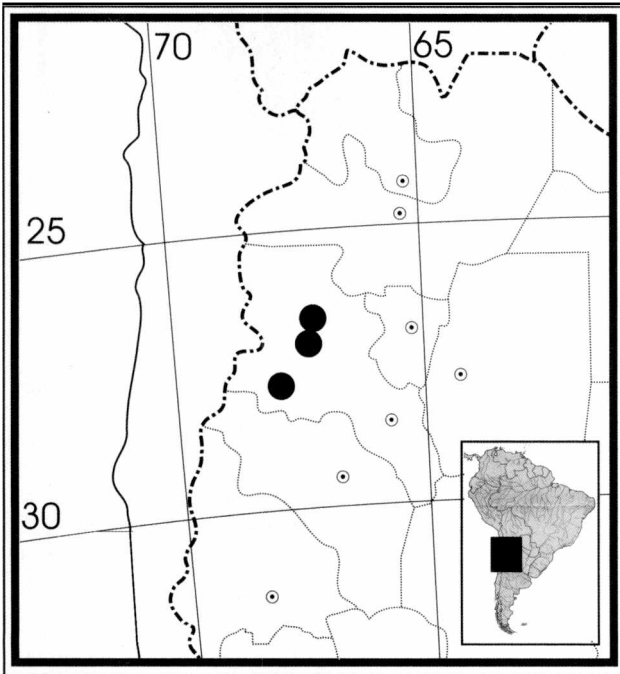


Fig. 3. Geographical distribution of *Pericompsus catamarcensis*.

- 27(26) Antennal articles uniformly testaceous; pronotum with four setae -----
 *P. grosseopunctatus* Bates
 - Antennal articles 1-3 testaceous, 1-11 different to basal; pronotum with five to
 seven setae ----- 27'
 27'(27) Antennal articles 4-6 infuscated, 7-11 light-yellow; pronotum with five setae;
 interneur 8 with one large fovea at middle, twice as large in diameter as width
 of the elytral explanation ----- *P. polychaetus* Erwin
 - Antennal articles 4-11 black; pronotum with six (in some cases seven) setae;
 interneur 8 well impressed with two fovea, one small on the basal third, and
 second at middle; deep, rounded and half as large in diameter as width of the
 elytral explanation ----- *P. catamarcensis* new species

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