Zootaxa 2506: 51–58 (2010)
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

Two new species of *Berosus* Leach from Brazil (Coleoptera: Hydrophilidae: Berosini)

PIERRE QUENEY
10 rue Descartes F 92190 Meudon, France. E-mail: pierre.queney@wanadoo.fr

Abstract

Two new species of the water scavenger beetle genus *Berosus* Leach are described from southern Brazil: *B. spiniger* sp. n. is placed in the *auriceps*-complex and *B. degallieri* sp. n. is placed in the *sticticus*-complex. Tables with diagnostic characters are provided for all described species in both of these complexes.

Key words: Neotropics, *auriceps*-complex, *sticticus*-complex

Introduction

The large cosmopolitan genus *Berosus* includes nearly 270 species, with about 90 of these occurring in South America (Hansen 1999, Short & Hebauer 2006, Queney 2006). Aside from the subgenus *Phelerosus*, which includes a single New Zealand endemic species, Hansen (1999) retained the subgenera *Enoplurus* and *Berosus* (s. str.), based primarily on presence or absence of an acute latero-apical spine on each elytron and on the shape of the sutural angle, which may be either sharply angular or rounded. This seemed quite appropriate to the Palearctic species but Oliva (1989) has shown that it was not satisfactory for subdividing the Neotropical taxa. Within the South American *Berosus*, there is considerable diversity within both subgenera and the usual subdivision separates arbitrarily closely related species. Consequently Oliva (1989, 1993) abandoned the two subgeneric subdivisions and grouped the continental South American species into thirteen complexes instead, a system which I follow in this paper as I have previously (e.g. Queney 2006).

The male genitalia is the primary character for separating species complexes and species but other features are also frequently diagnostic, especially the size of expanded pads on the basal segments of the male protarsi, the presence of a metallic sheen or luster on dorsal parts of the body, spine-like hairs on elytral interstriae, the shape of mesosternum and metasternum processes, peculiarities of the ventrites (lateral edges serrate or entire, shape of apical notch in fifth ventrite, lateral depressions), and the extent of femoral pubescence.

Among the two species described below, one is allied with the *sticticus*-complex and the other with the *auriceps*-complex. These complexes can be differentiated as follows (after Oliva 1989 and 1993):

Sticticus-complex: Very small to moderate-sized species (1.7–4.1 mm), without metallic sheen on the dorsum. Shape not elongated, strongly or weakly convex. No spine-like hairs on elytra. Lateral edges of ventrites smooth, rarely serrate, first ventrite always carinate behind the hind coxae. Protarsi of males with expanded pads on the two basal segments. Male genitalia with a long basal piece, arched and acuminate parameres, a more or less cylindrical median lobe, usually with spindle-shaped apex. The complex is comprised of 15 species including *B. degallieri* sp. n..

Auriceps-complex: Large species (5 mm or more), head black with metallic sheen. Shape sturdy and rather elongated. Spine-like hairs on posterior part of outer elytral interstriae. Lateral edges of ventrites serrate, first ventrite carinate medially on anterior half; fifth ventrite with bottom of apical notch produced into a bifid tooth, raised at sides of notch. Protarsi of males with expanded pads on basal segment only. Male

Accepted by A. Short: 12 May 2010; published: 15 Jun. 2010