

Fernando Pederzani & Saverio Rocchi

## **A new species of *Neobidessus* Young from Argentina**

(Insecta Coleoptera Dytiscidae)

### **Abstract**

Description of a new Bidessine diving beetle from NE Argentina: *Neobidessus grandis* sp. n., remarkable for large size and peculiar characters of male.

Key words: Dytiscidae, *Neobidessus grandis*, Argentina, Corrientes.

### **Riassunto**

[*Una nuova specie di Neobidessus Young dell'Argentina*]

Descrizione di un nuovo ditiscide bidessino del NE Argentina: *Neobidessus grandis* sp. n., notevole per le grandi dimensioni e i caratteri maschili.

### **Introduction**

The genus *Neobidessus* (Hydroporinae: Bidessini) was established by Frank N. Young (YOUNG, 1967) who described 14 of the 28 species known up to now (NILSSON, 2001). The North American taxa were revised by YOUNG (1977) and the South American by YOUNG (1981). The genus is recognizable by the following combination of characters: 1) pronotum and elytra with basal impressed plicae; 2) transverse cervical stria behind the eyes; 3) no juxta-sutural stria; 4) a distinct longitudinal row of punctures between suture and basal plica of elytron. Moreover: clypeus often thickened and provided with lateral tubercles; colour pattern of elytra consisting in dark stripes on a testaceous background, with the dark stripes either distinct or confluent or even extending onto the whole elytron leaving only the margin and a few marks testaceous; male throcanter and genitalia often conspicuously modified.

### **The new species**

In a collection of water beetles from Argentina, province of Corrientes, we discovered some specimens of an unknown Bidessine taxon with such peculiar characters that we recognized it as a new species, described here below.



Fig. 1- *Neobidessus grandis* sp. n.: habitus (photo by G. Fiumi)

***Neobidessus grandis* sp. n.** (Fig. 1)

Material: NE Argentina, S of Corrientes, Rio Parana, 16.01.2009, leg. Snížek, 3 ♂♂ and 2 ♀♀.

Type depository: Holotype ♂ in the Natural History Museum of the University of Florence, Section Zoology “La Specola”, coll. Rocchi (Florence, Italy); Paratypes: 1 ♂ and 2 ♀♀ with the holotype; 1 ♂ in coll. F. Pederzani (Ravenna, Italy).

Diagnosis: the new species is assigned to genus *Neobidessus* Young, 1967 by the combination of characters distinctive of this genus (see above), and is distinguishable at specific level principally by its large size and the peculiar shape of male metatrochanters and aedeagus.

Size: Length 3.30 mm in males and 3.15 to 3.20 mm in females; width 1.60 to 1.65 mm in males and 1.60 mm in females.

Head testaceous in front, slightly darkened behind, with distinct transverse cervical stria. Clypeus vaguely thickened, feebly tuberculate at the sides above the bases of antennae, with shallow round impressions near each tubercle. Clypeal margin anteriorly almost straight at the middle; antennae and palpi testaceous.

Pronotum testaceous with a diffuse brown pattern on the disk, sometimes extending onto the anterior margin. Basal plicae strongly impressed curving inward, about half as long as pronotum at midline. Punctures like those of elytra.

Elytron dark brown with margin and two latero-basal spots testaceous, lighter apex and vague indications of elytral longitudinal stripes. Basal plica short, about half length of pronotal plica; row of coarse punctures between suture and basal plica, in part sunken into a distinct furrow on the disk; another row of punctures between basal plica and lateral margin, and an irregular row of punctures along margin. No traces of sutural stria. Puncturation of medium size, regularly distributed; punctures near suture finer than those on disk. Epipleura testaceous.

Underside testaceous; prosternal process elongate and sulcate at middle; metacoxae with rare, fine punctures; metacoxal lines deeply impressed, diverging in front, not attaining metasternum, each flanked with an inner row of medium size punctures; basal abdominal sternite with groups of punctures at sides; last visible sternite broad, rounded and beaded behind, with a shallow unpunctured impression at middle before apex, and groups of punctures at each side of the impression.

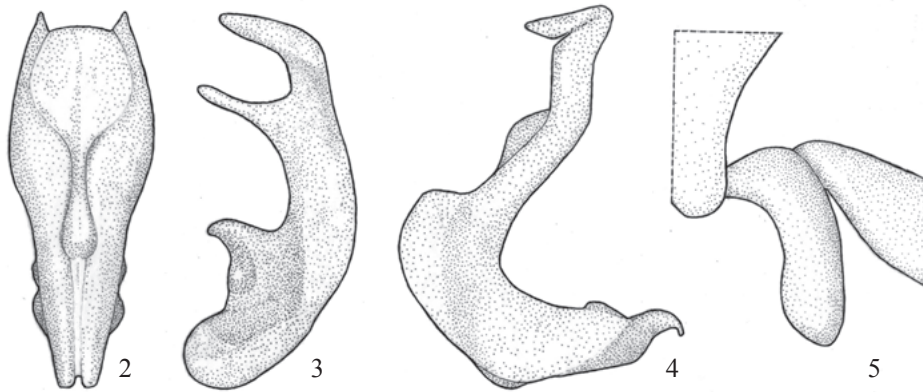
Legs testaceous; anterior and intermediate tibiae much widened distally; metatibiae bent; tips of metatibial spurs acuminate.

Male genitalia: Median lobe of aedeagus distinctive, in dorsal view widened and laterally rounded in front with projecting apical angles, narrowed behind (Fig. 2); in lateral view provided with a long median apophysis on the ventral side (Fig. 3); parameres bizarrely modified (Fig. 4). Trochanters of hind legs extraordinarily expanded, swollen, reniform (Fig. 5).

Female: The type series includes only two females, slightly smaller than males: one is shining like the male, the other is entirely microreticulate and mat. The principal external differences are the fore tarsi slightly narrower than in male and the metatrochanters not modified.

Systematic position: This species belongs to the *discoidalis* group (YOUNG, 1981) comprising: *bordoni* Young, 1981, *corumbensis* (Zimmermann, 1921), *discoidalis* (Sharp, 1882), *trilineatus* (Zimmermann, 1925) and *whitcombi* Young, 1981; among them only *discoidalis* attains 3 mm in length, according to YOUNG (loc. cit.), so the new species should be recognizable at first sight, being fairly longer.

Derivatio nominis: From the Latin adjective *grandis* large: the largest species of *Neobidessus*.



Figs 2–5 - *Neobidessus grandis*. sp. n.: 2. Median lobe of aedeagus in dorsal view; 3. Median lobe of aedeagus in lateral view; 4. Left paramere; 5. Left metatrochanter.

Natural History: As far as we know, all specimens were collected at UV-light.

Distribution: Only known from the type locality.

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