

*Sphaeridium braziliense*, a new species from Brazil  
(Coleoptera: Hydrophilidae)

by

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ABSTRACT. — *Sphaeridium braziliense* sp. nov., a new species from Brazil is described and illustrated.

Up till now it was thought that the genus *Sphaeridium* Fabricius was restricted to the Old World, with the exception of the occurrence of three species in North America, which were introduced in historic times (Smetana, 1978). Sturm (1826) described and illustrated *Sphaeridium scutellatum* from Brazil but this species is certainly not a *Sphaeridium*. Malcolm (1981) in his thesis on the Sphaeridiinae made mention of a specimen of an undescribed species from South America, which is described below. To be certain that the new species is not conspecific with a described species introduced from elsewhere I have checked all known species. The new species is unique in the male having an unmodified fore-tarsus and is furthermore characterized by the short setae along the apical margin of the 5th abdominal sternite.

According to the labels and the data obtained from the 1853 accessionregister of the British Museum the specimen was collected by Bates along the banks of the Rio Tapayos, Brazil and bought from Stevens, the entomological dealer (M. E. Bacchus, British Museum (Natural History), personal communication).

*Sphaeridium braziliense* sp. nov. (figs. 1-6)

Description (Holotype, male). — Approximate length 6.0, width 3.5, height 2.3 mm. Arrangement of colours on dorsal side of head, fig. 1. Head black, anterior and lateral margin before eyes and labrum yellow. Arrangement of colours on pronotum, fig. 3. Pronotum brown, anterior and lateral margins narrowly yellow, on either side of the median line with light coloured paramedian and parabaasal band. Elytron brownish red, toward the side and anteriorly brownish black, lateral margin narrowly yellow. Ventral side yellow; anterolateral and median portions of mesosternum except posterior tubercle dark brown; inferior sides of all femora with a brown median spot. Antennal club yellow. Dorsal side except labrum with strong reticulation.

Dorsal side of head with dense regular punctation, the punctures weakly impressed, their diameter smaller than the strongly reticulated interstices. Labrum smooth.

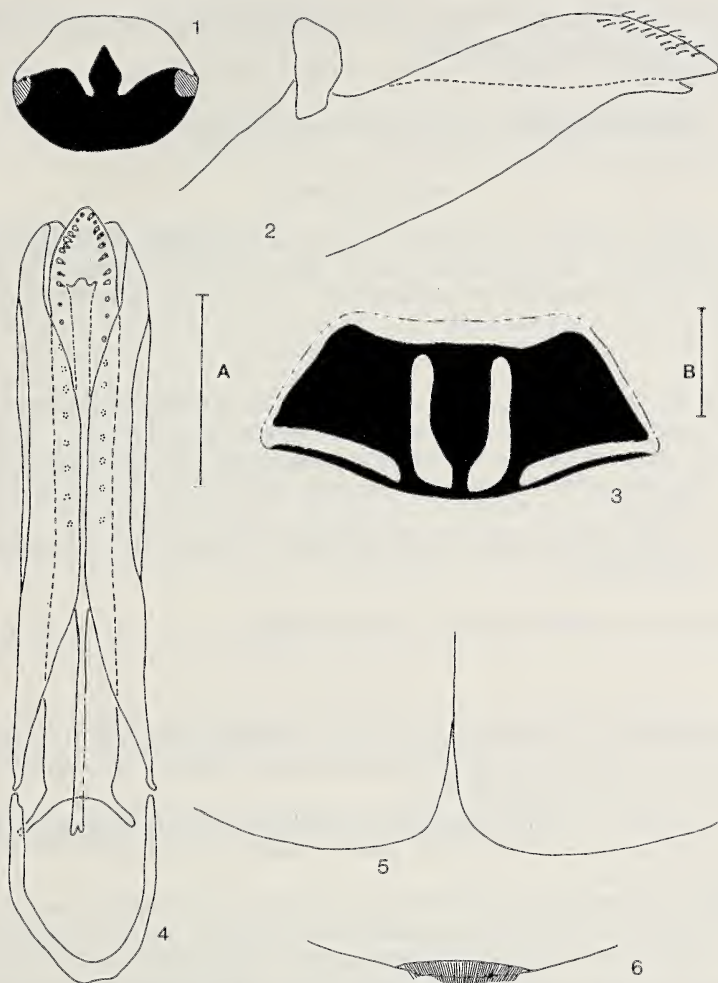
Pronotal length  $0.45\times$  the length of elytron; posterior angle obtuse; lateral bead ending at posterior angle, not connected with fine bead along posterior margin; punctation and sculpture as on head.

Scutellum relatively short and wide, ratio length/width 1.3; punctation and sculpture as on head.

Elytron with apex shortly rounded (fig. 5); side margin medially slightly expanded in ventral direction; epipleuron almost vertical; juxtasutural space not elevated; lateral bead and sutural line confluent; elytral striae or traces of striae absent; punctation and sculpture as on head.

Mentum impunctate, with strong reticulation. Antennal club compact.

Prosternum flat, carinate along midline, surface setose, apical spine between coxae absent, Mesosternum, fig. 2. Mesosternal anterior projection highly elevated, wider than long; posterior tubercle very narrow, spinulose, no apical spines; apex of posterior tubercle projecting between mesocoxae and beyond mesosternal posterior apex; transverse carina adjacent to apex of tubercle absent, Metasternal longitudinal sulcus widening posteriorly; elevated pentagonal



Figs 1-6. Details of *Sphaeridium braziliense* sp. nov., ♂ holotype. 1, head, dorsal. 2, meso-sternal anterior projection (left) and posterior tubercle, lateral view. 3, pronotum, dorsal. 4, genitalia, ventral. 5, elytra, apices, dorsal. 6, fringed median part of 5th abdominal sternite, ventral. Scale-line A = 0.5 mm to figs 2, 4-6, B = 1 mm to 1, 3.

median portion with abundant oblong punctation, posterior part impunctate with very fine reticulation, shiny; posterior margin rounded, fringed with short setae.

Median part of apical margin of 5th abdominal sternite (fig. 6) fringed with short setae, the apex not extended posteriorly.

Fore coxa with few weakly developed spines of about 0.05 mm long. Hind tibiae with one spine each on their inferior side.

Fore tarsus unmodified. Maxillary adherence discs present.

Genitalia, fig. 5. Genitalia 2.0 mm long, about 0.3 the length of body; flattened apically, side margin of median lobe with short spines; basal piece partly reduced; parameres as long as median lobe; genital segment bearing genitalia missing.

Identification. — *Sphaeridium braziliense* sp. nov. is easily recognized by the arrangement of colours and strong reticulation on head and pronotum, the distinct carinate prosternum, the

relatively short scutellum and the fringed median part of the apical margin of the 5th abdominal sternite. The male fore tarsus is unmodified.

Material examined. — "Brazil" "Tapayos" "53/27" (♂ holotype, British Museum, Natural History).

Note. — The name *braziliense* is a manuscript name of J. Balfour-Browne.

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NEUROCHEMICAL TECHNIQUES IN INSECT RESEARCH, 1985. H. Breer & T. A. Miller, eds; pp. X, 324, 67 figs; subject index 15 kolommen. Springer Verlag, Berlin etc.; ISBN 3-540-13813-7. Prijs (gebonden) DM 169,—.

De reeks „Springer Series in Experimental Entomology” heeft in de persoon van Thomas A. Miller kennelijk een uiterst voortvarende redacteur, want dit boek is alweer een nieuw nummer in de genoemde serie.

Niet alleen bij gewervelden neemt de kennis omtrent neurotransmitters, neurohormonen, neurofarmacologie en -toxicologie met sprongen toe. Dat geldt evenzeer voor insecten, en in sommige opzichten meer voor insecten dan voor andere diergroepen wegens de specifieke experimentele mogelijkheden die insecten bieden: relatief grote cellichamen, een relatief eenvoudige organisatie van het centrale zenuwstelsel, en een goede hanteerbaarheid als laboratoriumdier. Toch is de situatie niet geheel overdraagbaar; waar men bij vertebraten nu zo'n 40 verschillende neuropeptiden kent, zijn dat er nog slechts vier voor insecten.

Getrouw aan de titel zijn de artikelen in dit boek over het algemeen zeer technisch van aard. Men vindt er veel zeer gedetailleerde prepareertechnieken en proefopstellingen.

Onderwerpen die aan de orde komen zijn de screening en assay van neurotransmitters en biogene aminen, isolatie en karakterisatie van neuropeptiden, de analyse van receptoren, bepaling van het ionentransport, isolatie van synaptosomen, neuronale membranen en cyclische nucleotiden, bepalingen van het energiemetabolisme, het in vitro kweken van neuronaal weefsel van insecten, de toepassing van monoclonale antilichamen en schorpioenengif. Het boek eindigt met een meer methodologische bijdrage over de analyse van neurochemische gegevens.

De uiterlijke zaken van het boek zijn goed, zoals we van Springer gewend zijn, evenals de opmerkelijk civiele prijs van dit boek dat toch wel voor een zeer kleine happy few is geproduceerd. — W. N. Ellis.