



## Four new species of *Desmopachria* Babington (Insecta, Coleoptera, Dytiscidae) from the Amazon river floodplain

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### Abstract

Four new species of *Desmopachria* from the Amazon river floodplain (várzea) are described and illustrated, *D. manus* sp. nov., *D. varzeana* sp. nov., *D. cavia* sp. nov. and *D. nigrocapitata* sp. nov., together with new distributional records of *D. balionata* Miller, *D. draco* Miller, *D. subnotata* Sharp and *D. striola* Zimmermann for Amazonas and Pará states in Brazil.

**Key words:** Neotropics, Dytiscidae, Brazil, new species, new records

### Introduction

The Neotropical genus *Desmopachria* Babington, 1841 (Hyphidriini) is one of the most diverse in Dytiscidae, with 95 described species (Miller 2005), of which 32 have been recorded for Brazil. This genus is characterized by antennomeres I–II wider than the following articles, antennomeres V–X short and slightly expanded in the apical half, the labial palpus with an apical pair of sensilla that are widely separated, the maxillary palpus with an apical sensillum and the pronotum with posterolateral angles produced posteriorly (Miller 2001). Studies by Young (1980, 1981a, 1981b, 1981c, 1986, 1989, 1990a, 1990b, 1993, 1995) and Miller (1999, 2001, 2005) created an extensive knowledge about the taxonomy of this genus, readily providing species identification. However, species groups and subgenera change from author to author. We use the reassessment of subgenera and species groups proposed by Miller (2001).

Four new species of *Desmopachria* are described and illustrated here, together with new distributional records for *D. balionata* Miller, *D. draco* Miller, *D. striola* Zimmermann and *D. subnotata* Sharp from the Amazon river floodplain (várzea), Brazil. Specimens were collected in September and October of 2003 with surveys from the Floodplain Natural Resources Management Program - ProVárzea/IBAMA (Projeto Manejo dos Recursos Naturais da Várzea – Pró-Várzea/IBAMA). Holotypes have been deposited in the ‘Instituto Nacional de Pesquisas da Amazônia’ (INPA). Paratypes and additional material have been deposited in the same institution and also in the entomology collection ‘Coleção Entomológica Prof. José Alfredo Pinheiro Dutra’, at the Departamento de Zoologia, Universidade Federal do Rio de Janeiro (DZRJ).

The differential diagnoses were based on the works of Young (1979, 1980, 1981a, 1981b, 1981c, 1986, 1989, 1990a, 1990b, 1993, 1995) and Miller (1999, 2001, 2005), together with analyses of specimens of *D. aldessa* Young, *D. circularis* Sharp, *D. chei* Miller, *D. fossulata* Zimmermann, *D. grana* (Leconte), *D. granoides* Young, *D. iridis* Young, *D. laevis* Sharp, *D. margarita* Young, *D. mutchleri* Blatchley, *D. nigri* Zimmermann, *D. volatidisca* Miller and *D. zetha* Young. The male genitalia illustrated by Young (1980, 1981a, c, 1990a, b, 1993) and Miller (2001, 2005) are highly divergent, probably due to different slide preparation techniques. Young’s illustrations appear to be flattened against the slip cover, while Miller’s