

New Species of *Mastigodryas* Amaral, 1934 from Brazilian Amazonia and Guyana (Serpentes: Colubridae)

Author(s): Giovanna G. Montingelli and Hussam Zaher

Source: *Journal of Herpetology*, 45(1):111-119. 2011.

Published By: The Society for the Study of Amphibians and Reptiles

DOI: <http://dx.doi.org/10.1670/09-170.1>

URL: <http://www.bioone.org/doi/full/10.1670/09-170.1>

BioOne (www.bioone.org) is a nonprofit, online aggregation of core research in the biological, ecological, and environmental sciences. BioOne provides a sustainable online platform for over 170 journals and books published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Web site, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/page/terms_of_use.

Usage of BioOne content is strictly limited to personal, educational, and non-commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

New Species of *Mastigodryas* Amaral, 1934 from Brazilian Amazonia and Guyana (Serpentes: Colubridae)

GIOVANNA G. MONTINGELLI^{1,2} AND HUSSAM ZAHER^{1,3}

¹Museu de Zoologia da Universidade de São Paulo, Avenida Nazaré 481, 04263-000, Ipiranga, São Paulo, São Paulo, Brazil

²Programa de Pós-Graduação em Zoologia, Instituto de Biociências, Universidade de São Paulo, Rua do Matão, Trav. 14, 321, 05598-00, São Paulo, São Paulo, Brazil

ABSTRACT.—A new species of *Mastigodryas* is described based on 10 specimens collected on the Upper regions of the Negro and Branco River basins, in the States of Amazonas and Roraima, Brazil, and in the northernmost portion of Guyana. Apparently this species is associated with the open areas of the Amazonian region known as “lavrados,” “campos,” and “savannas.” The new species is characterized by the presence of eight supralabials; five dorsal stripes situated on the anterior portion of the body that fade or disappear on the posterior half of the body and exhibit a reddish unicolor pattern; and a hemipenis with an enlarged spine situated on the left side of the sulcus spermaticus. The new species is similar to *Mastigodryas pleei* and, herein, included in the *pleei* group, along with *M. pleei*, *Mastigodryas amarali*, and *Mastigodryas bruesi*.

The genus *Mastigodryas* includes medium to large, diurnal, and predominantly terrestrial snakes (Martins and Oliveira, 1998; Giraud, 2001). Species are usually found in humid habitats such as swamps and ponds, associated with forested or open areas (Hardy and McDiarmid, 1969; Peters and Orejas-Miranda 1986; Martins and Oliveira, 1998). The genus exhibits a wide geographical distribution, occurring from southern Mexico to northern Argentina, with a few records on continental (e.g., Trinidad and Tobago) and oceanic islands (e.g., Grenada, San Vincent and the Grenadines, and in Barbados, where it was introduced; Stuart, 1941; Peters and Orejas-Miranda, 1986; Henderson and Powell, 2009).

Presently, the genus contains 11 species: *Mastigodryas bifossatus*, *Mastigodryas boddaerti*, *Mastigodryas melanolomus*, *Mastigodryas amarali*, *Mastigodryas bruesi*, *Mastigodryas cliftoni*, *Mastigodryas danieli*, *Mastigodryas dorsalis*, *Mastigodryas heathii*, *Mastigodryas pleei*, and *Mastigodryas pulchriceps*. The first three are polytypic, whereas the remaining eight are monotypic (Peters and Orejas-Miranda, 1986; Tipton, 2005; see Table 1). All juvenile *Mastigodryas* retain a banded dorsal pattern, whereas adults can be banded (e.g., *M. bifossatus*, *M. cliftoni*, and *M. pulchriceps*) or striped (the remaining eight species of the genus; Stuart, 1941; Peters and Orejas-Miranda, 1986; Montingelli, 2009). However, bands might be present in a more or less faint condition on the anterior portion of the body in some adults of typically striped species, and stripes tend to fade or disappear in the posterior part of the body of some adult striped forms.

The genus *Mastigodryas* was divided by Stuart (1941) into four species groups on the basis of the external morphology of adults, with the exception of *M. pulchriceps* that was considered of uncertain affinities. Stuart's arrangement of the genus is maintained mainly unaltered until today, with the groups *bifossatus*, *melanolomus*, *boddaerti*, and *pleei*. The *bifossatus* group has a banded pattern in the adult, eight supralabials, a shorter snout, and 15 dorsal scale rows in the middle of the body, whereas the other three groups have a striped or unicolor pattern in adults, nine supralabials, a longer snout, and 17 dorsal scale rows. The *pleei* group is distinguished from both *melanolomus* and *boddaerti* groups by the length and position of the upper light lateral stripes (sensu Stuart, 1941) on the dorsum. In the former group, the larger upper light lateral stripes are formed by three dorsal scale rows that include the upper portion of row 3, row 4, and the inner portion of row 5, whereas in the latter two groups the upper light lateral stripes are only two dorsal scale rows wide, being formed by rows

number 4 and 5 (except for *M. heathii*; Fig. 1). According to Stuart (1941), the condition present in *M. pulchriceps* is intermediate between both patterns because it exhibits a banded pattern, eight supralabials and 17 dorsal rows.

In this study, we describe a new species of *Mastigodryas* that retains an adult striped pattern with the upper light lateral stripe involving three dorsal scale rows and, thus, is considered a member of the *pleei* group (sensu Stuart, 1941). The new species occurs in open formations of the Brazilian states of Amazonas and Roraima and of the Upper Demerara-Berbice region in Guyana (Fig. 2).

MATERIALS AND METHODS

We examined specimens of the genus *Mastigodryas* from the following institutions: American Museum of Natural History (AMNH), Academy of Natural Sciences (ANSP); California Academy of Sciences (CAS); Coleção Herpetológica da Universidade de Brasília (CHUNB); Field Museum of Natural History (FMNH); Instituto Butantan (IBSP); Instituto Nacional de Pesquisas da Amazônia (INPA); Museum of Natural History, University of Kansas (KU); Museum of Comparative Zoology, Harvard University (MCZ); Museu Paraense Emílio Goeldi (MPEG); Museum of Vertebrate Zoology (MVZ); Museu de Zoologia da Universidade de São Paulo (MZUSP); University of Michigan, Museum of Zoology (UMMZ) and United States National Museum, Smithsonian Institution (USNM).

Species of the genus *Mastigodryas* employed in comparisons belong to the *pleei* group and are characterized by a striped pattern on the dorsum exhibiting an upper light lateral stripe formed by three dorsal scale rows. Also, we included *M. heathii* in our comparison, a striped species traditionally included in the *boddaerti* group. In Appendices 1 and 2, we provide a list of specimens examined and an index of localities with their geographical coordinates.

Head length (HL) was measured to the nearest 0.01 mm with a digital caliper. Total length (TTL) and tail length (TAL) were measured to the nearest 1 mm by stretching the specimens along a ruler. Ventral scales were counted beginning from the first one distinctly wider than long (for details, see Myers [2003] and Zaher et al. [2008]). Sex was determined by presence or absence of hemipenes, confirmed through a small incision made at the base of the tail. Maturity of the specimens was checked according to Slip and Shine (1988). Methods for hemipenial preparation and terminology follow Zaher (1999) and Zaher and Prudente (2003). Sex and measurements of the new species are given in Table 2, and the summary of scale counts of the species employed herein is given in Table 3. Means are given \pm 1 SD.

³Corresponding Author. E-mail: hzaher@usp.br

Download English Version:

<https://daneshyari.com/en/article/7503069>

Download Persian Version:

<https://daneshyari.com/article/7503069>

[Daneshyari.com](https://daneshyari.com)