SHORT COMMUNICATION

Distribution extension of *Phimophis guerini* (Serpentes: Dipsadidae: Xenodontinae) in the Brazilian Amazon

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http://zoobank.org/C8D91102-A2E8-466A-B1C0-519730B30BC9

ABSTRACT. *Phimophis guerini* Duméril, Bibron & Duméril, 1854 is a Xenodontinae snake distributed in Argentina, Brazil and Paraguay. In Brazil, the species is broadly distributed, occurring mainly in open areas of the Cerrado, but also in the Amazon, Atlantic forest and Caatinga. We provide a new record for this species from the municipality of Santarém in the western portion of the state of Pará (Brazil). Five specimens were collected in a small area covered with Amazonian Savanna vegetation. We also provide the description of the morphological variation for the collected specimens. The new record extends the northern limit of the distribution by some 640 km (from Floresta Nacional de Carajás, Parauapebas municipality, eastern Pará). The record from Santarém provides a third locality for *P. guerini* within the Amazon biome and supports the hypothesis of a past ecological corridor linking the Cerrado and the open habitats within the Amazon.

KEY WORDS. Amazonian savanna, morphological data, Pará state, Pseudoboini.
on an unpaved road near one of our sampling sites (2°28.546'S; 54°53.827'W). The Amazonian Savanna in the studied area consists largely of herbaceous vegetation, varying in height and density, accompanied by shrub and tree strata, presenting abrupt edges between the open areas and the forests, with a small ecotone area where soil is predominantly sandy (Magnusson et al. 2008). All collected specimens were deposited in the collections of the Museu Paraense Emílio Goeldi (MPEG 26538, MPEG 26539, MPEG 26540) and of the Universidade Federal do Oeste do Pará (UFOPA-H 0249, UFOPA-H 1237).

The extent and nature of the morphological variation of *P. guerini* is not very well known. Therefore, we present here the morphometric and meristic data from the collected specimens (Table 1). Records of *P. guerini* from western Pará extends the previously known distribution of the species by approximately 640 km from the nearest locality (Floresta Nacional de Carajás, Parauapebas municipality, eastern Pará state; Maschio et al. 2012). This record from Santarém provides a third locality for *P. guerini* within the Amazonian biome (França et al. 2006, Maschio et al. 2012) (Fig. 6). All Amazonian records are restricted to open

Figures 1–5. Habitat and specimens of *Phimophis guerini* collected in an amazon savanna area in Santarém, Pará, Brazil: (1) specimen collection environment; (2) living specimen MPEG 2638; (3–5) dorsal, lateral and ventral views, respectively, of the head of specimen UFOPA-H 0249. Scale bars: 5 mm.
Table 1. Morphometric and meristic data of specimens of *Phimophis guerini* collected in the community of Tapari, Santarém Pará, Brazil. The snout-vent length and tail length are given in millimeters. Bilateral variation is reported as “right/left”.

<table>
<thead>
<tr>
<th>Characters</th>
<th>Specimens</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MPEG 26538</td>
</tr>
<tr>
<td>Sex</td>
<td>Male</td>
</tr>
<tr>
<td>Snout-vent length</td>
<td>465</td>
</tr>
<tr>
<td>Tail length</td>
<td>115</td>
</tr>
<tr>
<td>Supralabials</td>
<td>8/8</td>
</tr>
<tr>
<td>Infrafalabials</td>
<td>09/09</td>
</tr>
<tr>
<td>Oculars</td>
<td>1+2/1+2</td>
</tr>
<tr>
<td>Temporals</td>
<td>3+3/2+2</td>
</tr>
<tr>
<td>Dorsal scales</td>
<td>21+19+17</td>
</tr>
<tr>
<td>Ventral</td>
<td>195</td>
</tr>
<tr>
<td>Subcaudals</td>
<td>73</td>
</tr>
</tbody>
</table>

Figure 6. Updated geographic distribution of *Phimophis guerini* in Brazil, showing the new record (star) in western Pará, Brazil. Previous records (circles) were taken from the following publications: Costa et al. (2010), Pereira-Filho et al. (2012) França et al. (2006, 2013), França et al. (2012), Marques et al. (2012), Maschio et al. (2012), Santos and Vaz-Silva (2012) Tavares et al. (2012).
habitats. The specimen UFOPA-H 0249 was collected at night while foraging and had the third-most part of its body inserted in a lizard hole in the sand, probably excavated by Ameiva ameiva (Linnaeus, 1758), which can indicate the saurophagous habit of the species (Sawaya et al. 2008).

Phimophis guerini is a relatively common species in the cerrado of Central Brazil, although the species seems to be rare in the Amazon domain. We present here the second record for this snake in the state of Pará, reinforcing the importance of inventoring biological diversity of the poorly known Amazonian Savanna. These areas can be considered particularly important for the conservation of the Amazonian fauna, since they can encompass communities composed of forest and savanna dwellers, and even present endemics species (Carvalho and Mustin 2017). The presence of P. guerini in Amazonian savannas supports the idea that past open corridors may have connected central Brazil to the extreme north of the Amazon during the Last Glacial Maximum (c. 21 ka) (Werneck et al. 2012). Such corridors were most likely temporary and the transitory connection among these regions is also supported by the disjunct distribution of other species of snake, including Taeniophallus occipitalis (Jan, 1863) and Oxyrhopus rhombifer septentrionalis Vellard, 1943 (Peters and Orejas-Miranda 1970, França et al. 2006, Santos-Jr et al. 2008).

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