SHORT COMMUNICATION

Morphology and geographical distribution of the poorly known snake *Umbrivaga pygmaea* (Serpentes: Dipsadidae) in Brazil

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Keywords: Amazonia, hemipenis, snakes.

Palavras-chave: Amazônia, hemipênis, serpentes.

et al. 2010). Herein, we describe the hemipenis, along with variation in morphological characters and color pattern, and present new distributional data for *U. pygmaea* in Amazonas, Brazil, based upon new specimens collected in areas of dense forest.

We examined seven specimens of *Umbrivaga pygmaea* housed in two Brazilian collections—the Herpetological Collection of the Instituto Nacional de Pesquisas da Amazônia (INPA-H) and the Museu Nacional (MNRJ). All were from the state of Amazonas, as follow: Reserva Extrativista do baixo Juruá: (INPA-H 17160–62); Iranduba: Gasoduto Coari-Manaus (INPA-H 18260); Manicoré: Rodovia BR-319, Km 350 (INPA-H 22984) and Rodovia BR-319, Km 300 (INPA-H 26290); and Urucará: (MNRJ 17979).

Ventral scales were counted following the method of Zaher et al. (2008). The right hemipenis was prepared from a previously fixed specimen (MNRJ 17979) following the technique of Pesantes (1994) and Manzani and Abe (1988). We used the hemipenial morphological terminology of Zaher (1999). Sex was determined by the presence or absence of an hemipenis detected through a ventral incision at the base of the tail.

The hemipenes are slightly bilobed, bearing several spines and apical discs in the distal region of the lobes, which are neither capitare nor calyculate. Inverted, the organ extended to the level of the eighth subcaudal scale. The sulcus spermaticus is deep and divides on the basal region of the organ; the sulcus branches in a centrifugal direction and terminates on the distal part of the apical disc. Apical disks are located laterally in the distal region of the lobes. On the sulcate side, the basal portion of the hemipenis bears several spines. The enlarged intrasulcal spines decrease in size toward the distal regions of lobes. The asulcate side has small spines on the lobes and the basal region of the organ. Enlarged spines are concentrated on the lateral region of medial portion of the organ; they decrease in size toward the lobes and the center of hemipenial body (Figure 1).

Figure 1. The right hemipenis of *Umbrivaga pygmaea* (MNRJ 17979) collected in the municipality of Urucará, state of Amazonas, Brazil. (A) asulcate side, (B) sulcate side.

Meristic data for the seven specimens (Table 1) are similar to those available in the literature with a few exceptions; values presented by Markezich and Dixon (1979) are noted parenthetically. Subcaudal scales vary from 27–33 (29–38). One specimen (INPA-H 18260) is distinguished by having three supralabials (3–5) in contact with the orbit on the right side of head and an extra posterior temporal scale (1 + 3) on both sides of the head (Table 1).

The dorsal color pattern of preserved specimens is coffee-brown; the flanks are lighter. The dorsal scales on the anterior part of the body have white edges; this part of the dorsum bears transverse dark bands that are most evident in defensive hood-displays (Figure 2). A longitudinal dark stripe extends along the side of the snake from the midlength of the body to the tip of tail. The dorsal surface of the head is reddish brown and the supralabials are whitish cream (Figure 3). The color pattern of specimens agrees with Cope’s original description (Cope 1868) and subsequent literature (Dixon and Soini 1986, Martins and Oliveira 1998), with exception of the brighter orange ventral coloration in life of the specimen that was collected (Figure 2); the orange changed to cream when the individual was preserved.
Table 1. Morphometric and meristic data for *Umbrivaga pygmaea*. Abbreviations: SVL (snout–vent length, mm); TL (tail length, mm); M (male); F (female); D (dorsal row on neck/midbody/precloacal); V (ventrals); SC (subcaudals); CI (cloacal); d (divided); SL (supralabial scales); SLO (supralabial scales in contact with orbit); IL (infralabial scales); ILA (number of infralabials scales in contact with anterior chinshields); ILP (number of infralabials scales in contact with posterior chinshields); POc (preocular); PoOc (postocular); T (temporals).

<table>
<thead>
<tr>
<th>Specimen</th>
<th>Sex</th>
<th>SVL</th>
<th>TL</th>
<th>D</th>
<th>V</th>
<th>SC</th>
<th>CI</th>
<th>SL</th>
<th>SLO</th>
<th>IL</th>
<th>ILA</th>
<th>ILP</th>
<th>POc</th>
<th>PoO</th>
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</tr>
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<tr>
<td>INPA-H 17160</td>
<td>M</td>
<td>160</td>
<td>27</td>
<td>17/17/15</td>
<td>127</td>
<td>29</td>
<td>d</td>
<td>6/6</td>
<td>3+4/3+4</td>
<td>8/8</td>
<td>1–4/1–4</td>
<td>4, 5/4, 5</td>
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<td>1/1</td>
<td>1+2/1+2</td>
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<tr>
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<td>M</td>
<td>159</td>
<td>32</td>
<td>17/17/15</td>
<td>123</td>
<td>31</td>
<td>d</td>
<td>6/6</td>
<td>3+4/3+4</td>
<td>8/8</td>
<td>1–4/1–4</td>
<td>4, 5/4, 5</td>
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<td>1/1</td>
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<tr>
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<td>M</td>
<td>154</td>
<td>26</td>
<td>17/17/15</td>
<td>124</td>
<td>27</td>
<td>d</td>
<td>6/6</td>
<td>3+4/3+4</td>
<td>8/8</td>
<td>1–4/1–4</td>
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<td>1/1</td>
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<tr>
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<td>17/17/15</td>
<td>124</td>
<td>27</td>
<td>d</td>
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<td>3+4/5/3+4</td>
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<td>2/2</td>
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<td>8/8</td>
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<td>4, 5/4, 5</td>
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<td>M</td>
<td>125</td>
<td>23</td>
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<td>33</td>
<td>d</td>
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<td>1/1</td>
<td>1+2/1+2</td>
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<tr>
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<td>—</td>
<td>—</td>
<td>17/17/15</td>
<td>122–133</td>
<td>29–38</td>
<td>d</td>
<td>6/7</td>
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<td>1/1</td>
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<td>1+2/1+2</td>
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The present study extends the known geographical distribution of *Umbrivaga pygmaea* about 230 km southward (straight line) and represents the southernmost record of this species (Figure 4). Although the species has a relatively wide geographic distribution, there are many gaps its range. This probably reflects a sampling bias of this relatively small, secretive snake. In addition, specimens were collected near large rivers, suggesting that the presumed habitat preferences reported by Dixon and Soini (1986) and Martins and Oliveira (1998) may be an artifact of easily accessible collecting sites near large rivers in Amazonia.

**Acknowledgments.**—We thank Biodinâmica Engenharia Consultiva for logistical support and permission to use the data collected. Ronaldo Fernandes (MNRJ) and Richard Vogt (INPA) allowed us to examine specimens in their care. Ronaldo Fernandes and Paulos Passos (MNRJ) provided helpful comments on the manuscript. The collecting permit (number 124/2009) was issued by IBAMA (Instituto Brasileiro do Meio Ambiente e dos Recursos Renováveis).
Figure 4. Geographic distribution of *Umbrivaga pygmaea* in the Amazon region (AM) of Brazil. Star: type-locality; circle: bibliographic records; triangle: new record in this study. (1) Marañón, Peru; (2) Napo, Peru; (3) Juruá, AM; (4) Juruá, AM; (5) Tefé, AM; (6) Manicoré, AM; (7) Manicoré, AM; (8) Iranduba, AM; (9) Manaus, AM; (10) Urucará, AM; (11) Almerim, Pará.

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