

Hyalinobatrachium mondolfii Senari & Ayarzagüena, 2001 (Anura: Centrolenidae): First record for the state of Acre, Brazil

Nathocley Mendes Venâncio^{1*}, Moisés Barbosa de Souza² and Marcelo Nogueira de Carvalho Kokubum³

1 Programa de Pós Graduação em Ecologia e Manejo dos Recursos Naturais. Universidade Federal do Acre – UFAC, BR-364, km 4, Distrito Industrial. CEP 69915-900. Rio Branco, AC, Brasil.

2 Universidade Federal do Acre – UFAC, Centro de Ciências Biológicas e da Natureza – CCBN, BR-364, km 4, Distrito Industrial. CEP 69915-900. Rio Branco, AC, Brasil.

3 Laboratório de Herpetologia, Unidade Acadêmica de Ciências Biológicas e Programa de Pós-graduação em Ciências Florestais, CSTR/ Universidade Federal de Campina Grande – UFCG, CEP 58708-110, Patos, PB, Brazil

* Corresponding author. E-mail: nathocley@gmail.com

ABSTRACT: In this work, we record the first occurrence of *Hyalinobatrachium mondolfii* from the state of Acre. It is the second record from Brazil.

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Hyalinobatrachium mondolfii Senari & Ayarzagüena, 2001 was described in the state of Monagas, Venezuela (Señaris and Ayarzagüena 2001) and its distribution has been widely extended to include Bolivia (Castroviejo-Fisher *et al.* 2011a), Brazil, Colombia, French Guiana, Guyana, Suriname (Castroviejo-Fisher *et al.* 2011b). The species has been found exclusively associated with riverbank vegetation.

The following unique combination of characters differentiates *Hyalinobatrachium mondolfii* from all other species in the genus: snout rounded in dorsal and lateral view, tympanic membrane not visible in life, pericardium white with minute melanophores, dorsal color green in life with small yellow dots and minute melanophores (Figure 1); when in preservative, dorsal color pale cream, dotted with minute melanophores and yellow dots (can be lost in some specimens); color of iris reticulated by dark spots in life, bones white, hands and feet yellow in life (Castroviejo-Fisher *et al.* 2011b).

During a herpetofaunistic inventory carried out on 30 January 2010 in the municipality of Feijó, state of Acre, Brazil, on the left bank of the Jurupari River (08°09' S & 70°21' W), we found seven individuals of *H. mondolfii* calling on the riverbank vegetation, at heights ranging from 3–5 m from the water surface. All individuals were collected and housed in the herpetological collection of Universidade Federal do Acre – ChUFAC, with the following voucher numbers: 4486, 4566, 4567, 4568, 4569, 4570, 4571 and 4572. One individual (4486) was recorded calling in 5 m from the water surface at 23:00 (27°C and 89% RH) using digital recorder (Sony® ICD-CX50), with directional microphone (shotgun) Yoga 380-A.



FIGURE 1. Male *Hyalinobatrachium mondolfii* in front view (A) and ventral view (B), collected on the left bank of the Jurupari River, municipality of Feijó, state of Acre, Brazil.

Calls ($n=1$ male; 14–20 calls) were digitized and the audio spectrograms were prepared using Soundruler (Gridi Papp 2004). Sample rate was set 44100 Hz, with 16-bit resolution. Fast Fourier Form (FFT) at 2048 points, frequency resolution 21.5 Hz, low and high band limits at 1500 and 15000 Hz, respectively, were used for the analysis. We measured fundamental and dominant frequencies (Hz), call length (milliseconds — ms); intervals between calls (seconds — s) and the first harmonic (Hz).

This is the first record for the state of Acre, extending the distribution of the species by approximately 500 km south from the nearest point, located in the city of Leticia, Colombia ($04^{\circ}0'11.42''$ S, $69^{\circ}53'44.05''$ W). This is the second record of its species from Brazil. The first made in the state of Pará by Ávila-Pires *et al.* (2010), however, it was identified as *Cochranella* sp and later, these individuals were identified as *Hyalinobatrachium mondolfii* by Castroviejo-Fisher *et al.* (2011b).

The individual recorded (Figure 3) presented the following acoustic parameters: fundamental frequency between 2540.91–2627.05 Hz (2549.52 ± 26.51 ; $n=20$); dominant frequency between 5081.83–5254.10 Hz (5099.05 ± 53.02 ; $n=20$); intervals between calls 2.65–5.36 s (3.89 ± 0.71 ; $n=14$); call length 161.63–197.68 ms (180.19 ± 10.02 ; $n=20$); and first harmonic 10,163–10,508.20 Hz ($10,198.11 \pm 106.04$; $n=19$). This call corresponds to other calls of populations of *H. mondolfii* from Bolivia (Castroviejo-Fisher *et al.* 2011a) and at the type locality in Venezuela (Señaris and Ayarzagüena 2001), with the first presenting a high-pitched and tonal single note lasting 180–250 ms and dominant frequency at approximately 5000 Hz and, the last, with dominant frequency between 5070–5146 Hz ($X = 5106 \pm 25.7$), intervals between calls between 6.14–11.7s ($X = 8.14 \pm 2.58$); call length between 82–212ms ($X = 194.8 \pm 8.8$), and first harmonic between 10111–10368 Hz ($X = 10231.9 \pm 77.1$).

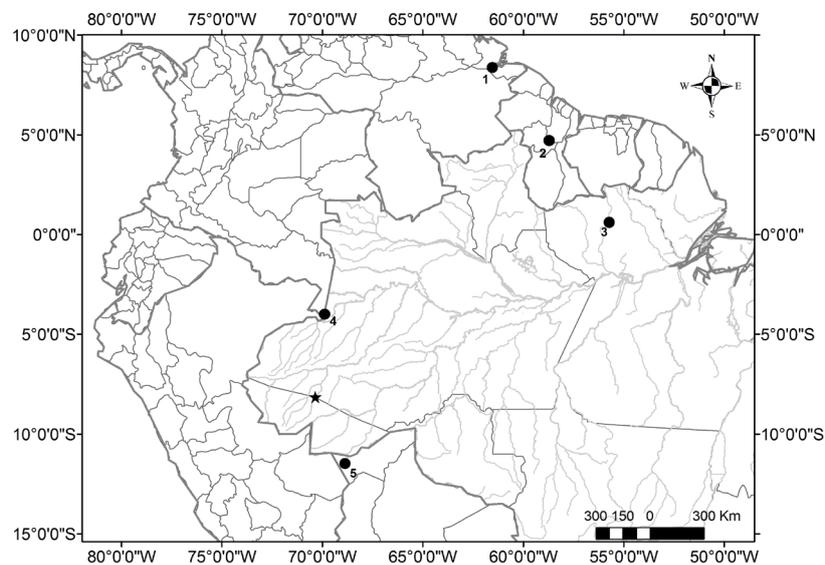


FIGURE 2. Circles indicate the known distribution of *H. mondolfii*: point 1 is the type locality in Venezuela ($08^{\circ}22' N$, $61^{\circ}32' W$), point 2 is in Guiana ($04^{\circ}43' N$, $58^{\circ} 43' W$), point 3 is in state of Pará, Brazil ($0^{\circ}37' N$, $55^{\circ}43' W$), point 4 is in Colombia ($04^{\circ}0' S$, $69^{\circ}53' W$) and point 5, for Bolivia ($11^{\circ}29' S$, $68^{\circ}52' W$). The star indicates the first record of the species in Acre, Brazil (municipality of Feijó, on the banks of the Jurupari River; $08^{\circ}09' S$, $70^{\circ}21' W$).

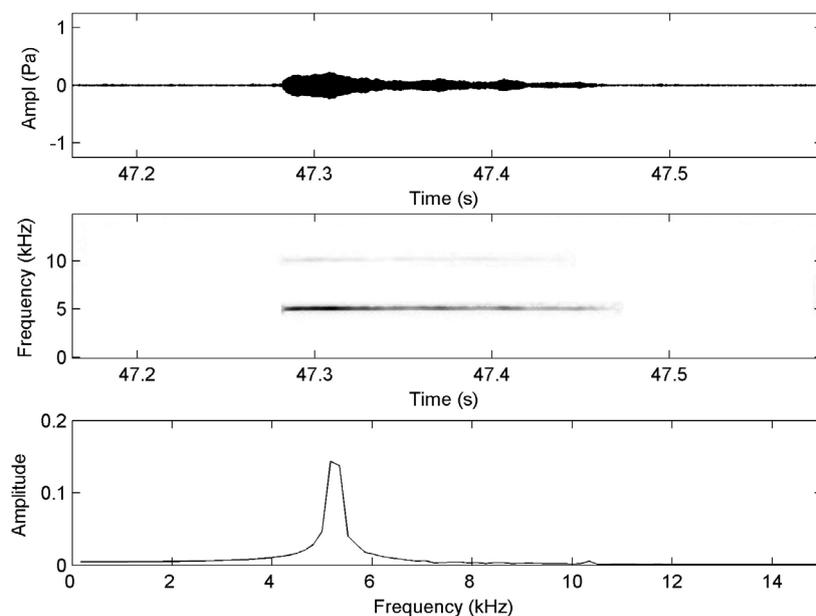


FIGURE 3. Advertisement call of *Hyalinobatrachium mondolfii* from Feijó Municipality, state of Acre, Brazil a) oscillogram of the call; b) spectrogram; and c) power spectrum. Call file: H mondolfii Feijó AC; 30 January 2010; 5 m from the water surface at 23:00 (27°C and 89% RH).

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