

***Chiasmocleis hudsoni* Parker, 1940 (Anura, Microhylidae): a new record for Amapá State, Brazil**

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In the Neotropics, *Chiasmocleis* Méhely, 1904 is the most diverse genus of microhylid frogs with 34 recognised species distributed in Tropical South America, north and east of the Andes (Frost, 2018). Twenty-five of these species are found in Brazil (Segalla et al., 2016) in which 16 are associated with habitats of the Brazilian Amazon rainforest (Peloso et al., 2014).

The minute fossorial species *Chiasmocleis hudsoni* Parker, 1940 has been reported in some regions of the Amazon basin. The type-locality of this species is New River in the Co-operative Republic of Guyana (no geographic coordinates available; Peloso et al., 2014). However, additional studies have reported *C. hudsoni* in areas of Venezuela (Barrio-Amorós and Schargel, 2003; Barrio-Amorós, 2004), French Guiana (Lescure and Marty, 2000), Guyana (de Sá et al., 2012; Cole et al., 2013; Peloso et al., 2014), Surinam (Ouboter and Jairam, 2012), Colombia (Peloso et al., 2014) and in the Brazilian states of Amazonas (Caramaschi and Cruz, 2001; Rodrigues et al., 2008; Lima et al., 2012; Prudente et al., 2013; Waldez et al., 2013; Peloso et al., 2014; Ferreira et al., 2017; Menin et al., 2017), Pará (Caramaschi and Cruz, 2001; Avila-Pires et al., 2010; Peloso et al., 2014; Vaz-Silva et al., 2015), Roraima (Peloso et al., 2014) and Acre (Bernarde et al., 2013).

Bernardo et al. (2012a, b) have also provided six new records of this species in the State of Pará, Brazil, under the nomenclature of *Chiasmocleis jimi*, a junior synonymy of *C. hudsoni* (Peloso et al., 2014; Fig. 1).

Herein we report the first record of *Chiasmocleis hudsoni* in Amapá State, Brazil. Four males and one female of *C. hudsoni* (Fig. 2) were collected using visual and auditory surveys during the night-time period in the Parque Natural Municipal Cancão (0.9008°N, 52.0135°W), about 400 m east of the Amapari River and 2.5 km northwest of the village of Pedra Preta, municipality of Serra do Navio, Brazil. Sampling was conducted during the rainy season, from 10 to 14 February 2018. The specimens were found in primary terra-firme forest under the leaf litter and near to isolated pools, calling in the pond bank at approximately 0.50 m of distance from the water. This species is commonly

Table 1. Measurements (in millimeters) of four males and one female of *Chiasmocleis hudsoni* from Serra do Navio municipality, State of Amapá, Brazil (CECCAMPOS 1833, 1855, 1877, 2146 and 2155).

Individuals / Measurements	1833 male	1855 male	1877 male	2146 male	2155 female
Snout-vent length	16.21	15.18	14.98	16.37	19.98
Head length	6.30	5.63	6.05	5.75	7.85
Head width	5.39	5.01	5.20	5.34	6.81
Tibia length	8.30	7.96	7.90	8.46	9.98
Eye diameter	1.90	1.51	1.81	1.60	1.60
Eye-nostril distance	2.01	1.66	1.36	1.86	1.73
Internarial distance	1.37	1.18	1.26	1.52	1.57
Hand length	2.22	1.95	2.56	2.50	2.66
Foot length	11.74	10.76	11.61	11.98	13.33

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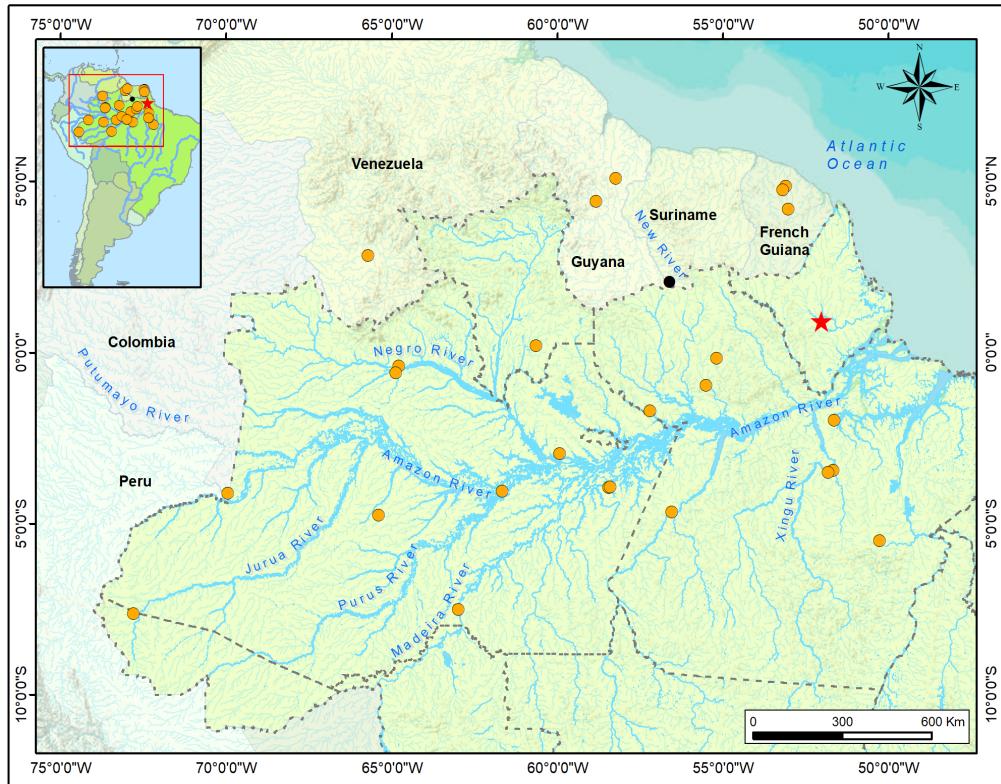


Figure 1. Geographic distribution of *Chiasmocleis hudsoni*. Yellow circles: previous records of the species in Brazil, Colombia, Venezuela, Guyana, Surinam and French Guiana (see text for references). Black circle: approximate type locality (no published coordinates; Peloso et al., 2014). Star: new record of the species in the municipality of Serra do Navio, state of Amapá, Brazil.

found associated with this type of habitat (Lima et al., 2012; Bernarde et al., 2013; Waldez et al., 2013; Menin et al., 2017), vocalising from the margins of temporary isolated ponds and in streamside ponds during the rainy season (Rodrigues et al., 2008). Collection of specimens was authorised by the Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio license # 48102-2), and they were deposited in the Herpetological Collection of the Universidade Federal do Amapá, municipality of Macapá, Brazil (CECCAMPOS 1833, 1855, 1877, 2146 and 2155). Table 1 provides vouchers and morphometric measurements (following Watters et al., 2016) of all collected specimens of *C. hudsoni*.

The specimens presented the following characteristics: small size (snout-vent length from 14.98 to 16.37 mm in males and 19.98 mm in the single female), body ovoid, head narrower than body, snout rounded and

slightly prominent, tympanum hidden, fingers short and spatulate distally (with the exception of the inner finger which is rounded in the tip), toes moderate (with the exception of the inner toe which is very short) and unwebbed (Parker, 1940; Peloso et al., 2014). Skin smooth, dorsal coloration reddish brown with small white spots; a silver stripe from the snout, through the eyes, to the flanks; ventral surface cream or white spots; sole of the foot black; iris reddish (Parker, 1940; Lescure and Marty, 2000; Lima et al., 2012; Peloso et al. 2014).

This novel record of *C. hudsoni* in Amapá State, Brazil, extends its distribution range to approximately 320 km eastern from the nearest known published locality (Floresta Nacional de Caxiuanã, Pará State), and fills a distribution gap between Pará State, Brazil, and the French Guiana.

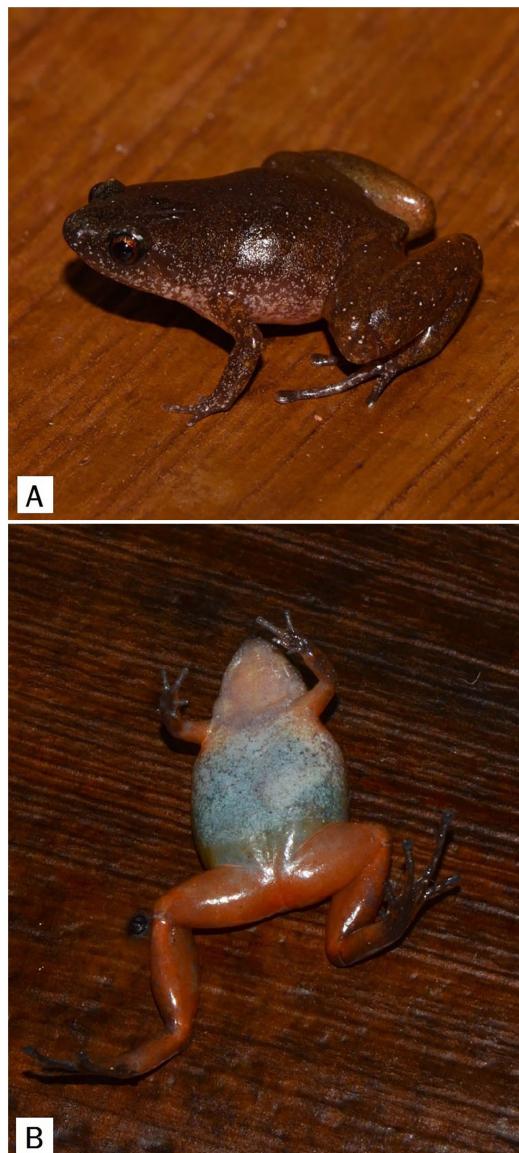


Figure 2. Adult male of *Chiasmocleis hudsoni* (CECCAMPOS 1833) from the municipality of Serra do Navio, Amapá State, Brazil: (A) dorsolateral and (B) ventral color pattern of a live adult specimen. Photographs: Carlos Costa-Campos.

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