

## New distribution record and habitat of the Mesoamerican Drunken Toad, *Rhinophrynus dorsalis* Duméril and Bibron, 1841, in Honduras

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**Locality.**— An adult, indeterminate sex, of *Rhinophrynus dorsalis* (UNAH 0916) collected in August 1981 at the municipality of Santa Cruz de Yojoa, department of Cortés, Honduras (14° 59' N, 87° 54' W, WGS84). This locality is 22.2 km east-northeast of municipality of Las Vegas, department of Santa Bárbara; 28.7 km south-southeast of municipality of Potrerillos, Cortés; and 29.7 km south of municipality of El Progreso, department of Yoro. An adult male (UNAH 5690) and a female (UNAH 5691) collected in October 2017 at Faust village, municipality of Sonaguera, department of Colón, Honduras (15° 37' 59.99" N, 86° 13' 59.99" W, WGS84). This locality is 18.6 km north of municipality of Saba, Colón; 25.6 km west-southwest of municipality of Tocoa, Colón; and 40.2 km east-northeast of municipality of Olanchito, Yoro. Coordinates of localities were georeferenced to within 3 m using a Garmin eTrex 20 GPS.

**Comments.**— The Mesoamerican Drunken Toad, *Rhinophrynus dorsalis* Duméril and Bibron, 1841, is the only valid species in the family Rhinophrynidae (Fouquette, 1969). This species is fossorial, remaining inactive underground for most of the year (Duellman, 1971). It emerges only intermittently, particularly following and during intense rainfall (Savage, 2002; Köhler, 2011; Céspedes et al., 2018).

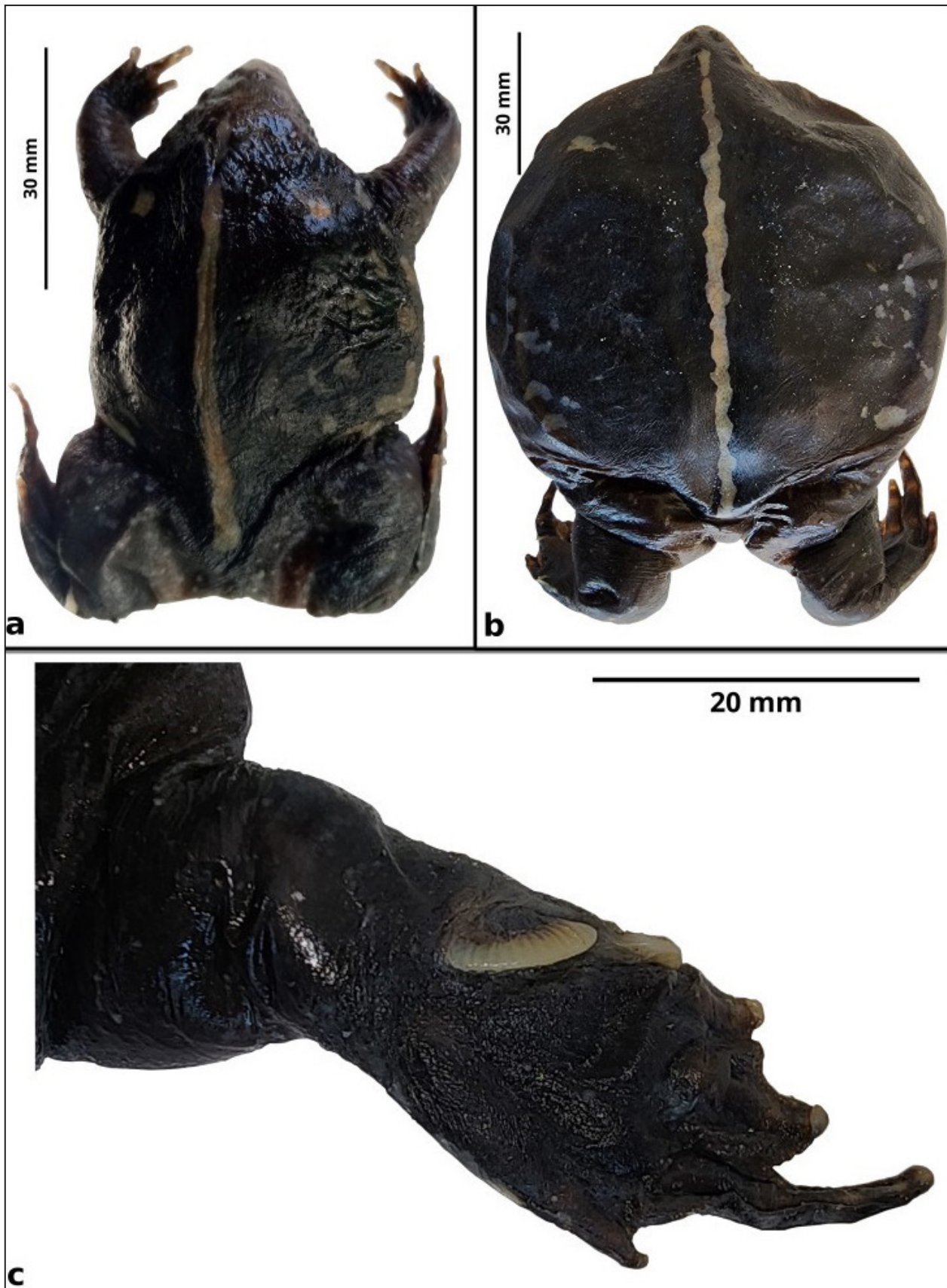
The distribution of *Rhinophrynus dorsalis* occurs from southern Texas in the United States to northeastern Nicaragua in the Caribbean Basin and along the Pacific coast from the Balsas River (Mexico) to Costa Rica (Fouquette, 1969; Köhler, 2011; García-Bañuelos et al., 2017; Céspedes et al., 2018). The altitudinal distribution of the species extends from sea level to an altitude of 1,500 m a.s.l. (above sea level), encompassing three forest types

(Duellman, 1971; McCranie and Wilson, 2002): Lowland Moist Forest (LMF), Lowland Dry Forest (LDF), and Premontane Dry Forest (PDF).

In Honduras, the species has been reported for six localities in the departments of Atlántida, Cortés, Francisco Morazán, Olancho, and Santa Bárbara (McCranie and Castañeda, 2007; McCranie et al., 2012; Henríquez Aguilar and Townsend, 2013; Espinal et al., 2014). However, the specimen from the department of Francisco Morazán was only observed in captivity (McCranie, 2006). This suggests that there is no evidence of the occurrence of this species in its natural habitat in the department of Francisco Morazán to date. Lynch and Fugler (1965) also mentioned that the species would likely occur in the departments of Valle or Choluteca.

In this note we reviewed specimens of *Rhinophrynus dorsalis* previously deposited in the anuran collection of the Museo de Historia Natural-Ciudad Universitaria (MHN-CU) of the Universidad Nacional Autónoma de Honduras (UNAH) to provide additional data regarding its distribution and habitat occurrence. The specimens were identified as *Rhinophrynus dorsalis* based on Campbell (1999), Köhler (2001, 2011), Köhler et al. (2006), and McCranie and Castañeda (2007). They exhibit the following characteristics: truncated snout in dorsal view; small and narrow head; robust body with tiny eyes; vomerine teeth absent; four toes and a pair of enlarged digging tubercles (Fig. 1). Duméril and Bibron (1841), Campbell (1999), and McCranie and Wilson (2002) considered these latter two features to be autapomorphic characteristics of the species.

The present study provided two new distribution records for Honduras, including the species' first record for the department of Colón (UNAH

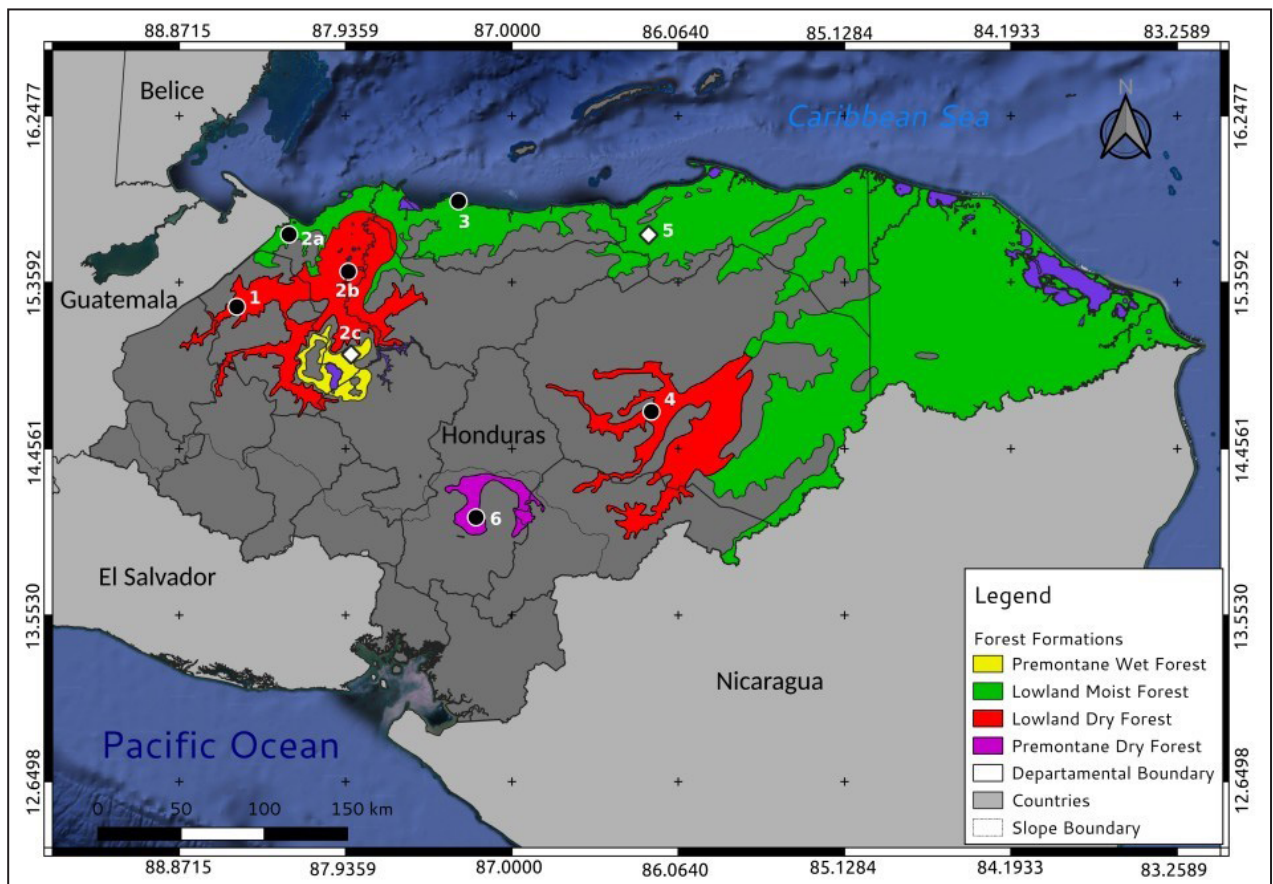


**Figure 1.** External characteristics of *Rhinophrynus dorsalis*: (a-b, UNAH 5690 and 5691, respectively) truncated snout, small and narrow head, and robust body with tiny eyes; (c, UNAH 5691) four toes and a pair of enlarged digging tubercles.

5690 and 5691). This increases the total to five the number of departments where the species occurs in its natural habitat, extending its range to the north-eastern part of Honduras (Fig. 2).

Furthermore, the new record from Santa Cruz de Yojoa (UNAH 0916) contributes to the knowledge of the habitat occurrence of *R. dorsalis* since that represents the first record of the species in the Premontane Wet Forest (PWF) formation, expanding

the known range to encompass four forest types in Honduras (LMF, LDF, PDF, and PWF formations; Duellman, 1971; McCranie and Wilson, 2002; this study). The PWF formation is characterized by a closed canopy and an open floor (McCranie and Wilson, 2002; Wilson and Townsend, 2006) and is found at elevations between 600 and 1500 m a.s.l., with a mean annual temperature of 18 to 24 °C and precipitation of over 2000 mm.



**Figure 2.** Species distribution record. Circles: old records (1: Santa Bárbara; 2a-2b: Cortés; 3: Atlántida; 4: Olancho; 6: Francisco Morazán, only observed in captivity). Diamonds: new records (2c: Cortés; 5: Colón).

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Recibida: 11 Diciembre 2023

Revisada: 18 Junio 2024

Aceptada: 16 Septiembre 2024

Editor Asociado: K. Araujo-Vieira

doi: 10.31017/CdH.2024.(2024-010)

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