

PRESENCE OF *HYPOPACHUS USTUS* (ANURA: MICROHYLIDAE) AFTER MORE THAN FOUR DECADES WITHOUT RECORDS IN SINALOA, MEXICO

PRESENCIA DE *HYPOPACHUS USTUS* (ANURA: MICROHYLIDAE) DESPUÉS DE MÁS DE CUATRO DÉCADAS SIN REGISTROS EN SINALOA, MÉXICO

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Resumen.– Documentamos la presencia de *Hypopachus ustus* en Sinaloa después de 41 años sin registros de la especie en este estado con base en la observación de un individuo al sur de Sinaloa.

Palabras clave.– Anfibios, conservación, distribución, herpetofauna, nuevo registro.

Abstract.– We document the presence of *Hypopachus ustus* in Sinaloa after 41 years without records of the species in that state based on observation of an individual from southern Sinaloa.

Key words.– Amphibians, conservation, distribution, herpetofauna, new record.

The state of Sinaloa is a region in northwestern Mexico is considered to require further scientific exploration to better understand the distribution and conservation status of its local herpetofauna (Flores-Villela et al., 2004). Forty one species of amphibians have been reported for Sinaloa (Castro-Bastidas and Serrano-Serrano, 2022). However, some amphibian species have few records, or lack recent data in the state. Here, we verified the presence of *Hypopachus ustus* (Two-spaded Narrowmouthed Toad) with more than four decades without being recorded in southern Sinaloa.

Free sampling was carried out in search of individuals of the species, photographs and morphometric measurements were taken. The individual was released in the same place where it was found. Photo voucher of the individual was deposited at Colección Nacional de Anfibios y Reptiles (CNAR) from Instituto de Biología, Universidad Nacional Autónoma de México (UNAM) (CNAR-RF 753a-h).

Mexico: Sinaloa: Municipality of Escuinapa: 15 km airline E of Escuinapa (22.78419° N, 105.91719° W; WGS84), 4 m a.s.l., August 30, 2022, collected by EABH and HACB. Verified by ITAC. The organisms collected was a male that measured 25 mm (SVL) and weighted 1.4 g (Fig. 1). This individual was observed around 20:30 h by its vocalization on a muddy substrate, hidden between grass and the edge of the water, in tropical deciduous forest. The site of this record was located 26 km to the S (airline) from the nearest reported locality at El Matadero, municipality of El Rosario, Sinaloa (deposited in the Herpetological Collection of the Natural History Museum of Los Angeles County: LACM-6466).

The distribution of *H. ustus* in Mexico ranges from southern Sinaloa through the Balsas depression, as well as the central region of Veracruz to Chiapas (Frost, 2021). In Sinaloa there are historical records for this species in the municipalities of Mazatlán, Concordia, El Rosario and Escuinapa (GBIF, 2022; Hardy & McDiarmid, 1969); however, individuals of this species

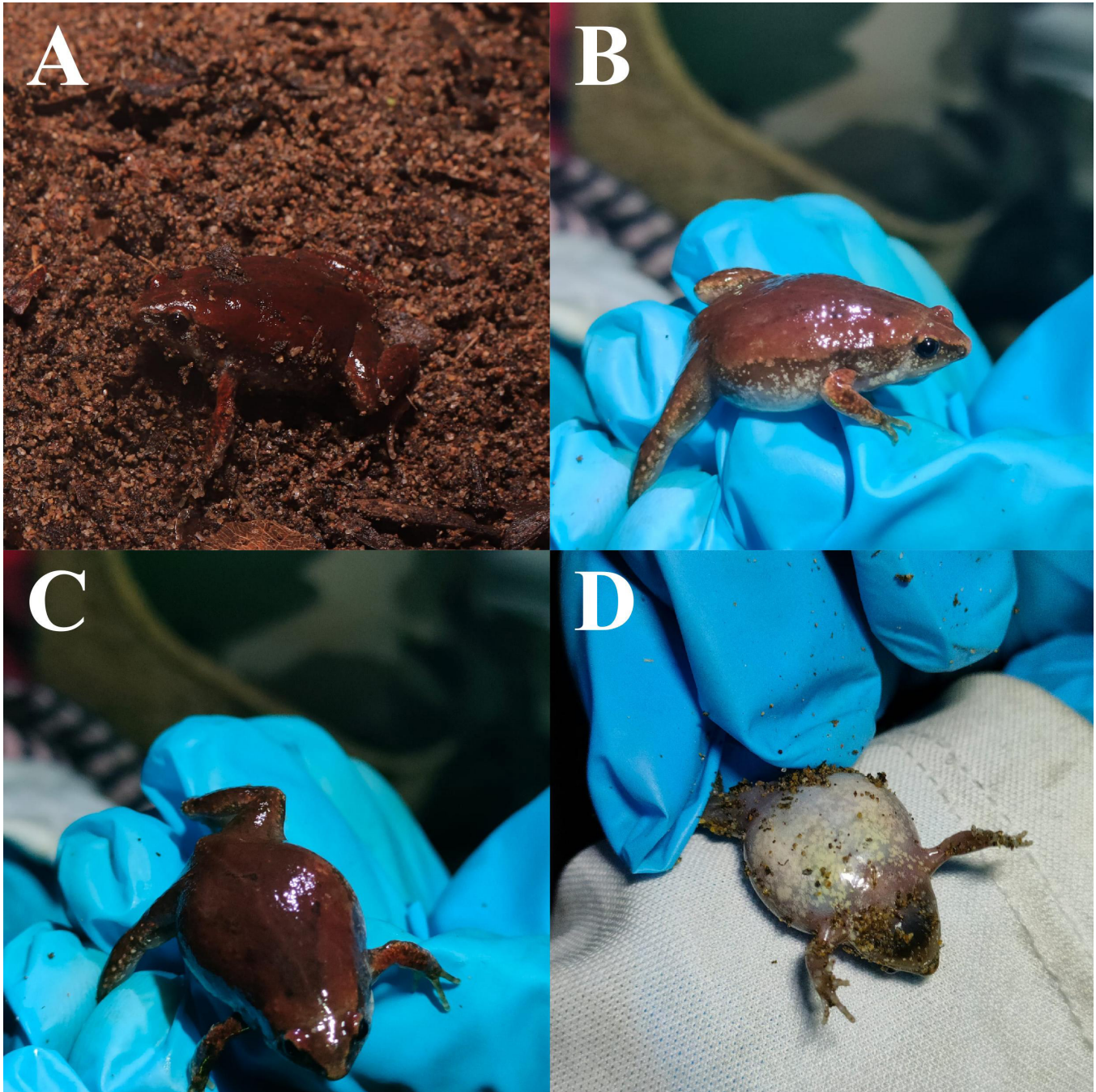


Figura 1. A) Macho adulto de *Hypopachus ustus*, B) vista lateral, C) dorsal y D) ventral observado en Escuinapa, Sinaloa, México. Fotografía tomada por © Eber Alan Barraza Herrera.

Figure 1. A) Adult male of *Hypopachus ustus*, B) lateral view, C) dorsal and D) ventral observed in Escuinapa, Sinaloa, Mexico. Photography taken by © Eber Alan Barraza Herrera.

have not been recorded since 1981, the last specimen was collected in the municipality of Concordia and deposited in the Museum of Natural History of the University of Colorado (UCM-62950). Therefore, our field observation represents a new record of the species in the state after 41 years. Although Castro-Bastidas

and Serrano-Serrano (2022) mention a record of this species in iNaturalist (registry number 64740965) that we consider an erroneous record after verifying it (verified by ITAC) and that corresponds to *Gastrophryne mazatlanensis*. The main diagnostic characteristics described by Hardy and McDiarmid (1969) that

distinguish *G. mazatlanensis* from *H. ustus* are dark brown lateral sides, small, irregular, and dark dorsal spots. On the other hand, *H. ustus* has a mediadorsal line and a V-shaped spot at the front of the body (Fig. 1C).

The *H. ustus* record reported here is important in the context of diversity records, since in the case of these species that lack updated records after several decades may be due to their biological rarity and specificity in ecological habits, or the declining populations as well as the lack of field work (Canseco-Márquez et al., 2018). As a consequence, the absence of these records may cast doubt on the presence of a species in a particular area of its distribution (e.g., *Enulius oligostichus*; in Lara-Resendiz & Jacobo-González, 2022 not included in Lemos-Espinal & Smith, 2020 because it was over 50 years old without records). Therefore, we suggest that the possible exclusions of these species in herpetological lists should be reconsidered for little explored regions such as Sinaloa. We also propose that fieldwork should be conducted appropriately in consideration of the species' geographic range or historical search for locations, habitat preferences, reproductive phenological dynamics, or unexplored sites with similar habitats that can potentially support populations of the species.

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