

THE GUATEMALA TREE FROG, *ECNOMIOHYLA MINERA* (ANURA: HYLIDAE), AN ADDITION TO THE HERPETOFAUNA OF MEXICOLA RANA ARBORÍCOLA DE GUATEMALA, *ECNOMIOHYLA MINERA* (ANURA: HYLIDAE), UNA ADICIÓN A LA HERPETOFAUNA DE MÉXICO

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The genus *Ecnomiohyla* (Faivovich et al., 2005) consists of 12 species from Mesoamerica and northwestern South America. All members are large to very large canopy-dwelling treefrogs, and data on their taxonomy, natural history, and biogeography are limited (Mendelson et al., 2015). Only two *Ecnomiohyla* species have been documented in Mexico so far: *E. echinata* (Duellman, 1961) and *E. valancifer* (Firschein & Smith, 1956). *Ecnomiohyla echinata* is the most westerly distributed member of the genus, which has been documented from mid-elevations (1,200–1,500 m a.s.l.) of the northern slope of the Sierra de Juárez, Oaxaca (Duellman, 2001), and has not been collected since 1969 (Mendelson et al., 2015). *Ecnomiohyla valancifer* is the northernmost member of the genus and is only known from Volcán San Martín in the Sierra de los Tuxtlas, Veracruz.

An adult individual of *E. minera* (Wilson, McCranie & Williams, 1985) was collected on 27 July 2018 near the community of Nahá (16.974467° N, 91.572017° W, 1,000 m a.s.l.), municipality of Ocosingo, Chiapas, Mexico. The frog was captured during a dry night (ca. 21:00 h) inside a bromeliad ca., 1.5 m of the forest floor in mature premontane moist forest, the previously reported records were in highland rainforest habitat (Mendelson et al., 2015). The habitat featured trees 15 m high with deep leaf litter.

The specimen was preserved and catalogued at the herpetological collection of the Museo de Zoología de la Facultad de Ciencias, Universidad Nacional Autónoma de México MZFC 36211; Figs. 1-3). This locality extends the known distribution of *E. minera* 127.4 km NNW of the closest record near Barillas, Finca

Chiblac, Montaña Los Angeles, Guatemala (15.87341° N, 91.24007° W, 1,205 m a.s.l.; Vásquez-Almazán et al., 2014).

The specimen is an adult female with the following characteristics that are consistent with *E. minera* (Mendelson et al., 2015): cranial co-ossification present, snout-vent length (66.3 mm), head length (22.8 mm), head width (26.7 mm), hand length (22.6 mm), foot length (31.4 mm), tibia length (35.9 mm), highly tuberculate dorsum, vocal slits present, webbing on right hand (I2—I—2.25II0.75—1.5III1.25—IIV), and webbing on right foot (I0.75—1.5II0.75—1.5III1—1.25IV0.75—0.75V; Fig. 2).

Ecnomiohyla minera was described from "4.2 km (by road) S Purulhá, 1,760 m elevation, Depto. Baja Verapaz, Guatemala" and is known in Guatemala at elevations from 701–1,830 m in the Sierra de las Minas, Baja Verapaz, and the Caribbean slope of the Sierra de los Cuchumatanes, Huehuetenango, and at Sierra de Santa Cruz, Izabal, Guatemala. It has also been recorded in Belize in the southern part of the Maya Mountains in the Toledo District (Fig. 4). It is interesting to highlight one feature that is not often seen in hylids. This female has vocal slits, which confirms a little known and understudied property; females of some species in the genus call, as it was demonstrated by Salazar et al. (2021a) for *E. sukia*.

Despite being an important component of biodiversity, canopy dwelling vertebrates are remarkably under-sampled (Kays & Allison 2001). This particularly applies to the members of the genus *Ecnomiohyla*. Although in recent years, new species, populations and novel natural history data have been



Figura 1. *Ecnomiohyla minera* colectada en Nahá, Chiapas (MZFC 36211). A) Superficie dorsal de *Ecnomiohyla minera* B) Vista lateral de *Ecnomiohyla minera* C) Detalle frontal de la cabeza de *Ecnomiohyla minera* D) Vista general *Ecnomiohyla minera*

Figure 1. *Ecnomiohyla minera* collected at Nahá, Chiapas (MZFC 36211). A) Dorsal surface of *Ecnomiohyla minera*. B) Lateral view of *Ecnomiohyla minera*. C) *Ecnomiohyla minera* front head detail, D) *Ecnomiohyla minera* general view.



Figura 2. Extremidad anterior (A) y posterior (B) de *Ecnomiohyla minera* (MZFC 36211). / **Figure 2.** Fore (A) and hindlimb (B) of *Ecnomiohyla minera* (MZFC 36211).

recorded for the fringe-limbed frogs in Lower Central America (e. g. Savage 2002; Savage & Kubicki 2010; Batista et al., 2014; Barrio-Amorós & Torres 2017; Salazar et al., 2021b; Salazar et al., 2023; van Noppen et al., 2023); this is not the case for the taxa occurring in Mexico and Nuclear Central America. Although recent specimens have been recorded from Natural Protected Areas (Solís et al., 2017; Thorp et al., 2021), individuals obtained in past decades remain scarce, and some have not been sighted in over 40 years (Mendelson et al., 2015). Given the alleged recent extinction of other members of the genus (Mendelson, 2016) and the documented amphibian populations declines worldwide, nowadays is crucial to gather as much information on the distribution and natural history of this and other imperiled frogs.

The presence of *E. minera* in southern Mexico has been previously predicted (Duellman 2001; Mendelson et al., 2015), and this species might also occur at mid-elevations throughout the Lacandon rainforest in Mexico. Our record increases the number of *Ecnomiohyla* species in Mexico to three (Fig. 4).



Figura 3 (der.). *Ecnomiohyla minera*. / **Figure 3 (right).** *Ecnomiohyla minera*

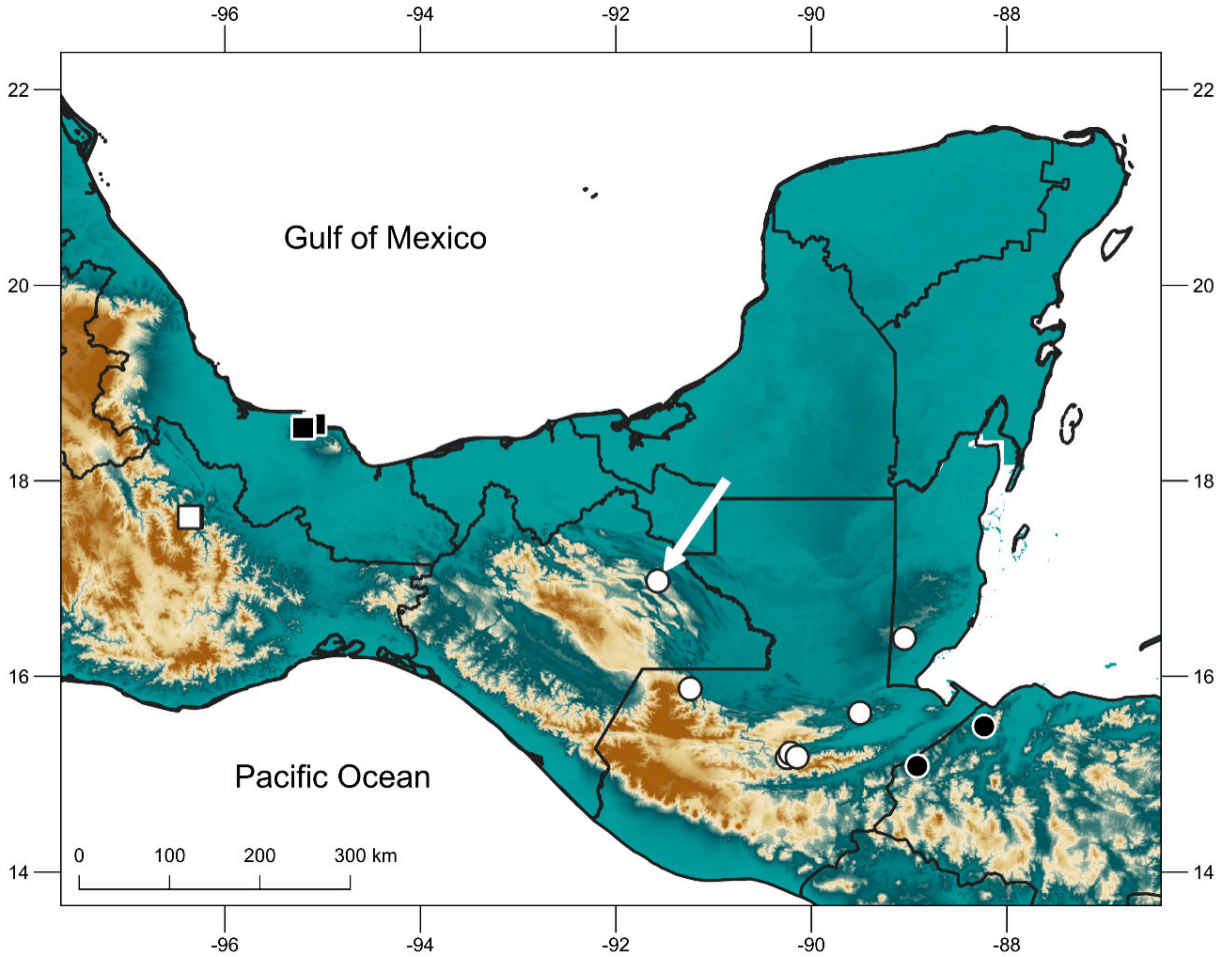


Figura 4. Distribución del género *Ecnomiohyla* en México y América Central. Localidades registradas de *Ecnomiohyla valancifer* (cuadrados negros), *Ecnomiohyla echinata* (cuadrados blancos) *Ecnomiohyla salvaje* (círculos negros) y *Ecnomiohyla minera* (círculos blancos). La flecha blanca indica el nuevo espécimen colectado.

Figure 4. Distribution of the genus *Ecnomiohyla* in Mexico and Northern Central America. *Ecnomiohyla valancifer* (black squares), *Ecnomiohyla echinata* (white squares), *Ecnomiohyla salvaje* (black circles) and *Ecnomiohyla minera* (white circles) registered localities. White arrow indicates the new specimen collected.

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