



New Record of the Critically Endangered Western Spiny Frog, *Eleutherodactylus symingtoni* (Eleutherodactylidae)

Tomás M. Rodríguez-Cabrera^{1,2} and Raimundo López-Silvero²

¹Instituto de Ecología y Sistemática, La Habana 11900, Cuba (tomasmichel.rodriguez@gmail.com [corresponding author]; <https://orcid.org/0000-0001-5905-4730>)

²Sociedad Cubana de Zoología, Cuba (railopez59@gmail.com)

The Western Spiny Frog, *Eleutherodactylus symingtoni* (Eleutherodactylidae), is one of the rarest and most threatened Cuban amphibians. It has been recorded from a limited number of isolated localities in western Cuba, always associated with forested karstic areas and caves (Estrada et al. 1989; Hedges and Díaz 2004; Díaz and Cádiz 2008; Rivalta González et al. 2014). Due to an apparent small population size and drastic population decline, the species was listed as Critically Endangered on the IUCN Red List (Hedges and Díaz 2004). Its status was later downgraded to Endangered in the Libro Rojo de los Vertebrados de Cuba (Rodríguez and García 2012), based on a few additional sightings, but this change has not been recognized by the IUCN Red List of Endangered Species (<https://www.iucnredlist.org/species/56988/11552316>). Given the species' critical situation, every locality where the species occurs becomes important. Herein we report *E. symingtoni* from the Santa Cruz River Canyon, a protected area in the mountains of the Sierra del Rosario in western Cuba.

At 1900 h on 27 October 2020, we observed and photographed two adult Western Spiny Frogs (ca. 70 mm SVL)

(Fig. 1) in the Santa Cruz River Canyon, San Cristóbal Municipality, Artemisa Province, Cuba (22.74909°N, 83.14900°W; elev. 180 m asl). We also encountered but did not photograph a third smaller individual. This locality is only 15 km WSW of Soroa, the nearest published record of the species (Estrada et al. 1989), but it represents a new municipality record and the first record for 'Cañón del Río Santa Cruz' Natural Monument. We refrained from collecting specimens due to the critical conservation status of the species; instead we deposited photographic vouchers in the Herpetology Digital Archives of the University of Kansas (KUDA 013750–51 for one individual and KUDA 013752–53 for the other individual). The identity of the species was confirmed by L. Yusnaviel García-Padrón.

When first seen, the frogs were less than 5 m from each other and active on leaf litter and rocks at ground level. The substrate was wet due to frequent rains during the previous days and limited evaporation because of the characteristics of this site (see below). That three different individuals were observed at one time in an area frequently visited by



Fig. 1. Adult Western Spiny Frogs (*Eleutherodactylus symingtoni*) from the Santa Cruz River Canyon, San Cristóbal Municipality, Artemisa Province, Cuba: KUDA 013750 (left); KUDA 013752 (right). Photographs © Raimundo López-Silvero.

the authors (>20 years in the case of RLS) is interesting and suggestive of the possibility that the species occurs undetected even in well studied areas.

This site is part of a dry glen, through which a stream runs only after heavy rains, that joins the Santa Cruz River about 50 m farther down the hill. The habitat is characterized by very large limestone rocks (>3 m high), cliffs covered by a secondary forest adjacent to a better-preserved semi-deciduous forest, and abundant leaf litter, effectively providing a humid refuge sheltered by large rocks and shaded by the tree canopy. However, a rustic country house is less than 50 m northwestward of the site. Evidence of soil disturbance by pigs was abundant, and the presence of domestic, feral, and semi-feral cats, dogs, pigs, and sheep represents a substantial potential threat for this population of *E. symingtoni*.

‘Cañón del Río Santa Cruz’ Natural Monument is currently being considered by conservation authorities for inclusion in the national system of protected areas of Cuba (CNAP 2013). With this record, *E. symingtoni* becomes a target species of conservation priority for this protected area. However, additional surveys are required in order to better understand the status of this subpopulation so it and the associated habitat can be properly managed.

Acknowledgements

We thank Tomás García and his family for logistical support and accommodation during field expeditions; L. Yusnaviel García-Padrón for the fruitful exchange of ideas, literature provided, confirmation of the species’ identity, and a critical review of an early draft of this manuscript; and Javier Torres and Ana Paula Motta Vieira for facilitating the deposition of photographic vouchers in the digital archives at the University of Kansas.

Literature Cited

- CNAP (Centro Nacional de Áreas Protegidas). 2013. *Plan del Sistema Nacional de Áreas Protegidas 2014–2020*. Ministerio de Ciencias, Tecnología y Medio Ambiente, La Habana, Cuba.
- Díaz, L.M. and A. Cádiz. 2008. Guía taxonómica de los anfibios de Cuba. *Abc Taxa* 4: 1–294 (+ CD).
- Estrada, A.R., J. Novo R., and L.V. Moreno. 1989. Redescrición de *Eleutherodactylus symingtoni* Schwartz (Anura: Leptodactylidae) del occidente de Cuba. *Revista Biología* 3: 155–165.
- Hedges, B. and L.[M.] Díaz. 2004. *Eleutherodactylus symingtoni*. *The IUCN Red List of Threatened Species* 2004: e.T56988A11552316. <https://dx.doi.org/10.2305/IUCN.UK.2004.RLTS.T56988A11552316.en>.
- Rivalta González, V., L. Rodríguez Schettino, C.A. Mancina, and M. Iturriaga. 2014. Amphibians of Cuba: Checklist and geographic distributions. *Smithsonian Herpetological Information Service* 145: 1–48. <https://doi.org/10.5479/si.23317515.145.1>.
- Rodríguez, A. and Y. García. 2012. *Eleutherodactylus symingtoni* Schwartz y Garrido, 1975, pp. 83–84. In: H. González Alonso, L. Rodríguez Schettino, A. Rodríguez, C.A. Mancina, and I. Ramos García (eds.), *Libro Rojo de los Vertebrados de Cuba*. Editorial Academia, La Habana, Cuba.