AMPHIBIA: ANURA: LEPTODACTYLIDAE

Catalogue of American Amphibians and Reptiles.

Hedges, S. Blair and R. Powell. 1998. Eleutherodactylus parapelates.

> *Eleutherodactylus parapelates* Hedges and Thomas

Eleutherodactylus hypostenor: Schwartz 1965:498 (part, specimens from Haiti).

Eleutherodactylus parapelates Hedges and Thomas 1987:269. Type locality, "0.1 km N Castillon [7.9 km S, 0.3 km E Marché Léon (airline distance); 18°28'07" N, 74°06'58" W], Dépt. de la Grande Anse, Haiti, 960 m." Holotype, National Museum of Natural History (USNM) 257716, adult male, collected 2 November 1984, by Richard Thomas and S. Blair Hedges (examined by SBH).

· Content. No subspecies are recognized.

• **Definition.** *Eleutherodactylus parapelates* is a moderately large (SVL to 52 mm in males, females unknown) burrowing frog of the *ruthae* group, subgenus *Pelorius*. The dorsum is smooth anteriorly, but tuberculate posteriorly and laterally. Supratympanic and dorsolateral folds are prominent, the latter extending to the groin. The skin of the throat and anterior venter is smooth, whereas that more posteriorly is coarsely areolate. Digital pads are moderately enlarged, the largest about 1/2–2/3 the horizontal diameter of the tympanum. The subgular vocal sac is internal and median. Eyelids bear no prominent tubercles (spines).

Dorsal ground color is dark to light brown with irregular dark spots forming a more or less bilaterally symmetrical pattern. Many dorsal markings are narrowly outlined in white or buff. Supratympanic and dorsolateral folds are usually light, and distinctive black stripes occur below the supratympanic fold. Dark



Map. Range of *Eleutherodactylus parapelates* (modified from Hedges and Thomas 1987). The circle marks the type locality and dots indicate other known records.

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ELEUTHERODACTYLUS PARAPELATES



Figure 1. An adult male *Eleutherodactylus parapelates* (USNM 257727) from the type locality (photograph by SBH).

interorbital triangles or lines and an indistinct snout patch are present, but the tip of the snout is not pigmented. Antebrachia usually bear a single chevron. The upper surfaces of the thighs have dark parallel bars. The venter is off-white to cream with dark mottling, with the chin and undersides of the antebrachium, crus, and pes darkest (solid black or dark brown in some individuals). The groin is white, cream, or light gray with heavy black or dark brown reticulations that extend onto the anterior surfaces of the thigh and ventrolateral surface of the body. The iris lacks any pattern.

• Diagnosis. Eleutherodactylus parapelates may be distinguished from larger members of the subgenus Pelorius (E. chlorophenax, E. inoptatus, and E. nortoni) by its smaller size, lack of spinelike tubercles on the upper eyelids, and the presence of a tough cornified patch of skin on the tip of the snout. This species is distinguished from the comparably sized, more similar, and presumably more closely related members of the subgenus placed in the ruthae group (E. hypostenor and E. ruthae) by having a relatively longer head, smaller tympanum, a unique advertisement call, and specifically from E. hypostenor by the dark mottled venter, the second finger slightly longer than the first, shorter thigh, narrower thigh and shank, smaller digital pads, and fewer vomerine odontoids, and specifically from South Island E. ruthae (some North Island specimens may be more difficult to distinguish) by the fewer, narrower chevronate shank bars, longer thigh and shank, longer second finger, and larger digital pads.

• **Descriptions.** In addition to the original by Hedges and Thomas (1987), a briefer description may be found in Schwartz and Henderson (1991). Lynch (1996) described the cranium.

• **Illustrations.** Black and white photographs illustrating dorsolateral and ventral views are in Hedges and Thomas (1987), who also figured the audiospectrogram. Line drawings of dorsal, lateral, and ventral views of the skull are in Lynch (1996).

• **Distribution.** A Hispaniolan South Island endemic, the species is known only from the western Massif de la Hotte, Haiti. The range was illustrated by Hedges and Thomas (1987) and Schwartz and Henderson (1991).

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Figure 2. Audiospectrograms of *Eleutherodactylus parapelates* (USNM 257727) from the type locality. A single three-note call is shown (above, 45 Hz filter; below 300 Hz filter).

· Fossil Record. None.

• Pertinent Literature. Hedges and Thomas (1987) described the species and assigned it to the *inoptatus* group, an assignment with which Joglar (1989) agreed. Later, Hedges (1989) split the *inoptatus* group, placed *E. parapelates* in the *ruthae* group, and assigned both groups to the subgenus *Pelorius*. Duellman (1993), Lynch (1996), and Lynch and Duellman (1997) agreed, although Lynch (1996) questioned the monophyly of *Pelorius*. Hedges and Thomas (1987) described some aspects of natural history while comparing *E. parapelates* to other large, burrowing members of the genus.

The species is included in checklists by Schwartz and Henderson (1988) and Powell et al. (1996). Frank and Ramus (1995) provided an erroneous common name, Casillon [*sic*] Robber Frog.

• Etymology. The name *parapelates* is from the Greek *para* (= near) and *pelates* (= neighbor), "an allusion to its close resemblance and presumed relationship to *E. hypostenor* and *E. ruthae*" (Hedges and Thomas 1987). Hedges and Thomas (1987) also noted that the name was singularly appropriate in describing the close proximity of calling males (in contrast to the other burrowing species).

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Literature Cited

Duellman, W.E. 1993. Amphibian Species of the World: Additions and Corrections. Univ. Kansas Mus. Nat. Hist. Spec. Publ. (21):1–372.

- Frank, N. and E. Ramus. 1995. A Complete Guide to Scientific and Common Names of Reptiles and Amphibians of the World. NG Publ. Co., Pottsville, Pennsylvania.
- Hedges, S.B. 1989. Evolution and biogeography of West Indian frogs of the genus *Eleutherodactylus*: slow-evolving loci and the major groups, p. 305–370. *In* C.A. Woods (ed.), Biogeography of the West Indies: Past, Present, and Future. Sandhill Crane Press, Inc., Gainesville, Florida.
- and R. Thomas. 1987. A new burrowing frog from Hispaniola with comments on the *inoptatus* group of the genus *Eleutherodactylus* (Anura: Leptodactylidae). Herpetologica 43:269– 279.
- Joglar, R.L. 1989. Phylogenetic relationships of the West Indian frogs of the genus *Eleutherodactylus*: a morphological analysis, p. 371–408. *In* C.A. Woods (ed.), Biogeography of the West Indies: Past, Present, and Future. Sandhill Crane Press, Inc., Gainesville, Florida.
- Lynch, J.D. 1996. The relationships of the Hispaniolan frogs of the subgenus *Pelorius (Eleutherodactylus*: Leptodactylidae), p. 141–155. *In* R. Powell and R.W. Henderson (eds.), Contributions to West Indian Herpetology: A Tribute to Albert Schwartz. SSAR Contr. Herpetol. Vol. 12. Ithaca, New York.
- and W.E. Duellman. 1997. Frogs of the genus *Eleuthero-dactylus* (Leptodactylidae) in western Ecuador: systematics, ecology, and biogeography. Univ. Kansas Nat. Hist. Mus. Spec. Publ. (23):iv + 236 p.
- Powell, R., R.W. Henderson, K. Adler, and H.A. Dundee. 1996. An annotated checklist of West Indian amphibians and reptiles, p. 51–93, 1–8 pls. *In* R. Powell and R.W. Henderson (eds.), Contributions to West Indian Herpetology: A Tribute to Albert Schwartz. SSAR Contr. Herpetol. Vol. 12. Ithaca, New York.
- Schwartz, A. and R.W. Henderson. 1988. West Indian amphibians and reptiles: a check-list. Milwaukee Pub. Mus. Contr. Biol. Geol. (74):1–264.
- and —. 1991. Amphibians and Reptiles of the West Indies: Descriptions, Distributions, and Natural History. Univ. Florida Press, Gainesville.

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