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A NEW TREE-FROG FROM PORTO RICO

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It is paradoxical to write of the most abundant species of tree-frog of Porto Rico as new to science, for this form is one of the best known in the genus, represented in many museums by large series of specimens. It is really famous, for its eggs and embryos were the basis for the article by Peters, describing the direct development, with suppression of the tadpole stage, which is a general character of the genus *Eleutherodactylus*. Peter's figures have found their way into great numbers of textbooks, usually under the original designation, *Hylodes martinicensis*.

The name now proposed for this well-known and well-characterized species is, nevertheless, the first to be based on Porto Rican specimens. The confusion of this form with other Antillean species has been due to the weight of authority that has identified it first with the Lesser Antillean *Eleutherodactylus martinicensis* (Tschudi)—Peters, Gundlach, Garman, and Boettger—and, later, with the Cuban *Eleutherodactylus auriculatus* (Cope)—Boulenger, Stejneger, and Barbour. In dealing with this species in 1920, I accepted the identification with *auriculatus* without question.

Stejneger, in 1902, accepted Boulenger's record of *auriculatus* from Santo Domingo, and its occurrence on that island would of course make its presence in Porto Rico much more probable. The Nobles secured an allied species in the Dominican Republic, described by Dr. Noble as *Eleutherodactylus auriculatoides* (1923, Amer. Mus. Novitates, No. 61, p. 3) and it is probable that this species represents *auriculatus* in Santo Domingo.

The renewed and more intensive study of the Greater Antillean amphibian faunæ was, to some extent, initiated by my field work in Porto Rico in 1919, which added six species of *Eleutherodactylus* to the supposedly well-known herpetological fauna of that island. This was followed by the work of Dr. and Mrs. G. K. Noble in the Dominican Republic in 1922, which added five new *Eleutherodactylus* and a new *Hyla* to the Hispaniolan fauna. The recent additions to the Cuban tree-frogs (eight species) and to the Jamaican fauna (six *Eleutherodactylus* and a *Hyla*) by the field work of Dr. Emmett R. Dunn in 1924 and 1925 were, consequently, scarcely surprising, though it may be emphasized that all

of these islands were supposed to be well explored herpetologically. The new crop of novel species was due to the application of a simple technique of collecting by voice at night, using an electric flashlight.

A better knowledge of the old species has inevitably accompanied the recognition of the new forms, and it is now evident that there are no native species of this genus generally distributed in the Greater Antilles. The Cuban *Eleutherodactylus auriculatus* is now well known through Dr. Dunn's field work. He writes me that this species does NOT breed in bromeliads, and that its cry resembles the syllables "chi-leén." The repeated "coquí" of the Porto Rican species, which gives it its native name, is one of the most characteristic sounds of the nocturnal chorus in Porto Rico.

All of this contributes little by little to the certainty that the common Porto Rican tree-frog is specifically distinct from any other West Indian form. It may be known as *Eleutherodactylus portoricensis*, new species.

***Eleutherodactylus portoricensis*, new species**

DIAGNOSIS.—An *Eleutherodactylus* of moderate size and stocky habitus; vomerine teeth in two short oblique series, behind the choanæ; nostrils near the tip of the snout; tympanum about half the diameter of the eye; disks of toes about equal to those of fingers, about three times as broad as the narrowest part of the corresponding phalanges; no trace of web; ventral disk faintly indicated; concealed parts of thighs immaculate, reddish in life.

TYPE.—A. M. N. H. No. 10249; ♂; El Yunque, 2000 feet altitude, Porto Rico; Karl P. Schmidt; September 30, 1919.

RANGE.—Generally distributed in Porto Rico, but confined to that island; apparently absent even on Vieques and Culebra, and certainly absent from Mona Island.

DESCRIPTION OF TYPE.—Head broader than body, its width slightly greater than the distance from tip of snout to the posterior border of the tympanum; nostril twice more distant from the eye than from tip to snout; diameter of eye equal to its distance from the nostril; tympanum nearly half the diameter of the eye, a little broader than its distance from the eye; heels broadly overlapping; heel reaching the eye when the limb is laid forward along the body; canthus rostralis rounded but well defined; lores sloping, slightly concave; disks of fingers subequal; disks of toes subequal, very little smaller than those of the fingers; first and second fingers equal in length; first and second toes subequal; skin finely rugose above, with a narrow median raised line, the general effect smooth; belly and thigh granulate; a fold across the chest; ventral disk faintly indicated by an impressed lateral line; vomerine teeth in straight, short, oblique series, their distance from the choanæ, in line with their outer borders, a little less than their length, the distance between them about half the length of one series.

Color dark brownish gray; a light canthal line over the edge of the eyelid, broadening over the tympanum into a dorsolateral light band, which merges into the

light belly color posteriorly; concealed surfaces of thighs and tibiae immaculate (reddish in life).

MEASUREMENTS OF TYPE

Length of Body.....	36 mm.
Width of Head.....	15 mm.
Tip of Snout to Posterior Border of Tympanum.....	14 mm.
Length of Arm.....	21 mm.
Length of Leg.....	52 mm.
Tibia.....	17 mm.
Tympanum.....	2 mm.
Eye.....	4.5 mm.
Largest Finger Disk.....	2 mm.

There are certain discrepancies between the above description and the detailed description given by Stejenger (1904, Rept. U. S. Nat. Mus., 1902, p. 585), but I am convinced that the two descriptions refer to the same species. Besides a high degree of variability in coloration, differences in preservation contribute to the difficulty of exact description of the species of this genus. It is notable that specific differences that escape laboratory examination are obvious in living material. Dr. Barbour writes me that he has independently reached the same conclusion concerning the specific distinctness of the Porto Rican and Cuban species.

