

Catalogue of American Amphibians and Reptiles.

SCHWARTZ, ALBERT. 1977. *Eleutherodactylus alcoae*.

Eleutherodactylus alcoae Schwartz

Eleutherodactylus alcoae Schwartz, 1971:26. Type-locality, "22 km NE Cabo Rojo, 1500 feet (458 meters), Pedernales Province, República Dominicana." Holotype, Carnegie Museum of Natural History 45889, a gravid female collected by James A. Rodgers, Jr., on 19 May 1969 (examined by author).

• CONTENT. No subspecies are recognized.

• DEFINITION. A species of the *ricordi* complex of Antillean *Eleutherodactylus* characterized by the combination of moderate size (males to 38 mm, females to 45 mm snout-vent length), very large digital discs, a dorsal pattern of dark brown marbling or spotting on a yellow to flesh or tan to pale tan ground, usually a dark gray to almost black interocular bar and a dark scapular chevron, dorsolateral stripes absent, hindlimbs stippled or marbled with dark (never crossbanded), concealed surfaces of femora brown to purplish, occasionally with an orange suffusion; venter white, throat heavily to moderately stippled with brown, the throat ground color and the undersides of all limbs bright yellow (as are the brachia as well) in some specimens; tympanum large (mean = 3.1 mm in males, 3.4 mm in females), and tibia/snout-vent ratio ($\times 100$) low (41.8–51.6 in males, 43.6–47.5 in females). Tympanum size and tibia/snout-vent length ratio are important in distinguishing this species from partially sympatric *E. pictissimus* Cochran.

• DESCRIPTIONS. The original description (Schwartz, 1971), based upon five specimens, gave pertinent descriptive and variational data. Schwartz (1976) presented much additional information.

• ILLUSTRATIONS. Schwartz (1971) has a drawing of the dorsal pattern of the holotype.

• DISTRIBUTION. Hispaniola, where known only from the República Dominicana on the Peninsula de Barahona south of the Sierra de Baoruco and the Dominican portion of the Massif de la Selle, from Pedernales in the west on the Dominico-Haitian border to 32 km SE Pedernales, Pedernales Province, in the east. An isolated record is from Los Patos, Barahona Province, on the east coast of the Peninsula de Barahona. Altitudinal distribution is from sea level to 2000 feet (610 meters) in the Sierra de Baoruco.

• FOSSIL RECORD. None.

• PERTINENT LITERATURE. Other than the original description (Schwartz, 1971), Schwartz (1973) gave elevational details for the species and Schwartz and Thomas (1975) outlined its geographic and altitudinal distribution, and Schwartz (1976) gave extensive data on size, ecology, and relationships to other Antillean members of the *ricordi* group.

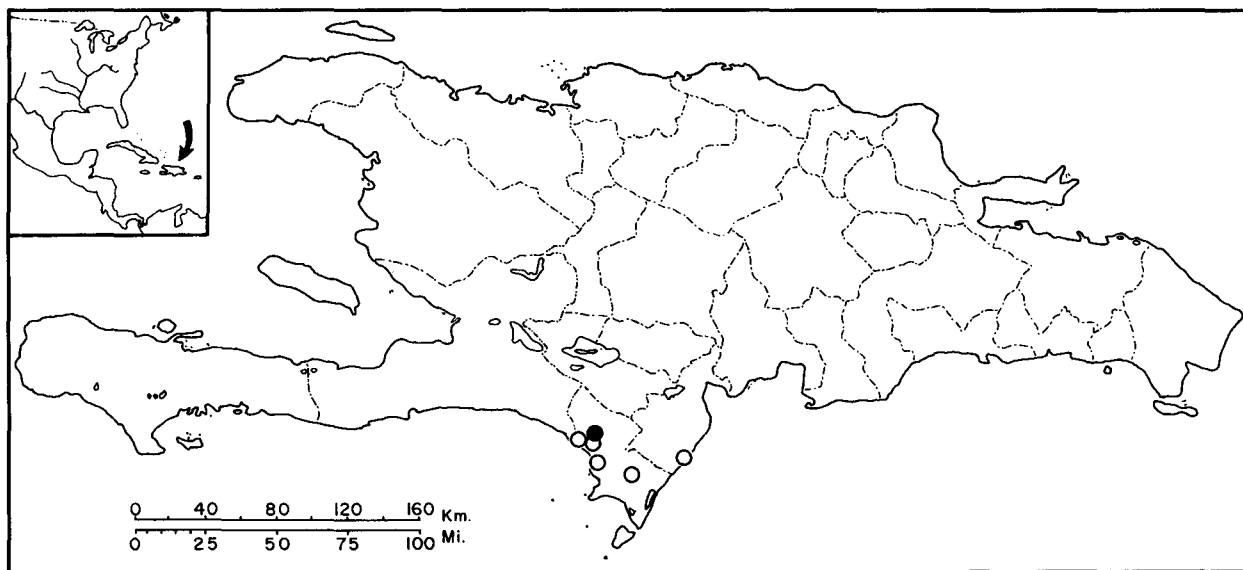
• REMARKS. *Eleutherodactylus alcoae* is a frog of the xeric Peninsula de Barahona. With one exception (Los Patos), all specimens have been taken from the much eroded and faulted limestone ridge which bisects the Peninsula de Barahona from north to south and from the lower montane slopes of the southern front ranges of the Massif de la Selle (9.6 km N Pedernales) and Sierra de Baoruco (24 km NE Cabo Rojo). The Peninsula de Barahona is xeric with a flora of *Acacia*, cacti and other xerophytes, whereas the adjacent lower montane slopes are slightly more mesic but still support *Acacia* forests and local pockets of hardwoods (as at L'Eglise). The call is a single "cheep," and after rains the numbers of calling males may be very large. Males vocalize from shrubs, bushes, and the low crotches of trees up to four feet above the ground. None was secured calling from the limestone or from the ground itself. Near L'Eglise, males were taken calling from exposed rocks, cavities in rocks, and stems and leaves of shrubs, and at Los Patos and north of Pedernales vines and branches of saplings were the principal calling sites. A homosexual pair in amplexus was collected on bare limestone.

The specimens from Los Patos came from a very different sort of region, at least as far as moisture and flora are concerned. A hillside just north of Los Patos, with a large limestone cave, is covered with dense and mesic hardwood forest with an abundant and luxuriant shrubby understory. This locality is distinctly more shaded and mesic than those where *E. alcoae* has been previously collected and is disjunct by some 35 km airline from the nearest xeric *E. alcoae* locality. Specimens of *E. alcoae* were secured during the day in both the Los Patos cave and a small cave in the desert 7 km N and 2 km SE Cabo Rojo.

• ETYMOLOGY. The name *alcoae* is derived from Alcoa, the acronym of the Aluminum Company of America whose local headquarters (Alcoa Exploration Company) at Cabo Rojo housed the parties who first collected this species.

COMMENT

There are basic pigmental differences between lowland and montane-slope specimens of *E. alcoae* that suggest that there may be two subspecies involved. The species is confidently expected in extreme southeastern Haiti, since the intermittent Río Pedernales which here forms the international boundary seems unlikely to act as a barrier for these xeric-adapted frogs.



MAP. Distribution of *Eleutherodactylus alcoae* in the Dominican Republic, Hispaniola. Solid circle marks the type-locality; open circles indicate other localities.

Specimens of *Eleutherodactylus alcoae* and data have been secured under the sponsorship of National Science Foundation grants G-7977 and B-023603.

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