

## Catalogue of American Amphibians and Reptiles.

Lynxwiler, J.R. and J.S. Parmelee, Jr. 1993. *Aristelliger cochranae*.

***Aristelliger cochranae* Cope**  
Cochran's Croaking Gecko

*Aristelliger cochranae* Grant, 1931:399. Type-locality, "Navassa Island, Dominican Republic." Holotype, Museum of Zoology, University of Michigan (UMMZ) 73760 (original number, Chapman Grant Collection No. 2320), an adult male, collected by crew of L.H.T. "Acacia", 30 May 1931 (not examined by authors).

*Aristelligella cochranae*: Noble and Klingel, 1932:6. See Nomenclatural History.

• **Content.** Two subspecies are recognized: *cochranae* and *expectatus* (but see Comment).

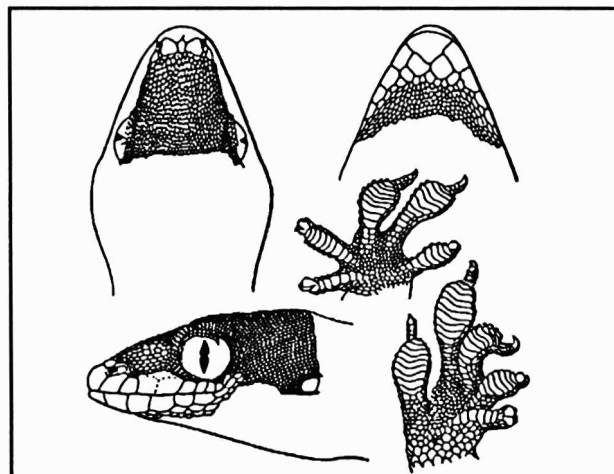
• **Definition.** *Aristelliger cochranae* is a small gecko (maximum SVL in males 63 mm, in females 53 mm), with lateral postmentals 1/2-3/4 as wide as the first infralabial and in contact with the midline of the mental. The total number of lamellae on the 4th fingers of both hands number 16-22, and total on the 4th toes of both feet number 17-26. Small, asymmetrical adhesive plates ("friction pads" of Cochran, 1933) adjacent to the claws are present on digits I, II, and IV of the manus and I-II of the pes. See Comment.

The dorsal ground color is tan, gray, or yellow-brown to brown, with 6 wide, tan crossbands. A light-bordered dark stripe extends from the snout across the eyes to the sacrum in males and to the shoulders in females. The tail has about 9 narrow, dark crossbands, followed by light bands of the same width. The ventral side of the tail is dark in males and white in females. The iris is brown. Juveniles (SVL 20 mm) have a ladder-like pattern of 7 pinkish diamonds between the neck and sacrum, 10 on the tail. Dark stripes extend from the snout across the eyes and then break up to form outlines of dorsal diamonds. The general juvenile appearance is decidedly "checkered," in contrast to "striped" adults (Schwartz and Henderson, 1991).

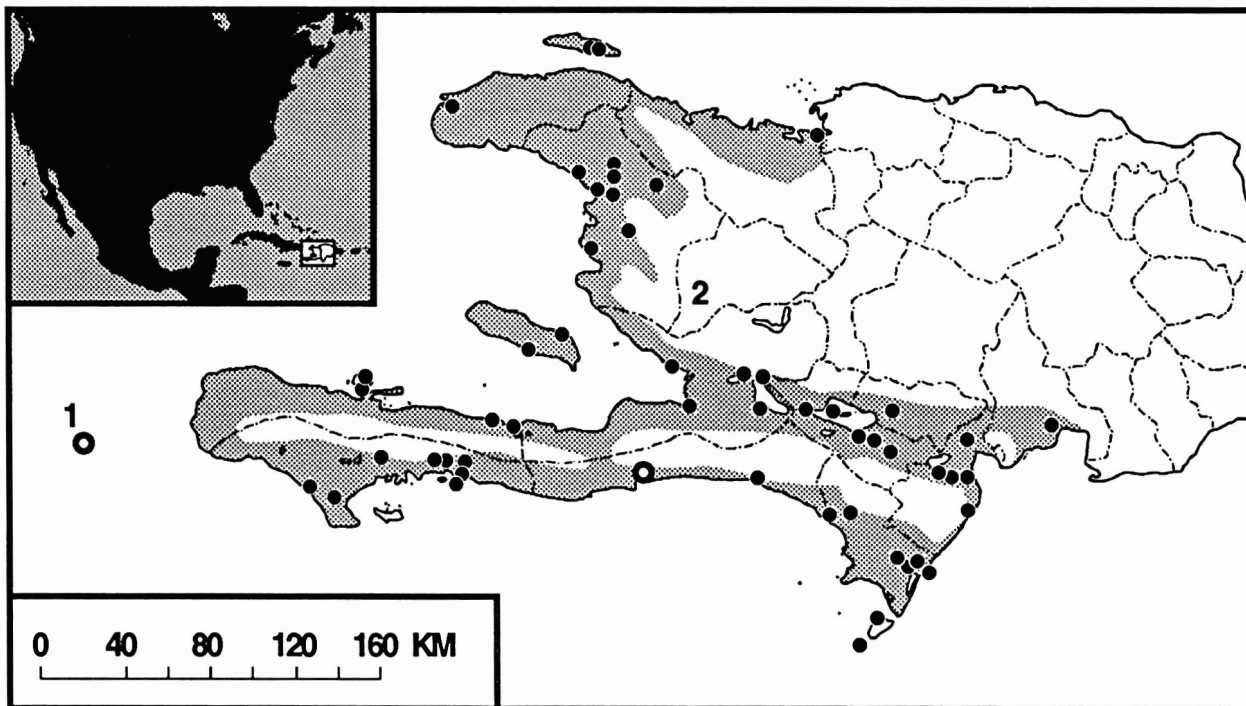
• **Diagnosis.** *Aristelliger cochranae* can be distinguished from the larger members of the genus (*A. georgeensis*, *A. bechti*, *A. lar*, and *A. praesignis*) by having multiple small, asymmetrical adhesive plates adjacent to the claw on the digits rather than a single one on each manus and pes (see Nomenclatural History). This species may be



**Figure 1.** Subadult male *Aristelliger cochranae expectatus* (Bobby Witcher Memorial Collection, BWMC 03999) from Barahona, Barahona Province, Dominican Republic. Photograph by Darla K. Carr.



**Figure 2.** The holotype of *Aristelliger cochranae expectatus*, USNM 75908 (from Cochran, 1941).



**Map.** Range of *Aristelliger cochranae* (modified from Schwartz and Henderson, 1991). Open circles mark type-localities, solid circles indicate other records.

distinguished from the other small member of the genus (*A. barbouri*) by the number of dorsal cross-bands, the number of loreal scales (generally >15 in *A. cochranae* and <16 in *A. barbouri*), and the presence of a dark, sagittal longitudinal stripe running from the snout to the shoulder (absent in *A. barbouri*).

• **Descriptions.** In addition to the original descriptions of Grant (1931) and Cochran (1933), excellent descriptions are in Mertens (1939), Cochran (1941), Hecht (1947), Thomas (1966), and Schwartz and Henderson (1991). Hecht (1951) described lamellae and correlations between body size and infradigital lamellae of the fourth toe. Descriptions of supraorbital ossifications were given by Bauer and Russell (1989). Russell (1977) described cloacal sacs and bones, and Kluge (1982) described the hemipenial bones and corrected Russell's (1977) interpretation of these structures.

• **Illustrations.** Black and white photographs are in Grant (1931). Thomas (1966) provided a black and white photograph of an egg. Line drawings of the top and side of the head, chin, underside of forefoot and hindfoot, and a diagram of color pattern were given by Cochran (1941). A line drawing of the hemipenial bones was presented by Russell (1977) and Kluge (1982). Russell (1976, 1979) included the same line drawing of foot morphology.

• **Distribution.** The species is known from Navassa Island and Hispaniola. The Hispaniolan range includes most of Haiti, the southwestern portion of the Dominican Republic, and a number of satellite islands: Île de la Gonâve, Île à Cabrit, Isla Beata, Isla Alto Velo, Cayo Pisaje off the east coast of the Península de Barahona, and Isla Cabritos in Lago Enriquillo. The range was illustrated in Hecht (1951) and Schwartz and Henderson (1991).

• **Fossil Record.** None.

• **Pertinent Literature.** Noble and Klingel (1932) described the differences between *A. cochranae* and *A. barbouri*. Cochran (1933) described relationships between species and subspecies. Cochran (1941) described variation among paratypes. Hecht (1952) discussed size and compared the digits of several species of *Aristelliger*. Grant (1956) described the color pattern of juvenile *A. expectatus*. Etheridge (1965) compared the teeth of *A. lar* with *A. cochranae*. Thomas (1966) compared general morphology and scalation of *expectatus* to *cochranae*. Russell (1976, 1979) discussed foot morphology. Schwartz and Henderson (1991) provided a compendium of natural history information. Lynxwiler et al. (1991) noted the species in syntopy with *Hemidactylus brookii baitianus* in Barahona, Dominican Republic.

The species is included in checklists and guides by Barbour (1935, 1937), Schwartz and Thomas (1975), Schwartz et al. (1978), Henderson and Schwartz (1984), Henderson et al. (1984), Schwartz and Henderson (1985, 1988), and Banks et al. (1987). SEA/DVS (1990) provided an index to habitats in the Dominican Republic.

• **Nomenclatural History.** Noble and Klingel (1932) erected the genus *Aristelligella* for *A. barbouri* on the basis of the difference in disposition of the offset single plates that occur adjacent to the claws on some digits, distinguishing this taxon from *Aristelliger*. Hecht (1951) recognized *Aristelligella* as a monotypic subgenus containing *A. barbouri* (as *A. cochranae*, *barbouri*) and *A. cochranae*.

• **Etymology.** The name *cochranae* is a metronym in honor of Doris M. Cochran, longtime curator of herpetology at the U.S. National Museum. The name *expectatus* is derived from the Latin *expectatio* ("to expect"), presumably in reference to "Dr. Noble's prediction that a related form (of *Aristelliger*) might be expected to occur in Haiti" (Cochran, 1933).

• **Comment.** Hecht (1952) reported subdigital lamellar counts by summing the total of lamellae for the right and left manus or pes (the method followed in the Definition). Some subsequent authors have repeated Hecht's figures, but used them as if they pertained to a single digit. Counts given by Hecht (1952) for *A. cochranae* are 14-22, but those numbers included data for *A. barbouri* which Hecht (1951) had treated as a subspecies of *A. cochranae*.

Thomas (1966) suggested that *A. cochranae* and *A. barbouri* may be conspecific, but Powell (in press) suggested that *Aristelliger expectatus* may represent a species distinct from *A. cochranae*.

## 1. *Aristelliger cochranae cochranae* Grant

*Aristelliger cochranae* Grant, 1931:399. See species synonymy.

*Aristelligella cochranae*: Noble and Klingel, 1932:6.

*Aristelliger cochranae cochranae*: Mertens, 1939:10. First use of trinomial.

• **Diagnosis.** This subspecies is characterized by larger size (maximum SVL 63 mm), a light-bordered dark stripe from the snout to the shoulder in females and to the sacrum in males, a tail with about nine narrow dark crossbands (often indistinct or absent) followed by light bands of the same width (Grant, 1931), and the distal half of the tail of some adult specimens with a darkening (black or dark gray) that is not apparent in *expectatus* (Thomas, 1966). The snout is somewhat shorter than in *A. c. expectatus*, and granules on the top of the snout between the eyes (scale counts range from 17-23) and on the back (dorsal scale counts range from 31-41) are smaller (Cochran, 1941; Thomas, 1966). Supralabials numbered 6-9 (mode 7) and the total number of lamellae on the 4th toes of both feet was 19-26 in a series examined by Thomas (1966).

## 2. *Aristelliger cochranae expectatus* Cochran

*Aristelliger lar*: Cochran, 1928:54 (part).

*Aristelliger expectatus* Cochran, 1933:33. Type-locality, "Jacmel, Haiti". Holotype, National Museum of Natural History (USNM) 75908, an adult male collected by J.S.C. Boswell in 1928 (not examined by authors).

*Aristelliger cochranae expectatus*: Mertens, 1939:10.

• **Diagnosis.** This subspecies is characterized by smaller size (maximum SVL 55 mm); a dark stripe which runs from behind the nostril to the shoulder, where it widens into a blotch, then continues on faintly as a lateral stripe, becoming very irregular and fading out on the sides of the tail; 6-7 very narrow transverse dorsal bars between these lateral stripes; and bands across the tail which are much less distinct than in *A. cochranae cochranae*. The most anterior cross-stripe is interrupted in the middle and ends as a forward-curving blotch on each side of the nape. The snout is somewhat longer than in *A. cochranae cochranae*, and granules on top of the snout between the eyes (scale counts range from 12-17) and on the back (dorsal scale counts range from 25-33) are larger (Cochran, 1941; Thomas, 1966). Supralabials numbered 6-7 and the total number of lamellae on the 4th toes of both feet was 18-22 in a series examined by Thomas (1966).

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