

Catalogue of American Amphibians and Reptiles.

Bauer, A.M. and A.P. Russell. 1993. *Aristelliger georgeensis*.

***Aristelliger georgeensis* (Bocourt)**

Idiodactylus georgeensis Bocourt, 1873:41. Type-locality, "L'île Saint-Georges, située à quelques milles de Belize (côte orientale de l'Amérique centrale)". Syntypes, Museum National d'Histoire Naturelle, Paris (MNHN) 2442, 2442A-C, collector and date of collection unknown (not examined by authors).

Aristelliger praesignis: Boulenger, 1885:146 (part).

Aristelliger irregularis Cope, 1885:387. Type-locality, "Cozumel Island [Quintana Roo, Mexico]". Holotype, National Museum of Natural History (USNM) 13903, female, collected by personnel aboard the U.S. Fish Commission ship Albatross, January 23-29, 1885 (examined by authors).

Aristelliger georgeensis: Schmidt, 1941:490. First use of combination.

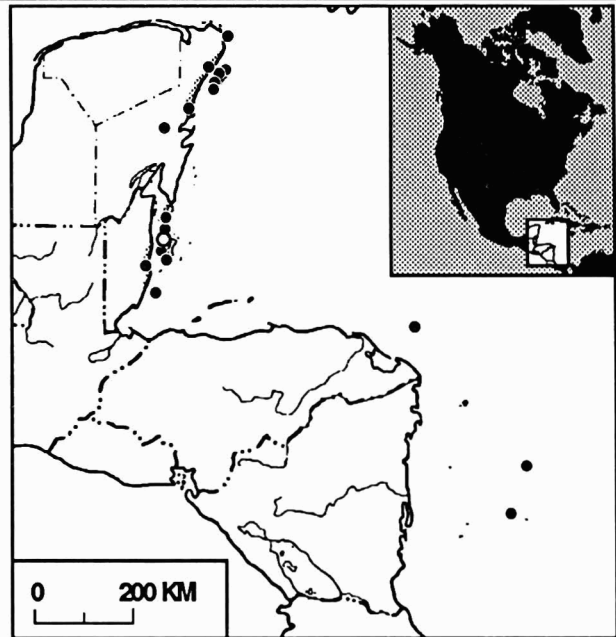
Idiodactylus georgiensis: Guibé, 1954:17. *Lapsus*.

Aristelliger georgiensis: Flores Villela, Hernández García, and Montes de Oca, 1991:93. *Lapsus*.

• **Content.** No subspecies are currently recognized (but see Nomenclatural History).

• **Definition.** This species is a large member of the genus *Aristelliger*. Males reach 115 mm SVL (Schwartz and Henderson, 1991) and females reach nearly 98 mm SVL (Duellman, 1965). Two or three median postmental scales are present. Lamellae number 13-18 on the 4th digit of the manus and 14-18 on the 4th digit of the pes. Small, asymmetrical adhesive plates occur adjacent to the claw only on digit one of the manus and pes. Dorsal scales are generally small, granular, and homogeneous.

The pattern on the dorsum is developed from a series of rhomboids or saddles and prominent dark scapular patches with single, central pale ocelli. This distinctive color pattern often fades to a more uniform pigment distribution in adults, the dorsum becoming pale buff, grey-brown to brown or pale greenish-grey with rusty brown reticulations. The remnants of paired and slightly offset tan blotches usually extend from the occipital region to about 1/3 of the way along the tail. In a few instances the scapular ocelli may persist. The flanks are abundantly mottled with red or pale grey, these flecks being distributed in a pattern reminiscent of a crustose lichen. A dark brown line may be on the canthus and on the temporal region from the eye to the shoulder. The dorsal and lateral surfaces of the head are often dark with scattered white flecks. The tail has pale saddles or bars, which extend from the dorsum onto the ventrolateral surface. Regenerated tails are pale with irregular longitudinal markings. The



Map. Distribution of *Aristelliger georgeensis* in México and Central America and adjacent islands. The large open circle represents the type-locality of *Idiodactylus georgeensis*.

belly is creamy-white or yellowish, with the throat somewhat darker and bearing pale spots as on the dorsal and lateral surfaces of the head. The iris is copper-colored.

• **Diagnosis.** *Aristelliger georgeensis* may be distinguished from the smaller members of the genus (*A. barbouri*, *A. cochranæ*) by having the distal asymmetrical plates restricted to the first digit of the manus and pes. This species can be distinguished from the larger members of the genus (*A. becbti*, *A. lar*, and *A. praesignis*) by the presence of 2-3 postmental scales, size, and color pattern.

• **Descriptions.** Detailed descriptions were provided by Bocourt (1873), Cope (1885), and Schwartz and Henderson (1991).

• **Illustrations.** Schmidt (1993) presented a color photograph of an adult male. Ayala (1975) furnished a black and white photograph of the lateral view of the head. Bocourt (1873) provided a color



Figure. *Aristelliger georgeensis* from San Miguel, Cozumel, Quintana Roo, México. Photograph courtesy of Julian C. Lee.

illustration of the whole animal, line drawings of dorsal and ventral views of the head, a ventral view of the manus, and a lateral view of a toe.

• **Distribution.** *Aristelliger georgeensis* is native to Belize (Campbell and Vannini, 1989) and islands off its coast and off the coast of Honduras. The range also includes mainland Quintana Roo (Peters, 1953; Lee, 1980), Cozumel Island (Maslin, 1963) and Isla Mujeres (Duellman, 1965), México, and Isla de Providencia, Isla Santa Catalina (and Crab Cay), and Isla San Andrés off the coast of Nicaragua (Tamsitt and Valdivieso, 1963). Mainland localities are primarily coastal and inland records may reflect accidental introductions. Smith and Taylor (1950) and Flores Villela (1993) regarded all Mexican populations as being introduced from the Caribbean. The species occurs in xeric to mesic conditions in association with trees or artificial cover. Flores Villela et al. (1991) also listed Acapetahua, Isla de la Concepción, Chiapas, México as a locality although this would seem to be far outside the natural accepted range of the species. Lee (1980) mapped mainland Yucatan localities, Schmidt (1993) provided a map of Mexican insular records, and Schwartz and Henderson (1991) included a range map showing island distribution.

• **Fossil Record.** None.

• **Pertinent Literature.** Cope (1885) considered *A. georgeensis* to be more closely allied to *A. praesignis* than to *A. lar*. Hecht (1951) provided comparative proportional measurements with *A. lar*, *A. praesignis*, and *A. titan*. Hecht (1951) also recorded tooth number and Etheridge (1965) correlated tooth number with size. Bauer and Russell (1989) discussed the form of the parafrenal bones. Weldon et al. (1993) reported dermatophagy in this species. Dunn and Saxe (1950) indicated that *A. georgeensis* is arboreal, is known to eat *Anolis*, and that individuals vocalize at night. They also reported on its parasitism by a hemogregarine, as did Ayala (1975). Hecht (1952) reported the minimal breeding size of this species. Maslin (1963) described activity and aggressive behavior, and Duellman (1965) wariness and defensive behavior. Himmelstein (1980) discussed coloration, habitat, and defensive behaviors. Habitat on Isla Cozumel was described by González-Romero and López-González (1990). Schwartz and Henderson (1991) provided an account of the general ecology of this species, its dietary habits, and vocalization. Schmidt (1993) discussed aspects of captive husbandry.

• **Nomenclatural History.** Bocourt (1873) erected the genus *Idiodactylus* for this species. Cope (1885) recognized it as a member of the genus *Aristelliger*, and Schmidt (1941) synonymized the taxa described by Bocourt (1873) and Cope (1885). Brygoo (1991) reviewed the nomenclatural history of the taxon. Hecht (1951) used the subspecific designation *A. g. irregularis* for the Cozumel population, but provided no justification.

• **Remarks.** Vernacular names for this species are "weatherman" and "scorpion" in Belize (Henderson and Hoervers, 1975), "screeching" or screaming lizard in Catalinas and San Andrés (Dunn and Saxe, 1950), and "scorpion" and "salamanquesa" in México.

• **Etymology.** The specific epithet refers to the type-locality, St. George Island, British Honduras (Belize).

Literature Cited

- Ayala, S.C. 1975. Malaria and hemogregarines from lizards of the western Caribbean islands of San Andrés and Providencia. *Rev. Inst. Med. Trop. São Paulo* 17:218-224.
- Bauer, A.M. and A.P. Russell. 1989. Supraorbital ossifications in geckos (Reptilia: Gekkonidae). *Can. J. Zool.* 67:678-684.
- Bocourt, M-F. 1873. In A. Duméril, M.-F. Bocourt, and F. Mocquard. *Études sur les reptiles*, p. 33-112. In *Recherches zoologiques pour servir à l'histoire de la faune de l'Amérique Centrale et du Mexique*. Mission Scientifique au Mexique et dans l'Amérique Centrale, recherches Zool.; part 3, sect. 1. Imprimerie au Nat., Paris.
- Boulenger, G.A. 1885. Catalogue of the lizards in the British Museum (Natural History). 2nd ed. Vol. 1. London.
- Brygoo, E.R. 1991. Les types de Gekkonidés (Reptiles, Sauriens) du Muséum national d'Histoire naturelle, Catalogue critique. *Bull. Mus. Natl. Hist. Nat.* (4)12, Ser. A(3-4) [1990] suppl.:19-141.
- Campbell, J.A. and J.P. Vannini. 1989. Distribution of amphibians and reptiles in Guatemala and Belize. *Proc. Western Found. Vert. Zool.* 4:1-21.
- Cope, E.D. 1885. A contribution to the herpetology of Mexico. *Proc. Amer. Philos. Soc.* 22:379-404.
- Duellman, W.E. 1965. Amphibians and reptiles from the Yucatan Peninsula, México. *Univ. Kansas Publ. Mus. Nat. Hist.* 15:577-614.
- Dunn, E.R. and L.H. Saxe, Jr. 1950. Results of the Catherwood-Chaplin West Indies expedition, 1948. Part V. Amphibians and reptiles of San Andrés and Providencia. *Proc. Acad. Nat. Sci. Philadelphia* 102:141-165.
- Etheridge, R. 1965. Fossil lizards from the Dominican Republic. *Quart. J. Florida Acad. Sci.* 28:83-105.
- Flores-Villela, O. 1993. Herpetofauna mexicana: annotated list of the species of amphibians and reptiles of Mexico, recent taxonomic changes, and new species. *Carnegie Mus. Nat. Hist. Spec. Publ.* (17):iv + 73 p.
- , E. Hernández García, and A.N. Montes de Oca. 1991. Catalogo de anfibios y reptiles del Museo de Zoología, Facultad de Ciencias, Universidad Nacional Autónoma de México. *Ser. Cat. Mus. Zool. "Alfonso L. Herrera"* 3:1-222.
- González-Romero, A. and C.A. López-González. 1990. Reconocimiento de la herpetofauna de la punta sur de la Isla Cozumel, Quintana Roo, México. Libro de resúmenes. I. Reunión Nacional de Herpetología. Sociedad Mexicana de Herpetología. México.
- Guibé, J. 1954. Catalogue des types de lézards du Muséum National d'Histoire Naturelle. Colas, Bayeux.
- Hecht, M.K. 1951. Fossil lizards of the West Indian genus *Aristelliger* (Gekkonidae). *Amer. Mus. Nov.* (1538):1-33.
- , 1952. Natural selection in the lizard genus *Aristelliger*. *Evolution* 6:112-124.
- Henderson, R.W. and L.G. Hoervers. 1975. A checklist and key to the amphibians and reptiles of Belize, Central America. *Milwaukee Pub. Mus. Contr. Biol. Geol.* (5):1-63.
- Himmelstein, J. 1980. Observations and distribution of amphibians and reptiles in the State of Quintana Roo, Mexico. *Bull. New York Herpetol. Soc.* 16(2):18-34.
- Lee, J.C. 1980. An ecogeographic analysis of the herpetofauna of the Yucatán Peninsula. *Misc. Publ. Univ. Kansas Mus. Nat. Hist.* (67):1-75.
- Maslin, T.P. 1963. Notes on a collection of herpetozoa from the Yucatan Peninsula of Mexico. *Univ. Colorado Stud. Ser. Biol.* (9):1-20.
- Peters, J.A. 1953. Snakes and lizards from Quintana Roo, México. *Lloydia* 16:227-232.
- Schmidt, K.P. 1941. Amphibians and reptiles of British Honduras. *Field Mus. Nat. Hist. Zool. Ser.* 22:475-510.
- Schmidt, W. 1993. Notes on *Aristelliger georgeensis*. *Dactylus* 1(4):5-7.
- Schwartz, A. and R.W. Henderson. 1991. Amphibians and reptiles of the West Indies: descriptions, distributions, and natural history. Univ. Florida Press, Gainesville.
- Smith, H.M. and E.H. Taylor. 1950. An annotated checklist and key to the reptiles of Mexico exclusive of the snakes. *Bull. U.S. Natl. Mus.* (199):v + 253 p.
- Tamsitt, J.R. and D. Valdivieso. 1963. The herpetofauna of the Caribbean islands San Andrés and Providencia. *Rev. Biol. Trop.* 11: 131-139.
- Weldon, P. J., B. J. Demeter, and R. Rosscoe. 1993. A survey of shed skin-eating (dermatophagy) in amphibians and reptiles. *J. Herpetol.* 27:219-228.

Aaron M. Bauer, Biology Department, Villanova University, Villanova, Pennsylvania 19085, USA, and Anthony P. Russell, Department of Biological Sciences, University of Calgary, Calgary, Alberta, Canada, T2N 1N4.

Primary editor for this account, Andrew H. Price.

Published 30 November 1993 and Copyright © 1993 by the Society for the Study of Amphibians and Reptiles.