

## Catalogue of American Amphibians and Reptiles.

Powell, R. 2002. *Anolis aliniger*.

*Anolis aliniger* Mertens

*Anolis chloro-cyanus aliniger* Mertens 1939:66. Type locality, "unterhalb von Paso Bajito, etwa 900 m H." (= below Paso Bajito, about 900 m elev., [Provincia de La Vega, República Dominicana]). Holotype, Natur-Museum Senckenberg, Frankfurt-am-Main (SMF) 25825, adult male, collected by R. Mertens, 2 March 1939 (not examined by author).

*Anolis aliniger*: Williams 1965:2.

• **CONTENT.** *Anolis aliniger* is monotypic.

• **DEFINITION.** *Anolis aliniger* is a moderately sized member of the *A. chlorocyanus* species group of Hispaniolan green anoles. Maximum known SVL of both males and females is 57 mm (Schwartz and Henderson 1991). Loreal rows number 3–4, scales between supraorbitals 0–1, scales between interparietal and supraorbital semicircles 2–4, postrostrals 5, and postmentals 4. Suboculars are in contact with the supralabials. Scales behind the interparietal do not grade into dorsals, instead several rows of abruptly larger scales are present. Dorsal body scales are small, granular, and flat. Middorsal scales are slightly enlarged. Ventral scales are larger than dorsals, flat, and slightly imbricate. Supradigital scales are smooth. Caudal verticils have 4 scales dorsally. Scales are absent in the axillary area.

Like other green anoles, ground color varies from brown to bright green, although the green phase in *A. aliniger* is less brilliant than that of other species in the group. A butterfly-shaped mark is occasionally present in the sacral area. A white line or mark is present on the upper lip or just below the eye. A distinct black spot is immediately behind an orange spot in the axilla. Ventral ground color is a dull green. The tail is banded with olive alternating with lighter, often cream-colored bands. The vestigial dewlap is greenish, with scales smaller than ventrals. Juveniles are a dull grayish tan and, unlike adults, do not vary from green to brown.

• **DEFINITION.** *Anolis aliniger* can be distinguished from all other Hispaniolan green anoles by the presence of an axillary spot and the absence of scales in the axilla.

• **DESCRIPTIONS.** In addition to the original description by Mertens (1939), detailed descriptions may be found in Williams (1965) and Schwartz and Henderson (1991).

• **ILLUSTRATIONS.** Black and white photographs of dorsal and lateral views of the holotype are in Mertens (1939). Line drawings were provided by Williams (1965, dorsal view of the head and axilla).

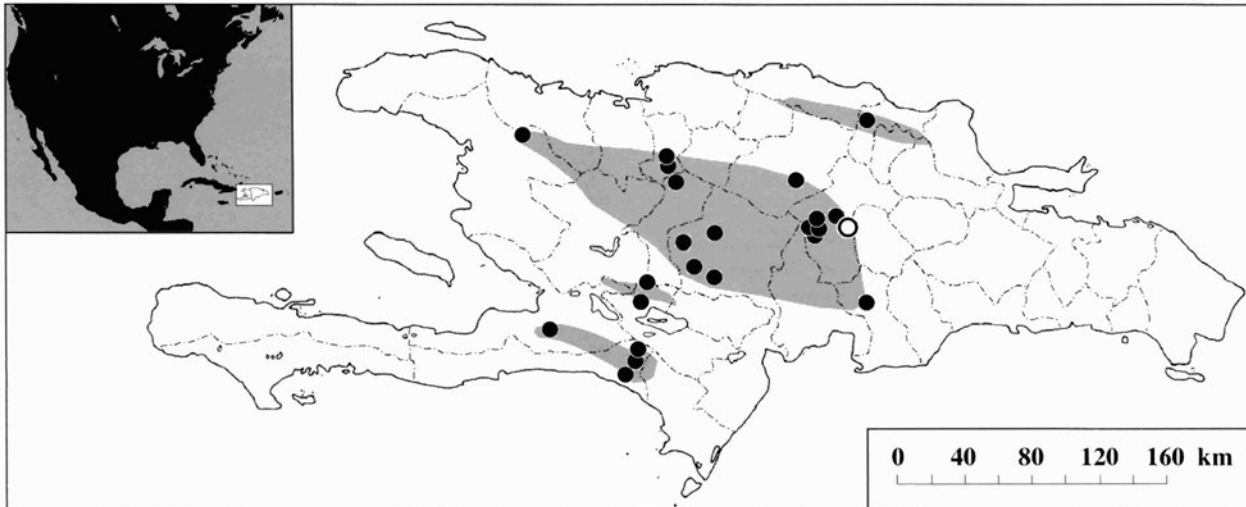
• **DISTRIBUTION.** A Hispaniolan endemic, the species is found in a variety of mesic habitats at elevations from about 500–1400 m; this results in a disjunct distribution in the Cordillera Central, Sierra de Neiba, and Cordillera Septentrional in the República Dominicana, and the Massif du Nord, Montagne Noire, and Massif de la Selle in Haiti (Schwartz and Henderson 1991). Apparently native to the North Paleoisland, this species has subsequently invaded the "South Island" (Schwartz 1969, 1980; Powell et al. 1999). The Hispaniolan range was previously illustrated in Williams (1965) and Schwartz and Henderson (1991).



FIGURE 1. Adult male *Anolis aliniger* from La Palma, Provincia de La Vega, República Dominicana (photographs by R.E. Glor).

• **FOSSIL RECORD.** de Queiroz et al. (1998) could not distinguish an anole found in Dominican amber from fossil *Anolis dominicanus* (Rieppel 1980) or extant *A. aliniger* and *A. singularis*.

• **PERTINENT LITERATURE.** References to *Anolis aliniger* are arranged by topic: **behavior** (Mertens 1946, Rand and Williams 1970), **systematics** (Williams 1965, 1976; Jackman et al. 1997, 1999; Poe 1999), **comparative morphology** (general:



**MAP.** Distribution of *Anolis aliniger* (modified from Schwartz and Henderson 1991). The circle marks the type locality and dots indicate other records. Range outlines are only estimates; apparently suitable habitat extends beyond the boundaries indicated.

Williams 1963, 1965; body size: Schoener 1969, 1970; pterygoid teeth: Williams and Rand 1969; subdigital lamellae: Glossip and Losos 1997; dewlap size: Losos and Chu 1998), **ecomorphology** (Williams 1983, Moermond 1986, Irschick and Losos 1996, Irschick et al. 1997, Jackman et al. 1997, Losos and de Queiroz 1997, Beuttell and Losos 1999), **habitat** (Williams 1972, SEA/DVS 1990), **natural history** (Rand and Williams 1969; Moermond 1981, 1983).

This species is included in guides, checklists, and notes by Williams and Rand (1969), Schwartz and Thomas (1975), MacLean et al. (1977), Williams (1977), Schwartz et al. (1978), Henderson and Schwartz (1984), Henderson et al. (1984), Schwartz and Henderson (1985, 1988, 1991), Wetherbee (1988), O'Hare and Williams (1994, see also Williams et al. 1995), Frank and Ramus (1995), Fläschendräger and Wijffels (1996), and Powell et al. (1996, 1999).

• **ETYMOLOGY.** The name *aliniger* is presumably derived from the Latin *ala*, meaning arm (or wing), and *niger*, meaning black, obviously in reference to the black axillary spot that characterizes this species.

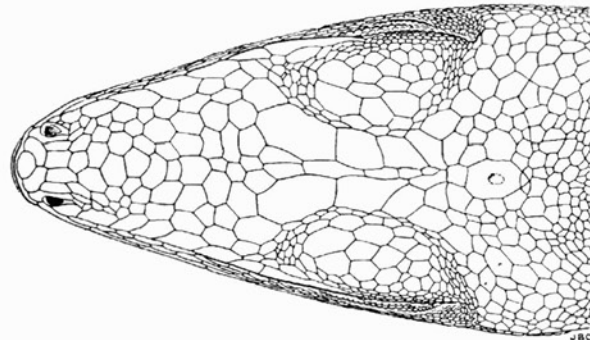
• **COMMENT.** Some older references to *Anolis aliniger* may be included under *A. chlorocyanus*.

#### LITERATURE CITED

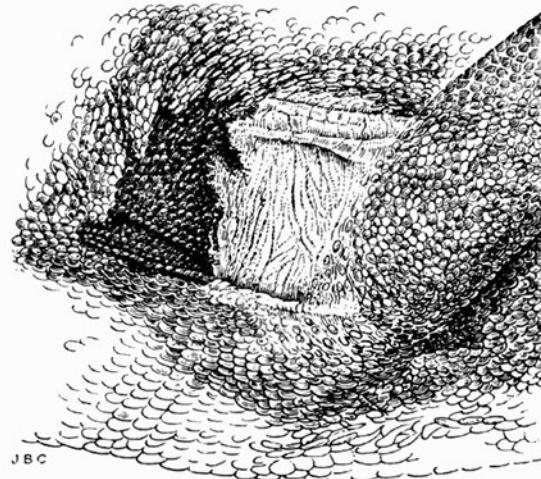
- Beuttell, K. and J.B. Losos. 1999. Ecological morphology of Caribbean anoles. *Herpetol. Monogr.* 13:1–28.
- de Queiroz, K., L.-R. Chu, and J.B. Losos. 1998. A second *Anolis* lizard in Dominican amber and the systematics and ecological morphology of Dominican amber anoles. *Amer. Mus. Novitates* (3249):1–23.
- Fläschendräger, A. and L. Wijffels. 1996. *Anolis* in Biotop und Terrarium. Natur und Tier Verlag, Matthias Schmidt, Münster.
- Frank, N. and E. Ramus. 1995. *A Complete Guide to Scientific and Common Names of Reptiles and Amphibians of the World*. NG Publ., Inc., Pottsville, Pennsylvania.
- Glossip, D. and J.B. Losos. 1997. Ecological correlates of number of subdigital lamellae in anoles. *Herpetologica* 53:192–199.
- Henderson, R.W. and A. Schwartz. 1984. *A guide to the identification of the amphibians and reptiles of Hispaniola*. Milwaukee Publ. Mus. Spec. Publ. Biol. Geol. (4):1–70.
- , —, and S.J. Incháustegui. 1984. Guía para la indentificación de los anfibios y reptiles de la Hispaniola. *Mus. Nac. Hist. Nat. Ser. Mono.* (1):1–128.
- Irschick, D.J. and J.B. Losos. 1996. Morphology, ecology, and behavior of the twig anole, *Anolis angusticeps*, p. 291–301. In R. Powell

and R.W. Henderson (eds.). *Contributions to West Indian Herpetology: A Tribute to Albert Schwartz*. SSAR Contrib. Herpetol., vol. 12. Ithaca, New York.

- , L.J. Vitt, P.A. Zani, and J.B. Losos. 1997. A comparison of evolutionary radiations in mainland and Caribbean *Anolis* lizards. *Ecology* 78:2191–2203.



**FIGURE 2.** Adult male *Anolis aliniger* (MCZ 57463) from 7 km N Carpintero, Provincia de San Juan, República Dominicana (from Williams 1965).



**FIGURE 3.** Axillary squamation of *Anolis aliniger* (MCZ 79341) from Paraje La Palma, Municipio Constanza, Provincia de La Vega, República Dominicana (from Williams 1965).

- Jackman, T.R., A. Larson, K. de Queiroz, and J.B. Losos. 1999. Phylogenetic relationships and tempo of early diversification in *Anolis* lizards. *Syst. Biol.* 48:254–285.
- , J.B. Losos, A. Larson, and K. de Queiroz. 1997. Phylogenetic studies of convergent adaptive radiations in Caribbean *Anolis* lizards, p. 535–557. *In* T.J. Givnish and K.J. Sytsma (eds.), *Molecular Evolution and Adaptive Radiation*. Cambridge Univ. Press, Oxford.
- Losos, J.B. and L.-R. Chu. 1998. Examination of factors potentially affecting dewlap size in Caribbean anoles. *Copeia* 1998:430–438.
- and K. de Queiroz. 1997. Evolutionary consequences of ecological release in Caribbean *Anolis* lizards. *Biol. J. Linn. Soc.* 61:459–483.
- MacLean, W.P., R. Kellner, and H. Dennis. 1977. Island lists of West Indian amphibians and reptiles. *Smithson. Herpetol. Info. Serv.* (40): 1–47.
- Mertens, R. 1939. Herpetologische Ergebnisse einer Reise nach der Insel Hispaniola, Westindien. *Abh. Senckenberg. Naturf. Ges.* (449):1–84 + 10 pl.
- , 1946. Die Warn- und Droh-Reaktionen der Reptilien. *Abh. Senckenberg. Naturf. Ges.* 47:1–108.
- Moermond, T.C. 1981. Prey-attack behavior of *Anolis* lizards. *Z. Tierpsychol.* 56:128–136.
- , 1983. Competition between *Anolis* and birds: a reassessment, p. 507–520. *In* A.G.J. Rhodin and K. Miyata (eds.), *Advances in Herpetology and Evolutionary Biology. Essays in Honor of Ernest E. Williams*. Mus. Comp. Zool., Cambridge, Massachusetts.
- , 1986. A mechanistic approach to the structure of animal communities: *Anolis* lizards and birds. *Amer. Zool.* 26:23–37.
- O'Hare, R.J. and E.E. Williams. 1994. The *Anolis* Handlist. Hypercard document, Mus. Comp. Zool., Harvard Univ., Cambridge, Massachusetts.
- Poe, S. 1999, p. 99–104. *In* J.B. Losos and M. Leal (eds.), *Anolis Newsletter V*. Washington Univ., St. Louis, Missouri.
- Powell, R., R.W. Henderson, K. Adler, and H.A. Dundee. 1996. An annotated checklist of West Indian amphibians and reptiles, p. 51–93 + 8 pl. *In* R. Powell and R.W. Henderson (eds.), *Contributions to West Indian Herpetology: A Tribute to Albert Schwartz*. SSAR Contrib. Herpetol., vol. 12, Ithaca, New York.
- , J.A. Ottenwalder, and S.J. Incháustegui. 1999. The Hispaniolan herpetofauna: diversity, endemism, and historical perspectives, with comments on Navassa Island. *In* B.I. Crother (ed.), *Caribbean Amphibians and Reptiles*. Academic Press, San Diego.
- Rand, A.S. and E.E. Williams. 1969. The anoles of La Palma: aspects of their ecological relationships. *Breviora* (327):1–19.
- and —. 1970. An estimation of redundancy and information content of anole dewlaps. *Amer. Nat.* 104:99–103.
- Rieppel, O. 1980. Green anole in Dominican amber. *Nature* 286:486–487.
- Schoener, T.W. 1969. Size patterns in West Indian *Anolis* lizards: I. Size and species diversity. *Syst. Zool.* 18:386–401.
- , 1970. Size patterns in West Indian *Anolis* lizards: II. Correlations with the sizes of particular sympatric species—displacement and convergence. *Amer. Nat.* 104:155–174.
- Schwartz, A. 1969. A review of the Hispaniolan lizard *Anolis coelestinus* Cope. *Carib. J. Sci.* 9:33–38.
- , 1980. The herpetogeography of Hispaniola, West Indies. *Stud. Fauna Curaçao Carib. Isl.* 61:86–127.
- and R.W. Henderson. 1985. A guide to the identification of the amphibians and reptiles of the West Indies exclusive of Hispaniola. Milwaukee Publ. Mus., Milwaukee, Wisconsin.
- and —. 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.
- and R. Thomas. 1975. A check-list of West Indian amphibians and reptiles. *Carnegie Mus. Nat. Hist. Spec. Publ.* (1):1–216.
- , —, and L.D. Ober. 1978. First supplement to a check-list of West Indian amphibians and reptiles. *Carnegie Mus. Nat. Hist. Spec. Publ.* (5):1–35.
- SEA/DVS (Secretaría de Estado de Agricultura/Departamento de Vida Silvestre). 1990. La diversidad biológica en la República Dominicana: reporte preparado por el Departamento de Vida Silvestre para el Servicio Alemán de Cooperación Social-Técnica y Fondo Mundial para la Naturaleza (WWD-US). Apendices. Sec. Estado Agric., SURENA/DVS. Sto. Domingo, República Dominicana.
- Wetherbee, D.K. 1988. The Artibonito-Massacre faunal corridor in República Dominicana. *Carib. J. Sci.* 24:23–27.
- Williams, E.E. 1963. Studies on South American anoles. Description of *Anolis mirus*, new species, from Rio San Juan, Colombia, with comment on digital dilation and dewlap as generic and specific characters in the anoles. *Bull. Mus. Comp. Zool.* 129:463–480.
- , 1965. The species of Hispaniolan green anoles (*Sauria*, Iguanidae). *Breviora* (227):1–16.
- , 1972. The origin of faunas. Evolution of lizard congeners in a complex island fauna: a trial analysis, p. 47–89. *In* T. Dobzhansky, M.K. Hecht, and W.C. Steere (eds.), *Evolutionary Biology*. Vol. 6. Appleton-Century-Crofts, New York.
- , 1976. West Indian anoles: a taxonomic and evolutionary summary 1. Introduction and a species list. *Breviora* (440):1–21.
- , 1977. Species problems, p. 132–151. *In* E.E. Williams (ed.), *The Third Anolis Newsletter*. Mus. Comp. Zool., Cambridge Massachusetts.
- , 1983. Ecomorphs, faunas, island size, and diverse end points in island radiations of *Anolis*, p. 326–370. *In* R.B. Huey, E.R. Pianka, and T.S. Schoener (eds.), *Lizard Ecology. Studies of a Model Organism*. Harvard Univ. Press, Cambridge, Massachusetts.
- and A.S. Rand. 1969. *Anolis insolitus*, a new dwarf anole of zoogeographic importance from the mountains of the Dominican Republic. *Breviora* (326):1–21.
- , H. Rand, A.S. Rand, and R.J. O'Hare. 1995. A computer approach to the comparison and identification of species in difficult taxonomic groups. *Breviora* (502):1–47.

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