

Catalogue of American Amphibians and Reptiles.

Gifford, M.E. and R. Powell. 2002. *Anolis sheplani*.

Anolis sheplani Schwartz

Anolis sheplani Schwartz 1974:4. Type locality, "13.0 mi. (20.8 km) SE Cabral, 3200 feet (976 meters), Barahona Province, República Dominicana." Holotype, National Museum of Natural History (USNM) 194015 (original number ASFS V30309), an adult male, collected by B.R. Sheplan, 29 August 1971 (not examined by authors).

• **CONTENT.** *Anolis sheplani* is monotypic.

• **DEFINITION.** *Anolis sheplani* is a small twig anole (SVL in males to 41 mm, females to 40 mm) of the *A. darlingtoni-occultus-insolitus* group with the following combination of characters (Schwartz 1974, Schwartz and Henderson 1991, N = 16): small size with strong lateral body compression, 2–3 (mode 2) rows of loreals, 0–2 (mode 1) scales between supraorbitals, 1–2 (mode 1) scales between interparietal and supraorbital semi-circles, suboculars in contact with supralabials, 2–3 (mode 3) scales between the nasal and rostral, 2–5 granular postmentals, and 4–8 postrostrals. Middorsal scales are small, smooth, and subequal, with a longitudinal series of isolated, spine-like scales separated by about 6–8 small, flat scales. Smooth ventrals are distinctly larger than dorsals, which are juxtaposed, often in poorly defined rows. The dewlap in both sexes is large and inset. Limbs are short with smooth scales, including supradigital scales. The tail is round, and nonverticillate, with a continuation of evenly spaced middorsal spines. Dorsal caudal scales are smooth to weakly uncarinate and larger than ventral body scales. Ventral caudal scales are strongly uncarinate and much larger than ventral body scales.

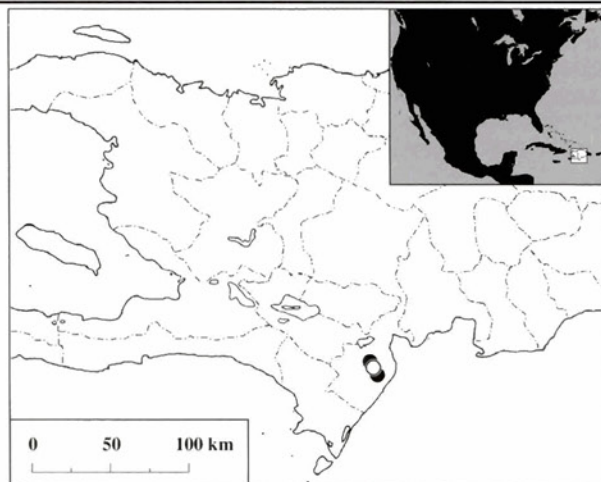
The dorsal ground color appears almost white to tan (when sleeping) to dark brown (in weak metachrosis) when active, or with a lichenate pattern involving tan and brown with a row of tiny, dark brown dots on the middorsal line. A small black to dark brown nuchal dot and a broad, dark sacral U (in the pale phase) are present. Two black lines radiate from the eye onto the temporal region. A ventral line radiates from the eye, forming 1–5 incomplete transverse, dark lines across the throat. The dewlap scales are crowded and about the same size as throat scales adjacent to dewlap. The venter is almost always white.

• **DESCRIPTIONS.** In addition to the original description by Schwartz (1974), a detailed description may be found in Schwartz and Henderson (1991).

• **ILLUSTRATIONS.** Schwartz (1974) provided line drawings of the holotype and dorsal and lateral views of the head of the holotype. Poe (1998) included a diagrammatic line drawing of the orbital rim.

• **DISTRIBUTION.** A Hispaniolan "South Paleoisland" endemic (Schwartz 1980, Powell et al. 1999), the species is found in mesic habitats at elevations from about 1,000–2,000 m in the Sierra de Baoruco, República Dominicana (Schwartz and Henderson 1991). The range was previously illustrated in Schwartz and Henderson (1991).

References to an invasion of the North Island (Schwartz 1980) are based on specimens from the Sierra de Neiba (Schwartz et al. 1978) that are no longer considered conspecific (Hedges and Thomas 1989).



MAP. Distribution of *Anolis sheplani* (modified from Schwartz and Henderson 1991). The large circle marks the type locality and dots indicate other records.



FIGURE 1. Adult male *Anolis sheplani* from 20.8 km S Cabral, Provincia de Barahona, República Dominicana, elev. 975 m (photograph courtesy of S. Blair Hedges).

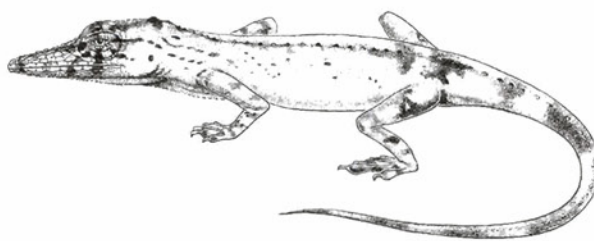


FIGURE 2. Adult male *Anolis sheplani* (USNM 194015), holotype (from Schwartz 1974).

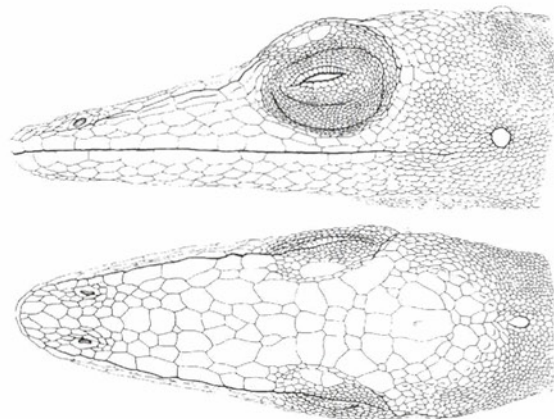


FIGURE 3. Head of *Anolis sheplani* (USNM 194015), holotype (from Schwartz 1974).

• **FOSSIL RECORD.** None.

• **PERTINENT LITERATURE.** Schwartz (1974) provided the original description. Ecomorphology was discussed in Williams (1983), Irschik and Losos (1996), Irschik et al. (1997), Jackman et al. (1997), Losos et al. (1998), and Beuttell and Losos (1999). Burnell and Hedges (1990), Jackman et al. (1997, 1999), and Poe (1998) included this species in phylogenetic studies of *Anolis* lizards. Peterson (1983) examined digital pad morphology, and Glossip and Losos (1997) included this species in an ecological study correlating the number of subdigital lamellae and habitat variables. SEA/DVS (1990) provided an index to habitats.

This species is included in guides, checklists, and notes by Schwartz and Thomas (1975), Williams (1976, 1977), MacLean et al. (1977), Schwartz et al. (1978), Henderson and Schwartz (1984), Henderson et al. (1984), Schwartz and Henderson (1985, 1988), Hedges and Thomas (1989), 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 *sheplani* is a patronym honoring the collector of the holotype.

LITERATURE CITED

- Beuttell, K. and J.B. Losos. 1999. Ecological morphology of Caribbean anoles. *Herpetol. Monogr.* 13:1–28.
- Burnell, K.L. and S.B. Hedges. 1990. Relationships of West Indian *Anolis* (Sauria: Iguanidae): an approach using slow-evolving protein loci. *Carib. J. Sci.* 26:7–30.
- 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.
- Hedges, S.B. and R. Thomas. 1989. Supplement to West Indian amphibians and reptiles: a check-List. Milwaukee Pub. Mus. Contrib. Biol. Geol. (77):1–11.
- 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. (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.
- 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. Sysma (eds.), Molecular Evolution and Adaptive Radiation. Cambridge Univ. Press, Oxford.
- Losos, J.B., T.R. Jackman, A. Larson, K. de Queiroz, and L. Rodríguez-Schettino. 1998. Contingency and determinism in replicated adaptive radiations of island lizards. *Science* 279:2115–2118.
- MacLean, W.P., R. Kellner, and H. Dennis. 1977. Island lists of West Indian amphibians and reptiles. *Smithson. Herpetol. Info. Serv.* (40): 1–47.
- O'Hare, R.J. and E.E. Williams. 1994. The *Anolis* Handlist. Hypercard document, Mus. Comp. Zool., Harvard Univ., Cambridge, Massachusetts.
- Peterson, J.A. 1983. The evolution of the subdigital pad in *Anolis*. I. Comparisons among the anoline genera, p. 245–283. 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., Harvard Univ., Cambridge, Massachusetts.
- Poe, S. 1998. Skull characters and the cladistic relationships of the Hispaniolan dwarf twig *Anolis*. *Herpetol. Monogr.* (12):192–236.
- 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. (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, p. 93–164. In B.I. Crother (ed.), Caribbean Amphibians and Reptiles. Academic Press, San Diego.
- Schwartz, A. 1974. A new species of primitive *Anolis* (Sauria: Iguanidae) from the Sierra de Baoruco, Hispaniola. *Breviora* (423):1–19.
- , 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). Apéndice. Sec. Estado Agric., SURENA/DVS. Sto. Domingo, República Dominicana.
- Williams, E.E. 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.
- , 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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