

Catalogue of American Amphibians and Reptiles.

Powell, R. and J.A. Neland. 1998. *Anolis eugenegrahami*.

Anolis eugenegrahami Schwartz

Anolis eugenegrahami Schwartz 1978:266. Type locality, "Roche Parfait, 9.0 km NE Plaisance, 215 m, Département du Nord, Haiti." Holotype, Carnegie Museum of Natural History (CM) 60515, adult male, collected by E.D. Graham, Jr., A. Schwartz, and T.M. Thurmond, 4 August 1977 (not examined by authors).

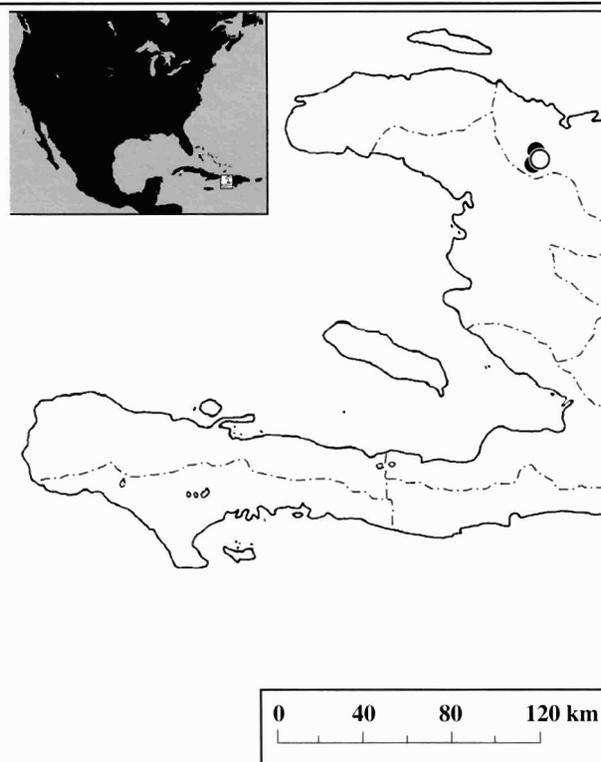
Ctenonotus eugenegrahami: Schwartz and Henderson 1988:111. See Remarks.

• **CONTENT.** No subspecies of *Anolis eugenegrahami* are recognized.

• **DEFINITION.** *Anolis eugenegrahami* is an aquatic anole of moderate size, with maximum male SVL of 72 mm and that of females to 61 mm. The head is short and moderately broad posteriorly, resulting in a distinctly short-snouted appearance. Limbs are long, tibial length in adults about 1.3 times the snout-ear distance and hind feet about 1.2 times as long as tibia. The tail is very slightly compressed laterally and its length is less than twice the SVL. Scutulation, based on 23 specimens (Schwartz 1978) consists of 2–4 scales between supraorbital semicircles, anterior supraciliary scales larger than posterior supraciliary and almost shelf-like, 5–7 loreal rows, 6–10 very small scales between interparietal and supraorbital semicircles, 13–18 "tiny" scales around the very small interparietal, nasals in contact with rostral, 4–8 postrostrals, 3–6 enlarged canthal scales with the most anterior no larger than adjacent scales, 5–7 postmentals, and one row of scales separating supralabials from suboculars. About four middorsal rows are elongate and smooth to weakly keeled, all other dorsals are very small and almost granular. Middorsal scales number 40–56 scales in the distance equal to that from snout to ear. Throat scales are elongate anteriorly, become smaller posteriorly and grade into small, smooth, cycloid ventrals that number 37–63 in snout-ear distance. Middorsal caudal scales are enlarged and spinose and with 4–5 scales per caudal verticil. Lateral caudal scales are uncarinate and about 1/4 size of the uncarinate ventral caudal scales. Scales around the vent and at the base of the tail are smooth and similar in size to trunk scales. Supradigital scales are multicarinate and subdigital lamellae number 23–29 under phalanges II and III of the fourth toe.

The hemipenes are large and with a weakly bilobed apex. The sulcate surface is smooth and the non-sulcate surface bears about four basal flounces and many small apical calyces.

Both sexes are very dark and the dorsal ground color is black or very dark gray, with that of females and occasionally males mottled with dark green. The venter in males is similarly dark with some light mottling, but that of females is pale olive to whitish. The head in males is greenish black and that of females gray with darker vermiculations. Males and females both bear a small, light subocular semicircle. Tails are lighter than the trunk and often greenish; those of females may take on a yellowish cast. Females and juveniles have a black-edged collar, four middorsal gray ovate blotches that may extend onto the tail, and banded limbs. Juveniles may have a green flank stripe bordered ventrally by four dark diagonal bars. These pattern elements are never distinct and totally absent or barely evident in males. The small male dewlap is black or very dark gray with a lighter edge.



MAP. Range of *Anolis eugenegrahami* (modified from Schwartz and Henderson 1991). The circle marks the type locality, partially obscured dots indicate the other known locality records.



FIGURE 1. Adult *Anolis eugenegrahami* (SBH 160775) from the type locality. Photograph by S. Blair Hedges.

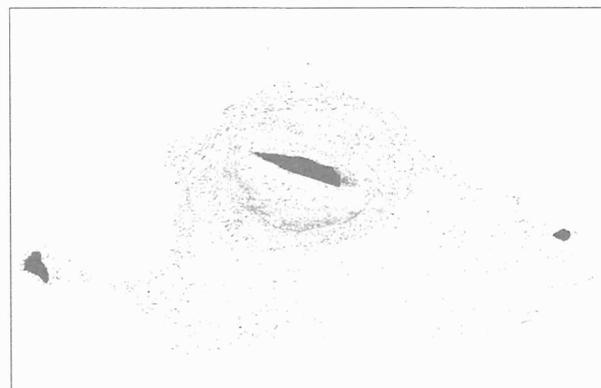


FIGURE 2. Adult female *Anolis eugenegrahami* (paratype, CM 60516).

- **DIAGNOSIS.** *Anolis eugenegrahami* may be distinguished from other Hispaniolan anoles by a combination of moderate size (male SVL to 72 mm, female SVL to 61 mm), lack of an elongated snout (which distinguishes this species from others most likely to be very dark), and basically black dorsal ground color.
- **DESCRIPTIONS.** In addition to the original by Schwartz (1978), a brief description may be found in Schwartz and Henderson (1991).
- **ILLUSTRATIONS.** The species has not been illustrated previously, but Schwartz (1978) provided a black and white photograph of the type locality.
- **DISTRIBUTION.** An Hispaniolan North Island endemic (Schwartz 1980, Powell et al. 1998), the species is known only from the vicinity of the type locality, where it was at least historically common in the immediate vicinity of boulder-strewn streams. The range was illustrated in Schwartz and Henderson (1991).
- **FOSSIL RECORD.** None.
- **PERTINENT LITERATURE.** Schwartz (1978) defined the species, discussed variation, commented on its highly aquatic habitat associations, compared this species to other "aquatic" anoles, and speculated about affinities. Schwartz and Henderson (1991) provided a summary of natural history attributes along with a brief description. Poe (1998) included *A. eugenegrahami* in a survey of rare character states used to define a "dwarf twig" clade. The species is included in checklists, guides, and keys by Schwartz et al. (1978), McCoy and Censky (1982), Henderson and Schwartz (1984), Henderson et al. (1984), Schwartz and Henderson (1985, 1988), Fläschendräger and Wijffels (1996), and Powell et al. (1996).
- **REMARKS.** In Schwartz (1978), E.E. Williams mistakenly attributed a large splenial and an arrow-shaped interclavicle to this species. Williams (1989) corrected his earlier error and noted that this species, lacking a splenial and having a T-shaped interclavicle, would have been assigned by Guyer and Savage (1986) to their residual genus *Anolis* instead of *Ctenonotus*. Based on Williams' original comments, Schwartz and Henderson (1988) had used the latter name.
Frank and Ramus (1995) suggested the common name, "Eugene's Anole," which we prefer not to use.
- **ETYMOLOGY.** The name *eugenegrahami* is a patronym honoring one of the co-collectors of the holotype.
- **ACKNOWLEDGMENTS.** Ellen J. Censky, formerly of the Carnegie Museum of Natural History, kindly provided the specimen illustrated in figure 2.

LITERATURE CITED

- Fläschendräger, A. and L. Wijffels. 1996. *Anolis* in Biotop und Terrarium. Natur u. Tier Verlag, Matthias Schmidt, Münster, Germany.
- 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.
- Guyer, C. and J.M. Savage. 1986. Cladistic relationships among anoles (Sauria: Iguanidae). Syst. Zool. 35:509–531.
- Henderson, R.W. and A. Schwartz. 1984. A guide to the identification of the amphibians and reptiles of Hispaniola. Milwaukee Pub. 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.
- McCoy, C.J. and E.J. Censky. 1982. Herpetological type-specimens in the Carnegie Museum of Natural History: supplement. Ann. Carnegie Mus. 51:317–330.
- 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. 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. 1998. Diversity, endemism, and history of Hispaniolan amphibians and reptiles. In B.I. Crother (ed.), Caribbean Amphibians and Reptiles. Academic Press, San Diego.
- Schwartz, A. 1978. A new species of aquatic *Anolis* (Sauria, Iguanidae) from Hispaniola. Ann. Carnegie Mus. 47:261–279.
- , 1980. The herpetogeography of Hispaniola, West Indies. Stud. Fauna Curaçao Other 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 Pub. 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.
- , R. Thomas, 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.
- Williams, E.E. 1989. A critique of Guyer and Savage (1986): cladistic relationships among anoles (Sauria: Iguanidae): are the data available to reclassify the anoles?, p. 433–477. In C.A. Woods (ed.), Biogeography of the West Indies: Past, Present, and Future. Sandhill Crane Press, Inc., Gainesville, Florida.

ROBERT POWELL (powellr@mail.avila.edu) and **JASON A. NELAND**, Department of Natural Sciences, Avila College, Kansas City, MO 64145.

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