

## Catalogue of American Amphibians and Reptiles.

HOLMAN, J. ALAN. 1971. *Ophisaurus attenuatus*.

***Ophisaurus attenuatus* Cope**  
Slender glass lizard

*Opheosaurus* [sic] *ventralis attenuatus* Cope, 1880:18. Type-locality, "Dallas, Texas." P. Smith (1961:163) pointed out that Cope, rather than Baird, validated the name *O. v. attenuatus*. No type-specimen designated. Neotype, U. S. Natl. Mus. 15537, a male from Cooke County, Texas, collected by G. H. Ragsdale (designated by McConkey, 1954:149).

*Ophisaurus attenuatus*: Boulenger, 1885:282. First use of combination. Neill, 1949:100.

*Ophisaurus ventralis ventralis*: Cope, 1900:497-498. See Remarks.

• CONTENT. Two subspecies are recognized: *attenuatus* and *longicaudus*.

• DEFINITION. *Ophisaurus attenuatus* is a large (maximum snout-vent length 279 mm, maximum total length 1067 mm), legless, serpentiform lizard with a distinct lateral fold. Scales along the lateral fold number 98 or more. The frontonasal is usually undivided, and the upper labials are separated from the orbit by the lorilabials. White markings are present in the centers of the dorsal scales. A distinct middorsal stripe is present, and there are stripes or areas of dark pigment below the lateral fold. Distinct vertical white neck bars are usually present. In body vertebrae the angle between the posterior border of the neural spine and the longitudinal axis of the centrum is 45 to 65 degrees. The caudal vertebrae have distinct fracture planes and secondary neural spines. The angle between the anterior border of the caudal transverse process and the longitudinal axis of the centrum is 75 to 85 degrees. Palatine teeth may be either absent or present. The hemipenis has a ridge the entire length of the organ on the medial edge of the sulcus, and another ridge that runs about one-fourth the length of the organ along the lateral side of the sulcus.

• DESCRIPTIONS. McConkey (1954) provided the most complete, non-composite description of this species, including detailed descriptions of the type-specimens of both subspecies, notes on variation in color in both subspecies, and data on variation in scutellation. Other descriptions are in Cope (1880, 1900), Burt (1928b), H. Smith (1956), and P. Smith (1961). Osteological descriptions are in Shufeldt (1882), Auffenberg (1955), and Etheridge (1960, 1961).

• ILLUSTRATIONS. Black and white photographs were provided by Hudson (1942:Pl. 6, fig. 4), H. Smith (1946:Pl. 133, c and d), McConkey (1954:Pls. 1 and 2), Carr and Goin, 1955:Pl. 53), Parmalee (1955:34), H. Smith (1956:Fig. 149), P. Smith (1961:Fig. 149), Anderson (1965:Fig. 57), and Huheey and Stupka (1967:Illus. 49). A color illustration is in Conant (1958:Pl. 14). Drawings showing scutellation were given by Cope (1900:Fig. 89), and drawings of scutellation and the hemipenis by McConkey (1954:Figs. 1c and 2a). A line drawing of *O. attenuatus longicaudus* was given by Martof (1956).

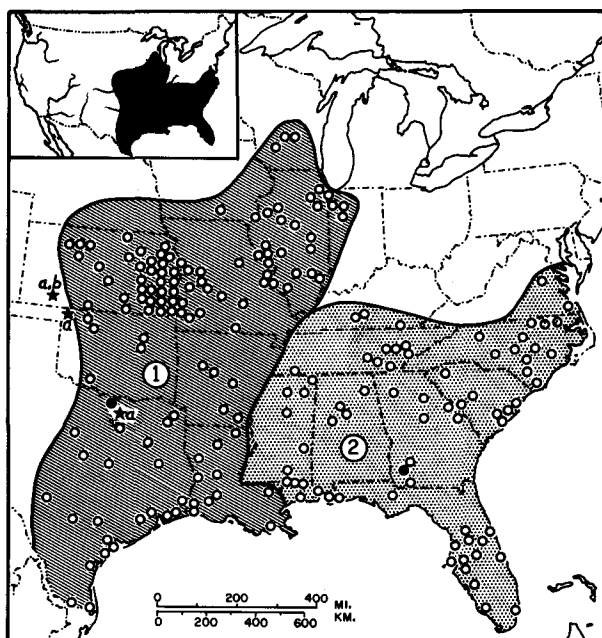
• DISTRIBUTION. This most wide-ranging of United States *Ophisaurus* occurs in the middle-western and southeastern United States westward to central Texas, Oklahoma (except the panhandle), Kansas, southern Nebraska, and south-central Iowa, and northward to southern Wisconsin, Indiana, Kentucky, and east-central Virginia, and throughout the Atlantic and Gulf coastal states. In Florida, habitats of *O. a. longicaudus* are turkey-oak and long leaf pine, live oak hammocks, broom sedge, old fields, and dry grassy areas in general. It is ecologically separated from *O. ventralis*, which prefers moister habitats, and from *O. compressus*, a species restricted to

coastal scrub or old dune scrub associations in the interior. The preferred habitat of *O. a. attenuatus* in the west is dry, grassy areas.

• FOSSIL RECORD. Etheridge (1961) reported *Ophisaurus attenuatus* from Upper Pliocene and Pleistocene (Sangamon and Illinoian) deposits in Meade County, Kansas, and (1960, 1961) from the Pleistocene (Illinoian) of Harper County, Oklahoma. Vertebrae from a Pleistocene (Sangamon) locality in Denton County, Texas, probably represent this species (Holman, 1963).

• PERTINENT LITERATURE. Behavior and ecology of *O. attenuatus* were mentioned by Blair (1961), P. Smith (1961), and Fitch (1965, 1967). Food of *O. attenuatus* was listed by Burt (1928a). Habitat preferences were discussed by Garman (1892), Hurter (1911), Force (1930), and Clarke (1958). Recent references to geographic distribution are in Hudson (1942, Nebraska), Goodman (1948, Iowa), Brown (1950, Texas), Dickinson (1950, Wisconsin), Peterson (1950, Texas), Breukelman and Clarke (1951, Kansas), Brumwell (1951, Kansas), Fitch (1952, Kansas), H. Smith and Sanders (1952, Texas), Bonn and McCarley (1953, Texas), Guidry (1953, Texas), Stains (1954, Kansas), Parmalee (1955, Illinois), Clarke (1956, Kansas), H. Smith (1956, Kansas), Clarke, Breukelman and Andrews (1958, Kansas), Duellman and Schwartz (1958, Florida), Cliburn (1959, Mississippi), LeBuff (1960, Florida), Holman (1961, Alabama), P. Smith (1961, Illinois), Collins (1962, Kentucky), Walker (1963, Louisiana), Anderson (1965, Missouri), Huheey and Stupka (1965, 1967, Tennessee and North Carolina), Fouquette and Delahoussaye (1966, Louisiana), Munyer and Parmalee (1967, Illinois), and Webb (1970, Oklahoma). Reproduction was studied by Gloyd (1928) and Fitch (1970). A size record for *O. attenuatus* was given by Huheey and Stupka (1965). Temperature responses were noted by Fitch (1956). Variation of *O. attenuatus* in Illinois was discussed by P. Smith (1961). The most comprehensive systematic account is that of McConkey (1954).

• REMARKS. For many years all United States populations of *Ophisaurus* were placed in *O. ventralis*. Boulenger (1885) recognized *O. attenuatus*, but Cope (1900) did not, and most



MAP. Solid symbols mark type-localities; hollow symbols show other locality records; stars mark fossil localities (a = Pleistocene, b = Pliocene).

authors followed Cope's arrangement until about 1950. Neill (1949) suggested that *O. attenuatus* was a distinct species, and McConkey (1952, 1954) demonstrated that three species are involved: *O. ventralis*, *O. compressus* and *O. attenuatus*.

• **ETYMOLOGY.** The name *attenuatus* is from the Latin *attenuare* (to make thin), in reference to the elongate body and tail of this species. The name *longicaudus* is from the Latin *longus* meaning long, and the Latin *cauda* (tail), in reference to the long tail of this subspecies.

### 1. *Ophisaurus attenuatus attenuatus* Cope

*Ophisaurus* [sic] *ventralis attenuatus* Cope. See species account.

*Ophisaurus ventralis sulcatus* Cope, 1900:498 (*Ophisaurus ventralis attenuatus* var. *sulcatus* Cope, 1880:18). Type-locality, "Dallas, Texas." Holotype, in "collection of E. D. Cope," present location unknown.

*Ophisaurus attenuatus attenuatus*: McConkey, 1952:2. First use of trinomial.

• **DIAGNOSIS.** This glass lizard differs from *O. attenuatus longicaudus* in the shorter unregenerated tail of the adult (less than 2.4 times snout-vent length), and in having palatine teeth.

### 2. *Ophisaurus attenuatus longicaudus* McConkey

*Ophisaurus attenuatus longicaudus* McConkey, 1952:1. Type-locality, "12 miles southwest of Newton, Baker County, Georgia." Holotype, Amer. Mus. Nat. Hist. 71305, male, collected 15 June 1948 by John W. Crenshaw (not seen by author).

• **DIAGNOSIS.** This glass lizard differs from *O. a. attenuatus* in the longer unregenerated tail of the adult (2.4 or more times snout-vent length) and in lacking palatine teeth.

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