

ADLER, KRAIG. 1965. *Plethodon longicrus*, p. 18. In W. J. Riemer (ed.), Catalogue of American Amphibians and Reptiles. American Society of Ichthyologists and Herpetologists, Kensington, Maryland.

Plethodon longicrus Adler & Dennis
Crevice salamander

Plethodon longicrus Adler & Dennis, 1962:1. Type-locality, "northeast slope of Bluerock Mountain, below the Bat Caves, Rutherford County, North Carolina, approximately 0.8 mile [1.3 km] ESE of Bat Cave (city), at an elevation of about 1645 feet [502 m]. . . ." Holotype, U.S. Natl. Mus. 145658, adult male, collected by David M. Dennis, Steve G. Tilley, and Kraig Adler, 28 August 1961.

• CONTENT. No subspecies are recognized.

• DEFINITION. This large *Plethodon* (snout-to-posterior-end-of-vent length in males up to 101 mm; females to 106 mm) has 16 costal grooves (counting one each in axilla and groin), very long legs, a high number of vomerine teeth (in adults a total of 26-58), and the dorsum of the body is black with white iridophores and flecks or blotches or both of chestnut-brown pigment (see DESCRIPTIONS).

• DESCRIPTIONS. The legs are long and well developed. In individuals up to 40 mm in snout-vent length, the adpressed limbs overlap 3-4 intercostal spaces; from 55 to 70 mm, the overlap is 1-2 spaces; and over 80 mm the overlap is 1 space, the limbs may touch, or may fail to overlap by 1 space. The number of vomerine teeth is high, increasing as the salamander grows: up to 40 mm snout-vent length teeth total 17-37 (mean [M] = 22.9, sample size [N] = 29); 55-70 mm, 25-44 teeth (M = 35.8, N = 9); over 80 mm, males 26-53 teeth (M = 37.7, N = 15), females 37-58 teeth (M = 48.2, N = 13). The tail is rounded, becoming compressed only at the tip.

Ground color is black above with white iridophores on the head, body, limbs, and tail, but heavily concentrated on the sides in large individuals. The venter is dark gray with scattered iridophores, but lighter (due to scarcity of melanophores) on the chest, tail, and at leg insertions; the cloacal lips and gular region are still lighter, the latter heavily mottled with iridophores. The soles are almost pigmentless in juveniles, pink in adults. Juveniles (28½-32 mm snout to vent) have 3 to 7 small chestnut-brown spots on the dorsum, sometimes paired, which become white and almost pigmentless in preservative. Larger individuals have flecks or blotches or both of chestnut-brown pigment (that become light in preservative) occupying from almost none to 75 percent of the dorsum of the body; flecks are occasionally present on the dorsum of the neck region and at the base of the tail. The parietal peritoneum is usually well supplied with melanophores.

Sexual dimorphism is present in adults over 80 mm in snout-vent length: 1) A protuberance on the upper lip at the base of the nasolabial groove is more pronounced in males than in females (and juveniles). 2) Females have a higher number of vomerine teeth (see above). 3) Males have a large mental gland that is wider than long and is truncate posteriorly. 4) Males are shorter (M = 92.9 mm snout to vent, N = 15) than females (M = 99.8 mm, N = 13).

Adler & Dennis (1962) give morphological and color descriptions of the 25 specimens in the type-series.

• ILLUSTRATIONS. Color drawings of the dorsum and venter of the holotype are given by Adler & Dennis (1962); the soles, however, are lighter pink than illustrated. A drawing of the mouth parts of the holotype is also given.

• DISTRIBUTION. This species is known only from a small area around the type-locality in Rutherford County, North Carolina, at elevations from 436 to 522 m. Bluerock Mountain is one of a series of peaks of intermediate height (up to 1225 m) southeast of Asheville and at the edge of the Blue Ridge Physiographic Province. Individuals are found in deep crevices and fissures or on the vertical surface of metamorphic rock outcrops (granite gneiss) that are cool (about 15° C) and

moist, but not wet. Adler & Dennis (1962) give a description of the flora and fauna at the type-locality.

• FOSSIL RECORD. None.

• PERTINENT LITERATURE. Adler & Dennis (1962) give information on morphological and color variation, sexual dimorphism, size at maturity, parasites, habits, habitat (photographs included), and relationships to other species. Wake (1963) describes some aspects of the osteology.

• REMARKS. The definition and description are based on a sample of 100 individuals, including the type-series; small juveniles are described here for the first time.

• ETYMOLOGY. The specific name is derived from the Latin *longus*, long, and *crus*, leg, in allusion to its legs, which are proportionately the longest in the genus.

The common name, crevice salamander, is proposed here because of the restriction of the species to this type of habitat, unique within the genus.

COMMENT

Adler & Dennis (1962) include *P. longicrus* in the Eastern Large *Plethodon* species-group (cf. Highton, 1962). Within this group it is most closely allied to *P. yonahlossee* Dunn, a species that is found less than 15 km to the north of the range of *P. longicrus*, but at higher elevations.

LITERATURE CITED

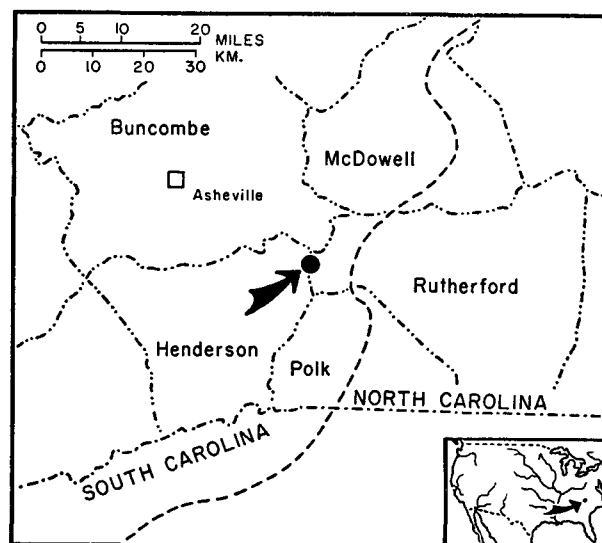
Adler, Kraig K., & David M. Dennis. 1962. *Plethodon longicrus*, a new salamander (Amphibia: Plethodontidae) from North Carolina. Spec. Publ. Ohio Herpetol. Soc., (4):1-14, pls. 1-2. [The corrected publication date is 7 May 1962.]

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KRAIG ADLER, UNIVERSITY OF MICHIGAN, ANN ARBOR, MICHIGAN.

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MAP. The solid circle marks the type-locality and total known range. The dashed line indicates the eastern edge of the Blue Ridge Physiographic Province.

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