

Catalogue of American Amphibians and Reptiles.

WILLIAMS, STEPHEN R. 1973. *Plethodon neomexicanus*.***Plethodon neomexicanus* Stebbins and Riemer
Jemez Mountains salamander**[non] *Eurycea multiplicata*: Dunn, 1926:316. Misapplication of name.

Plethodon neomexicanus Stebbins and Riemer, 1950:73. Type-locality, "12 miles west and 4 miles south of Los Alamos, 8750 ± feet, Sandoval County, New Mexico." Holotype, male, Mus. Vertebrate Zool. (Univ. California, Berkeley) 49033, collected by R. C. Stebbins, 14 August 1949 (not examined by writer).

- CONTENT. This is a monotypic species.

- DEFINITION. Adult: The dorsal ground color is dark brown but ventral pigmentation is so reduced that it appears almost transparent. Brassy iridophores are moderate on the dorsal surface and tail. Females average 55.5 mm and males 54.4 mm snout-vent length. Sexual maturity is reached at about 50 mm snout-vent length. This is a slender, elongate species with 18 to 19 (rarely 20) costal grooves and 19 to 20 (rarely 21) trunk vertebrae. The tips of adpressed limbs are separated by 6.0 to 8.5 costal grooves. The fifth digit on the hind foot contains one to two phalanges although the second one is often greatly reduced. Vomerine teeth number 10 to 20. Premaxillary-maxillary teeth range from 46 to 65 (Brodie and Altig, 1967).

Juvenile: The young may have a brassy dorsal stripe. The smallest known is 17 mm snout-vent length. According to Brodie and Altig (1967) juveniles have smaller ranges of numbers of vomerine and premaxillary-maxillary teeth.

- DESCRIPTIONS. A detailed description is given by Stebbins and Riemer (1950); morphological variation by Brodie and Altig (1967); and osteology by Wake (1963, 1966). Brodie (1968) found no mental glands in mature males. Important information on the species is summarized by Highton (1962) and Stebbins (1951, 1954). Two peduncled egg clusters laid in the laboratory averaged seven eggs per clutch and the outer egg capsule averaged 6.9 mm in diameter (Williams, 1972a).

- ILLUSTRATIONS. Stebbins and Riemer (1950) and Stebbins (1954) provide black and white drawings of adults, and Stebbins and Riemer (1950) offer black and white drawings of the head showing ocular pigmentation and of skeletal elements of the right fore and right hind feet. Stebbins (1951, 1966) presents colored drawings of adults, and Shaw (1971, 1972) has color photos.

- DISTRIBUTION. The species is found at elevations of from 7200 to 9200 feet (2190–2800 m) in the Jemez Mountains of Los Alamos and Sandoval counties, New Mexico. The habitat is mixed coniferous forest with the following trees: white fir (*Abies concolor*), Rocky Mountain maple (*Acer glabrum*),

Englemann spruce (*Picea engelmannii*), blue spruce (*Picea pungens*), ponderosa pine (*Pinus ponderosa*), aspen (*Populus tremuloides*), and Douglas fir (*Pseudotsuga menziesii*). Two black-and-white habitat photographs are offered by Stebbins and Riemer (1950).

The salamanders are found primarily on north-facing slopes under rocks and in and under rotting logs.

The map published here corrects inaccuracies in another published map (Reagan, 1972) and provides additional localities.

- FOSSIL RECORD. None.

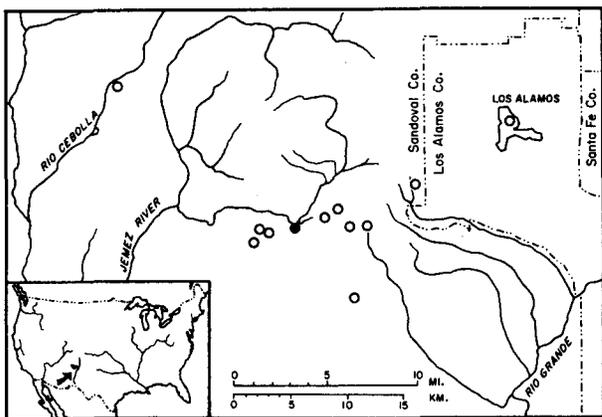
- PERTINENT LITERATURE. Stebbins and Riemer (1950) provide most of the information known on *P. neomexicanus*. Biogeography is discussed by Blair (1958); parasites by Panitz (1967); and physiological responses to temperature and desiccation by Whitford (1968). Macgregor and Walker (1973) gave chromosome numbers ($N = 13, 14$). Reagan (1972) provides additional localities and habitat descriptions. Williams (1972a, 1972b) studied reproduction and ecology. Popular articles by Shaw (1971, 1972) treat conservation.

- ETYMOLOGY. The specific name *neomexicanus* is a Greek-Latin combination referring to the State of New Mexico.

- REMARKS. Mating occurs in July and August; oviposition takes place between August and the following spring; and hatching commences in mid to late July. Based on size classes, sexual maturity is probably reached after 2 to 3 years in males and after 3 years in females. Females oviposit every other year, and only gravid females take part in mating (Williams, 1972a). Eggs are probably laid underground.

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MAP. The solid circle marks the type-locality. Hollow symbols indicate other localities.

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S. R. WILLIAMS, UNIVERSITY OF NEW MEXICO, ALBUQUERQUE, NEW MEXICO 87131.

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