

WILPLIFE NOTES

Jemez Mountains salamander Plethodon neomexicanus

The Jemez Mountains salamander is the sole member of its biologic family in the Jemez Mountains. (The only other salamander there is the tiger salamander, Ambystoma tigrinum.) The black and yellow coloration of adults, and the gills of juveniles and sub-adults, readily distinguish tiger salamanders. Jemez Mountains salamanders have a hairline furrow from the nostril to the edge of the upper lip. There are clusters of teeth at the back of the roof of the mouth. Some lizards superficially resemble salamanders, but they have toenails and are scaled and dry to the touch, while salamanders lack toenails and are moist.

This salamander has along body, with small fore and hind limbs. Adults are generally brown with fine, brassy flecks. Throats and under tails are lighter. This species has distinct grooves, usually 19, on each side. The total length is 1 1/2 inches to 4 1/ 2 inches, of which about half is tail.

The Jemez Mountains Salamander is native to north-central New Mexico. This species has

been found in various localities in the Jemez Mountains in Sandoval, Los Alamos, and Rio Arriba counties.

This salamander typically lives on shady, wooded sites at elevations of 7,500 to 9,500 feet. In these habitats, characterized by coniferous trees, salamanders spend much of their time under and in fallen logs. Old, stabilized talus slopes, especially those with a good covering of damp soil and plant debris, are important types of cover for this species.

Jemez Mountain salamanders lack lungs and obtain oxygen directly through the skin. The skin is very thin and must be moist for breathing to occur and dryness is quickly fatal. Their normal food consists of insects and other small invertebrates, including mites and spiders. Mating takes place in July and August, with egg development occurring between then and the following spring. The eggs are presumably laid underground, and hatching commences in middle to late July. Sexual maturity is probably reached after two to three years in males and after three years in females. Females can produce eggs every other year.

Although the species is quite numerous in places, habitat alternation continues to be a major threat ti its existence. In particular, any activity that creates drier conditions can be harmful to these salamanders, including timber harvest, other clearing of vegetation, and forest fires. Tree loss due to disease may also degrade habitat, although spraying of toxic chemicals to prevent this could be equally threatening.

Protection or restoration of the cool, moist, and shaded habitats of this species is essential to its conservation. At a minimum, tracts of suitable habitat should be retained in all areas of the Jemez Mountains where the species is known or may occur.

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The shading is where the Jemez Mountains salamander regularly occurs.

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