

**California Wildlife Habitat Relationships System**  
**California Department of Fish and Wildlife**  
**California Interagency Wildlife Task Group**

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ENSATINA

*Ensatina eschscholtzii*

Family: PLETHODONTIDAE  
A012

Order: CAUDATA

Class: AMPHIBIA

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#### DISTRIBUTION, ABUNDANCE, AND SEASONALITY

Rare to common in suitable habitat throughout the length of the Sierra (west slope), in mountainous portions of northern California, chiefly west of the Sierra-Cascade crest, and coastally, the entire length of the state. Some isolated populations exist. Most common in redwood habitats, but also found in a variety of other coniferous habitats including ponderosa pine, Douglas fir and mixed conifer as well as in montane hardwood and hardwood-conifer habitats and mixed chaparral. Elevation ranges from sea level to over 3050 m (10,000 ft) on Mt. San Geronimo in the San Bernardino Mts.

#### SPECIFIC HABITAT REQUIREMENTS

**Feeding:** Most feeding appears to occur at night during wet periods. Food consists primarily of spiders, insects (especially collembolans, coleopterans, camel crickets, termites, and ants), millipedes, centipedes, and sowbugs (Stebbins 1954).

**Cover:** During the moist periods of fall, winter, and spring precipitation, individuals seek cover under surface objects such as logs and boards, rocks, and to a lesser extent, moist leaf litter. Salamanders retreat to rodent burrows or other moist places underground as surface moisture declines in summer. They may also retreat from the surface in winter at higher elevations (Stebbins 1954), although individuals have been collected mid-winter in the Sierra at 1472 m (4770 ft) under logs covered by 30 cm (12 in) of snow.

**Reproduction:** Eggs are usually found on moist surfaces under or within decaying logs, under pieces of bark, or in moist rock fissures (Stebbins 1954). One egg cluster was found inside the nest chamber of a mountain beaver (Storer 1925).

**Water:** This species prefers moist, but not saturated, soils and loses body water rapidly on dry substrates (Cohen 1952). Periods of surface activity are strongly correlated with fall, winter, and spring precipitation.

**Pattern:** No additional information.

#### SPECIES LIFE HISTORY

**Activity Patterns:** Nocturnal surface activity during periods of fall, winter and spring precipitation.

**Seasonal Movements/Migration:** Retreats to rodent burrows or other subterranean cover in summer, and possibly during the cooler periods of winter at higher elevations.

**Home Range:** Marked individuals have been found to move less than 60 m (195 ft) from

the point of initial capture. Males appear to have home ranges about twice as large as females (Stebbins 1954). It is assumed that the area of surface activity occurs over, or in proximity to, the area of subterranean activity. Subterranean activity is probably minimal.

**Territory:** Males are not known to be territorial. Females brood eggs and may defend an area in the immediate vicinity of the eggs from some types of predators (Stebbins 1954).

**Reproduction:** Sexual activity extends over most of the period of surface activity. This species has an elaborate courtship (Stebbins 1949). Eggs are usually laid near the end of the period of surface activity. Clutch size varies from 3 to 25 (Stebbins 1954 and references therein). Females brood eggs and may help keep them moist with mucous secretions from the skin. Males are occasionally found near brooding females.

**Niche:** Pacific giant salamanders, red-legged frogs, garter snakes, rubber boas, and Steller's jays have all been observed to kill ensatinas. Stebbins (1954) listed the following "probable" predators: beetle larvae, Jerusalem crickets, arboreal salamanders, ringneck snakes, sharp-tailed snakes, white-footed mice, shrews, raccoons, and bears. Ensatinas (especially juveniles) may compete for food resources with slender salamanders wherever their ranges overlap.

#### REFERENCES

- Cohen, N. W. 1952. Comparative rates of dehydration and hydration in some California salamanders. *Ecology* 33:462-479.
- Stebbins, R. C. 1949. Courtship of the plethodontid salamander *Ensatina eschscholtzi*. *Copeia* 1949:274-281.
- Stebbins, R. C. 1954. *Amphibians and reptiles of western North America*. McGraw-Hill, New York. 536pp.
- Storer, T. I. 1925. A synopsis of the Amphibia of California. *Univ. Calif. Publ. Zool.* 27:1-342. behavior of newts compared to other California salamanders.

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Life history accounts for species in the California Wildlife Habitat Relationships (CWHRR) System were originally published in: Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. *California's Wildlife*. Vol. I-III. California Department of Fish and Game, Sacramento, California. Updates are noted in accounts that have been added or edited since original publication.