

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

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SIERRA NEWT                      *Taricha sierrae*  
Family: SALAMANDRIDAE      Order: CAUDATA              Class: AMPHIBIA  
A075

Written by: S. Morey  
Reviewed by: T. Papenfuss  
Updated by: CWHR Staff May 2013 and Dec 2018

#### DISTRIBUTION, ABUNDANCE, AND SEASONALITY

The Sierra newt is found the length of the Sierra, primarily in the foothills; an isolated population also occurs near the headwaters of Shasta Reservoir in Shasta Co. A few populations are also known from the floor of the Central Valley. Occurs primarily in valley-foothill hardwood, valley-foothill hardwood-conifer, coastal scrub and mixed chaparral, but is also known from annual grassland and mixed conifer types. Elevation range extends from near sea level to about 1830 m (6000 ft) (Jennings and Hayes 1994).

#### SPECIFIC HABITAT REQUIREMENTS

Feeding: Postmetamorphic juveniles and terrestrial adults take earthworms, snails, slugs, sowbugs, and insects (Stebbins 1972). Adult males at breeding ponds have been shown to take the eggs and hatching larvae of their own species (Kaplan and Sherman 1980) late in the breeding season, the eggs of other amphibians and trout, as well as adult and larval aquatic insects, small crustaceans, snails, and clams (Borell 1935). Aquatic larvae eat many small aquatic organisms, especially crustaceans.

Cover: Terrestrial individuals seek cover under surface objects such as rocks and logs, within hollowed out trees, or in mammal burrows, rock fissures, or human-made structures such as wells. Aquatic larvae find cover beneath submerged rocks, logs, debris, and undercut banks.

Reproduction: Eggs are laid in small firm clusters on the submerged portion of emergent vegetation, on submerged vegetation, rootwads, unattached sticks, and on the underside of cobbles off the bottom. Breeding and egg-laying occur in intermittent streams, rivers, permanent and semi-permanent ponds, lakes and large reservoirs. The eggs are normally laid in shallow water attached to submerged twigs or rocks, while those in intermittent streams are often deposited in the deepest part of the stream

Water: Rainfall is important in the maintenance of breeding ponds and streams in some localities. Newts will swim in rapids of larger streams (Stebbins 1985), though adults will often temporarily leave the stream and are found walking alongside the stream when flows are extreme during or immediately following a major rainfall event. Water loss during the terrestrial portion of the life cycle may be somewhat reduced by the development of a thickened and relatively unvascularized skin (Cohen 1952).

Pattern: Optimum habitats are in or near streams in valley-foothill hardwood and hardwood-conifer habitats.

#### SPECIES LIFE HISTORY

Activity Patterns: Terrestrial individuals are relatively inactive in subterranean refuges most of the year. Migrations to and from breeding areas usually occur at night during, or just following, rains. Some migration also takes place on foggy or cloudy days. Breeding adults and aquatic larvae are active both day and night. Exhibit high site fidelity to specific locations within a stream (Vance 2000).

Seasonal Movements/Migration: The first rains of fall usually initiate migration to breeding localities. Once at the breeding sites, adults become aquatic and may remain in or near these ponds and streams for several weeks, though females depart immediately after breeding. Males arrive first and depart last at the breeding sites. Adults migrate back to subterranean refuges in the spring, where they spend the summer aestivating. Migrations are delayed until as late as May at higher elevations of the Sierra. Larvae normally transform in the summer or fall of their first year. Twitty et al. (1967) reported that juveniles of the related species, *T. rivularis*, move very little during the first few months after metamorphosis. The inactive juveniles probably remain in moist areas under objects near breeding ponds or streams until they nest in spring or summer.

Home Range: Little or no movement occurs during dry periods (late spring to the first rains of fall). Migrations to and from breeding sites may occasionally exceed 1000 m (3300 ft), but few individuals move that far.

Territory: Not territorial

Reproduction: Breeding and egg-laying may extend from fall through late spring depending on the locality. Females lay many small round clusters of eggs up to 3.5 cm (1.4 in) in diameter. The number of eggs laid by a female in a single season is unknown.

Niche: Adults consume the eggs of *Ambystoma* and *Rana*, but whether they compete with other amphibians for food or other resources is unknown. All newts of the genus *Taricha* possess a potent skin toxin called "tetrodotoxin" (Brodie et al. 1974). The eggs and the skin of both adults and aquatic larvae contain this toxin and are, therefore, protected from most predators. This may account for the diurnal behavior of newts compared to other California salamanders.

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