

California Wildlife Habitat Relationships System

California Department of Fish and Wildlife

California Interagency Wildlife Task Group

COAST RANGE NEWT

Family: SALAMANDRIDAE
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Taricha torosa pop. 1

Order: CAUDATA

Class: AMPHIBIA

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DISTRIBUTION, ABUNDANCE, AND SEASONALITY

The coast range newt occurs commonly in the Coast Ranges from Monterey County, south to northern San Diego Co. Populations are also known from the Peninsular Ranges of San Diego Co. South to the vicinity of Boulder Creek (Stebbins 1985). 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 1830m (6000 ft) (Jennings and Hayes 1994). Coastal populations south of Monterey Bay were formerly considered *T. t. torosa* (Riemer 1958). Genetic work from Kuchta and Tan (2006) has shown that while the species is not evolutionary independent, it is still a distinct population because of genetic differentiation and geographic isolation. Due to habitat loss, this population is listed as a Species of Special Concern by CDFW.

SPECIFIC HABITAT REQUIREMENTS

Feeding: Postmetamorphic juveniles and terrestrial adults take earthworms, snails, slugs, sowbugs, and insects (Stebbins 1972). Adults at breeding ponds have been shown to take the eggs and small larvae of their own species (Kaplan and Sherman 1980), 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, or in mammal burrows, rock fissures, inside the bases of standing trees, or human-made structures such as wells. Aquatic larvae find cover beneath submerged rocks, logs, debris, leaf packs in pools in streams, and root mats along undercut banks (Sweet 2018).

Reproduction: Eggs are laid in small clusters on the submerged portion of emergent vegetation, on submerged vegetation, and on the underside of rocks 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.

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). 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 cloudy days. Breeding adults and aquatic larvae are active both day and night.

Seasonal Movements/Migration: The first rains of fall usually initiate migration to breeding localities. Once at the breeding sites, adults may remain in or near these ponds and streams for several weeks. Males typically remain in the water for weeks or months and develop thick, shiny skin with a diffuse black stripe along their side and enlarged tail fins, whereas females go to the water only to mate and lay eggs, leaving within a short time after that (Sweet 2018). Multiple clutching by females is likely but not proved. Adults may migrate back to subterranean refuges in the spring, where they spend the summer aestivating. Alternatively, many adults do not immediately return to land after breeding, but spend much of the summer in the aquatic habitat and only return to land in fall and winter (Kats 2018). 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, but may overwinter. 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, but they often accompany breeding adults into pools. To the N of Monterey California newts frequently breed in ponds, but to the south nearly all

populations breed in streams (Sweet 2018).

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. Frequently adults often return to the same breeding site (Kats 2018).

Territory: Not territorial, but breeding males may compete intensely for access to females (Sweet 2018).

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. Larvae generally metamorphose in late summer at 4-8 months of age, but where high quality aquatic habitat persists they may overwinter and metamorphose at an age of 15-20 (Sweet 2018). Neoteny 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. The amount of tetrodotoxin present varies widely across the species' range (Sweet 2018). This defense may account for the diurnal behavior of newts compared to other California salamanders.

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