

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

CALIFORNIA GIANT SALAMANDER

Dicamptodon ensatus

Family: DICAMPTODONTIDAE
A004

Order: CAUDATA

Class: AMPHIBIA

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DISTRIBUTION, ABUNDANCE, AND SEASONALITY

California giant salamanders are year-round residents of north-central California, from southern Santa Cruz Co. to extreme southern Mendocino and Lake Cos. They occur up to 2,160 m (6,500 ft) primarily in humid coastal forests, especially in Douglas fir, redwood, red fir, and montane and valley-foothill riparian habitats (Stebbins 1972). They live in or near streams in damp forests, and California giant salamanders tend to be common where they occur (Stebbins 1985). Aquatic adults and larvae are found in cool, rocky streams and occasionally in lakes and ponds (Nussbaum and Clothier 1973). On the basis of genetic evidence, Good (1989) separated *D. ensatus* from the Oregon giant salamander (*D. tenebrosus*) which occurs to the north. The life histories and habitat requirements of the two species are probably very similar.

SPECIFIC HABITAT REQUIREMENTS

Feeding: Terrestrial adults search for prey such as snails, slugs, other invertebrates, small mice, shrews, possibly reptiles, and other amphibians under surface objects and in tunnels underground (Nussbaum et al. 1983, Stebbins 1985). Aquatic adults and larvae eat aquatic invertebrates, fish, and other amphibians (Antonelli et al. 1972).

Cover: Aquatic adults and larvae hide within spaces between rocks in streambeds. Terrestrial adults are found under surface litter and in tunnels underground (Nussbaum et al. 1983, Stebbins 1985).

Reproduction: Eggs are laid during spring in concealed locations several feet below the surface in cold, slowly flowing water in springs, channels, under streambanks, and beneath rocks and coarse woody debris in stream bottoms (Nussbaum et al. 1983, Stebbins 1985).

Water: Water, preferably cold and flowing, is necessary for egg-laying sites and for the aquatic larval and adult forms (Nussbaum et al. 1983, Stebbins 1985).

Pattern: Usually found in cool, moist, forest habitat and associated with rocky streams and springs (Hawkins et al. 1983, Stebbins 1985).

SPECIES LIFE HISTORY

Activity Patterns: Primarily nocturnal, but may also be active during daytime (Nussbaum et al. 1983, Stebbins 1985). The seasonal activity pattern is unknown.

Seasonal Movements/Migration: Adults have been observed active on rainy nights moving toward streams.

Home Range: No data on home range. Densities of 87 larvae per 30 linear m (100

ft) of stream have been reported (Nussbaum and Clothier 1973).

Territory: Not known to be territorial.

Reproduction: Breeds from March to May, with peak in May. Adults have been found associated with nests (Nussbaum 1969). Where permanently flowing streams are available, adults may retain gills for an aquatic adult stage (neoteny). In some areas, larvae will transform to terrestrial adult form after 1 to 2 years (Nussbaum et al. 1983).

Niche: This species is preyed upon by the water shrew (*Sorex palustris*) (Nussbaum and Maser 1969) and the western aquatic garter snake (*Thamnophis couchi*) (Lind and Welsh 1990). Adults cannibalize larvae (Nussbaum and Clothier 1973).

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