

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

SOUTHERN TORRENT SALAMANDER

Rhyacotriton variegatus

Family: RHYACOTRITONIDAE
A005

Order: CAUDATA

Class: AMPHIBIA

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DISTRIBUTION, ABUNDANCE, AND SEASONALITY

This species occurs in coastal forests of northwestern California south to Point Arena in Mendocino Co. (Jennings and Hayes 1994) and is common in prime habitat. It is found primarily in cold, well-shaded permanent streams and spring seepages (Behler and King 1979) in redwood, Douglas fir, mixed conifer, montane riparian and montane hardwood-conifer habitats (Stebbins 1951, Anderson 1968). Its elevational range extends from near sea level to about 1200 m (3940 ft) (Jennings and Hayes 1994).

SPECIFIC HABITAT REQUIREMENTS

Feeding: Feeds on small insects and spiders.

Cover: Found among pebbles and rocks within streams and seepage areas.

Reproduction: Two nest sites were discovered within small cracks in sandstone in the mouth of a spring. Water flowed slowly through the cracks and over the eggs (Nussbaum 1969).

Water: Permanent cold streams and seepages are required throughout the year.

Pattern: This species occurs in cold, well-shaded permanent streams and seepages in shady coastal forests. On land it normally occurs only within the splash zone or on moss-covered rock rubble with trickling water.

SPECIES LIFE HISTORY

Activity Patterns: Transformed adults are difficult to collect between May and September (Nussbaum and Tait 1977), indicating a possible summer aestivation period.

Seasonal Movements/Migration: None.

Home Range: Larvae stay within a 2 m (6.6-ft) diameter area. In the Coast Range of Oregon, average larval density was 12.9 per m² (1.2 per ft²) in one stream.

Territory: Not known to be territorial.

Reproduction: Courtship occurs through an extended period between October and July, with a peak egg-laying period probably in spring or early summer (Nussbaum and Tait 1977). Eggs, laid communally, hatch in 210-290 days and larvae feed for 70-85 additional days while the remaining large stores of yolk are absorbed (Nussbaum and Tait 1977). Clutch sizes range from 2-16. Parental care is probably lacking (Nussbaum 1969). Sexual maturity is reached 1.0-1.5 years after metamorphosis, at 4.5-5.0 years.

Niche: Two garter snakes (*Thamnophis sirtalis* and *T. ordinoides*) and California giant salamanders are potential predators (Nussbaum and Tait 1977).

REFERENCES

- Anderson, J. D. 1968. *Rhyacotriton*, and *R. olympicus*. *Cat. Am. Amphibians and Reptiles* 68.1-68.2.
- Behler, J. L., and F. W. King. 1979. *The Audubon Society field guide to North American reptiles and amphibians*. Alfred Knopf, New York. 743pp.
- Jennings, M. R. and M. P. Hayes. 1994. *Amphibian and reptile species of special concern in California*. California Department of Fish and Game. Rancho Cordova 255 pp.
- Nussbaum, R. A. 1969. A nest site of the Olympic salamander *Rhyacotriton olympicus* (Gaige). *Herpetologica* 25:277-278.
- Nussbaum, R. A., and C. K. Tait. 1977. Aspects of the life history and ecology of the Olympic salamander, *Rhyacotriton olympicus* (Gaige). *Am. Midl. Nat.* 98:176-199.
- Stebbins, R. C. 1951. *Amphibians of western North America*. Univ. California Press, Berkeley. 538 pp.

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