

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

AQUATIC GARTERSNAKE

Thamnophis atratus

Family: NATRICIDAE
R078

Order: SQUAMATA

Class: REPTILIA

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DISTRIBUTION, ABUNDANCE, AND SEASONALITY

Locally common, the aquatic gartersnake occurs in the Coast Ranges from the Oregon border south to central Santa Barbara County, at elevations from sea level to 1,920 m (6,000 ft). It is absent from the Salinas Valley (Rossman et al. 1996). Rossman and Stewart (1987) demonstrated that *T. atratus* is a species distinct from *T. elegans*. Associated with permanent or semi-permanent bodies of water, especially shallow, rocky creeks and swiftly flowing streams, in a variety of habitats including coastal oak woodlands and coastal chaparral (Rossman et al. 1996). May be active at any time of year, but most commonly found from April through July.

SPECIFIC HABITAT REQUIREMENTS

Feeding: Generally quite aquatic, these gartersnakes forage primarily in and along streams taking fishes, especially trouts and sculpins, and amphibians and amphibian larvae (Lind and Welsh 1994). Small mammals and invertebrates such as leeches and earthworms are also taken (Fitch 1941, Nussbaum et al. 1983).

Cover: The preferred nocturnal retreats of this active diurnal snake are thought to be holes, especially mammal burrows, crevices, and surface objects. During the day this gartersnake often basks on streamside rocks or on densely vegetated stream banks. When disturbed it usually retreats rapidly to water. In milder areas mammal burrows and surface objects such as rocks and rotting logs serve as winter refuges.

Reproduction: Courtship and mating normally occur in late March and April (Fitch 1940). Young are born alive, usually in secluded sites such as under the loose bark of rotting logs or in dense vegetation near pond or stream margins.

Water: No information on water requirements. This species is normally found in the immediate vicinity of permanent or semi-permanent sources of water.

Pattern: Associated with permanent or semi-permanent bodies of water in a variety of habitats.

SPECIES LIFE HISTORY

Activity Patterns: An active diurnal snake. During the warm days of summer most activity occurs during the morning and afternoon. During the cooler weather of spring and fall, and at higher elevations, snakes restrict their activity to the warm afternoons. On warm days during winter snakes have been observed to emerge and bask in the sun at the entrance of hibernacula (Stebbins 1985).

Seasonal Movements/Migration: Aquatic gartersnakes in California

may migrate at inland montane localities to winter hibernacula. Elsewhere in the state migration is not expected.

Home Range: The nature of the home range of gartersnakes in California is not well known. There is likely considerable overlap in the home ranges of neighboring individuals as snakes can be located every few meters along suitable shorelines.

Territory: Not thought to be territorial. Although this species is not well studied, other gartersnakes have not been observed exhibiting behaviors suggesting territoriality.

Reproduction: Courtship and mating occur in the spring soon after emergence. Three to 12 young are born from late August to October (Rossman et al. 1996).

Niche: Aquatic garter snakes are taken as prey by mammals, birds, and other snakes despite the release of a repulsive musk from the postanal glands of disturbed individuals. Their competitive relationships with other snakes (especially other gartersnakes) are not well understood.

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