

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

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TWO-STRIPED GARTERSNAKE

*Thamnophis hammondi*

Family: NATRICIDAE  
R080

Order: SQUAMATA

Class: REPTILIA

Written by: T. Kucera

Reviewed by:

Edited by:

Updated by: CWHR Program Staff, September 2000

#### DISTRIBUTION, ABUNDANCE, AND SEASONALITY

The two-striped gartersnake has been removed from the *T. couchii* complex and elevated to species rank (Rossman and Stewart 1987). It is distributed from the southeastern slope of the Diablo Range and the Salinas Valley south along the South Coast and Transverse ranges to the Mexican border, and on Santa Catalina Island (Jennings and Hayes 1994). Historically common, it is associated with permanent or semi-permanent bodies of water in a variety of habitats from sea level to 2,400 m (8,000 ft). It is now gone from about 40% of its historical range (Jennings and Hayes 1994). This species has been little studied ecologically; much life history information has been extrapolated from other gartersnakes.

#### SPECIFIC HABITAT REQUIREMENTS

**Feeding:** Highly aquatic, two-striped gartersnakes forage primarily in and along streams taking fishes, especially trout and sculpins and their eggs, and amphibians and amphibian larvae. Small mammals and invertebrates such as leeches and earthworms are also taken (Fitch 1941, Nussbaum et al. 1983, Rathburn et al. 1993).

**Cover:** The preferred nocturnal retreats of this active diurnal snake are thought to be holes, especially mammal burrows, crevices, and surface objects (Rathburn et al. 1993). During the day this garter snake 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 soon after spring emergence. Young are born alive in the late summer, usually in secluded sites such as under the loose bark of rotting logs or in dense vegetation near pond or stream margins (Cunningham 1959, Rossman et al. 1996).

**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 bordered by dense vegetation 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 may emerge and bask in the sun at the entrance of hibernacula (Jennings and Hayes 1994).

**Seasonal Movements/Migration:** Two-striped gartersnakes in California may show seasonal habitat differences. Rathburn et al. (1993) found that in summer snakes occupied streamside sites; in winter, they

occupied nearby uplands.

Home Range: Summer home ranges of 7 snakes averaged 1,500 m<sup>2</sup> (range 80-5,000 m<sup>2</sup>); winter home ranges of 3 snakes averaged 3,400 m<sup>2</sup> (range 50-9,000 m<sup>2</sup>; Rathburn et al. 1993).

Territory: Not territorial.

Reproduction: Courtship and mating occur in the spring soon after emergence. One to 25 young are born in late summer and fall; neonates have been observed from late August through November (Rathburn et al 1993).

Niche: Two-striped gartersnakes may be taken as prey by mammals, birds, and other snakes (Jennings and Hayes 1994). Their competitive relationships with other snakes (especially other garter-snakes) are not well understood. Although somewhat more aquatic, the range, habitats, and food habits of this species overlap considerably with those of the common gartersnake (*T. sirtalis*) and the terrestrial gartersnake (*T. elegans*) (Stebbins 1985).

Comments: The two-striped gartersnake is now common only in eastern San Diego County (Jennings and Hayes 1994). Populations have been affected by the elimination of natural sloughs and marshy areas, loss of riparian habitat through agricultural practices and urban development, predation by introduced bullfrogs, fishes, and feral pigs, and loss of amphibian prey (Jennings and Hayes 1994).

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Life history accounts for species in the California Wildlife Habitat Relationships (CWHR) System were originally published in: Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Department of Fish and Game, Sacramento, California. Updates are noted in accounts that have been added or edited since original publication.