

Explore the Watershed A Tempting Serpent

Scientific name: *Thamnophis atratus zaxanthus*

Common name: Diablo Range gartersnake

Often during a warm spring morning, while hiking or leading a workday at the Fern Ravine picnic area, I glimpse a small, bright, yellow- or orangish-striped snake quickly slithering from a patch of sun-flecked ground into the adjacent wetland or creek. This striking serpent is the endemic Diablo Range gartersnake, a subspecies of aquatic gartersnake that frequents creeks, ponds, wetlands, and adjacent uplands here in the Sausal Creek Watershed and in other parts of central and southern California.

If I am quick enough to capture one for closer inspection, I will certainly, and most deservedly, be the recipient of foul-smelling feces expelled from the snake's cloaca and musk from its anal glands. This defensive tactic often accomplishes its intended goal: the snake's immediate release by a potential predator or inquisitive biologist.

The species name reflects its general habitat and appearance: the genus *Thamnophis* derives from the Greek *thamnos*, meaning shrub or bush; *ophis* means serpent. The Latin species name *atratus* translates as "clothed in black," or "in mourning," referring to the dark color of the snake's back and head, and the Greek *za-* (intense) and *-xanthus* (yellow) describe the distinctive striped color pattern.



Diablo Range gartersnake emerging from the cover of downed redwood bark at Fern Ravine

Highly aquatic, the Diablo Range gartersnake eats small frogs and salamanders and their larvae, as well as fish and invertebrates, including slugs and leeches. In the Bay Area their diet comprises mostly native amphibians, most notably the Sierran tree frog, *Pseudacris sierra* (see Further Reading). Gartersnakes bear live young in late summer and fall.

The Diablo Range gartersnake is most active during spring through fall. Wetlands, oak woodlands, and redwood forest riparian areas at Fern Ravine provide a mosaic of high-quality habitat for this species. The wetlands and creek support amphibians, the gartersnake's preferred food. Dense stands of cattails, rushes, and fallen logs, as well as branches and bark from redwoods provide escape cover and resting habitat for these snakes. They also use openings within adjoining oak woodlands and grassy uplands as basking sites. Visitors at Fern Ravine can help protect this beautiful reptile and other native animals by not walking in the wetland and leaving undisturbed logs and downed piles of wood and bark on the forest floor.

--Dr. Robert Leidy, Ecologist, U.S. Environmental Protection Agency



Emergent wetlands at Fern Ravine provide ideal foraging habitat and food items, such as frogs and their larvae

Further Reading:

To learn more about the Diablo range gartersnake:

Daniel L. Preston and Pieter T. J. Johnson. 2012. *Importance of Native Amphibians in the Diet and Distribution of the Aquatic Gartersnake (*Thamnophis atratus*) in the San Francisco Bay Area of California*. Journal of Herpetology 46(2):221-227.

To learn about the Sierran tree frog in the Sausal Creek Watershed, see the December 2017 FOSC newsletter at www.sausalcreek.org > Get in Touch > Newsletter and Listserv.