

Santa Cruz Garter Snakes in the Wild and in Captivity

By Tim Spuckler

It all started over 20 years ago. I was at a bookstore while on a lunch break from work when I saw the new publication *Snakes of North America – Western Region* by R.D Bartlett and Alan Tennant. On the lower right corner of the book was an image of a snake that caught my eye – a bright orange-striped reptile that otherwise was all black. I'd never seen anything like it before. Thus started my quest to find what is known as the Santa Cruz Garter Snake (*Thamnophis atratus atratus*).

Living only in California, the Santa Cruz Garter Snake fills the niche that Water Snakes occupy in the Eastern United States – they tend to be found along the edges of waterways and eat mostly amphibians and fish. This species is only found in three counties. Like the water snakes from my home state of Ohio, if startled on shore, it readily takes to the water, dives, and can remain submerged for quite some time.



This is pond in the Santa Cruz Mountains is a spot where I have seen a fair number of Coast and Santa Cruz Garters. Wild Santa Cruz Garter Snakes basking at the edge of the pond in the Santa Cruz Mountains. A wild Santa Cruz Garter Snake basking on cattails in the pond.

Although not particularly variable, there is a three-striped version of this snake in addition to the commonly seen single striped variety. In both types, the ground color is usually very dark, but the one-striped morph lacks lateral stripes. Its belly is bluish or greenish, but in some cases it can be bright orange. White flecking is often present on or between the dark scales on the snake's sides.



A three-striped example that I found in Santa Cruz County along railroad tracks. This is the more "standard" look - a wild one-striped example from the Santa Cruz Mountains. This species often exhibits white flecking on its dark scales.

My field observations have been that examples found in the southern part of their range have an olive background color, while those found in the northern part of their range have an almost black background color. For the single-striped variety, the dorsal stripe can vary from pale yellow to bright orange and in some cases can be quite wide.



Examples from Santa Cruz County (the southern end of their range) tend to have olive backgrounds, like this example. A specimen from San Mateo County (the northern end of their range) with a dark background and thin dorsal stripe.

Most adults range 18 to 28 inches long and unlike some other garter species, they can be rather heavy-bodied. Adult males tend to be thinner and shorter than adult females.

It was only in 1987 that *Thamnophis atratus* was recognized as a separate species. In older literature this species, together with other west coast species, was treated as a subspecies or synonym of the “catch-all taxa” *Thamnophis elegans*, *ordinoides* or *couchii*.



A huge wild female Santa Cruz Garter Snake in the Santa Cruz Mountains. Another nicely marked wild example of this fine serpent.

The Santa Cruz is one of the three subspecies of Aquatic Garter Snakes, which also includes the Oregon Garter Snake (*Thamnophis atratus hydrophilis*) and the Diablo Range Garter Snake (*Thamnophis atratus zaxanthus*). Despite its “aquatic” name, some populations show more terrestrial tendencies than others.

Although often associated with rocky creeks, I have also found these reptiles around the edges of ponds and even in spots well away from a permanent water source. Indeed, my first encounter with a Santa Cruz Garter Snake was underneath a piece of bark on a fallen tree in Big Basin Redwoods State Park in Santa Cruz County in July of 2007.

In San Mateo County, I have often found them out basking with Coast Garter Snakes (*Thamnophis elegans terrestris*) while walking along the edges of waterways. In Santa Cruz County, I have not only found them in the same habitat as (*Thamnophis elegans terrestris*) but I have found them sharing space with San Francisco Garter Snakes (*Thamnophis sirtalis tetrataenia*) as well. It's thrilling to encounter these three species of garter snakes while on a hike.



A wild example from Santa Cruz County that the author found on Easter Sunday in 2021.

A boldly marked example that the author found in the Santa Cruz Mountains in April of 2023.

While finding my first example of this species in the wild was rewarding, I had my heart set on finding the single-stiped variety, like the one that was on the cover of the book that I now owned. It wasn't until two years later, in April of 2009, that I "struck gold." It was not in the most "natural" of habitats, as there was construction going on nearby, but I decided to walk the perimeter of a rectangular, concrete man-made pond that had no vegetation around it for cover. To my surprise, a young male Santa Cruz Garter Snake was basking on the concrete. I went back to the same site later that week and to my greater surprise, a female was nearly in the very same spot. Thus began my adventures with keeping and breeding Santa Cruz Garter Snakes.



The author's semi-natural set-ups for his garter snakes.

Santa Cruz Garter Snakes basking in their enclosure. These snakes appreciate an overhead light.

I keep my adult garters in semi-natural set-ups, with dirt substrate covered with dried leaves. The enclosures have live plants, rocks, hide areas and a water dish. I provide an overhead light for basking and an under-tank heat mat under one of their hide spots. The floor space of the enclosure for a pair of snakes is 60 cm x 30 cm. Although this species is considered to be semi-aquatic, it should not be kept in a damp or moist environment and the enclosure should have a screen top for good ventilation.

Aside from their fish-centric diet, their care and breeding is straightforward and similar to that of other garter snakes. My enclosure provides a heat gradient that they can use either while hidden (under-tank heat mat) or basking (incandescent light). I keep my lights on a timer starting at 8 hours when the snakes come out of winter cooling and advancing to 12 hours by mid-June, before gradually going back to 8 hours of light by mid-November.



An adult female captive bred Santa Cruz Garter Snake – they can be quite hefty.

A neat green-headed Santa Cruz Garter Snake in the author's collection.

Winter cooling goes from late November to mid-February. The snakes are kept in their enclosures with no heat and whatever natural light is present. Winter cooling temperatures vary, but average about 15C. I tend to keep my Santa Cruz Garter Snakes in pairs year-round and breeding is often observed not only in early spring, but also in late summer after my females have given birth.



A Santa Cruz County locality snake with her offspring. A Santa Clara County locality snake with her offspring.

This species averages 8 offspring and so far my record has been 14 babies from one litter. Babies feed almost immediately on live feeder guppies placed in their water dish and from there they are converted to chopped silversides. Adults will often eat fish-scented hairless mice, but I always have fish as the main part of their diet.



A wide-striped and orange-striped Santa Cruz Garter Snake produced by the author.

This is my favorite garter snake. It's always exciting to encounter this boldly marked serpent in the field and it is a rewarding and easy-to-reproduce pet snake.

Tim Spuckler has been breeding snakes for over 30 years and has many photos of the snakes he's worked with as well as his field outings on his webpage: www.thirdeyeherp.com