

Local Amphibians Provide an Educational Opportunity: Part II

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My daughter's class (currently being held virtually) had an assignment to describe an encounter with an animal. She mentioned the assignment to me and I suggested to write about her first salamander encounter (Fig. 1. Garden Slender Salamander, *Batrachoseps major*; encounter described in Clark and Hagen 2017). She thought that was a great idea and provided the details in class. Her teacher thought it would be a neat experience to go back to the location of the original find and see if the salamanders were still there. Motivated with this suggestion we headed to the local *Eucalyptus* forest in an attempt to find salamanders again. We soon discovered that the forest was in the process of being cut down and cleared to make way for agriculture. We flipped several pieces of downed logs and other debris but alas no salamanders were found.

The following day, we decided to visit the Santa Margarita River Trail Preserve in northern San Diego County, CA, only a few miles away from our original discovery location (Fig. 2). According to the Wildlands Conservancy website, "In 2018, The Wildlands Conservancy acquired five miles of the oak- and sycamore-shaded Santa Margarita River, one of the last free-flowing wild rivers in Southern California and the southernmost range of steelhead trout. This 1,384-acre water-blessed property is part of the vulnerable South Coast Ecoregion that is recognized as one of the Earth's 25 global hotspots of threatened biodiversity" (Wildlands Conservancy 2021). The well-marked trail runs along the river's edge and we enjoyed a cool afternoon of low impact hiking. About an 1/8 mile from the trailhead we decided to gently roll over a couple logs and within a few seconds we detected two Garden Slender Salamanders. We took special care to not harass the salamanders; we snapped a photo and placed the log back the way we found it. The Wildlands Conservancy website clearly states to not disturb wildlife or plants just for a "better look." We were happy to discover a population of salamanders occupying protected habitat. We submitted our observation to the citizen science app *iNaturalist*.

My daughter's "animal encounter" assignment has even more meaning now knowing that the salamanders occur in additional areas and will likely continue to thrive even



Fig. 1. Garden Slender Salamander (*Batrachoseps major*) as found under a log, San Diego Co., CA. Photo by Howard Clark.

though other occurrence locations are being converted into unsuitable land cover. Although according to the IUCN (International Union for Conservation of Nature) Red List of Threatened Species (Parra-Olea et al. 2008) the *Batrachoseps major* species is stable and "Least Concern," the Desert Slender Salamander subspecies (*Batrachoseps major aridus*) is federally listed as "endangered" and occurs within a limited area in Riverside County, CA (USFWS 2009).

Literature Cited

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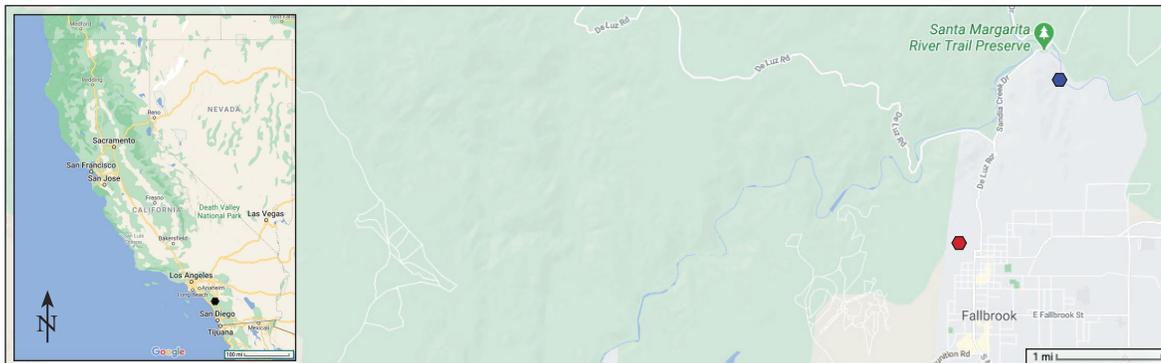


Fig 2. Garden Slender Salamander (*Batrachoseps major*) localities, San Diego Co., CA. Red polygon marks 2017 locality and blue polygon marks 2021 locality. Black dot on inset map indicates general location of study sites. Maps generated from Google Maps.