



A coastal population of Large-blotched *Ensatina* (Caudata: Plethodontidae: *Ensatina eschscholtzii klauberi*) in Baja California, México

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Abstract: A new population of *Ensatina eschscholtzii klauberi* in the San Quintín volcanic field, Baja California, represents the first coastal population of this taxon. This record extends the range ca. 71 km southwest of the southernmost record of *E. e. klauberi* in the Sierra San Pedro Mártir and represents the first population discovered outside of coniferous and pine-oak woodlands.

Key words: salamander, distribution, habitat, volcanic field, San Quintín

The Large-blotched *Ensatina* (*Ensatina eschscholtzii klauberi* Dunn 1929) is a medium-sized plethodontid salamander (Petranka 1998) and one of four salamanders found in Baja California, México (Grismer 2002). *Ensatina e. klauberi* ranges disjunctly from the eastern Transverse Ranges of southern California, USA, southward through the northern Peninsular Ranges in Baja California, México, with isolated montane populations in the San Bernardino, San Jacintos, Santa Rosas, Palomars, Hot Springs, Cuyamacas, and Lagunas in the United States and the Sierra Juárez and Sierra San Pedro Mártir in México (Jackman and Wake 1994; Mahrtdt et al. 1998; Heim et al. 2005; Devitt et al. 2013). It is a part of the wider-ranging *E. eschscholtzii* complex that has been treated by some as multiple subspecies and others as different species (Tilley et al. 2012). Within its range, *E. e. klauberi* inhabits moist evergreen and mixed conifer forests and oak woodlands (Hammerson et al. 2004), at elevations from 520 to 2,400 m (Jennings and Hayes 1994; Mahrtdt et al. 1998), and is commonly found under rocks, logs and other debris (Stebbins 2003).

We discovered a coastal population of *Ensatina eschscholtzii klauberi* at Volcán Riveroll, in the San Quintín volcanic field, Baja California (30.49008° N,

116.01576° W, elevation 70 m), which represents the first population recorded from habitat other than coniferous and pine-oak woodlands. This population was first reported by Devitt et al. (2013), who used genetic samples from Volcán Riveroll as part of a broader analysis of *E. e. klauberi*. In this report, we expand on the details of the discovery and provide a description of the population and its possible origins.

The San Quintín volcanic field lies along the Pacific coast of Baja California, about 260 km south of the U.S. border and consists of late Pleistocene to Holocene volcanic complexes (Storey et al. 1989; Luhr et al. 1995). The volcanic field contains xenoliths of upper mantle peridotites and lower crustal granulites making it unique within Baja California (Luhr et al. 1995). The vegetation at the site is comprised of coastal succulent scrub species (González-Abraham et al. 2010) dominated by *Rhus integrifolia*, *Aesculus parryi*, *Encelia californica*, *Euphorbia misera* and *Selaginella bigelovii* (Figure 1).



Figure 1. Habitat of the coastal population of *Ensatina eschscholtzii klauberi* in the San Quintín volcanic field, Baja California, México, located 3 km from the Pacific Ocean. Photo by Dustin Wood.