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NATURAL HISTORY NOTES

Notes on a Mount Lyell Salamander Observed near Nevada Falls, Yosemite National Park, California

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Charles L. Camp first discovered the Mount Lyell Salamander (*Hydromantes platycephalus*) in 1915 at the head of Lyell Cañon in Yosemite National Park (Camp, 1916). Two salamanders were caught in snap traps originally set for small mammals. Camp describes the type locality in his field notes dated July 18, 1915, as "…a large rock outcropping in a patch of heather (100 ft. in dia.) on a steep hillside (east-facing slope) above the Donahue Pass trail at 10,800 ft. … Although this heather patch lies directly in the sun almost all day, there is still snow about it and it is practically surrounded by rockslides on a bar rocky slope" (Adams, 1942, p. 191).

From 1933 to 1938, nearly 200 Mount Lyell Salamanders were collected from the top of Half Dome, Yosemite National Park, Mariposa County, and deposited in the Museum of Vertebrate Zoology (MVZ; Adams, 1942). Between 1950 and 1954, 13 salamanders were collected from Vernal Falls, Glacier Point, and Camp Curry within the Half Dome Quadrangle and deposited in the MVZ by R.C. Stebbins and J. Gorman (California Natural Diversity Database, 2008). In addition to the records above, the MVZ reports a specimen found on the south side of Vernal Falls in a small cave at the same elevation of the top of the falls, along the Merced River below Little Yosemite Valley, in Yosemite National Park from 30 March 2000. On 13 and 18 July 2004, four salamanders were observed on the east side of Vogelsang Lake, in Yosemite National Park. On 24 July 2004, two additional specimens were observed at the base of Bridal Veil Falls within Yosemite, in the spray zone just west of a pool. In total, the MVZ has 400 records of Mount Lyell Salamanders throughout their range, extending from ca. 39º 35'N from the north to 36º 25'N in the southern portion of their range (Wake and Papenfuss, 2005).

During the late evening of 9 September 2006, we observed one adult *Hydromantes platycephalus* (8.8 cm snout to vent; see Storer, 1925) along the edge of the trail leading away from Nevada Falls, elevation ~1830

Mount Lyell Salamander (*Hydromantes platycephalus*). Photo by Howard O. Clark, Jr.

m (UTM 11S 276352E 4177983N NAD83/WGS84; Fig. 1). The salamander was active outside of its usual reported near-surface activity range (early May to late August; Adams, 1942; Jennings and Hayes, 1994). The trail ran along a north-facing granite slope with snowmelt seeping/dripping along the rock face, which are common habitat attributes for this species (Stebbins, 2003). Flora microhabitat consisted of ferns, moss, and various wildflowers along the edge of the trail associated with decomposed granite devoid of humus. Further analyses of the MVZ data indicate that the usual near-surface activity range of May to August as reported in the literature may not be necessarily accurate. In addition to our observation in September, the museum reports observations of five salamanders

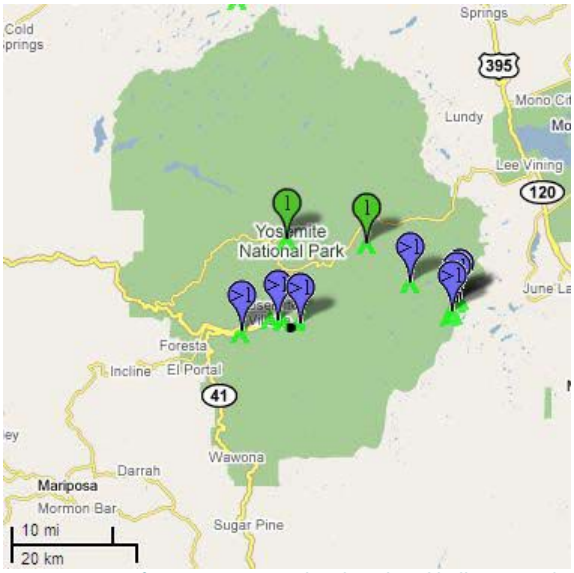

Figure 1. Map of Yosemite National Park. Colored balloons mark Mount Lyell Salamander MVZ records. Blue markers with ">1" note that more than one salamander was present. The Black dot marks the authors' observation on 8 September 2006.

active near Vernal Falls on 5 November 1950 and one salamander active on 25 April 1954 at Cathedral Rocks. Jennings and Hayes (1994) noted that adults are susceptible to human intrusion during favorable years; however, our observation took place along a busy hiking trail. Two other reports from the MVZ took place along trails: on 29 May 1953 a salamander was observed 480 m west southwest along the trail of Vernal Falls, and another specimen was seen along Lodge Trail on 3 June 1951, 400 m northwest of Lodge, Glacier Point.

The Mount Lyell Salamander is currently a Species of Special Concern in California (California Department of Fish and Game, 2008), and a better understanding of the specific habitat requirements required for its survival is a necessary condition for proper conservation. The observation of the species along trails may be a significant factor in future management considerations (Wake and Papenfuss, 2005). Our observation was submitted to the California Natural Diversity Database along with Fig. 1. We thank R.W. Hansen and C. Painter for providing additional comments on the manuscript.

The Mount Lyell Salamander is currently a Species of Special Concern in California, and a better understanding of the specific habitat requirements required for its survival is a necessary condition for proper conservation.

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