

## Recent observations of porcupines in El Dorado County, California

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Porcupines (*Erethizon dorsatum*) have been in decline in parts of western North America including Mexico, Arizona, and Montana (List et al. 1999, Mally 2008, Brown and Babb 2009), and may also be declining in California (CSERC 2011, Weiser 2012). Porcupine populations often follow a boom or bust cycle over the course of decades (Spencer 1964); in California, populations of porcupines increased greatly from the early 1900s to the 1970s (Yocum 1971), and then appear to have declined since the 1990s. Population declines at the local level have been linked to changes in habitat, as well as predation by mountain lions (*Puma concolor*) or fishers (*Martes pennanti*) (Earle and Kramm 1982, Sweitzer et al. 1997, Brown and Babb 2009). In California, it is unclear why porcupine numbers appear to have been dropping in recent decades, but potential reasons include changes in habitat, poisoning, and their low reproductive potential (Weiser 2012).

Road mortalities have long been used by field biologists to aid in understanding local animal populations (Case 1978). Road-killed animals also contribute data on distribution and, in extreme situations, have provided evidence that animals are not extinct (Boles et al. 1994). Here we provide two incidental records of road-killed porcupines in El Dorado County, California. One record (38° 39' 19" N, 121° 04' 18" W) was recorded in March 2010 near the town of El Dorado Hills, and the other (38° 31' 41" N, 120° 57' 20" W) in May 2011 near the town of Latrobe.

Informal questioning of other California Department of Fish and Game employees has resulted in few recent observations of porcupines, and an inter-agency survey by the Central Sierra Environmental Resource Center (CSERC) conducted in 2011 tallied only 22 porcupine sightings in the central and southern Sierra Nevada — 8 of which were road-killed individuals (CSERC 2011). Our two road-killed porcupines are among the few recent records from the central valley region, along with sightings from Fresno and Madera counties (Laurendine et al. 1996). Despite concerns expressed by government agencies and non-

governmental organizations, little is known about the population or current distribution of porcupines in California; porcupines previously have not been identified as a mammal of special concern in the state (Williams 1986).

Porcupines have long been considered a nuisance species because they damage trees and crops (Woods 1973) and, while funding has been traditionally available for their control, there has been little available for the study of population dynamics. Thus, research is encouraged on porcupine populations in California, particularly given the apparent downward trend in numbers (CSERC 2011, Weiser 2012). Moreover, we encourage biologists and members of the public to report future sightings to the California Department of Fish and Game, through the California Natural Diversity Database (submit sightings at [http://www.dfg.ca.gov/biogeodata/cnddb/submitting\\_data\\_to\\_cnddb.asp](http://www.dfg.ca.gov/biogeodata/cnddb/submitting_data_to_cnddb.asp)), as well as reporting sightings in the Sierra Nevada Mountains to the Central Sierra Environmental Resource Center (submit sightings at [http://www.cserc.org/main/news/news\\_briefs/porcupine\\_survey.html](http://www.cserc.org/main/news/news_briefs/porcupine_survey.html)).

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