

**White-eared pocket mouse, *Perognathus alticola alticola****Philip V. Brylski*

**Description:** This is a small pocket mouse with TL from 142 to 198 mm and tail length from 70 to 106 mm. No weights are available. *P. alticola* belongs to the *parvus* group of pocket mice, and is distinguished from silky pocket mice (e.g., *P. longimembris*) by its larger body mass, coarser pelage, a longer tail relative to the body, and a lobed antitragus of the outer ear.

**Taxonomic Remarks:** *P. a. alticola* is one of two subspecies of the white-eared pocket mouse (the other is *P. a. inexpectatus*, another Class I taxon). These two subspecies and *P. xanthonotus* are Pleistocene relicts of *P. parvus*. Sulentic's (1983) examination of the systematics of these taxa found that *alticola* is weakly differentiated from *parvus olivaceus*, *xanthonotus* based on skull morphology and morphometrics. There are no genetic or chromosomal data available for *alticola*.

**Distribution:** Historic range was reported by Grinnell (1922) to be the Transitional Life Zone of the Tehachapi and San Bernardino mountains. Specimens have been collected from Strawberry Peak and Squirrel Inn in the San Bernardino Mountains between 1920 and 1933, at elevations from 1615 to 1830 m. The known localities occur within a 4 km radius (Sulentic 1983). Grinnell (1908) reported a partly eaten specimen of what may have been *P. a. alticola* at Sugarloaf Mountain, elevation 7,500 ft (2,288 m), but the specimen was not preserved. No specimens have been collected since, despite intensive survey efforts (Huckaby and Sulentic 1981, 1980).

**Life History:** Due to the difficulty of finding populations of the white-eared pocket mouse, there is virtually no information available on its life history. It is likely to hibernate from November to March or April, and breed from emergence until July or August, as do other members of the *parvus* group. The specimens found in museums were collected between June and October, with the majority of these captured in September and October. This indicates a highly restricted period of activity owing to the extreme conditions in high elevation habitats, and possibly a seasonal receptivity to trapping.

The food habits of the white-eared pocket mouse are unstudied. Like the Great Basin pocket mouse (*P. parvus*), they are expected to be mainly granivorous, and vegetation and insects may become important diet elements in spring and summer (Jameson 1954, Kritzman 1974).

**Habitat:** *P. a. alticola* was discovered in bracken fern (*Pteridium aquilinum*) and grassy flats with an overstory of yellow pine forest (Grinnell 1933). Based on the habitat affinities of *P. a. inexpectatus* and *P. parvus*, the species potentially occurs in chaparral, sagebrush scrub and pinyon juniper woodlands. However, the species has not been recorded in these habitats.

**Status:** Class I. The species has not been observed since 1933, despite intensive surveys by Huckaby and Sulentic (1981, 1980). These surveys appropriately focused on historic localities containing ponderosa pine/bracken fern habitat in and around the historic localities in the San Bernardino Mountains. Additional survey efforts in sagebrush and pinyon pine-juniper habitats on the northern slopes of the San Bernardino Mountains and in the Big Bear Basin are needed before the species is evaluated for listing as Threatened or Endangered. The species' distribution is largely within a private inholding within the San Bernardino National Forest. Although the species is apparently threatened with extinction, there are no known populations, and the proximate threats (as opposed to the vegetational changes associated with long-term drying trends in the region) are unknown. At this time, it is appropriate to maintain its current status as a Species of Special Concern, pending discovery of a population. The data on one or more extant populations would

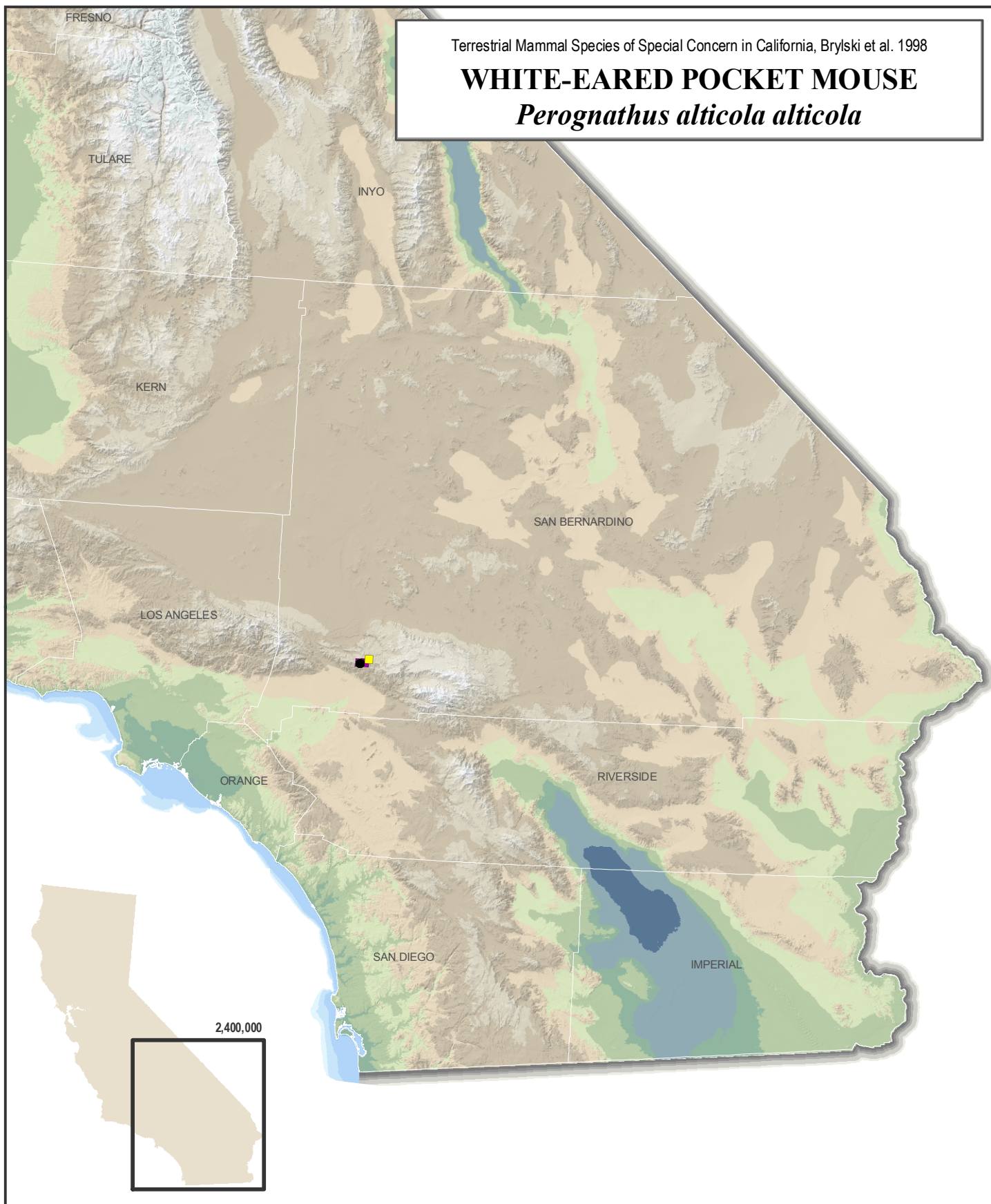
influence the approach of future survey efforts and lead to a status review.

**Management Recommendations:** Additional surveys should be conducted in sagebrush and pinyon pine-juniper habitats on the northern slopes of the San Bernardino Mountains and in the Big Bear Basin. In *P. parvus*, the period of seasonal activity of high elevation populations is shorter compared to lower elevation populations (Zeiner et al. 1990). Although the activity patterns of *alticola* are unknown, it may be prudent to focus survey efforts in late July through August, when activity is likely to persist and when population numbers are likely to be highest (after annual recruitment). Biologists with the San Bernardino National Forest, which contains the known localities for *P. a. alticola* and additional potential habitat, are aware of the importance of locating and protecting extant populations (R. Butler and S. Lowe pers. comm), and should undertake field surveys the resources to do so become available.

Terrestrial Mammal Species of Special Concern in California, Brylski et al. 1998

## WHITE-EARED POCKET MOUSE

*Perognathus alticola alticola*



- Locations verified by authors  
(captures, observations, museum records)

■ CNDDDB 1979 -1998

■ CNDDDB 1978 and before