

Tehachapi pocket mouse, *Perognathus alticola inexpectatus*

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Description: This is a small pocket mouse with TL from 165 to 185 mm and TAL from 87 to 98 mm. Dorsal pelage is yellow-brown lined with blackish hairs. The tail is bicolored. Weights for seven adults in the MVZ collection averaged 22 g (range, 18-29.3 g). This pocket mouse is distinguished from sympatric non-heteromyid rodents (e.g., *Peromyscus*) by the presence of external, fur-lined cheek pouches. *P. alticola* belongs to the *parvus* group of pocket mice, and is distinguished from silky pocket mice (e.g., *P. longimembris* and *P. inornatus*) by its larger body mass, a longer tail relative to the body, more penicillate tail, and a lobed antitragus of the external ear. Males are significantly larger than females in most or all body measurements (Sulentic 1983). On average, *P. a. inexpectatus* is larger than *P. a. alticola*, with a darker tail, and the black tip extends dorsally for at least one-half the length of the tail (Best 1994). According to Huey (1926), the ears are dark (versus pale in *P. a. alticola*). On the eastern slope of Tehachapi Pass and southern Sierra Nevada, it is potentially confused with *P. inornatus*. In *P. inornatus*, like other members of the silky pocket mouse group, the tragus of the outer ear is unlobed.

Taxonomic Remarks: Two subspecies of the white-eared pocket mouse are recognized, *alticola* and *inexpectatus*, both of which are Class I taxa. *P. a. inexpectatus*, *a. alticola*, and *P. xanthonotus* are Pleistocene relicts whose closest living relative is *P. parvus*. Sulentic (1983), in a biochemical and morphological review of *P. alticola* (both subspecies) and *P. parvus*, concluded *P. a. inexpectatus* was morphologically divergent enough to warrant species status and upheld the subspecies status of *P. a. alticola*, although it is weakly differentiated from *P. parvus olivaceus* and *P. xanthonotus* based on skull morphology. A re-analysis of these morphological and biochemical data on *inexpectatus* is warranted based on apparent inclusion of *P. inornatus* specimens from 8 mi (12.9 km) east of Tehachapi. There are no genetic or chromosomal data available for *alticola*.

Distribution: This taxon historically occurred from the vicinity of Tehachapi Pass, west to Mount Pinos, and south to Elizabeth and Quail Lakes, at elevations from 1030 to 1830 m. There are no recent records of the species, despite intensive survey efforts (Huckaby and Sulentic 1981, 1980).

Life History: Owing to the rarity of the species, and the difficulty of locating extant populations, little is known about the natural history of the Tehachapi pocket mouse. Like *P. a. alticola* and *P. xanthonotus*, the species hibernates during the winter, probably from October or November to March or April, and begins breeding immediately upon emergence from hibernation. It may also aestivate in hot weather. Based on a comparison with other pocket mice, the Tehachapi pocket mouse feeds mainly on seeds, and seasonally consumes other plants parts such as fresh herbaceous growth, and arthropods.

Habitat: The habitat at Mount Pinos (the type locality) was grassy flats among scattered yellow pine (Huey 1926). At lower elevations, it has been reported in chaparral and sage scrub, and rangelands dominated by non-native annual grasses. In the western Tehachapi Mountains, it has been reported from Joshua tree and pinyon-juniper woodland.

Status: Class II. The species has not been observed since 1933. The specimens collected from 8 mi (12.9 km) east of Tehachapi by Sulentic (1983) are *P. inornatus* rather than *a. inexpectatus*. Two important facts remain unknown: whether the species still exists, and the factors contributing to its rarity. The species is apparently Threatened, but is designated a Special Concern taxon here due to insufficient data. Most of the historic localities are private holdings. However, an important part of the historic range of *inexpectatus* is within the Angeles and Los Padres national forests. Although

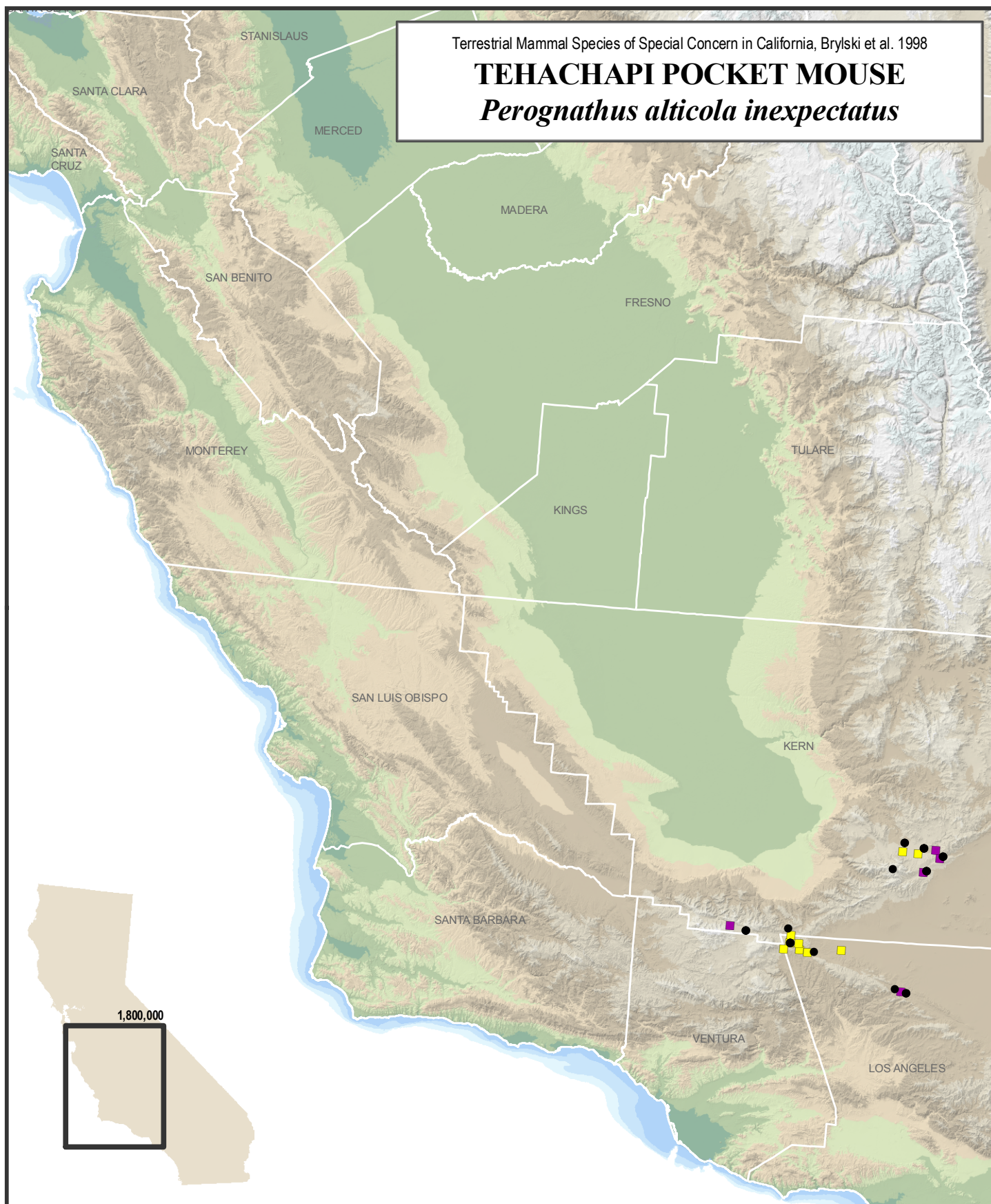
this provides opportunities for protection and management, intensive surveys conducted there by Huckaby and Sulentic (1981, 1980) were unsuccessful. Additional information on the distribution and abundance of the species is needed before determining whether proposing it for listing is appropriate.

Management Recommendations: The highest priority is to locate populations of this species. The most recent trapping efforts in appropriate localities and habitats and during the appropriate time of year (from June to September) failed to confirm the existence of any populations of *P. a. inexpectatus* (Huckaby and Sulentic 1980, 1981). The Department should continue its efforts of: *i*) funding focused surveys trapping efforts; *ii*) encouraging mammalogists, graduate students, and field biologists to undertake research and field surveys; and *iii*) requiring that the environmental review of projects in appropriate habitat within the species' historic range contain adequate focused surveys for the species. The U.S. Forest Service should also undertake further surveys in the Angeles and Los Padres national forests. Based on the lack of success of previous extensive survey efforts, the species may (if still extant), have a patchy distribution, and may occur in microhabitats not previously surveyed. 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 juveniles wean). If one or more populations of *a. alticola* are found, the responsible agencies, in consultation with the Department, should: *i*) evaluate the need for emergency protective measures to ensure the species' survival, *ii*) determine the habitat requirements of the species and adjust resource management practices within the national forests accordingly, and *iii*) identify private landowners whose properties support the species and work to find land management strategies that are mutually beneficial.

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

TEHACHAPI POCKET MOUSE

Perognathus alticola inexpectatus



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

■ CNDDDB 1979 - 1998

■ CNDDDB 1978 and before