## Los Angeles pocket mouse, *Perognathus longimembris brevinasus Philip V. Brylski*

**Description**: This is a small heteromyid rodent, averaging about 113 mm TL with weight from 8 to 11 g. The Los Angeles pocket mouse can be potentially confused only with juveniles of the sympatric California pocket mouse (*Chaetodipus californicus*), from which it can be distinguished by the absence of spiny hairs in the dorsal pelage and the absence of a distinct crest on the tail. Pelage is buff above and white below. Many of the dorsal hairs are black-tipped, giving the pelage a "salt and pepper" appearance, similar to but lighter than that of the Pacific pocket mouse (*P. l. pacificus*). Like all silky pocket mice, there is usually a small white spot at the anterior base of the ear, and an indistinct larger buff spot behind the ear, the plantar surface of the hindfeet are naked or lightly haired, and the lateral hairs of the hind toes project anteriorly and laterally, resulting in a "fringed-toed" effect, which may enhance locomotor efficiency on sandy substrates.

**Taxonomic Remarks**: This is one of eight subspecies of the little pocket mouse (*P. longimembris*) in California (Hall 1981). *P. l. brevinasus* was first described by Osgood (1900) as a race of the Panamint pocket mouse (*P. panamintinus*). Both *brevinasus* and *panamintinus* were arranged as subspecies of *P. longimembris* by Huey (1928). An important taxonomic character of *brevinasus* is its short rostrum, a character also shared by *pacificus*. *P. l. brevinasus* intergrades with *bangsi* in the Cabazon area of the San Gorgonio Pass, and with *P. l. internationalis* in the La Puerta Valley area of San Diego County.

**Distribution**: Historically occurred in the coastal basins of southern California, from San Fernando and Burbank in the San Fernando Valley east to Cabazon, south through the San Jacinto and Temecula Valleys to Aguanga, Warner Pass, Vail, and Temecula. The specimens collected by Grinnell at Dos Palmos Spring, Santa Rosa Mountains are either *brevinasus* or *bangsi*, and await resolution on biochemical and morphological grounds. The recorded elevational range is from 167 m (at Burbank) to 808 m (Oak Grove). The current range does not include the San Fernando Valley, the majority of which has been urbanized. There is potential for the species in the canyons of the San Fernando Valley (e.g., Tujunga wash), although no field surveys have apparently been conducted there. Currently, the western-most record for extant *brevinasus* is Etiwanda Wash. Apart from the San Fernando Valley, the outline of the current range of *brevinasus* is similar to its historic range. However, the species occurs sparingly in, or is absent from, many historic localities in the San Bernardino, San Jacinto, and Temecula valleys.

**Life History**: There have been few natural history studies on the Los Angeles pocket mouse, and the following information is based on research on various subspecies of *longimembris*, including limited work on *brevinasus*. Like all *Perognathus*, the Los Angeles pocket mouse hibernates in the winter, generally from October to February, and also becomes torpid when deprived of food for 24 to 36 hours. Little pocket mice periodically emerge from hibernation to feed on seed caches stored in their burrows. Emergence from hibernation is correlated with availability of forb and grass seeds. *P. longimembris* feed largely on seeds and seasonally eat forbs and, to a lesser degree, arthropods and larva.

**Habitat**: The habitat of Los Angeles pocket mice includes lower elevation grassland, alluvial sage scrub, and coastal sage scrub.

**Status**: Class II. The main threat to the Los Angeles pocket mouse is habitat loss by agricultural, suburban, and urban development in Los Angeles, San Bernardino and Riverside counties. The Los Angeles pocket mouse has been extirpated from most or all of the San Fernando and San Bernardino

valleys. The species is still uncommon to common at various localities from the base of the San Bernardino Mountains (e.g., Etiwanda Wash) east to Cabazon, and south to Temecula, and the surrounding foothills (e.g., Aguanga, Oak Grove and Vail). At the same time, the conversion of habitat to agricultural, suburban, and urban uses in the San Jacinto and Temecula valleys has greatly reduced and fragmented the historic habitat and its populations in this region, especially on the valley floor. While there are a number of extant populations, many of these are small and disjunct, and will likely disappear in the coming years. Many of the remaining habitats in Riverside County are in private ownership. Taken together, the available data indicate that the species is not yet Threatened but potentially will be if management actions are not implemented. The Riverside County Multi-Species Habitat Conservation Planning effort may provide the regional habitat protection needed to ensure the species' long-term conservation. However, this plan was in preparation while this document was being written, and could not be evaluated for the effectiveness of its design with respect to *brevinasus*.

**Management Recommendations**: *P. l. brevinasus* should be a high priority target species of the regional Habitat Conservation Planning efforts either underway or planned in Riverside and San Bernardino counties. [Editor's note: The Los Angeles pocket mouse is a covered species in the Western Riverside County Multiple Species Habitat Conservation Plan.] The creation of large blocks of habitat, protected by conservation easements and public ownership are needed to prevent continued declines in its distribution and abundance. Surveys are needed on its distribution and abundance, habitat relations, and natural history. Monitoring of existing populations and surveys of potential habitat within its historic range are needed.

