

**Center for Biological Diversity
Endangered Habitats League
Natural Resources Defense Council**

September 18, 2000

Hon. Bruce Babbitt
Secretary of the Interior
Main Interior Building
18th and C Streets, N.W.
Washington, D.C. 20240

Re: Petition to Revise the Critical Habitat Determination for the Pacific Pocket Mouse

Dear Secretary Babbitt:

Pursuant to Section 4(b)(3)(D) of the Endangered Species Act, 16 U.S.C. § 1533(b)(3)(D), and 50 C.F.R. Part 424.14, the Center for Biological Diversity, the Endangered Habitats League, and the Natural Resources Defense Council hereby petition the United States Fish and Wildlife Service (“Service”) to revise its critical habitat determination for the Pacific pocket mouse (*Paragnathus longimembris pacificus*).

This request is based upon the enclosed detailed petition and the scientific literature referenced therein. As the petition shows, critical habitat must now be designated for the pocket mouse because (1) designating pocket mouse habitat would no longer lead to any increased threat to the species, and (2) designating critical habitat would provide substantial conservation benefits to the species.

We look forward to your positive and prompt 90-day and 12 month findings in response to this petition. Thank you for your consideration.

Very truly yours,

David Hogan
Center for
Biological Diversity

Dan Silver
Endangered
Habitats League

Andrew Wetzler
Natural Resources
Defense Council

cc: Director, U.S. Fish and Wildlife Service
Field Supervisor, Carlsbad Field Office, U.S. Fish and Wildlife Service

**A PETITION TO REVISE THE CRITICAL HABITAT DETERMINATION FOR
THE PACIFIC POCKET MOUSE (*PARAGNATHUS LONGIMEMBRIS
PACIFICUS*) UNDER THE FEDERAL ENDANGERED SPECIES ACT**

September 18, 2000

Center for Biological Diversity
David Hogan
P.O. Box 628
Santa Ysabel CA 92070
(760) 782-9244

Endangered Habitats League
Dan Silver
PMB 592
8424-A Santa Monica Boulevard
Los Angeles, CA 90069-4267
(323) 654-1456

Natural Resources Defense Council
Andrew Wetzler
6310 San Vicente Boulevard Suite 250
Los Angeles CA 90048
(323) 934-6900

EXECUTIVE SUMMARY

The Center for Biological Diversity, Endangered Habitats League and Natural Resources Defense Council (collectively, “Petitioners”) hereby petition the United States Fish and Wildlife Service (“Service”) to revise its critical habitat determination for the Pacific pocket mouse (*Paragnathus longimembris pacificus*) and designate Pacific pocket mouse critical habitat pursuant to the federal Endangered Species Act (“ESA or Act”).

The Pacific pocket mouse is a small brownish rodent endemic to coastal southwestern California. Historically, the Pacific pocket mouse’s range once extended from Los Angeles County south to the Mexican border. Pocket mice are only found within 4 kilometers of the coast on fine-grained sandy substrates in coastal sage scrub, coastal strand, and river alluvium. The species remains one of the most endangered animals in the United States.

When the Service listed the Pacific pocket mouse as an endangered species in 1994, it declined to designate critical habitat, determining that to do so would not be “prudent.” Specifically, the Service concluded that designating critical habitat for the Pacific pocket mouse (1) would lead to an increased threat to the species through the publication of maps identifying the location of the sole Pacific pocket mouse population then known to exist; and (2) would not provide any conservation benefit to the species because the only population then known was located on private property that lacked a “federal nexus” subjecting it to the critical habitat provisions of the ESA. These conclusions can no longer be justified.

Since 1994 two additional Pacific pocket mouse populations have been discovered. Both populations are located on Camp Pendleton, a Marine Corps base to which access is strictly controlled. More importantly, the exact location of the Camp Pendleton populations -- as well as the exact location of the single population that was known to exist in 1994 -- have long since been made public in numerous published environmental surveys. Accordingly, designating critical habitat for the Pacific pocket mouse would not lead to any increased threat to the species.

Designating critical habitat for the Pacific pocket mouse would, however, provide significant additional conservation benefits to the species. The Camp Pendleton populations are subject to a variety of threats, including construction of a six-lane toll road and Marine Corps operations. The ESA prohibits federal agencies from carrying out, funding or permitting activities which result in the adverse modification of designated critical habitat. Once critical habitat is designated for the Pacific pocket mouse, the Marine Corps will be required to ensure that its operations will not adversely modify any habitat essential to the mouse’s survival. The Federal Highways Administration has jurisdiction over the proposed toll road and operates under the same

obligation. The Service has also changed its policy regarding the designation of critical habitat on private property with no apparent federal nexus. The Service now regularly designates critical habitat on private property regardless of whether that property is currently subject to a federal nexus bringing it within the ambit of the ESA.

TABLE OF CONTENTS

I.	PETITIONERS.....	1
II.	SPECIES DESCRIPTION	
	A. Taxonomy and Species Description.....	1
	B. Habitat Description.....	2
	C. Life History / Ecology.....	2
	D. Historic and Current Distribution.....	3
	1. Los Angeles County.....	4
	2. Orange County.....	4
	3. San Diego County.....	4
	E. Current Status.....	4
	1. Dana Point Headlands Population.....	4
	2. San Mateo Creek Population.....	5
	3. Oscar One / Edson Range Population.....	6
III.	STATUTORY REQUIREMENTS.....	6
IV.	PREVIOUS FEDERAL ACTION.....	8
V.	CRITICAL HABITAT REVISITED.....	9
	A. Designating Critical Habitat Is Prudent.....	9
	1. Designation of Critical Habitat Would No Longer Subject Pacific Pocket Mouse Populations to an Increased Risk of Harm.....	9
	2. Critical Habitat Designation Would Benefit the Pacific Pocket Mouse.....	10
	B. Critical Habitat is Determinable.....	12
VI.	RECOMMENDED CRITICAL HABITAT.....	13
	A. Essential conservation habitat and special management or protection.....	13
	B. Specific Recommendations.....	14
VII.	LITERATURE CITED.....	16
VIII.	APPENDICES.....	19
	Appendix A. Samples of Pacific pocket mouse location data in environmental review documents and reports.....	19

Appendix B. Spencer *et al.* 2000 map Figures 1 and 2;
Habitat Potential to Support Translocated Pacific Pocket
Mouse Populations and Areas Recommended for Field
Evaluation Camp Pendleton/Orange County.....20

I. PETITIONERS

Petitioner Center for Biological Diversity (“Center”) is a non-profit conservation organization with over 5,000 members. The Center is dedicated to protecting endangered species and wild places of western North America and the Pacific through science, policy, education, and environmental law. Center members are concerned with the conservation of southern California’s unique natural heritage. Center members are particularly concerned with ensuring the survival and recovery of the Pacific pocket mouse and conservation of the coastal sage scrub ecosystem upon which it depends.

Petitioner Endangered Habitats League (“EHL”) is a non-profit, public benefit corporation dedicated to ecosystem protection, improved land use planning, and collaborative conflict resolution. It specializes in protecting endangered species in Southern California through comprehensive habitat plans. Among its approximately 450 members are residents of the City of Dana Point who gain educational and aesthetic value from the Pacific pocket mouse population in their city. EHL has actively participated in habitat planning efforts for the Pacific pocket mouse.

Petitioner Natural Resources Defense Council (“NRDC”) is a national non-profit environmental organization with approximately 500,000 members nationwide, over 90,000 of whom reside in the state of California. One of NRDC’s organizational purposes is to further the ESA’s purpose and to preserve our national biodiversity. NRDC’s members have a direct interest in conserving and protecting California’s unique native plants and animals, specifically, in ensuring the survival of the Pacific pocket mouse.

II. SPECIES DESCRIPTION

A. *Taxonomy and Species Description*

The Pacific pocket mouse is the smallest and one of the most narrowly distributed of 19 subspecies of the little pocket mouse, a species found throughout the western United States and northern Mexico (Hall 1981). The genus *Paragnathus* is a member of the order *Rodentia*, family *Heteromyidae*. *Heteromyidae* includes a variety of nocturnal grainivores with external, fur-lined cheek pouches, including kangaroo rats (*Dipodomys*), pocket mice (*Chaetodiopus*), spiny pocket mice (*Heteromys* and *Liomys*), and kangaroo mice (*Microdipodops*) (U.S. Fish and Wildlife Service 1998a).

The Pacific pocket mouse was originally described by Mearns (1898) under the name *Peragnathus pacificus*, based on the type specimen from the Tijuana River Valley of San Diego County, California. Authors continued to recognize the Pacific pocket mouse as a distinct species for several decades but as the Pacific pocket mouse became more familiar to mammalogists, it was

recognized as similar to, and later concluded to not be sufficiently distinct from, the little pocket mouse to be maintained as a distinct species (Von Bloeker 1932). The taxonomy of the Pacific pocket mouse was later revised to include *P. longimembris cantwelli* of the Los Angeles Basin, as this form was not sufficiently distinct from *P. longimembris pacificus* (Huey 1939). Huey's treatment continues to be recognized by recent authors (Hall 1981, Williams *et al.* 1993).

The Pacific pocket mouse, like other members of its species, is predominately brown or buff above and whitish below. Typically there are two small patches of light-colored hairs at the base of the ear. The pelage is spineless and bristle free. The species ranges from about 110 to 126 mm in length from the tip of its nose to the end of the tail. The length of the tail, hind foot, and skull, and the small size of the skull sutures distinguish this subspecies from other subspecies of the little pocket mouse, including the Los Angeles pocket mouse (*P. l. brevinasus*), the only other little pocket mouse subspecies to occur in cismontane southern California (Hall 1981).

B. *Habitat Description*

The Pacific pocket mouse is found chiefly in association with fine-grained sandy or gravelly substrates in the immediate vicinity of the coast (U.S. Fish and Wildlife Service 1998a). Typical habitat consists of coastal strand, coastal dunes, river alluvium, and coastal sage scrub growing on coastal terraces or in river valleys (Grinnell 1933, Meserve 1972, Erickson 1993). The presence of loose or friable soils appears to be the most important factor in determining distribution (U.S. Fish and Wildlife Service 1998a). The mice appear to favor less densely vegetated areas (U.S. Fish and Wildlife Service 1998a). One of the known populations, located at Dana Point, occurs in sandy soils in association with coastal sage scrub of various densities on a coastal terrace. Another population located near San Mateo Creek is found in coastal sage scrub on ridges. The remaining population, located near the San Margarita River, is found in small patches of coastal sage scrub, bare ground, and in low-density non-native grassland within a larger matrix of dense non-native grassland, chiefly in sandy substrate (U.S. Fish and Wildlife Service 1998a, Spencer *et al.* 2000). Old records report Pacific pocket mouse populations in coastal dunes, a habitat virtually eliminated from coastal southern California, and river alluvium, another habitat that has become rare (U.S. Fish and Wildlife Service 1998a).

C. *Life History / Ecology*

The life history and ecology of the Pacific pocket mouse is not well understood but is assumed to be similar to other better studied subspecies of the little pocket mouse. Little pocket mice typically hibernate during the winter from September to April. Pacific pocket mice generally remain underground and in their burrows from November to February (Meserve 1972). Little pocket mice do not accumulate fat reserves for winter hibernation, instead feeding on seed caches stored in their burrows. Pacific pocket mice prefer seeds and stems of grasses with some other herbs (U.S. Fish and Wildlife Service 1998a). Pregnant and lactating female mice have been

detected from April through July and immature mice have been observed from June through September (U.S. Fish and Wildlife Service 1998a). Initial data indicates that Pacific pocket mice have limited dispersal and are aggressively solitary (U.S. Fish and Wildlife Service 1998a).

It is likely that Pacific pocket mouse populations are dynamic and vary considerably from year to year both in terms of numbers and actual occupied habitat. For example, in 1993 it appeared that the pocket mice occupied just a fraction of the “temporary pocket mouse preserve” located in the Dana Point Headlands (Brylski 1993). However subsequent surveys found pocket mice in previously unoccupied areas within the preserve.

In its Recovery Plan for the Pacific Pocket Mouse, the Service identifies three factors that are contributing to the decline of the Pacific pocket mouse: habitat destruction, habitat fragmentation and degradation, and depredation (U.S. Fish and Wildlife Service 1998a). The Service reports that only one percent of potential habitat for the Pacific pocket mouse remained undeveloped in Los Angeles County, less than twenty percent of natural habitat within the range of the Pacific pocket mouse remains in Orange County, and that a comparable amount of natural habitat remains in coastal San Diego County (*Ibid*). Urban development continues to threaten a portion of the northernmost population at Dana Point. Habitat fragmentation reduces the habitat quality of natural open space and increases the extirpation of native wildlife (U.S. Fish and Wildlife Service 1998a). Physical barriers created by urbanization, cultivation, and roads increase edge effect, destabilize predator-prey relationships, affect pollinators, severe linkages, and affect natural vegetation cycles (*e.g.* interrupting fire cycles), all factors that contribute to the decline of native wildlife, including the Pacific pocket mouse. Proximity to urban development also affects pocket mice. Artificial night-time lighting may modify predation rates or disturb behavior. Non-native species of plants may affect community dynamics and Argentine ants may contribute to nest mortality, particularly in areas with adjacent irrigation. Finally, depredation by cats has been identified as a threat to the Pacific pocket mouse (U.S. Fish and Wildlife Service 1998a).

D. *Historic and Current Distribution*

The Pacific pocket mouse is endemic to southwestern California and is only known from sites within 4 kilometers from the coast. The historic range of the Pacific pocket mouse extended from Marina del Rey and El Segundo in Los Angeles County, south through Orange County, to the Tijuana River Valley of San Diego County near the U.S. Mexican border (Hall 1981, Erickson 1993, Williams *et al.* 1997). The subspecies has never been recorded in Baja California, Mexico. Pacific pocket mice have been recorded in elevations as high as 180 meters (600 feet) in the San Joaquin Hills, but most localities are found at considerably lower elevations. Historically, ten populations of Pacific pocket mice have been recorded, of which all but three have been extirpated. The majority of suitable and historic habitat for the Pacific pocket mouse has been fragmented and significantly reduced by urbanization and agricultural conversion.

1. Los Angeles County

In Los Angeles County, the Pacific pocket mouse has been observed in the vicinity of Marina del Rey and El Segundo, Clifton, and Wilmington (Erickson 1993). These sites, none of which are currently occupied by Pacific pocket mouse populations, are mostly urbanized today, as is most of the Los Angeles Basin. Little suitable habitat remains in Los Angeles County, and what does remain is isolated and fragmented. The species has not been reported in Los Angeles County since 1938 (Erickson 1993, U.S. Fish and Wildlife Service 1998a).

2. Orange County

The Pacific pocket mouse has been observed in two areas of coastal Orange County: the vicinity of Signal Peak (“Spyglass Hill”), in the northern San Joaquin Hills, and the Dana Point Headlands in Dana Point. Pacific pocket mice were detected at the Spyglass Hill locale in the course of several rodent studies conducted at the University of California, Irvine, from 1968 to 1971 (Meserve 1972, 1976). However, Spyglass Hill has since been urbanized and only scattered patches of suitable habitat remain (Fred Roberts, personal communication, 2000). Significant areas of suitable habitat existed as recently as 1998 (F. Roberts, personal communication, 2000), principally in the vicinity of Pelican Hill and along the northern slopes between Signal Hill and the University of California, Irvine campus. The Dana Point Headlands population was first recorded in 1932, and was re-discovered after presumed extirpation in July, 1993 (U.S. Fish and Wildlife Service 1994, citing Brylski 1993).

3. San Diego County

Pacific pocket mice were historically known from four localities in San Diego County: San Onofre, the Santa Margarita River mouth, Los Penasquitos Lagoon, and the lower Tijuana River (Erickson 1993, U.S. Fish and Wildlife Service 1998a). Two additional populations were discovered on Camp Pendleton in 1995. The “Oscar One” population was located on in the vicinity of the Santa Margarita River and another was located on the gentle slopes and hillsides on either side of San Mateo Creek, near the historic San Onofre population. The “Edson Range” extension of the Oscar One population was discovered in 1998.

E. *Current Status*

1. Dana Point Headlands Population

The Dana Point Headlands population is located within a patch of natural landscape isolated by urban development. Population surveys in 1993, 1997, and 1998 identified fewer than 50 individuals, occupying about 1.4 to 3.0 hectares (3.5 to 7.5 acres) of habitat (U.S. Fish and Wildlife Service 1998a, Spencer *et al.* 2000). However, trapping studies of the Dana Point

population have generally been restricted to a 8.9 hectare (22 acre) “temporary pocket mouse preserve” on the coastal side of Santa Margarita Road. About 4 hectares (10 acres) of highly suitable, although somewhat disturbed, Pacific pocket mouse habitat occurs immediately adjacent to the preserve (Fred Roberts, personal communication, 2000). At least one sighting of a Pacific pocket mouse has been reported within this habitat (Fred Roberts, personal communication, 2000). Brylski (1993) has identified a total of about 15 hectares (40 acres) of suitable habitat on the Headlands.

Only a portion of the Pacific pocket mouse habitat on the Dana Point Headlands is currently managed for the benefit of the species through the Orange County Central/Coastal NCCP/HCP. Furthermore, even this temporary preserve has no long-term protection. Under the terms of the HCP/NCCP, the Service may purchase the temporary preserve at full development value for a period of 8 years and 4 months following permit issuance; after that time, development of all habitat and take of all mice is authorized. (NCCP/HCP Implementing Agreement, 1995, Section 8.3.2, pp 78-81). If a permanent preserve is created, either through purchase or through future land use decisions, it may be subject to increased edge effects, such as invasive species and stochastic events, from the surrounding residential and commercial development expected to occur. The Dana Point population is also at risk from domestic and feral cats (U.S. Fish and Wildlife Service 1998a).

2. San Mateo Creek Population

The San Mateo Creek population, located on both sides of San Mateo Creek in northern San Diego County, is estimated to support fewer than 50 individuals (Spencer *et al.* 2000). It has been estimated that the part of the population on the north side of San Mateo Creek occupies about 6.5 hectares (16 acres), while the part on the south side occupies about 13 hectares (32 acres) (U.S. Fish and Wildlife Service 1998a, Spencer *et al.* 2000). These sites are separated by about 2.1 km, a road, and extensive agricultural cultivation.

It is likely that San Mateo wash was dominated by sandy alluvium prior to agricultural development and that it may have supported a significant population of Pacific pocket mice. The north and south parts of the San Mateo Creek population may at one time have been part of a more extensive population. Indeed, the two habitat areas are not entirely isolated from one another today, and the Service has stated that limited dispersal between these may be possible (U.S. Fish and Wildlife Service 1998a, Spencer *et al.* 2000). Both populations are adjacent to urban development and limited transportation facilities, but are connected to extensive natural open space. Additionally, the part north of San Mateo Creek exists immediately adjacent to the proposed alignment of a six lane tollroad, the Foothill Transportation Corridor South, the construction of which would adversely impact this part of the population and greatly reduce, if not eliminate, the likelihood of dispersal amongst north and south parts of the population.

3. Oscar One / Edson Range Population

The largest Pacific pocket mouse population is located north of the Santa Margarita River within Camp Pendleton Marine Corps Base. The Oscar One target range supports the largest portion of this population (U.S. Fish and Wildlife Service 1998a, Spencer *et al.* 2000). It is estimated that this population consists of several hundred and possibly as many as 1,000 individuals, occupying as much as 350 hectares (865 acres) of habitat. An apparent extension of this population was discovered in 1998 on the Edson Range (Spencer *et al.* 2000). The combined area of the Oscar One / Edson population suggests a total of about 900 hectares (2,250 acres) of habitat, although much of this habitat may be lacking appropriate soils (Spencer *et al.* 2000).

The Oscar One / Edson Range population is less vulnerable to development, habitat fragmentation, and isolation because of its location on the Marine base. The site is threatened by military activities such training exercises, however, which impact the nature and structure of Pacific pocket mouse habitat.

III. STATUTORY REQUIREMENTS

The Endangered Species Act (“ESA or Act”), 16 U.S.C. 1532, *et seq.*, sets forth the federal statutory framework for the conservation of endangered and threatened species and the ecosystems upon which they depend.

The ESA provides that *‘to the maximum extent prudent and determinable the Secretary . . . shall, concurrently with making a determination . . . that a species is an endangered species or a threatened species, designate any habitat of such species which is then considered to be critical. . . .’* 15 U.S.C. § 1533(a)(3) (emphasis added). The Act further provides that the Secretary's designation of critical habitat shall be made "on the basis of the best scientific data available and after taking into consideration the economic impact, and any other relevant impact, of specifying any particular areas critical habitat." 16 U.S.C. § 1533(b)(2).

The ESA defines critical habitat as:

- (I) the specific areas within the geographic area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection; and
- (ii) specific areas outside the geographic area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

16 U.S.C. § 1533(5)(a).¹

As written, there are thus only two circumstance under which the Service may decline to designate a species' critical habitat at the time of listing: first, if critical habitat is not then "determinable;" or, second, if the designation of critical habitat is not "prudent." 16 U.S.C. § 1533(b)(6)(c)(ii). *See also* 50 C.F.R. 424.12.²

The Service's regulations provide that the designation of critical habitat will not be considered "prudent" if:

- (i) The species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of such threat to the species; or
- (ii) Such designation of critical habitat would not be beneficial to the species.

50 C.F.R. 424.12(a)(1).

Once the Secretary decides that critical habitat should be designated for a species, he must determine which physical and biological features are essential to the conservation of the species and that may require special management considerations or protection. These include, but are not limited to:

- (1) Space for individual and population growth, and for normal behavior;
- (2) Food, water, air, light, minerals, or other nutritional or physiological requirements;
- (3) Cover or shelter;
- (4) Sites for breeding, reproduction, rearing of offspring, germination, or seed dispersal; and generally;
- (5) Habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

¹The term "conservation" under the Act means the use of all methods and procedures necessary to bring an endangered or threatened species to the point at which protection under the Act is no longer necessary. 16 U.S.C. § 1532(3).

²In the event that the Secretary finds that a species critical habitat is "not then determinable," he may extend the deadline for making a critical habitat determination "by not more than one additional year." 16 U.S.C. § 1533(c)(6)(C)(ii).

50 C.F.R. 424.12(b).

Careful consideration by the Secretary must also be given to the designation of critical habitat outside of the area currently occupied by a given species. 50 C.F.R. 424.12(e).

IV. PREVIOUS FEDERAL ACTION

When the Service first listed the Pacific pocket mouse as an endangered species, it determined that “designation of critical habitat is not prudent for the Pacific pocket mouse at this time.” (U.S. Fish and Wildlife Service 1994). The Service explained that it was invoking the “prudence” exception to the critical habitat because, in its view, designation of critical habitat would both harm, and fail to provide any benefit to, the Pacific pocket mouse.

First, the Service stated that designating critical habitat would harm the Pacific pocket mouse because:

A communication has been received by the Service that effectively threatens the only known, confirmed population of the species. This threat was received from an individual who was apparently incensed at the emergency listing of the species. On the basis of this kind of activity, the Service finds that publication of critical habitat descriptions and maps would likely make the species more vulnerable to activities prohibited under section 9 of the Act.

(Ibid.)

Second, the Service argued that designating critical habitat for the Pacific pocket mouse would not provide any benefit to the species because

the only known, confirmed population of the Pacific pocket mouse is found on private property where Federal involvement in land-use activities is not expected to occur. Protection resulting from critical habitat designation is largely achieved through the Federal consultation process pursuant to section 7 of the Act and the implementing regulations pertaining thereto (50 CFR 402). Because section 7 would not apply to many, if any, of the majority of the land-use activities occurring within the species known habitat, its designation would not appreciably benefit the species.

(Ibid.)

For the reasons set forth bellow, neither of these rationales continue to apply to the Pacific

pocket mouse. Designating critical habitat for the Pacific pocket mouse is now both prudent and determinable.

V. CRITICAL HABITAT REVISITED

Circumstances have changed significantly since the Service's critical habitat determination for the Pacific pocket mouse. Designating critical habitat for the Pacific pocket mouse would no longer subject Pacific pocket mouse to an increased risk of harm. Moreover, designation of critical habitat would greatly benefit the Pacific pocket mouse. In short, designation of all occupied, and significant unoccupied habitat, is now prudent. Critical habitat is also determinable.

A. *Designating Critical Habitat Is Prudent*

1. Designation of Critical Habitat Would No Longer Subject Pacific Pocket Mouse Populations to an Increased Risk of Harm

Designating Critical Habitat for the Pacific pocket mouse would no longer subject the Dana Point Headland population -- or, indeed, any population of Pacific pocket mice -- to an increased risk of harm. When the Service first declined to designate critical habitat for the Pacific pocket mouse it did so because of a single threat to the Dana Point Headland (then the only known) population of pocket mice. The Service felt that publishing maps revealing the location of this population would increase the risk of harm to the species. This reasoning can no longer be applied to the Pacific pocket mouse.

First, the location and nature of all Pacific pocket mouse populations, including the Dana Point Headlands population, has already been made public and described in great detail. There is simply no way that the publication of critical habitat maps will release to the public more information than is currently available from any number of environmental review documents and reports (See Attachment 1). For example, the population at Dana Point has been discussed and identified in several public documents. These include A focused survey for the Pacific pocket mouse (*Paragnathus longimembris pacificus*) on the Dana Point Headlands, Orange County, California (Brylski 1993); the Central Coastal Natural Communities Conservation Plan (Bein, Frost and Associates 1995); the Natural Environmental Study for Foothill Transportation Corridor-South (Michael Brandman and Associates and LSA Associates 1996); and the Environmental Impact Report for Dana Point Headlands Specific Plan (EIP Associates 1998). In addition, maps depicting Pacific pocket mouse locations were displayed at City of Dana Point public hearings (Dan Silver, personal communication 2000). Like the Dana Point population, the Camp Pendleton populations have been thoroughly described in publicly available scientific surveys. For example, the San Mateo Creek population has been identified and discussed in Michael Brandman and Associates and LSA Associates (1996 and 1997). All populations are discussed in the recovery

plan (U.S. Fish and Wildlife 1998a) and Spencer *et al.* (2000).

Second, since its listing the Dana Point Headland population has, at least in part, been temporarily secured through the Central Orange County NCCP process. Any threats of vandalism have been greatly reduced due to perimeter fencing and active management.

Similarly, the discovery of two additional Pacific pocket mouse populations on federal lands at Camp Pendleton -- access to the south part of the San Mateo Creek population and the Oscar One / Edson Range Population is strictly controlled -- has reduced the overall risk to the species from vandalism. The north part of the San Mateo Creek population is located on California State Park land, leased from the Marine Corps, and therefore also receives some protections.

Third, the single threat received by the Service against the Dana Point Headlands population is now almost seven years old. Certainly anyone who had wished to harm the Dana Point Highland population has long had sufficient information to do so.

Accordingly, the Service can no longer rely upon the increased threat rationale to deny critical habitat designation for the Pacific pocket mouse.

2. Critical Habitat Designation Would Benefit the Pacific Pocket Mouse

Designation of critical habitat would also provide a substantial conservation benefit to the Pacific pocket mouse. When the Service concluded that designating critical habitat for the Pacific pocket mouse would provide no benefit to the species, it was aware of only one extant Pacific pocket mouse population, located at the Dana Point Headlands. Because that property was privately owned, and the ESA's prohibition on the adverse modification of designated critical habitat "would not apply to many, if any, of the majority of the land-use activities occurring within the species known habitat," the Service concluded that "its designation would not appreciably benefit the species." (U.S. Fish and Wildlife Service 1994). This rationale no longer applies to the Pacific pocket mouse.

First, the Pacific pocket mouse's known, confirmed, distribution is no longer limited to private property. Indeed, as discussed above, the majority of pocket mice are now located on federal land. One pocket mouse population has been identified at San Mateo Creek and another has been identified on the Oscar One / Edson Range. Section 7's prohibition on the adverse modification of critical habitat would clearly apply to both of these populations.

Second, since the Service listed the Pacific pocket mouse as endangered, it has abandoned its policy of excluding privately held land from critical habitat designation because that land

currently lacks a federal “nexus” subjecting it to Section 7 jurisdiction. When the Service proposed critical habitat for the coastal California gnatcatcher it explained this change in policy:

Given the unpredictability of determining whether a Federal nexus is likely to exist on any given parcel of private land, we have reevaluated our previous conclusion and now conclude that there may be a regulator benefit from designating critical habitat . . . on private lands now lacking a federal nexus because such lands may have a nexus to a federal agency in the future.

(U.S. Fish and Wildlife Service 2000)

By its own reasoning, then, the Service can no longer exclude Pacific pocket mouse habitat from critical habitat designation simply because that habitat is privately owned.

Designating critical habitat for the Pacific pocket mouse would also benefit the species by enhancing the Service’s authority to scale back or prohibit projects which threaten to adversely modify designated Pacific pocket mouse habitat and for which there is a federal nexus. For example, the Federal Highways Administration and the Army Corps of Engineers are reviewing a proposal to build a six lane toll road through both occupied and unoccupied Pacific pocket mouse habitat which is essential to the survival of the San Mateo Creek population. The designation of critical habitat for the Pacific pocket mouse would give the Service the authority to prohibit the adverse modification of that habitat.

With regard to unoccupied Pacific pocket mouse habitat, it is important to note that many of the apparently unoccupied sites identified by Spencer *et al.* (2000) as possible locations for Pacific pocket mouse reintroduction are currently at risk and would greatly benefit from critical habitat designation. The Carlsbad Municipal Golf Course near Palomar Airport Road, for example, supports fine sands and open coastal sage scrub that could support the Pacific pocket mouse. But directed Pacific pocket mouse surveys did not locate mice, and proposals to develop the site have proceeded (Mirckel and Associates 1997). Indeed, Pacific pocket mouse was reported from this site by a private citizen in 1994, but the observation was never substantiated (F. Roberts, comm. May 2000). The Army Corps will have jurisdiction over this project due to proposed impacts to waters of the U.S., and critical habitat would therefore provide the Service with important regulatory jurisdiction over habitat at this site.

Further, by giving it a tool to protect unoccupied habitat, critical habitat designation would greatly increase the Service’s ability to implement the recovery plan for the Pacific pocket mouse (United States Fish and Wildlife Service 1998a). Designating critical habitat would also serve to direct attention by the Service, other federal agencies, local jurisdictions and others to areas officially identified as essential for the survival and recovery of the species. Such attention is particularly important for unoccupied habitat, which is often ignored in the course of project-by-

project environmental review.

Finally, in Orange County, the designation of critical habitat for the Pacific pocket mouse would provide significant additional conservation benefits beyond that afforded by Orange County's Central Coastal NCCP. Although the NCCP has provided some benefits to the Pacific pocket mouse by temporarily "protecting" the only known occupied habitat in Orange County, it has provided virtually no conservation of unoccupied suitable habitat on the Dana Point Headlands or western San Joaquin Hills. Eight to 24 hectares (20 to 60 acres) of suitable habitat (open coastal sage scrub and chaparral with sandy substrate) remained in the vicinity of Pelican Hill and Wishbone Ridge at the time the Central Coastal Plan was approved (F. Roberts, comm. 2000). Several trapping efforts within these areas had not located Pacific pocket mice. Yet these and some areas adjacent to the Los Trancos Canyon preserve area may well have been essential to the conservation of the Pacific pocket mouse and would have received closer scrutiny if they had been designated as critical habitat in 1994. Unfortunately, the majority of these areas have since been developed and are no longer available for recovery (F. Roberts, comm., 2000).

The same situation exists at the Dana Point Headlands site. Brylski (1993) identified a total of about 15 hectares (40 acres) of suitable, although unoccupied, Pacific pocket mouse habitat on the Headlands. At least 8.8 hectares (22 acres) of this habitat is dominated by sandy soils. But only 4.8 hectares (12 acres) are included within the 8.9 hectare (22 acre) temporary pocket mouse preserve. The suitable habitat outside the preserve has continued to be subject to habitat degradation (F. Roberts, comm., 2000) and currently does not benefit from any protection under the ESA.

Accordingly, the Service can no longer claim that designating critical habitat would not benefit the Pacific pocket mouse. Because the designation of critical habitat would not harm the Pacific pocket mouse and, indeed, would benefit it, designation of critical habitat for the Pacific pocket mouse is now prudent.

B. *Critical Habitat is Determinable*

There is no question that Pacific pocket mouse critical habitat is determinable. The Service today has a significantly greater understanding of the current range and distribution of the Pacific pocket mouse than at the time of listing. Primary constituent elements of Pacific pocket mouse habitat are also identifiable at a scale necessary for designation of critical habitat in both occupied and unoccupied habitat.

At the time of its listing, the habitat requirements of the Pacific pocket mouse was chiefly understood on the basis of a single small population located on the Dana Point Headlands. In 1995, however, two new populations were identified on Marine Corps Base Camp Pendleton, one along either side of San Mateo Creek and one within the Oscar One Firing Range. In 1998 the

Oscar One population was found to extend into the Edson Range. As discussed above, the Dana Point Headlands and the Camp Pendleton populations have been extensively mapped and studied. There is therefore no question that all currently occupied Pacific pocket mouse habitat is sufficiently “determinable” within the meaning of the ESA.

The same holds true of currently unoccupied Pacific pocket mouse habitat. The combination of historical data on the distribution and the habitats of the Pacific pocket mouse, along with several new studies regarding the species (Michael Brandman and Associates and LSA Associates 1996, Michael Brandman and Associates 1997, U.S. Fish and Wildlife Service 1998a, U.S. Fish and Wildlife Service 1998b, Spencer *et al.* 2000) provides the Service with a good understanding of the primary constituent elements that make up suitable Pacific pocket mouse habitat.

VI. RECOMMENDED CRITICAL HABITAT

A. *Essential conservation habitat and special management or protection*

The ESA requires the Service to designate as critical all Pacific pocket mouse habitat that is: 1) essential to the conservation of the species; and 2) requires special management considerations or protections. 16 U.S.C. § 1533(5)(a).

As the Service itself has recognized in its recovery plan for the Pacific pocket mouse, the preservation of occupied Pacific pocket mouse habitat is essential for the conservation of the species and is in need of special management considerations (U.S. Fish and Wildlife Service 1998a). The same holds true for most unoccupied habitat. All occupied Pacific pocket mouse habitat and significant unoccupied habitat therefore warrants designation as critical habitat.

Protection of occupied Pacific pocket mouse critical habitat is obviously essential to the conservation of the species. The Pacific pocket mouse’s population and distribution has been severely reduced. Until a few years ago, only one population of Pacific pocket mice were known to exist. The Service’s recovery plan explicitly acknowledges the importance of conserving the remaining Pacific pocket mouse populations and the habitat they occupy.

The recovery criteria indicate that 10 viable populations are required. Loss or degradation of any of the populations at the three known extant locales could irretrievably diminish the likelihood of the subspecies’ survival. All extant populations are essential.

(U.S. Fish and Wildlife Service 1998a)

Protecting unoccupied Pacific pocket mouse habitat is also essential if the species is to recover. According to the Service's recovery plan, essential habitat, including "potential habitat and surrounding linkages," must be identified and protected in order to ensure the survival and recovery of the species by establishing ten viable populations over a minimum of 4,940 acres of secured and fully protected habitat. (U.S. Fish and Wildlife Service 1998a) There are now only 18 reportedly unoccupied areas that appear to provide habitat with the potential to support re-introduced Pacific pocket mouse populations. (Spencer *et al.* 2000). Preservation of habitat with a high and moderate potential to support Pacific pocket mice in all of these areas is necessary to ensure the continued availability of re-introduction habitat. High and moderate habitat in all 18 of these areas is therefore essential to the conservation of the species.

All existing Pacific pocket mouse populations and significant unoccupied habitat are also in need of special management considerations. Both existing populations and important unoccupied habitat are in need of permanent protection from urban development, road construction and military activities. These areas are also in dire need of long-term protective management including protective fencing, removal of aggressive non-native plant species, such as ripgut grass (*Bromus diandrus*), trapping of feral cats, control of domestic cats near residential developments, thinning of senescent coastal sage scrub and other natural vegetation, and others.

B. *Specific Recommendations*

The following occupied sites are recommended as Pacific pocket mouse critical habitat (See Spencer *et al.* 2000 Figures 1 and 2 for maps):

1. The Dana Point Headlands, Dana Point, Orange County.
2. San Mateo Creek, Camp Pendelton Marine Base and San Onofre State Park Lease Holding, San Diego County.
3. Oscar One / Edson Range, Camp Pendelton Marine Base, San Diego County.

The following unoccupied sites are recommended as Pacific pocket mouse critical habitat (See Spencer *et al.* 2000 Figures 1 and 2 for maps):

4. Bolsa Chica Ecological Reserve, Orange County.
5. Upper Newport Bay / MacArthur Boulevard, Orange County.
6. San Joaquin Hills, Orange County.
7. Laguna Canyon, Orange County.
8. Crystal Cove State Park, Orange County.
9. Aliso Creek, Orange County.
10. Las Pulgas, Camp Pendleton, San Diego County.
11. Lawrence / Benet / Tuley Canyon, San Diego County.
12. Calavera, San Diego County.

13. Carlsbad Gulf Course / Macario Canyon, San Diego County.
14. Tchang / Dawson / Los Monos Reserve, San Diego County.
15. Fieldstone / La Costa, San Diego County.
16. Del Mar Mesa, San Diego County.
17. Torrey Pines State Park, San Diego County.
18. Point Loma, San Diego County.
19. Navel Reserve, San Diego County.
20. Tijuana River Valley, San Diego County.

Within these areas, the primary constituent elements for the Pacific pocket mouse are those habitat components that are essential for the primary biological needs of foraging, burrowing, raising young, dispersal, genetic exchange, or sheltering. Primary constituent elements are provided in undeveloped areas, including agricultural lands, that are dominated by loose, sandy substrates and support or have the potential to support, through natural successional processes, various types of coastal sage scrub, chaparral, grassland, coastal strand, and river mouth habitats that are open (or may be open during different successional states). Primary constituent elements associated with the biological needs of dispersal are also found in undeveloped areas, including agricultural lands, that provide or could provide connectivity or linkage between larger core areas, including open space and disturbed areas that may receive only periodic use.

Primary constituent elements include, but are not limited to, the following plant communities: Ventura-Diegan coastal sage scrub, Diegan coastal sage scrub, coastal bluff scrub, maritime succulent scrub, southern needlegrass grassland, non-native grassland, coastal sage-chaparral scrub, southern maritime chaparral, coastal strand, coastal dunes and alluvial river scrub (Holland 1986, County of Orange 1992).

CONCLUSION

For the reasons set forth above, Petitioners request that the Service revise its determination that designation of critical habitat for the Pacific pocket mouse is not prudent and issue a proposed rule designating Pacific pocket mouse critical habitat.

Respectfully submitted,

David Hogan
Center for
Biological Diversity

Dan Silver
Endangered
Habitats League

Andrew Wetzler
Natural Resources
Defense Council

VII. LITERATURE CITED

Bein, Frost, and Associates 1995. Draft Central and Coastal Subregion Natural Community Conservation Plan/Habitat Conservation Plan Joint EIR/EIS and Implementing Agreement. Prepared for the County of Orange, U.S. Fish and Wildlife Service, and California Department of Fish and Game.

Brylski, P. 1993. A focused survey for the Pacific pocket mouse (*Paragnathus longimembris pacificus*) on the Dana Point Headlands, Orange County, California. Prepared for EDAW, Inc. by the Planning Center. Newport Beach, California.

Congressional Record 1978. 124 Cong. Rec. S21, 575 (daily ed. July 19, 1978).

County of Orange 1992. Habitat classification system natural resources Geographic Information System (GIS) project. Prepared by J. Gray and D. Bramlet for the County of Orange, Santa Ana, California.

EIP Associates 1998. Environmental Impact Report for the Dana Point Headlands Specific Plan, vol. 1. Prepared for the City of Dana Point, Figure 4.3-2, "Biological Resources - Impacts."

Erickson, R.A. 1993. Pacific pocket mouse (*Paragnathus longimembris pacificus*). Draft manuscript to be included in Endangered Rodents of the World, to be published by the Species Survival Commission of the International Union for the Conservation of Nature and Natural Resources (IUCN).

Grinnell, J. 1933. Review of the recent mammal fauna of California. University of California Publications in Zoology 40: 71-234.

Hall, E.R. 1981. The Mammals of North America. Second Edition. John Wiley and Sons, New York, New York

Holland, R.F. 1986. Preliminary descriptions of the terrestrial natural communities of California. Unpublished report. State of California, The Resources Agency, Department of Fish and Game, Natural Heritage Division, Sacramento, CA.

House Committee on Merchant marine and Fisheries 1976. House Committee on Merchant Marine and Fisheries, H.R. Rep. No. 887, 94th Cong., 2d Sess. (1976).

Huey, L.M. 1939. The silky pocket mice of southern California and northern Lower California, Mexico, with a description of a new race. Transactions of the San Diego

- Society of Natural History 9: 47-54.
- Mearns 1898. Citation: Mearns, E.A. 1898. Descriptions of three new forms of pocket mice from the Mexican border of the United States. Bulletin of the American Museum of Natural History 10:299-302.
- Meserve, P.L. 1972. Resource and habitat utilization by rodents of the coastal sage scrub community. Unpublished Ph D. dissertation, Univ. Cal. Irvine 248 pp.
- Meserve, P.L. 1976. Habitat and resource utilization by rodents of a California coastal sage scrub community. Journal of Animal Ecology 46: 647-666.
- Michael Brandman Associates and LSA Associates 1996. Draft Natural Environmental Study for Foothill Transportation Corridor-South, vol. 1. Unpublished report prepared for Foothill/Eastern Transportation Corridor Agency.
- Michael Brandman Associates and LSA Associates 1997. Results of focused surveys for the Pacific pocket mouse, Foothill Transportation Corridor-South. Unpublished report prepared for Foothill/Eastern Transportation Corridor Agency.
- Mirkel and Associates 1997. Biological Constraints Analysis for Environmental Impact Report for Carlsbad Municipal Golf Course. Prepared for City of Carlsbad, Carlsbad, California.
- Spencer, W.D., C. Schaefer, S. Dodd, S.J. Montgomery, and C. Holland. 2000. Pacific pocket mouse studies program; Phase II report. Foothill/Eastern Transportation Corridor Agency and U.S. Fish and Wildlife Service. 44pp.
- U.S. Fish and Wildlife Service 1994. Determination of Endangered Status for the Pacific pocket mouse; Final Rule. 59 Federal Register 49752.
- U.S. Fish and Wildlife Service 1998a. Recovery Plan for the Pacific pocket mouse (*Paragnathus longimembris pacificus*). U.S. Fish and Wildlife Service, Region 1, Portland, Oregon.
- U.S. Fish and Wildlife Service 1998b. 1997 Pacific pocket mouse (*Paragnathus longimembris pacificus*) survey on the Dana Point Headlands. Report prepared for the U.S. Fish and Wildlife Service, Carlsbad Field Office, Carlsbad, California.
- U.S. Fish and Wildlife Service 2000. Proposed Determination of Critical Habitat for the Coastal California Gnatcatcher; Proposed Rule. 65 Federal Register 5946.

Von Bloecker, J.C. 1932. A new race of *Paragnathus longimembris* from southern California. Proceedings of the Biological Society of Washington 45: 127-129.

Williams, D.F., H. Genoways, and J. Braun 1993. Taxonomy, pp 38-196 in: *Biology of the Heteromyidae*, H. Genoways and J. Braun, eds. Special Publication Number 10, the American Society of Mammalogists; August 20, 1993.

APPENDIX A

Samples of Pacific pocket mouse location data in environmental review documents and reports

APPENDIX B

(PROVIDED ONLY TO CARLSBAD FIELD OFFICE)

Spencer *et al.* 2000 map Figures 1 and 2;
Habitat Potential to Support
Translocated Pacific Pocket Mouse Populations
and Areas Recommended for Field
Evaluation Camp Pendleton/Orange County