

California Native Plant Society

And

Center for Biological Diversity

June 7, 2004

Field Supervisor
Ventura Fish and Wildlife Office
U.S. Fish and Wildlife Service
2493 Portola Road, Suite B
Ventura, CA 93003

RE: Comments on Proposed Designation of Critical Habitat for *Astragalus jaegerianus*
(Lane Mountain Milkvetch)

Dear Field Supervisor:

The California Native Plant Society (CNPS) is a non-profit organization of more than 10,000 laypersons and professional botanists organized into 32 chapters throughout California. The mission of the California Native Plant Society is to increase understanding and appreciation of California's native plants and to conserve them and their natural habitats, through education, science, advocacy, horticulture and land stewardship. Our members and chapters work closely with the U.S. Fish and Wildlife Service (USFWS) and other State and Federal agencies to manage and conserve rare and common botanical resources in California. The Center for Biological Diversity (CBD) is a non-profit organization with over 9,000 members in CA and across the nation, dedicated to Protecting endangered species and wild places through science, policy, education, and environmental law.

CNPS and CBD have reviewed the rule proposing to designate critical habitat for *Astragalus jaegerianus* (Lane Mountain Milkvetch). CNPS generally supports the proposed critical habitat, because it is based on the best available science, and has integrated the available data to determine the habitat that is critical for the species survival. Our technical concerns about the proposed critical habitat is fragmentation between Critical Habitat units, lack of connectivity and lack of recovery opportunity as discussed below:

Fragmentation/Connectivity:

An accepted tenet of conservation biology is to minimize fragmentation and maximize connectivity. With the fragmented design of the critical habitat into three unconnected units, the proposed rule has not applied either 1) the legal direction in the FESA mandating promotion of species recovery or 2) basic scientific understanding of requirements for effective species conservation to the intervening spaces between the habitat units. Connectivity among occurrences, minimization or avoidance of fragmentation, and maximization of reserve size are all fundamental principles of basic reserve design (e.g. Jensen, 1987; Meffe and Carroll, 1994, Schemske et al. 1994). The Goldstone-Brinkman Unit and the Coolgardie Unit are particularly problematic designation with their increased edge-to-area ratio and "donut hole" in the case of the Coolgardie Unit. One of the most widely used primers on habitat conservation planning presents several "principles of species composition and reserve design" (Noss et al., p.



Dedicated to the preservation of California native flora

92-105). All of the principles underscore the need for reserves to emphasize connectivity among populations of focal species, conservation of large blocks of connected and intact habitat, and minimization of habitat fragmentation. For example principle 4 states that,

“[h]abitat in contiguous blocks is better than fragmented habitat” (p. 99),

and principle 5 states that

“[i]nterconnected blocks of habitat are better than isolated blocks” (p. 102)

In further support for these principles, Baur and Erhardt (1995) found reduced fecundity among herbaceous plant species occurring in fragmented patches. Interactions between plants and pollinators were also modified by fragmentation, helping to explain the reduced fecundity, and potentially affecting genetic diversity as well. The Proposed rule notes that the most frequent pollinator - the solitary bee, *Anthidium dammersi* – only flies 1 km away from its nest for pollination. Corridors of pollinator habitat are essential to maintaining the genetic integrity of the Lane Mountain Milk-vetch and prevent population isolation. Habitat that is critical for the Lane Mountain Milk-vetch pollinators and seed dispersers includes the areas between the Proposed Critical Habitat Units. Disturbance of inter-occurrence spaces may create barriers to the movement of pollen between populations by animals, increasing the isolation of the populations and reducing fitness (Debinski and Holt 2000, Kruess and Tschardt 1994).

Corridors of connectivity are necessary to provide opportunities for dispersal of propagules and pollinators (Haddad 1999). Townsend and Levey (2002) found that fragmentation effects are diminished if fragments are joined by a corridor connecting two or more fragments. Their study conducted on insect-pollinated plants showed a statistically significant increase in successful pollen transfer between fragments when those fragments were connected by corridors versus when they were not connected by corridors. This important information is relevant to the Lane Mountain Milk-vetch, which is also insect-pollinated. As proposed, the Goldstone-Brinkman and Paradise Units are separated by a minimum of a mile (Page 18034), and the Paradise and Coolgardie Units are separated by at least 2 miles. Decreasing fragmentation by including corridors as part of the Critical Habitat is essential both to species conservation, and, as importantly, to its recovery. Recovery is the fundamental purpose of the FESA (see discussion below).

Additionally, another recent approach to identifying the size of plant conservation areas takes into consideration multiple variables including life strategy, disturbance probability, potential habitat, population size, recovery from disturbance, habitat suitability, predation, and competition (Burgman et al. 2001). These types of factors are all critical components when establishing critical habitat needs for species and need to be addressed in the final Critical Habitat proposal.

Recovery:

According to Section 3 of the FESA,

“(5)(A) The term “critical habitat” for a threatened or endangered species means--

(i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section

4 of this Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and
(ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 4 of this Act, upon a determination by the Secretary that such areas are essential for the conservation of the species.”

“Conservation” is defined in FESA Section 3 as

“(3) The terms “conserve”, “conserving”, and “conservation” mean to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.”

It is clear that the purpose of critical habitat designation is to facilitate **recovery** of listed species, not merely to ensure the survival of individuals or occurrences within a fragmented and disturbed landscape of unsuitable or destroyed habitat.

These views of the value of critical habitat are supported by case law. In a recent case the 5th U.S. circuit court of appeals required critical habitat to be designated because the requirements to designate critical habitat and to consult on federal actions that affect critical habitat are aimed not only at preventing extinction (i.e. jeopardy), but also at promoting recovery of the listed species (Sierra Club v. U.S. Fish & Wildlife Service, 2001 U.S. App. LEXIS 3936 (5th Cir. 2001)). Other cases have stressed the requirement for separate consultation regarding adverse modification and jeopardy (e.g. Greenpeace et al. vs. National Marine Fisheries Service et al., 55 F.Supp.2d 1248 July 13, 1999).

By providing connectivity between the Critical Habitat units in the final designation, fragmentation would be reduced, and areas for recovery created. The CNPS strongly urges the U.S. Fish and Wildlife Service to continue incorporating the best available science and include these most important areas.

The CNPS has additional concerns about the potential exclusion of habitat that is essential to the conservation of the Lane Mountain Milk-vetch in the final Critical Habitat Rule based on an updated Integrated Natural Resources Management Plan (INRMP) (Page 18024). Habitat that is critical for species survival is the benchmark for the minimum in conservation and needs to be recognized in the INRMP – not deleted from Critical Habitat designation. Furthermore, considering that over half of the habitat essential to maintaining the Lane Mountain Milk-vetch occurs on Fort Irwin (15,257 acres), the failure to designate Critical Habitat on Fort Irwin would likely result in the long-term extinction of the species.

Additionally, while the proposed rule indicates that “the designation of critical habitat is of little additional value for most listed species” (page 18019), actual data show otherwise.

Research by Cornell University and the Center for Biological Diversity, using FWS' own data, shows that species with designated critical habitat are less likely to be declining, and twice as likely to be recovering, than species without critical habitat." see: <http://www.biologicaldiversity.org/swcbd/programs/policy/ch/CHSEER9-2003.pdf>. Critical Habitat is therefore essential for protecting rare species, because it works.

While we commend the U.S. Fish and Wildlife Service for the proposed rule, we appreciate the opportunity to present these comments and we specifically ask that these principles of providing connectivity between Critical Habitat units be re-evaluated before the finalization and publication of the proposed rule. We look forward to the opportunity to continue to work with the US Fish and Wildlife Service in the conservation of this taxa and the rest of California's unique botanical resources.

Sincerely,

Ileene Anderson
Southern California Regional Botanist
California Native Plant Society
2733 Cardwell Place
Los Angeles, CA 90046-1201

Daniel Patterson
Desert Ecologist
Center for Biological Diversity
P.O. Box 710
Tuscon, AZ 85702

cc: CNPS State Office
David Chipping, CNPS Conservation Director

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