

information that would lead a reasonable person to believe that the measure proposed in the petition may be warranted." Petitioners need not prove that the petitioned action is warranted to support a "substantial" finding; instead, the key consideration in evaluating a petition for substantiality involves demonstration of the reliability and adequacy of the information supporting the action advocated by the petition.

On October 25, 2001, we received a petition to delist *Astragalus magdalenae* var. *peirsonii* (Peirson's milk-vetch) dated October 24, 2001, from David P. Hubbard, Ted J. Griswold, and Philip J. Giacinti, Jr. of Procopio, Cory, Hargreaves & Savitch, LLP, that was prepared for the American Sand Association (ASA), the San Diego Off-Road Coalition, and the Off-Road Business Association (ASA *et al.* 2001). Various supporting documents were submitted with the petition. The petition (ASA *et al.* 2001) asserts that the original decision to list *A. magdalenae* var. *peirsonii* was in error, and claims that: (1) The original listing decision was made without an actual plant count; (2) the original listing relied on data developed prior to the implementation of the California Desert Protection Act (CDPA); (3) the original listing decision relied on field studies that the Bureau of Land Management (BLM) has since determined were biased and scientifically unsound; (4) monitoring studies indicate that *A. magdalenae* var. *peirsonii* is abundant and thriving; and (5) plant counts confirm that the Imperial Sand Dunes support more than 100,000 *A. magdalenae* var. *peirsonii* individuals and a healthy seed bank.

On November 6, 2002 we received a 60-day notice of intent to sue from David P. Hubbard *et al.*, representing the ASA *et al.*, citing our alleged failure to make the findings on this petition as required by the ESA. A complaint was executed in the United States District Court for the Southern District of California on February 25, 2003. The plaintiffs (ASA *et al.*) challenge the Service's failure to make both the 90-day finding and 12-month finding on petition to delist the Peirson's milk-vetch. In August 2003, the Department of Justice entered into a settlement agreement with ASA *et al.*, requiring us to make a 90-day finding on this petition by August 29, 2003, and, if the 90-day finding is that the petition contains substantial information that delisting *Astragalus magdalenae* var. *peirsonii* may be warranted, a 12-month finding by May 31, 2004. As part of this settlement agreement, the petitioners

asked that we also accept and consider the information provided in Phillips and Kennedy (2002) when making our findings.

The factors for listing, delisting, or reclassifying species are described at 50 CFR 424.11. We may delist a species only if the best scientific and commercial data available substantiate that it is neither endangered nor threatened. Delisting may be warranted as a result of: (1) Extinction, (2) recovery, or (3) a determination that the original data used for classification of the species as endangered or threatened were in error.

Biology and Distribution

Astragalus magdalenae var. *peirsonii* occurs essentially as one population of scattered colonies within the Algodones Dunes in the Sonoran Desert of Imperial County, California. The Algodones Dunes are often called the Imperial Sand Dunes, a designation derived from a land use area called the Imperial Sand Dunes Recreation Area established by BLM. The habitat for *A. magdalenae* var. *peirsonii* is slopes and hollows of wind-blown desert dunes, chiefly along a northwest-to-southeast orientation on the BLM-managed land. The distribution and relative abundance of the plant varies from place to place and year to year (WESTEC Services, Inc. (WESTEC) 1977; Willoughby 2000, 2001; Thomas Olsen Associates, Inc. (TOA) 2001; Phillips and Kennedy 2002). The tendency of plants to be found in patches is likely due to the localized dispersal of the fruits and seeds, as well as dune morphology and differences in local rainfall patterns.

Astragalus magdalenae var. *peirsonii* (Peirson's milk-vetch) is an erect to spreading, short-lived perennial in the Fabaceae (Pea family) (Barneby 1959, 1964). Plants may reach 20 to 70 centimeters (cm) (8 to 27 inches (in)) in height and develop taproots (Barneby 1964) that penetrate to the deeper, more moist sand. The stems and leaves are covered with fine, silky appressed (flat on surface) hairs. The small, narrow, widely spaced leaflets may fall off in response to drought. The purple flowers are arranged in 10-to 17-flowered axillary racemes. Individuals are reportedly able to flower in their first growing season (Barneby 1964; Romsper and Burk 1979). Romsper and Burk (1979) found inflorescences present from December through at least April. The fruits are 2 to 3.5 cm (0.8 to 1.4 in) long and inflated. Phillips and Kennedy (2002) determined that the mean number of fruits per older plant was 171.5 compared with an estimated 5 fruits per plant for plants said to be

in their first year. The seeds, among the largest known for any species of *Astragalus* (Bowers 1996), average 15 milligrams (mg) (less than 0.1 ounces (oz)) each in weight and are up to 4.7 millimeters (mm) (0.2 in) in length. There are 11 to 16 seeds per fruit (Barneby 1964). *Astragalus lentiginosus* var. *borreganus*, easily distinguished by its conspicuously broad leaflets, is the only similar taxon in the area.

Seeds are dispersed by three basic mechanisms: (1) Falling from partially open fruits that remain on the plant; (2) falling from fruits that are blown across the sand; or (3) falling to the ground within the fruit (Barneby 1964; Bowers 1986; Phillips and Kennedy 2002). Wind dispersal of fruits across the surface of the dunes is likely the primary long-distance dispersal method for this plant. The fruits and seeds tend to accumulate on the leeward side of the dunes. These seeds may be found scattered on the sand surface at times.

The number and location of standing plants may vary considerably from year to year due to a number of factors, including the amount, timing, and location of rainfall; temperature; soil conditions; and the extent and nature of the seed bank. For example, along the BLM transects, Willoughby (2001) reported that 942 plants were found in 1999 and only 86 plants in 2000, both low rainfall years compared to the wetter year 1998, when 5,064 plants were found. In 2001, 71,926 plants were reported (TOA 2001), but this single census does not provide any information on population trend. Plant mortality over the short term may also be considerable (Phillips and Kennedy 2002).

In 1979, *Astragalus magdalenae* var. *peirsonii* was listed by the State of California as an endangered species under the California Endangered Species Act (CESA). On October 6, 1998, we listed *A. magdalenae* var. *peirsonii* as threatened (63 FR 53596). We made this determination based upon the best scientific and commercial information available at the time. As stated and documented in the final listing rule, this action was taken, in part, because of threats of increasing habitat loss from off-highway vehicle (OHV) use, associated recreational development, destruction of plants, and lack of protections afforded the plant on Federal lands. We did not designate critical habitat for *A. magdalenae* var. *peirsonii* at the time of listing because such action was not considered prudent at that time.