

requested action may be warranted. The 90-day finding was published in the **Federal Register** on August 19, 1992 (57 FR 37513). A status review was continued for this category 2 candidate species (58 FR 51186; September 30, 1993).

Silene verecunda ssp. *verecunda* is a perennial herb in the pink family (Caryophyllaceae) that grows from 10 to 70 centimeters (4 to 28 inches) tall. Each flower has five pink to rose colored notched petals, and the purplish sepals are united into a tube, making the flower look bell-shaped.

Silene verecunda ssp. *verecunda* previously was reported to occupy open grassy areas in sandy to rocky soils in coastal strand, coastal prairie, and coastal scrub plant communities ranging from San Francisco south to Santa Cruz County (Young 1979). Recently, *S. verecunda* ssp. *verecunda* has been reported to occur in chaparral and mixed evergreen forest plant communities (Skinner and Pavlik 1994; Lion Baumgartner, Thomas Reid Associates, *in litt.* 1994). Historical populations from Lake Merced and Mission Dolores in San Francisco have been extirpated due to commercial and residential development. Currently there are about 2,000 known individuals of *S. verecunda* ssp. *verecunda* found primarily on private or non-Federal land, including about 700 plants on San Bruno Mountain (Lion Baumgartner, *in litt.* 1994). Three populations, totaling seven hundred plants according to a 1993 census, occur on the Presidio in San Francisco. It is not known how much potential habitat, or numbers of individuals may occur from Montara Mountain in San Mateo County to Rancho Del Oso in Santa Cruz County.

The northern range of *Silene verecunda* ssp. *verecunda* overlaps a rapidly urbanizing portion of the San Francisco Bay area. Most of the habitat within the northern part of the range of *S. verecunda* ssp. *verecunda* has been disturbed or eliminated except for areas on San Bruno Mountain that are protected for the conservation of the endangered mission blue butterfly (*Icaricia icarioides missionensis*). Implementation of the San Bruno Mountain Habitat Conservation Plan (HCP) developed under sections 10(a)(1)(B) and 10(a)(2)(A) of the Act has conserved habitat for the butterfly, and indirectly benefits *S. verecunda* ssp. *verecunda* by maintaining the habitat in which both species occur. On federally owned land on the Presidio in San Francisco, increased human access and activities potentially threatened three populations of *S. verecunda* ssp. *verecunda*. One of these populations has

been fenced to restrict access, and the other two populations are expected to be protected by fencing when ownership of the Presidio is transferred from the Department of Army to the National Park Service. Invasive non-native vegetation is encroaching on some populations of *S. verecunda* ssp. *verecunda*. On the Presidio, however, there are ongoing efforts to remove the invasive species. There is no quantitative trend data to assess the extent to which *S. verecunda* ssp. *verecunda* has or will be impacted by non-native plants. Therefore, such threat to this species is not known to be immediate or imminent. The known populations of *S. verecunda* ssp. *verecunda* that occur on the Presidio are unlikely to be affected by toxic waste site studies and clean-up. This species does not occur near the area where these activities most likely would occur (Peter Lacivita, U.S. Army Corps of Engineers, pers. comm. 1993). Neither disease, predation, or overutilization are known to be a threat to *S. verecunda* ssp. *verecunda*.

Stochastic (random) and natural events can cause population fluctuations or even population extirpations but are not usually a concern until the number of individuals or geographic distribution become vulnerably small. A combination of remnant small populations, a narrow range, and restricted habitat, could make all or a significant part of any population susceptible to destruction from stochastic natural events, such as flood, drought, disease, or other natural occurrences (Shaffer 1981, Primack 1993) such as genetics and reproductive success.

No demographic studies exist to indicate that the reproductive success of *Silene verecunda* ssp. *verecunda* is threatened, or is vulnerable to adverse impacts from random events. There is no evidence at this time to suggest that reproductive capacity is a factor posing a threat to the survival of the species. Low seed production in perennial plants is not necessarily a trait that makes a species vulnerable to extinction. Huenneke (1986) indicates that low genetic diversity in plants is rarely seen as a threat to their survival. Intrinsically, most rare plants are likely to have genetic systems enabling them to cope with the genetic consequences of rarity.

The population status of *S. verecunda* ssp. *verecunda* and its vulnerability to threats in the central part of its range (i.e., Montara Mountain in San Mateo County to Rancho del Oso in Santa Cruz County) are not known at this time. Moreover, the discovery of *S. verecunda*

ssp. *verecunda* in chaparral and mixed evergreen plant communities is an indication that this taxon may be more widely distributed and have broader habitat affinities than previously believed. Chaparral covers an extensive portion of the Coast Ranges in the San Francisco Bay area. Consequently, the unknown overall status of the taxon makes any assumptions about vulnerability of *S. verecunda* ssp. *verecunda* to current threats unsupportable at this time.

The Service has reviewed the petition, other available literature and information, and consulted with biologists and researchers familiar with *Silene verecunda* ssp. *verecunda*. On the basis of the best scientific and commercial information available regarding *S. verecunda* ssp. *verecunda*, the Service finds that the petitioned action is not warranted at this time because there is insufficient information about the taxon's status and its vulnerability to threats. The Service will continue to maintain *S. verecunda* ssp. *verecunda* as a species of concern. The Service encourages all interested parties to investigate the population status of *S. verecunda* ssp. *verecunda* and its vulnerability to threats, with particular reference to the southern and central portions of its range and populations occurring in chaparral and mixed evergreen plant communities. If additional data becomes available in the future, the Service may reassess the listing priority for this species or the need for listing.

Author

The primary author of this document is Kirsten Tarp (see ADDRESSES section).

Authority

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*)

Dated: July 24, 1995.

John G. Rogers,

Acting Director, Fish and Wildlife Service.
[FR Doc. 95-22172 Filed 9-6-95; 8:45 am]

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50 CFR Part 17

Endangered and Threatened Wildlife and Plants; 90-Day Finding for a Petition to List the Mohave Ground Squirrel as Threatened

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of 90-day petition finding.

SUMMARY: The U.S. Fish and Wildlife Service (Service) announces the 90-day finding on a petition to list the Mohave ground squirrel (*Spermophilus mohavensis*) under the Endangered Species Act (Act) of 1973, as amended. The Service finds that the petition did not present substantial information indicating that the petitioned action may be warranted.

DATES: The finding announced in this document was made on August 4, 1995. Comments and materials related to this petition finding may be submitted to the Field Supervisor at the address listed below.

ADDRESSES: Information, data, comments, or questions concerning the status of the petitioned species should be submitted to the Field Supervisor, Fish and Wildlife Service, Ventura Field Office, 2493 Portola Road, Suite B, Ventura, California 93003. The complete file for this finding is available for public inspection, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Kate Symonds at the Ventura Field Office (see ADDRESSES section) or at 805/644-1766.

SUPPLEMENTARY INFORMATION:

Background

Section 4(b)(3)(A) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1533 *et seq.*) (Act), requires that the Service make a finding on whether a petition to list, delist, or reclassify a species presents substantial scientific or commercial information to indicate that the petitioned action may be warranted. This finding is to be based on all information available to the Service at the time the finding is made. To the maximum extent practicable, this finding is to be made within 90 days of the date the petition was received, and the finding is to be published promptly in the **Federal Register**. If the finding is that substantial information was presented, the Service also is required to commence a review of the status of the species.

On December 13, 1993, the Service received a petition dated December 6, 1993, from Dr. Glenn R. Stewart of California Polytechnic State University, Pomona, California, requesting the Service to list the Mohave ground squirrel (*Spermophilus mohavensis*) as a threatened species. The species is a category 2 candidate (November 15, 1994; 59 FR 58988), which was first included in this category on September 18, 1985. Category 2 includes taxa for which sufficient information on biological vulnerability and threats is

not currently available indicating that listing as endangered or threatened is warranted.

The Mohave ground squirrel ranges throughout the northwest portion of the Mojave Desert of California. The species spends about 7 months a year, usually from August to February, estivating in burrows. Timing of estivation is presumably related to sufficient accumulation of fat reserves (Bartholomew and Hudson 1960, Ingles 1965, Tomich 1982). Entrance into estivation may begin from June to September. In years with abundant food supplies, adults may enter estivation in late June and juveniles may enter in late July. Adults are more likely than juveniles to enter estivation early because adults do not need to gain as much weight as juveniles to survive the long estivation underground (Gustafson 1993). Males tend to enter estivation earlier than females because they do not need to put energy into milk production and feeding of young before they store fat (Leitner and Leitner 1992). Mating occurs soon after emergence from estivation and a litter of 4-6 young are born after a gestation period of 28-30 days. Mohave ground squirrels are generally less active when air temperatures drop below 88 °F or exceed 98.1 °F (Bartholomew and Hudson 1960). The diet consists of seeds, flowers, forbs, shrubs, grasses, fungi, and arthropods, although the species has demonstrated flexibility in utilizing food items as annual availabilities change (Recht 1977, Leitner and Leitner 1992).

Mohave ground squirrels have been found in all vegetation associations and up to 5,600 feet in elevation within its 7,600 square mile range (Hoyt 1972, Gustafson 1993). Gustafson (1993) reported that Mohave ground squirrels have been found in Holland's (1986) communities of Mohave wash scrub, desert sink scrub, and desert greasewood scrub. Nonetheless, the species appears to prefer large alluvial-filled valleys and deep, fine-to-medium textured soils vegetated with creosote bush scrub, shadscale scrub, or alkali sink scrub wherever desert pavement is absent (Aardahl and Roush 1985). The Mohave ground squirrel rarely is found in mountainous or rocky terrain, or dry lake beds, although exceptions have been recorded (Zemba and Gall 1980, Wessman 1977).

Excluding mountainous or rocky areas, and dry lake beds, the Mohave ground squirrel habitat is distributed over an estimated 7,200 square miles (Gustafson 1993). This figure excludes those plant communities and soil types in which the species has never been

found. Without precise habitat information, it is difficult to assess the severity of habitat loss. In addition, insufficient data are available on specific habitat requirements to precisely delineate the acreage of Mohave ground squirrel habitat. Specific information on habitat requirements would also facilitate the rating of areas based on habitat quality.

In making a finding as to whether a petition presents substantial commercial and scientific information to indicate the petitioned action may be warranted, the Service must consider whether the petition is accompanied by a detailed narrative justification [50 CFR § 424.14(b)(2)(ii)]. The regulations require the Service to "consider whether such petition * * * [p]rovides information regarding the status of the species over all or a significant portion of its range" [50 CFR § 424.14(b)(2)(iii)], including current distributional and threat information. Furthermore, the Service is required to "consider whether such petition * * * [i]s accompanied by appropriate supporting documentation in the form of bibliographic references, reprints of pertinent publications, copies of reports or letters from authorities, and maps" [50 CFR § 424.14(b)(2)(iv)].

In assessing the substantiality of this petition, the Service reviewed several published and unpublished studies, agency documents, literature syntheses, commercial data, and field sighting records. The Service also interviewed researchers and other persons familiar with the species' biology. In addition, the petitioner was contacted to provide additional supporting information, which he was unable to provide. On the basis of the best scientific and commercial information available, the Service finds that the petition did not provide reliable data, recent or otherwise, throughout the species' range regarding specific habitat requirements, and population abundance and trends. Moreover, the petition did not include any data linking some activities (e.g., rural development, off-road vehicle use, Fort Irwin training) with long-term absence of the ground squirrel or on the extent to which these activities may be degrading habitat. Also, the petitioner failed to provide convincing data that grazing by domestic sheep and cattle adversely affects the habitat of the Mohave ground squirrel. Finally, the petition did not include any information to assess the extent and configuration of habitat loss due to fragmentation to determine whether this threatens the species. Therefore, given the uncertainties associated with urban growth and other threats in the Mojave

Desert, and the lack of credible studies on the biological status of the species, the Service finds that the petition did not present substantial information indicating that the listing of the Mohave ground squirrel may be warranted. Given these data uncertainties, the Mohave ground squirrel will remain a species of concern to the Service.

References Cited

A complete list of references used in the preparation of this finding is available, upon request, from the Ventura Field Office (see **ADDRESSES** section).

Author

The primary author of this document is Kate Symonds, Ventura Field Office (see **ADDRESSES** section).

Authority

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: August 4, 1995.

John G. Rogers,

Acting Director, Fish and Wildlife Service.
[FR Doc. 95-22171 Filed 9-6-95; 8:45 am]
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50 CFR Part 17

Endangered and Threatened Wildlife and Plants; 12-Month Finding for a Petition to List the Mono Lake Brine Shrimp as Endangered

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of 12-month petition finding.

SUMMARY: The Fish and Wildlife Service (Service) announces a 12-month finding for a petition to list the Mono Lake brine shrimp (*Artemia monica*) under the Endangered Species Act of 1973, as amended (Act). This aquatic crustacean occurs only in Mono Lake, Mono County, California. A recent decision by the California State Water Resources Control Board to revise the water rights of the City of Los Angeles in the Mono Basin has apparently removed the threat of habitat degradation to the Mono Lake brine shrimp. As a result of the protections offered by this decision, the Service finds that the Mono Lake brine shrimp does not meet the definition of an endangered or a threatened species at the present time.

DATES: The finding announced in this document was made on July 24, 1995. Comments from all interested parties will be accepted until further notice.

ADDRESSES: Data, information, comments, or questions concerning this petition should be sent to the U.S. Fish and Wildlife Service, Field Supervisor, Ventura Field Office, 2493 Portola Road, Suite B, Ventura, California 93003.

FOR FURTHER INFORMATION CONTACT: Cathy R. Brown (see **ADDRESSES** section) telephone 805-644-1766; facsimile 805/644-3958.

SUPPLEMENTARY INFORMATION:

Background

Section 4(b)(3)(B) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*), requires that for any petition to revise the Lists of Endangered and Threatened Wildlife and Plants that contains substantial scientific and commercial information a finding be made within 12 months of the date of receipt of the petition on whether the petitioned action is: (a) not warranted, (b) warranted, or (c) warranted but precluded from immediate proposal by other pending proposals. Such 12-month findings are to be published promptly in the **Federal Register**.

In a petition dated June 16, 1987, and received by the Service on June 19, 1987, the Service was requested by Dr. Dennis D. Murphy, of the Center for Conservation Biology, Stanford University, to list the Mono Lake brine shrimp as an endangered species. The petition cited threats to this species that would result from increasing salinity caused by continued water diversions from the streams tributary to Mono Lake. The Service's 90-day finding, that substantial information existed indicating that the petitioned action may be warranted, was published in the **Federal Register** on August 19, 1988 (53 FR 31721). A status review was initiated at that time. A timely finding on the subject petition was precluded by higher priority listing actions until the present time.

The Mono Lake brine shrimp is a species of fairy shrimp found only in Mono Lake, Mono County, located east of the Sierra Nevada Mountain Range in northeastern California. It is a branchiopod crustacean in the order Anostraca whose members have stalked compound eyes. It is characterized by an elongated body trunk of 20 or more segments, and the absence of a carapace.

Mono Lake may be the second oldest continuously existing lake in North America with an estimated age ranging from 500,000 to one million years (Vorster 1985). It is a terminal lake, that is, a closed system with no outlet flows. Lake level is maintained by five principal inflowing streams that

originate in the Sierra Nevada mountain range from meltwater of the previous winter's snowpack. When the net inflow is less than the net evaporation, salinity concentrations increase as the lake's surface elevation declines. Beginning in 1941, the City of Los Angeles Department of Water and Power (Los Angeles) diverted water from four of the five streams flowing into Mono Lake for its municipal and domestic use. The water exports have caused a decline of 14 meters (m) (45 feet (ft)) in lake surface elevation and a 100 percent increase in lake salinity (Dana and Lenz 1986). Mono Lake surface elevation was about 1,956 m (6,417 ft) above mean sea level and the water salinity was about 48 grams per liter (parts per thousand (ppt)) before water exports began in 1941 (Vorster 1985, Botkin *et al.* 1988). Currently, the lake surface elevation is about 1,943 m (6,375 ft) with a salinity of 100 ppt (M. Davis, Mono Lake Committee, pers. comm., 1994).

High salinities deleteriously affect Mono Lake brine shrimp reproduction. In addition, female age at reproduction increases significantly, and the number of ovoviviparous broods per year and brood size decrease significantly as salinity increases from 76 ppt to 118 ppt (Dana and Lenz 1986). Some of these negative effects on adult Mono Lake brine shrimp fecundity occur at present lake salinities. At the current salinity of about 100 ppt, about 50 percent of Mono Lake brine shrimp cysts do not hatch (Dana and Lenz 1986).

In September 1994, the California State Water Resources Control Board issued Water Rights Decision #1631, revising Los Angeles's water rights to provide greater protection to public trust values of Mono Lake. The State Board's decision establishes an average lake level of 1,948 m (6,392 ft), with an estimated salinity of 69 ppt. These conditions are expected to be beneficial to brine shrimp reproduction and should provide adequate protection for the long-term viability of the Mono Lake brine shrimp.

On the basis of the best available scientific and commercial information, the Service finds that listing the Mono Lake brine shrimp is not warranted because the taxon is not in danger of extinction or likely to become so in the foreseeable future. The Service will reclassify the Mono Lake brine shrimp as a category 3C candidate for listing and will continue to monitor its status. Category 3C candidates are those taxa that have proven to be more abundant or widespread than previously believed and/or those that are not subject to any identifiable threat. If information becomes available indicating that the