

the Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*), both in California, to the List of Endangered and Threatened Wildlife. The Service finds that both petitions have presented substantial information indicating that the requested actions may be warranted. Through issuance of this notice, the Service is commencing formal reviews of the status of these species.

**DATES:** The findings announced in this notice were made on October 23 (Delta smelt) and October 30 (Delhi Sands flower-loving fly) 1990. Comments and materials related to these petition findings may be submitted to the Field Supervisors at the addresses listed below until further notice.

**ADDRESSES:** Comments and materials concerning the delta smelt petition finding should be submitted to the Field Supervisor, Sacramento Field Station, U.S. Fish and Wildlife Service, 2800 Cottage Way, Room E-1803, Sacramento, California 95825-1846. Comments and materials concerning the Delhi Sands flower-loving fly petition finding should be submitted to the Field Supervisor, Laguna Niguel Field Station, U.S. Fish and Wildlife Service, 24000 Avila Road, Laguna Niguel, California, 92677. The petitions, findings, supporting data, and comments are available for public inspection, by appointment, during normal business hours at the above addresses.

**FOR FURTHER INFORMATION CONTACT:** A. Keith Taniguchi (delta smelt) at the above Sacramento, California address, (916) 978-4866 or FTS 460-4866, or Richard Zembal (Delhi Sands flower-loving fly) at the above Laguna Niguel, California address, (714) 643-4270 or FTS 796-4270.

**SUPPLEMENTARY INFORMATION:**

**Background**

Section 4(b)(3)(A) of the Endangered Species Act (Act), (16 U.S.C. 1531 *et seq.*), 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. To the maximum extent practicable, this finding is to be made within 90 days of the receipt of the petition, and the finding is to be published promptly in the Federal Register.

Dr. Don C. Erman, President-Elect of the California-Nevada Chapter of the American Fisheries Society, submitted a petition to list the delta smelt (*Hypomesus transpacificus*) as an endangered species with critical habitat

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**DEPARTMENT OF THE INTERIOR**

**Fish and Wildlife Service**

**50 CFR Part 17**

**Endangered and Threatened Wildlife and Plants; Notice of 90-Day Findings on Petitions to List the Delta Smelt and Delhi Sands Flower-Loving Fly as Endangered**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Notice of petition findings.

**SUMMARY:** The U.S. Fish and Wildlife Service (Service) announces 90-day findings for petitions to add the delta smelt (*Hypomesus transpacificus*), and

in California. The petition, dated June 26, 1990, was received by the Service on June 29, 1990.

The delta smelt is a small fish endemic to the upper Sacramento-San Joaquin estuary in the San Francisco Bay area of California. The petition and supporting documentation stated that the delta smelt has become critically depleted, and requires protection under the Endangered Species Act because of increasing diversion of freshwater from its estuarine habitat, coupled with recent drought conditions in central California.

The delta smelt is adapted to living in the seawater-freshwater mixing zone of salt and brackish marshes where salinities typically are 0 to 2 grams per liter. All life stages of this species feed only on zooplankton. The annual export of 6 million acre-feet of freshwater away from the estuary by Federal, State and private projects has allowed the intrusion of higher salinity seawater to the marshes. Because of higher salinities, the delta smelt has lost spawning and larvae nursery areas in Suisun Bay and Suisun Marsh, and is now forced to spawn in less favorable river channel habitat. Monitoring studies conducted by the California Department of Fish and Game (Stevens et al 1990), and the University of California, Davis (Moyle and Herbold In Press), have shown a tenfold population decline from 2,000,000, two decades ago to an estimated 200,000 today. A sharp population decline occurred during the last six years, mainly as a result of increased freshwater exports coupled with four years of drought conditions. Other factors that may be contributing to the decline of this species include high toxin levels, displacement of native copepods (a major dietary component) by exotics, and competition by an invasive species of clam (*Potamocorbula amurensis*) (Moyle et al 1989).

Based on the best scientific and commercial information presently available, the Service has found that the petition to list the delta smelt as endangered presents substantial information indicating that the requested action may be warranted. In

the January 6, 1989 vertebrate notice of review (54 FR 554), the species was classified as a category 1 candidate, meaning that the Service now has sufficient information in its files to warrant the preparation of a proposal to list the species. As part of a formal review of the status of the delta smelt, the Service would appreciate any additional data, comments, and suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning the status of this species.

On July 19, 1990, the Service received a letter requesting activation of a petition from Mr. Greg Ballmer of the University of California, Riverside, to list the Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*) as an endangered species. Mr. Ballmer submitted taxonomic, biological, distributional, and historic information and cited several scientific articles in support of this petition. The petition and accompanying data describe this subspecies as imperiled due to a 97 to 98 percent reduction of its range and imminent threats to the remaining population sites.

The only other member of this species, *Rhaphiomidas terminatus terminatus*, inhabited coastal dunes of Los Angeles County in California and is thought to be extinct. The taxon inhabits fine sandy soils of the Delhi Series. These soils once may have covered approximately 40 square miles in western Riverside and San Bernardino Counties but were used extensively for agriculture and more recently, for housing and commercial developments. Today, less than 1,000 acres of these soils remain, all in southwestern San Bernardino County, and only four known occupied habitat parcels exist. Current populations occupy approximately 2.5 percent of the remaining Delhi series soils and individuals have been observed only in very low densities. Habitat loss, fragmentation, and degradation may lead to the quick disappearance of this taxon if current trends continue. The dominance of nonnative plants and sparsity of natives in suitable habitat may be responsible

for the clumping of specimens recently observed.

The plight of this taxon has only been realized recently. Consequently, it has not been included in past Notices of Review. A petition to list this subspecies was also submitted by Mr. Ballmer to the California Department of Fish and Game.

Based on the best scientific and commercial information currently available, the Service finds that the petition to list the Delhi Sands flower-loving fly as endangered has presented substantial information to indicate that the requested action may be warranted.

#### References Cited

- Moyle, P. B. and B. Herbold. In Press. Life history and status of delta smelt in the Sacramento-San Joaquin estuary, California. Transactions of the American fisheries Society.
- Moyle, P. B., J. E. Williams, and E. D. Wikramanayake. 1989. Fish species of special concern of California. California Department of Fish and Game, Final Report, Contract No. 7337.
- Stevens, D. E., L. W. Miller, and B. C. Bolster. 1990. Report to the Fish and Game Commission: A status review of the delta smelt (*Hypomesus transpacificus*) in California. California Department of Fish and Game, Candidate Species Status Report 90-2.

#### Author

This notice was prepared by A. Keith Taniguchi, Richard Zembal (see ADDRESSES section), and Leslie Propp, Portland Regional Office, U.S. Fish and Wildlife Service, Eastside Federal Complex, 911 N.E. 11th Avenue, Portland, Oregon 97232 (503/231-6131).

#### List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and Recordkeeping requirements, and Transportation.

Authority: 16 U.S.C. 1361-1407; 16 U.S.C. 1531-1544; 16 U.S.C. 4201-4245; Pub. L. 99-625, 100 Stat. 3500; unless otherwise noted.

Dated: December 11, 1990.

Bruce Blanchard,

Acting Director, U.S. Fish and Wildlife Service.

[FR Doc. 90-30066 Filed 12-21-90; 8:45 am]

BILLING CODE 4310-55-M