

5-YEAR REVIEW

Short Form Summary

Species Reviewed: Pacific Coast Population of Western Snowy Plover

(*Charadrius alexandrinus nivosus*)

Current Classification: threatened

FR Notice announcing initiation of this review: 69 FR 13326, Endangered and Threatened Wildlife and Plants; 90-Day Finding on a Petition To Delist the Pacific Coast Population of the Western Snowy Plover and Initiation of a 5-Year Review

Lead Region/Field Office:

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Name of Reviewer(s): Jim Watkins, Arcata Fish and Wildlife Office, 707-822-7201

Methodology used to complete this 5-year review:

The 5-year review for the Pacific Coast population of western snowy plover was accomplished through the status review conducted for the 12-month finding to a delisting petition received on July 29, 2002, from the Surf-Ocean Beach Commission of Lompoc, California. We also received a similar petition dated May 30, 2003, from the City of Morro Bay, California which we treated as a comment on the first petition, as described in our 1996 Petition Management Guidance (Service and NMFS 1996). On March 22, 2004, we announced an initial petition (90-day) finding in that the petition presented substantial information to indicate the petitioned action may be warranted, and we initiated a status review under section 4(b)(3)(A) of the Act. In the same Federal Register notice, we initiated the 5-year review (69 FR 13326).

Our status review involved a detailed analysis of the information provided in the delisting petition as well as an analysis of information that has become available since the Pacific Coast population of western snowy plover was listed in 1993. Information was obtained through a request for information in the March 22, 2004 Federal Register notice and through contacting knowledgeable individuals who we felt could provide recent data relevant to the status of the population. In addition, the Service gathered information in two other ways. First, we contracted with Susan Haig of the USGS to conduct genetic analyses of *Charadrius alexandrinus nivosus* using microsatellite and mitochondrial DNA markers. Her report was received by the Service on February 16, 2006. Second, we asked six researchers familiar with avian banding studies to examine the available banding data for western snowy plovers on the Pacific Coast and from inland North America (interior) west of the Rocky Mountains. Specifically we asked them to provide us their professional opinions about the adequacy of those studies for determining reproductive separation between the two populations. We chose the researchers based on their expertise analyzing bird banding data as well as their lack of current involvement in western snowy plover issues (i.e., their independence with respect to western snowy plover). Both the genetics data and the banding data were considered during our analysis

of whether the Pacific Coast population of western snowy plover qualifies as a distinct population segment (DPS) under our 1996 DPS policy (61 FR 4722) (see also Application of the 1996 Distinct Population Segment (DPS) Policy below).

Application of the 1996 Distinct Population Segment (DPS) Policy:

Details of our analysis of the application of the DPS policy can be found in our 12-month finding on the delisting petition, published on April 21, 2006 (71 FR 20607). Our analysis is summarized below.

The Pacific Coast population of western snowy plover was listed in 1993, prior to our development of a joint policy with National Marine Fisheries Service (National Oceanic and Atmospheric Administration-Fisheries) that addresses the recognition of DPSs of vertebrate species for potential listing actions (61 FR 4722). Therefore, in conducting the status review for the 12-month petition finding and the 5-year review, we analyzed whether the population we listed meets the criteria identified in the 1996 DPS policy. The DPS policy specifies that we are to use three elements to assess whether a population segment under consideration for listing may be recognized as a DPS: (1) the population segment's discreteness from the remainder of the species to which it belongs and (2) the significance of the population segment to the species to which it belongs. If we determine that a population segment meets the discreteness and significance standards, then the level of threat to that population segment is evaluated based on the five listing factors established by the Act to determine whether (3) listing the DPS as either threatened or endangered is warranted.

Based on the available information in the petition, scientific literature, and in our files regarding western snowy plover range and distribution, we concluded that the Pacific Coast WSP is markedly separate from other populations of the subspecies due to behavioral differences and that it, therefore, meets the requirements of our DPS policy for discreteness. Banding studies and resighting efforts demonstrate that during breeding, the Pacific Coast WSP segregates geographically from other members of the subspecies, even those that also winter on the Pacific coast. Although not absolute, this segregation is marked and significant.

We found that the Pacific Coast DPS is significant to the subspecies of western snowy plover because it comprises approximately 20 percent (one-fifth) of the subspecies' estimated population based on the 2005 breeding window survey results. We conclude that the best available data demonstrate that the likelihood of pair bonding and interbreeding between the Pacific Coast WSP and the interior-nesting western snowy plovers is very low, and that there is no evidence indicating that interior breeding plovers would rapidly reestablish a viable breeding population along the Pacific Coast following the extirpation of the coastal population. Accordingly, loss of the Pacific Coast WSP would result in a significant gap in the breeding range of the taxon. It would constitute the loss of a substantial percentage of the subspecies, curtailing the taxon's current breeding range by 2,000 miles of coast line.

Finally, we found that continued listing of the Pacific Coast population of western snowy plover as threatened is warranted. Therefore, having met the three criteria specified in our DPS policy (61 FR 4722), we found that the Pacific Coast population of western snowy plover constitutes a valid DPS.

Review Analysis:

Our detailed analysis of the 5 listing factors and a discussion of the status, including biology and habitat, of the Pacific Coast population of western snowy plover is found in our 12-month finding on the delisting petition, published on April 21, 2006 (71 FR 20607).

We found that threats to the Pacific Coast WSP remain essentially the same as at the time of its listing in 1993. However, the magnitude of the threats has been reduced through active management afforded by protections under the Act, with a resultant increase to the overall Pacific Coast WSP population. Despite the reduction in the threats' magnitude relative to the time of listing, the Pacific Coast WSP is still at risk. The most important threats are ongoing habitat loss and fragmentation; mortalities, injuries, and disturbance resulting from human activities; and lack of comprehensive State and local regulatory mechanisms throughout the range of the WSP. Although overall increases in plover numbers (which can be attributed to management actions currently being implemented) have been observed, plover population sizes are low or plovers are absent throughout parts of their historical range in Washington, Oregon, and California. Accordingly, we find that the Pacific Coast WSP continues to qualify as a threatened species under the Act.

We also noted that because some of the threats have been reduced, the estimated WSP population levels in the United States have increased over the last 4 years (L. Stenzel, *in litt.* 2004a); management actions in several areas appear to be effective (Page *et al.* 2003; G. Page, *in litt.* 2004a); and numerous local management plans, habitat conservation plans, and integrated natural resource management plans have been implemented or are in the planning stages (Lauten *et al.* 2006; Colwell *et al.* 2005). We found these trends and management actions encouraging. We believe significant progress has been made toward recovery in a relatively short period of time (approximately 10 years), and that continued implementation of recovery actions that reduce the remaining threats could justify a delisting of the Pacific Coast WSP in the near future. In the interim period, we proposed a mechanism that will afford regulatory relief for areas that are contributing to recovery now. In the same issue of the Federal Register, we published a proposal for a special rule under section 4(d) of the Act that would exempt certain actions in certain areas from the section 9 take prohibitions of the Act, throughout the range of the DPS (71 FR 20625).

Recommendations for Future Actions:

We published our draft recovery plan in May, 2001. Notable progress has been made towards recovery of the Pacific Coast WSP using the draft plan as a guide. California

State Parks, the largest habitat manager that also manages the most plovers, tiered their Systemwide Guidance off of the draft plan.

The draft recovery plan took a three-pronged approach as a recovery strategy, considering: 1) habitat loss, degradation, and restoration issues; 2) predator control issues; and 3) human-related disturbance. Habitat restoration has been occurring primarily in the northern portion of the population's range in Oregon, and northern to central California. In addition, the Bolsa Chica Reserve in southern California is currently undergoing restoration. Predator control actions have begun in Oregon, and have been ongoing in central and southern California, primarily associated with California least tern management. Nest enclosures have been used on a case-by-case basis throughout the plover's United States range to increase hatch rates; however, predators still have a significant impact on plover fledging success at many sites.

Finalization of the recovery plan was delayed pending the outcome of our 12-month finding on the delisting petition. With our determination that the Pacific Coast WSP is a listable entity as mentioned above, our first task should be to complete the final recovery plan.

The actions most needed to further promote recovery include the following: reestablishing breeding populations to beach habitats in southern California; continue to prevent habitat loss and degradation; restore degraded habitats; balance habitat restoration with the needs for other species and their habitats around San Francisco Bay; manage nest and chick predators; and continue managing human activities at breeding and wintering locations. Because threats differ range-wide, the degree of management needed for recovery and conservation will vary by site, and should be conducted in a regional context.

U.S. FISH AND WILDLIFE SERVICE
SIGNATURE PAGE for 5-YEAR REVIEW on Pacific Coast
Population of Western Snowy Plover

Pre-1996 DPS listing still considered a listable entity? ___yes_____

Recommendation resulting from the 5-year review:

- _____ Delisting
- _____ Reclassify from Endangered to Threatened status
- _____ Reclassify from Threatened to Endangered status
- X No Change in listing status

Lead Field Supervisor, Fish and Wildlife Service

Michael M. Long
Michael M. Long, Arcata Fish and Wildlife Office

Date 5/19/06

Lead Regional Director, Fish and Wildlife Service

Acting Approve *Paul Henson*
Steve Thompson, California/Nevada Operations Manager

Date MAY 31 2006

Cooperating Regional Director, Fish and Wildlife Service

Concur *David B. Allen*
David Allen, Regional Director, Region 1, Portland

Date 6/8/06