

Pacific Seabird Group



DEDICATED TO THE STUDY AND CONSERVATION OF PACIFIC SEABIRDS AND THEIR ENVIRONMENT

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David C. Frederick
U.S. Fish & Wildlife Service
3704 Griffin Lane SE Suite 102
Olympia, Washington 98501-2192

Dear Mr. Frederick:

On behalf of the Pacific Seabird Group (PSG), we thank the U.S. Fish & Wildlife Service (FWS) for an opportunity to comment on the draft Restoration Plan for the Nestucca oil spill. PSG is an international organization that was founded in 1972 to promote knowledge, study and conservation of Pacific seabirds. PSG draws its members from the entire Pacific Basin, including Mexico, Canada, Japan, China, Australia, New Zealand, French Polynesia and Russia. Among PSG's members are biologists who have research interests in Pacific seabirds, state and federal officials who manage seabirds and the marine environment, and individuals with interests in marine conservation. During the past twenty years, PSG has hosted symposia on the biology and management of virtually every seabird species in the Pacific Northwest. We have commented extensively on restoration plans and annual work plans for the Exxon Valdez oil spill trust fund in Alaska.

PSG generally supports the draft plan, which includes:

- Improving habitat for seabirds on Destruction Island by removing alien rabbits;
- Educating boaters regarding disturbance to seabird colonies;
- Delineating seabird mortality from net fisheries; and
- Monitoring Common Murre attendance at Washington colonies to evaluate restoration actions.

We believe that the plan is balanced and is a reasonable expenditure of a fairly modest sum (\$50,000/year for ten years) of restoration funds. For future restoration plans that affect seabirds, PSG offers to provide its expertise at an earlier date, perhaps during a scoping process. The plan recognizes that it is difficult to do much to restore murre populations directly, and relies on monitoring to assess future impacts.

We note that pre-spill monitoring in the area of the Nestucca spill has been better than in most areas. However, we do not believe that the data will be sufficient to allow FWS to determine the success of the restoration alternatives. Assessing damages and determining the success of restoration requires a time series data base that provides information on natural variation. We agree with the plan's emphasis on monitoring because it will provide important annual data on a murre population that is clearly in trouble. FWS has long ignored this population, as is evidenced by FWS' 1989 colony catalogue (Speich and Wahl 1989) that had no information collected after 1982.

Regulating net fisheries and improving habitat have been successful elsewhere. The monitoring of a net fishery in California and the subsequent area and seasonal closures shows that monitoring a net fishery can provide realistic estimates of mortality to fashion regulations to protect seabirds. The removal of rabbits that may be displacing cavity nesting seabirds has also been effective elsewhere (e.g., the Farallon Islands). PSG believes that introduced mammals should be removed from seabird colonies throughout the Pacific, and has repeatedly asked state and federal officials to implement programs to accomplish this goal. FWS Region 1's Marine Bird Policy is to "remove all introduced predators from marine bird colonies on all National Wildlife Refuges and encourage their removal from all other colonies." While rabbits are not predators, we believe that there is sufficient concern about their ability to modify habitat that they should be removed from seabird colonies.

Education is perhaps not truly restoration, and some of our members believe that disturbance on the outer coast of Washington is rare. We understand that disturbance of colonies is a major problem in Oregon.

What follows are specific comments on the restoration proposal.

Executive Summary, paragraph 4

The executive summary says that the proposed work will determine the most important factors in regulating Common Murre survival and reproduction and diminish perturbations. This overstates the research objectives of the plan that are contained primarily in the monitoring alternative. That alternative will provide information on the status and annual variation of the

Common Murre population. While that information will allow FWS to examine the factors that may be correlated with changes in murre numbers, those factors that determine variation in population size are typically hard to identify (Wilson 1991), as are factors influencing survival and reproduction.

Section 2.0, paragraph 5

The comments on the small colonies being associated with cliff ledges and the larger ones being on boulder fields and scree may be true for the Farallon Islands, but including this information leads the reader to the false conclusion that all Common Murres follow this pattern.

paragraph 6

There is evidence for decreasing growth rates with increasing colony size (Croxall and Rothery 1991), as well as other ways in which high breeding densities can negatively affect breeding success so one should be wary of assuming that larger colony sizes or densities are always associated with higher breeding success.

Section 2.1

The title of this section is misleading and should be changed to "Human factors influencing survival . . ." The term "regulating" is inappropriate in this context.

paragraph 8

Carter and Sealy (1984) found that almost 8 percent of the fall population died in gill nets. This is different than having gill net mortality account for 8 percent of the annual marbled murrelet mortality.

Since this section deals with human factors influencing reproductive success, it should mention the instances of fishery/seabird conflicts for a common prey base and how that can affect seabird success and populations.

Section 3.0, paragraph 2

This paragraph incorrectly implies there is published evidence showing that social stimulation techniques can increase densities and improve synchrony. It should clearly state those situations where social stimulation has been used so the plan does not overestimate the potential of these techniques. The same is true with the creation of ledges. As written, it appears that the techniques have been used and have been successful.

Section 4.0, paragraph 3

The plan should mention the increase of burrow nesting species on the Farallon Islands after extermination of hares (Ainley and Lewis 1974). It should also mention that European rabbits destroyed habitat on Laysan and Lisianski islands, Hawaii, and caused three species of land birds to go extinct on Laysan (Harrison 1990). During recent years they have limited habitat for several seabird species on Manana Island, Hawaii (Harrison 1990).

paragraph 4

The plan should mention the central California experience of gill net mortality and closures to decreased the mortality (Takekawa et al. 1990).

paragraph 8, sentence 3

There is a good chance that a new equilibrium has been reached as has happened in other systems where an El Niño southern oscillation (ENSO) has occurred and commercial fisheries have apparently prevented the fish populations from rebounding after the ENSO. Ainley (per comm.) believes that in central California a new equilibrium has been reached so that the system's carrying capacity is not what it once was.

Section 5.0, paragraph 1

The goal of increasing the population by 30,000 Common Murres implies that anthropogenic effects reduced the population by that amount and are keeping the population to returning to that level. FWS should include a justification for the target number and note that the region may no longer be capable of supporting 30,000 birds.

paragraph 3

Given the annual variability in breeding populations and the accuracy of murre censusing, the plan should point out that it will probably not be possible to determine if the restoration alternatives are effective. With the exception of the eradication of rabbits on Destruction Island, it will be hard to separate the annual variation in colony size with the restoration options included in the plan.

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Please call either one of us if you have any questions regarding these comments.

Sincerely,

Craig S. Harrison

Craig S. Harrison
George J. Divoky

References

- Ainley, D. G. and T. J. Lewis. 1974. The history of the Farallon Island marine bird populations. *Condor* 76:432-446.
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