

Short-tailed Albatross and Fisheries Interactions (R0322)

Spatial and Temporal Interactions between Endangered Short-tailed Albatrosses and North Pacific Commercial Fisheries

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The Problem: Once abundant throughout the North Pacific, the short-tailed albatross population was driven to near extinction in the early twentieth century. With roughly only 1,800 of the birds left, the short-tailed albatross is listed as an endangered species throughout its range. Short-tailed Albatross spend most of their life at sea and the adult birds only gather together during the breeding season on two small islands in Japan. In Alaska little is known about the endangered bird's distribution.



Researchers attach a satellite transmitter to an albatross.

Historically, conservation efforts for the Short-tailed Albatross have focused on protecting rookeries and nesting habitats from human impact. However, because albatross spend most of their life at sea, they are susceptible to fisheries thousands of miles away from breeding islands. Since 1990 there have been five reported short-tailed albatross mortalities associated with Alaska's long-line fisheries which has resulted in great scrutiny of the fishery from environmental groups. Fisheries managers and scientists are working together to minimize albatross and fisheries interactions through continuing research and implementation of bird exclusion devices like streamers.

The Research: Biologist Greg Balogh from the U.S. Fish and Wildlife Service and Robert Suryan from the Hatfield Marine Science Center have used satellite transmitters to begin to determine when and where fishery and albatross encounters are most likely to occur. An improved understanding of the marine distribution and habitats used by the Short-tailed Albatross will benefit effective management and conservation plans for the species.

Preliminary Results: The research team spent two-weeks in August, 2003 catching and attaching satellite transmitters to four male short-tailed albatross, of varying ages. In total they recorded sightings of at least seventeen different individuals and were able to satellite track three of the bird's paths through the North Pacific. Fifty percent of the locations transmitted by the birds were within the U.S. Economic Exclusion Zone. Seventy-six percent of those locations were within primary fishing areas, indicating that the short-tailed albatrosses range overlaps significantly with U.S. commercial fishing fleets. This information will be used by Robert Suryan to help determine the factors that influence the distribution of short-tailed albatrosses.

The next step: In addition to fisheries impact, researchers must also consider how natural environmental changes and marine productivity changes affect the survival and reproductive rates of the bird. The next step will be correlate bird movements with environmental changes like wind speed, sea surface temperature, and chlorophyll concentrations. This information will be used to determine to what extent short-tailed albatrosses and commercial fishing vessels are targeting similar geographic areas.



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The North Pacific Research Board seeks to build a clear understanding of the North Pacific, Bering Sea, and Arctic Ocean ecosystems to enable effective fisheries management and the sustainable use of marine resources. www.nprb.org