U.S. Fish & Wildlife Service

Spectacled Eider Recovery

Partnerships Support Threatened Sea Duck

Fairbanks Fish & Wildlife Field Office

Precipitous Decline Prompts Listing
As recently as the 1960s, about 50,000 pairs of spectacled eiders (Somateria fischeri) nested on the Yukon-Kuskokwim Delta in western Alaska. But by 1992, only about 2,000 nesting pairs remained. The causes of this steep decline remain unknown, but its magnitude prompted the U.S. Fish and Wildlife Service (Service) to list the species as threatened under the Endangered Species Act in 1993.

The Eider Recovery Team:
After listing, the Service formed the Eider Recovery Team to help develop a recovery plan. When the plan was completed in 1996, the team tackled implementation.

The Eider Recovery Team includes biologists and land managers from the U.S. Geological Survey's Biological Resources Division, the U.S. Bureau of Land Management, the Alaska SeaLife Center, the State of Alaska Department of Fish and Game, the North Slope Borough Department of Wildlife Management, several universities, and representatives from Service programs in Contaminants, Migratory Bird Management and National Wildlife Refuges.

The team's focus on guiding and refining biological questions has produced research revealing surprising information about current threats preventing recovery, such as the danger posed by spent lead shot. Based on this information, the team gives annual guidance to the Service and its partners on education and management actions. A Service Eider Recovery Coordinator supports the team and guides progress on recovery actions.

Management Actions Counter Threats:
The Recovery Team has identified lead poisoning, predation, and illegal harvest as constraints to eider recovery, so current research, education and management efforts focus on these topics through the creative partnerships.

The Alaska SeaLife Center in Seward, Alaska maintains a flock of spectacled eiders, allowing scientists and animal husbandry experts to study and learn how to care for this species

Spectacled eiders are named for the bold black-rimmed eye patch on each side of the male's variegated green head. In females, a buff eye ring is set within a mottled brown head. This large sea duck is found only in the northern latitudes of Alaska and Siberia.

Lead Poisoning: Studies on the Yukon-Kuskokwim Delta by U.S. Geological Survey and Service biologists revealed that during the breeding season, 36% of adult female spectacled eiders ingested lead shot left in ponds by hunters, and that lead exposure reduced annual survival by 50%. In some wetland types, lead pellets were still available for birds to eat after more than eight years.

- **Lead Shot Research:** To discover whether lead shot is suppressing survival in eiders nesting on the North Slope, Service biologists partnered with BP Exploration Alaska, Inc. to monitor blood lead levels in spectacled eiders there in 2006.
- **Lead Shot Education:** The Service teamed with the Chevak Traditional Council, a tribe on the Yukon-Kuskokwim Delta. Local residents educate village stores about the benefits of non-toxic shot, and are trained to teach local hunters how to shoot effectively with it. A Service contaminants biologist is training community members to collect tissue samples for analysis of lead levels in harvested birds.

■ **Lead Shot Management:** At the request of the North Slope Borough, and supported by the Service, the Alaska Board of Game passed a regulation in 2006 prohibiting the use of lead shot for upland game bird hunting on the North Slope. A similar regulation prohibiting lead shot for all hunting was implemented for the Yukon-Kuskokwim Delta in 2007.

■ **Fox Predation:** Arctic foxes on the Yukon-Kuskokwim Delta turn to egg-hunting in years when other prey decline. This dynamic is reflected in vastly different levels of eider nesting success in different years. Since eider nesting areas are large and remote, it would be inefficient to control fox populations in years when they do not target eggs. The key is to predict which years will be high fox predation years.

■ **Fox Predation Research and Management:** USGS biologists are working to identify ways to monitor fox or rodent populations to predict years in which predation on eiders will be high. With this information, managers can efficiently target important eider nesting habitat with fox control.

Illegal Harvest: Spectacled eiders are closed to hunting throughout the year.

Yukon-Kuskokwim Delta villagers learn why lead shot is bad for ducks, and learn how to shoot steel shot effectively.

During the years of high fox predation, eider productivity is markedly lower. The Eider Recovery team recommends fox control during years when fox predation is predicted to be high.

■ **Harvest Education and Management:** National Wildlife Refuges and partners on the North Slope are using hunter education and law enforcement to eliminate illegal harvest.

On the Road to Recovery

There are no recent estimates for the Russian breeding population, but the number of spectacled eiders breeding pairs on the Y-K Delta was 6,000 in 2006. About the same number nested on the North Slope.

KNOW YOUR EIDERS BEFORE YOU SHOOT

SPECTACLED EIDER: (qavaasuk, iyegaatelek)
Threatened with extinction.
Don't shoot.

STELLER'S EIDER: (igniqauqtug, inniqauqtuq, aglekesega
Threatened with extinction.
Don't shoot.

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