

**Sea Duck Joint Venture**  
**Annual Project Summary for Endorsed Projects**  
**FY 02 –October 1, 2001 to Sept 30, 2002**

**Project Title:** No. 1(B): Efficiency of using implantable PTT's in white-winged scoters in Alaska

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**Partners:** USFWS, SDJV; USFWS, Yukon Flats National Wildlife Refuge (YFNWR); University of Alaska Fairbanks Department of Biology and Wildlife.

**Project Description:** Since 1977, numbers of all scoters (M. Spp.) breeding in Alaska and western Canada have declined. Causes of these declines are unknown. Satellite telemetry can help researchers identify discreet population units by identifying key migration routes, timing of movements, and affiliations between specific wintering, and breeding and molting sites. This information will help researchers and managers focus efforts to identify causes of population change.

Prior satellite telemetry work on wintering areas in Alaska has resulted in high mortality rates. In order to maximize benefits from this valuable technique we need to develop methodology to reduce mortality. This project tested mortality rates from summer deployment of satellite transmitters. Birds were captured in early June at Canvasback Lake (YFNWR) with floating mist nets. We marked 7 white-winged scoters (2 females, 5 males) with internal satellite transmitters. Five birds (1 female, 4 males) were marked with internal VHF transmitters.

**Objectives:** Primary objectives are to:

- 1) improve satellite implant technique to increase post release survival,
- 2) identify timing of migration between breeding, molting and wintering areas,
- 3) identify affiliations between specific breeding, molting and wintering sites,
- 4) collect blood samples to contribute to studies of genetic variation between breeding and wintering populations.

This study will also provide data to help identify specific molting and wintering areas that may require protection from human activities.

**Preliminary Results:** All satellite transmitted birds were alive as of 20 September 2002. All VHF implanted birds survived more than 14 days. Three were found dead at the capture site in mid-July. All satellite marked birds moved to molting areas between 29 June and 1 August. Six birds (4 males, 2 females) flew to the Bering Sea (Kuskokwim Bay) and one male flew to lower Cook Inlet (Fig. 1). Two males flew from the Yukon Flats to the Beaufort Sea before going to the Kuskokwim Bay molting area. As of September 20 all birds remained in these locations. We also observed use of the

Kuskokwim Bay for a molting area by white-winged scoters marked on wintering areas in Prince William Sound.

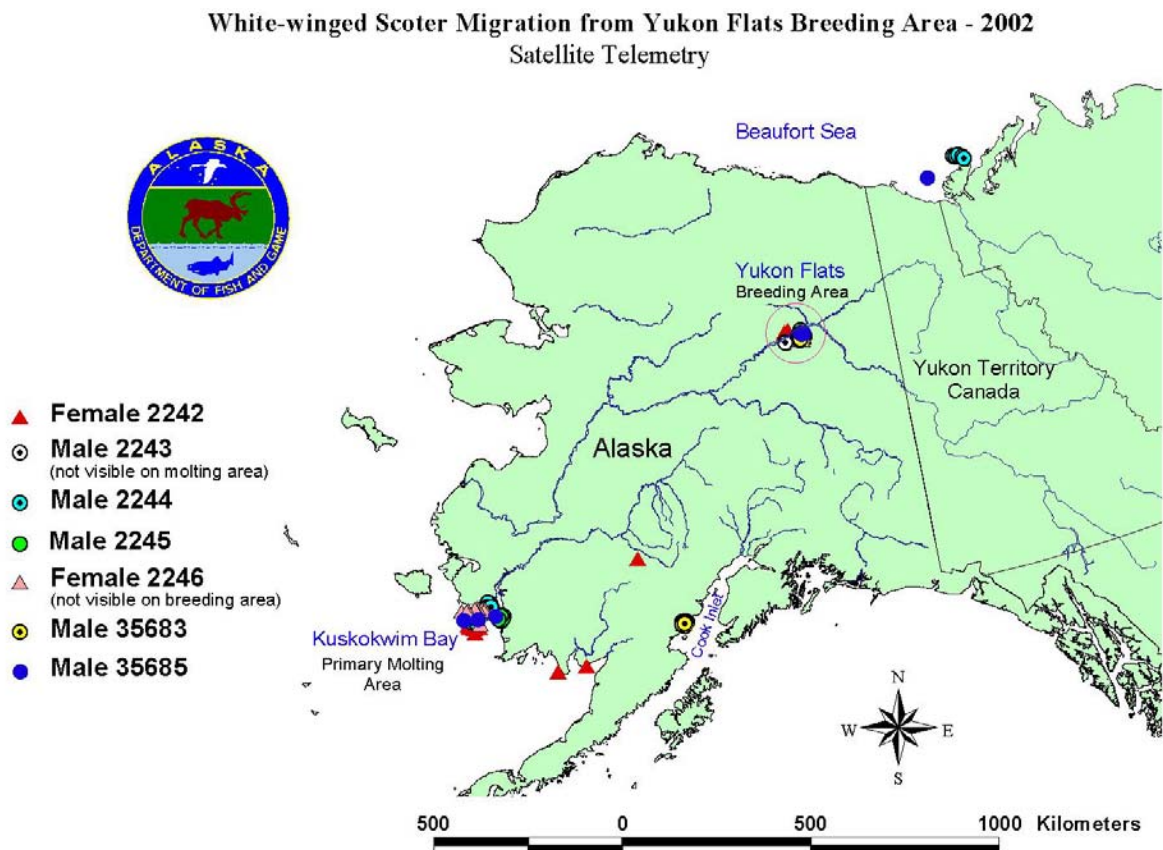


Figure 1. Movements of white-winged scoters marked on the Yukon Flats, Alaska with satellite transmitters in June 2002

**Project Status:** Transmitters are programmed to last up to 12 months and are currently being monitored. Transmitters are programmed to provide weekly data through May of 2003. Additional transmitters will be deployed in June 2003 if funding is available. Blood samples were archived for genetic analysis.