

TRIUMPH AND TRIBULATION: IMPLANTING SATELLITE TRANSMITTERS IN WHITE-WINGED SCOTERS

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Satellite telemetry can identify migration routes, timing of movements, and connections between specific wintering, breeding and molting sites and help determine if discreet or independent population segments occur in sea ducks. Thus, it is a valuable tool for identifying management units in wide ranging species inhabiting remote areas. This type of information can improve survey design and interpretation, define functional units for effective monitoring and harvest allocations, help delineate the spatial scale of population change and provide information to focus habitat conservation programs. Before we can maximize its potential we need to develop methods that minimize effects on species we are studying.

From 1999–2002, we surgically implanted satellite transmitters (PTT's) in white-winged scoters (*M. fusca*) at wintering areas in Southcentral and Southeast, AK and breeding areas in Interior AK. Floating mist-nets were used to capture birds. We deployed PTT's in white-winged scoters as follows: 1999 and 2000, 13 and 18 respectively in Prince William Sound (Southcentral); 2001, 15 near Juneau in Southeast AK; and in 2002, 7 birds on the Yukon Flats in Interior AK. For wintering birds mortality rates ranged over the 3-year period from a low of 11% in 2000 to a theoretical maximum of 80% in 2001 (mortality rates varied within this range depending upon criteria used to determine implant related mortality). Annual differences are attributed to capture location, release date, and holding methods. Mortality rate did not vary by sex. All seven birds implanted on the Yukon Flats in 2002 survived. We tracked movements of wintering birds to breeding areas (interior Alaska and the Yukon and Northwest territories), molting (Beaufort and Bering Sea, Gulf of Alaska), and back to wintering areas. Movements of birds implanted on breeding areas will also be reported. We will discuss differences in methods and results between years and present hypotheses for high mortality rates.

ABSTRACTS



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