

Western United States Use of GPS PTTs to study California Condor mortality factors

entana Wilderness Society, a private nonprofit organization based in California, recently began using GPS PTTs on California condors, Gymnogyps Californianus, to augment efforts to manage free-flying flocks of birds. We are currently developing collaborations with universities, in addition to our program partners, to more fully utilize the benefits of this revolutionary technology in terms of scientific research as well. Although all location data are important and useful to our researchers, we are specifically interested in data relating to the greatest mortality factors currently inhibiting the recovery of this endangered species: lead toxicity and collisions and/or electrocutions with powerlines. We are coupling these data with field reports of feeding California condors in an effort to more fully document the exact pathways and type of lead contamination.



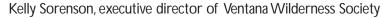
Kelly Sorenson

In terms of powerlines, we are focusing on commonly used flyways or other areas of high use concentration to determine high risk areas associated with this mortality factor.

Ventana Wilderness Society is the only nonprofit organization releasing condors to California. Our programs include the Big Sur Ornithology Laboratory, Natural Sciences Education, and Wildlife Restoration. We wish to especially thank William and Margaret Hearst, III for their initial support for this project. In addition, we wish to thank ChevronTexaco and Pacific Gas and Electric for their support as well. For more information, please visit our website, www.ventanaws.org.

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Bassett respectively





United States— Alaska Movement and habitat use of three

species of scoters Il three species of scoters, surf scoters, Melanitta perspicillata, white-Winged scoters, *M. fusca*, and black scoters, *M. nigra*, winter and breed in

Alaska and western Canada. Collectively, breeding populations of all three species have declined by as much as 40 percent in the past 25 years although this varies by species

and region. Until recently, scoters have been among the least studied of North American waterfowl and few specifics were known about their life history, ecology, or distribution. Without this basic information and more detailed information linking birds found on breeding areas with their wintering and molting areas it is difficult to identify the exact mechanisms causing this population decline.

Scoters are considered sea ducks because they spend most of the year on salt water where they dive in nearshore waters for benthic invertebrates. They migrate inland to nest and then return to the coast to molt, often at a different location than where they winter. They are an important subsistence resource to indigenous people of Alaska and western Canada.

In 1998 we began marking scoters with implantable PTTs to identify the timing and routes of migration, and their breeding, molting and wintering areas. We started with ten surf scoters wintering in southcentral Alaska and have since added wintering and breeding white-winged scoters. This winter we



Dan Rosenberg

will implant black scoters with PTTs. Meanwhile other researchers have begun to mark scoters up and down the Pacific and Atlantic coasts giving us a better picture of the movements and habitat use of the continental population. This information will help us delineate populations, aid in survey efforts to determine population change, and hopefully help us understand the reasons for the decline in the number of scoters.

Dan Rosenberg, Mike Petrula, and Doug Hill, Alaska Department of Fish and Game More information is available at: http://wildlife.alaska.gov/management/ waterfowl/wtrfwl_home.cfm and http://www.seaduckjv.org/ststoc.html



Male surf scoter

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