Marine Birds

Resource Brief

Importance

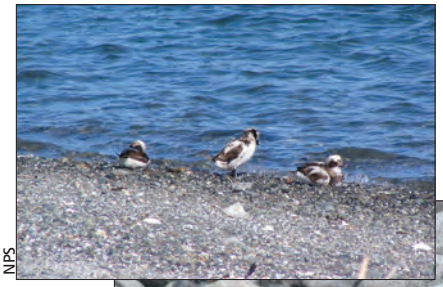
Marine birds rely heavily on habitats and prey associated with the marine nearshore ecosystem of park coastlines. These species are top-level consumers of marine invertebrates such as mussels, clams, snails, limpets, and forage fish. Because of these characteristics, marine birds are good indicators of change in the marine ecosystem. Monitoring will focus on birds that are trophically linked to the nearshore food web such as sea ducks (harlequin duck, Barrow's goldeneye, bufflehead, long-tail ducks, and scoters), mergansers, and shorebirds, specifically the black oystercatcher. Many of these species were impacted by the Exxon Valdez oil spill, and exhibited protracted recovery periods as a consequence of lingering oil in nearshore habitats. Public concern exists for the welfare of marine birds because they are affected by human activities like oil pollution and commercial fishing.

NPS

NPS biologists Heather Coletti, Shelley Hall and Meg Hahr conduct marine bird surveys (KEFJ, 3/2008).

Long-term Monitoring

Three years of summer surveys have been completed in Katmai NPP (KATM). Analysis to estimate annual variation is currently underway and will be available in spring of 2009. A winter survey of KATM is planned for March 2009. Two summer surveys and one winter survey have been completed in Kenai Fjords NP (KEFJ). Objectives for the winter surveys include characterization of species composition, density and distribution for over-wintering sea ducks prior to their migration to breeding grounds; other marine birds and mammals are also documented during the surveys.



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Over-wintering long-tail ducks observed during winter surveys (KEFJ, 3/2008).

NPS

Mew gulls are commonly sighted during summer surveys.

Discussion

2008 was the first winter survey in KEFJ since the 1989 Exxon Valdez Oil Spill. Based on this initial winter survey, the design of future surveys is being modified to better target habitats possibly used by over-wintering ducks such as protected bays and lagoons. Although there was no directed effort to survey areas with habitat attributes suitable for over-wintering sea ducks during the 2008 winter survey in KEFJ, we did observe a difference in the densities of Barrow's goldeneye, harlequin duck and common goldeneye between the winter and summer surveys (Table 1). Higher densities of these species are to be expected along the coasts in the winter, prior to their migration inland to breeding areas.

Table 1. Sea duck density results from KEFJ summer (2007) and winter (2008) surveys.

	Winter Density	Summer Density
Harlequin duck	14.10/km^2	12.45/km^2
Barrow's goldeneye	9.58/km^2	0.19/km^2
Common goldeneye	1.05/km^2	0.00/km^2

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