



# Winter Marine Bird and Mammal Surveys

*Kenai Fjords National Park*



NPS photo

Unusually glassy calm waters in Aialik Fjord on the coast of Kenai Fjords National Park.

## Legacy of the Exxon Valdez Oil Spill

On March 24<sup>th</sup>, 1989, 11 million gallons of crude oil spilled in Prince William Sound and contaminated ~1,300 miles of the coastline of the Gulf of Alaska, including along the coastal waters of Kenai Fjords National Park and Katmai National Park and Preserve. The *Exxon Valdez* Oil Spill (EVOS) made clear that the lack of ecosystem data complicated understanding of spill effects and assessing recovery. With this in mind, the EVOS Trustee Council created a long-term monitoring program, Gulf Watch Alaska, which provides support to the NPS nearshore program through the Southwest Alaska Inventory & Monitoring Network (SWAN I&M). Essentially, the program *was designed to provide coherent, long-term data about marine ecosystems in the Gulf of Alaska, to identify factors limiting the recovery of species still injured by the oil spill and document the drivers and effects of other changes observed in the North Pacific, including those related to climate change* (Suryan et al. 2023).

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In 2026, two days after the 37<sup>th</sup> anniversary of the spill, staff from Kenai Fjords National Park, Lake Clark National Park and Preserve, SWAN, the Alaska Region, and the U.S. Geological Survey, with the support of SWAN I&M and Gulf Watch Alaska (GWA), successfully conducted skiff-based winter marine bird and mammal surveys along the coast of Kenai Fjords National Park. These data provide insight into species composition and distribution. When conducted across seasons, a more complete view of the animals that thrive and use these park coastlines is attained. For example, in winter, coastal waters are numerically dominated by overwintering sea ducks as they forage on marine resources in preparation for the nesting season. In contrast, many sea birds have not yet arrived on the colonies where they will spend the summer season. Changes in distribution and habitat use for year-round residents are also documented through the multi-season surveys. This year, unique observations included observing a wolverine along a transect in one of the fjords as well as a land-based count of over 300 harbor seals hauled out on the glacial ice in Aialik Fjord.





Lisa Docken conducting skiff-based surveys of nearshore marine species in Kenai Fjords National Park.

These data provide a baseline of park resources, document change over time, and allow for insight into species' responses as ocean and coastal processes change. A recent example was following the Pacific Marine Heatwave, when large-scale die-offs of sea birds and marine mammals were documented across the north Pacific (Savage et al. 2017, Piatt et al. 2020, Suryan et al. 2021). These survey data allowed researchers to document shifts in common murre as they moved nearshore to find food (Arimitsu et al. 2021), while also contrasting the responses of benthivorous bird species to piscivores birds, emphasizing that different food web pathways can shape how species respond to large-scale environmental changes (Robinson et al. 2024).

With continued support from the parks, I&M, GWA, and collaborators, each survey completed adds to a legacy of learning that has made meaningful contributions to resource management, marine conservation, and planning into the future.



Survey Crew from left to right: Ashton Brown (MV Valiant Maid), Heather Coletti (SWAN), Sadie Ulman (KEFJ), Lisa Docken (AKRO), George Esslinger (USGS), and Marybeth Phillis (LACL) in the front row.

## Literature Cited

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