USFWS At-Sea Observer Program

Goals –

• Examine spring distribution & abundance of birds relative to oceanographic properties, productivity, and changing ice conditions.

• Update seabird data in North Pacific Pelagic Seabird Database.



Methods – Record all birds & mammals within 300m, strip transect. Surveyed 3,201 km.

Results – 15,596 birds of **34 species**

Five spp accounted for 72% of all birds:

Northern Fulmar (22%)

Thick-billed Murre (22%)

Glaucous Gull (10%)

Black-legged Kittiwake (9%)

Common Murre (9%)

Planktivores (Whiskered, Crested & Least Auklets) were very rare (< 0.1%). *Note – Auklets were very abundant during SLIP in May-June, as ice left & plankton available.*

Species of interest:

Spectacled Eider, Short-tailed albatross (Threatened/Endangered)

Ivory gull, Black Guillemot (Arctic) Slaty-backed gull (Siberian)

High bird densities:

- ~ 61.5 N, 178W
- ~ 60N, 172 W
- ~58-59N, 170W



Preliminary observations:

Little bird activity in heavy ice (except ivory gulls, black guillemots).

No plankton feeders at this time of year, or when polynyas iced over, (though CRAU were around colonies of St. Mathew).

Murres & Kittiwakes dominated shallower areas, gulls and fulmars on deeper waters / shelf edge.

Largest aggregations of murres & kittiwakes near ice edge.

<u>Next:</u>

Examine bird spp composition and abundance over 1st and 2nd passages; **did birds follow ice or use shelf edge/canyons?**

Examine bird spp composition & abundance relative to SST, SSS, Chl, fish.

2008 needs:

Later cruise dates (or extension of cruise) and re-sampling of key segments would capture change in seabird species and abundance relative to ice retreat and increase in productivity.

Space for 1 - 2 observers with access to bridge for observations.