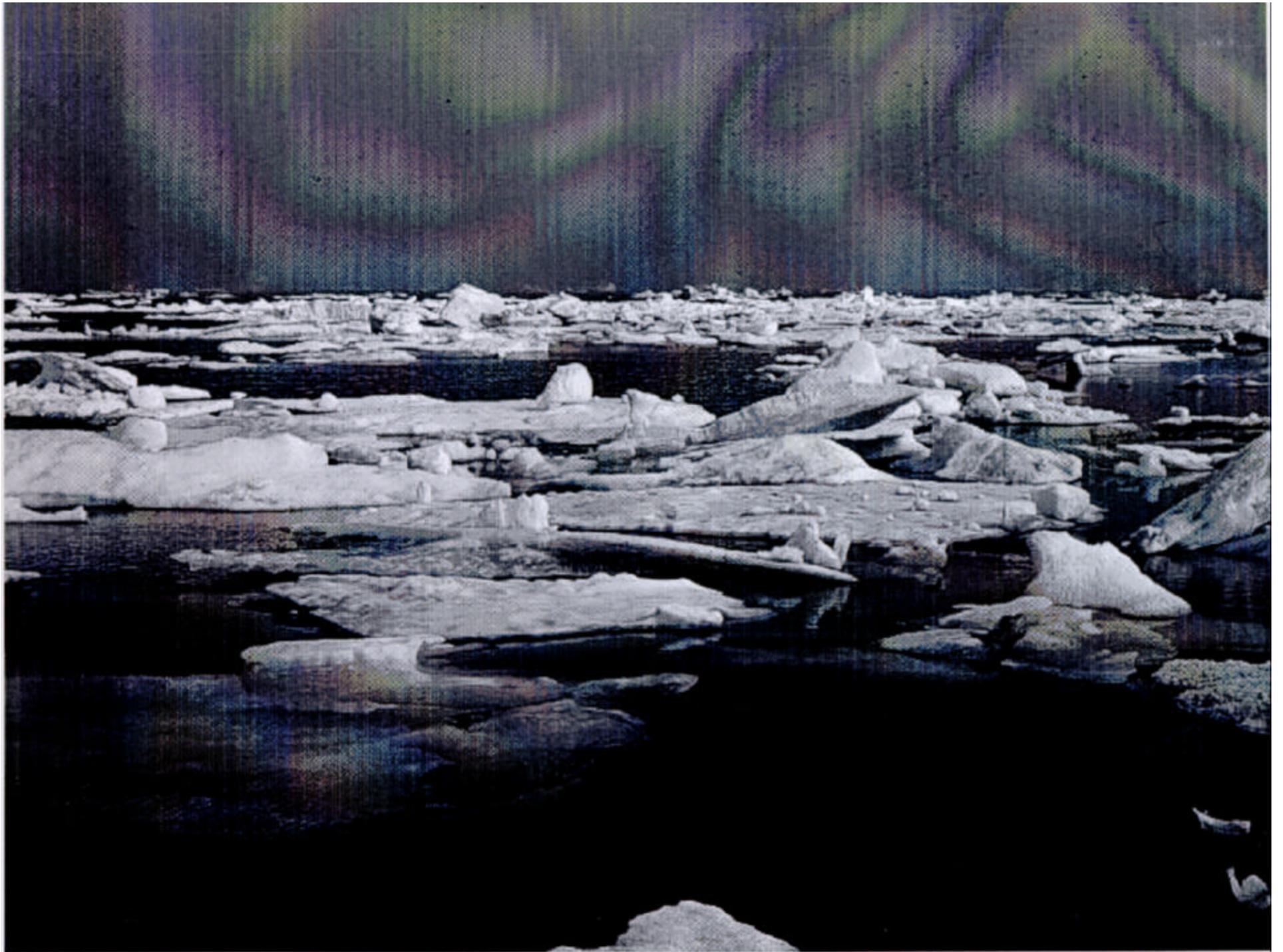
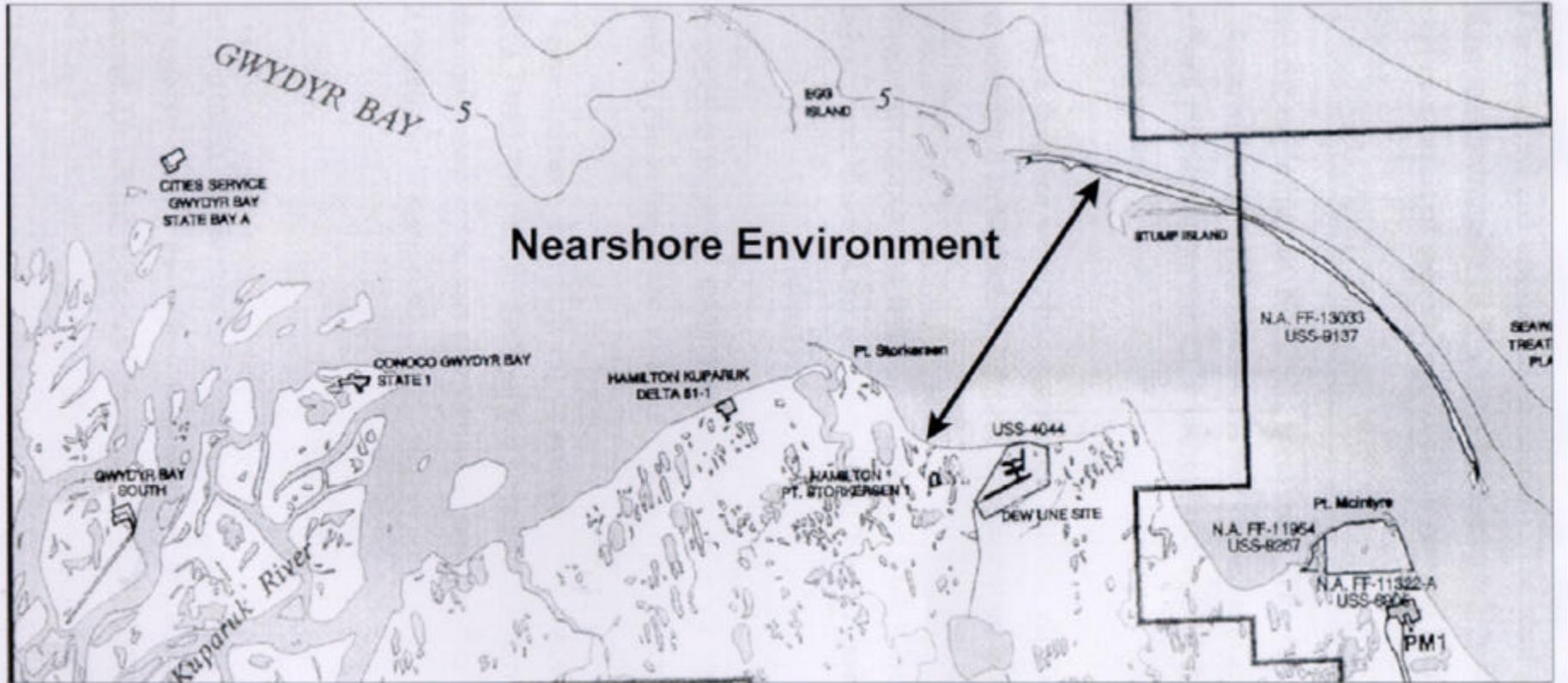


Arctic Resources at Risk

Larry Bright
Northern Alaska Ecological Services
U.S. Fish and Wildlife Service
Fairbanks, Alaska





A Vulnerable Ecosystem

Seasonal Abundance

- Seasonal Productivity
- Short Food Chains
- Seasonal Concentrations of Predators and Prey



Resources at Risk

Invertebrates - Ecosystem Foundation

- Abundant invertebrates (e.g., amphipods and copepods) in the nearshore ecosystem
- Dominant foods for fish and migratory birds
- Oil disperses throughout water column

Resources at Risk - Fish

Least cisco, Arctic cod, whitefish, and char: recorded in abundance and concentration in nearshore

- Migration corridors, feeding areas, overwintering
- Vulnerable due to confined habitats, mass migrations, and contamination of water column

Resources at Risk - Fish

Least cisco, Arctic cod, whitefish, and char: recorded in abundance and concentration in nearshore

- Migration corridors, feeding areas, overwintering
- Vulnerable due to confined habitats, mass migrations, and contamination of water column

Resources at Risk

Migratory Birds

- Hundreds of thousands of migratory waterfowl, shorebirds and other waterbirds
- 10,000s of oldsquaw in Simpson Lagoon
- Threatened spectacled and Steller's eiders
- Vulnerable due to high concentrations, flightless and the need to acquire food rapidly





Resources at Risk

Marine Mammals

- Congregations of polar bears on barrier islands
- Contaminated prey
- Food chain disruption



Resources at Risk

Subsistence

- Broad whitefish, arctic cisco, seals and whales
- Mortality and contamination
- Displacement of animals out of the reach of hunters



Spill Recovery

Challenges

- Solid and broken sea ice
- Fog, wind and cold temperatures
- Shallow nearshore waters



Resources at Risk

Summary

- Species are vulnerable
- Containment, Leak Detection, Spill Response
- Prevention of spills is key
- Our collective responsibility

