Table 8. Summary of data types and sources for retrospective studies of the Gulf of Alaska.

Physical Data Type															
Source	Air Temp.	SST	Salinity	Wind	Wave Height	Pressure	Humidity	Precip.	Cloudiness	Glacial Extent	Current	Freshwater Discharge	Solar Radiation	Sea Level	Tides
GAK1/UAF	x	x	x												
Line P	x	x	x	x		x	x	x							
FOCI Line 8	x	x	x												
CMS	x	x	x	x		x	x		x						
NWS	x	x	x	x		x	x	x	x				x		
COADS	x	x	x	x			x								
NODC	(x)	x	x											x	
FNOC						x									
Remote Sensing	x	x								x	x			x	
NCBC	x	x		x	x										
FFHU	x	x	x								x				
UAF/T.Royer												x			
Tidal Stations													x		x

FOCI = Fisheries Oceanography Coordinated Investigations, CMS = Coastal Meteorological Stations, NWS = National Weather Service, COADS = Comprehensive Ocean Atmosphere Data Set, NODC = National Oceanic Data Center, FNOC = Fleet Numerical Oceanographic Center, NCBC = National Climatic Buoy Center, UAF = University of Alaska Fairbanks FFHU = Faculty of Fisheries, Hokkaido University, Japan, (x) = Buoy data only

Biological Data Type											
Source	Historical Records	Phyto. abund. & distrib.	Zoop. abund & distrib.	Ichthy. abund. & distrib.	Ichthy. Growth	Ichthy. Food Habits	Fish & Shellfish catch	Fish & Shellfish Growth	Fish & Shellfish Reprod.	F & S abund. & distrib.	F & S Food Habits
Sediment Cores	x										
Tree Rings	x										
Middens	x										
Otolith Analysis	x										
Remote Sensing		x									
Station P		x	x								
Hatcheries		x	x				x	x	x		
FOCI			x	x	x	x					x
AFSC			x	x	x	x	x	x	x	x	x
ADF&G							x	x	x	x	
IPHC			x	x	x		x	x	x	x	x
INPFC/NPAFC							x			x	
OCSEAP		x	x	x				x		x	x
UAF				x				x		x	
FFHA		x	x					x		x	
UW				x	x			x	x	x	x
EVOS			x	x	x	x	x	x	x	x	x

FOCI=Fisheries Oceanography Coordinated Investigations, AFSC = Alaska Fisheries Science Center, ADF&G = Alaska Department of Fish and Game, UW = University of Washington, UAF = University of Alaska Fairbanks, IPHC = International North Pacific Halibut Commission, EVOS = Exxon Valdez Oil Spill Trustees, INPFC = International North Pacific Fisheries Commission, NPAFC = North Pacific Anadromous Fisheries Commission, FFHU = Faculty of Fisheries, Hokkaido University, Japan, F & S = Fish and Shellfish

Biological Data Type								
Source	Seabird Growth	Seabird Reprod.	Seabird abund. & distrib.	Seabird food habits	Marine mammal growth	Marine mammal reproduction	M. mammal abund. & distribution	M. mammal food habits
Middens							x	
EVOS								x
U.S. FWS	x	x	x	x	x			x
UC Irvine	x	x	x	x				
UAF	x	x		x	x			
NPUMMRC					x	x	x	x
ADF&G					x	x	x	x
NMML					x	x	x	x

U.S. FWS = United States Fish and Wildlife Service, NMML = National Marine Mammal Laboratory, ADF&G = Alaska Department of Fish and Game, UAF = University of Alaska Fairbanks, NPUMMRC = North Pacific Universities Marine Mammal Research Consortium, UC Irvine = University of California Irvine, EVOS = Exxon Valdez Oil Spill Trustees

Table 9. Potential monitoring platforms in the Gulf of Alaska

Source	Physical	Chemical	Biological
Coastal observations - Marine Laboratories	T, S, sea level, P, wind	Nutrients	Plankton
Volunteer Observation Ships - VOS	T, S, P, wind		Plankton
Commercial fishing vessels	T, S, CTD, P, wind		Plankton, spp. composition, growth
Alaska Ferries	T, S, P, wind		Plankton
Moored buoys	T, S, CTD, P, wind, current	Nutrients	Fluorescence
Drifters - reusable	T, current		
ALACE floats	T, S, current		chlorophyll, fluorescence
Autonomous Underwater Vehicles	T, current		
Remote Sensing	T, S, current, sea level		chlorophyll
SAR aircraft (NOAA)	current, sea level		
Ocean Station P and Line P	T, S, CTD, P, wind	Nutrients	Plankton
GAK 1	T, S, CTD, P, wind	Nutrients	Plankton, spp. composition, growth
Meteorological observations	Precipitation, temperature, P, wind		
Automated buoys, sea chests	T, S	Nutrients	
Intelligent tags			physiology, behavior
Monitor seabird populations			growth, abundance, distribution, food habits
Marine mammal logbook program	T		distribution
Commercial fisheries logbook program	T		distribution, catch
Aging structures (otoliths, teeth, fin rays)			historical growth rates
Continuous plankton recorders			Plankton abundance, distribution
Marine mammal surveys at rookeries	T, S		growth, abundance, distribution, food habits
Surveys of groundfish and pelagic fish	T, S, CTD		growth, abundance, distribution, food habits
Pacific Seabird Monitoring Database			growth, abundance, distribution

ALACE = Autonomous Lagrangian Circulation Experiment; T = Temperature (air and SST); S = Salinity; P = Atmospheric Pressure; CTD = Conductivity-Temperature-Depth