

# Marine Science in Alaska: 2005 Symposium

A satellite-style map of Alaska, showing the state's outline and surrounding waters. The map is oriented with the top of the state at the top. The land is shown in shades of green and brown, while the water is a deep blue. The Aleutian Islands are visible to the west, and the Gulf of Alaska is to the south.

**January 24-26, 2005  
Hilton Hotel  
Anchorage, Alaska**

**Sponsored by:**

***Exxon Valdez* Oil Spill Trustee Council, North Pacific Research Board, Alaska Ocean Observing System, NOAA Alaska Fisheries Science Center, Alaska SeaLife Center, Pollock Conservation Cooperative Research Center, Kachemak Bay Research Reserve, North Pacific Fishery Management Council, Prince William Sound Science Center, US Geological Survey, Alaska Sea Grant College Program, North Pacific Marine Science Foundation, and North Pacific Marine Universities Marine Mammal Research Consortium**

# MARINE SCIENCE in ALASKA: 2005 Symposium

January 24-26, 2005  
Hilton Hotel, Anchorage, Alaska  
**Monday, January 24th**



9:00 am-9:15 am

**Welcome to the Marine Science in Alaska 2005 Symposium**  
Clarence Pautzke, North Pacific Research Board

**Welcome to Anchorage**

Mayor Mark Begich – Municipality of Anchorage

9:15 am-10:00 am

**Keynote Address: Vice Admiral Conrad C. Lautenbacher, Jr., U.S. Navy (Ret.),  
Under Secretary of Commerce for Oceans and Atmosphere, NOAA Administrator**

**SESSION 1**

10:00 am-10:50 am

**PROGRAM OVERVIEWS**

**Panel 1**

North Pacific Research Board  
NOAA Fisheries, Alaska Fisheries Science Center  
*Exxon Valdez* Oil Spill Trustee Council's  
Gulf of Alaska Ecosystem Monitoring and Research Program  
Alaska Ocean Observing System  
Alaska SeaLife Center  
US Geological Survey  
State of Alaska

Clarence Pautzke  
Doug Demaster  
Gail Phillips

Molly McCammon  
Tylan Schrock  
Leslie Holland-Bartels  
Sue Aspelund (ADFG)

11:00 am-11:50 am

**Panel 2**

Alaska Sea Grant College Program  
Prince William Sound Science Center  
Pollock Conservation Cooperative Research Center  
Kachemak Bay National Estuarine Research Reserve  
NOAA, National Centers of Coastal Ocean Science  
Minerals Management Service, Alaska Environmental Studies Program

Brian Allee  
Nancy Bird  
Heather McCarty  
Judy Haner  
Gary Matlock  
Cleveland Cowles

11:50 am-1:00 pm

**Lunch Keynote: US Commission on Ocean Policy**  
Frank Muller-Karger, University of South Florida

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1:00 pm-1:50 pm

## Panel 3

University of Alaska Fairbanks, School of Fisheries and Ocean Sciences  
North Pacific Marine Science Foundation, North Pacific Universities  
Marine Mammal Research Consortium  
Alaska Native Science Commission  
Arctic-Yukon-Kuskokwim Sustainable Salmon Initiative  
Census of Marine Life  
Northern Salmon Fund of the Pacific Salmon Commission

Denis Wiesenburg  
Andrew Trites  
  
Patricia Cochran  
John White  
Vera Alexander  
David Bedford

2:00 pm-2:50 pm

## Panel 4

**Chair: Gail Phillips**, Exxon Valdez Oil Spill Trustee Council's Gulf of Alaska  
Ecosystem Monitoring and Research Program

Decision-Making, Science, and Politics

Members – To Be Announced

*Note: Agencies and organizations represented in Panels 1, 2, and 3 will have a 2-page informational handout about their mission and activities in the registration packet.*

2:50 pm-3:10 pm

**Break**

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## SESSION 2

### **OCEAN OBSERVING SYSTEMS AND CLIMATE CHANGE**

Chair: Denis Wiesenburg, University of Alaska Fairbanks, School of Fisheries and Ocean Sciences

3:10 pm-3:45 pm

#### **Keynote: An Overview of the Arctic Climate Impact Assessment**

John Walsh, International Arctic Research Center, University of Alaska Fairbanks

3:45 pm-4:00 pm

#### **Poster Review**

4:00pm-4:15 pm

#### **The Alaska Ocean Observing System**

Mark Johnson, Institute of Marine Science, University of Alaska Fairbanks

4:15 pm-4:30 pm

#### **Is the Bering Sea Stuck in a Warm Phase?**

James Overland, NOAA Pacific Marine Environmental Laboratory

4:30 pm-4:45 pm

#### **A Decade of Measurements of the Southeastern Bering Sea Shelf**

Phyllis Stabeno, NOAA Pacific Marine Environmental Laboratory

4:45 pm-5:00 pm

#### **GEM Biophysical Observations Aboard an Alaska State Ferry**

Edward Cokelet, NOAA Pacific Marine Environmental Laboratory

5:00 pm-5:15 pm

#### **Developing a Permanent Continental-Scale Acoustic Tracking Array for Marine Fisheries Research: The Goal and the Strategy**

David Welch, Pacific Ocean Shelf Tracking Project, Kintama Research

5:15 pm-5:30 pm

#### **Listening for Endangered Whales Offshore Alaska, 1999-2004**

Sue Moore, Applied Physics Laboratory, University of Washington

5:30 pm-6:30 pm

#### **Poster Session**

6:30 pm-9:00 pm

#### **Reception**

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## SESSION 3

### **PHYSICAL AND BIOLOGICAL OCEANOGRAPHY**

Chair: Steve Okkonen, Institute of Marine Science, University of Alaska Fairbanks

8:00 am-8:30 am

**Keynote: Alaskan Oceanography: Past, Present, and Future – A Personal Perspective**  
Tom Royer, Center for Coastal Physical Oceanography, Old Dominion University

8:30 am-8:45 am

**Poster Review**

8:45 am-9:00 am

**Drifters' Trajectories During the Lagrangian Field Experiment (Prince William Sound, 28 July to 10 August 2004)**  
Claude Belanger, Prince William Sound Science Center

9:00 am-9:15 am

**Temporal Variability in Hydrographic Conditions in Lower Cook Inlet**  
Scott Pegau, Kachemak Bay National Estuarine Research Reserve

9:15 am-9:30 am

**Tidal Mixing Effects on a Biological Model**  
Meibing Jin, International Arctic Research Center, University of Alaska Fairbanks

9:30 am-9:45 am

**Modeling Environmental Hydrodynamic Fields of the Bering Sea: Toward a Coupled Ice-Ocean-Biological Model (CIOBM)**  
Jia Wang, International Arctic Research Center, University of Alaska Fairbanks

9:45 am-10:00 am

**Reconstruction of the Summer Circulation in the Bering Sea**  
Gleb Panteleev, International Arctic Research Center, University of Alaska Fairbanks

10:00 am-10:15 am

**Break**

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## SESSION 4

### **FISHERIES OCEANOGRAPHY**

Chair: Anne Hollowed, NOAA, Alaska Fisheries Science Center

10:15 am-10:30 am

#### **Poster Review**

10:30 am-10:45 am

#### **Alaskan Groundfish Feeding Ecology: An OBIS Information System**

Dale Kiefer, Systems Science Applications

10:45 am-11:00 am

#### **Oceanic Carbon Subsidies Led to High Marine Survival and the Enormous Prince William Sound Pink Salmon Runs of 2003**

Thomas Kline, Prince William Sound Science Center

11:00 am-11:15 am

#### **Forage Fishes in the Western Gulf of Alaska: Variation in Productivity**

Matt Wilson, NOAA, Alaska Fisheries Science Center

11:15 am-11:30 am

#### **Does Climate-driven Variability in the Oceanographic Structure of the Gulf of Alaska Shelf Affect Fish Community Composition by Modulating the Degree of Interspecific Competition between Juvenile Pollock and Capelin?**

Elizabeth Logerwell, NOAA, Alaska Fisheries Science Center

11:30 am-11:45 pm

#### **The Multispecies Statistical Model: Incorporating Predation Equations into a Statistical Catch-at-Age Model**

Jesus Jurado-Molina, School of Aquatic and Fishery Sciences, University of Washington

11:45 pm-1:00 pm

**Lunch *Keynote:* Dr. William Hogarth, NOAA Assistant Administrator for Fisheries**

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## SESSION 5

### **BENTHIC HABITAT AND NEARSHORE ECOLOGY**

Chair: Ginny Eckert, University of Alaska Fairbanks

1:00 pm-1:30 pm

#### **Keynote: Ecology of the Copper River Delta**

Sean Powers, Department of Marine Sciences, University of South Alabama  
Mary Anne Bishop, Prince William Sound Science Center

1:30 pm-1:45 pm

#### **Poster Review**

1:45 pm-2:00 pm

#### **Bathymetric and Temporal Range, Spatial Extent, and Habitat Characteristics of Atka Mackerel Spawning and Nesting Habitat in the Aleutian Archipelago**

Robert Lauth, NOAA, Alaska Fisheries Science Center

2:00 pm-2:15 pm

#### **Coral and Sponge Habitat Mapping in the Central Aleutian Islands**

Jon Heifetz, NOAA, Auke Bay Laboratory

2:15 pm-2:30 pm

#### **Synergistic Serial Depletion of Nearshore Benthic Invertebrates Leads to a Recent Decline of a Keystone Grazer and the Alteration of a Coastal Ecosystem**

Anne Salomon, University of Washington

2:30 pm-2:45 pm

#### **Dynamics of Chemical Defenses: Dynamics of Chemical Defenses in Four Kachemak Bay Kelp Species as a Response to Gastropod Grazing Patterns**

Angela Dubois, Institute of Marine Science, University of Alaska Fairbanks

2:45 pm-3:00 pm

#### **NaGISA (Natural Geography in Shore Areas)**

Katrin Iken, Institute of Marine Science, University of Alaska Fairbanks

3:00 pm-3:15 pm

#### **Development of Techniques for Cultivation of Blue King Crab, *Paralithodes platypus***

Bradley Stevens, NOAA, Kodiak Fisheries Research Center

3:15 pm-3:30 pm

#### **Break**

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## SESSION 6

### **CONTAMINANTS, HARMFUL ALGAL BLOOMS, AND INVASIVE SPECIES**

Chair: Peggy Krahn, NOAA, Northwest Alaska Fisheries Science Center

3:30 pm-4:00 pm

#### **Keynote: Vibrio Occurrence in Shellfish**

Ray Ralonde, Alaska Sea Grant College Program

4:00 pm-4:15 pm

#### **Poster Review**

4:15 pm-4:30 pm

#### **Application of the EPA Environmental Monitoring Assessment Program (EMAP) to Characterization of Alaska Coastal Marine Water Quality**

Doug Dasher, Alaska Department of Environmental Conservation

Ron Klein, Alaska Department of Environmental Conservation

4:30 pm-4:45 pm

#### **Bitter Crab Syndrome**

Frank Morado, NOAA, Alaska Fisheries Science Center

4:45 pm-5:00 pm

#### **Contaminants in North Pacific Basin Marine Mammals**

Shannon Atkinson, University of Alaska Fairbanks and Alaska SeaLife Center

5:00 pm-5:15 pm

#### **Organochlorine Contamination in Steller Sea Lion Pups from Four Russian Rookeries**

Matthew Myers, Alaska SeaLife Center

5:15 pm-5:30 pm

#### **Initiating an Invasive Species Program in Alaska**

Robert Piorkowski, Alaska Department of Fish and Game

5:30 pm-7:00 pm

#### **Posters and Dinner (on your own)**

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## SESSION 7

### **OIL IMPACTS**

Chair: Craig Tillery, Alaska Department of Law

7:00 pm-7:30 pm

#### **Keynote: Settlement Overview**

Charlie Cole

7:30 pm-7:45 pm

#### **Update on the Status of Subsistence Uses**

James Fall, Alaska Department of Fish and Game

7:45 pm-8:00 pm

#### **2004/5 Assessment of Lingering Oil and Resource Injuries from the *Exxon Valdez* Oil Spill**

Lucinda Jacobs, Integral Consulting

8:00 pm-8:15 pm

#### **Persistence of Lingering Oil from the *Exxon Valdez***

Jeff Short, NOAA, Auke Bay Laboratory

8:15 pm-8:30 pm

#### **Restoration of *Exxon Valdez* Oil Contaminated Habitats by Sea Otters in Prince William Sound: Mechanisms and Consequences**

James Bodkin, US Geological Survey, Alaska Science Center

8:30 pm-8:45 pm

#### **Marine Bird Population Abundance of Prince William Sound, Alaska: Trends Following the *T/V Exxon Valdez* Oil Spill, 1989-2004**

David Irons, US Fish and Wildlife Service, Migratory Bird Management

8:45 pm-9:00 pm

#### **Oil, Salmon, and How Urbanization Decreases Population Productivity**

Ron Heintz, NOAA, Auke Bay Laboratory

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## SESSION 8

### **SEABIRDS**

Chair: Tuula Hollmen, University of Alaska Fairbanks and Alaska SeaLife Center

8:00 am-8:30 am

#### **Keynote: Surveying the Past: North Pacific Pelagic Seabird Database**

Gary Drew and John Piatt (Drew presenting), US Geological Survey

8:30 am-8:45 am

#### **Poster Review**

8:45 am-9:00 am

#### **Wings, Fins, and the Black Box: Management Implications of Marine Bird and Fish**

William Sydeman, PRBO

9:00 am –9:15 am

#### **Regime Forcing and Ecosystem Response in the Bering Sea (ReFER: Phase II)**

Alan Springer, Institute of Marine Science, University of Alaska Fairbanks

9:15 am-9:30 am

#### **First-passage Time Analysis and Identification of Marine Habitats Used by Short-tailed Albatrosses (*Phoebastria albatrus*) in the Northwest Pacific Ocean, Gulf of Alaska, and Bering Sea**

Robert Suryan, Oregon Cooperative Fish and Wildlife Research Unit, Department of Fisheries and Wildlife, Oregon State University

9:30 am-9:45 am

#### **Seabirds and Alaska Groundfish Fisheries: Efforts to Understand Seabird Interactions with these Fisheries and to Mitigate Incidental Mortality**

Shannon Fitzgerald, NOAA, Alaska Fisheries Science Center

9:45 am-10:00 am

#### **Break**

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## SESSION 9

### **MARINE MAMMALS**

Chair: Andrew Trites, North Pacific Marine Science Foundation, North Pacific Universities Marine Mammal Research Consortium

10:00 am-10:30 am

**Keynote: Differences in Recent Trends in the Populations of Western Steller Sea Lions and Northern Fur Seals**

Lowell Fritz, NOAA, Alaska Fisheries Science Center

10:30 am-10:45 am

**Poster Review**

10:45 am-11:00 am

**Causes of Mortality for Northern Sea Otters**

Verena Gill, US Fish and Wildlife Service

11:00 am-11:15 am

**A Summary of Recent Killer Whale Studies in the Aleutian Islands, Bering Sea, and Western Gulf of Alaska**

Paul Wade, NOAA, Alaska Fisheries Science Center

11:15 am-11:30 am

**Harbor Seal Population Change in Alaska – The Big Picture**

Grey Pendleton, Alaska Department of Fish and Game

11:30 am-11:45 am

**Photographic Population Analysis of Killer Whales in the Coastal Waters of Southwest Alaska**

John Durban, NOAA, National Marine Mammal Laboratory

11:45 am-12:00 pm

**Ecosystem Analysis of Steller Sea Lion Dynamics, Their Prey, and Predators**

Sylvie Guénette, Fisheries Centre, University of British Columbia

12:00 pm-1:15 pm

**Lunch**

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1:15 pm-1:30 pm

**Physiological Answers to Ecosystem Questions: What We Have Learned from Laboratory Studies about the Decline of Steller Sea Lions in Alaska**

David Rosen, Marine Mammal Research Unit, University of British Columbia

1:30 pm-1:45 pm

**Steller Sea Lion Abundance in Russia in 2004**

Vladimir Burkanov, Natural Resources Consultants

1:45 pm-2:00 pm

**Sperm Whale Depredation**

Jan Straley, University of Alaska SE Sitka Campus, School of Fisheries and Ocean Sciences

Aaron Thode, Scripps Institution of Oceanography, University of California, San Diego

2:00 pm-2:15 pm

**Tracking Critically Endangered North Pacific Right Whales (*Eubalaena japonica*) in Alaskan Waters Using Passive Acoustics**

Lisa Munger, University of California San Diego

2:15 pm-2:30 pm

**Break**

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## SESSION 10

### **FISHERIES SCIENCE AND MANAGEMENT**

Chair: Bill Wilson, North Pacific Fishery Management Council

2:30 pm-3:00 pm

#### **Keynote: NOAA's Ecosystem Approach to Management**

Jack Dunnigan, Director of the Office of Sustainable Fisheries

3:00 pm-3:15 pm

#### **Poster Review**

3:15 pm-3:30 pm

#### **Corroboration and Application of a Bioenergetics Model to Estimate the Growth of Juvenile Walleye Pollock (*Theragra chalcogramma*) in the Western Gulf of Alaska**

Michael Mazur, NOAA, Alaska Fisheries Science Center

3:30 pm-3:45 pm

#### **Genetic Divergence, Phylogeography, and Recognition of Asian and North American Chinook Salmon Populations**

Anthony Gharrett, University of Alaska Fairbanks, School of Fisheries and Ocean Sciences

3:45 pm-4:00 pm

#### **Assessing Long-Term Viability of a Marine Reserve**

Sue Hazlett, University of Alaska Fairbanks

4:00 pm-4:15 pm

#### **A Conceptual Model Approach to Utilizing Traditional Knowledge in Resource Management**

Kimani Kimbrough, NOAA

4:15 pm-4:30 pm

#### **Size at Maturity of Bering Sea Walleye Pollock**

Gordon Kruse, University of Alaska Fairbanks, School of Fisheries and Ocean Sciences

4:30 pm-4:45 pm

#### **Further Developments from Acoustical Data Loggers on Pollock Vessels**

Terry Quinn, University of Alaska Fairbanks, School of Fisheries and Ocean Sciences

4:45 pm-5:00 pm

#### **Life History, Ecology, and Population Dynamics of Spiny Dogfish, *Squalus acanthias*, in Alaska**

Cindy Tribuzio, University of Alaska Fairbanks, School of Fisheries and Ocean Sciences

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5:00 pm-5:15 pm

**Implications of Environment Variability on Spawning and Management of Pacific Herring in Northern Bristol Bay, Alaska**

Naoki Tojo, University of Alaska Fairbanks School of Fisheries and Ocean Sciences

5:15 pm-5:20 pm

**Closing Comments**

Clarence Pautzke, North Pacific Research Board

## Marine Science in Alaska 2005 Symposium

### COMMENT AND EVALUATION FORM

**Did you find the symposium valuable overall?**

**Which of the sessions or papers was most valuable or interesting to you?**

**Do you have any suggestions for outstanding keynote speakers for future symposia?**

**How could the poster session be improved?**

**Should we allow posters for topics of marine research, other than just those listed as main sessions for the symposium?**

**Was the length of the symposium 3 days Okay?**

**Should the symposium be expanded to allow more sessions? What issues/topics would you like to see addressed at a future symposium?**

**Would you like to see the Symposium held in some other location than in Anchorage? If so, where? Would you support rotating its location?**

**Should there be a "proceedings" report published following each workshop?**

**Do you have any comments regarding the abstract book? Is it useful? Could it be made more useful?**

**Do you have any comments regarding the content and or structure of the agenda/program?**

**Do you have any overall comments regarding the contents of the registration packet?**

**Please provide any additional comments on the symposium that might be helpful in planning future events.**