JANUARY 25-29, 2016
HOTEL CAPTAIN COOK & EGAN CENTER • ANCHORAGE, ALASKA
SHOWCASING MARINE RESEARCH IN THE ARCTIC OCEAN,
BERING SEA, AND GULF OF ALASKA
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## MONDAY, JANUARY 25

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
</table>
| 8:00 a.m. – 11:30 a.m. | Morning Plenary Session  
Workshop, 8:00 a.m. – 12:00 p.m. Communicating Ocean Sciences  
Fore Deck, Discovery Ballroom  
Registration Opens, 10:00 a.m.  
Workshop, All Day  
Coastal Gallery, Adventure Room |
| 11:30 a.m. – 1:00 p.m. | Lunch on your own |
| 1:00 p.m. – 5:15 p.m. | Afternoon Plenary Session  
Symposium Begins  
Opening Remarks, 1:00 p.m. – 1:30 p.m.  
Keynote, 1:30 p.m. – 2:15 p.m. Ambassador Mark Brzezinski  
Keynote, 2:15 p.m. – 3:00 p.m. Dr. Emanuele Di Lorenzo  
Keynote, 3:00 p.m. – 3:30 p.m. Dr. George Divoky  
Coffee Break, 3:30 p.m. – 3:45 p.m.  
Keynote, 3:45 p.m. – 4:30 p.m. Dr. Wallace J. Nichols  
Keynote, 4:30 p.m. – 5:15 p.m. Dr. Kristin Laidre and Maria Coryell-Martin |
| 6:00 p.m. – 9:00 p.m. | Evening  
Exhibits and Poster Reception, 6:00 p.m. – 8:30 p.m.  
Arctic & Bering Sea/Aleutians  
• Wave 1 – 6:00 p.m. – 7:15 p.m.  
• Wave 2 – 7:15 p.m. – 8:30 p.m.  
Explorers Hall, Appetizers & No-Host Bar |

## TUESDAY, JANUARY 26

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</thead>
</table>
| 7:30 a.m. – 8:00 a.m. | Continental Breakfast  
Registration Opens, 8:00 a.m. |
| 8:00 a.m. – 12:45 p.m. | Arctic Plenary  
Workshop, All Day  
Coastal Gallery, Adventure Room |
| 11:45 a.m. – 12:45 p.m. | Lunch provided  
Workshop, 11:45 a.m. – 12:45 p.m.  
What’s IARPC and How Can You Be Involved?  
Whitby Room |
| 1:00 p.m. – 5:15 p.m. | Arctic Plenary  
\begin{itemize}  
\item Keynote, 1:00 p.m. – 1:30 p.m.  
\item Keynote, 1:30 p.m. – 2:15 p.m.  
\item Keynote, 2:15 p.m. – 3:00 p.m.  
\item Keynote, 3:00 p.m. – 3:30 p.m.  
\item Coffee Break, 3:30 p.m. – 3:45 p.m.  
\item Keynote, 3:45 p.m. – 4:30 p.m.  
\item Keynote, 4:30 p.m. – 5:15 p.m.  
\end{itemize}  
| 6:00 p.m. – 8:30 p.m. | Exhibits and Poster Reception, 6:00 p.m. – 8:30 p.m.  
Bering Sea/Aleutians and Gulf of Alaska  
• Wave 1 – 6:00 p.m. – 7:15 p.m.  
• Wave 2 – 7:15 p.m. – 8:30 p.m.  
Explorers Hall, Appetizers & No-Host Bar |

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### Posters/Exhibits & Receptions
Egan Center  
555 W. 5th Ave.  
Shuttle service between Egan Center and Hotel Captain Cook provided at 15 minute intervals, 5:45 p.m. – 8:45 p.m.

### All Other Events
Hotel Captain Cook  
939 W. 5th Ave.  
Keynotes, Plenaries, and provided lunches in Discovery Ballroom
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<tr>
<th>WEDNESDAY, JANUARY 27</th>
<th>THURSDAY, JANUARY 28</th>
<th>FRIDAY, JANUARY 29</th>
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<tr>
<td><strong>Continental Breakfast,</strong></td>
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<td>Workshop, All Day</td>
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<tr>
<td>7:30 a.m. – 8:00 a.m.</td>
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<td><strong>Coastal Gallery,</strong></td>
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<tr>
<td><strong>Registration Opens,</strong></td>
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<td>Adventure Room</td>
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<tr>
<td>8:00 a.m.</td>
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<tr>
<td>**Bering Sea and Aleutian</td>
<td><strong>Gulf of Alaska Plenary</strong></td>
<td>Workshop, All Day</td>
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<tr>
<td>Islands Plenary**</td>
<td></td>
<td><strong>Coastal Gallery,</strong></td>
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<tr>
<td>Workshop, All Day</td>
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<td>Adventure Room</td>
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<tr>
<td><strong>Coastal Gallery,</strong></td>
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<tr>
<td><strong>Lunch on your own</strong></td>
<td><strong>Lunch provided</strong></td>
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<tr>
<td>**Workshop, 11:30 a.m. – 1:00</td>
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<tr>
<td>p.m. Walrus Disturbance Workshop**</td>
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<td><strong>Quadrant Room</strong></td>
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<tr>
<td>**Workshop, 12:00 p.m. – 1:30</td>
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<tr>
<td>p.m. Introduction to ARCUS: The Arctic <strong>Research Consortium of the U.S.</strong></td>
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<td><strong>Voyager Room</strong></td>
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<tr>
<td>**Bering Sea and Aleutian</td>
<td><strong>Student Oral Presentation</strong></td>
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<tr>
<td>Islands Plenary**</td>
<td>Award Announcements, 4:45</td>
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<tr>
<td><strong>Student Poster Presentation</strong></td>
<td>p.m. – 5:00 p.m.</td>
<td><strong>Closing Remarks,</strong></td>
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<td><strong>Award Announcements,</strong></td>
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<td>4:45 p.m. – 5:15 p.m.</td>
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<td><strong>4:45 p.m. – 5:00 p.m.</strong></td>
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<tr>
<td><strong>Workshop, 7:00 p.m. – 9:00 p.m.</strong></td>
<td>Arctic Research Planning Evening**</td>
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<tr>
<td><strong>Arctic Research Planning</strong></td>
<td><strong>Student Oral Presentation</strong></td>
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<tr>
<td><strong>Evening</strong></td>
<td>Award Announcements and</td>
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<td>Closing Remarks,**</td>
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<td><strong>Wave 2 – 7:15 p.m. – 8:30 p.m.</strong></td>
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<td>Monday – Friday</td>
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**Media Room**
Monday – Thursday
Hotel Captain Cook
Easter Island Room
Monday, January 25

1:30 p.m. – 2:15 p.m.

AMBASSADOR MARK BRZEZINSKI, EXECUTIVE DIRECTOR OF THE U.S.
GOVERNMENT’S ARCTIC EXECUTIVE STEERING COMMITTEE

Arctic Executive Steering Committee - One Year on Report
From the Executive Director

Former United States Ambassador to Sweden, Mark Brzezinski serves as Executive Director of the U.S. Government’s Arctic Executive Steering Committee. On January 21st, 2015, in recognition of the unique challenges and opportunities presented by the Arctic, President Obama issued an Executive Order to enhance coordination of national efforts in the Arctic. The Executive Order creates expanded opportunities for Alaskans and those in the Federal government to work on Arctic issues and establishes a clear structure to improve the coordination of Federal Arctic activity.

An Arctic Executive Steering Committee (AESC) was established to oversee implementation of the National Strategy for the Arctic Region (https://www.whitehouse.gov/blog/2015/03/27/white-house-releases-implementation-report-national-strategy-arctic). The AESC convenes at the Deputy Secretary level to guide the development of department and agency plans to assure that Federal activity is well-coordinated and better communicated to partners such as the State of Alaska, Alaska Native communities, the U.S. Congress, the business community, international partners, and other stakeholders. Dr. John Holdren, Assistant to the President for Science and Technology and Director of the White House Office of Science and Technology Policy, serves as the AESC Chair.

As U.S. Ambassador to Sweden between 2011-2015, Mark worked closely with the Swedish Government during its Chairmanship of the Arctic Council. The U.S. is one of eight member nations of the Arctic Council, and currently is the Council’s Chair. In May 2013, Mark joined the U.S. Delegation led by Secretary of State John Kerry to the Arctic Council Ministerial in Kiruna, Sweden, above the Arctic Circle. At that ministerial, key agreements involving Arctic search and rescue, oil spill preparedness and cleanup, and inclusion of non-Arctic nations as Arctic Council observers were advanced. In September 2013, Mark welcomed President Barack Obama to Stockholm for a historic, first ever visit by a sitting U.S. President to Sweden's capital. In Stockholm, President Obama and all five heads of government of the Nordic countries met together to discuss a shared approach to climate change and the future of the Arctic among other issues. Mark made the Arctic a central focus of his tenure in Sweden. Speaking in February 2015 at Dartmouth College where he gave the Montgomery Fellowship lecture on the Arctic, Mark noted that “the Arctic is simultaneously a strategic problem and a human problem.” At the U.S. Embassy, he developed new partnerships with government and diplomats, business, media and entertainment, and the environmental and NGO community to consider the link between what is happening in the Arctic and what is happening in the rest of the world. He used new communications and social-media tools to share how the looming crisis confronting the Arctic is a tangible preview of the crisis confronting the world as a whole. Mark initiated and helped develop the new U.S. Fulbright Scholarship devoted to the study of the future of the Arctic. The new Arctic Fulbright, funded by the State Department, is a unique two-year program composed of researchers selected from the eight Arctic Council countries. Mark served on the National Security Council staff under President Clinton between 1999-2001, first as Director for Russia and Eurasia, then as Director for the Balkans.
Mark received his undergraduate degree at Dartmouth College, his law degree at the University of Virginia Law School and obtained his Doctorate in political science from Oxford University. He was a Fulbright Scholar in Warsaw, Poland between 1991-1993. He was a partner at a Washington, D.C. law firm before joining the Obama Administration, and is a member of the Council on Foreign Relations.

2:15 p.m. – 3:00 p.m.

DR. EMANUELE DI LORENZO, SCHOOL OF EARTH & ATMOSPHERIC SCIENCES
Persistent Record-High Temperatures in the North Pacific in 2014/2015: A Climate Hypothesis

Dr. Emanuele Di Lorenzo is a professor of ocean and climate sciences at the Georgia Institute of Technology. Trained as a coastal physical oceanographer and modeler at Scripps (2003 Ph.D.), Di Lorenzo’s work now focuses on developing observationally-constrained theories and models to explain large-scale ocean and climate changes. He conducts interdisciplinary research on diagnosing the climate impacts on regional and coastal marine ecosystems, particularly in the Pacific Ocean (e.g. www.pobex.org). Di Lorenzo is active in international organizations such as CLIVAR, PICES and ICES. In PICES, he is co-chair of WG27 on North Pacific climate variability and change. He is also a member of the Phenomena, Observations and Synthesis panel in US CLIVAR. More recently, Di Lorenzo has expanded his interdisciplinary research interests towards modelling social-ecological-environmental systems.

3:00 p.m. – 3:30 p.m.

DR. GEORGE DIVOKY, DIRECTOR, FRIENDS OF COOPER ISLAND
Four Decades of Change: An Arctic Seabird Responds to a Warming Arctic

Dr. George Divoky has studied Alaskan seabirds since 1970 when he participated in censuses of marine birds and mammals in the Beaufort and Chukchi seas. In 1975, he began a study of Black Guillemots, a diving seabird, on Cooper Island, 35 km east of Point Barrow, Alaska, that he still maintains. The study, starting its fifth decade, is the longest continuous seabird study in the Arctic. The time series of data on phenology, breeding success, diet and adult survival provided some of the first examples of the biological consequences of snow and sea ice reductions in the Arctic and continues to track the major environmental changes now occurring in the region.

Divoky has also worked for federal and state agencies on a range of Alaskan seabird management and conservation issues including the Alaska Native Land Claims Settlement Act, oil and gas exploration of the outer continental shelf, oil spill damage assessment and restoration, and regional climate change. He is currently Director of Friends of Cooper Island, a Seattle-based nonprofit organization, working to analyze the observations from Cooper Island and ensure their continuation in coming decades.
Divoky’s research on the Black Guillemots of Cooper Island was featured in a cover story in the New York Times Magazine entitled “George Divoky’s Planet,” in the PBS’s Scientific American Frontiers program “Hot Times in Alaska” with Alan Alda, and on ABC Nightly News and Nightline. He has appeared on The Late Show with David Letterman, and has been interviewed on NPR’s Talk of the Nation and Science Friday. His research and experiences on Cooper Island were featured in Greenland, a play about climate change staged by the Royal National Theatre in London in 2011.

Divoky was born and raised in Cleveland, Ohio, has Bachelor’s and Master’s degrees from Michigan State University and a Doctorate from the University of Alaska Fairbanks.

3:45 p.m. – 4:30 p.m.

DR. WALLACE NICHOLS, SCIENTIST, AUTHOR, CONSULTANT, EDUCATOR, ENTREPRENEUR

Blue Mind: Changing the Way We Think About Water

Scientist Wallace “J.” Nichols, author of the New York Times best-selling Blue Mind, will present cutting-edge neuroscience research about the benefits of being in, on, or simply near water. He will also describe his personal experiences with successful communication efforts related to the crucial importance of our connection to water that engage people in problem-solving around ocean issues. In addition to being a scientist and author, J. Nichols is a wild water advocate, movement-maker, and dad. His research and expeditions have taken him to coasts and waterways across North, Central and South America, to Asia, Africa, Australia, and Europe. This is what keeps his colleagues and collaborators working hard to understand and restore our blue planet. He is a Research Associate at California Academy of Sciences and co-founder of Ocean Revolution, an international network of young ocean advocates, SEE the WILD, a conservation travel network, Grupo Tortuguero, an international sea turtle conservation network, and Blue Mind Fund, reconnecting people to water. His research interests span ocean and aquatic ecosystems, migratory species, marine protected areas, fisheries management, and plastic pollution with special emphasis on building new action networks. He has authored and co-authored more than 200 scientific papers, articles, and reports, and his work has been broadcasted on NPR, BBC, PBS, CBS This Morning, Discovery Channel, The National Geographic Channel and Animal Planet as well as featured in Time, Newsweek, GQ, Outside Magazine, Fast Company, Scientific American and New Scientist, among others.
Dr. Kristin Laidre is a marine biologist at the University of Washington, Seattle working at the Polar Science Center, Applied Physics Laboratory and the School of Aquatic and Fishery Sciences. She is partially supported by the Greenland Institute of Natural Resources in Nuuk. Her research is field-based and is focused on studying the behavior, ecology, and population dynamics of Arctic marine mammals. She is a member of the IUCN Species Survival Commission Polar Bear Specialist Group and the IUCN Species Survival Commission Cetacean Specialist Group. She has published over 80 peer-reviewed scientific papers and co-authored 2 books on Arctic marine mammals.

Maria Coryell-Martin is an expeditionary artist following the tradition of traveling artists as naturalists and educators. She graduated from Carleton College in 2004 and received a Thomas J. Watson fellowship to explore remote regions through art from 2004-2005. Since then, Maria has worked with scientists, local communities, and expeditions in Alaska, Canada, Greenland, and the Antarctic Peninsula. In the field, Coryell-Martin sketches with ink and watercolor, and collects multimedia recordings to build her palette of place, a record of experience, climate, and color. This work is the basis for exhibits of large-scale studio and field paintings, as well as multimedia presentations and hands-on workshops for audiences of all ages to promote observation, scientific inquiry, and environmental awareness. To learn more, visit: expeditionaryart.com
Tuesday, January 26  7:30 a.m. – 5:00 p.m.

7:30 A.M. – 8:00 A.M.  CONTINENTAL BREAKFAST

CLIMATE & OCEANOGRAPHY

8:00 – 8:15  Robert Pickart  Closing the Mass Budget Between Bering Strait and the Arctic Basin: The Chukchi Slope Current
8:15 – 8:30  Jeremy Mathis  Ocean Acidification in the Pacific-Arctic Boundary Regions
8:30 – 8:45  Rachel Potter  Surface Currents on the Northeastern Chukchi and Western Beaufort Sea Shelves
8:45 – 9:00  Carol Ladd  Time Series of Currents and Water Masses on the Chukchi Shelf
9:00 – 9:15  *Vincent Domena  Dissolved and Particulate Trace Metal Concentrations in Sea Ice at Oliktok Point, Alaska

LOWER TROPHIC LEVELS

9:15 – 9:30  Calvin Mordy  Variability of Flow, Nutrients, and Chlorophyll in the Chukchi Sea
9:30 – 10:00  BREAK
10:00 – 10:15 *Kyle Dilliplaine  Biological Influence and Impact of Oil Spills in Ice Covered Waters
10:15 – 10:30 *Alexandra Ravelo  What Lies Beneath the Ice: Using Sea Ice as a Driver of Benthic Communities in the Alaska Arctic
10:30 – 10:45 *Elizaveta Ershova  Long-term Changes in Summer Zooplankton Communities of the Western Chukchi Sea, 1945-2012

FISHES & FISH HABITATS

10:45 – 11:00  Benjamin Laurel  Juvenile Growth and Lipid Dynamics of Arctic Cod (Boreogadus saida) and Other Alaskan Gadids Under Variable Environments
11:00 – 11:15  Brenda Norcross  Plan for Monitoring Bottom Fish Communities in the Beaufort Sea
11:15 – 11:30 *Jen Marsh  Population Dynamics of Arctic Cod (Boreogadus saida) in the Eastern Chukchi Sea

*Student Presentation
11:30 – 1:00  LUNCH PROVIDED

1:00 – 1:15  Ed Farley  Pink Salmon as Sentinels for Climate Change in the Arctic

**SEABIRDS**

1:15 – 1:30  Adrian Gall  Seabirds Signal Short-term Patterns and Long-term Trends in Oceanographic Variability of the Eastern Chukchi Sea

1:30 – 1:45  *A. Catherine Pham*  Interannual Variability in Seabird Communities with Respect to Prey and Environmental Properties in the Northern Bering and Chukchi seas

**MARINE MAMMALS**

1:45 – 2:00  *Anthony Pagano*  Spring Field Metabolic Rates and Behaviors of Adult Female Polar Bears on the Sea Ice of the Southern Beaufort Sea

2:00 – 2:15  Manuel Castellote  Unexpected Presence of Transient Killer Whales in Kotzebue Sound

2:15 – 2:30  Mark Baumgartner  Marine Mammal Distribution and Habitat in the Eastern Chukchi Sea Observed from a Slocum Ocean Glider

2:30 – 3:00  BREAK

3:00 – 3:15  John Citta  Oceanographic Characteristics Associated with Bowhead Behaviors in the Chukchi Sea

**HUMAN DIMENSIONS**

3:15 – 3:30  Marilyn Sigman  Best Practices for Community-Based Monitoring: Observing Alaska’s Coasts and Oceans

3:30 – 3:45  *Kristen Shake*  The Uncertainties of Sea Ice: Socio-legal Dynamics in a Changing Arctic Ocean-scape

**ECOSYSTEM PERSPECTIVES**

3:45 – 4:00  Carin Ashjian  Predictable Wind Forced Upwelling Can Lead to a Favorable Feeding Environment for Bowhead Whales in Nearshore Waters Near Barrow, Alaska: A Synthesis of Results from BOWFEST

4:00 – 4:15  Katrin Iken  AMBON – The Arctic Marine Biodiversity Observing Network

4:15 – 4:30  Sue Moore  The Arctic Marine Pulses Model: Linking Contiguous Domains in the Pacific Arctic Region

4:30 – 4:45  Robert Day  Interannual Variability and Change in an Arctic Ecosystem: Can We Separate a Signal from the Noise?

4:45 – 5:00  Seth Danielson  A Northeastern Chukchi Shelf Ecosystem Observatory: Year 1 Results and Year 2 Build-out

*Student Presentation
### Wednesday, January 27  7:30 a.m. – 5:00 p.m.

7:30 A.M. – 8:00 A.M.  CONTINENTAL BREAKFAST

#### CLIMATE & OCEANOGRAPHY

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<tbody>
<tr>
<td>8:00 – 8:15</td>
<td>Phyllis Stabeno</td>
<td>The Status of the Southern Bering Sea in 2015: Warm</td>
</tr>
<tr>
<td>8:15 – 8:30</td>
<td>*Jon S. Allen</td>
<td>Spatial Prediction of Changes in Flood Susceptibility and Vegetation Distribution Due to Sea-level Rise on the Yukon-Kuskokwim Delta</td>
</tr>
<tr>
<td>8:30 – 8:45</td>
<td>Jessica Cross</td>
<td>Surface Mapping of the Bering Sea During Seasonal Ice Retreat</td>
</tr>
<tr>
<td>8:45 – 9:00</td>
<td>Gleb Panteleev</td>
<td>A 4D Variational Reanalysis of the Bering Sea Circulation in 2007-2010</td>
</tr>
<tr>
<td>9:00 – 9:15</td>
<td>Peter Winsor</td>
<td>Coastal Community Ocean Observers (C₂O₂): A Network of Community-driven Coastal Ocean Observations</td>
</tr>
<tr>
<td>9:15 – 9:30</td>
<td>*Brian Joyce</td>
<td>A High-Resolution Coupled Tide and Storm Surge Model for the Gulf of Alaska, Bering Sea, Chukchi Sea, and Beaufort Sea</td>
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9:30 – 10:00  BREAK

#### LOWER TROPHIC LEVELS

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<tbody>
<tr>
<td>10:00 – 10:15</td>
<td>Ned Laman</td>
<td>Using Species Distribution Models to Define Essential Fish Habitat in Alaska</td>
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<tr>
<td>10:15 – 10:30</td>
<td>Lisa Eisner</td>
<td>Seasonal Phenology of Zooplankton Composition in the Southeastern Bering Sea, 2008-2010</td>
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#### FISHES & FISH HABITATS

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<tbody>
<tr>
<td>10:30 – 10:45</td>
<td>Daniel Schindler</td>
<td>Coherence in Population Dynamics of Western Alaska Chinook Salmon and Relationships to Environmental Forcing Over Their Life-cycle</td>
</tr>
<tr>
<td>10:45 – 11:00</td>
<td>Katharine Miller</td>
<td>Early Marine Ecology of Juvenile Chinook Salmon (Oncorhynchus tshawytscha) on the Yukon Delta, Alaska</td>
</tr>
<tr>
<td>11:00 – 11:15</td>
<td>Ian Hartwell</td>
<td>Bioeffects Assessment in Kvichak and Nushagak Bay, Alaska: Characterization of Soft Bottom Benthic Habitats, Fish Body Burdens, and Contaminant Baseline</td>
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<tr>
<td>Time</td>
<td>Speaker</td>
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<tr>
<td>11:15 – 11:30</td>
<td>Curry Cunningham</td>
<td>Evaluating the Freshwater and Marine Drivers of Yukon River Chinook Survival with Stage-structured Life Cycle Models</td>
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<tr>
<td>11:30 – 1:00</td>
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<td>LUNCH (ON YOUR OWN)</td>
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<tr>
<td><strong>SEABIRDS</strong></td>
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<tr>
<td>1:00 – 1:15</td>
<td>*Natalie Bool</td>
<td>Tracking the Foraging Movements of Short-tailed Shearwaters During the Non-breeding Period, Using Geo-location Sensors</td>
</tr>
<tr>
<td>1:15 – 1:30</td>
<td>*Alexis Will</td>
<td>Groundwork for Examining Seabird Responses to Bering Sea Regime Shifts</td>
</tr>
<tr>
<td>1:30 – 1:45</td>
<td>Melanie Smith</td>
<td>Application of a Scalable Change Detection Tool to Assess Climate Change Vulnerability for Important Bird Areas in the Bering Sea and Aleutian Islands</td>
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<tr>
<td><strong>MARINE MAMMALS</strong></td>
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<tr>
<td>1:45 – 2:00</td>
<td>Michelle Lander</td>
<td>Mixing it up in Alaska: Habitat Use of Adult Female Steller Sea Lions (<em>Eumetopias jubatus</em>) Reveals a Variety of Foraging Strategies</td>
</tr>
<tr>
<td>2:00 – 2:15</td>
<td>Patrick Lemons</td>
<td>Assessment of a Genetics Based Capture-Mark-Recapture Approach for Estimation of Abundance and Demographic Rates of Pacific Walruses</td>
</tr>
<tr>
<td>2:15 – 2:30</td>
<td>*Srishti Dasarathy</td>
<td>Integration of Oceanographic Data with Fin Whale Calling Presence in the Bering Sea</td>
</tr>
<tr>
<td>2:30 – 3:00</td>
<td></td>
<td>COFFEE BREAK</td>
</tr>
<tr>
<td>3:00 – 3:15</td>
<td>*Deborah Sharpe</td>
<td>Using Vocal Dialects to Assess the Population Structure of Bigg’s Killer Whales in Alaska</td>
</tr>
<tr>
<td><strong>HUMAN DIMENSIONS</strong></td>
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<tr>
<td>3:15 – 3:30</td>
<td>Douglas Burn</td>
<td>Thinking Strategically in the Aleutian Archipelago</td>
</tr>
<tr>
<td>3:30 – 3:45</td>
<td>*Hillary Hafner</td>
<td>Testing Sociocultural Impacts of Declining Chinook Salmon Runs on Yukon River Communities</td>
</tr>
<tr>
<td>3:45 – 4:00</td>
<td>*Jesse Coleman</td>
<td>Broken Links: How Limited Entry, Markets, and Family Have Transformed Access to and Participation in Bristol Bay’s Commercial Fisheries</td>
</tr>
<tr>
<td><strong>ECOSYSTEM PERSPECTIVES</strong></td>
<td></td>
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<tr>
<td>4:00 – 4:15</td>
<td>Shiway Wang</td>
<td>Carbon Sources of Ice Seals During Recent Environmental Shifts in the Bering Sea</td>
</tr>
<tr>
<td>4:15 – 4:30</td>
<td>Ric Brodeur</td>
<td>Jellyfish – Fish Trophic Interactions in the Bering Sea: Ecosystem Impacts of Jellyfish Population Fluctuations</td>
</tr>
<tr>
<td>4:30 – 4:45</td>
<td>Mike Litzow</td>
<td>Early Warning Indicators to Track Resilience in the Bering Sea Ecosystem</td>
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<tr>
<td>4:45 – 5:00</td>
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<td>STUDENT POSTER PRESENTATION AWARD</td>
</tr>
</tbody>
</table>

*Student Presentation
Thursday, January 28  7:30 a.m. – 5:15 p.m.

7:30 A.M. – 8:00 A.M.  CONTINENTAL BREAKFAST

CLIMATE & OCEANOGRAPHY

8:00 – 8:15  *Thomas Mosier  More Robust Projections of Freshwater Fluxes into the Gulf of Alaska Under Climate Change: An Intercomparison of Coupled Hydrologic-Cryosphere Models

8:15 – 8:30  *Jordan Beamer  Climate Change Impacts on Alaskan Hydrology and Freshwater Discharge

8:30 – 8:45  Wiley Evans  An Ocean Acidification Lighthouse for the Shellfish Aquaculture Industry in the State of Alaska: Alutiiq Pride Shellfish Hatchery

8:45 – 9:00  Robert Campbell  Surface Layer and Bloom Dynamics in Prince William Sound

LOWER TROPHIC LEVELS

9:00 – 9:15  Sonia Batten  The Effects of the Anomalous Warming on Lower Trophic Levels in the Gulf of Alaska from Continuous Plankton Recorder Sampling

9:15 – 9:30  Elizabeth Siddon  Early Life History Ecology for Five Commercially and Ecologically Important Fish Species in the Eastern and Western Gulf of Alaska in 2011 and 2013

9:30 – 10:00  BREAK

FISHES & FISH HABITATS

10:00 – 10:15  *Jane Sullivan  Can Fishing Explain Declines in Size-at-age of Pacific Halibut?

10:15 – 10:30  *Erin Fedewa  Pre-settlement Processes of Northern Rock Sole (Lepidopsetta polyxystra) in Relation to Interannual Variability in the Gulf of Alaska

10:30 – 10:45  William Long  How Does Release Density Affect Enhancement Success for Hatchery-reared Red King Crab?

10:45 – 11:00  Ron Heintz  Ecological Factors Influencing the Overwinter Survival of Age-0 Herring in Prince William Sound

*Student Presentation
### SEABIRDS

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00 – 11:15</td>
<td>Anne Schaefer</td>
<td>The Influence of Ocean Productivity on Stress and Parental Investment in a Long-lived Seabird</td>
</tr>
<tr>
<td>11:15 – 11:30</td>
<td>Heather Renner</td>
<td>Does the Warm Water Blob Explain Seabird Die-offs and Low Reproductive Success in 2015?</td>
</tr>
<tr>
<td>11:30 – 1:00</td>
<td>LUNCH PROVIDED</td>
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</tr>
<tr>
<td>1:00 – 1:15</td>
<td>*Katharine Studholme</td>
<td>Non-breeding Distributions and Spatial Ecology of Rhinoceros Auklets from Colonies in Alaska and British Columbia, with Implications for Management</td>
</tr>
<tr>
<td>1:15 – 1:30</td>
<td>*Sarah Tanedo</td>
<td>Using Remote Techniques to Identify Factors Influencing Annual Productivity of a Colony of Black-legged Kittiwakes (<em>Rissa tridactyla</em>) in the Northern Gulf of Alaska</td>
</tr>
</tbody>
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### MARINE MAMMALS

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:30 – 1:45</td>
<td>Russel Andrews</td>
<td>Expanding their Range and the Depredation Problem, Sperm Whales Enter New Habitat in Chatham Strait, Inside Waters of Southeast Alaska</td>
</tr>
<tr>
<td>1:45 – 2:00</td>
<td>Robert Small</td>
<td>Seasonal Distribution and Foraging Behavior of Cook Inlet Beluga Whales</td>
</tr>
<tr>
<td>2:00 – 2:15</td>
<td>Sarah Courbis</td>
<td>Where Science Meets Policy: Protected Species Permitting and Take Estimation</td>
</tr>
<tr>
<td>2:15 – 2:30</td>
<td>Kim Parsons</td>
<td>Filling in the Blanks: Multidisciplinary Approaches for Addressing Critical Data Gaps in Our Understanding of the Structure of Southeast Alaska Harbor Porpoise (<em>Phocoena phocoena</em>)</td>
</tr>
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### HUMAN DIMENSIONS

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:30 – 2:45</td>
<td>Ian Davidson</td>
<td>Managing the Invasive Tunicate, <em>Didemnum vexillum</em>, in Alaska</td>
</tr>
<tr>
<td>2:45 – 3:00</td>
<td>BREAK</td>
<td></td>
</tr>
<tr>
<td>3:00 – 3:15</td>
<td>Rachel Donkersloot</td>
<td>Graying of the Fleet in Kodiak's Fisheries: Defining the Problem and Assessing Solutions</td>
</tr>
</tbody>
</table>

### ECOSYSTEM PERSPECTIVES

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:15 – 3:30</td>
<td><em>Szymon Surma</em></td>
<td>Examining the Effects of Herring Fishing Strategies on a Northeast Pacific Ecosystem</td>
</tr>
<tr>
<td>3:30 – 3:45</td>
<td><em>Alyssa Lind</em></td>
<td>The Effects of Rising Sea Surface Temperature and Decreasing Salinity on Kelp Forest Ecosystems</td>
</tr>
<tr>
<td>4:15 – 4:45</td>
<td>Russell Hopcroft</td>
<td>Gulf of Alaska Project: The Gauntlet Games – Final Showdown</td>
</tr>
<tr>
<td>4:45 – 5:00</td>
<td>BEST STUDENT ORAL PRESENTATIONS WINNERS ANNOUNCED</td>
<td></td>
</tr>
<tr>
<td>5:00 – 5:15</td>
<td>CLOSING REMARKS</td>
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*Student Presentation*
Workshops

All week

Coastal Gallery
All Day, Adventure Room
Join the ShoreZone mapping program in a walk through landscapes, colors, textures and habitats in a diverse photo exhibition.

Sunday

Keynote Author Reading
7:00 p.m. – 9:00 p.m., Quarter Deck
Keynote Presenter, Dr. Nichols, will read from his New York Times best-selling book Blue Mind. Following the reading, join the conversation about basing communication on these benefits to engage people in problem-solving for our ocean environment. Free and open to the public.

Monday

Communicating Ocean Sciences
8:00 a.m. – 12:00 p.m., Fore Deck, Discovery Ballroom
In its tenth year, the Communicating Ocean Sciences Workshop provides tips, tricks, and other ways to improve scientific communication. Past workshop topics have included: engaging with rural communities, using GoPro video equipment to tell a story, empowering citizen scientists, how to write for the general public, and more. This workshop is intended for scientists, educators, media, and those interested in learning more about how science is communicated. Sponsored by the North Pacific Research Board (NPRB), Centers for Ocean Sciences Education Excellence Alaska (COSEE Alaska), Alaska Sea Grant, Alaska Ocean Observing System (AOOS), Alaska SeaLife Center (ASLC) and the Alaska Chapter of the Northwest Aquatic and Marine Educators Association (NAME). Open to the public and free, upon registration.

Tuesday

What’s IARPC and How Can You Be Involved?
11:45 a.m. – 12:45 p.m., Whitby Room
Federal and non-Federal leaders of the Interagency Arctic Research Policy Committee’s (IARPC) collaborations teams will be holding an information session on IARPC. They will provide an overview of the marine collaboration teams, explain how and why the research community can engage in IARPC, and introduce the process by which IARPC is updating its current 5-year plan.

Speakers: Candace Nachman (NOAA); Sue Moore (NOAA); Danielle Dickson (NPRB); Jackie Grebmeier (UMCES)

Wednesday

Walrus Disturbance Workshop
11:30 a.m. – 1:00 p.m., Quadrant Room
Olgoonik Fairweather is hosting an open workshop with invited guest speakers, interested stakeholders, and Walrus Disturbance Workshop resource managers to discuss the state of knowledge on walrus disturbance. In this open discussion, we will: 1) Identify current research on walrus disturbance and data gaps for future direction; 2) Research techniques for determining disturbance; 3) Data collection techniques that may assist regulatory decision-making; and 4) Current management policy. This workshop is intended to facilitate information exchange among walrus stakeholders in Alaska. If you have any
questions on the workshop, please contact Sheyna Wisdom (sheyna.wisdom@fairweather.com, 907-267-4611). Lunch will be provided, please RSVP to Tanja Davis (tanja.davis@fairweather.com) and Willow Hetrick (willow.hetrick@fairweather.com).

**Introduction to ARCUS: The Arctic Research Consortium of the U.S.**

12:00 p.m. – 1:30 p.m., Voyager Room

The Arctic Research Consortium of the United States (ARCUS) will be hosting a drop-in event in connection with the Alaska Marine Science Symposium. You are invited to meet with members of the ARCUS Board and staff to discuss your ideas to better connect and support Arctic research, and hear about the new ARCUS membership categories and benefits. Learn how we can help your research advance through communication, coordination, and collaboration that ARCUS supports. A light lunch will be provided for attendees.

**Arctic Research Planning Evening**

7:00 p.m. – 9:00 p.m., Quarter Deck

Olgoonik Fairweather is hosting the annual Arctic Research Planning Night at the Quarter Deck. This event is held to facilitate collaboration and knowledge sharing among Arctic researchers. We welcome everyone interested in discussing Arctic research. As with previous years, please either send in advance or bring a thumb drive with a few slides that outlines your research plans for 2016 and beyond. Include vessel location, duration of cruise, objectives, types of data to be collected, available bunk space, and length of contract. Slides may be sent to Sheyna Wisdom at Olgoonik Fairweather (sheyna.wisdom@fairweather.com). No RSVP is required. Beer/wine and appetizers will be provided by Olgoonik Fairweather.

**Friday**

**Arctic Ecosystem Integrated Survey**

8:30 a.m. – 11:00 a.m., Aft Deck

This workshop reviews some of the key findings from a comprehensive ecosystem survey conducted in the northern Bering Sea and Chukchi Sea in 2012/13 with a focus on upper trophic level communities. Presentations will focus on methodological advances and on the role and dynamics of several key species groups, including gadids, salmon, snow crab and seabirds. Short presentations will be followed by discussions of knowledge gaps and next steps in improving our understanding of marine ecosystem processes in this dynamic and changing region.

**Alaska Coastal Marine Institute Annual Studies Review**

11:30 a.m. – 5:00 p.m., Endeavor Room

This public workshop provides an opportunity to learn about ongoing marine research relating to the management of oil and gas resources in the Alaska Outer Continental Shelf region. Ten projects funded through the Coastal Marine Institute will be presented with time allotted for questions and discussion among workshop attendees. Members of the public and science communities are encouraged to attend.

**Exhibitors**

1. NOAA/NOS/National Geodetic Survey
2. BOEM
3. Michael Baker International
4. Illustrator John Norton
5. National Park Service
6. U.S. Seafoods
7. Fairweather/Norseman
8. Oceanic Research Services
9. Eco Analysts
10. ASL Environmental Sciences
11-12-13. Share Fair Corner (ASG, AOOS, NPRB, ASLC, NOAA AFSC)
14. Sitka Sound Science Center
15. USGS
16. USARCC
Shuttle service is provided between the Hotel Captain Cook (939 W. 5th Ave.) and the Egan Center (555 W. 5th Ave.) from 5:45 p.m. – 8:45 p.m. for those going to and from Poster Sessions.
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Explorers Hall

Shuttle service is provided between the Hotel Captain Cook (939 W. 5th Ave.) and the Egan Center (555 W. 5th Ave.) from 5:45 p.m. – 8:45 p.m. to assist those needing transportation to and from the Poster Sessions.
Thank You!

The Symposium would not have been possible without the help of many volunteers!

Thank you to the AMSS Organizing Committee and a special thanks to the following for a substantial contribution by coordinating key aspects of the Symposium:

- Organizing Committee Chair: 
  Crystal Benson-Carlough, NPRB
- Poster Session Coordinator
  Mary Whalen, USGS
- Abstract Review Committee Chair
  Danielle Dickson, NPRB
- Abstract Book Production
  NPRB, NOAA
- Exhibits Coordinator
  Crystal Benson-Carlough, NPRB
- Keynote Speakers Chair
  Molly McCammon, AOOS
- Media Coordinator
  Brendan Smith, NPRB
- Non-Plenary Sessions and Workshops Coordinator
  Crystal Benson-Carlough, NPRB and Holly Kent, AOOS
- Student Awards Coordinator
  Marilyn Sigman, COSEE

Registration, Time Keeping, Student Judging, and Poster Volunteers
We Cannot Thank You Enough for Donating Your Time!
Thank You Sponsors!

- Alaska Bering Sea Crabbers
- Alaska Department of Fish and Game
- Alaska Longline Fishermen’s Association
- Alaska Ocean Observing System
- Alaska Sea Grant
- Aleutian and Bering Sea Islands LCC
- U.S. Bureau of Ocean Energy Management
- Coastal Marine Institute
- International Pacific Halibut Commission
- National Park Service
- NOAA Alaska Fisheries Science Center
- NOAA Alaska Regional Collaboration Team
- North Pacific Fishery Management Council
- North Pacific Research Board
- Oil Spill Recovery Institute
- Prince William Sound Science Center
- University of Alaska Fairbanks, School of Fisheries and Ocean Sciences
- United States Arctic Research Commission
- University of Washington, School of Aquatic and Fishery Sciences
- U.S. Geological Survey
- U.S. Geological Survey - Alaska Region