

# The Bering Strait Research Consortium: a new organization



Jessica Cherry<sup>1</sup>, Peter Schweitzer<sup>2</sup>, Lee Haugan<sup>3</sup>,  
Jim Lawler<sup>4</sup>, Joel Alowa<sup>5</sup>, Claudia Ihl<sup>3</sup>, Heidi Herter<sup>3</sup>

<sup>1</sup>International Arctic Research Center and Institute of Northern Engineering, University of Alaska Fairbanks, jcherry@iarc.uaf.edu  
<sup>2</sup>Anthropology/EPSCoR, University of Alaska Fairbanks, USA, <sup>3</sup>Northwest Campus, UAF, Nome, USA  
<sup>4</sup>National Park Service, Fairbanks Office, <sup>5</sup>Nome Eskimo Community



This poster describes a new entity known as the Bering Strait Research Consortium (BSRC). This consortium is designed to serve as a central forum for communication of cultural and scientific research activities to the public, data exchange, research synthesis, and research support information. Individuals or institutions with an interest in the Beringia region are encouraged to participate in BSRC. Interest in a consortium has grown out of the needs of researchers to coordinate their efforts and help communicate them to the general public and the larger research community. Coordination for the BSRC was enabled by the University of Alaska EPSCoR program, which has research integration and outreach at the core of its mission. Preliminary organization and goals of BSRC will be discussed.

## Success requires regional participation, common goals, and shared vision



The authors hope to engage representatives from the National Park Service, Kawerak, the Eskimo Walrus Commission, the USCG, the Beringia Museum, the Pacific Research Fisheries Center (Chukotka Branch), the Association of Traditional Marine Mammal Hunters, the Chukotka Science Support Group, universities in the U.S. and Russia, as well as other interested entities to discuss a mission and institutional structure.

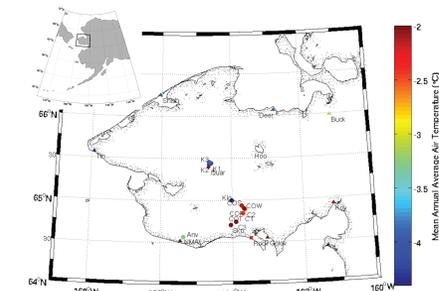
## Alignment with national research priorities



The Study of Environmental Arctic Change (SEARCH) Implementation plan figure shows the Bering Strait Region as a nexus of Stakeholder priority areas and existing ocean-based research

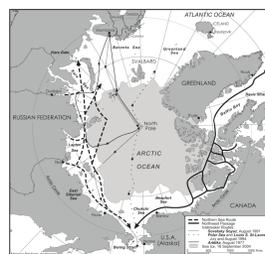
There are a number of research plans and reports that are relevant to the Bering Strait Region including the Study of Environmental Arctic Change, the International Study of Arctic Change, the Arctic Observing Network, the US Arctic Research Commission, and the Alaska Native Science Commission. While there are many science and cultural research activities in the region, much of it represents work done by individuals and is not coordinated or communicated back to a community-based organization.

## Baseline observations



Climate stations on the Seward Peninsula. K1-K3, C1-C3, Anvil (ANV), Skookum (SKO), and Kigluaiqs (KIG) are the stations managed by UAF. Colors represent the annual mean of daily average air temperatures for the common era of these stations (2000-2007). A clear coastal temperature gradient can be seen, although interior sites are cold enough to maintain discontinuous and continuous areas of permafrost. Climate and weather observations are just one example of community data that are relevant for stakeholders.

## Motivation: region of rapid environmental and socio-economic change



Arctic Shipping Routes from the U.S. Arctic Research Commission's Arctic Marine Transport Workshop report. Both the Northwest Passage (solid line) and the Northern Sea Route over Eurasia (dashed line) pass through the Bering Strait. The September, 2004 sea ice minimum is shown in grey.

The thinning and retreat of sea ice is driven by a number of changes in the climate including warmer winter air temperatures, increases in ocean heat content, and shifting winds. These changes are impacting both oceanic and terrestrial ecosystems, as well as permafrost distributions and infrastructure. The retreat of sea ice over the last decade has led to increased ship traffic, further enabling resource extraction. All of these factors contribute to socio-economic globalization and rapid change in the Bering Strait region

## Stakeholder information needs

Stakeholder	Earth System	Relevant data
Norton Sound Economic Development Corp. (fisherman)	Ocean/coastal	Weather forecasting, wave height, sea ice
Traditional sea mammal hunters	Ocean/coastal	Sea mammals, sea ice, shipping traffic, pollution, ecosystem health
Rendee Herder's Association	Terrestrial	Vegetation, climate, weather, hydrology, geology, paleoclimate, fire science
National Park Service	Terrestrial/coastal	Weather, hydrology, vegetation, geology
Miners	Terrestrial/coastal	Sea ice and weather forecasting, marine mammal safety
Shipping industry	Ocean/coastal	Weather, river ice, snow depth
Subsistence hunting/trapping	Terrestrial	Weather, storm surges
Tourism (jeep, benders)	Terrestrial/terrestrial	Weather, storm surges
State of Alaska, Village governments	Terrestrial	Infrastructure stability, weather, permafrost state, storm surges
US Coast Guard	Ocean/coastal	Weather, storm surges
Native Corporations	Terrestrial/coastal	Traditional knowledge, human health and safety, cultural resources

Many stakeholders in the Bering Strait region could benefit from shared baseline observations such as weather, climate, and ice extent. These sorts of datasets should be available to community members and other stakeholders on timescales that are meaningful to decision-making. The data must also be quality-controlled and submitted to a national archive with the relevant metadata.

## Webpage: www.beringstraitresearch.org



We now have web capacity to host data sets, provide a portal to external data, provide information on regional and local Experts, bibliographies, news stories, and researcher profiles. If you work in the Bering Strait region, please take a moment to fill out a researcher profile and send us your research highlights for our news section. If you are new to the region, see our logistics information.