



2011

# BERINGIA DAYS ДНИ БЕРИНГИИ

NOME, ALASKA / SEPTEMBER 9-10  
НОМ/АЛЯСКА/СЕНТЯБРЬ 9-10

PROCEEDINGS



In 2011, the Beringia Days Conference was a result of collaborative effort between the National Park Service Shared Beringian Heritage Program and the Institute of the North.

**The Institute of the North's** mission is to understand the reality, the richness and the responsibility of the North. The institute is a 501(c)(3) nonprofit organization specializing in how to utilize and care for the resource rich commons for the benefit of those living in and on the commons. Areas of special study include Alaska, the many regions of the Arctic and other areas of the world that are wealthy in both human cultures and natural resources. The institute has gained a wide reputation as a center for the study of commonly owned lands, seas and resources using Alaska as a model. The institute's mission is vital to Alaska's role as a key stakeholder in policy affecting the Arctic. The institute stands at a pivotal place where ideas and connections matter – across the state and on a global scale. In the Arctic, the institute is both an advocate and a convener. For more information about the Institute of the North, visit <http://www.institutenorth.org> .

**The Shared Beringian Heritage Program** recognizes and celebrates the natural resources and cultural heritage shared by Russia and the United States on both sides of the Bering Strait. The program seeks local resident, national and international participation in the preservation and understanding of natural resources and protected lands, as well as working to sustain the cultural vitality of Native peoples of the Beringia region. For more information about the Shared Beringian Heritage Program, visit <http://www.nps.gov/akso/beringia> .

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## 2011 Beringia Days Sponsors:

Bering Straits Native Corporation

Eskimo Walrus Commission

North Slope Borough

Norton Sound Economic Development Corporation

Pacific Environment

Pew Charitable Trust

Sitnasuak Native Corporation

West Anchorage High School

World Wildlife Fund

## A special thank you to:

Alaska Nanuuq Commission

Alaska Reindeer Herders' Association

Bering Air

City of Nome

Era Aviation

Kawerak, Incorporated

King Island Dancers

Landbridge Toll Booth

Northwestern Alaska Career and Technical Center (NACTEC)

Nome Chamber of Commerce and Visitor's Center

Nome Community Center

Nome-Beltz High School

Pioneer Igloo #1

Solnyshko

TERRAgraphica

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# About Beringia Days

Beringia Days is a public forum sponsored by the U.S. National Park Service's Shared Beringian Heritage Program and intended to highlight the activities and projects in the Beringia region of the United States and Russia. The conference brings together the Native peoples of Alaska and Chukotka, as well as Russian and American scholars, researchers, environmentalists and representatives of government and non-governmental organizations. The conference attracts a wide variety of people working in or interested in the Beringia region and provides a venue to explore opportunities for cooperation and collaboration.

## History of the Shared Beringian Heritage Program

In the first part of the 20th century, the significance of the Bering Land Bridge in the Bering Strait region and the concept of Beringia were widely recognized by the world's scientific community. Despite interest in sharing scientific research and connecting cultures divided by the strait, chilly relations between the United States and the U.S.S.R. in the 1970s–1980s prevented cooperation in the region.

Then, in 1984–1985 Walter Orr Roberts, statesman and American pioneer in the area of atmospheric and environmental sciences, proposed establishment of a U.S.–U.S.S.R. “research park” in the Bering Strait region as a means to improve relations between the two nations. In 1986, a working group formed to address the conservation and management of the region's natural and cultural heritage. In 1989, an American and Soviet planning team presented the concept for an international park during a tour of Native villages in Northwest Alaska and the Chukotka Peninsula in Russia. The National Park Service designed and submitted a proposal for a unique research program called the Shared Beringian Heritage Program in 1990. The proposal was funded in 1991 and began a four-year initiative to bring Russian and American scientists, resource managers and Native people together in a long-term, integrated study of traditional lifeways, biogeography and landscape history on the Seward and Chukotka Peninsulas.

Since the mid-1990s, those involved have made consistent efforts to seek greater local and regional participation in the program's research, cultural and educational activities. The program put special emphasis on staying in contact

with the Native constituents through village meetings, the Beringian Notes newsletter and the program's Internet website that launched in 1999.

The Shared Beringian Heritage Program began issuing a call for proposals, seeking scientific research projects or local, community-based educational, cultural, or conservation projects that fulfill some or all of the goals of the program. Proposals must emphasize the importance of meaningful Native and Russian components, significant interest and relevancy to the inhabitants of the Beringia region both in the United States and in the Russia.

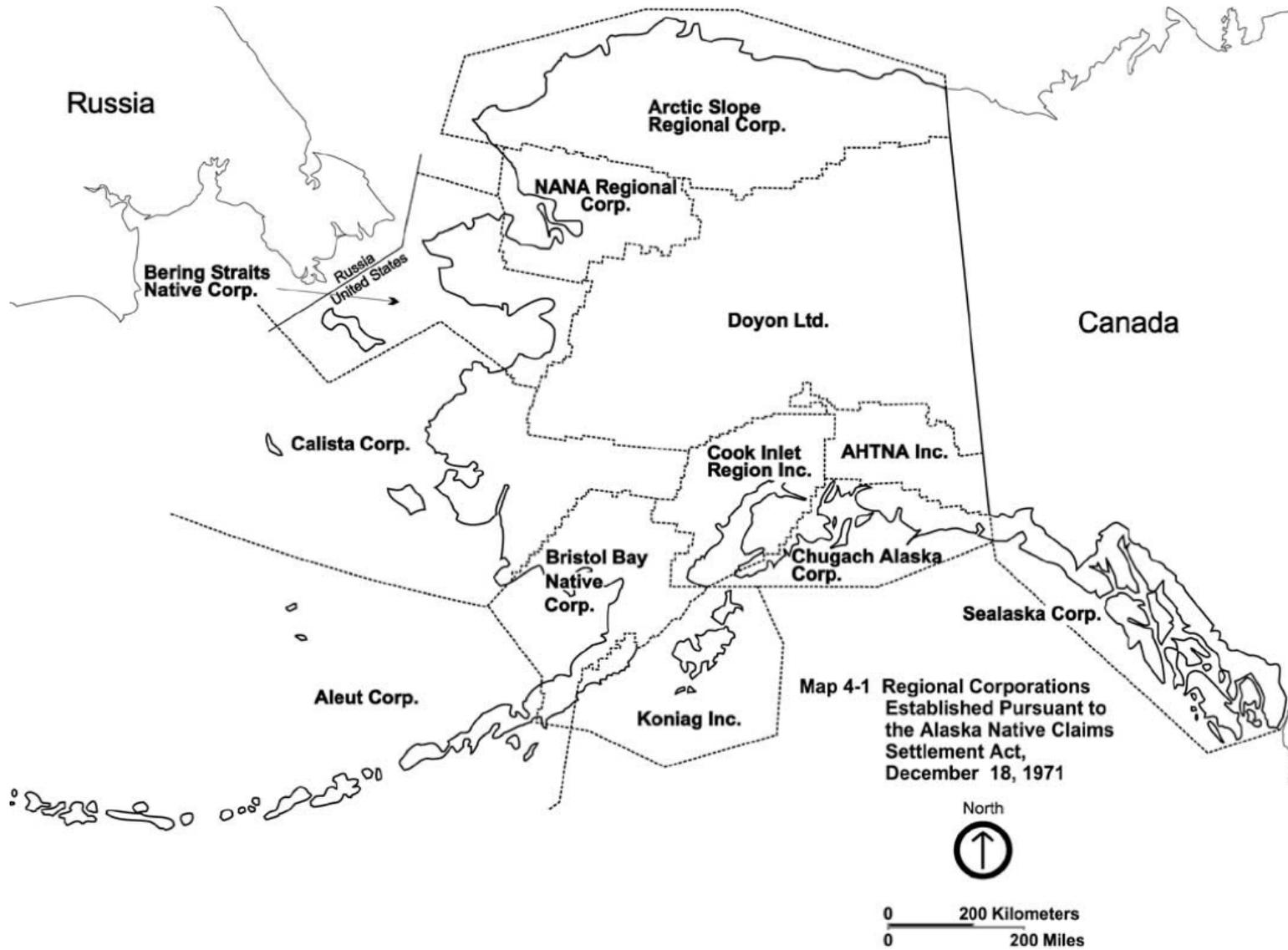
To ensure that the results of the new approach would be visible and would be reported to the public and to generate more community interest in Beringia research and issues, the National Park Service instituted the Beringia Days International Conference in 1997. Beringia Days has become a true bridge-building forum, free and open to the public.

The development of closer relations between the National Park Service and Chukotka Autonomous Region Administration resulted in the 2002 agreement with the Chukotka Governor Roman Abramovich to hold the Beringia Days Conference in Anadyr'. In 2003 the Chukotka Administration hosted the Beringia Days for the first time in Anadyr' in conjunction with the Native Folk Festival Ergav. Since then the location of the conference has been alternating between Alaska and Chukotka.

## Maps of the Beringia Region

The maps provided show three different views, each highlighting a different aspect of the Beringia region. The first map is an illustration of the lands covered by the different Native corporations designated by the Alaska Native Claims Settlement Act (ANCSA). The second map shows the four parks included in the National Park Service's Western Arctic National Parklands. The territory covered by these parks is vast and diverse and is an important part of the Beringia region. The third map is an overview of the lands that are included in the central Beringia region. This map shows that Beringia truly is an international region – spanning borders, crossing continents and uniting people on both sides of the Bering Strait.

# Alaska Native Regional Corporations



## Western Arctic National Parklands



## Central Beringia Region



# Tribute to Charlie Johnson



## Alaska Native Leader (1939 – 2012)

On Friday April 13, 2012, we lost a true friend and valued partner, Charlie Johnson of Nome. He was a father, a grandfather, a mentor, a friend, a partner and countless other things to those who remember and pay tribute to him. Everyone who worked with him has a favorite Charlie story, saying, or shared a laugh with him. All who had the pleasure of knowing or working with him will remember him fondly.

For many years Charlie collaborated with the National Park Service and the Beringia Program on a variety of projects and issues, the latest being a new agreement signed with the Alaska Nanuuq Commission just before Charlie's passing. The new agreement is essentially a continuation of work begun many years ago through the Beringia Program and continues to focus on understand-

ing Chukchi polar bear habitat.

Charlie was an integral part of our program's success in rural Alaska. His tireless work ethic, diligence and determination on behalf of Alaska and Chukotka indigenous people, and his genuine humility and ability to bridge gaps through effective communication and politics made him a unique individual. He was a continual source of guidance, information and wisdom for program cooperators and program staff. Because of his influences, in 2011, during Beringia Days in Nome, the National Park Service presented him with the David M. Hopkins Award, the Beringia Program's highest honor.

Those who knew Charlie will remember his lifetime of work on behalf of Alaska Natives. His credentials, titles, positions and actions are a testament to his unending devotion to his people, the land and the Native way of life. He led various organizations throughout his career, and he dedicated those efforts to enhancing and protecting the lives of indigenous people in the Beringia region. (See below for a list of some of the positions he held throughout his career.)

Far from only advocating for Alaska Native people, Charlie recognized that empowering the indigenous people on the other side of the Bering Strait in Chukotka was not only morally right, it was essential to heal the families torn apart by the Ice Curtain. Through his diplomacy, he was able to improve the lives of his Russian kinsmen, neighbors and relatives on both sides of the strait. Charlie advocated strongly for the re-establishment of free and easy travel for Native people between Alaska and Chukotka.

As a result, Charlie served under the U.S. State Department as the Chief Commissioner overseeing Visa Free travel between the U.S. and Russia. His dedication and diplomatic influence helped facilitate, support and allow for unrestricted travel between the indigenous residents of Beringia through a cultural exchange program, something the residents had been longing for since the early days of the Cold War. His actions also served many others, as he was crucial in expediting the travel of many scientists, students, researchers and residents between both sides of the strait and worked vigorously to ensure the physical and legal safety of cross-border travelers.

## Tribute to Charlie Johnson

One of his many successes in developing relations between government and non-governmental agencies across the Bering Strait was the recent signing of the U.S.-Russia Treaty on the Conservation of Chukchi Polar Bears, ratified in 2007. A Native-to-Native agreement between Alaska Natives and the indigenous groups within the Chukchi region founded this international legislation. This agreement, facilitated by Charlie, established a partnership between the groups. Through his direction, this treaty essentially provided the Natives of Chukotka with a legitimate form of democracy. For the first time in nearly 60 years, the Natives of Chukotka would have the opportunity to subsistence harvest polar bears and have meaningful participation in resource management. Because of his efforts, the previous governor of Chukotka called the signing of the treaty concerning polar bears, "The most democratic piece of legislation the Chukotka region has ever seen." The significance of the bilateral effort for Native hunters on both sides cannot be overstated and stands as a testament to Charlie's dedication to preserving the traditions and rights of the people he represented.

These titles and leadership positions are secondary to the symbolic role that Charlie played as an advocate for indigenous rights to resources, conservation of the land and Native self-determination. He demonstrated a strong commitment to science and humanities and placed great importance on interdisciplinary work. He strived throughout his lifetime to bring multiple fields of knowledge together in hopes that they be able to share knowledge and information with others to advance scientific and cultural studies of Beringia. He placed great emphasis on traditional ecological knowledge while also embracing new technologies and incorporating new areas of scientific inquiry. He shared the vision that one day we would consider traditional ecological knowledge equal to purely scientific data.

Charlie was a mentor to many young leaders, both Native and non-Native. He did not hesitate to share his personal and professional knowledge with others. Charlie made every effort to ensure that the work he did and the information and experience he gathered was shared and available to others, both locally and internationally. In this role he helped many of his students go on and become leaders themselves, often advocating for and sharing his vision of conserva-

tion and self-determination. Charlie's ability to create and maintain personal relationships with those he mentored, and often with those he worked with, will perhaps be his most memorable trait.

Charlie's generosity and warmth were legendary, and he had an unrivaled ability to put people at ease, add humor to a situation and make friends. While his body of work is considerable, it was his time spent with his children Truman, Frank (Boogles), his daughter Nicole, his wife Brenda and all of his grandchildren that he revered most. Often he would be the center of attention in a room full of dignitaries or consulates and drop his attention to them the moment a child entered the room. He loved children and the innocence they possessed. Someone once remarked, "Charlie could be just as engaged and comfortable if he were talking to a high ranking official as he would if he were talking to a child on his lap." Charlie had a genuine sense of compassion for others and a unique sense of humility. He was fond of saying, "People in leadership positions are always going to face adversity. The most important thing to know is even though you may be right, always let them leave with their dignity." This is how we will remember him at the Beringia Program, and we will continue to support the causes he advocated and remember the wisdom he imparted.

### Work:

*Before his position with the Alaska Nanuuq Commission, Johnson was the executive director for the Eskimo Walrus Commission, representing Alaska villages on a range of matters concerning walrus conservation, management and research. He has the distinction of having served as the president of Bering Straits Native Corporation (1983-1988), the president of Kawerak, Incorporated (1976-1983), the chairman of the Alaska Federation of Natives (1981-1983) and the vice president of the Inuit Circumpolar Conference. Appointments include U.S. Arctic Research Commission under President George H. Bush, Alaska Science Review Group, National Marine Fisheries Service, U.S. Delegation Arctic Council and Member, CAFF Working Group International Arctic Social Science Committee.*



# Conference Agenda

Friday, September 9

8:00-8:30 AM

**Native Dance Performance - King Island Dancers**

8:30-9:00 AM

**Conference Opening - Mini Convention Center**

Moderator: Janis Kozlowski - Shared Beringian Heritage Program Manager, National Park Service, Alaska Region, Anchorage, Alaska

Blessing - Perry Mendenhall, Nome, Alaska

Welcome from Nome - Denise Michels, Mayor, City of Nome

Opening Remarks - Peggy O'Dell, Deputy Director for Operations, National Park Service, Washington, D.C.

Opening Remarks - Irina Yu. Ryabukhina, Head, Committee for Sports and Tourism, Chukotka Autonomous Okrug, Russia

Welcome - Guy Martin, Shared Beringian Heritage Program Panel Member, Nome

9:00-10:00 AM

**Panel: International Cooperation in the Bering Strait Region**

Moderator: Sue Masica, Regional Director, National Park Service, Alaska Region, Anchorage, Alaska

Pat Pourchot, Special Assistant to the Secretary for Alaska Affairs,  
US Department of the Interior, Anchorage, Alaska

Dan Reifsnnyder, Deputy Assistant Secretary for Environment, U.S. Department of State, Washington, D.C.

Irina Yu. Ryabukhina, Head, Committee for Sports and Tourism, Chukotka Autonomous Okrug, Russia

Olga Safonova, Deputy Head, Chairwoman, Committee of Nature Use and Preservation of Environment, Department of Agricultural Policy and  
Nature Use, Chukotka Autonomous Region, Chukotka Autonomous Okrug, Russia

Mead Treadwell, Lieutenant Governor, State of Alaska

10:00-10:15 AM

**Break**

## Conference Agenda

<p><b>10:15-Noon</b></p> <p>Chair: Igor Krupnik, Smithsonian Institution</p> <p>Artur Apalu, SIKU-Sea Ice Knowledge and Use Project, Chukotka, Russia</p> <p>Paul Apangalook, Yupik subsistence hunter, Gambell, St. Lawrence Island, Alaska</p> <p>Alexander Borovik, SIKU-Sea Ice Knowledge and Use Project, Chukotka, Russia</p> <p>Victoria Golbtseva, Laboratory of Multi Discipline Studies of Chukotka, Research Center Chukotka, Anadyr, Russia</p> <p>Bivers Gologergen, Subsistence hunter/user and member of Eskimo Walrus Commission, Nome, Alaska</p>	<p><b>Panel: Native Observations of Environmental Change</b></p>
<p><b>12:00-1:30 PM</b></p>	<p><b>Lunch (provided) - Mini Convention Center</b></p> <p>Showing of film: "Code Breakers: Unlocking the Secrets of Humankind's Last Great Migration into the Americas"</p>
<p><b>1:30-2:30 PM</b></p> <p>Moderator: Nichole Andler, Bering Land Bridge National Preserve, National Park Service, Nome, Alaska</p> <p>D'Anne Hamilton, Arctic Teens Speak Out: The Lost Dances</p> <p>Michelle Whaley, Expedition Anadyr 2011</p> <p>Jacob Martin, Nome Community Center Youth Exchange</p>	<p><b>Showcase: Shared Beringian Heritage Program Projects that Involve Youth</b></p>
<p><b>2:30-2:45 PM</b></p>	<p><b>Break</b></p>
<p><b>2:45-3:30 PM</b></p> <p>Sven Haakanson, Alutiiq Museum, Kodiak, Alaska</p>	<p><b>Going Local While Working Globally: Documenting and Collaborating on Alutiiq History</b></p>
<p><b>3:30-4:30</b></p>	<p><b>Break</b></p>
<p><b>4:30-6:00 PM</b></p> <p><b>Posters and Demonstrations:</b></p> <p>Shared Beringian Heritage Program Projects At Pioneer Hall</p>	<p><b>Youth Forum</b></p> <p>Participate in poster session</p>

## Conference Agenda

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6:00-9:00 PM

### Welcome Reception - Pioneer Hall

Program Moderator: Deano Olemaun, Shared Beringian Heritage Program Panel Member, Barrow, Alaska

Presentation of the David M. Hopkins Beringia Award

Peggy O'Dell, Deputy Director for Operations, National Park Service, Washington, D.C.

Remembering Herbert Anungazuk

Carol Jolles, Associate Professor of Anthropology, University of Washington, Seattle, Washington

Recognition of Youth Forum Members

Music and Community Social - Music by Landbridge Toll Booth

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## Conference Agenda

### Saturday, September 10

8:00-8:30 AM

**Native Dance Performance - Solnyshko (Sun) Dance Ensemble,  
Novoe Chaplino, Chukotka, Russia**

8:30-8:45 AM

#### Day 2 Conference Opening

Moderator: Guy Martin, Shared Beringian Heritage Program Panel Member, Nome, Alaska

Blessing - Perry Mendenhall, Nome, Alaska

Reflections on Day 1

8:45-10:30 AM

#### **Panel: Marine Mammal Research and Strategies for International Collaboration in Beringia**

Chair: Martin Robards, Wildlife Conservation Society

Willie Goodwin, Subsistence Coordinator/Community Liaison,  
Western Arctic Parklands, National Park Service, Kotzebue, Alaska

Charlie Johnson, Executive Director, Alaska Nanuq Commission,  
Nome, Alaska

Vladilen Kavry, Chukchi Subsistence Hunter, Umky Patrol, Vankarem,  
Chukotka, Russia

Chanda Meek, Assistant Professor, Political Science, University of  
Alaska Fairbanks

Lily Ray, Social Scientist, Kawerak, Inc., Nome, Alaska

Cheryl Rosa, Deputy Director, Arctic Research Commission,  
Anchorage, Alaska

Margaret Williams, Managing Director, U.S. Arctic Field Program,  
World Wildlife Fund, Alaska

Eduard Zdor, Association of Traditional Marine Mammal Hunters of  
Chukotka, Russia

#### **Youth Forum:**

Opening Remarks: Peggy O'Dell, Deputy Director for Operations,  
National Park Service

Introduction to Youth Forum:

Shelley Wesser, Outreach and Youth Coordinator, Shared Beringian  
Heritage Program, National Park Service, Alaska Region

Shared Beringian Heritage Program Project Overview Booklet:  
Katerina Wessels, Shared Beringian Heritage Program Specialist,  
National Park Service, Alaska Region

Showing of Russian Students Interview Video

10:30-10:45 AM

**Break**

## Conference Agenda

<b>10:45-11:20 AM</b>	<b>Indigenous Language Learning and Documentation in the Bering Strait Region</b>  Aron Crowell, Alaska Director, Arctic Studies Center, Smithsonian Institution	<b>Youth Forum:</b>  Youth and mentors meet in small groups  Brainstorm ideas for future Beringia projects and increased international cooperation
<b>11:20-noon</b>	<b>Early Humans on the Bering Land Bridge</b>  Ted Goebel, Texas A&M University, Department of Anthropology and Center for the Study of the First Americans	
<b>12:00-1:30 PM</b>	<b>Lunch (provided) - Pioneer Hall</b> <b>Poster/Demonstration Session Continues</b>	
<b>1:30-2:00 PM</b>	<b>Beringia, The Bridge - A Place of Real Learning: Hope and Friendship</b>  Mille Porsild, Executive Director, GoNorth! Adventure Learning	<b>Youth Forum:</b>  Refine recommendations  Develop Youth Forum presentation for main conference
<b>2:00-3:15 PM</b>	<b>Responding to the Presidents' Message: Thoughts on Deepening Cooperation Across the Bering Strait</b>  Facilitator: Rebecca Talbott, National Park Service, Alaska Region  Facilitated Discussion of Conference Attendees	
<b>3:15-3:30 PM</b>	<b>Break</b>	
<b>3:30-4:15 PM</b>	<b>Youth Forum Presentation of Recommendations</b>	
<b>4:15-4:45 PM</b>	<b>Closing Remarks</b>	
	Moderator: Guy Martin, Shared Beringian Heritage Program Panel Member, Nome, Alaska  Remarks from Irina Yu. Ryabukhina, Head, Committee for Sports and Tourism, Chukotka Autonomous Okrug, Russia  Remarks from Dan Reifsnnyder, Deputy Assistant Secretary for Environment, U.S. Department of State, Washington, D.C.  Native Dance Performances – King Island Dancers and Solnyshko Native Dance Ensemble	

# Opening Remarks

## **Peggy O'Dell, Deputy Director for Operations, National Park Service, Washington, D.C., U.S.**

Good Morning....on behalf of the National Park Service, welcome to the 2011 Beringia Days International Conference. Let me begin by thanking you all for being here, and a special thank you to Mayor Michels for her warm welcome to Nome. In fact, I have been so warmly welcomed to Nome that it is hard for me to believe that it can ever get so cold outside.

Nome is at the very center of the international Beringia region, and I am pleased to be here for the first time. This is also the first time that this conference is being held in this delightful city on the edge of the Bering Sea. We are honored to have our colleagues from Chukotka join us this year, and we thank them again for hosting us at the last Beringia Days in 2009 in Anadyr. Your participation is crucial to the success of this conference.

I also want to acknowledge the unprecedented number of participants this year from villages in the Beringia region, both in Alaska and in Chukotka. Your willingness to travel here and to devote your time and energy to this conference is greatly appreciated; we look forward to hearing your views and engaging in discussions with you.

The Beringia Program was created in 1991 at a joint summit between Presidents George H. W. Bush and Mikhail S. Gorbachev to celebrate and protect the shared natural and cultural resources of Alaska and Chukotka. Today, in the face of political, geographical and environmental changes, this program continues to stand as an example of international cooperation between local residents, scientists, educators and governments. At Beringia Days, we highlight these

*The U.S.-Russia partnerships created through the Shared Beringian Heritage Program have proved to be lasting, widespread, and resilient.*



partnerships and projects and explore ways in which we can deepen cooperation and collaboration between our two countries.

This is the 20-year anniversary of the Shared Beringian Heritage Program. Over the years, the funding provided by the National Park Service through the Shared Beringian Heritage Program has advanced both scientific and cultural, governmental and non-governmental initiatives between Alaska and Russia – far beyond expectations. The U.S.-Russia partnerships created through this program have proved to be lasting, widespread and resilient. Today we can say that work accomplished through the Shared Beringian Heritage Program has not only strengthened ties between our respective governments, but has created educational links and even reunited families.

As a testament to the breadth and success of the Beringia Program, in response to our 2012 Request for Proposals, we received 19 proposals ranging from reindeer to murrelets on the scientific side, and from dancing to eco-

## Opening Remarks

*The Beringia Program is, at its heart, about this region and the people who live here, on both sides [of the Bering Strait]. The program would not be sustainable without support and involvement from Beringia residents in Alaska and in Chukotka. By being here, in this place at this time, we are recommitting ourselves to involving the people of Beringia on both sides of the Bering Strait in the projects, activities and planning of the Beringia Program.*

tourism on the cultural side. We are proud of the accomplishments and benefits realized through this program and look forward to continued and productive projects and partnerships with our American and Russian collaborators.

Several themes stand out at Beringia Days this year, and I would like to touch on two of them. Both are a wonderful complement to themes that the National Park Service is emphasizing nationally as we prepare to begin our second century of conservation and stewardship a few years from now. The connections between parks and communities are integral to our success. So too is engaging youth to learn and care about what the National Park Service does. Here in Nome, Superintendent Jeanette Pomrenke is doing a superb job, bringing creative energy and thought to how the National Park Service can be a more meaningful presence with local residents who care passionately about the landscapes and cultural history we help protect.

One theme this year is the involvement of local residents. As one of the world's truly ancient crossroads, Nome is an ideal and symbolic venue to discuss cooperation between nations, regions and colleagues. The decision to hold the conference here this year was due in part to a desire to increase and deepen involvement in the Beringia Program by the people who actually live in Beringia. The Beringia Program is, at its heart, about this region and the people who live here, on both sides. If the residents of Beringia are not an integral part of this program and its projects, then we have not met the goals envisioned in 1991 when the program was created. The program would not be sustainable without support and involvement from Beringia residents in Alaska

and in Chukotka. By focusing on local involvement and indigenous participation, we ensure the continuing relevance of the program and the durability of the ties developed in the past 20 years. Once again, I would like to thank the people of Nome, and especially our partners at Kawerak, for welcoming us to the region. By being here, in this place at this time, we are recommitting ourselves to involving the people of Beringia on both sides of the Bering Strait in the projects, activities and planning of the Beringia Program.

The second theme I would like to mention briefly today is this year's inclusion of young people in Beringia Days. We are including them in several new and important ways. As you may have seen on the agenda, a special "Youth Showcase" session is scheduled after lunch today. This session will highlight Beringia projects involving youth. In addition, a Youth Forum is being held concurrent to the main conference. The Youth Forum will conclude with recommendations for future Beringia projects, which the youth will present to you during a session tomorrow afternoon before the close of our conference.

A number of the youth you will meet here were nominated and selected by their communities to participate in the Youth Forum. I congratulate these young people on their achievements, and I congratulate their parents and communities for encouraging and supporting these young leaders.

I cannot emphasize enough how important youth are to the future of Beringia. We are turning to the future, both figuratively and literally, by engaging local youth in Beringia projects and in program planning. We must recognize and nurture the involvement of young community leaders. Please join me in welcoming and engaging the youth participating at this year's Beringia Days.

The Beringia Program and this event represent the enduring friendship between our two nations in general and the inhabitants of this region in particular. Our time together these next two days provides an opportunity to

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discuss the future of cooperation to promote our shared heritage. With the increased attention to the region brought by the recent presidential declaration, we have the opportunity to inform people in both countries about the phenomenal resources and people located in the Beringia region. We also have the opportunity to show concrete examples of our greatest challenges – things such as climate change and associated environmental and cultural changes; sustainable, safe resource development; and the decline of traditional indigenous culture in the age of technology and rapid, impactful change. While these challenges can seem overwhelming, it is my sincere hope that the residents of Beringia and the participants in this program in both the U.S. and Russia will continue to work together successfully to address these and other challenges with a common purpose, mutual trust and continuing mutual support.

Thank you.



### **Irina Ryabukhina, Head, Committee for Sports and Tourism, Chukotka Autonomous Okrug, Russia**

Hello, from the people of Chukotka! On behalf of the Chukotka government, I would like to express our greetings. It should be noted that this meeting of the Beringia Days Conference consolidates the ties between the two northern regions of Russia and the United States. Our regions are not only common in geographical location but also share the same ecological, cultural and social traits. Our common desire for collaboration will help diversity in the arctic north.



*Panelists did not prepare remarks in advance of the discussion. What follows are the main points made by each panelist in response to questions posed by each panel's moderator.*

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### Panel 1: International Cooperation in the Bering Strait Region

#### MODERATOR

**Sue Masica**, Regional Director, Alaska Region, National Park Service

#### PANELISTS

- **Pat Pourchot**, Special Assistant to the Secretary for Alaska Affairs, U.S. Department of the Interior
- **Dan Reifsnnyder**, Deputy Assistant Secretary for Environment, U.S. Department of State
- **Irina Ryabukhina**, Head, Committee for Sports and Tourism, Chukotka Autonomous Okrug, Russia
- **Olga Safonova**, Deputy Head, Chairwoman, Committee of Nature Use and Preservation of Environment, Department of Agricultural Policy and Nature Use, Chukotka Autonomous Region, Russia
- **Mead Treadwell**, Lieutenant Governor, State of Alaska

**Sue Masica:** As others have said, welcome to 2011 Beringia Days Conference. We are delighted to be in Nome. The National Park Service has been working on this program for some 20 years. This panel is composed of a distinguished set of speakers representing a cross section of cooperation in this region. Our panelists have been asked to review and respond to several questions to start this panel discussion. We want this discussion to be the kickoff for a lot of interaction over the next two days. One of our hopes is to engage all of you in a conversation about how to enhance cooperation across the region. An international park is one way to strengthen international cooperation. If you have ideas, there's a session tomorrow afternoon to solicit them. Or you can write down your comments, too.

#### What are some highlights of ongoing cooperation in the Beringia region?

**Mead Treadwell:** As Lieutenant Governor of Alaska – welcome to the Russians, welcome to Nome, welcome to Alaska. Ongoing cooperation has brought knowledge and continuity. The Shared Beringian Heritage Program has done a tremendous amount to help support scholars and researchers across both sides of the

Bering Strait. We have had continuous connections across the strait for at least 10,000 years – Semyon Dezhnev's voyage in the area; also the Friendship Flight anniversary. With these anniversaries, we hope that the joint statement of the Presidents of the United States and the Russian Federation on cooperation in the Bering Strait region will open the door fully and firmly for access and the entire panoply of activities and opportunities across the Bering Strait. We have talked about an annual meeting to review the progress in building on this cooperation, and this is the closest meeting we have had to look over our efforts.

**Dan Reifsnnyder:** I would first like to extend condolences of all Americans about the plane crash in Yaroslavl and the loss of the hockey team. What is fascinating to me is that this Shared Beringian Heritage Program has been going on since 1991 with more than 130 projects; Congress has appropriated funds, and there has been deep and rich cooperation. I was not aware of this, and perhaps a lot of other people outside the region are unaware of it. The Environment Working Group of which I am a member is trying to bring forward the success stories so that others beyond your region are aware of your efforts. I am deeply impressed by your efforts. The May 2011 statement of Presidents Obama and Medvedev calls for deepening this cooperation, improving on what we have been doing and bringing that message to others beyond Alaska and this region. Just the idea of the Bering Land Bridge captures the imagination of people around the world. I have had the opportunity to travel around the region this week and learn about the archeological research underway. I am very grateful to be here and learn about this first hand.

**Pat Pourchot:** On behalf of Secretary of the Interior Salazar, welcome to visitors and the many people responsible for this conference, including the National Park Service and local people. Congress established the Bering Land Bridge National Preserve in 1980 to recognize commonalities between peoples on both sides of the Bering Strait. The U.S. Fish and Wildlife Service and the Bureau of Land Management also manage lands in the area, as do the State of Alaska and Native Corporations. We welcome the opportunity to look at the larger

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area. Secretary of State Clinton and Secretary Salazar recently went to Nuuk, Greenland, to attend the Arctic Council Ministerial meeting. This was the first time two U.S. Secretaries attended this meeting. Ecosystem-based management – with a special experts group – might be established. We should pursue what this might look like in the Arctic. Maybe Beringia fits into or is an example of what an ecosystem-based management concept looks like. What opportunities exist for the Beringia region?

**Pat Pourchot:** Look at other forums like the Arctic Council and its working groups that could help build cooperation in other forums.

**Dan Reifsnyder:** Because of so much cooperation and rich history, it's not about reinventing the wheel; it's about deepening and broadening cooperation. We need to highlight this cooperation outside the region. When I went to Kamchatka this summer and talked to Native peoples there, they were quite concerned about their culture and language. And they were concerned that modern life is pulling them away from their traditional lifestyles. If increased cooperation can help maintain traditional lifestyles, it would be good.

**Irina Ryabukhina:** One of the programs supported by Chukotka is the development of sled dog races. We would love to have our young people participate in your races. We have great and deep interest in the development of this sport (the Nadezhda Race through Chukotka villages). We would love to have your folks participate in this race and help in breeding sled dogs. We also have umiak boat races; we have preserved the tradition of making these boats. Come to the summer festival to see this – it is a great opportunity for tourism development. We need to use the Internet more to disseminate information about our programs; in some regions there is no Internet, so TV and print media will be the best way to share information.

**Olga Safonova:** I second the previous speaker's ideas. We are working on international cooperation and open dialogue; and we want to cooperate with you within our competencies.

**Mead Treadwell:** We need to solve very pressing problems that we have here – disappearing languages, co-management of resources, (increased) shipping in the Bering Strait, oil and gas and mining and maintaining the values we have here. Please forgive us if we also talk about the other proceedings that are happening in other forums -- eight Arctic nations under the Arctic Council will meet on emergency management. There is legislation in the U.S. to try to design the shipping region and share this with our partners in Russia to make sure we have safe, reliable shipping. We need safe tourism that is sustainable for both sides. Park agreements can play a major role in the shipping agreement. Oil spill response does not work unless communities know each other. The Shared Beringian Heritage Program is one way for communities to know each other and understand what our mutual capabilities are. Fishing relies on good science on both sides—we have an opportunity for more sustainable fisheries. On the topic of science, we can do much more for safe shipping and understanding the resources of this area. A major kink in this area is between Washington and Moscow on access for expeditions – we have had many problems in this area.

### What are the challenges or barriers to turning these opportunities into further cooperation?

**Mead Treadwell:** I first read about this (a possible international park) in an editorial piece from the National Center for Atmospheric Research in the early 1980s. I see my friend Jim Stimpfle here who helped. The State of Alaska has been cautious for a number of reasons. Things are somewhat challenged because when a project happens outside the park boundaries, people will draw a large border to say no mining because there will be an international park. Economic issues and opportunities must be addressed. Do we want to see a joint park or a sister park? The state's position will try to reflect the interests of the people who live here. Whatever bureaucratic moniker comes out of this, we want it to improve the commerce, trade and cultural exchange in the Bering Strait region.

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**Olga Safonova:** I agree with the lieutenant governor. Article 15 of the Russian Federation's Law on park administration limits any activity that might harm cultural artifacts in a park. There is differential zoning of park territory. A national park would be developed as a cluster of five different areas, with different zoning according to their historic, cultural and natural features. There must be preservation of landscapes and biodiversity, development of areas for recreation and tourism and consideration of the interests of local people. We have four functional zones: one for a full preserve – Zapovednik; another – Zakaznik – where visiting and environmental tourism is allowed; a third zone for recreation and tourism – a zone for active tourism; and, last, a subsistence zone where economic activities are allowed in addition to traditional activities.

**Irina Ryabukhina:** It is necessary to calculate the economic burden that the park presents. How much activity and how many tourists can we handle? This is very important to know. We also need better transportation networks. We have a deep gratitude to Bering Air for providing charter flights. We need secure transportation; otherwise, we cannot have tourism.

**Dan Reifsnnyder:** Sasha Gruzdev is Superintendent at Wrangel Island National Park – which is not far from here, but very far from Moscow. The point is that it is a long way from Moscow; and Alaska is long way away from Washington, D.C. Many folks come in and have no idea of what is happening on the ground. There are multiple jurisdictions (State of Alaska, Native corporations, and so on), and working through all of them can be complicated. But we also have positive things on the horizon. You are about to catch a wave: there is a huge interest in the Arctic; it has exploded in recent years. There are many opportunities; you are in a perfect position to take advantage of this interest. Vladavia Airlines is trying to open a new route between Petropavlovsk-Kamchatsky and Alaska. A visa agreement was signed in May, which eased up on visa challenges, and there is ongoing work on visas. We are very grateful for the annual congressional appropriation for the Beringia Program; it is an important positive on the relationship. There is new emphasis on the importance of deepening this relationship. There are concerns about subsistence that also exist on the Russian side. There is a lot of interest about mixed uses of park areas. The only

way to protect these areas is to have the support of the local people. People are concerned about loss of sovereignty. The U.S. and Russia would maintain things as they are; no one is proposing major changes.

**Pat Pourchot:** What happens when you draw a line on a map—I was involved in that back in the 1980s. With the Bering Land Bridge National Preserve, all lands there remained open for sport and subsistence hunting. I congratulate our Chukotka colleagues for their zoning plans for the Russian Beringia National Park.

**Sue Masica:** We will make every effort at outreach with folks with strong connections to and interests in Beringia. We will be as open and transparent as we can be, listen to your concerns and be as well informed as we can be. A poster board over here is about what might change (reference to poster in the conference room that laid out possible alternatives (see following page). If you have thoughts about possible changes, please comment; words are very important, we need to be thoughtful about this—if you have concerns, it would be wonderful to have your feedback.



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### Comparison of International Park Area Frameworks for Beringia

This table provides a comparison of the various types of frameworks available for deepening cooperation across the Bering Strait.

	<b>International Heritage Area</b>	<b>International Park Area</b>	<b>Sister Park</b>
Management	No Change	No Change	No Change
Subsistence	No Change	No Change	No Change
Existing Borders	No Change	No Change	No Change
Access	No Change	No Change	No Change
Is legislation needed	Yes, by U.S. Congress	Yes, by U.S. Congress	No
Is a Binding Agreement	Yes	Yes	No, non-binding
Considerations	Will Congress pass law?	Will Congress pass law?	Local support
Increased tourism possible	Yes	Yes	Yes
Local involvement	Yes	Yes	Yes
<b>Example:</b>	<b>Kenai Mountains-Turnagain Arm National Heritage Area, Alaska</b> <a href="http://www.kmtacorridor.org/">http://www.kmtacorridor.org/</a>	<b>Waterton-Glacier (US-Canada) International Peace Park</b> <a href="http://www.pc.gc.ca/pn-np/ab/waterton/natcul/inter.aspx">http://www.pc.gc.ca/pn-np/ab/waterton/natcul/inter.aspx</a>	<b>Grand Canyon National Park with China's Yuntaishan Geopark</b> <a href="http://www.nps.gov/oia/topics/sister.htm">http://www.nps.gov/oia/topics/sister.htm</a>
<b>Key features:</b>	Tourism promotion; heritage promotion; protection of marine resources; increased fundraising capacity; preserve historic sites	Cooperative migratory species monitoring; joint training sessions; mutual search & rescue agreements; joint research projects; joint newspaper; Superintendents Hike	Increased foreign tourism; technical assistance; staff exchanges; shared lessons learned in environmental education, science & heritage

### What Could a Beringia International Protected Area Do?

These are some of the potential elements that can be included in expanded cooperation:

- **Indigenous language learning and documentation**
- **Native observations of environmental change**
- **Documenting Siberian Yupik & Inupiat cultural heritage**
- **Education and interpretation programs for youth**
- **Sustainable ecotourism and local handicraft promotion**
- **Support exchanges across the Strait**
- \_\_\_\_\_
- **Natural resource inventory and monitoring**
- **Monitoring wildlife health**
- **Forum for advocacy on bigger issues**
- **Facilitate the reuniting of families**
- **Share experiences via digital media**
- **Sharing management expertise**
- \_\_\_\_\_

As the opinions of interested parties are shared about what form an international park area should take, NPS will need to formalize a proposal and engage in tribal consultation. To date, NPS has not expressed an opinion but favors establishment of a sister park relationship between a Russian park in Chukotka and one or more parks in Alaska.

Please share with us what your opinion is: \_\_\_\_\_

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### Panel 2: Native Observations of Environmental Change

#### MODERATOR

**Igor Krupnik**, Anthropologist, Curator of the Arctic and Northern Ecology Collections, Arctic Studies Center, National Museum of Natural History, Smithsonian Institution, Washington, D.C.

#### PANELISTS

- **Artur Apalu**, Observer, SIKU – Sea Ice Knowledge and Use Project, Yanrakynnot, Chukotka
- **Paul Apangalook**, Yupik subsistence hunter, Gambell (Sivuqaq), St. Lawrence Island, Alaska
- **Alexander Borovik**, Observer, SIKU – Sea Ice Knowledge and Use Project, New Chaplino, Chukotka
- **Victoria Golbtseva**, Senior Specialist, Laboratory of Multi Discipline Studies of Chukotka (Chukotka Center), Northeastern Institute of Multi Discipline Studies, Far Eastern Branch of the Russian Academy of Sciences, Anadyr, Chukotka
- **Bivers Gologergen**, Subsistence hunter/user, member of the Eskimo Walrus Commission, Nome, Alaska

Local residents in rural communities on both sides of the Bering Strait are reporting close or similar changes during recent past years, such as the thinning of winter sea ice, later freeze-up and earlier spring break-up, violent storms and increased coastal erosion, rapid and unpredictable shifts in wind and weather patterns and changes in animal and bird behaviors. Panel members speak to the changes they have observed.

**Igor Krupnik:** Pack ice has receded to its historical second lowest level ever and may set a record this winter. I have spent 35 years in the region, and we have an abundant resource of knowledge about climate change from indigenous knowledge and observation. The indigenous record of knowledge extends across many generations (“high resolution of Native observation”) with a very precise

observation of what is occurring. The National Park Service and its Shared Beringian Heritage Program supported one of the key projects of the International Polar Year, *Siku*, which means sea ice in the Eskimo language. Four out of five of our panelists were partners on this project. The Russian Beringia Park under the leadership of Natalya Kaluzhina and Igor Zagrebin also supported *Siku*. From the project, a book was produced, *Siku: Knowing Our Ice*.

Two additional projects I would like to mention are:

1. an EALAT project on reindeer (Note: EALAT, a Sami word, is a Reindeer Herders Vulnerability Network Study that examines reindeer pastoralism in the light of climate change) and
2. a Bering Sea Sub-Network project focused on indigenous observation of climate change (Note: The Bering Sea Sub-Network or BSSN, is a structured network of Bering Sea coastal communities in the Russian Federation and Alaska that provides the means for the systematic collection of information about the environment and the efficient management of data gathered from community-based environmental observations. It also lays a foundation for future community-based research).

#### What changes are most noticeable in your area and community?

**Artur Apalu:** I saw sea ice in December as a school kid in the 1970s, but now the sea is ice free in December. Spring ice washes away or melts. Walrus cannot haul out on sea ice as they used to be able to, simply because the ice is thinning.

**Victoria Golbtseva:** Our elder hunter, my mother and other elders helped me to track changes. Hunters are waiting for ice for a long time; the hunt starts when ice freezes, hunters cannot hunt small pinnipeds, so hunting harvest season starts very late in the year. In addition, we have many storms preventing us from successful harvest. Our houses are built not far from pebble beach bed. Strong winds and arctic storms come as close as our houses and destroy the coastline. We do not see old ice, only new, one-year ice. In early spring, ice

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melts before it washes into the ocean. Sometimes it happens in the middle of the winter; we have rains and very warm weather.

**Alexander Borovik:** I work near New Chaplino village. We see a lot of shrubs growing and glaciers melting—ice melts and glaciers melt. Ice starts freezing much later in the year. There are all kinds of consequences: later harvests, sea-fast ice later in the year.

**Bivers Gologergen:** I was born in Savoonga (St. Lawrence Island) and raised in Nome. I learned a lot from elders in Savoonga when I was growing up. There are more storms and rain in Nome; winter storms last longer here in Nome; ice comes earlier; it is really thin, not thick as we saw in the 1970s and '80s. Ice is breaking up in early January/February/March. We see “*ushpas*” – Murre – in March. Breakup is a lot sooner than expected.

**Paul Apangalook:** There have been dramatic changes in the last 15 years: floating icebergs, alcids used to stop in early October and November. By Thanksgiving there used to be pack ice in Gambell (St. Lawrence Island) closing in on the town. That stopped about 10 to 12 years ago. Pack ice ceased to exist until very late in December. Local slush ice forms in the bay and finally comes, but it is not real ice; it is local. It is a winter locally born, not a real one, not of the northern ice as it used to be.

### What months or seasons of the year are most different today?

**Artur Apalu:** In summer, we have a lot of brush growing around the village of New Chaplino. Winds in winter bring many storms, from the south, often breaking shore-fast ice; it reforms in different places.

**Victoria Golbtseva:** According to our observations of the marine ice, our fall is much longer, and our spring comes much earlier. Winter is now warmer. The weather is not stable. Summers can be very hot, which had never happened before. This past summer it was very cold; since we had ice near the shores in the village of Uelen, the hunters could not go hunting.

**Alexander Borovik:** Ice forms very late. New ice is dangerous to walk on so winter hunting season starts late. When we start hunting smaller pinnipeds in the spring, the ice deteriorates very fast. We used to drive on this ice with dogsleds until June 15, but now after early May that is not possible. Regarding walrus haulout, we have many shoreline slides, so fewer walruses there.

**Bivers Gologergen:** Walrus used to be right around Savoonga, but nowadays I do not see that. It is all thin, first-year ice. I see many weather changes in January – drizzle/rain – a warmer climate, not as cold as it used to be. This is very surprising for me. There are also more storms nowadays.

**Paul Apangalook:** Longer fall weather seems to be the norm over the past several years. We have been experiencing more storms in the fall. We have had shorter spring seasons instead of the usual spring weather, which was ideal for our hunting. Nowadays it has been just a few windows of opportunity to go out to do our spring harvest. It seems as if we are doing that—waiting for windows of opportunity, which used to last for days and weeks during normal spring season in the past, but now we're seeing frequent storms in the spring and thinner ice. The ice pack is replaced with newer ice, and that is frustrating for us because it doesn't develop in the way it used to. It has started raining in early June, and that is unusual to see rain in early spring. It is unnatural to see rain in springtime when we should be having good weather.

**Igor Krupnik:** From the Bering Strait to Canada, the periods of particular weather regimes are shorter than they used to be, and this is problematic to elders and others. They have now shortened to 3 to 5 days. Not only are there shorter weather patterns, but also the windows of opportunity for hunters are becoming shorter. Now they wait a day or two for these, creating double pressure on them.

### Is walrus hunting changing or other subsistence – later or earlier?

**Bivers Gologergen:** Walrus hunting here in Nome has changed; walrus start coming to Nome later than normal, seems to be farther and farther out. When I first moved here 7 years ago, we were hunting walrus 30 miles out. Now we

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go farther out every year. Last year we had to go to King Island to run into ice. And it wasn't thick ice; it is all sea-fast ice, and there's no game there. Walrus need thicker ice. The old calendar of the season has changed. Seals are coming in later than normal. We seem to go farther to hunt those around here too, in my experience. I do not see the real ice, the *siku*, unless I go to King Island, 90+ miles away. The weather for sure has affected all the hunters I know, keeping them home more.

**Artur Apalu:** A lot has been said about climate change. In our village, all people hesitate to predict the weather, since it is unpredictable. We skinned and butchered walrus on the ice in the past but not now; we have to take it back onshore. We must be very careful to leave the ice quickly because the weather can change very quickly.

**Paul Apangalook:** When whales are running, the ice is close to shore and near the village. Whaling happens in March, when the icepack is near, and we would do our whaling throughout April. Nowadays, it seems that with the taking of whales later in April, the ice will be gone literally overnight. There is really a need to mix our walrus harvest at the time when the ice is close to shore; otherwise, we're looking to go many miles over water. The price of fuel has gone up really high, so it is cost effective to try to do our walrus harvest when the ice is nearby. Also, we have a real need to do our harvest earlier in the season, in April. Sea ice has become thinner over time; it moves out of the area sooner. With the price of gas, we need to make some adjustments there. I can recall the ice pack moving out literally overnight. Unless we have good weather, it's a risky factor in our walrus hunting, requiring longer excursions over open water. The bottom line is that we need to harvest our walrus – it's our staple for the whole year – so we need to take long excursions over open water. This is just reality nowadays.

**Igor Krupnik:** The changing calendar and subsistence seasons are not only for training young hunters; there is a whole issue of hunting regulations imposed on subsistence hunters, based on hunting of 20-30 years ago. We know how difficult it is to make any change in subsistence hunting regulations. The former

seasons need to be changed, readjusted to climate and environmental change, and perhaps readjusted periodically, not once, but every 5 to 10 years. Seasons have changed and the calendar is different today.

**Victoria Golbtseva:** Weather changes a lot. Hunters spend a lot of time onshore waiting for weather to change. The hunters are risking their lives. Many currents change directions near the Bering Strait. Villages are susceptible to winds from many directions. The traditional calendar has to be amended every time—substantial work needs to be done so that our young hunters can use the experience of our elders. We must take into account climate change so that young hunters can hunt in the fall. Walrus harvest is the main source of protein in coastal villages. They cannot survive the winter without harvesting walrus. Fall is a very important time for hunters. Hunters go farther from their villages to other hunting camps on Cape Dezhnev to get enough for the winter. They harvest walrus and store it on Cape Dezhnev; then during winter, they take dogsleds to fetch the meat; they go back and forth.

**Alexander Borovik:** The hunters in Chaplino hunt from shore-fast ice, but its thinner; and it is close to the village. The old calendars do not work because weather changes very rapidly with southeastern winds. We would look on the mountain to see if there was blowing snow on the mountains, and we would have to leave.

### Is Traditional Ecological Knowledge (TEK) still useful and reliable – what works?

**Bivers Gologergen:** Marine life has changed. We have to go farther out, and it has really affected hunting. Thinner ice is more dangerous. We have more pan ice than normal. We always have to look out for the signs of weather breaking, coming early. We are getting storms a lot faster. Migration of birds has definitely changed; it has gotten earlier than in the past. Marine life is coming in earlier nowadays. Weather is a factor.

**Artur Apalu:** Marine mammal migrations in our area have not changed much. Some changes have occurred with bowhead whales; they come later in fewer

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numbers in mid-November and stay almost until the New Year. Marine currents are much faster. Fast ice washes away so fast it is impossible to catch up to it. We must travel much farther searching for walrus.

**Paul Apangalook:** Our traditional skills are reliable but nowadays because of frequent storms in our area, we need to rely on skills of other people. An educated weather forecast has not gone through their weather forecast library – let us try this today. Nowadays the educated weather forecast has improved, and we do need to rely on that; however, our TEK is reliable. Traditional knowledge is still important because when you have some kind of normalcy in the spring, we can read what the weather is going to be. There are some rules that require us to head home if there is a weather front coming in. Frequent storms in the spring make our TEK useless, and so we have to rely on weather forecasting abilities of the National Weather Service.

**Victoria Golbtseva:** Uelen elders have knowledge left to them by fathers and grandfathers; and, today, they pass this onto children and grandchildren, and each family keeps it in their own way. There is unique – but also common – knowledge by all marine hunters. Expert hunters tell young hunters how it used to be one way, but now it is another way. Experienced hunters do their hunting on drifting ice—traditional knowledge that we’ve written down and passed along, also knowledge about migration of marine mammals, when it’s allowed to hunt and when it’s not advisable to hunt. They need to keep it all in their heads, since there are times when hunters need to make decisions about how to save their lives. Knowledge of winds and marine currents is important, since if there is no wind, ice can pull away from the coasts. Marine hunters watch the coast to understand the direction of ice movement, so hunters need to be on guard all the time. Men like to hunt and harvest as much as they can, with gusto, but excitement at sea is not advisable. The team leader, an elder, sitting in the boat, watches carefully over the hunters and warns them. Hunters need to obey the leader and not argue with him.

**Alexander Borovik:** Songbirds from South America come to us nowadays. Regarding pinnipeds, there are not many changes, but signs that we rely upon

do not work. Used to be that it was possible to judge by the state of ice, but nowadays you cannot say anything.

**Igor Krupnik:** All have an Internet connection and look into the weather forecasts. On the Alaska side, all start their morning by checking on the National Weather Service forecasts. In many communities, there is language shift, switching from traditional languages to English or Russian. TEK is being translated into other languages—saying “pack ice” rather than “*siku*” or “multi-year ice.” TEK is a dynamic thing.

**Bivers Gologergen:** TEK in Nome—when hunting as a group, you always have information and are communicating the weather. Many hunters use GPS (geographic positioning system). In the fog, we are told not to go into pan ice since we could be trapped in the ice. But folks with GPS go anyway; they don’t know current, and some find themselves off track or lost. Do not rely on GPS; it is good to have, but rely on TEK. Look around, my brother told me, see the water, little bits of ripple in the water—that means the weather is coming. You still need to learn the current here in Nome. In the Sledge Island area, current is strong, but at King Island it is really strong. Ask guys how fast we’re moving because of the current.

### Have people noticed changes in animal behavior?

**Paul Apangalook:** This climate change is a natural event, and so nature has its own way of taking care of itself. Our animals are pretty well adapted; they take care of themselves. Migration of our game is such that there is a mixture of marine mammals in our area. I recall in the early ‘60s, whales were so diminished there was a period of five years when our village did not get some. Now, younger whales and numerous others are in early spring when the bowheads were all over the place near Gambell (St. Lawrence Island, Alaska). While we get excited about bowheads, we did not pay attention to them. We saw something unusual about sea lions and whales mixing. Nature has its own way of taking care of its own; that is just reality nowadays to see the timing of migration going out of sync. That is alarming, but nature does take care of its own. Our game is alive and well, but what we do not understand is climate change.

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**Victoria Golbtseva:** Marine mammal hunters harvest them and know them very well. But from observations of others, I can say that ducks started coming earlier to Uelen (Russia) — by the end of March, when it used to be end of May. They saw narwhal, which is not typical for those waters. At the end of the twentieth century, one hunter got a small shark in his net. There are now very many birds we had never seen before in Uelen village. Since we do not have sea ice, there are huge aggregations of walrus nowadays in organized coastal haulouts waiting for the ice. Their numbers are very high. Stampedes occur, and because of the high numbers of walrus, many animals are trampled. For hunters, it is important not only to hunt, but also to be equipped well; and our hunters need fur clothes. Without fur clothes a marine mammal hunter is not a hunter. This is a big problem for our village due to climate change; it is more and more difficult to harvest seals. This is why it is difficult to have exchanges now between coastal marine hunters and reindeer hunters.

**Bivers Gologergen:** Climate has really changed animal migration. Will it continue? It depends on the weather. Some people in Nome have never seen the different kinds of birds we are now seeing here.

**Igor Krupnik:** Animals we had not seen before now show up in Chukotka—like moose arriving and lynx now in Chukotka. Near the town of Enurmino, they have spotted sea otter—there's a word for it, but elders have no memory of seeing it. Maybe it is an episodic thing. Humming birds are coming to New Chaplino and Big Diomed Island. I do not know how to interpret this.

### Question and Answer Session

**Q. How is climate change affecting reindeer herders? Is it more difficult for reindeer to feed?**

**A.** Due to southern and northeastern winds last winter, we had a lot of ice on the ground. Lots of wild animals died; lots of hares and ducks died; the caribou also



suffered. Animals were starving. The only animals that did well were predators scavenging on dead animals. There were constant temperature changes in the fall, rainfall in December; reindeer had headaches from rain falling on their heads, so reindeer had to go north to avoid the rain. We had to take the herds north.

**Q. Are changes you have observed episodic, or are they more constant and continuous?**

**A.** Climate change already has occurred, but it has also been progressive. There is a shorter time to hunt marine mammals because of weather—limited time to go farther out. Ice conditions, when we are getting walrus or ugruk (bearded seal), are very dangerous. We have meteorological weather information going back almost a century, but have not collected that long for TEK. Paul from Gambell information on weather and climate change for the past 7 years: that is the best we have. It is a work in progress.

### Comments from the audience:

**Lyudmila Ainana:** I would like to express my gratitude to my relatives in Savoonga and Gambell for sharing their knowledge of traditional hunting. And to Dr. Krupnik – we have a Yupik name for him, since he has worked with our villages – he is now in the U.S., but he never forgets us. I am so proud that you are listening to our villages talk and share their knowledge, and I hope the Beringia Days continue to link us. I hope that visas do not keep us from meeting. We used to go in boats to visit friends and relatives, and we could share our knowledge of marine mammal hunting. How different this knowledge is now, and climate is changing; but it's important that you are all discussing this.

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### Panel 3: Marine Mammal Research and Strategies for International Collaboration in Beringia

#### MODERATOR

**Martin Robards**, Director, Arctic Beringia Program, Wildlife Conservation Society, Fairbanks, Alaska

#### PANELISTS

- **Willie Goodwin**, Subsistence Coordinator and Community Liaison, Western Arctic National Parklands, National Park Service, Kotzebue, Alaska
- **Charlie Johnson**, Executive Director, Alaska Nanuq Commission, Nome, Alaska
- **Vladilen Kavry**, Chukchi Subsistence Hunter, Umky Patrol (Polar Bear Patrol), Vankarem, Chukotka
- **Chanda Meek**, Assistant Professor, Political Science, University of Alaska Fairbanks
- **Lily Ray**, Social Scientist, Kawerak, Inc., Nome, Alaska
- **Cheryl Rosa**, Deputy Director, Arctic Research Commission, Anchorage, Alaska
- **Margaret Williams**, Managing Director, U.S. Arctic Field Program, World Wildlife Fund, Anchorage, Alaska
- **Eduard Zdor**, Executive Secretary, Association of Traditional Marine Mammal Hunters of Chukotka, Anadyr, Chukotka

Unprecedented climatic warming in recent years has led to a rapid deterioration of Arctic sea ice. This is having profound impacts on the marine mammal populations shared between Russia's Chukotka Peninsula and Alaska in the United States. Current ice conditions and forecasts for the rest of 2011 confirm that the habitat of ice-dependent species will continue to deteriorate in this and coming years. While Arctic climate change will reduce habitat for ice-associated marine mammals, it will, in turn, facilitate unprecedented human development and transportation activities. In order to mitigate the repercussions of these changes to both marine mammals and the local Native peoples on both sides of Bering Strait, who have been culturally reliant on walrus for millennia, coopera-

tion in the research and management of marine mammals is essential. This panel highlights some of the current work in the region and promising areas for future collaboration.

**Martin Robards:** I never thought in my life that I would look at the top of the globe and not see any white, any ice, but all of us in our lifetimes will see that. It turns out that the National Park Service has funded a sizable amount of marine mammal research.

**Lily Ray:** Hunters are concerned about increases in commercial shipping in the region, pollution – possibly discharged from ships – that could stress fish and marine mammal populations, and damage the food chain. Another concern is regulations without sufficient local input. One issue now is that walrus and two species of seals are being considered for possible endangered species status. There is fear that traditional lifestyles are endangered by policies made without sufficient local input. There is fear that young hunters do not know how to stay safe while hunting marine mammals. Gear, care for catch and avoiding loss of catch are other concerns. Research recommendations include disturbance, pollution, food safety, radiation, community/policy interface and local management.

**Willie Goodwin:** I was asked to join the panel in response to interest in reporting on research in Kotzebue Sound. A number of us are concerned locally with continued exploration in the Chukchi Sea and impact on sea mammals in the area. A Fish and Wildlife Service Tribal Wildlife Grant to tag seals was acquired – 26 were tagged over a number of years in the mid-2000s. Shell Oil provided funding for further tagging – 29 more ring seals were tagged between 2007 and 2008. In 2009, 12 ringed seals and 11 young bearded seals were tagged. All of it was done in the fall season. We did not want to interfere with local folks who were harvesting them for food. In all, from 2007 through 2009, 41 ringed seals and 36 young bearded seals were tagged. The research from this tagging effort can be viewed at <http://www.kotzebueira.org>; a number of seals end up in Russia, it turns out.

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We net the seals to catch them for tagging. While tagging the young bearded seals, we were approached to see if we could tag some adult bearded seals, which had never been done before in Alaska. In 2009, we sat down with marine scientists and then were able to catch and tag three male adult bearded seals. Two were from between Point Lay and Wainwright, and another was from in front of Prudhoe Bay. In 2010, we were unable to catch any adult bearded seals; but this past spring/summer, we were able to get three more: two females and one male. One headed back down through the Bering Strait, and we are tracking them. Now we can monitor their movements and say, with the little data we have, these are some of the migration patterns these seals use, requiring some mitigation as they migrate through the Bering Strait. Since 1988 when the Alaska Beluga Whale Commission began, we tagged some seals and monitor their movements. Fortunately, we got three big males; they went under the pack ice and turned up near Barrow. We need more research, but ask our Russian counterparts that if they shoot one of our tagged animals, we would like to get the radio back so we can retrieve the data in the tag. One was shot some years ago in Russia, and the Russian border guards accused us of spying, using seals.

**Charlie Johnson:** My most recent work has been on polar bears. Some of the most important work that we have done has been with the support and funding from the Shared Beringian Heritage Program. We have published two reports now 10 years old. In them, we had gone out and asked hunters about polar bear movements, denning, how they feed and what habitat they use. It has been a critical development, because as we work, we want to make sure that any regulations developed are done with information from the hunters and the support of the villages. Movement of the seals, as Willie mentioned, had not been documented until recently. We are doing the same thing with polar bears. The most important thing we are doing is the conservation of the various species. Until we do that, it doesn't matter what regulations there are if there are no resources. We are working to document again—and for comparison—what the polar bears are doing. We have another proposal to revisit, in both Chukotka and Alaska, the habitat use of polar bears. The treaty with Russia on the conservation of polar bears in the Bering and Chukchi seas is the most important thing we have done recently. This joint Polar Bear Commission has

four members: the U.S. Fish and Wildlife Service, Alaska Nanuuq Commission, Government of Russia and Native Chukotkans). Its method of operation is unique; for the first time the governments have agreed that any harvest limits must be agreed upon unanimously. It means we have veto power, which we never have had before. The Russian Ambassador who signed it said that it is the most democratic document that Russian has ever agreed to.

I have only good things to say about the Shared Beringian Heritage Program and what it has been doing for Native people. I also want to recognize my partner who just passed away, Caleb Pungowiyi. In May 1978, in Gambell, Caleb Pungowiyi and I met with Native Saint Lawrence Islanders, and we put together the Alaska Eskimo Walrus Commission. It was the work, a large part of two people no longer with us – Caleb and Mathew Iya – and I want to give thanks to them.

**Cheryl Rosa:** I am a wildlife veterinarian from the North Slope Borough on loan to the Arctic Research Commission. I took part in a workshop in D.C. last year at the National Academy of Sciences. Sixty to seventy per cent of the arctic land mass is in Russia; the majority of river discharge comes from rivers in Russia. Without having Russia engaged in research in the Arctic, we will not have good results. 'Stinky whales' — back in 2008, we had a project spurred on by concerns of the International Whaling Commission, related to a bad smell and taste in gray whales and other benthic animals – walrus, sea birds, some fish and some seals – that had been reported. The Shared Beringian Heritage Program funded a project. Working through the Eskimo Walrus Commission, we were able to get samples from walrus. Many of these animals moving into northern areas have been bringing disease with them.

**Vladilen Kavry:** I am from the village of Vankarem on the Chukchi Sea. We have been working with the World Wildlife Fund-U.S. for the past five years, with funding from them. You have heard a lot about the reduction of Arctic ice, so I will not speak about this. Impacts on walrus and polar bears have been very negative. In these images of my Native village, the distance is less than one kilometer (to the walrus haulout), but it has over 35,000 walrus. In 1996, we

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saw the first walrus haulout here; previously there had been no haulouts in the area. The 2007 walrus haulout was within a kilometer of the nearby river, the only one in the world so close to a human village. Many walrus died because of the great numbers on the haulout. Ninety percent of the deaths were from stress and trampling during a stampede onshore. Walrus carcasses attract polar bears, so we have many polar bears coming to the village; many come to the trash areas of the village. The Umky Patrol organized after a local village girl was attacked and killed by a polar bear that had come to the village. Last August, a bear killed another man; we had to shoot three bears that we found on the dead body, unfortunately. We created the patrols not only to protect the people, but also to protect the bears and walrus. We provide hazing for polar bears, chasing them away from the villages. We also do a lot of education and knowledge dissemination in the childcare center, for example, on how to behave if they spot a bear. We went to a number of villages, holding seminars and workshops on what we do, the experience that we have accumulated. We are hoping to create more patrols like ours. The Umky Patrol also collects and provides observations on polar bear migrations; we observe their dens, collect walrus carcasses and remove them from the village. We create feeding spots for polar bears, which is a very efficient method of keeping them away from villages. In 2006, we had almost 200 polar bears at the feeding spot. In addition, to protect the polar bears, we created 'calm zones' to protect them from ships, planes and helicopters that come to the village. We ask that flights follow along special routes so they do not disturb walrus haulouts. We explain to Native local people what they can and cannot do in certain areas. We do not prohibit people from viewing the haulouts or dens. For 20 years, we have wanted to get the right to harvest polar bears. Our ancestors used to harvest them. A moratorium was instituted without consulting us. It is very important to preserve our traditions and culture. We preserve our traditional knowledge and share it at the gatherings of the Bilateral Polar Bear Commission meetings. We use traditional spears at the walrus haulout; we do not allow the use of firearms, so as not to disturb the walrus on haulouts.

**Margaret Williams:** The Arctic is one of our global priorities; we have offices in all northern countries except for Iceland. Umky is the Chukchi word for polar bear. We are excited about this — it is a local measure to tackle these problems. We brought Fish and Wildlife Services' Craig Perham to share his experience dealing with human-bear conflict on the Alaska North Slope at a meeting organized by the Umky Patrol in Russia. It was a learning opportunity for Craig. We worked with the Fish and Wildlife Service to bring Vladilen (Kavry) to Barrow, Point Hope and Wainwright to go to these villages and talk about the Umky Patrol. Vladilen expressed the hope that walrus would haul out on the shores near his village and then the following year the walrus did haul out on their beaches.

There are challenges and opportunities. The Umky Patrol is a great example of community efforts to protect species affected by climate change. Other changes have been mentioned. Shipping presents both potential problems and opportunities. The World Wildlife Fund did a study on shipping traffic during the past several years, using satellites tracking. From 2009 to 2010, ships transiting the Bering Strait almost doubled. There is potential for environmental risk. The Deepwater Horizon oil spill in the Gulf of Mexico can serve as a caution about what can happen in the Bering/Chukchi Sea region. I think the Beringia Program can serve to bring people together to discuss these challenges and opportunities.

**Eduard Zdor:** ChAZTO – the Association of Traditional Marine Mammal Hunters of Chukotka – we do some research projects. This is an overall goal of our organization. Science is a good way to determine what is going on with marine mammals. We do not have enough studies of seals. This year we had several projects; one was coastal observations of marine mammals, conducted in four villages: Uelen, Neshkan and two others. This year we shared our observations of coastal haulouts of walrus. We gathered biopsy samples from bowhead whales in 2005-2006 and could prove to the International Whaling Commission that hunters from Alaska and Chukotka were using the same population of bowhead

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whales. This was important because opponents of whaling had been saying we have been using two different populations. Since 1956, harvest of polar bears has been prohibited, but for past 20 years, we have worked hard to try to harvest them. We have managed to document the knowledge of denning areas of polar bears and their habitats. The next logical stage of this project was to explore the spiritual aspects of polar bear hunting for Native peoples; the inter-relations between marine mammals and people are important. By documenting all of this, we can preserve ourselves as an ethnic nation; we can preserve our way of live, language and traditions. None of this work is done out of curiosity; it is done for the people who live in coastal communities. We conduct two types of village meetings; we invite scientists to tell us what is going on in coastal areas of Chukotka – why marine mammals migrate from one area to another, and so on. Now they (whales) are moving, not only to Wrangel Island, but also from satellite monitoring, we can see that they are going as far north as the North Pole. What prevents them is depth; they cannot feed in deep seas, but only in seas less than 180 meters.

**Chandra Meek:** I am a research professor at the University of Alaska Fairbanks. Thanks to Charlie Johnson for being my teacher. My research focuses on how international policy is made and translated to particular places where people. I conducted research in the upper Chukchi and Beaufort seas, Wainwright and Barrow. I studied how people organize themselves and hosted a recent workshop on how Alaska makes decisions about its oceans in the future. Someone at the workshop said, “Every society creates its own institute that makes sense for them in its particular place.” This points out the promise of community-based conservation and the challenge at the national, international and local levels simultaneously. I am trying to get to know the Polar Bear Commission. I am interested in how people do things — both in the past and currently. Research recommendations in the Bering Strait region include learn how different institutions positively affect people and places; help to remember prior practices; innovate at the local level; and govern for resilience of Beringia, to govern for recovery of communities, animals, languages and practices.

### Question and Answer Session

#### Q. What are your suggestions for how communities can work together better?

**Charlie Johnson:** A big problem is communication — how Russian and the U.S. differ. Often visas I send do not go to the people that I invited. Communication between communities or even between individuals is not as big a problem, but the two countries still have some enmity on this issue. Much of the bureaucracy is still in place in Russia – this is the problem. A governor closed airports on us to prevent us from going places. Communication across the board is our biggest problem.

**Willie Goodwin:** One thing I found is that the learned people—Ph.D.s and master’s degree folks—do not know how to catch these animals; they need to go to the village people. We also need to get continued funding to support the research we do. How can we get the gas to go get these animals without funding?

**Eduard Zdor:** We do have bureaucratic challenges on the Russian side; they interfere with our American colleagues’ interaction with our villages. There has not been much progress in our bureaucratic process; it is still very difficult to get access to Chukotka; it is hard to get a visa. I am trying to do something to improve our relations. Perhaps we can use the format of this conference and others to tell our government we need to remove the impediments to research and development and cooperation, which is only possible when we have good communication.

**Chandra Meek:** Getting to know each other will help us work together better.

**Margaret Williams:** It is helpful to look at what has worked and been expanded in the last ten years — old methods that the North Slope Borough has pioneered about tracking whales, for example. The World Wildlife Fund has worked closely with the Pribilof Islands to develop their own programs. Agencies have helped communities to develop their own programs. This is not happening as much in Russia.

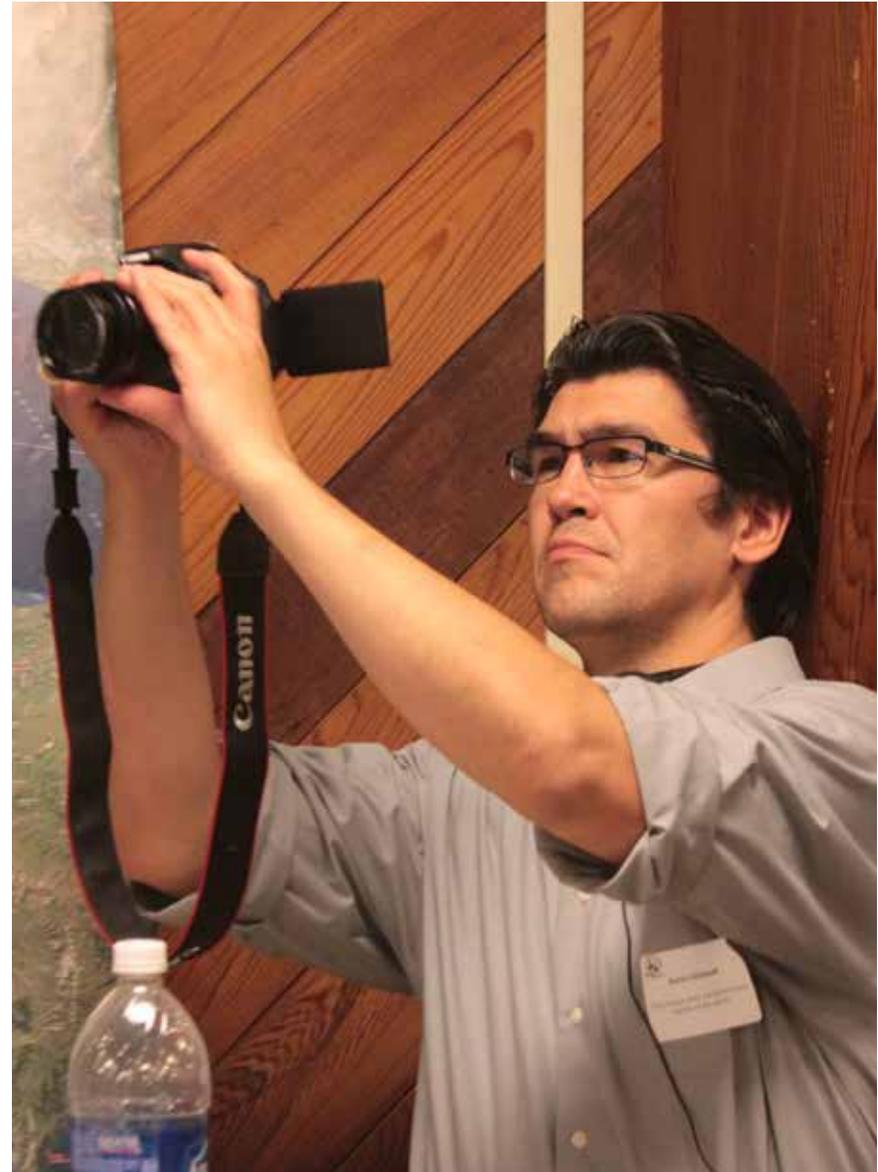
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**Yuriy Gerasin:** This is not a question, but I want to respond to concerns of people. The issue with receiving visas is being resolved. The agreement between our countries should be ready by the end of this year for 3-year visas and even for tourists and those without invitation. Let's try to counteract international bureaucracy, not just Russian bureaucracy. Border guards did have a lot of mistrust for a long time – in the relations between our countries; this needs to be resolved, yes. I hope I have been able to answer some of your questions.

**Irina Ryabukhina:** I am responsible for tourists entering our area and would like to clarify how to come to Chukotka on a visa-free basis. All those with relatives in Russia need to have a special insert in their passports. On July 25, we issued inserts for seven children who visited Chukotka last summer. Currently, I have given to my colleagues the request from the Russian side for the format of this (non-Russian) insert to make it identical to the one issued on the Russian side. I have met with the vice governor, and he had heard that the invitations get lost, but you need to give it to the person you have invited personally; the governor is not the post office. Please send it to them personally through the mail. An official site has all the rules that govern the visa-free program.

Three years ago, we signed an agreement with the Russia Customs Service to provide all the necessary documents, halving the time it takes from 60 to 30 days. The special pass to cross the Russian border now takes only 10 days to formalize. I believe any concerns expressed here are a public relations issue.

**John Waghiyi:** I want to commend the National Park Service for this gathering where we can have a family reunion. I am very jealous of the seals because they have no boundaries, and they can move between Alaska and Chukotka.



# Presentations



## Presentations

### Going Local While Working Globally: Documenting and Collaborating on Alutiiq History

#### PRESENTER

**Sven D. Haakanson, Jr.**, Executive Director, Alutiiq Museum, 215 Mission Road, Kodiak, AK 99615; phone: (907)486-7004

#### ABSTRACT

For the past decade, the Alutiiq Museum has documented cultural sites on the southern end of Kodiak. At Cape Alitak hundreds of images of sea mammals, birds and people were pecked into granite, creating one of Alaska's largest clusters of rock art. Recent archeological investigations of the cape revealed additional village sites, petroglyphs and information on the relationships between the two.

Also during this time, we established working relationships with two major museums in Russia. The Museum of Anthropology and Ethnography (MAE) and Russian Ethnography Museum (REM) hold the largest collection of ethnographic pieces from Alaska. Such collections have been inaccessible until recently. We worked with the MAE to publish their collection and are now working with the REM. This collaboration has opened new doors for our community artists and scholars to bring information back into a living context.

### Indigenous Language Learning and Documentation in the Bering Strait Region

#### PRESENTER

**Aron L. Crowell**, Alaska Director, Arctic Studies Center, Smithsonian Institution, 625 C Street, Anchorage, AK 99501; phone: (907)929-9207; email: crowella@si.edu

#### ABSTRACT

Indigenous languages of the Beringian region are endangered, and their recovery is an important community priority. With funding from the Shared Beringian Heritage Program, the Smithsonian Institution is working with educators and fluent elder speakers to produce linguistic documentation and teaching videos in the Iñupiaq and St. Lawrence Island/Siberian Yupik languages. Elders have been invited to discuss tools, clothing, toys, hunting weapons and ceremonial objects in the Smithsonian exhibition *Living Our Cultures, Sharing Our Heritage: The First Peoples of Alaska* (at the Anchorage Museum, 2010 – 2017).

The North Slope Borough, Bering Strait and other school districts will use short videos made from the edited recordings of these sessions. Each video includes group discussion about a heritage object, followed by individual presentations in the Native language. Transcription and translation is provided on screen, and the speakers (both male and female) represent dialect variations of the languages. The videos will be paired with teachers' guides and learning aids, such as Rosetta Stone, to bring Beringian languages and their rich cultural meanings alive for students.

## Presentations

### Early Humans on the Bering Land Bridge

#### PRESENTER

**Ted Goebel**, Professor of Anthropology, Center for the Study of the First Americans, Texas A&M University, College Station, TX 77843; email: goebel@tamu.edu

#### ABSTRACT

For more than a century archaeologists have theorized that during the late Ice Age the first Americans migrated from Asia to the Americas via the Bering Land Bridge; however, no one has found archaeological evidence of this event on the Seward or Chukotka peninsulas, the now-submerged land bridge's only remaining vestiges.

A newly discovered archaeological site near Serpentine Hot Springs (Bering Land Bridge National Preserve) is offering scientists their first glimpse into who the first occupants of the Bering Land Bridge were, where they came from, and how they made a living. In this presentation, we describe the preliminary results of archaeological excavations at Serpentine.

National Park Service archaeologists discovered the site, and since 2009 it has been the subject of international and interdisciplinary studies by a team chiefly from the Center for the Study of the First Americans, Texas A&M University.

Excavations reaching about 20 square meters in extent have revealed a buried cultural layer dating to about 12,000 years ago. Animal remains are not well preserved, but appear to be from caribou carcasses. Wood charcoal remains signal the existence of ancient hearths where humans burned willow and other woody shrubs.

Stone tools are characterized chiefly by bifacial points and knives, indicating that a small group of hunters, who may have repeatedly visited the site for short episodes, just a few days at a time, used the site.

Most exciting is a set of "fluted points," common in Paleo-Indian sites elsewhere in North America. Now being found around three different hearth features, these represent the first well-dated fluted points yet found in Alaska and suggest that the site was occupied by Paleo-Indians, perhaps closely related to Paleo-Indians from farther east and south in the Americas, not Paleo-Asians from neighboring Siberia.

The implications of this discovery are discussed, and evidence is presented supporting the hypothesis that the origins of these earliest known human occupants of the Bering Land Bridge surprisingly came from America, not Asia.



## Presentations

### Beringia, the Bridge—A Place of Real Learning: Hope and Friendship

#### PRESENTER

**Mille Porsild**, Founder of NOMADS Adventure & Education Inc., GoNorth! Adventure Learning, P.O. Box 768, Willow, Alaska 99688; phone: (218)370-0307; email: mporsild@polarhusky.com

#### ABSTRACT

The Arctic is a powerful blackboard, and Beringia in particular is a place of exceptional opportunities for real teaching and learning — be it online, via media productions, or on the land face-to-face. For everyone from pre-kindergarten to senior citizen, in Beringia and around the world, Beringia's stories, past and present, hold unique and captivating lessons to be discovered and explored. One of the most important lessons is the power of human connections and cross-cultural collaborations.

Real good happens when nations work together.

In 2011, millions of students across the 50 United States and in 38 countries on 5 continents experienced this cross-cultural collaboration through a virtual learning experience. Invited by the government of Chukotka to take part in the two greatest celebrations of western Beringia, educators, sled dogs and youth from Alaska and Greenland ran in the Nadezhda sled dog race, and paddled for friendship at the Beringia Regatta. These experiences were initiated as part of the National Park Service/Shared Beringian Heritage Program-funded GoNorth! Adventure learning series at PolarHusky.com and were provided as curriculum to millions of students across the world.

What can we learn from it?

Beringia *is* the story of a bridge in the past and, we believe, today.

Every good story has a captivating start that provides the foundation for where the story can go: Beringia was where the Arctic peoples began their journey across the circumpolar north and where we first learned that dogs were tied to sleds to pull the load from the edge of the ice where it meets open water. The first Arctic ships put into the waves were in Beringia. Some 500 years later the oldest such *umiak* in the world was found in Greenland. This summer youth from Greenland, Alaska and Chukotka truly realized their connection as their hands blistered while paddling a modern-day Chukchi *umiak* – or *baidara* – in the waters of the Bering Strait. While making friends and building hope for the future, they provided the rest of us with a living and breathing window to what is possible.

Where the story will take us next and the lessons we take from our experiences remain to be seen — but the bridge is there.



# Beringia Youth Showcase



## Beringia Youth Showcase

### Expedition Anadyr 2011

#### PRESENTERS

- **Michelle Whaley**, Russian/English Teacher, Anchorage West High School, Anchorage, Alaska; phone: (907)742-2500, email: whaley\_michele@asdk12.org
- **Sarah Warnock**, Education Program Manager, Alaska Geographic, Anchorage, Alaska
- **Noah Warnock**, Student, Anchorage West High School, Anchorage, Alaska
- **Mariah Savoie**, Student, Anchorage West High School, Anchorage, Alaska

#### ABSTRACT

In the late spring - early summer of 2011, a group of Anchorage West High school student and chaperones visited Anadyr', the Chukotka capital, during the final stage of their project for face-to-face work with their Russian counterparts. Sarah Warnock of Alaska Geographic accompanied the students on this trip. During their visit in Anadyr', the group stayed at the lyceum (the boarding school) where 11th and 12th graders receive a high quality education. They can choose to specialize in humanitarian sciences or in science and math.

While in Anadyr', West High students were engaged in various scientific activities that included bird observation, documenting plant data, testing water quality and measuring carbon emissions. The students kept a detailed photographic/videographic log of their activities. Students also interviewed Native residents and long-time residents of Chukotka to collect anecdotal reports about changes in flora and fauna. They learned how the arctic tundra has been a means of survival for centuries.

Some of the collected data, such as comparisons between disturbed and undisturbed tundra regions, will be given to Cornell University as a baseline for future studies. Students mapped each carbon emission site with a GPS.

The students did extensive bird watching and enjoyed little discoveries: for example, a bird species called House Sparrow that previously was not observed in Anadyr' area was recorded during the last visit. It came to Chukotka in shipping containers. Three bird species total were identified that were not on the list for the Anadyr' region, and the students plan to send this information to Alexander Andreev in the Magadan Ornithological Laboratory. The students plan to do a complete list of birds in Anadyr' for future researchers.

One of the species the students observed was Ruffs. Students made observations of their unusual "dance," a courting behavior, and made extensive notes in their bird journals.

Local television stations filmed students during their field trips and interviewed several of them for the local TV news.

The exchange students had an opportunity for cultural immersion. Although some of the students were already good Russian speakers, they had Russian language lessons, learned how to perform Chukotka Native dances and were introduced to the masterwork of ivory carving.

The West High students also conducted a series of interviews with Russian students about being leaders in their communities and staying involved in global projects on improving communication between Russia and the U.S. and on climate change in the Arctic.

## Beringia Youth Showcase

### Arctic Teens Speak Out: *The Lost Dances*

#### PRESENTER

**D'Anne Hamilton**, Executive Producer of *The Lost Dances*, P.O. Box 296, Kotzebue, AK 99752; phone: (907)223-7661, email: dhamilton1283@mac.com

#### ABSTRACT

In 2005, a group of youth in Kotzebue picked up video cameras for the first time, to document their pursuit of "*The Lost Dances: a Look at Traditional Native Dancing in Kotzebue, Alaska and Chukotka, Russia.*" Over the next six years, the students recorded interviews and dance performances on both sides, learning as they went about the specifics of using media technology, about traditional Native dance and about themselves.

### Nome Community Center Youth Exchange

#### PRESENTER

**Jacob Martin**, Senior Student, Nome Beltz High School, Nome, Alaska; email: sunagazuk@gmail.com

#### ABSTRACT

My presentation will be on the exchange trip I attended in 2010 with the Nome Community Center, which was funded through a grant from the National Park Service and the Shared Beringian Heritage Program. Through this grant, 12 youth, 4 chaperones and 1 translator were able to travel over to Provideniya and New Chaplino. The exchange was a 7-day experience of a lifetime for the exchanges and the host families involved. It was arranged for the youth to stay with host families, which was a quite an experience for both the American guests and the Russian hosts. Nearly every moment was enjoyed with activities involving the different customs and culture, from hiking a mountain, playing different sports and games in the local school gym and rowing in a whaling boat across the bay. Not only did we have a chance to partake in their lifestyles, we made a presentation to share our culture, history and modern-day lifestyle with whoever attended in a local presentation in New Chaplino.



## Youth Forum

### Youth Forum Briefing

#### CONTACT

**Shelley Wesser**, Shared Beringian Heritage Program Outreach and Youth Coordinator, National Park Service, Anchorage, Alaska; phone: (907) 644-3492; email: shelley\_wesser@nps.gov

Eight young leaders, nominated by their village IRAs (from the 1934 Indian Reorganization Act) and sponsored by the Beringia Program, came from the communities of Gambell, Savoonga, Wales, Shishmaref, Unalakleet, Koyuk, Kiana and Kivalina to attend the inaugural Youth Forum in Nome. Twenty students also attended the forum from Northwestern Alaska Career and Technical Center (NACTEC) in Nome, two students from West High School in Anchorage and several young leaders from Kotzebue. Youth from Chukotka, Russia, from the village of New Chaplino and members of the Native dance group “Solnyshko,” participated in the meeting with the help of a translator.

The group came together to create and develop potential projects that met the goals and objectives of the Beringia Program. The Shared Beringian Heritage Program and the National Park Service are committed to involving youth in the planning and implementation of programs and projects. The inclusion of young people is a nationwide priority goal of the National Park Service, and Alaska national parks dedicate efforts to advancing this initiative through youth participation and outreach.

To recognize the importance of the inaugural Youth Forum in targeting young Alaskans, National Park Service Deputy Director Peggy O’Dell and Alaska Regional Director Sue Masica gave opening remarks and spoke to the group about the significance of their participation.

During the brainstorming sessions that followed, the youth divided into four groups focusing on specific subject areas. These included Archaeology, Cultural Preservation, Climate Change and Subsistence. Youth collaborated with expert “mentors” and came up with ideas for future Beringia projects involving and directed by young people. The recommendations included several ideas for new Beringia projects that could receive funding by the Shared Beringian Heritage Program or other sponsors of such programs.

The Cultural Preservation group proposed maintaining and sustaining the Siberian Yupik language via a shared curriculum based on Native dances, sports, handicrafts and art common to indigenous people in Alaska and Chukotka. The Climate Change group suggested that students document changes to subsistence hunting calendars in Beringian villages because of climate change and post these results to a special website. The Archaeology group wanted to conduct archaeology workshops for students, scientists and residents of Beringian communities to simultaneously learn from each other and improve relationships between these groups. The Subsistence group recommended the development and distribution of an educational booklet and DVD on subsistence activities for school courses in rural areas, statewide and even nationally through social media and real-time learning.

The youth then presented the to the main conference audience during a special closing session. The National Park Service and the Shared Beringian Heritage Program are working to develop further these project ideas and to create partnerships with other organizations to fund and support these youth projects. The Youth Forum attendees have committed to working on these project ideas and making their proposals a reality.

## Youth Forum

### Youth Forum Proposals

#### *Learning and Teaching Siberian Yupik Language and Customs through Shared Traditional Activities in Alaska and Chukotka*

##### CONTRIBUTORS

- **Tiffany Immingan**, Savoonga, Alaska
- **Andrey Makotrik**, New Chaplino, Chukotka
- **Egor Akhsakhtikak**, New Chaplino, Chukotka
- **Victoria Anaka**, Anadyr', Chukotka
- **Anna Agnagisyak**, New Chaplino, Chukotka

This project's title is "Angyaghpak" in Siberian Yupik, "Kovcheg" in Russian and "The Ark" in English. This name symbolizes the main goal of the proposed project, which is to simultaneously learn, teach and protect the Siberian Yupik language through various ethnic activities like dancing, handicrafts and Arctic sports. In reference to the biblical Ark of Noah, the project aims to gather and preserve Siberian Yupik cultural elements and pass them to the future generations of Native people, especially youth, on Saint Lawrence Island, Alaska, and the Chukchi Peninsula, Chukotka. During the inaugural Youth Forum at Beringia Days 2011 in Nome, Alaska, youth from the Beringia region in both countries met and developed a set of project recommendations to make this proposal a reality.

The traditions are part of the shared cultural heritage of the Siberian Yupik people who inhabit the coastal communities of the Bering Strait in America and Russia and represent the common "language" that they speak. The Siberian Yupik people from both sides are one ethnic group who shares the same languages and traditions. They have family ties that connect them on a deep and meaningful level. They are literally "one family" and therefore should work together to preserve and teach these traditions for future generations. The historical and political divisions that separated Yupik people in America and Russia could not suppress these ancient customs, and they continue to provide a cultural "bridge" between the indigenous people in both countries. In the face of technology and rapid developments, however, the traditions that sustain

this bridge are in danger of extinction. Both groups of youth recognize the inherent threat to their customs and are dedicated to maintaining its continuity through dancing, singing, doing handicrafts and participating in Arctic sports.

The main components of the "Angyaghpak" project, as suggested by the participants, are:

- Using cultural exchanges and meetings to record and pass on the shared heritage of their ancestors through participation in Native activities like dance, song, handicrafts and sports.
- Participants in this project will write down all the songs that accompany dances in Siberian Yupik and translate them into English and Russian. The words will be written phonetically so they can be pronounced, understood and repeated by everyone. Both sides will work on recording these songs and dances on voice recorders and HD (high definition) video, with the ultimate goal of teaching Siberian Yupik to fellow indigenous youth through active participation. They will use the same process to record participation in the other activities.
- The songs, dances, crafts and sports will be photographed, step-by-step and word-by-word, with the product being an instructional video or picture series that will simultaneously record and preserve the activities and will help others to understand Siberian Yupik words through active participation in dance, song, handicrafts and sports.
- A further goal will be to have exchanges of young teachers of Siberian Yupik who will dance, do handicrafts and practice Arctic sports with their students as a means of teaching the language. The young people and teachers involved will participate in exchanges with the understanding that at their meetings, they will speak only Siberian Yupik. There will be no Russian or English involved — the main purpose will be to create the necessary medium for language learning. Regardless of skill or fluency, Siberian Yupik

## Youth Forum

will be the only language spoken. To communicate, the young people will have to search out and learn words they may not have known. The people from the local community can also be involved in the process of immersing students and teachers in the language and will be invited to participate in the process of recording Yupik activities

- The youth and community participants involved in the project will designate young teachers who will develop and implement a curriculum that can be taught in both Alaska and Chukotka. This curriculum will be developed and standardized so that even beginners in the communities can learn the language and traditions of their ancestors. The teachers could involve or consult with a specialist in language curriculum development to help them with the design of the Siberian Yupik curriculum.
- The outcome of this project, “Angyaghpak,” and further curriculum will be a common knowledge of the same words, dances, songs, crafts and sports in Siberian Yupik communities in Alaska and Chukotka. This shared knowledge, where both sides know the same things in the same language, will be demonstrated by performances at Native dance festivals around the region – “Ergav” in Chukotka and “Kivgiq” in Alaska. Youth who participate and learn through this curriculum will have the opportunity to attend these meetings and festivals, where they will represent one cultural and ethnic group. They will perform the same dances and songs in the same language as one crew, “Angyaghpak.” While they may come to the festivals and meetings from different villages in different countries, they will unite as one group who sing and dance a common language, Siberian Yupik. They will also participate in the Beringia Days Conference, providing a living example of collaboration and cooperation in the region.

The budget for this project will include funding for exchanges, back and forth once each funding year, where youth and the designated teachers and recorders will travel to Siberian Yupik-speaking villages in Alaska and Chukotka. Other funding will provide salary or contract money for a consultant and teachers to accompany the youth on the exchanges and develop a curriculum around Siberian Yupik traditional activities that the youth engage in. Funding will also be provided for equipment needed to record performances or participation in shared activities during and after the exchanges so that material can continue to be added to the curriculum. Farther down the line, the project would fund travel for youth both from Alaska and Russia to travel and meet at Native dance festivals across the Beringia region. Funding for costumes and other materials will be provided, so when the youth perform as one group, they look like one group. We will develop a logo and promotional materials for “Angyaghpak” for distribution, so that the project is well known and recognizable in local communities. After the curriculum is developed, funding for publication, dissemination and implementation will be provided. The shared activities will become part of the modern-day education of Siberian Yupik youth in both Alaska and Chukotka, thereby saving, preserving and passing on the customs of their ancestors.

## Youth Forum

### *Effects of Climate Change on Hunting Calendars*

#### CONTRIBUTORS

- **Marjorie Koonooka**, Gambell, Alaska
- **Molly Mazonna**, Wales, Alaska
- **Noah Warnock**, Anchorage, Alaska
- **Mariah Savoie**, Anchorage, Alaska
- **Rita Ramoth**, Kivalina, Alaska

This project idea would reflect and demonstrate the real effects of climate change and the personal experiences of youth in Beringia communities. This proposal and idea focuses on how climate change has affected rural communities who rely on a subsistence lifestyle to survive and thrive. Climate change is evident on a personal level and on a community level. People from different communities, backgrounds, lifestyles, cultures and traditions recognize and share the detrimental effects of a warming climate. This project aims to advance knowledge, communication and safety for subsistence hunters who personally experience the effects of climate change in the region, both in Alaska and Russia.

Climate change is not an abstract concept, but a real and noticeable process. It affects ice sheets, hunting grounds, animal habitats and hunting schedules. It is evident in Native Alaska and Chukotka villages that seasonal weather changes, such as ice sheets not freezing early enough into hunting season, are having a serious impact on the annual hunting calendars. The members of the Climate Change Youth Forum group at the 2011 Beringia Days Conference were fascinated with weather patterns attributable to climate change. They proposed documenting these changes in Alaska and Chukotka villages, collecting evidence of changing weather and geology and studying the effects of shifts in hunting calendars on other areas of village life. New and unknown occurrences that change the subsistence-hunting schedule modify and alter multiple things

in the villages. There are safety concerns as the weather and the landscape become unpredictable and therefore untested. Early or late hunting seasons have cultural implications since a subsistence lifestyle relies on the resources of the land and sea.

This project would be called “Effects of Climate Change on Hunting Calendars” and would document the changes to hunting schedules by traveling to Chukotka and Alaska coastal villages and conducting interviews with hunters and elders on hunting/fishing calendars to track the effects of climate change on migrations and patterns of local animals relied on for subsistence. The participants would talk to hunters of all age groups in various communities and gather information on how climate change has affected each hunting calendar for each subsistence animal (walrus, seals, caribou, birds and so on.)

The main goal of this project would be to track these changes over the course of three years and provide tangible and comprehensive evidence to relevant agencies that regulate subsistence hunting. The project, depending on the evidence, would recommend to those agencies that they make the hunting window longer. Changes to the hunting schedule could accommodate rural communities that are being impacted by climate change.

As a deliverable product, the project participants would produce an interactive website updated each year with changes to the annual Native community hunting calendars. They would include video clips of their interviews with hunters and elders from the communities as well as a virtual display of the hunting calendar. This website could be a way for Chukotka and Alaska hunters to provide regulatory agencies with evidence that hunting calendars are changing because of climate change and therefore accommodations should be made to increase the allowed subsistence hunting timeframes.

## Youth Forum

### *Health, Safety and Awareness through Subsistence Traditions and Values*

#### **CONTRIBUTORS**

- **Jacob Martin**, Nome, Alaska
- **Henry Adams**, Koyuk, Alaska

This project would educate rural and urban youth (4th-8th grade) on safety, cultural preservation and healthy lifestyles through traditional subsistence resource use. This project would develop a curriculum for classroom use that would teach youth about different cultures, marine mammals, geography, food safety and the benefits of a healthy lifestyle. To develop this curriculum and the accompanying materials, the youth who are designing it will consult with and use knowledge gained from elders in their communities. The project proposes to create educational and instructive kits with video presentation(s) and pamphlets about subsistence hunting, safety and traditional use of resources for school curriculums in both rural and urban schools. The proposal also encourages communication and sharing experiences through social media and would benefit youth from Alaska and Russia. This communication would contribute to the development of the materials by providing valuable feedback. Once the lessons and materials are implemented and distributed, sharing through social media and virtual gatherings would allow the students to interact in real-time with those who live and encourage the subsistence lifestyle. The electronic content would be supplementary to the main kit and would offer further information for those who are interested.

The goals of this project are to educate and share information on traditional and customary subsistence resource use, allow others to experience subsistence activities, rural lifestyles and landscapes and to share knowledge gained by consulting elders in the community. The participants would create a safety handout, an educational booklet and an instructive DVD. The DVD would showcase and highlight local culture(s), proper hunting techniques through step-by-step demonstrations, food preparation, cultural traditions associated with subsistence hunting and the value of a healthy subsistence lifestyle. Both elders and youth would be featured prominently in this DVD. Together, these materials would constitute a “subsistence kit” that would be made available to schools statewide and that would become an integral part of classes focusing on Alaska Studies, Geography, Biology, Health and Cultural Studies.

## Youth Forum

### Community Archaeology Project

#### CONTRIBUTORS

- **Linda Cooper**, Unalakleet, Alaska
- **Jasen Stalker**, Kiana, Alaska
- **George Pootoogooluk**, Shishmaref, Alaska

During Beringia Days 2011 in Nome, Alaska, a group of youth met to create and propose future projects benefitting the Beringia region and involving archaeology. Through brainstorming and collaboration, the students developed a project with two central goals: the first is to educate and inform youth and the community about archaeological methods and resources from both a scientific and traditional perspective. The second goal is to have students share the information and knowledge they gained through various methods. Youth, elders and the larger community often wish to learn more about objects that were created and used by their ancestors, as well as artifacts used historically by the elders in their community. They are also interested in the methods, results and overall subject of archaeology. Sharing this knowledge would include providing information they learned from their elders with people in the scientific community and vice-versa.

The main components of the project as proposed by the students:

- *Archaeological Workshops from a Scientific Perspective*  
An archaeologist will travel between communities offering workshops. The workshops will include information on known sites in the specific region, current archaeological projects in area, arctic prehistory according to archaeology and the field methods used in archaeology. Workshops will be offered for one to two weeks for Elementary, Middle School, High School and the Community. The archaeologist will be proactive and will follow through on keeping students involved. This may include working with archaeologists in the area to have older students visit or even help with surveying or excavation of a site. High School students may also continue their interest in archaeology through distance learning college courses.

- *Archaeological Workshops from a Traditional Perspective*  
In addition to learning about objects and the stories behind the objects from a scientific perspective, students felt it is important for themselves and the community to learn from others in their community. Learning about the historic way of doing things and the way people used the objects will help them to understand some of the cultural significance of archeological discoveries. Elders and community members will teach the workshops on a weekly or monthly basis. They will share how they lived and what they used to do. This may include how they hunted or fished for animals, teaching how to make and use tools and which materials they used.
- *Sharing Knowledge*  
Knowledge obtained at the scientific workshops will be shared during traditional workshops, and knowledge gained at traditional workshops will be shared at the scientific workshop. This exchange will not only allow students to share what they learned but also help the scientific community gain insight into how the objects they find in archeological studies have been used traditionally. Students will also spread the knowledge they obtain by traveling to other communities and giving presentations using the Internet. Students may use video conferencing, create websites and use social networking, such as Facebook to continue sharing the knowledge gained in this project with a larger audience.

Students are very passionate about this project for many reasons. They want to learn about their past. They also want learn how to make and use the tools that their elders used as youth. They want to incorporate traditional knowledge with ongoing scientific research so that others have a better understanding about their culture. This project would also be an opportunity to learn about a career option that could be significant in helping them learn about and share their culture.

# The David M. Hopkins Beringia Award



## The David M. Hopkins Beringia Award

### Presented to Charlie Johnson and Eduard Zdor

**PRESENTED BY:**

**Peggy O'Dell**, Deputy Director for Operations, National Park Service, Washington, D.C.

David M. Hopkins was an outstanding American scholar whose work, passion and dedication to Beringia significantly advanced scientific knowledge about the region. He served as a mentor to many; his influence shaped the direction of Arctic research. His research and leadership embodied the interdisciplinary perspective, and he encouraged others to be inclusive in their work. Dr. Hopkins sought a holistic understanding of Beringia as a distinctive geographic area and ecosystem. He advocated for the importance of traditional ecological knowledge and brought together scientists of different disciplines from around the world.

With Dr. Hopkins's permission, the Beringia Program initiated the David M. Hopkins Beringia Award in 2001, shortly before his death. The award honors those who exemplify the life and career of Dr. Hopkins. Selection of honorees is based on the following criteria:

- Contributions to the people, history, resources and cultures of the Beringia region
- Outstanding scientific inquiry, whether academic or self-taught
- Interdisciplinary vision – someone who involves multiple disciplines to study the same matter or subject and, thus, adds to the progressive growth of knowledge
- Passing on personal knowledge and inspiration to others through mentoring
- An open, international perspective – maintaining bridges of information between countries
- Fostering conservation of the natural and cultural resources of the region – bridging of generations through safeguarding those resources for the future.

Two individuals received the David M. Hopkins Award at Beringia Days 2011: Charlie Johnson and Eduard Zdor. Both were recognized for their outstanding work and dedication to the people and the resources of the Beringia region.

***Charlie Johnson***

**Executive Director, Alaska Nanuuq Commission, Nome, Alaska**

Charlie Johnson is an Inupiat Eskimo who was born and raised in Nome, Alaska. In his present position as Executive Director of the Alaska Nanuuq Commission, he has worked on polar bear habitat use and polar bear subsistence quotas. His success is remarkable, considering the challenges he has faced in his efforts to advocate for Alaska and Chukotka hunters.

Johnson was an integral part of the 2007 U.S.-Russia Treaty on the Conservation of Chukchi Polar Bears, which set a sustainable harvest number of polar bears to be divided equally between Alaska and Chukotka subsistence hunters. This partnership was 20 years in the making, and Johnson's efforts at both the local and international levels were central to the achievement of this important goal. The significance of the bilateral treaty for Native hunters on both sides of the Bering Sea cannot be overstated; it stands as a testament to Johnson's dedication to preserve the traditions and the rights of the people he represents.

Johnson embraces traditional ecological knowledge as well as new technologies and areas of scientific inquiry, contributing to his success as an effective and innovative leader.

As a commissioner for visa-free travel in Nome, Johnson has facilitated, supported and increased the unrestricted travel for indigenous residents of Beringia on both sides of the Bering Strait. He has facilitated the travel of many scientists, students, researchers and residents throughout Beringia and has worked with great dedication to ensure the physical and legal safety of cross-border travelers.

Johnson has worked a lifetime on behalf of Alaska Natives. He has led various organizations throughout his career, all of which were dedicated to enhancing and protecting the lives of indigenous people in the Beringia region. Prior to his position with the Alaska Nanuuq Commission, Johnson was the Executive

## The David M. Hopkins Beringia Award

Director for the Eskimo Walrus Commission, representing Alaska Villages on a range of matters concerning walrus conservation, management and research. He has the distinction of having served as the president of Bering Straits Native Corporation (1983-1988), the president of Kawerak, Incorporated (1976-1983), the chairman of the Alaska Federation of Natives (1981-1983) and the vice president of the Inuit Circumpolar Conference. Appointments include the U.S. Arctic Research Commission under President George H. Bush, Alaska Science Review Group, National Marine Fisheries Service, U.S. Delegation Arctic Council and Member, CAFF Working Group International Arctic Social Science Committee.

Johnson has worked as a partner and a collaborator with the Shared Beringian Heritage Program for many years and has been a source of guidance, information and wisdom for program cooperators and program staff. The program honored him with the Hopkins Award this year in recognition of his diligence and determination on behalf of Alaska and Chukotka indigenous people.

### *Eduard Vitalyevich Zdor*

**Executive Secretary, Association of Traditional Marine Mammal Hunters of Chukotka, Anadyr, Chukotka**

As head of the Association of Traditional Marine Mammal Hunters of Chukotka, Eduard Zdor represents Chukotka hunters from around the region at local, national and international gatherings. He was elected to this position by the hunters he represents, which is evidence of their support and respect for him. He diligently lobbies on their behalf for increased subsistence quotas and has been successful in maintaining and increasing quotas for the indigenous people in Chukotka villages. Prior to his present position, Zdor was the leading specialist at the Agriculture and Food Department at Chukotka Administration, Anadyr. Zdor completed studies at the Moscow Humanitarian University in 1988 and studied economics at the Commercial school in Vladivostok, finishing in 1991.

Zdor has worked for many years with groups from Alaska and around the world to share knowledge and to improve collaboration and cooperation between peoples and nations. Zdor works closely with a diverse group of organizations and maintains strong and lasting bonds with international conservation groups. The protection and sustainability of natural and cultural resources

remains a priority for Zdor, whose work on conservation and preservation demonstrates this. He is highly esteemed in both his home region and abroad for his commitment to the hunters he represents and his tireless work on their behalf. While he has encountered many obstacles during his career, Eduard Zdor continues his efforts with a positive attitude and an optimistic outlook. He provides logistical and scientific support for several Shared Beringian Heritage Program projects and has been an invaluable partner to the National Park Service and other organizations for many years. The Beringia Program presented Zdor with the Hopkins Award this year to acknowledge his work for and dedication to the people and the resources of Beringia.



# Remembering Herbert Aġiyġaq Anungazuk



## Remembering Herbert Aġiyġaq Anungazuk

### Iñupiaq Anthropologist, Hunter and Bowhead Whaler

#### PRESENTED BY:

**Carol Zane Jolles, Ph.D.**, Associate Professor of Anthropology,  
Anthropology Department, University of Washington, Seattle, Washington

Good evening. My name is Carol Zane Jolles. Tonight I am privileged to speak in memory of my friend and colleague, Herbert Aġiyġaq Anungazuk. His wife Lena is here tonight, and I am grateful for her presence. I first met Herbert at the National Park Service, Alaska Regional Office in Anchorage. We met because his younger brother, George, had married my good friend Edna Apatiki of Gambell. George and Edna told me to introduce myself to Herbert, if I got a chance, and so, in 1992, I did.

Herbert Anungazuk was a fluent Iñupiaq speaker and a gifted translator and interpreter. He had an extensive knowledge of his homeland that embraced an entire range of subjects from ethnography to ethnobotany to the natural history of the Seward Peninsula. So many times a research project depended on his mastery of the intricacies of the Iñupiaq language and his encyclopedic knowledge of Iñupiaq history and culture. His knowledge and understanding added depth, dimension and meaning to the research of many Arctic social science projects and certainly to the work we did together. In Wales and on Little Diomedede Island, he and I documented social and economic changes. We learned that what once was known as traditional knowledge itself was changing. This added to Herbert's often-expressed fear that the identity, the culture and even the lands of Iñupiaq people might disappear.

As I reflected on Herbert's passing, I realized that wherever Herbert worked and whenever he spoke or wrote, he always honored the land of his birth, his place on the land, his reverence for the hunting way of life and the elders whose knowledge, generosity and teaching gave his life meaning. It was this message he strived to pass on. I hope to convince you that Herbert Anungazuk's life story itself should not fade from memory. Tonight, I will try to place his life and the work we did in context for you.

We began work together in 1997. In late July, we flew to Gambell to interview hunters about whaling traditions. Herbert was a whaler himself, and in

Gambell he was among whalers of his own age group. Many, like Job Koonooka and Branson Tungiyon, were his friends. His interviews in Gambell were a stunning reminder of how important whaling is to Yupik and Iñupiaq people.

The interviews give voice to the deep feeling, power and spirit of the whaling experience, something not so likely to occur with non-Native interviewers. In Gambell, he also interviewed Elder Anders Apassingok, noted for taking many whales in his long life. I think Herbert got carried away that day. Anders later laughed with delight as he told me that he really enjoyed that interview with Herbert. Herbert, he said, had done all the talking, and Anders was paid for the interview.

Our next stop was Little Diomedede Island where tribal manager Chuck Menadelook invited us to join him in his very small house.

As the lone woman, I slept on the sofa, Herbert slept on the floor in front of the sofa, and Chuck slept in his own bed. Now, that was the easy part. Chuck and Herbert were both chain smokers, and that one-room house was so smoke filled that the atmosphere was like a dark fog. With no privacy to change clothes and no way to wash them, since the village water tank was almost empty, smoke wafted from our clothing in clouds whenever we went outside.

In thoughtful Iñupiaq fashion, Herbert had brought food to Chuck. It fed the three of us and the elders we interviewed in Chuck's house as well. The shelves of the village store were empty. On this trip, most important for Herbert, I think, were our interviews with elders. Those elders are now all gone. There was Charlie Iyapana, who died in October that same year, Oscar Ahkinga and Moses and Ruth Milligrock.

Often Herbert quoted Moses's and Ruth's words to us in his speeches. Moses said, "Everything sink; everything sink. Our names, our history are sinking into the ground." And, then, added, "Dangerous parts on this island are recent. Large boulders slid [over] there. Rolled down, all the way to the beach. Maybe you won't see Diomedede no more, pretty soon." And from Ruth: "Our land is getting old; like an old woman, she is changing."

Herbert and I got to know each other on that trip, and we continued to work together for the next 13 years.

But let's go back a little further. Herbert was born in 1945, in Kinjigin or

## Remembering Herbert Aġiyġaq Anungazuk

Wales, possibly in a sod house. The village history and his own family history are filled with tragic stories. In October of 1900, the village was overwhelmed by measles and flu. A visitor to Wales that year wrote to her family, "Almost one-fifth of the people [here] have died...hardly any Eskimos over fifty years old and only a few under five are left." [Lopp, 2001] But, the 1918 influenza epidemic that swept the world after World War I was the most terrible. In Herbert's words:

*"The generation of my father never had time to mend themselves from the grief of death, suffered from diseases so deadly that, even today, we have yet to recover to our original numbers." [Anungazuk, 1998]*

His father, who survived the epidemic as a child, later told him that his grandfather had been an umialik, "a man of status." Little was said of that time, so even this description of a grandfather he never knew was treasured. Of Herbert's own childhood, he said:

*"I remember the birds ever ... so many of them when I hunted with the weapons of a child... [Anungazuk, 2005]. The water was covered in their numbers, red as the flowers of summer on the mountain... the red phalarope were our prey of choice... there were so many... Today, these birds return yearly, but now... only a few return home in... spring to show us they remain a part of the land, as we are..." [Anungazuk, 2003].*

Herbert's early education as a hunter was one that was always with him. The elders instilled in him a deep desire to learn the ways of his people that became a driving force in his life. Like many Native Alaskans, though, he was sent away from home as a teenager to attend high school in Sitka, Alaska. Afterward he attended Haskell Institute, a vocational school in Kansas for Native youth. I always wondered why Herbert never mentioned Haskell, but then I learned that

he earned a certificate in plumbing. I have to say that Herbert did not like plumbing much. Last on his "to-do" list at home was probably fixing the water heater, which always seemed to be on the blink.

In 1967, soon after graduating, Herbert entered the Army and went to the war fields of Vietnam. He described a single day in 1968 this way:

*"We set an ambush position in what turned out to be an unmarked graveyard in the jungle in the dark of the night. The smell was there, and we did not see the maggots until daylight revealed them. I remember the still[ness] and the submerged bridges very well, as I realized that while we were walking into the dark toward an ambush position that it was my birthday. It was July 16, 1968, and I had survived at least 100 days of war. I was now 23 years old." [Anungazuk, no date (a)].*

He later said that no day ever passed when he was not reminded of that deadly time [*Ibid*].

I believe that Herbert's education by the elders and his years in the army, fighting for his country, shaped the man he became.

He returned to Wales after Vietnam and spoke with pride and humility of being striker on the whaling boat in 1970 that took the first bowhead whale in Wales in more than 20 years. I know little of those years, except that he was a hunter and sometimes taught Iñupiaq culture classes in the Ki igin School.

Herbert married Lena Riley of Unalakleet in 1985, and by 1987 he had begun work with the National Park Service. Herbert and Lena settled permanently in Anchorage in 1991. Over the years, Herbert was asked to join many social science research projects because of his knowledge. The elders had taught well. In addition, for him, each opportunity to work with an elder while on a research project was another gift from those who were generous enough to continue his lifelong education and preparation for his own elderhood.

If you were to have asked Herbert, "Who are you?" I believe he would have answered, "I am an Iñupiaq, a Kijikmiu. And, I am an American." To be a

## Remembering Herbert Aġiyġaq Anungazuk

Kinikmiu was to be a person of the tundra, of the ice and of the sea. It was to be a hunter even if he no longer hunted. Of this he said:

It is astounding to be a whaler; and, to take a whale or a white bear home to the people is a feat that is remembered by everyone. I take great pride in being a descendant of my ancestors. I take great pride in being a hunter.” [Anungazuk, no date (b)]

In his heart he was always a Kinikmiu. Almost until the day he died, when someone died in Wales, Herbert purchased the wood for the cross, carved it with the name of the deceased and sent the cross to Wales to mark the grave. Often he did this as he sat on the sofa in his living room, watching videos of Iñupiaq dancers or of America’s contemporary war history.

And Herbert was always an American soldier, veteran of a war that never left his mind. He gave the names of two of his fallen brothers-in-arms to his own sons, returning their names and spirits to the living world, bringing them in the Iñupiaq way into the present.

For most of the years Herbert and I worked together, we tried to preserve community history and culture, and with it, Iñupiaq identity, driven by a shared sense that time was running out. He said, poignantly:

*So much of what I have seen as a child will never be seen or experienced by my grandchildren, by my great-grandchildren. A lot only remains in the memories of my generation, and my generation must learn to tell our descendants how it was, as our descendants too, are descendants of the ancient hunter.” [Anungazuk, 2003].*

Herbert is gone now, but the work of documenting that he was so much a part of continues.

In Diomede, the first step so many years ago was to walk from home to home with a large, empty island map. Every name that surfaced was added. Young hunters gathered excitedly over early versions of the map. Names they had

heard in the confusing flow of elder hunters’ Iñupiaq conversations suddenly joined the landscape over which they had floated. Patrick Omiak [who is here tonight] and Arthur Ahkinga worked tirelessly to develop spellings of place names, a reminder that place names carry with them a sacred trust and that “getting the words right” is important.

In Wales we worked especially with Elders Pete Sereadlook and Faye Ongtawasruk. In 2008, as global awareness of climate change sharpened, and the group of elders grew ever smaller, we moved to the next stage. We began verification of place name maps. This is where our project is today. One of Herbert’s colleagues from the National Park Service will accompany me to Wales in a few days. Winton Weyapuk, Jr. and Sean Komonaseak of Wales will join the work team. As always, the elders will be our teachers.

What Herbert held in his heart as his mission to his people will guide us as we work to finish place name maps and other educational materials that will make their way back into classrooms and onto the walls of offices and homes in Wales and Diomede and Nome. And, it is hoped that Herbert Anungazuk’s story will endure into the next generations.

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# Posters and Demonstrations



## Posters and Demonstrations

### The NPS Arctic Network: Ecological Monitoring in the U.S. Arctic National Parks

#### CONTACT

**Jim Lawler<sup>1</sup>, Ken Adkisson, Stacia Backensto, Jennifer Barnes, Kristin DeGroot, Melanie Flamme, Linda Hasselbach, Marci Johnson, Kyle Joly, Amy Larsen, Tom Liebscher, Scott Miller, Peter Neitlich, Kumi Rattenbury, Brad Shults, Pam Sousanes, Dave Swanson, Sara Wesser, Tara Whitesel,** <sup>1</sup>National Park Service, 4175 Geist Road, Fairbanks, AK 99709; email: jim\_lawler@nps.gov; website: <http://science.nature.nps.gov/im/units/arcn/>

One of the largest of these networks, the Arctic Network, consists of five nearly contiguous NPS units. Bering Land Bridge National Preserve, Cape Krusenstern National Monument, Noatak National Preserve, Kobuk Valley National Park and Gates of the Arctic National Park and Preserve. The Arctic Vital Signs Network encompasses roughly 19 million acres in Northern Alaska, or roughly 25 percent of the NPS administered acreage in the United States. The Arctic Network has chosen and started monitoring a set of 18 ecological “vital signs.” This set of vital signs includes four related to air and climate, two related to geology and soils, three related to water, two related to ecosystem pattern and processes and seven related to biological integrity.

#### ABSTRACT

The U.S. National Park Service’s (NPS) Inventory and Monitoring Program established 32 long-term ecological monitoring networks nationwide. The goals of these networks are to:

1. determine status and trends in selected indicators of the condition of park ecosystems to allow managers to make better-informed decisions and to work more effectively with other agencies and individuals for the benefit of park resources;
2. provide early warning of abnormal conditions and impairment of selected resources to help develop effective mitigation measures and reduce the costs of management;
3. provide data to improve understanding of the dynamic nature and condition of park ecosystems and to provide reference points for comparison with other, altered environments;
4. provide data to meet certain legal mandates related to natural resource protection and visitor enjoyment; and,
5. provide a means of measuring progress toward conservation performance goals.

## Posters and Demonstrations

### Beringia Youth Exchange as a Medium for Collaborative Research

#### CONTACT

**Sveta Yamin-Pasternak**, (University of Alaska Fairbanks) in Collaboration with Participants in the “Nome Community Center Cultural and Environmental Youth Exchange” Project, Fairbanks, Alaska; email: rechichanka@gmail.com

*Presentation in Loving Memory of Larisa Gennadijevna Eryomina of Novoe Chaplino, Chukotka*

#### ABSTRACT

This exhibit reflects on the experience of the Cultural and Environmental Youth Exchange project in order to discuss the social and educational merits of involving Beringian youth in the cultural heritage research. Over the course of their stay in Novoe Chaplino, Chukotka, students from Nome, Savoonga and Gambell had a chance to practice language and cross-cultural communication skills, learn about local food and subsistence practices, share lots of teatime with their host families, participate in sports and dance performances, take part in a carving workshop, present their own research to the community and visit the prehistoric settlement of Avan, the ancestral home to many people living on both sides of the Bering Strait. Such experiences foster a live, dynamic forum for raising and addressing questions about the past and present ways of life in Chukotka and Alaska. They also help illuminate directions for collaborative research where local youth groups work with scientists and community members to investigate issues of common interest. This presentation honors the memory of Larisa Gennadijevna Eryomina, a Novoe Chaplino elder who contributed generously to our learning during the exchange, and takes the opportunity to thank all host families and organizers who helped make this project a success.

### Developing the Parsley Ferns (*Cryptogramma*) as a System for Studying Rapid Climate Change in Seed Free Plants

#### CONTACT

**Jordan S. Metzgar** and **Steffi Ickert-Bond**, University of Alaska, UA Museum of the North Herbarium & Department of Biology and Wildlife, 907 Yukon Dr., Fairbanks, Alaska 99775; email: smickertbond@alaska.edu

#### ABSTRACT

The parsley ferns (*Cryptogramma*) make an excellent candidate for testing hypotheses of colonization following the Last Glacial Maximum (LGM) in Beringia and adjacent regions. Thanks to their minute and easily dispersed spores, these rock-loving ferns could have utilized refugia to rapidly and repeatedly colonize deglaciated landscapes, or they could have survived in situ on nunataks. Herbarium specimens indicate that *Cryptogramma* survives today on nunataks, but cannot answer whether this was the sole recolonization source used following the LGM or if recolonization from refugia also played a complementary or dominant role. By first generating well-resolved and robustly supported hypotheses of species relationships of the genus, we place the North American taxa in a phylogenetic context and answer lingering questions regarding (1) the origin of allopolyploid taxa and (2) if these taxa were formed when previous climate conditions forced currently allopatric parental taxa into close proximity. Fieldwork throughout northwestern North America sampled numerous populations and haplotype network analyses of these specimens will reveal the contributions and locations of glacial refugia for *Cryptogramma* during the LGM. Ecological niche modeling will allow us to project these future range shifts under a variety of climate scenarios and determine if polyploid species possess a lower extinction probability than diploid species. These data will provide a fuller picture of vascular plant responses to the LGM in Beringia by incorporating a seed free fern lineage for the first time.

## Posters and Demonstrations

### Expedition Anadyr 2011

#### CONTACT

**Michelle Whaley**, Russian/English Teacher, Anchorage West High School, Anchorage, Alaska; phone: (907)742-2500; email: whaley\_michele@asdk12.org

**Sarah Warnock**, Education Program Manager, Alaska Geographic, Anchorage, Alaska

**Noah Warnock**, Student, Anchorage West High School, Anchorage, Alaska

**Mariah Savoie**, Student, Anchorage West High School, Anchorage, Alaska

#### ABSTRACT

From May 25 to June 6, 2011, 8 high school students from Anchorage, Alaska, and 10 from the Russian city of Anadyr came together in the Chukotka capital for a cultural exchange and shared learning experiences, under the auspices of the Shared Beringian Heritage Program of the U.S. National Park Service. One purpose of the science aspect of the program was to investigate climate change effects in this subarctic community. By collecting oral histories from local Chukotka elders, we learned that winters in Anadyr are warmer than in the past and that plants and animals are changing their patterns. To support the evidence from traditional knowledge, we surveyed plant and bird populations and created a data set that could possibly be used as reference points for future climate change studies. We documented the total number of species of birds seen during the 10-day period and recorded population size in town, river and tundra study areas. We also selected tundra vegetation plots in which we identified plant species and measured height, percent cover, depth to permafrost and number and height of hummocks. We referenced all locations with a GPS unit. In addition, we collected CO<sub>2</sub> (carbon dioxide) measurements from different tundra types. While collecting this data, we learned about tundra habitat and its susceptibility to warming trends. From the Native Chukotkans, we learned how important tundra plants are as a food source and as a habitat for the birds and mammals on which they depend.

### Haulout Keepers

#### CONTACT

Pacific Environment ([www.pacificenvironment.org](http://www.pacificenvironment.org)) and/or Chukotka Branch of the Pacific Fisheries Scientific Research Center (ChukotTINRO); email: tinro@piton-asc.ru

#### ABSTRACT

The main goal of this project is a partnership of biologists and the Native inhabitants on the monitoring of coastal walrus haulouts in Chukotka. The coastal haulouts have always been a very important part of the Pacific walrus summer and fall habitat, and during the last two decades, their importance increased due to the long ice-free periods. The important data can be collected with the help of hunters and other Native inhabitants. In 2009 six Pacific walrus haulouts in Anadyr Bay were included in the monitoring network. The data received during the 2009 observation season indicates the decrease in the numbers of animals and reduction of male-female ratio toward an increase of the male population. The walrus population has become smaller due to the increase of miscarriages and death of newborns.

## Posters and Demonstrations

### Indigenous Language Learning and Documentation in the Bering Strait Region

#### CONTACT

**Dawn D. Biddison**, Assistant Curator, Arctic Studies Center, Smithsonian Institution; 625 C Street, Anchorage, Alaska 99501; phone: (907)929-9208; email: biddison@si.edu

#### ABSTRACT

One of the most effective ways to document indigenous languages and disseminate information is through digital media, which also provides much needed resources to instructors and students for language revitalization programs such as Second Language Acquisition and Teaching (SLAT). The use of digital technology enables reaching audiences near and far and, given its popularity with youth, reaches a key target audience for participation. This media/poster presentation provides examples of programs at the Alaska office of the Arctic Studies Center (ASC) that utilize digital media and that the Shared Beringia Heritage Program (SBHP) supported. In the past SBHP supported the research behind the current ASC exhibition *Living Our Cultures, Sharing Our Heritage: The First Peoples of Alaska* at the Anchorage Museum, which incorporates orientation films, interactive computer kiosks and a companion exhibition website *Sharing Knowledge*. In the present, SBHP supports language workshops, which will be featured in the session presentation by Aron Crowell. In the future, ASC hopes to collaborate with SBHP to provide cultural heritage workshops. We will show three short films that demonstrate these programs, along with a slideshow of images.

### James Kivatoruk Moses, Inupiaq Folk Artist

#### CONTACT

**David Mollett**, University of Alaska Fairbanks, 1304 Well Street, Fairbanks, Alaska 99701; phone: (907)452-6169; email: dlmollett@alaska.edu

#### ABSTRACT

James Kivatoruk Moses was born at Cape Espenberg in 1902 and was raised in Shishmaref and later again on the Cape. He worked as a hunter, fisherman, fur trapper and trader and reindeer herder. At 52 injuries he received in a plane crash turned him toward making artwork to earn a living after moving to Nome. He rapidly became the premier Alaska Eskimo artist of his time. This project is to gather biographical and art historical information for a book and exhibit on this important artist who, though well known for his works, has been little studied for the human side of his story. The University of Alaska Museum and Alaska State Museum will host a large exhibit of Moses' works in 2013. The book about Moses will serve as a catalog for the exhibition.

## Posters and Demonstrations

### The Lichens of Alaska's Arctic Parks: Applied Research for a Changing Environment

#### CONTACT

**Peter Neitlich**, Chief of Natural Resources/Ecologist – Western Arctic National Parklands; phone: (509)996-3917; email: peter\_neitlich@nps.gov

#### ABSTRACT

Lichens are a conspicuous and abundant component of the vegetation of the arctic parklands, representing approximately 40% of the plant species and a substantial quantity of biomass. Lichens are fragile, slow growing and sensitive to air pollutants. Forage lichens — i.e., the dominant lichens of the low shrub and alpine tundra — form the bulk of the winter diet for caribou and domesticated reindeer and are also consumed by muskox. Tundra lichen communities are predicted to decline in Northwest Alaska due to shrub expansion. Impacts to lichen communities have been documented from heavy metal pollution along the Red Dog Mine haul road, and future pollution-related impacts to lichens from proposed regional development (e.g., mining, oil and gas development) are possible. Over the past 15 years, the National Park Service has conducted numerous research projects on the lichen ecology and flora of the arctic parks. Projects have addressed several key natural resource areas for these parks:

- The condition of permitted reindeer and wild caribou lichen winter range
- Comprehensive lichen inventory and community classification for the arctic parks, including description of several new taxa
- Long-term monitoring of lichen community composition and structure for detection of changes related to climate, pollution and ungulate grazing
- Effects of heavy metal pollution from the Red Dog Mine on lichen communities
- Detection of long-range pollutants using moss tissue

This poster highlights the NPS Western Arctic National Parklands' program areas, findings and publications in lichen ecology.

### Arctic Teens Speak Out: *The Lost Dances*

#### CONTACT

**D'Anne Hamilton**, Executive Producer of *The Lost Dances*, P.O. Box 296, Kotzebue, AK 99752; phone: (907)223-7661; email: dhamilton1283@mac.com

#### ABSTRACT

Executive Producer D'Anne Hamilton, an Inupiaq from Kotzebue, discusses the process of discovery of *The Lost Dances* (4 minutes). Director/Trainer Norman Jayo presents the layers of the dance revealed over the course of the filming (4 minutes). Videographer/Dancer Richard Atoruk (4 minutes) discusses the collaboration with the dancers of Provideniya and New Chaplino. Videographer/Dancer Frank Ferguson introduces a video clip from the opening segment of the video (3 minutes). The video segment is 3 minutes.

## Posters and Demonstrations

### Creating a Modern Map of Submerged Beringia ... the Bridge That Endures Time

#### CONTACT

**Michelle Ridgway**, Alaska Siberia Research Center/Oceanus Alaska, P.O. Box 211470, Juneau, Alaska; phone: (907) 957-2277; email: mishridgway@gmail.com; website: <http://www.aksrc.org>

#### ABSTRACT

A vast expanse of submerged Beringia is indeed, “uncharted waters.” Yet the United States and international explorers, scientists and survey teams have mapped undersea features of Beringia in some areas. We are compiling bathymetric survey data from government and scientific research teams to develop a database that provides the highest resolution, multibeam sonar, sea floor data available. A backdrop exhibits coarser data, such as early singlebeam and leadline survey depth data.

Areas of multibeam sonar coverage reveal fine features of the Beringian margin canyons, slopes and pinnacles. This fine-scale, seabed imagery is a powerful tool for planning biological, geological and archaeological research in subsea Beringia. We are able to examine ancient river mouths, submerged coastlines and other landscape features of Beringia now lying 100-200 meters below sea level.

We will exhibit our geospatial database and selected products resulting from progress in development of the undersea Beringia map. Come take an undersea flight tour at our exhibit to explore regions of the Land Bridge lying just beneath the waves.

### Indigenous Knowledge and Use of Bering Strait Region Ocean Currents

#### CONTACT

**Julie Raymond-Yakoubian**, Kawerak, Inc., P.O. Box 948, Nome, Alaska 99762, USA; phone: (907)443-4273; email: juliery@kawerak.org  
**Yury N. Khokhlov**, Deputy Science Director, Chukotka Branch of Pacific Scientific Research Fisheries Center, 56 Otke, Anadyr, Chukotka 689000, Russia; phone: 7-(42722) 2-66-47; email: juri21@mail.ru

#### ABSTRACT

This project is documenting the traditional and contemporary use of and knowledge about ocean currents in collaboration with six communities in the Bering Strait region, in both the United States and Russia. The Alaska communities that are part of this project are Diomedea, Wales and Shishmaref. The Chukotka communities are Lorino, Lavrentiya and Inchoun. This project also involves collaboration between an Alaska Native non-profit (Kawerak) and Russian researchers. Historically, and in contemporary times, the indigenous people of the Bering Strait have had an intimate relationship with and knowledge of the Bering Sea. While many social science projects (or components of projects) have focused on indigenous knowledge of sea ice, weather patterns and climate change and have documented some information regarding ocean currents, this project will focus specifically on the topic of currents. Indigenous knowledge of ocean currents relates to sea mammal hunting, collection of and access to other marine resources, travel, weather forecasting and other purposes. Local residents of the collaborating communities will assist in gathering historical and current information from experts in their communities, regarding ocean currents (in digital recordings, photos, maps and written field notes). This poster reviews what has been accomplished in year one of the project in both Alaska and Chukotka and outlines the plans for the remaining two years of the project.

## Posters and Demonstrations

### Pacific Environment: Russian and Alaska Programs in Brief

#### CONTACT

**Galina Angarova**, Russia Program Director, Pacific Environment; phone: (415)399-8850; email: [gangarova@pacificenvironment.org](mailto:gangarova@pacificenvironment.org); website: <http://www.pacificenvironment.org>

#### ABSTRACT

Pacific Environment is an international organization that protects the living environment of the Pacific Rim by promoting grassroots activism, strengthening communities and reforming international policies. For more than two decades, we have collaborated with local communities around the Pacific Rim to protect and preserve the ecological treasures of this vital region. Together with partners in Russia, China, Japan, Alaska, California and other regions, we've shielded tens of thousands of acres of old growth forest; we've won protections for endangered species; we've forced oil, gas and mining companies to heed local concerns; and we've changed the way some of the world's most powerful financial institutions work. Pacific Environment is a catalyst in a community of individuals and organizations working to protect the Pacific Rim's wild places and wild life.

#### *Pacific Environment Russia Program*

Siberia and the Russian Far East are home to extremely beautiful and globally significant wilderness areas left on earth. Russia possesses one-fifth of the world's forests; and endangered species such as the Amur leopard, Siberian tiger and western Pacific gray whale call the region home. Lake Baikal is the world's oldest and deepest lake, holding one-fifth of the world's freshwater. The Kamchatka Peninsula is home to the world's densest population of brown bears and boasts spawning rivers for one-fifth of the northern Pacific's wild salmon. Responding to the country's economic crisis in the late 1990s, the Russian government approved large-scale natural resource extraction (oil, gas, mineral, timber and marine resources) projects across previously untouched areas of the Russian Far East and Siberia. Thankfully, Siberia and the Russian Far East are

also home to effective grassroots environmental advocates and strong, vibrant communities, including hundreds of indigenous communities that retain traditional subsistence lifestyles. Pacific Environment believes that local communities are the best stewards of natural resources, and to that end provides direct support, engages in joint advocacy and builds local, national and international coalitions.

#### *Pacific Environment Alaska Program*

Alaska conjures images of vast open spaces, plentiful wildlife and abundant oceans. But America's last frontier — the crown jewel of our country's wild lands and marine habitats — faces profound environmental challenges. The negative environmental and social impacts of oil drilling, mining and industrial fishing are all on the rise. Coupled with the profound threat global warming poses to the Arctic, these increased pressures on Alaska's wilds could spell disaster for the environment and for fishermen, indigenous peoples and other Alaskans.

Pacific Environment works to protect the Arctic Ocean, Bering Sea and Aleutian island flora and fauna. It collaborates with the Alaska Native, fishing, environmental and scientific communities to safeguard critical habitat - the feeding grounds of the endangered northeastern Pacific right whale, old-growth sea floor habitat and areas essential to community subsistence.

## Posters and Demonstrations

### **Polar Bear: Collection of Chukotka People's Traditional Knowledge of Polar Bear as a Part of Umka-Nanuuq Program (1999-2002)**

#### **CONTACT**

Alaska Nanuuq Commission and Polar Bear Commission of the Association of Traditional Marine Mammal Hunters of Chukotka

#### **ABSTRACT**

The main goal of the project was to collect traditional knowledge of the polar bear, to document cultural traditions related to this species and to assess nutritional needs of the Native people from five regions in Chukotka. The project also aimed to document, map and describe the migration routes, feeding grounds and denning areas. The work took place in the Provideniskiy, Chukotkskiy, Iul'tinskiy, Shmidtovskiy and Chaunskiy regions of Chukotka.

### **Spiritual Component in the Traditional Costume of the Chukchi**

#### **CONTACT**

**Nadezhda Vukvukay**, Junior Researcher, Laboratory of Multi Discipline Studies of Chukotka (Chukotka Center), Northeastern Institute of Multi Discipline Studies, Far Eastern Branch of the Russian Academy of Sciences; email: kerker@inbox.ru

For a detailed description of this project, please read Vukvukay's presentation on page 111.

### **Steller Sea Lions near Gambell, Alaska, during November-December 2010**

#### **CONTACT**

**Gay Sheffield**, Marine Advisory Program Agent, Alaska Sea Grant Marine Advisory Program, Assistant Professor, University of Alaska Fairbanks, P. O. Box 400, Nome, Alaska; email: gay.sheffield@alaska.edu

**Lauri Jemison**, Wildlife biologist, Steller Sea Lion Program, Alaska Department of Fish and Game (ADF&G), P. O. Box 110024, Juneau, AK 99811; email: lauri.jemison@alaska.edu

#### **ABSTRACT**

The University of Alaska Fairbanks (UAF) Marine Advisory Program in Nome and the Alaska Department of Fish and Game (ADF&G) Steller Sea Lion Program in Juneau worked together during 2009-2011 to document the total number of sea lions using the Sivuonok area in the late fall. They photographed branded sea lions and documented sea lions entangled in human trash.

Steller sea lions are currently viewed as two distinct groups – those that are born west of Longitude 144' (western distinct population segment) and those that are born east of Longitude 144' (eastern distinct population segment). Sea lions from the western region declined in large numbers over the past 30 years and are listed as an endangered species. Currently, the scientific community does not fully understand why the western population continues to decline while the eastern population is increasing.

Due to the vigilance of Gambell residents, it became understood that Steller sea lions were beginning to come on shore in a relatively new area in the northwest corner of the island, at Sivuonok, in larger numbers in late fall as weather and sea ice conditions permitted. Our effort is part of a larger project to better understand Steller sea lion presence in the Bering Sea and is in response to Saint Lawrence Island residents sharing valuable information on sea lions.

## Posters and Demonstrations

Documentation primarily involves counting the number of sea lions on shore and photographing branded sea lions. Working with the Sivuqaq Native Corporation, local residents checked the Sivuonok area during the late fall for sea lions. Sea lions were reported in the Sivuonok area late November.

Sea lions were hauled out at Sivuonok as well as swimming in the water during each survey we conducted. Most sea lions seen on shore were adult and sub-adult males; we did not see any adult females. No sea lions were seen entangled in human trash, and there was no evidence that any had swallowed fishing gear (i.e., hooks and line). No flipper tags were seen.

We observed 11 individual branded sea lions from 5 different birth sites, spanning the North Pacific Ocean from Medny Island (western Aleutians) to Lowrie Island (southeastern Gulf of Alaska; Figure 1). All branded sea lions observed were males between 4 and 10 years old. One animal "F1124" set a new long distance travel record for a Steller sea lion born in Alaska. This sea lion was born on Lowrie Island (near Forrester Island) in the southeastern Gulf of Alaska – more than 2,000 miles from Saint Lawrence Island (Figure 1).

**Acknowledgments:** Funding for this project was provided by a Coastal Impact Assistance Program grant and ADF&G. All sea lion work was conducted under NOAA Permit 14325. We would like to thank the Sivuqaq Native Corporation for the opportunity to travel to Sivuonok this fall. With the timely local reports of Steller sea lion activity near Gambell, we were able to conduct productive sea lion surveys at Sivuonok. George Koozaata and Aaron Iworriagan provided valuable assistance with transportation, with the surveys and especially by locating several branded animals. Additionally, we are grateful for the information regarding the dead sea lion, which allowed for the collection of important tissue samples. The documentation of sea lions at Sivuonok was very successful, and we are looking forward to returning this fall (2011) to continue this project.



Figure 1. The birth locations, indicated by red stars, for all branded Steller sea lions documented at Saint Lawrence Island during November-December 2010.

## Posters and Demonstrations

### **Telling Our Stories: Vodcasts of the Cape Alitak Petroglyphs**

#### **CONTACT**

**Sven D. Haakanson, Jr.**, Executive Director, Alutiiq Museum, 215 Mission Road, Kodiak, Alaska 99615; phone: (907)486-7004

#### **ABSTRACT**

The “Telling Our Stories” vodcast (a video podcast [sometimes shortened to vodcast] includes video clips) series documents a comprehensive archaeological survey of the Cape Alitak petroglyphs, Alaska’s most extensive cluster of stationary rock art. Through a series of vodcasts done by *Wondervisions*, the Alutiiq Museum in Kodiak highlights the *Cape Alitak Petroglyph Survey*. Funded by the National Park Service Tribal Historic Preservation program and the Shared Beringian Heritage Program, these vodcasts document the largest known cluster of rock art in Alaska - ca. 800 images - and associated settlements. Located at the remote southern tip of Kodiak Island, the petroglyphs rest in the landscape where Russian explorers first encountered Sugpiaq societies. By creating a video narrative of each project, the vodcasts record the Sugpiaq community’s efforts to re-awaken ancestral knowledge, the importance of this process to Sugpiaq community and ties to Kodiak’s Russian history – all in Sugpiaq words. The Sugpiaq people archive copies of the vodcasts in the Alutiiq Museum’s permanent collection as a source of cultural information, a record of a major heritage project and documentation of the 21st century heritage movement. These film resources provide Sugpiaq people, Alaskans, Russians and a broad global audience access to little known pieces of Alaska history. They illustrate aspects of traditional Sugpiaq life and show how contemporary peoples can develop positive collaborations around a shared but difficult history, reawaken aspects of Sugpiaq culture and heal wounds of colonialism through knowledge. The opportunity to record these projects on film is particularly important to contemporary Sugpiaq people. The vodcasts will allow Sugpiaq leaders, artists and anthropologists to speak directly to multiple audiences sharing their views on local history, cultural revitalization and the links between the two. In addition to English vodcasts, the museum will create a Russian language version, so Sugpiaq heritage can be shared with colleagues and audiences in Russia.

### **Arctic Program: World Wildlife Fund**

#### **CONTACT**

**Margaret Williams**, Managing Director, U.S. Arctic Field Program, World Wildlife Fund, 406 G Street, Suite 301, Anchorage, Alaska 99501; phone: (907)279-5504

#### **ABSTRACT**

Human communities and unique ecosystems have long coexisted in the region we call Beringia. In addition to supporting rich cultural diversity and playing an important role in cooling the globe, the Arctic is home to an array of marine life, including some of the world’s most iconic wildlife species.

Many of these species migrate throughout the region, without regard to international boundaries. The World Wildlife Fund’s offices in Alaska and the Russian Far East collaborate closely to protect our shared ecosystems and cultural history. Our Arctic Field Program Office in Anchorage is part of the WWF Global Arctic Program, which is represented by offices in countries throughout the Arctic circumpolar region.

In particular, WWF works to protect species such as polar bears, walrus, salmon and seabirds and the communities that rely on those species for subsistence use. We collaborate with scientists, managers and local experts to create programs that protect the ecosystem and support local cultural traditions.

## Posters and Demonstrations

### Yellow-Billed Loon Monitoring in Western Arctic Parklands

#### CONTACT

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#### ABSTRACT

The yellow-billed loon is a species of concern with a global population estimate of 16, 650-21,000 (Fair 2002, Earnst 2004). In 2009, the Arctic Network of the National Park Service Inventory and Monitoring Program in cooperation with the U.S. Fish and Wildlife Service implemented a pilot study to test methods for aerial surveys of yellow-billed loons (*Gavia adamsii*) in Bering Land Bridge National Preserve (BELA) and Cape Krusenstern National Monument (CAKR). The breeding range of yellow-billed loons is restricted to large lakes (>7 hectares) (North and Ryan 1989) in the Arctic Coastal Plain of Alaska and in Western Alaska on the Seward Peninsula, an area that includes these park units. Population estimates for these loons in BELA and CAKR represent about 20% of the U.S. population (Schmutz pers. comm. 2008). We conducted the surveys in accordance with protocols designed specifically for these loons by U.S. Fish and Wildlife Service (Mallek et al. 2005, Bollinger et al. 2007). Using tandem Aviat Husky aircraft, we flew an occupancy survey in June to count adults and nests and a productivity survey in late August to count members of family groups. Each survey covered the same 24 plots distributed among the 2 park units. In 2009, a total of 186 adults (BELA n=178, CAKR n=3) and 14 (BELA n=13, CAKR n=1) nests were counted during the occupancy survey. The productivity survey documented 88 adults (BELA n=83, CAKR n=5), 15 juveniles (BELA) and 49 individuals in mixed-aged flocks (BELA).





## Papers

### Youth Policies of the Chukotskiy Autonomous District

#### CONTACT

**Victoria P. Anaka**, leading specialist of the Chukotka Native Peoples' Affairs Office, with the Governor's Administration and the Government of Chukotskiy Autonomous District

Dear Esteemed Participants of the Forum:

I work with the Chukotka Native Peoples' Affairs Office and I am a co-chair of the youth movement Inuit Polar Youth Council of Chukotka. I would like to express my appreciation to the organizers for inviting me to participate in this conference.

In Chukotskiy Autonomous District, the organization responsible for implementation of the Government Youth Policy is the Department of Education, Culture and Youth Policy of the Chukotskiy Autonomous District, working under the long-term regional target program, Youth of Chukotka in 2011-2013. Government Youth Policy is implemented along the following main directions:

#### 1. *Supporting youth in finding employment*

A targeted regional program has been developed, providing temporary employment to young citizens between the ages of 14 and 18. In 2010, a total of 1,145 young people found their employment through this program, including 162 teenagers who were provided with jobs in agricultural enterprises. Population Employment Centers sign agreements with regional municipal administrations, educational institutions and other enterprises and organizations in order to create temporary job opportunities for young citizens between the age of 14 and 18 during summer vacation time. Teenagers are employed as assistants to reindeer-herders, marine mammal hunter apprentices, general laborers, office assistants, and so on.

#### 2. *Support to young families*

Support was provided through:

- distribution of information on implementation of the main directions of the Government Family Policy in Chukotskiy Autonomous District;
- distribution of support (*O.R. - funding*) (through competitive process) to public organizations and alliances working on the problems faced by young (youth) families; and
- implementation of the governmental system of support to young families through solving their housing issues.

The Government of Chukotskiy Autonomous District developed a special long-term program, Assistance to Young Professionals and Their Families in Chukotskiy Autonomous District in Acquiring Housing in 2010-2015. It provides a social subsidy for 20-40% of the estimated cost of the housing to young professionals/specialists working in the governmental and municipal institutions.

#### 3. *Creating a favorable environment for spiritual and physical development of youth*

A special system was established in the Chukotskiy Autonomous District in order to organize and implement a summer health improvement campaign for children and youth; it includes vacation and health retreats/resorts both outside of the Autonomous District (in the vicinity of Moscow, in Sochi, and so on) and in the Autonomous District (summer health camps).

There is a unified informational system in the territory of the Chukotskiy Autonomous District focused on youth policy issues. The Chukotka youth informational portal (website) helps Chukotka people to be informed about all the important youth policy events taking place in the Chukotskiy Autonomous District.

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Each year, a competition, Young Talents of Chukotka, is conducted; it includes visual arts, singing (vocal), arts and crafts and works under the framework of a specialized program, Culture of Chukotka 2012-2013.

#### 4. *Providing support to children and youth organizations and public alliances*

About 26 public organizations and a Youth Civic Chamber with the Duma of the Chukotskiy Autonomous District work efficiently in the Chukotskiy Autonomous District. Most active members of the youth organizations participate in conferences, competitions, festivals and field meets such as Zarnitsa.

Native social youth organizations are also active in Chukotka:

- Youth Union, Chaun-Chukotka – a youth social organization of the Chaunskiy region. Main activities: prevention of alcoholism, addressing unemployment among the employable (capable of work) population, providing various help to elderly people, children, invalids and other groups of the population. A project aimed at providing employment to under-age youth and graduates of the Pevek vocational school has been implemented for two years already.
- “Inuit Polar Council, Chukotka” – a youth organization of the city of Anadyr. Main priorities and activities: facilitate preservation of authentic local culture, Native languages and Eskimo culture, encourage Eskimo youth to learn historical and cultural heritage of their people from older generations of aboriginal people of Chukotka, encourage rational management of wildlife and preservation and development of traditional ways of use of natural resources;

- The Public Association of the Native Youth of Chukotka was organized on the initiative of the Chukotka Autonomous District Office of the Chukotka Native Peoples’ Affairs and with the support from the Association of the Native Minority Peoples of the North, Siberia and the Far East of the Russian Federation. Since November 2010, the association activists have organized 38 meetings. Priority activities of the Association include participation of youth in finding solutions to difficult social issues, encouraging healthy life style, and studying the culture, traditional ancestral knowledge and languages of the minority Native people of Chukotka.

Financial support to such public youth associations and organizations is allocated through a competitive process. A special law on governmental support of public youth associations in Chukotskiy Autonomous District was developed. Grants in the amounts of 30,000 to 200,000 (*rubles*) were awarded to 18 organizations in 2011. Projects vary in their nature and include encouraging healthy life style, organizing creative activities during free time, and so on.

Thank you for your attention.

## Papers

### Seasonal Harvest of Ringed Seals by the Coastal Chukchi of Uelen Village (Regarding Climate Warming)

#### CONTACT

**Victoria V. Golbtseva**, Senior Specialist, Laboratory of Multi Discipline Studies of Chukotka (Chukotka Center), Northeastern Institute of Multi Discipline Studies, Far Eastern Branch of the Russian Academy of Sciences, Anadyr, Chukotka; email: vica.66@mail.ru

Seal harvest is the most important harvest of the coastal Chukchi and Eskimo people. They harvest mostly bearded and ringed seals. Ringed seals are harvested seasonally in Uelen village. Currently, climatic changes have considerable impact on hunting seasons among other things. Look at the four seasons of seal harvest: summer, autumn, winter and spring.

*Summer season* on the Chukchi Sea coast starts in June and ends in July. Real Chukchi summer lasts only one month – July. If there is no ice during that time, hunters try not to harvest seals in the water for the following reasons: first, seals are poorly nourished in summer; and second, summer seals, if killed in the water, sink, because water density is relatively low due to the influx of fresh water into the ocean at that time. Sea water density starts to decrease in spring when intensive snow thawing starts and the flow of fresh water gets high. Closer to winter, water density increases, seals accumulate fat and thus, remain afloat for some time after being killed, which makes it easier to harvest them.

Sometimes, ice remains near shore in summer, or huge smooth fields of multi-year ice are pressed against the shore by the northern current in the middle of summer, and then seals haul out on ice where they are harvested. In late summer, the same northern current and northwestern winds can push new ice to the shore, completely covering the sea, and as a result, hunting from skin boats (*baidaras*) becomes impossible.

Between 2006 and 2009 the sea was free of ice by the end of June. Autumn coastal ice melted completely by July 5-6. As ice melted and separated from the

shore, hunters walked out to the edge of the fast ice that was gradually becoming closer to the shore and harvested seals there.

Thus, now, in summer (June, early July) in Uelen, seals are harvested at the edge of fast ice more and more often (see Photo 1) because of later retreat and melting of ice compared to the previous years. In summer, nets are not used to harvest seals from shore.



*Photo 1. Vladimir Memyl'neun, sitting on fast ice, watching for a seal*  
© S. Komissarov. June 9, 2009. Uelen.

Marine hunters consider August, September and October the autumn (fall) season.

Previous data indicate that in autumn, the seal harvest used to start in late September. Now, there is no autumn hunting season due to changed climatic conditions discussed below.

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According to the observations of the Uelen hunters from the 1940s through 1980s, the first pack ice appeared in late September-October. This was huge ice blocks, hummocks (*stamukhas*), grounded in shallow, near-shore waters with areas of clear water remaining between them. Leads were forming, and that is when the autumn ringed seal hunt would start.

According to the 2006-2009 observations of R. Armayrgyn, ice came only in late November. Late appearance of sea ice near shores was also accompanied by more frequent and stronger autumn storms. Nowadays, strong storms start in August and stop in November. Only by the end of November, do northern marine current and northern winds bring ice to the shore. Magnitude of storms (in points of scale) increases with each year. In 2009, in Uelen, autumn storm damaged houses located 30-40 meters away from the shore for the first time in many years. People from the two two-storied buildings had to be immediately evacuated. According to eyewitnesses, foundations of the houses washed away, and sea water with chunks of ice splashed in the first floor apartments. Huge blocks of ice washed ashore by strong waves froze at the walls of the houses. A storm of similar strength was recorded in 1937.



Photo 2. First strong autumn storm in Uelen village on September 23, 2009.

© T. Pechegina. The photograph was taken from the apartment window.

Observations of ice conditions in the waters near Uelen also showed that the sea was free of ice until the end of November, slush appeared in early December and ice approached only in mid-December. Similar late approach of ice was recorded in 1920 and 1921 according to various sources. Although the fast ice formed by 15-16 December does not get strong yet, hunters using all possible precautions go out to hunt and harvest first winter seals; they set nets, but with great risk. That fast ice is still weak, it is easily broken by the northern current that compresses it, or it can be torn off the shore by the strong coastal southern wind accompanied by the southern current. Sometimes, nets are pulled out into the open sea by the ice. Armayrgyn said that his nets were carried into the sea by the fast ice in 2008.

Old residents of Uelen village point out that old (multi-year) ice – *petygel* – has not approached the shores for many years now. In old times, old ice was brought to the shore in autumn, but it used to occur when there were no autumn storms. Old ice was carried from afar in big strong ice floes already shaped by waves, and with that ice, ringed and bearded seals, polar bears and walruses were brought in as well (as Armayrgyn remembers). The only ice that one sees in the ocean nowadays is young ice – *turgil*. Such ice is formed in the waters near Uelen in good frosty weather, but it is not “eternal” (long lasting). Marine currents and compression break it fairly quickly, forming large heaps of acute-angled ice or single, separately standing ice floes with sharp tips. But sometimes the northern current drives huge fields of smooth young ice straight to the shore. If this newly formed ice is strong, hunters hunt for seals close to shore, following all the safety rules of hunting on young ice. There is a rule for testing the ice strength with a hunting stick/club – *i’nnyp’ite*. If one can break through the young ice from the first try, then it is not safe to go; if from the second try, then one can walk on it safely.

Thus, an autumn seal hunt is not conducted nowadays due to strong and prolonged storms, the late approach of ice to the Uelen shores and the absence of fast. Currently, strong fast ice usually forms in the Bering Strait area in December.

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The real *winter hunt* in Uelen village starts in mid-January after fast ice - tukven - forms and continues through February and March. Fast ice – *tukven* – is the dense ice that is strongly welded to shore. Only far out at the edge, ice still keeps moving [1, 39-51].

In February-March, when fast ice extends all the way to the horizon and there are no leads, seals are caught with nets. To do that in the midst of chaotic ice hummocks on fast ice, one needs to find an even spot not affected by compression or a seal breathing hole. Those areas where an ice hole will be cut should be cleaned of snow until the ice surface can be seen. Two such holes need to be made at the distance of 7-8 meters from each other with the diameter no bigger than 30 cm. A hunter knows that seals always live near the shore under the fast ice. Seals breathe through the holes, and there can be several of them near the same hole. Seals also live all winter in the cracks or leads that they form in the ice and prevent from freezing. Seals living under fast ice have a special name in the Chukchi language – *tokvamemyl* – fast-ice-seal. The word is formed of two words: *tukven* – fast ice/*tokva* + *memyl* – ringed seal [1, 39-51].

Hunters also go out to the edge of the fast ice, and if the sea is open they hunt seals in the open water.

Safety measures for hunting from the edge of the fast ice:

1. One should not sit on or under a recently frozen lump/block of ice; it can collapse at any time.
2. It is dangerous to use two or more ice floes frozen together as a shelter for hiding out.
3. Sitting on a thin ice edge (it can break off) is absolutely forbidden. The shadow of a hunter can be seen easily from the depth of waters and a solitary walrus – *keglyuchin* - may attack the hunter, mistaking him for a seal.
4. Watch currents and winds.

The area between drifting ice and fast ice where they meet – *tylyagyrgyn* (the word literally means “path”) – has two sides. In Uelen waters, fast ice forms on the southern side, and drifting ice is on the northern side. *Tylyagyrgyn* never

stays in one place; water and ice are constantly moving because of the sea currents [1, 39-51]. Uelen hunters distinguish two kinds of currents: northern – *un'epr* and southern – *kun'un*. The ice can stop only when a current is changing. When ice rubs against fast ice or drifting ice, slush and ice brush or ice cake form. If the current is weak and there is no compression, the ice fields that pass between the fast ice and *tylyagyrgyk* are smooth. It is possible to walk across the dense slush over to the drifting ice and continue seal hunting there. However, *tylyagyrgyn* is the most dangerous stretch for crossing from fast ice to drifting ice. In order to cross it safely, one needs to know all traditional rules and sea currents, watch the direction of the wind and the state of the weather, follow safety rules and know how to accurately estimate by eye the thickness of thin or slushy ice. It is better not to step on such ice without any special need or if one is inexperienced. To cross *tylyagyrgyn*, hunters use snowshoes (*velvyegyt*). Crossing over to the drifting ice becomes a little easier when wide ice fields appear.

The word for drifting ice is *rochgygel*. Even the name itself indicates that this ice is in constant movement. During the northern current, drifting ice moves south toward the Bering Strait and goes out into the open ocean. During the southern current, drifting ice is carried north to the Long Strait, East-Siberian Sea and Arctic Ocean.

Hunting on the drifting ice is extremely dangerous and involves life risks. Hunters must have masterful skills, experience and knowledge of underwater currents. To determine the direction of the current, one throws a little piece of ice or deer fat into the water. Then, the hunter lies on the ice, covers his eyes with the palms of his hands and looks at the water watching the little piece. The piece gradually sinks deeper into the water and starts being carried off to the side. This test is usually repeated several times at some intervals/distance, to make sure that the direction of the current was determined correctly. Sometimes, the current near the fast ice moves in one direction, and farther from it, the direction of the current may be different.

Since the times when people first started hunting, they had developed and

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preserved to today in oral form (by word of mouth) a comprehensive set of unwritten rules and regulations, safety measures and also knowledge of weather conditions, marine currents and winds from different directions.

Safety rules of behavior on drifting ice in the waters near Uelen village:

- a. Move only against the current.
- b. Return to the fast ice at the same place from where you walked off and onto the drifting ice.
- c. Pull the harvested seal to the fast ice at once.
- d. Hunting on drifting ice during western wind and northern current is absolutely forbidden.
- e. One can go hunting during moderate eastern wind accompanied by southern current.

If a hunter is carried out to sea on drifting ice, exceptions to the rules can be made; but it depends on the situation and place. As Armyrgyn remembers, when he was carried away on a drifting ice floe, he did not panic; he remembered the advice of old Pergo who found himself in a similar situation. Having determined the direction of the current and wind and having identified the place (on shore) across from which he was located, he started running, following the direction of the current, not against it. Strong northern current carried ice into the Bering Strait. Armyrgyn knew of only one place where an ice floe could get close to the coastal ice, where ice (current) rounds the easternmost cape protruding into the sea. That was the only place of salvation, in the Bering Strait, otherwise, the ice would move farther into the Pacific Ocean. Endurance of the marine mammal hunter played a crucial role in saving his life - he ran with all his strength trying to beat the current. When ice moving around the cape started to approach the edge of the coastal ice, he could cross over to the fast ice [2, c. 221-224].

Marine hunters of Uelen have laws that they must follow when they are on drifting ice:

1. Do not step on the drifting ice without an observer who watches ice movements.
2. In case of danger, a hunter-observer must climb on the highest pressure ridge and signal to everybody who is hunting on the drifting ice about the danger.
3. In case of danger, everybody must leave the drifting ice at once and return to the fast ice, but they should not walk toward the observer, they should walk in a direction opposite to the current and walk off the drifting ice in a place where it hasn't separated from the fast ice.
4. Hunters must take turns when they walk onto the drifting ice.
5. Landmarks should be identified: two highest points on a pressure ridge (the tops of the hummocks/ridges) are lined up with a third point on the shore; if those points shift against each other, hunter should leave the drifting ice.

Ringed seal *winter season* starts in mid-January and continues through February and March. Ringed seals are harvested in the leads in drifting ice, and if there is no drifting ice, hunters catch *tokvamemyl* – fast ice seals – using nets. Hunting on drifting ice is dangerous and requires a lot of experience and knowledge from a marine mammal hunter.

Spring hunting season starts in April and usually continues through May, but this depends on ice and weather conditions.

In spring, seals haul out on ice, lie next to their breathing holes and don't move far from them. At that time, seals are hunted not only by humans, but by polar bears as well. Both use the same approach: to sneak close to a seal as quietly as possible. Wind direction and disguise play an important role in the success of the hunt. The wind must blow in the direction from the seal and toward the hunter, and then the seal will not sense the strange smell and will not leave the ice. A white *kuspuk* (or anorak), seal pants and seal mittens are used by hunters as a disguise (camouflage clothes). In olden days, they used the entire sealskin with muzzle for better camouflage, they put it over their head and covered the body, they held the spear in their hands and pushed inflated sealskin in front of them. That old way of hunting is not used by Uelen hunters today. The carving on a walrus tusk made by I. Seygutegin is a bright illustration and evidence of this hunting method; it is called Old Way of Hunting. His father told him about it.

Spring hunting season has not changed much (*remained the same*) (see photo 3), it gradually transitions into the summer season. The most important require-

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ments for successful hunting in spring include thorough disguise (camouflage), being observant and patient.

### SUMMARY AND CONCLUSIONS

Our analysis of field data showed that autumn ringed seals (*akiba*) hunting season has practically disappeared compared to previous years. Observations confirm that the sea remains open and free of ice until mid-December. Today, autumn has become longer, it lasts from August through November, while as in previous years, autumn seal harvest was already under way in October. Climate change on the Arctic coast affects the lifestyle of coastal villages and leads to changes in timing for hunting ringed seals – *lygememyl*. Coastal Chukchi and Eskimo gradually adapt to changes in nature. Under the present changed condi-



Photo 3. Vladimir Memyl'neun on the fast ice near Uelen with his harvest.  
© S. Komissarov. May 26, 2009

tions, there are only three hunting seasons: in winter, spring and summer.

### ACKNOWLEDGMENTS

I express my sincere appreciation to the following Native residents of Uelen village and marine hunters for their help in gathering this material: to R. Armyrgyn (born in 1933); V. Elyuch (1939-2008), V. Ninel' (1954-2009); and to T. A. Pechegina (born in 1948); C. K. Komissarov (born in 1972) for providing photographic material.

My special enormous gratitude goes to Dr. L. S. Bogoslovskaya (Likhachov Institute of Cultural and Natural Heritage in Moscow, Russia) and to Dr. I. I. Krupnik (Arctic Center with the Smithsonian Institution, Washington, D.C., USA) for their advice on methodology and practical help and consultations.

### LIST OF LITERATURE

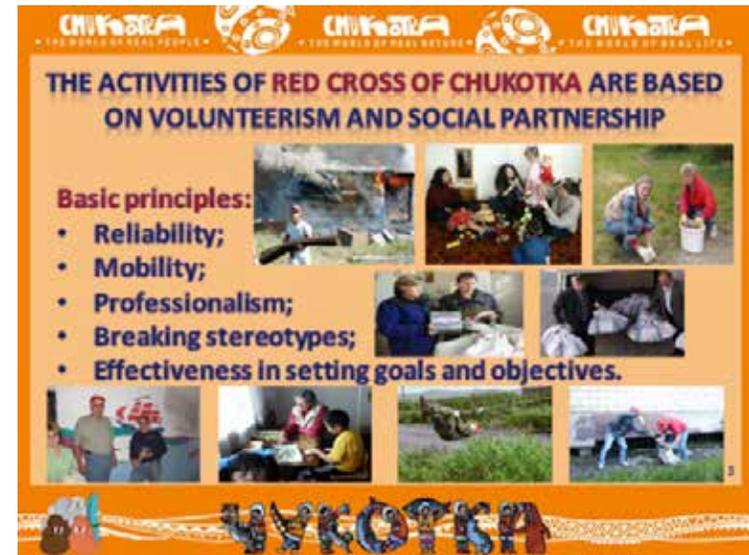
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## Papers

### Forms of Social Partnership in an Example from the Red Cross of Chukotka and the Non-Profit Company Chukotka Business Center

#### CONTACT

**Ida Ruchina**, Chair, the Red Cross of Chukotka;  
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Papers

**RED CROSS OF CHUKOTKA PARTNERS**

- "Eurasia" fund;
- International Fund Red Cross;
- Anchorage University, Alaska; Fund "USAID";
- National Council of Economic Education of USA;
- Global Greengrants Fund, USA;
- "National Health League";
- Government of Chukotka;
- Social Policy Department of Chukotka;
- Social Development Fund "Kupol";
- Fund "Territoriya".



CHUKOTKA

**PROBLEMS**

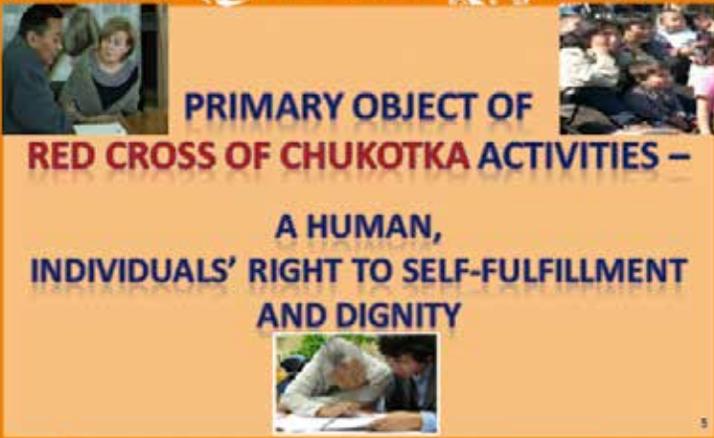
- Economical
- Ecological
- Demographic
- Social
- Ideological



CHUKOTKA

**PRIMARY OBJECT OF RED CROSS OF CHUKOTKA ACTIVITIES –**

**A HUMAN, INDIVIDUALS' RIGHT TO SELF-FULFILLMENT AND DIGNITY**



CHUKOTKA

**Y. MARSHAK METHOD OF ALCOHOL REHABILITATION:**

- Improves one's emotional state;
- Increases the activity and personal responsibility for others;
- Changes negative public opinion;
- Breaks the stereotypes;
- Demonstrates the capabilities of a full-fledged leisure time without alcohol.



CHUKOTKA

Papers

CHUKOTKA THE WORLD OF REAL PEOPLE CHUKOTKA THE WORLD OF REAL RETURN CHUKOTKA THE WORLD OF REAL LIFE

**IN THE FRAME OF A LONG-TERM PROJECT "PREVENTION OF SOCIAL PROBLEMS OF FAMILY, CHILDREN AND YOUTH IN CHUKOTKA" WITH THE SUPPORT OF THE CHUKOTKA GOVERNMENT RED CROSS OF CHUKOTKA IS IMPLEMENTING THE PROGRAMS:**

- Achieve by dreaming;
- Helping others – help yourself;
- Training and Rehabilitation Center of Yakov Marshak.



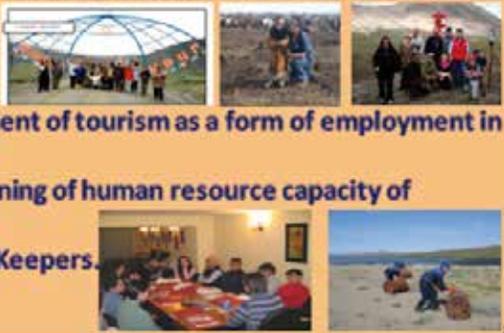
CHUKOTKA

CHUKOTKA THE WORLD OF REAL PEOPLE CHUKOTKA THE WORLD OF REAL RETURN CHUKOTKA THE WORLD OF REAL LIFE

**SOCIAL PARTNERSHIP OF RED CROSS OF CHUKOTKA AND NONPROFIT COMPANY "CHUKOTKA BUSINESS CENTER"**

**PROGRAMS:**

- Development of tourism as a form of employment in Chukotka;
- Strengthening of human resource capacity of Chukotka;
- Chukotka Keepers.



CHUKOTKA

CHUKOTKA THE WORLD OF REAL PEOPLE CHUKOTKA THE WORLD OF REAL RETURN CHUKOTKA THE WORLD OF REAL LIFE

**TRAINING AND REHABILITATION CENTER OF YAKOV MARSHAK**



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CHUKOTKA THE WORLD OF REAL PEOPLE CHUKOTKA THE WORLD OF REAL RETURN CHUKOTKA THE WORLD OF REAL LIFE

**PROGRAMS TO SUPPORT SMALL BUSINESSES**

- "Start your business" 2011 (38 pers.);
- "Support and development of small business in Chukotka" 2010 (about 1000 pers.);
- "Development of tourism as a form of real employment" 2010-2011 (about 400 pers.);
- "The development of civic initiatives in national villages of Chukotka" 2010 (about 500 pers.);
- "Make things better: the secrets of success in project design and reports writing" 2011 (about 150 pers.);
- "Strengthening human resources in Chukotka" 2011 (24 pers.);
- Grant "Bering Sea Sub-network" 2011 (100 pers.).



CHUKOTKA

## Papers

CHUKOTKA THE WORLD OF REAL PEOPLE CHUKOTKA THE WORLD OF REAL NATURE CHUKOTKA THE WORLD OF REAL LIFE



**NOVEMBER 4, 2011 -**  
**NATIONAL UNITY DAY,**  
**A DAY OF GOOD DEEDS,**  
**A DAY OF RESTLESS HEARTS OF CHUKOTKA**



**YOU ARE WELCOME TO JOIN US**



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CHUKOTKA

CHUKOTKA THE WORLD OF REAL PEOPLE CHUKOTKA THE WORLD OF REAL NATURE CHUKOTKA THE WORLD OF REAL LIFE

**RED CROSS OF CHUKOTKA**



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## Papers

### Beringia: History and Prospects

#### CONTACT

**Olga N. Safonova**, Deputy Head, Chairwoman, Committee of Nature Use and Preservation of Environment, Department of Agricultural Policy and Nature Use, Chukotka Autonomous Region

In June 1990, the Presidents of the USA and the USSR signed a joint declaration on establishing an international park in the Bering Strait area. Two years later, in June of 1992, due to the changed political situation, the Presidents of Russia and the USA signed another joint declaration, confirming the desire of both countries to establish the international park and the intentions of both countries to preserve the unique natural and cultural complex located at the junction of two continents and two oceans.

This unique project touches upon geopolitical interests of Russia and the United States in the Pacific region and adjacent areas of the Arctic, as well as upon issues of preservation of world cultural and natural heritage and core issues vital for Native people of the Bering Strait.

Establishing Beringia National Park is part of a bigger effort to create a network of Specially Protected Natural Areas (SPNAs) in one of the most valuable and rich areas of the Russian Arctic from the standpoint of biodiversity. The need to establish the park is also dictated by the growing anthropogenic pressure and the effects of climate change in the northeastern regions of Russia. This is unique in many respects as this part of the Arctic still has the least developed network of SPNAs. Establishing a national park in this area is in complete accordance with the principles of Russian policy in the Arctic and totally concurs with the interests of Russian Federation in this region.

Designation of the National Beringia Park pursues the following main objectives:

- Preservation of the unique natural and cultural heritage of the unique natural region “Beringia;”
- Integration of the park territories into the ecological and sport tourism system;

- Establishment of a stronghold for comprehensive systemic monitoring in the region most affected by the global changes in the Arctic;
- Support of the systems of traditional subsistence use of natural resources by the Native people; and
- Promotion of the socio-economic development of Chukotka.

Support for the unique traditional use of natural resources - Chukchi reindeer herding and Eskimo-Chukchi marine mammal harvest – on the territory of the proposed park and in adjacent areas is an extremely important aspect. Those economic activities are directly linked to the preservation of cultural traditions and development of tourism.

The Decree № 47-r issued by the Ministry of Natural Resources of the Russian Federation on September 26, 2006 - “In regards to Implementation of the Governmental Decree of the Russian Federation dated 05.23. 2001 № 725-rp” - officially approved the Plan of Implementation of the above-mentioned Governmental Decree of the Russian Federation and proposed a series of actions in preparation of the Ecological and Economic Substantiation (EES) or feasibility study for the designation of the Beringia National Park.

A Special Working Group was designated by the Decree of the Government of the Chukotskiy Autonomous District № 309-rp dated 08/17/2009 in order to provide support to the Ministry of Natural Resources of the Russian Federation (hereafter “MNR of RF”) in designating Beringia National Park in Chukotskiy Autonomous District. The Working Group prepared and submitted to the MNR of RF suggestions on the inclusion in the park EES of the most valuable separate clusters (parcels) located outside the sites important for providing industrial supplies and social services to the population residing on this territory. MNR of RF supported the position expressed by the Government of Chukotskiy Autonomous District that it would be unacceptable to designate a park with a total area of 3,053 thousand hectares that would include half of the Chukotskiy Peninsula and almost all of the residential settlements of Chukotskiy and Providenskiy regions.

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The government of Chukotskiy Autonomous District has conducted the following work in preparation for Beringia National Park designation:

- verified the boundaries of the park clusters (Dezhnevskiy, Kolyuchinskiy, Mechigmenskiy, Providenskiy and Chegitunskiy);
- obtained approvals for the proposed Beringia Park EES from federal government bodies, from territorial entities of the federal executive bodies, from bodies of local self-governance, from the owners of the land located within the boundaries of the planned national park (inholdings); and
- conducted public hearings on the Beringia National park EES in Iul'tinskiy, Providenskiy and Chukotskiy regions and summarized the outcomes of those hearings.

It is important to point out that the area of each cluster of the planned park is sufficiently big to support sustainable natural complexes located within the boundaries of the clusters. All the proposed clusters cover the full spectrum of natural and recreational resources necessary for proper functioning of the national park.

Park clusters represent all the key ecosystems of the Eastern Chukotka:

- Tussock tundra on the plains;
- Bogs and marshes in the lowlands;
- Coastal lagoons;
- Mountainous ecosystems;
- Most significant seabird colonies;
- Major walrus haulout sites; and
- Most productive areas of coastal waters.

Practically the entire drainages of medium size rivers - Vaamochka, Bol'shoi Kenvut, Kurupka - are located within reserved and specially protected areas of the park. All those rivers are salmon spawning streams. All natural complexes represented in the park clusters are tied into one whole ecosystem by the waters of the Bering Sea. The Bering Sea stands out among other Arctic seas as a sea of exceptionally high biological productivity and diversity.

There are numerous unique natural objects within the planned park territory: geological, geomorphologic, hydrological, botanical, zoological and complex landscape units. On one hand, these require protection and studies; and on the other hand, they have tremendous educational and esthetical value and can be attractive for viewing by tourists. Severe natural conditions of the Arctic formed special ecosystems, which are pristine, very vulnerable and take a long time to restore. They, therefore, require special care.

Hundreds of cultural and historical objects and sites were identified in the territory of the planned national park, the first and foremost of which are archeological monuments. Concentration of sites in the future park is the highest in the entire Russian Arctic. Some of the objects and sites of cultural heritage will be conserved and sealed, and some will be restored to their initial state.

Article 15 of the Russian Federal Law "On the Specially Protected Natural Areas" passed on March 15, 1995. № 33-FZ prohibits any activity on the territory of a national park that can damage natural complexes and wildlife, history and culture, contradicts goals and purposes of the national park and implies differentiated zoning of the national park territories. Ecological substantiation of the park boundaries, as well as proposals concerning its functional zoning, relies on comprehensive evaluation of its territory. Natural and economic features of various clusters of the planned park have determined a specific approach to zoning in each case.

The following factors were considered in the process of zoning of the Beringia National Park territory:

- Importance of the area for conservation of biological and landscape diversity and protection of natural, historical and cultural monuments;
- Attractiveness and accessibility of the area for recreational and tourist activities (availability of certain infrastructure, interesting natural, historical and cultural objects, scenic landscapes, ability to use various types of transportation for visitation, and so on);
- Interests of the local population; preservation of traditional subsistence culture; level of economic development; and traditional and contemporary use.

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Taking into consideration all those factors, the following four functional zones with different types of protection regime have been proposed in the draft park plan:

- a. *Reserved (strictly protected) zone*, where any economic activity and recreational use are prohibited; parcels are located within Kolyuchinskiy, Providenskiy and Chegituskiy clusters.
- b. *Specially protected zone* ensures conditions for preservation of natural complexes and objects and allows strictly regulated visitation; such areas are planned within each of the five park clusters: Kolyuchinskiy, Providenskiy, Chegitunskiy, Mechigmenskiy and Dezhnevskiy.
- c. *Zone of Recreation and tourism* is intended for developing tourism, including appropriate infrastructure; for organizing ecological education; for visiting unique protected sites; as well as for rest and recreation; such areas are planned in clusters Providenskiy and Dezhnevskiy.
- d. *Zone of traditional subsistence use* is intended for traditional economic activities, manufacturing handicrafts and traditional folk items, as well as use of natural resources associated with those activities upon approval by the park administration; such areas are planned in Kolyuchinskiy, Providenskiy, Mechigmenskiy and Dezhnevskiy clusters.

Currently, the draft plan of the Beringia National Park is being processed by the state ecological expertise at the Federal Service of Oversight of the Use of Natural Resources of the Russian Federation (Rosprirodnadzor), and we hope for the timely completion of the national park designation process.

Special attention should be given to the problem of accumulated ecological damage in the Chukotskiy Autonomous District, including its Arctic areas. The issue of utilization of industrial waste produced because of previous economic activities requires large financial expenditures; it has not been addressed for many years due in part to difficulties with transportation. On the request of the Government of the Chukotskiy Autonomous District, the most urgent issues were included in the National Action Plan on Protection of the Marine Environment from Anthropogenic Pollution in the Arctic Region of the Russian Federation (hereafter "NAP-Arctic"), approved by the Ministry of Economic Development of the Russian

Federation on October 8, 2001. Chukotskiy Autonomous District also forwarded its proposal on transformation of the negative heritage of the previous civilization in the Wrangel Island Nature Reserve to the Strategic Action Program (SAP) of the UNEP/GEF project Russian Federation – Support for the National Action Plan on Protection of the Arctic Marine Environment.

According to the information provided by the Ministry of Natural Resources of the Russian Federation, implementation of several projects on the clean-up of the Russian Arctic Zone, including Wrangel Island, will start in 2011. Currently, the first most urgent action items have been announced for bidding. Clean-up of contaminated areas and removal of industrial waste requires developing the appropriate methodology, field reconnaissance, developing a special Program of Elimination of the Sources of Negative Impact in contaminated areas and its implementation. The top priority actions on contaminants clean up on Wrangel Island include elimination of sources of pollution (about 100 oil drums and 5-7 thousand tons of scrap metal), utilization of waste to reduce and prevent future pollution of marine and terrestrial environment, including contamination by radioisotopes, oil products, heavy metals and other toxic substances.

The issue that has been considered most urgent for a long time is the utilization of radioisotope thermoelectric generators (RTGs) located along the coasts of Chukotka; those generators are long expired and now are considered radioactive waste. The Chukotka government submitted multiple requests to federal ministries and agencies to take measures to disassemble and remove the units that were included in the Development and Use of the Arctic sub-program of the Federal Task Program, The World Ocean. In 2010, 34 RTGs were moved out for utilization into the central regions of Russia under this program. Remaining units (about 40 RTGs) are to be removed in 2011; in addition, a search for lost units is planned.

In conclusion, I would like to express hope for mutually productive cooperation in the interests of both of our countries and for preservation of the fragile and unique nature of Beringia for future generations.

## Papers

## National Dance – Ways to Preserve It and to Attract Youth Through Actualization of Chukotka Dancing and Movement Culture

### CONTACT

**Vladislav V. Rintyegin**, Chukotka Multidisciplinary College, Anadyr, Chukotka

Three main components can be identified in the folklore of any nation, including people of the North:

- Music and epic folklore,
- Rituals and games and
- Music and dance movement.

The rituals and games component prevails in the folklore of people living in Ob' and Ugra areas (Khanty and Mansi); epic folklore evolved mostly in Nenets, Yakut and Evenk nations. As far as Native people of the Russian Northeast are concerned – Chukchi, Eskimo, Koryak, and Itel'men – a combination of music and movement (in other words, dance) occupies the central place in their folklore.

Already in the first millennium B.C., Chukchi people had dances, which is supported by archeological evidence and petroglyphs, in particular. Another interesting fact is that neither Chukchi nor Eskimo has legendary singers. At the same time, though, they do have legendary dancers. The legends about those dancers are passed from one reindeer camp to another and from one generation to another. In the 1940s-'60s, Eskimo Nutetein and Chukchi Atyk were celebrities of such caliber, and in the 1970-'80s, Yekaterina Rul'tyneut became the start of the dancing culture of Chukotka. Today, she is the Honorary Figure of Culture of the Russian Federation and successfully continues to pass her invaluable experience to youth and children, to dancing groups of Chukotka and to the state dancing ensemble Ergyron in particular.

There is probably not a single side of life of Native people that hasn't been expressed in a dance. Native people of the Northeast used ritual dances to communicate with the superior spiritual forces. The dances have remained the same since prehistoric times. Imitational dances (gulls, sea and cranes, on the haulout site)

help to learn about surrounding nature. Many sides of everyday life are reflected in traditional dances (killing a deer, hunting a whale, gathering eggs on the cliff, curing hides). There are also some imitational comic dancing miniatures: Drunk Merchant Lost His Hat - performed by the Uelen dancing group; Hunter Without a Knife - by the Lorino Sunrise Group; and competition dances: A Dance with Spears, A Dance with Tambourines.

Some dances reflect achievements of modern civilization: Pilot Petrenko landing, First Satellite, Talking on the Phone, Lenin's Electric Bulb, At the Festival and so on.

Civilization cannot be slowed down, and today we have to face the issue of preservation of the Native dance as a core part of Native culture of the Russian Northeast to its full degree. There are multiple reasons why this has become an issue. No labor laws provide for holidays dedicated to the first harvested walrus, which can last for more than five days in a row or to the Whale Celebration."

The Whale Celebration is one of the most important Asian Eskimo celebrations. It can last for about a month and was usually organized by a clan that harvested the first bowhead whale of the season. Eskimo people from the neighboring villages and Chukchi from reindeer camps usually participated in those celebrations. Each clan had its own traditions, customs and rituals. For such festive occasions, each family clan chose its best dancers, athletes, who excelled in various competitions and individuals who were the best at predicting weather. During the celebration, the strongest athletes competed with each other, presenting their best dancing and singing; those were the celebrations for which masters of dancing strived to prepare a new performance.

Youth are less and less interested in (traditional) dancing. On one hand, modern society provides more opportunities for entertainment. On the other hand, several generations of Native people of Northeast Russia who grew up in boarding schools could not learn from their parents how to respond with a dance to a meaningful event in their lives.

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Certainly, modern technology provides the means to make detailed recordings and preserve samples of Native dances for younger generations. But such an approach would be like safekeeping a museum item. A dance is alive if it has masters who can perform it with emotion, artistic creativity and with character that expresses its essence. Also important are spectators who can understand, appreciate and feel the beauty, the force, the meaning and the significance of that art.

Native dancing groups that have appeared in many Chukotka villages since the 1960s can certainly play a role in the preservation of Native dances. Those dancing groups need all kinds of support. Their main challenges are to provide training to choreographers specializing in Native dances and to engage youth in dancing groups and other folk arts. Engaging youth and children is most important for the future of all folk arts of the Northern People. This should become an important focus of social life of people in the northern regions.

The group Ankalin has been part of the Chukotka Multidisciplinary College since 2006. The most difficult challenge with this group is that each year, well-trained Native dancers graduate from the college and leave the dancing group. To be successful, the group needs a continuous inflow of new dancers from among the college students. Attracting new young people is a particularly acute issue for our dancing group.

My work experience allows me to summarize certain aspects and to give some recommendations regarding work with youth. At the initial stages, young people are fairly enthusiastic about learning new performances that include a certain level of modern dance elements that blend organically with the traditional Native foundation – spectators will be able to appreciate this approach during the performance of the Dance with Spears. Vigorous dances, which are also part competitions, are always attractive to young performers – you can read in their faces how totally immersed they are when they perform the Dance with the Tambourines. Weaving elements of ancient rituals into the dances allows young people to realize and feel the deep symbolism of the dance and their belonging to the national history of their people. That is how the ritual-based composition Thanksgiving came about and became one of the favorites in the Ankalina repertoire. We are

constantly searching for an appropriate form of presentation of folklore that would not alter its traditional content and ethnic authenticity. One such piece performed by our group is The Sea. It borrows dancing elements from various amateur Native dancing groups of Chukotka: Rakushka (Seashell) from Enmelen village of Providenskiy region; Lorinskiye Zori (Lorino Sunrise) from Lorino village of the Chukotskiy region; Druzhba (Friendship) from Meynypyl'gino village of the Beringovskiy region and (.....) of Yekaterina Rul'tyneut (*the meaning is not clear in the original*).

Training plays an important role in understanding and learning; it can vary in content and technical aspects, when implemented in a particular ethnic dancing lexicon. Traditional northern dance is a dance in which one's entire being should participate: body, mind and soul. It is most important to see the dance as a meaningful act: it can be a story-dance, an image-dance ... different genres.

One of the most ancient types of dance in the Eskimo dancing tradition is a story-dance, the dance that follows a certain story – bright rigid forms are characteristic of this type of dance. The dance is static (has very little movement) and is performed on a small area. Women's dances are performed in a sitting position,. One has to master a special technique to communicate all the beauty and meaning of what an artist intends to tell with gestures. Each miniature dance is a piece of art. (Na rybalku [Going Fishing])

Image-dancing is more characteristic for the Chukchi people; the image and character are usually developed more gently and with more plasticity. The choreography is more diverse, and the vocabulary of movements is richer (Chaiki – Gulls). A well-trained dancing group, performing national dances beautifully and at a good technical level with emotion and understanding will always be interesting and attractive to young people.

I hope that all the graduates of our dancing group will return to their home villages, will continue to refine their skills as Native dancers and will do everything in their power to preserve and develop the Native dancing tradition. We had similar experiences in the 1950-'60s when graduates of the Anadyr Teachers College became organizers and directors of amateur Native dancing groups of Chukotka.

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## Traditional Knowledge of the Indigenous People About the Bering Sea Currents and Their Use

## CONTACT

**Yury N. Khokhlov**, Deputy Science Director, Chukotka Branch of Pacific Scientific Research Fisheries Center (ChukotTINRO)

Presently, the problems of global warming are being discussed on different levels of society, from households to meetings of the highest circles of political power. Despite the controversy about its estimated impact on human existence, there is no doubt that the tendency in climate change is toward warming. In our opinion, these are especially noticeable changes in areas with low temperature average indicators, such as the Chukotka Peninsula. Some of the most significant indicators, in this case, are the observations of the indigenous inhabitants of the area, not only because they reside in the problem area, but also because they are closely linked to the environment, having to be the first to react to the changes occurring in nature.

The activities of indigenous people of the Chukotka Peninsula have always been closely linked to the sea. They noticed temperature shifts indirectly, through subsistence lifestyle, including ocean currents, ice conditions, migration of marine mammals and so on. A joint Russian-American project to study the traditional knowledge of the indigenous people of Alaska and Chukotka about the Bering Sea currents and their importance in the life of Northern Native people was launched in 2010.

The project will be realized through the fundamental method of interviewing the oldest residents of Native villages (in Chukotka - settlements of Lorino, Lavretiya and Inchoun), hunters and experienced marine mammal hunters. The task is to gather information about the use of currents for hunting and travel purposes, the changes in climate, the impact of currents on changes in ice conditions and the migration of marine animals, as well as to obtain knowledge about currents, which is used to predict weather for hunting and navigation purposes.

The necessary equipment (digital voice recorders, photo and video equipment) was purchased in 2010 (during the first phase of work); a questionnaire was designed and maps were prepared.

The first surveys were conducted in 2011; in total, 17 people were surveyed, among them 6 residents from the village of Lavrentiya, 9 from the village of Lorino and 2 from the village of Inchoun. Most of the surveyed residents were between the ages of 40 and 60, one representative of the younger generation was 23 years old; and one resident, with experience in marine mammal hunting, was 73 years old. Genders of the respondents were 16 men and 1 woman. The following conclusions can be made, according to the results of primary data processing.

Almost all of the respondents (87.5%) noted that the traditional knowledge about currents has played a major role in the life of the indigenous population, which it still plays to this day. This knowledge was passed down from generation to generation and was used during the hunt for marine mammals, travel and for weather predictions. Currently, the relevance of this knowledge is partially lost, due to the advent of modern technology (outboard engines, the Internet), but for those who wish to continue their traditional way of life, this knowledge is still vital.

Some examples show that 25% of the respondents have noted the presence of northeastern currents in the Bering Strait. Marine mammals use these currents during seasonal migration. The Chukchi name for these currents, as well as any other current flowing to the North, is "*tlyaurgin*." People used these currents to orientate themselves while hunting for marine mammals on young ice. It was possible to judge whether the edge of the ice is reliable or will break apart from the main sheet of ice, which is dangerous and must be considered by the hunters. In Mechigmenskiy Bay, the currents swirl, which is important to know for trip planning, to economize time and fuel. In the Inchoun settlement, 100% of respondents noted the influence of both oceans (Pacific and Arctic) on local currents, as well as changes in currents, depending on seasons of the year and

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lunar phases. All respondents (100%) have noted a close connection between the currents, ice conditions and the migration of marine mammals. People determine the day, timing and possible success in walrus, seal and bearded seal hunting, by analyzing the combination of the first two components (currents and ice conditions). Hunters have noted that marine mammals use currents for their relocation and react with sensitivity to hydro-meteorological changes.

The respondents noted changes in climate: 67% of Lavrentiya residents, 65% of Lorino residents and 50% of Inchoun residents. If we compare these readings with the total volume of information received from the respondents, we see that climate changes were noted by those people who have a greater knowledge of currents, of nature in general and who are more observant.

Those respondents who provided little information did not note any climate changes. Definitely, all respondents have reported climate warming, in the area where they reside. Climate warming manifests itself through changes in the coastline, caused by widespread permafrost thawing, changes in the ice conditions, when there is no longer the formation of dense oceanic ice and the sea is covered with frail ice (*shuga*), or is completely free of ice.

Alex Ottoy, one of the respondents from Lorino, had noted a month-long shift in weather conditions, where the snow that would usually fall near the first day of September, now falls closer to the first day of October. Experts from the Anadyr Hydro-meteorological Observatory also noted a similar one-month shift in the weather pattern. So we can discuss not only the impact of such changes on the entire territory of the Chukotka region, but also the observant nature of the local population and the possibility of using the aforementioned interview data. Changes in nature directly affect marine life. Changes in time were observed during the migration of walrus, as well as a decrease in their numbers, which is consistent with scientific data collected during the monitoring of rookeries. The employees of laboratory ChukotTINRO, who study marine mammals in coastal rookeries, found that the number of walrus in comparison with the 1980s has declined over the years by more than twofold and that their feeding grounds have shifted to the North.

According to the hypothesis, proposed by Anatoly Kochnev, who has compiled and analyzed his own data and data from literature spanning a 30-year period, these changes are largely due to the processes of warming in the Arctic, which have been observed in recent decades. The consequences of climate warming include late ice formation, lack of ice in the summer and fall, as well as strong storms. These factors, in turn, led to the observed decrease in the walrus population, while walrus hunting by enterprises remained stable over the last decade. A significant reduction in production was observed only in 2008, due to the high mortality of walrus, which occurred in 2007; however, this affected only the northern part of this area. Also, the local people have noted that more likely, it's the cold climate species that are experiencing difficulties right now and are forced to change their routes and timing of migrations, particularly walrus and seals, which prefer passive movement along with currents and ice.

Active predators, such as killer whales are less affected by climate change. In this area, there has been noted an unusual appearance of sea lions, a marine mammal species, which prefers a warmer climate. The observed changes also affect other aquatic organisms. Frequent storms roll ashore more shellfish; algae grow faster due to warmer water. In addition, 37.5% of people have noted periodic mortality (*zamor*) of Arctic cod (*Boreogadus saida*), which inhabit the Bering Sea and Chukchi Sea. Previously, such events were not registered, and the arctic cod was actively ice-fished. Now these biological resources are out of reach due to the lack of ice cover.

In contrast, salmon (chum and sockeye salmon) are clearly spreading faster to the north and are more frequent in the summer catches of fish. This information is also consistent with scientific data. If the earlier migration of this type of salmon (such as chum) were going up to the Bering Strait, movement into the basins of the Chukchi and East Siberian Seas would have also increased. The spread of salmon into the rivers of Kolyma basin has been noted.

According to preliminary data, valuable information was obtained about the traditional knowledge of Chukotka's inhabitants, regarding ocean currents, climate change and its impact on the livelihoods of the indigenous population.

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The resulting data complements and extends the available scientific information and may help to find solutions to the problem of global warming on the given territory. In connection with the development of marine mammal hunting in Chukotka, which in some settlements, constitutes the basis of the inhabitants' subsistence living, the problem of climate change requires careful attention and in-depth study, including the development of guidelines for the sustainable management of marine biological resources, under the currently formed circumstances.



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## Decorative Trimming on Traditional Clothing as Evidence of Kinship Relationships Among the People of the Bering Sea

## CONTACT

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Valentina Kagevna Veket was born in 1934 in the settlement of Uelen, Chukotskiy District of the Chukotka Autonomous Region. In her wardrobe she has a coat made of reindeer fur, ornamentally decorated in the style of marine hunters of northeastern Chukotka. A characteristic feature of this style is the presence, on the hood, of white inserts, imitating walrus tusks in form and color, and edges trimmed with wolverine fur, imitating whiskers of marine mammals. Veket's ancestors were once reindeer herders, but circumstances forced them to take up fishing on the coast of the Arctic Ocean, joining the Asian Eskimos (place Uelen), five generations ago (**Note 1**). Assimilating with the first settlers, they actively adopted the culture of marine mammal hunters in the Bering Strait area. The indigenous people hunted marine mammals: whales, Pacific walrus and seals. The life of coastal inhabitants is closely connected with the sea and its marine life. We can see the symbolic image of a walrus, in the aesthetic design of clothing among some Eskimo ethnic groups of the Circumpolar Zone.

The Eskimos emerged as an ethnic group in the Bering Sea area before the end of the second millennium B.C. In the first millennium A.D., people of the archaeological culture Thule (the ancestors of the Eskimos) settled in the Chukotka region and along the Arctic coast of America to Greenland. Historically, the Eskimos were divided into 15 ethnic and cultural groups. One of these groups is the Siberian Eskimos, including the Eskimos of St. Lawrence Island and the Diomed Islands. Subsistence living, which is based on the hunting of large marine animals (walruses and whales), extends the range of cultural activities in certain groups, uniting the Eskimos of Chukotka, St. Lawrence Island, the coast of Northwestern Alaska and the ancient population of western Greenland. The geographical extent where the symbolism of the walrus hunters is found is comparable with the habitat area of this sea animal.

The walrus is a valuable commercial species of the Arctic wildlife. The walrus lives throughout the peripheries of the seas in the Arctic Ocean, from which it swims to the northern Atlantic and the Pacific Oceans. The Atlantic walrus lives along the western and the eastern coasts of Greenland. Most of the population of Pacific walrus spends the summer in the northern part of the Bering Strait, in the Chukchi Sea along the northern coast of eastern Siberia, near Wrangel Island, in the Beaufort Sea along the northern coast of Alaska and in the waters between these places. In the spring and fall, they concentrate in areas from the western coast of Alaska up to the Gulf of Anadyr. They winter in the southern parts of the Bering Sea, along the eastern coast of Siberia, south, toward the northern part of Kamchatka peninsula, as well as along the southern coast of Alaska (**Note 2**).

With all the variety of subsistence fishing and hunting in the area of the Bering Strait, the walrus had the highest preference for use among the Natives, as it provides everything that is necessary: meat and fat for food, hides for covering houses. In the spring, the walrus was harvested on the ice floes; and in the summer, it was harvested with the use of canoes or with spears, in rookeries. The spiritual culture of Paleo-Asiatic people was based on animistic views of the world, which is why the main rituals of the sea mammal hunters have been associated with the fishing and hunting cults: Holiday of the Heads, dedicated to the hunt for walrus, Whale Holiday (Pol'a) and so on.

The fishing season for walrus would begin in late April or early May. The head of the first walrus hunted in the spring was first put in the meat pit. Then, after some time it would be taken out of the pit and carried into the *yaranga* (Translator's note: traditional home of the indigenous people) of the *baidara* (canoe) owner, who harvested this walrus in the spring. Early in the morning, the owner would invite his guests: only his elderly relatives and a shaman. Usually the shaman would be a member of the tribe. The walrus's head would be placed in the middle of the dwelling, on the dried walrus skin. Different food would be placed around the head, as a treat for the guests. The shaman would begin the ritual of "interrogating" the walrus head. People would ask different

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questions: how many walrus will be there this year; will the bowhead whales come to this area in the fall; will there be misfortune among the people of the tribal community in the future; and so on. After “interrogating” the walrus head, the shaman would recite the spells and persuade the walrus head not to be offended. At the same time, the shaman would ask the head to contribute, in the future, to successful hunting and ask the soul of the walrus to bring many walrus to the rookeries, in the following year.

Then the owner of the *baidara* (canoe) would go outside of the dwelling and throw pieces of skin, taken from the walrus flippers, toward the sea. This means that the soul of the harvested walrus can go back to his native element - the sea. After completing these ceremonies, the feast for the guests would begin. Then, the owner would take the skinless head of the walrus to a special altar, located away from the village, where many skulls of walrus, killed in previous years could be found. The Naukan Eskimos (**Note 3**) practiced this rite.

The rite of the Uelen marine mammal hunters is not much different. The hunter would bring the walrus carcass to the shore, take the head, severed from the body, and put it on the tusks, facing its eyes toward the camp. Strangers would not be allowed to touch the head. Then the hunter would go to the *yaranga*, bringing out refreshments for the walrus and the audience, consisting of melted deer lard and water. The walrus would drink the water (the hunter would pour a little bit of the fresh water into the walrus’ mouth), then the hunter would put a few slices of bacon in front of the animal’s mouth. The rest of the food would be given to the Natives present at the ceremony.

After this ceremony the head would be placed in a bag and carried out to the appropriate place. The walrus breeding grounds were once near the village of Uelen. They are not there anymore. The hunters believe in the power of sacrifice. Every autumn, they would take the walrus skull with tusks of the first animal killed, solemnly carry it to a rocky shore and put it in the sacrificial place. In 1926, the walrus heads, sacrificed to the sea and to the spirit of the walrus, numbered about 30 (**Note 4**). Walrus heads were considered sacred objects. Previously, a sacred place for the walrus heads had been established

near each village (**Note 5**). A walrus head was the object of worship and the symbol of wealth and prosperity. Therefore, the clothing of the hunters, whose life depended on the success of their enterprise, contained distinct symbols of the hunted object, thus forming from it a cult.

One of the most distinctive features of *kuhlyanka* of the Inupiaq people (**Note 6**) are the “tails” of the hood - triangular wedges made from skin of contrasting color inserted into the front part of the garment. Almost all *kuhlyankas* from Northern Alaska have this feature. Alaska researchers speculate that these animal elements symbolize the connection between man and wildlife, as a vital spiritual component of Inupiaq Eskimo life [122] (**Note 7**). The relationship between the humans and the animals is highlighted by the fashion of clothing, which incorporates animal’s ears, tails, claws or other parts as decor or amulets.

By analogy, characteristic details of the costume had to be used by the ethnic groups of the Asian continent involved in walrus hunting. According to a survey of the older generation in Providenskiy and Chukotskiy Districts involved in hunting of the Pacific walrus, the suit was typical only for the Chukotskiy District (S. Tagek, was born in 1942, in the village of Sireniki, Providenskiy District).

Does this mean that the nature of use of these elements in Chukotka is different? Is it possible that these elements are connected with the pagan ideas typical of the Chukchi shamanistic practices?

The Elder Valentina Veket, from Uelen, had explained about the nature of the maritime costume by her tribe’s example, “Between the Chukchi clothing and the Eskimo clothing there was a difference. Clothing with walrus tusks came from Alaska. Previously, [our people] went along with Eskimos, helping Americans with the whaling. Eskimos are very good hunters, and their place, on the shores from Naukan to Dezhnev [Cape], was rich with marine mammals. Our family was friends with the Inuit clan from Naukan. Their family also had such clothing. The Eskimos had shamans, and the Chukchi had shamans. There were cases where a man would fall ill and his shaman could not cure him, so they would invite a shaman from Naukan. After driving out the spirit of the disease,

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and if the person was cured, he was given a new name and his clothes were changed, or new details were inserted into his clothing. When my mother got sick, she was given the name Veketrultyne and new clothes. She began to wear clothing with a hood, without ornamentation. The hood had a drawing of walrus tusks and the edge of the hood was trimmed in wolverine fur." (**Note 8**).

Another example of maritime costume acquisition is the case of Margarita Glukhikh (born in 1930), a Native of Naukan and a leader of the White Sail ensemble. Her costume was given to her under similar circumstances, at the curing of a disease. She explains the presence of parts representing a walrus as a symbol of health and well-being. In both cases, the act of driving out the spirit of disease was performed by the shaman Atyk from Uelen, who was a famous storyteller and writer of songs and dances. The genealogical research conducted in Uelen (Russian Federation) and Nome (Alaska), from 1995-2010 sheds some light on this question. The history of family and kinship ties and relations between Chukotka and Alaska spans two centuries. The second generation of V. Veket's (1779) ancestors has been actively communicating with the American Eskimos, who lived on Little Diomed Island. Sotnick (centurion) Kobelev has collected information about the possibility of entering the mainland and reports about the "best foot man," named Oprey, from the Uelen-Uvelen redoubt (**Note 9**).

The Chukchi name for this man was Oppoy. In search of better life, the residents of the coast often offered their services to the American whaling ships. There have been cases of wintering on the American continent. In one of such cases, Oppoy fathered his daughter, Panesuk. His cousin Okkoy was also just as active a hunter. He had two sons, Milligroq and Okpeaiuk, who were born on Little Diomed Island. In Chukotka, Okkoy had a son, Atyk, who was a shaman and a distributor of maritime clothing. Now, there is an eighth generation of herders who live in Chukotka and Alaska, seeking a better life and who have adopted the best from the group of Eskimo marine mammal hunters who formerly lived in the village of Uelen.

While exploring new territories, ex-herders were forced to borrow the traditional basics of fishing in Beringia, as well as the spiritual foundation of this culture, sometimes giving it their own quality.

At present, the symbolism of a marine mammal hunter's costume has lost its meaning as a ritual dress, as well as a magic sign of prosperity and health. However, the marine mammal hunter's costume is marked as a new symbol of the family roots, as an attribute of procreation, and (I have something else at the tip of my tongue, which I cannot recall, may be it will come to me after sleep).

Materials published on the website <http://www.adetiplus.ru/wiki> have been used for this article.

## NOTES

1. If we count generations from my mother to the past, then it is the fifth generation. If we count generations starting from my granddaughter and back, then this is the eighth generation.
2. <http://www.adetiplus.ru/wiki>
3. Thein T. Walrus (ayvyk')
4. Ivanov P. Information material about Chukotka, 1926
5. Afanasiev, G. M. and Simchenko, Y. B. The traditional food of coastal and reindeer Chukchi // The peoples of Siberia. Book I / Siberian Ethnographic Collection. Vol. 6. Ans. Ed. Y. B. Simchenko. Moscow 1993. Institute of Ethnology and Anthropology, page 62
6. "Inupiat" is the singular noun form and the adjective of "Inupiat." "Inupiat" means the "real people" and is a common name of indigenous people of the north and northwest of the Alaska Peninsula. "Inuit" is the preferred term in Canada (Damas 1984:7). Inupiat people lived along the coast and the mountains of Northern Alaska on the Bering Strait in the east to the mouth of the Mackenzie River for at least 1,000 years.
7. Cyd Martin. Caribou, Reindeer and Rickrack: Some Factors Influencing Cultural Change in Northern Alaska, 1880-1940/Arctic clothing GT 1605 A 73/ 2005 ANTH p. 121-126
8. Vukvukay N. Symbolism and Semantics of Chukchi's clothes // Proceedings of the BSF SVKNII FEB RAS. Vol. 8, Magadan, 2004. page 225
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## Spiritual Component in the Traditional Costume of the Chukchi

## CONTACT

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Clothing is a special symbol, a sort of password of national culture. The clothing of the Chukchi is the most characteristic feature, indicating the ethnic specificity of the people. Certain external features of the Chukchi clothes may provide a lot of information about its owner. Even today, the long-time inhabitants of the area accurately determine the ethnic group of the representative of one culture or another by looking at old photographs. The most defining markers are symbols. A variety of symbols in Chukchi clothing suggests a hierarchy. In my report, I will try to show the symbolic aspect of traditional costumes of the Chukchi.

The main sources of our study are historical photographs taken by Vladimir Germanovich Tan Bogoraz (in the U.S. known as Waldemar Bogoraz) in Chukotka (1900-1901), as well as photo collections from the local museums of history in the Russian Far East and personal archives.

Which external characteristics define a resident of the Arctic? The harshness of the arctic climate is the main reason for designing sealed and closed types of clothing. A common characteristic feature in the northerner's clothes is a sealed type of garment made of reindeer fur [6. 20]. A detailed study of the Chukchi clothing has revealed features characteristic to local areas of Chukotka.

Groups of Chukchi (*an imaginative name for "Chukchi" provided by the author of this article is not translatable into English* [2. 4]), residing within northern areas, are identified by the form and the design of their clothing. The boundar-

ies of the northern areas coincide with the territory occupied by the Chukchi in the XVII century [1]. These northern areas are characterized by tight clothes of trapezoidal shape, sewn from two unmottled sheets of skins, without extensions at the hem [3. 171]. Complementing suit pants, short boots and round hats are typical for the northeastern groups. Representatives of continental and southern groups of Chukchi look somewhat different.

Multilayered and broad shaped types of clothes, with hats of rectangular shape are typical. The garments take broad shapes, in connection with climatic conditions of the settled areas (sub-arctic continental), for which multilayered types of clothes were characteristic. Also, different types of headgear are evidence that the borrowing of cultural elements occurred on settled territories. In order to identify what caused the emergence of local features in clothing, it is necessary to be immersed in the settlement history of Chukotka's territory.

Wild reindeer hunting was the basis of culture on the continental territory, existing in fairly stable climatic conditions, until the end of the seventeenth and the beginning of the eighteenth centuries. [4.174]. Evidence of fishing, hunting, reindeer herding and gathering activities (*Promysel*) are reflected in the external forms of main types of clothing.

The camouflage clothing of the reindeer hunters (*skrad-dress*) [7. 30, 8, 97], has created a base for the work clothes of the Chukchi people. The hunter's reindeer fur outfit points to assimilation with the hunted species: form-fitting clothing that eliminates extra noise, the shape of the headgear with details of ears and eye openings preserved and short boots in the likeness of deer hoofs. The principle of assimilation is incorporated in the use of *kamus* material (processed reindeer leg skin), in the making of shoes and men's pants.

*Kamus* from the front legs of reindeer is used in the details on the front parts of manufactured articles, and *kamus* from the rear legs of reindeer is used for

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the back parts, respectively. Apparently, the same principle of assimilation is applied to the use of reindeer skin for outerwear. The most beautiful skins were placed on the back of the clothes, used for festivities and travel.

If the fitted clothes and the round hats are the legacy of wild deer hunters (K'aalevtylyt), then, what was the reason for the creation of rectangular headwear for certain groups of Chukchi people, residing on the right banks of Anadyr River?

History testifies about active movements of the Chukchi reindeer herding groups in the late eighteenth to nineteenth centuries [9. 208]. The geographical range for fixed forms of headgear is not indicative of the Chukchi groups and corresponds with the territory occupied by the Yukagirs and the Koryak people during this historical period.

Field evidence from the Anadyr region, dating to the end of the 20th century, represents fixed forms of headgear, as something borrowed from the Koryak reindeer herding groups. However, the work of N.F. Prytkova [7. 60], specifies two types of hats from various local Koryak groups, including the hood-shaped and the rhomboidal. Consequently, the square shape is not the only form of headgear present in the material culture of the Koryak. Vaezhskie reindeer herders made their hats with ears that resembled horns of the bighorn sheep (kytepkyrn'amkinet), according to M. Kevkey (1927 - 2006), resident of Chuvan-skoe settlement in Anadyrskiy District.

We can assume that the rhomboidal middle detail, which gives the square-shaped form to the headgear, is a hallmark that dates back to the hunting culture. By using the wild northern reindeer hunter analogy, it can be assumed that the square form of headgear was inherited from the hunting culture of the bighorn sheep. The emergence of coastal, marine mammal hunter Chukchi culture is based on their contact with the Eskimos, which began in the middle of the first millennium AD.

During the initial period, interaction between the two hunting traditions occurred in the form of exchange, due to the differences in all aspects of their

cultures. Later, some of the continental, wild reindeer hunting Chukchi began to lead a sedentary life and engage in marine mammal hunting. The Chukchi and the Eskimo cultures coexisted and interacted [2, p.80]. The same principle of integration with the natural environment and the object of the hunt were used as a foundation for the clothes of coastal residents.

Stories told by old men, verify that family clans belong to the feathered race (birds), which corresponds with an elongated rear flap of the *kukhlyanka* [translator - *kukhlyanka* - fur coat with two layers of reindeer, marine mammal or dog skin]. In the fur wardrobe of some reindeer herding families, the back skins of the Arctic ground squirrel can be seen, sewn onto the hem of ceremonial clothing, emphasizing, perhaps, a relationship with the animal world.

A large community formed based on the "walrus cult." The image of the walrus is seen on the outer garments of a significant part of the population in the Bering Strait area. The common features are the wedge-shaped inserts of white color, coming down both sides of the hood to the chest, in a form similar to walrus tusks, and the hoods, trimmed with wolverine fur, creating an effect of walrus whiskers. Also, imitated flippers of marine mammals, made from fur mosaic and trimmed by wolverine fur, are sewn onto the forearm of men's clothing. Until recently, I assumed that this type of clothing is typical for the entire community of Pacific walrus hunters. I based this assumption on numerous photographic evidence from both sides of the Bering Strait. But the latest results from the study of family and kinship relations, conducted in Alaska and Chukotka, convince me that this type of clothing is kinship based and this type of symbolism belongs to the category of tribal marks.

Thus, we defined the basic principles for the creation of clothes within the hunting cultures, who have mastered the arctic expanses in the recent past, the clothing types of continental hunters, including reindeer and sheep hunters and the large kinship group of walrus hunters. In addition, there is symbolic use of color, fur and protection signs. All these signs, as a composite, reflected a person's status in society and in the same way as we do today with photographs, narrated the peculiarities of local cultures.

## Papers

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# International Cooperation



## International Cooperation

### Joint Statement of the President of the United States of America and the President of the Russian Federation on Cooperation in the Bering Strait Region

**THE WHITE HOUSE  
OFFICE OF THE PRESS SECRETARY**

*For Immediate Release*  
May 26, 2011

The President of the United States of America and the President of the Russian Federation:

- Calling for protection of the shared natural and longstanding cultural heritage of Alaska and Chukotka;
- Recognizing the worldwide cultural and natural significance of the Bering Strait region, both as an ancient crossroads and as an area of present-day cooperation between our two countries;
- Noting that the Bering Strait region is important to the economies of both countries;
- Recognizing the many successes of the “Shared Beringian Heritage Program” in better understanding our shared history and sustaining the cultural vitality of the Native peoples in the Central Bering Strait region today;
- Confirming the mutual interest of both countries in deepening cooperation and strengthening ties, particularly in the region of our common boundary in the Bering Strait;

- Noting the important need to protect the rights of Native peoples residing in Alaska and Chukotka and to ensure that residents and Native peoples engaged in cultural and traditional activities aimed at providing for their personal needs have continued access to natural resources in accordance with each nation’s laws;
- Conscious of the importance of cooperation to protect nature and natural resources in the Bering Strait region and to apply effective strategies aimed at sustainable development of the Arctic regions of our countries;
- Understanding the significance of unique Arctic ecosystems of Alaska and Chukotka in the Bering Strait region; and
- Conscious of the effects of climate change and other pressures on the common natural and cultural heritage of the Bering Strait region;

Declare an intention to deepen cooperation between the United States of America and the Russian Federation in the cross-boundary Bering Strait region, including the expansion of interaction between the national agencies that are responsible for the specially protected natural territories/areas of both countries in the State of Alaska and the Chukotka Autonomous District, including their commitment to developing a dialogue with Native peoples to help determine the specific goals and methods for such cooperation.

## International Cooperation

### Russian/U.S. Collaboration in the Beringia Region

The United States supports the establishment of an international protected area in the region of the Bering Strait to reinforce peaceful cooperation between the U.S. and Russia. Such a protected area will provide a framework for 1) American and Russian scientists to plan and work jointly in this region of the Arctic as they foster environmental protection of this fragile ecosystem, 2) the conservation of flora and fauna and 3) the continued use of the area's natural resources for subsistence. Moreover, by increasing international recognition of the area, the designation may promote tourism in the region, providing an economic benefit for both countries.

To realize these goals, the U.S. National Park Service (NPS) has sought input from local stakeholders on the establishment of an international protected area spanning the Bering Strait. The NPS has sought to remain flexible as to what form an international protected area might look like in order to allow local stakeholder perspectives to be expressed. As NPS gains the perspectives of interested parties, it will need to formalize a proposal and engage in tribal consultation. To date, NPS has not expressed a public opinion, but favors establishment of a sister park relationship between a Russian park in Chukotka and one or more parks in Alaska.

#### Previous Attempts to Establish an International Protected Area in the Bering Strait Region and Creation of the Shared Beringian Heritage Program

The governments of the United States and Russia have long supported the creation of an international protected area in the region of the Bering Strait. During a June 1, 1990, summit meeting, Presidents George H. W. Bush and Mikhail Gorbachev jointly called for such an agreement to promote preservation of the common natural and cultural heritage spanning the two countries.

In November 1991 draft legislation to establish the Beringian Heritage International Park (S.2088) was submitted to Congress, but was never acted on. Subsequent attempts to redraft the legislation with the cooperation of Native groups in Northwest Alaska and conservation organizations were not successful.

The U.S. Congress subsequently funded the National Park Service (NPS), beginning in 1991, to further the objective of greater understanding of the region's resources through the establishment of the Shared Beringian Heritage Program. With funding of about \$650,000 annually, the program supports 2.5 employees, funds scientific, educational, cultural and community based projects in the Bering Strait region; supports cultural and technical expertise exchange programs; and organizes an international conference every other year alternating between Alaska and the Chukotka Autonomous Region.

Annual funding for projects/research totals about \$400,000. Projects have a "Russian component" and are recommended for funding by a panel, including NPS staff and representatives from the three Alaska Native regional corporations in Northwest Alaska. The Beringia Program has been successful at enhancing local Alaska and Chukotka Native support through encouragement of village-based projects and exchanges. Currently there are about 18 on-going projects. Since the program's inception, the NPS has distributed nearly \$9 million to fund these projects. (See "Spanning the Bering Strait: 20 years of collaborative research.")

The Beringia Program encourages local support and involvement in activities that an international protected area designation would promote and since the mid-1990s has built a productive working relationship between the NPS and local interests.

#### Shared Natural and Cultural Resources of Beringia

The United States recognizes the cultural and environmental importance of Beringia, including its role as habitat for migratory birds and mammals, and supports ongoing efforts to conserve this keystone area of biodiversity. Scientists consider Chukotka and Northwest Alaska to be a single botanical entity. Chukotka and Alaska share environmental concerns and face similar ecological threats.

## International Cooperation

Because both Chukotka and Alaska are rich in natural resources, safe and environmentally sound resource extraction has been the focus of concern on both sides of the Bering Strait. Local people have united to discuss these issues at international forums and through organizations like the World Wildlife Fund, Greenpeace and the Arctic Council. They also collaborate on several shared environmental projects with the National Park Service's Shared Beringian Heritage Program, including those regarding climate change, wildlife monitoring and management and shrinking sea ice.

In addition to preservation of natural resources, parklands in Western Alaska preserve and protect the cultural norms and ideas shared by indigenous people of Chukotka and Alaska. Tangible examples of these resources include culture, traditions, language, ecology and subsistence hunting.

Traditions involving food, hunting, marriage, shamans and elders are similar on the two sides of the Bering Strait. Because inter-marriage was frequent before Soviet Communism, many coastal peoples in both locations are distant relatives – a bond that was not severed by Soviet rule. Indeed, the current superintendent of NPS's Bering Land Bridge National Preserve had a grandparent who was Russian Yupik.

The language spoken by Inupiat and Yupik people in Alaska is understandable by coastal Eskimos in Chukotka. It is the same language with different dialects depending on geographical location.

Another commonality is dependence on a subsistence lifestyle. Hunters and herders in Chukotka and Alaska share the resource of wildlife and rely upon whales, seals, walruses, polar bears and reindeer to augment their diet. Russians and Alaskans collaborate on polar bear hunting quotas and serve on the Eskimo Whaling Commission and the Association of Traditional Marine Mammal Hunters of Chukotka.

### Formal Designation for Beringia – What is required, what form could it take?

Four parcels of protected lands in the United States, which are proposed for inclusion in a shared Beringian international protected area, were established in Alaska by federal law in 1980 and include Bering Land Bridge National Preserve, Kobuk Valley National Park, Cape Krusenstern National Monument and Noatak National Preserve (collectively known as the Western Arctic Parklands). Because the focus has been on an international park, other Department of Interior lands in the region have not been part of the concept. Protected lands in either country will be subject only to the regulations of that country and will not be subject to any international management or regulation.

From the beginning, the Russian Federation has needed to designate comparable protected lands at the federal level before an international protected area designation could be considered. This has not yet happened, despite assurances several times in the past 20 year.

A variety of frameworks for U.S.-Russian cooperation on Beringia could be considered, ranging from an informal sister park relationship to a formal agreement, such as an International Heritage Area or International Park.

The NPS has not expressed an opinion publicly, but favors establishment of a sister park relationship between the proposed Russian National Park in Chukotka and one or more of the Western Alaska Parklands. Such a designation could be accomplished without legislation. An NPS decision will depend on local input and be vetted through the Department of Interior in the fall/winter of 2011.

Movement by the Russian Federation to establish a national park in Chukotka would set the stage for trans-boundary protected area discussions and is required before a form of international designation could be determined.

## International Cooperation

### What Would An International Designation Accomplish?

After 20 years of close cooperation between the National Park Service and Russian conservation organizations and agencies, an international designation would:

- provide worldwide recognition of the region's shared natural resources and cultural heritage,
- constitute a joint effort to preserve the important natural elements of the land bridge and the cultural traditions that continue today,
- create a dramatic example of cooperation between the two nations, formalizing the gesture of peaceful cooperation on a national level as an enduring symbol of our relationship,
- provide a framework for American and Russian scientists to plan and work jointly in this region of the Arctic, leading to increased protection of its fragile Arctic ecosystem,
- provide a mechanism for meaningful involvement of indigenous people and local communities in Beringia in administration and management of programs and agreements under this designation,
- improve tourism and other economic activities in the region and
- provide an opportunity to educate the public about the phenomenal resources in this region as economic and development interests continue to explore greater opportunities.

### Is There Local Support for an International Designation?

The National Park Service has visited communities across Northern and Western Alaska, Native organizations, interest groups and other stakeholders over the past two years to gain some perspective on people's interests and positions on an international designation.

While the NPS has not received formal comments on an international designation, support by local Native Alaskans for the international protected area may hinge on the ability to respond to concerns regarding their Russian counterparts across the Bering Strait. NPS community outreach revealed an important concern for the potential negative impacts of an international protected area on the subsistence and traditional activities of local Chukotka indigenous communities.

NPS will continue to meet with stakeholders in 2012.

### What is the National Park Service Doing to Further the Discussion?

Aside from meeting with local people and other stakeholders in Alaska and cooperators and other interested groups across the country, NPS is actively working to increase/improve communication and cooperation between Chukotka and Alaska in anticipation of designation of an international protected area.

The Beringia Days 2011 Conference provided an excellent opportunity to discuss the creation of an international protected area. NPS sponsored 21 Russians to travel to the conference. The Chukotka Administration funded 18 delegates from their region as well, representing the largest contingent of Russian participants to the conference. In total, a delegation of about 50 Russians from communities across Chukotka and from the Chukotka Autonomous Region Administration attended the conference in Nome. The U.S. State Department funded NPS travel to Russia and some components of the Beringia Days Conference.

NPS established a Russian-language website - <http://www.nps.gov/akso/beringia/ru-index.cfm> - mirroring the Shared Beringian Heritage Program website - <http://www.nps.gov/akso/beringia/index.cfm> - to improve communication at the local level. The U.S. State Department funded the project.

## International Cooperation

### Next Steps

- In response to the May 2011 joint statement by Presidents Obama and Medvedev, calling for increased cooperation in the Bering Strait region, the Beringia Days Conference in September focused on opportunities for increasing communication and cooperation between the two countries and the possibility of an international protected area designation. (A copy of the Presidents' Joint Statement on Beringia is on page 116 , and comments received at the Beringia Days Conference on ways of deepening cooperation are below).
- NPS is well positioned to complete its public process and move forward in designating an international protected area, if supported by local constituents.
- NPS is sensitive to the concerns of the Russian government that the U.S. keep pace with the Russian process for establishment of an international protected area, rather than move ahead of Russia.
- NPS must confirm Department of Interior concurrence with a sister park (or alternate) framework before a formal consultation process is initiated.
- Formal consultation with tribal organizations on establishment of the international protected area is projected to occur in 2012.



## International Cooperation

### Responding to the Presidents' Message: Thoughts on Deepening Cooperation across the Bering Strait

*Facilitated Discussion of Conference Attendees*

#### **FACILITATOR**

**Rebecca Talbott**, Chief of Interpretation and Education, Alaska Region,  
National Park Service

In response to Presidents Obama's and Medvedev's joint statement on Beringia, on the second day of the conference a facilitated workshop was held to solicit comments from participants on deepening cooperation across the Bering Strait. The Shared Beringian Heritage Program is pleased to report that as of the spring of 2012 several of the ideas outlined below have been implemented. The ideas expressed are as follows:

- We should celebrate heroes.
- Tell stories that dispel stereotypes.
- Bring the Hope race back.
- Increase the positive power of tourism.
- U.S. government should publicly state that it would support an international protected area in Beringia.
- New industrial development is needed in Chukotka.
- Finalizing protection agreements are critical for the good of marine and land resources (reindeer).
- Capture traditional ecological knowledge about reindeer herding.
- Give the David Hopkins Award to women.
- Have Beringia conferences in villages to involve the people who live on the land.
- Recognize that local people have advanced knowledge of subsistence hunting, sled dogs, caribou and rivers, knowledge that has passed through the generations.
- Travel to Chukotka may be challenging, but maintaining a strong will to visit can help – do not lose heart.
- Commerce between countries has been hard since 1999. Government needs to make it easier.
- There are many commonalities between people – especially reindeer herding. We need to share history, stories and current operations.
- We share genealogy and relations between U.S. and Chukotka.
- Families do not have political borders.
- Clothing study shows our relationships and values.
- Cultural and spiritual exchange reveals common roots that can improve communication.
- Concept of “Protected” areas imposes a them-us relationship. Native organizations need to ensure their continued resource use rights on both sides of the strait.
- Discuss issues – solve problems with people's diplomacy.
- Visa-free travel is critical.
- Modern travel is too expensive – use boats.
- Initiate a quarterly journal with editorials from experts on each side about regulations.
- Publish fairy tales to teach traditional values.
- Produce more films about traditional life.
- Expand cultural exchange with children.
- Return the opportunity for customary travel. Visiting renews cultural spirit and well-being.
- Have the next meeting on St. Lawrence [Island].
- Recognize that people have been reindeer herding for a whole lifetime in Stebbins.
- Deepening cooperation: You have done such an incredible job at deepening understanding of the richness of the area. If NPS could foster a dialogue about community futures in the midst of such changes, then there may emerge joint goals to deepen cooperation. It seems that migratory wildlife has so many existing collaborative opportunities, NPS should probably focus on landscape and environmental change, as well as conservation of cultural resources and cultural landscapes. Thank you.

# Speakers' Biographies



## Speakers' Biographies

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### LYUDMILA IVANOVNA AINANA

Chairwoman, Yupik Eskimo Society of Chukotka, Provideniya, Chukotka

Lyudmila Ainana was born in 1934 in the small settlement of Ukigyagak, located at the southern end of Unazik (Chaplino) Spit. Ainana graduated from Gertzen Leningrad Pedagogical Institute with a degree in elementary education (Russian and Eskimo languages) and taught in many elementary schools of Chukotka Autonomous Region. She has also worked as a research scientist in the Institute of Native Education Issues. Ainana is one of the co-authors of the Eskimo language program for the elementary school and textbooks *Yupigyt Ulyunat*, *Ankhak*, picture dictionary of Eskimo language and language study program for the Native pre-school and kindergarten. She also served as a translator of several fiction books into the Eskimo language. Ainana was one of the cofounders of the Yupik Eskimo Society and is the society's chairwoman. Since 1992 the Yupik Eskimo Society has been a member of the Inuit Circumpolar Conference (ICC) and took part in its general assemblies. The Society works toward the preservation of marine mammal hunting culture and Eskimo language. It participated in numerous projects with the Native organizations in Alaska and was a collaborator on several projects cofounded by the National Park Service's Shared Beringian Heritage Program.

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### ARTUR APALU

Observer, SIKU – Sea Ice Knowledge and Use Project, Yanrakynnot, Chukotka

Artur Apalu lives in the community of Yanrakynnot in Chukotka and works as a ranger in the Russian 'Beringia' Park. He is a life-long subsistence hunter and the head of the local marine mammal hunting association in his native community. Within the 'Beringia Park,' he is responsible for a large stretch of coast from the Senyavin Strait and up to Mechigmen Bay, including a significant inland area. He participated as an observer in several international programs in bowhead whale and Pacific walrus monitoring in the 1990s and 2000s and in the SIKU project in 2007-2009.

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### PAUL APANGALOOK

Yupik Subsistence Hunter, Gambell (Sivuqaq), St. Lawrence Island, Alaska

Paul Apangalook is a life-long subsistence hunter from the Yupik community of Gambell (Sivuqaq) on St. Lawrence Island, Alaska. In 2008–2011 he conducted daily observations of local weather and sea ice conditions under the international SIKU (Sea Ice Knowledge and Use) project. He is a great enthusiast for supporting traditional cultural heritage and indigenous languages. He previously served as mayor of Gambell, head of the local village corporation and of the Gambell IRA Council.

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### RICHARD ATORUK

Inupiaq Dancer and Videographer, Kotzebue, Alaska

Richard Atoruk is a 20 year-old Inupiaq, performing with the Northern Lights Dancers of Kotzebue since he was nine. He has been instrumental in the revitalization of dance in Noorvik and Kivalina. Atoruk moved behind the camera in 2009 for The Lost Dances and other video projects.

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### ALEXANDER BOROVIK

Observer, SIKU – Sea Ice Knowledge and Use Project, New Chaplino, Chukotka

Alexander Borovik lives in the Yupik community of New Chaplino in Chukotka, Russia and works as senior ranger for a large section of the Russian 'Beringia' Park, from Arakamchechen Island up to Imtuk Lake. He is widely respected for his knowledge of the local flora and fauna, as well as traditional subsistence practices of Chukotka indigenous people. He participated in several earlier international studies of Eastern Chukotka, including the international project SIKU.

## Speakers' Biographies

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### ARON L. CROWELL

Alaska Director, Arctic Studies Center, Smithsonian Institution, Anchorage, Alaska

Aron Crowell is an anthropologist who works with indigenous communities of the north in the field of cultural research, archaeology, oral history and heritage. As Alaska Director for the Smithsonian Institution's Arctic Studies Center, he has curated or co-led major exhibitions, including *Living Our Cultures, Sharing Our Heritage: The First Peoples of Alaska*; *Gifts of the Ancestors: Ancient Ivories of Bering Strait*; *Looking Both Ways: Heritage and Identity of the Alutiiq People*; and *Crossroads of Continents: Cultures of Siberia and Alaska*. His many research articles and books include *Archaeology and the Capitalist World System: A Study from Russian America*. Crowell's Doctorate in Anthropology is from the University of California, Berkeley, and his Master of Arts degree is from George Washington University in Washington, D.C. He is an affiliate faculty member of the University of Alaska.

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### FRANK FERGUSON

Inupiaq Dancer and Videographer, Kotzebue, Alaska

Frank Ferguson is a 20-year-old Inupiaq who has been with *The Lost Dances* project since its inception. Ferguson has performed traditional dance, and his talent creating music was incorporated into the production: his beats are included in *The Lost Dances*.

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### YURIY VALENTINOVICH GERASIN

Consul General of the Russian Federation, Seattle, Washington

Yuriy Gerasin is Consul General of the Russian Federation in Seattle, Washington, a post to which he was appointed in 2008. He carries the first rank of a diplomatic advisor. Gerasin began his work at the Ministry of Foreign Affairs in 1978 and has worked in various diplomatic positions at the ministry's central office and abroad. He also has served in various detail assignments in Romania and the United States. Prior to his present position, Gerasin was the Head of the Personnel Department at the Ministry of Foreign Affairs.

Gerasin is a graduate of the Moscow State Institute of International Relations and the Diplomatic Academy. He is fluent in English, Romanian and French.

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### TED GOEBEL

Professor of Anthropology, Center for the Study of the First Americans, Department of Anthropology, Texas A&M University-Corpus Christi, Texas

Ted Goebel is a professor of Anthropology at Texas A&M University. He earned his Ph.D. in Anthropology at University of Alaska Fairbanks in 1993, and since then has conducted archaeological research in Siberia, Alaska and western United States. Goebel's research focuses on the Ice Age peopling of the Americas. In 2000 he led excavations at the famous Ushki Paleolithic site in Kamchatka and for the past decade has investigated Bonneville Estates Rockshelter, Nevada, where his team has unearthed evidence of Paleo-Indian hunter-gatherers dating to as early as 13,000 years ago. Most recently Goebel has been conducting field research in Alaska, focusing on Ice Age archaeology on the Seward Peninsula as well as the Interior.

## Speakers' Biographies

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### VICTORIA GOLBTSEVA

Senior Specialist, Laboratory of Multi Discipline Studies of Chukotka (Chukotka Center), Northeastern Institute of Multi Discipline Studies, Far Eastern Branch of the Russian Academy of Sciences, Anadyr, Chukotka

Victoria Golbtseva works at the Department (Laboratory) of Complex Studies of Chukotka, of the Research Center "Chukotka" in Anadyr, Russia. Originally, from the Chukchi community of Uelen on the Arctic coast, she started her career teaching her Native Chukchi language at the local high school. She currently works on the documentation of traditional ecological knowledge and subsistence practices of Chukotka indigenous people. She is active in the local grassroots movement in Chukotka aimed at supporting Native languages and cultural heritage.

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### BIVERS GOLOGERGEN

Subsistence Hunter/User, Member of Eskimo Walrus Commission, Nome, Alaska

Bivers Gologergen was born in Savoonga on St. Lawrence Island and was raised in Nome. He actively hunted for whales and walrus in Savoonga for many years. Since his move to Nome with his family seven years ago, he continues his subsistence way of life. Gologergen works for the Nome Eskimo Community and represents Nome subsistence hunters on the Eskimo Walrus Commission.

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### WILLIE GOODWIN

Subsistence Coordinator and Community Liaison, Western Arctic Parklands, National Park Service, Kotzebue, Alaska

Willie Goodwin began working for the Western Arctic National Parklands (WEAR) as Special Assistant to then Superintendent Dave Spirtes. Presently, he is the Native Liaison and Subsistence Coordinator for WEAR. In this capacity, he works with all the tribes and organizations that use the parks within WEAR (Kobuk Valley National Park, Noatak National Preserve, Bering Land Bridge National Preserve and Cape Krusenstern National Monument).

Prior to his work with the National Park Service, Goodwin was Land Director for NANA Regional Corporation and the Kikiktagruk Inupiat Corporation.

Goodwin has been involved with Native Village of Kotzebue's bearded seal satellite tagging project for the last seven years.

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### SVEN D. HAAKANSON, JR.

Executive Director, Alutiiq Museum, Kodiak, Alaska

Sven Haakanson was born and raised in the rural Kodiak Island community of Old Harbor, Alaska, as a member of the Old Harbor Alutiiq Tribe. He holds a B.A. in English from the University of Alaska Fairbanks and a Ph.D. in anthropology from Harvard University. Since 2000, Haakanson has worked to share Native American perspectives with museums and museum practices with Native people as executive director of the nationally acclaimed Alutiiq Museum, a Native cultural center in Kodiak, Alaska. Haakanson has made collections more accessible to Native communities by researching objects in the world's museums and developing traveling exhibits, educational programs and resources around the information they hold. He is especially known for the Giinaquq: Like a Face project. This award winning collaboration with the Château-Musée of Boulogne-sur-Mer, France, brought 19th century Alutiiq masks to Alaska for exhibit, reuniting the Alutiiq community with rare ancestral ceremonial objects.

## Speakers' Biographies

In 2007, his work was honored with a MacArthur Foundation Fellowship. In 2009, he was awarded a four-month sabbatical from Alaska's Rasmuson Foundation to continue his study of Alutiiq collections stored in European museums. Haakanson has extensive teaching experience, working annually with teens throughout the Kodiak archipelago to lead arts workshops and conduct archaeological fieldwork. Additionally, he serves on the boards of directors for many cultural organizations, teaches as an adjunct faculty member at Kodiak College and maintains an active research program. He is systematically documenting Kodiak's prehistoric petroglyphs and continues to publish his research on the Nenets culture of Siberia. In addition, he is an accomplished artist, known for his carvings and photography. Haakanson is married to Kodiak educator Balika Finley Haakanson. They have two daughters.

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### D'ANNE HAMILTON

Executive Producer of *The Lost Dances*, Kotzebue, Alaska

D'Anne Hamilton is a former award-winning Inupiaq journalist. She served as Producer/Host of National Native News and the Training Center Director for Koahnic Broadcast Corporation, which provides media training nationwide. Hamilton is currently creating a media training center in Kotzebue.

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### FRANK HAYS

Superintendent, Western Arctic Parklands, National Park Service, Kotzebue, Alaska

Frank Hays currently serves as the superintendent of the Western Arctic Parklands, headquartered in Kotzebue, Alaska. The Western Arctic Parklands is composed of Bering Land Bridge National Preserve, Kobuk Valley National Park, Cape Krusenstern National Monument and Noatak National Preserve. Together the four units total 11 million acres.

Before coming to Alaska, Hays was the Pacific area director for the National Park Service, overseeing the Pacific West Region's Honolulu office. This office provides technical services and policy oversight for the 11 national park areas

in the Pacific. Before that, he was superintendent of Manzanar National Historic Site in California, where he oversaw operations of that national historic site, which preserves and interprets the cultural and natural resources associated with the internment of Japanese-Americans during World War II.

Hays began his career with the National Park Service in 1980 as a seasonal park ranger at Zion National Park. He received his Bachelor of Science in Renewable Natural Resources degree from the University of Arizona and a master's degree in Public Administration with Honors from Northern Arizona University.

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### NORMAN JAYO

Director/Trainer, *The Lost Dances*, Kotzebue, Alaska

Norman Jayo has trained Native Americans in media for two decades. His dramatic work on virtual reality and the future of technology won two gold medals representing the United States at the Prix Italia in Urbino and Pesaro, Italy.

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### CHARLIE JOHNSON

Executive Director, Alaska Nanuuq Commission, Nome, Alaska

Charlie Johnson is an Inupiat Eskimo who resides in Nome, Alaska. He graduated in 1966 from the University of Oregon, with a Bachelor of Science Degree in Math and Business Administration. He is the executive director for the Alaska Nanuuq Commission (ANC) and represents Alaska villages on a range of matters regarding the polar bear, including conservation, management and research. The ANC produced a three-year report on polar bear habitat use in Chukotka (Russia) based on the traditional knowledge of hunters and elders of that area. Johnson currently holds the Circumpolar Arctic Research seat on the Alaska Native Science Commission. Prior to his position with the Alaska Nanuuq Commission, he served as the executive director for the Eskimo Walrus Commission, representing Alaska Villages on a range of matters concerning walrus conservation, management and research. He holds the distinction of having served as the president of Bering Straits Native Corporation (1983-1988), the president of

## Speakers' Biographies

Kawerak, Incorporated (1976-1983), the chairman of the Alaska Federation of Natives (1981-1983) and the vice president of the Inuit Circumpolar Conference. Appointments include U.S. Arctic Research Commission under President George H. Bush; Alaska Science Review Group; National Marine Fisheries Service; U.S. Delegation Arctic Council; and Member, CAFF Working Group International Arctic Social Science Committee.

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### CAROL ZANE JOLLES

Ph.D., Associate Professor of Anthropology, Anthropology Department, University of Washington, Seattle, Washington

Carol Zane Jolles is an Associate Professor in the Anthropology Department at the University of Washington in Seattle, Washington, where she is a member of the department's research faculty.

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### VLADILEN KAVRY

Chukchi Subsistence Hunter, Umky Patrol (Polar Bear Patrol), Vankarem, Chukotka

Vladilen Kavry is a life-long resident of the Russian province of Chukotka. Born in the village of Vankarem in the Iultin District of Chukotka, Kavry now lives in the town of Amguema. Kavry, a hunter, has participated in several seminal projects, documenting traditional knowledge of Chukchi people regarding climate change and polar bears. A former head of the Russian polar bear commission of the Association of Traditional Marine Mammal Hunters of Chukotka, Kavry is now a member of the science advisory committee to the U.S.-Russia Polar Bear Commission. Kavry is one of the founders of the "Umky" (polar bear) patrol, a community-based initiative that involves reducing conflicts between humans and polar bears; conducting observations of polar bears in their spring and fall migrations and protecting walrus and their coastal habitat during their increasing land-based period each fall.

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### IGOR KRUPNIK

Anthropologist, Curator of the Arctic and Northern Ecology Collections, Arctic Studies Center, National Museum of Natural History, Smithsonian Institution, Washington, D.C.

Igor Krupnik is a cultural anthropologist and curator at the National Museum of Natural History, Smithsonian Institution in Washington, D.C. His field of interests includes subsistence, ecological knowledge and cultural heritage of polar indigenous people. He was among the first scientists to turn to indigenous observations and knowledge as a source of records on modern Arctic climate change. He initiated and coordinated the international SIKU project in Alaska and Russia in 2006-2010.

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### GUY MARTIN

Shared Beringian Heritage Program Panel Member, Nome, Alaska

Guy Martin, Nome resident, has worked for many years on Native issues in the Beringia region. He has worked for Kawerak, Incorporated and the Eskimo Walrus Commission on subsistence issues in conjunction with various state and federal agencies. He was a founder of the Alaska Department of Fish and Game Advisory Committees on Subsistence and has worked with the State of Alaska on other issues regarding Native subsistence rights. At the Bering Straits Native Corporation, Martin first served as the village land manager, working with 20 villages on land conveyance in the Bering Strait. He was appointed by the Governor of Alaska as a commissioner on the Local Boundary Commission and was a liaison to the Army Corps of Engineers on land issues. He is the past president of the Arctic Native Brotherhood Trust and the Nome Eskimo Community, both serving the Nome area. He was awarded the David M. Hopkins Award in 2009 by the National Park Service's Shared Beringian Heritage Program for his dedication to the land and people of Beringia and continues to serve as a Beringia Panel member. He currently serves on the board of directors of the Bering Straits Foundation, which awards scholarships to local students.

## Speakers' Biographies

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### JACOB MARTIN

Senior Student, Nome Beltz High School, Community Activist, Nome, Alaska

Jacob Martin is a senior at Nome Beltz High School. In 2010, he participated in an exchange program organized by the Nome Community Center, in which he traveled to Chukotka, Russia, and enjoyed the great hospitality. In 2011, he attended the Alaska Native Science and Engineering Program where he studied geology and mathematics. Martin grew up interacting with houseguests from Russia, whom he gave local rides and tours around the Nome road system. In his spare time, he loves to spend time in the outdoors.

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### SUE MASICA

Regional Director, Alaska Region, National Park Service, Anchorage, Alaska

Sue Masica became the NPS Regional Director for Alaska in September 2008. In this capacity, she oversees all NPS operations in the state of Alaska, encompassing 16 park units, 2 affiliated areas, 54.7 million acres, 1,000 employees during the summer and a budget of about \$100 million. She also oversees partnership and outreach programs supporting recreation and natural and cultural resource protection.

Prior to coming to Alaska, Masica served as the NPS Associate Director for Administration; Associate Director for Park Planning, Facilities and Lands; and most recently, as the Chief of Staff. In each of these positions, she served as a key advisor to the NPS leadership on matters related to policy, budget, congressional and Department of the Interior relations and personnel. In recognition of her leadership, Masica received the Presidential Rank of Meritorious Executive in 2004.

Prior to joining the National Park Service in 1998, Masica served 10 years on the staff of the United States Senate Committee on Appropriations as staff director of the Subcommittee on the Department of the Interior and Related Agencies, during which time she was actively involved in formulating decisions affecting the NPS budget and policy matters.

Masica began her federal career as a Presidential Management Intern with the Department of the Interior. She earned a Master of Public Affairs degree from the University of Texas (Lyndon B. Johnson School of Public Affairs) and a Bachelor of Arts in Political Science from Austin College.

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### CHANDA MEEK

Assistant Professor, Political Science, University of Alaska Fairbanks

Chanda Meek is an assistant professor of political science at the University of Alaska Fairbanks (UAF). A graduate of UAF's School of Natural Resources & Agricultural Sciences, she was the school's first graduate with a Ph.D. in Natural Resources and Sustainability. She has a strong orientation to science and interdisciplinary work. She also is interested in how policies can help sustain communities and the environment and exploring policy aspects of some of the big emerging challenges in Alaska, such as climate change, marine shipping and endangered species.

Meek's Ph.D. dissertation compared the policy implementation process for managing bowhead whale and polar bear subsistence hunting in Alaska, focusing on how and why agency approaches to conservation differ. She learned that successful research with communities in Alaska depends on creating a social network. Her research often took her to Barrow and Wainwright, where she interviewed whaling captains and polar bear hunters about how they interact with regulatory systems.

Prior to her work at UAF, Meek worked in California as director of a conservation nonprofit organization related to the boreal forest and then as a coastal planner for the California Coastal Commission.

Meek earned a Bachelor of Science degree in Marine Biology at Huxley College of the Environment, Western Washington University, and a Master's of Environmental Studies at York University in Toronto.

## Speakers' Biographies

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### DENISE L. MICHELS

Mayor, Nome, Alaska

Denise Michels was elected to serve as mayor of the City of Nome, population 3,545, in the October 2003 municipal election. Born and raised in Nome, she is the first Alaska Native to serve in this capacity and the first woman elected to the post. As chief executive officer, she works closely with an appointed city manager, the Nome City Council and other elected and appointed boards and commissions. The mayor is the chief spokesperson for the city, representing community legislative priorities to the Alaska Legislature and the U.S. congressional delegation. She continues to focus on public safety, community, economic and infrastructure development and promotes bringing diverse groups and residents together.

The position of mayor in Nome can be characterized as a “full time job with part-time pay.” Kawerak, Inc., a Native not-for-profit service organization, employs Michels as director of transportation. In this position, she is responsible for overseeing the development and implementation of strategies for transportation and public infrastructure.

As a businesswoman, she and her husband, Terry Michels, have owned and operated several businesses in Nome. A carpenter by trade, Terry Michels has most recently upgraded buildings for rental units.

Michels is an active participant in regional planning activities and currently holds the position of immediate past president for the Alaska Municipal League, past president for the Alaska Conference of Mayors, past co-chair of the Public Works and Infrastructure Committee, as well as other various ad hoc appointments. Michels is a shareholder of Bering Straits Native Corporation, Sitnasuak Native Corporation and is a Nome Eskimo Tribal Member. She strongly believes in giving back to her community and has served on numerous boards. She is a member of the Alaska Airlines Northwest Community Advisory Board, the Resource Development Council and Northern Waters Task Force. She is a

former member of the following: BLM's Resource Advisory Council, Chair of the Governor's Transition Team for the Department of Military and Veterans Affairs, Advisory Committee member of the Alaska Military Force Advocacy and Structure Team, stakeholder for DOTPF's Long Range Transportation Plan 2010 update and member of the Governor's Sub-Cabinet on Climate Change – Adaptation Advisory Work Group-Public Infrastructure.

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### PEGGY O'DELL

Deputy Director for Operations, National Park Service, Washington, D.C.

Peggy O'Dell serves as the National Park Service Deputy Director for Operations. She has a major role in managing the National Park Service's (NPS) annual budget of \$3.1 billion and more than 20,000 employees who serve in 394 national parks and offices around the nation. She oversees every aspect of park operations, including the preservation and protection of 84 million acres, 100 million museum objects, 27,000 historic structures and 85,000 miles of rivers and streams. In addition, she oversees recreation, education and hospitality services for the more than 285 million people who visit national parks every year, generating \$12 billion in local economic impacts. Beyond parks, O'Dell has responsibility for the National Park Service's community-based historic preservation programs from the National Register of Historic Places, to national heritage areas, to a tax credit program that annually leverages more than \$5 billion in private investment to rehabilitate historic buildings for new uses.

O'Dell served as regional director of the NPS National Capital Region the two years prior to her present appointment and before that was superintendent of the National Mall and Memorial Parks in Washington, D.C. She began her 30-year National Park Service career as a seasonal interpreter at Jefferson National Expansion Memorial in St. Louis while attending college at the University of Missouri, where she earned a Bachelor of Arts degree in history. She also managed the interpretation and education programs at Ozark National Scenic Riverways in Missouri, served as superintendent of Jewel Cave National Monument in South Dakota and was deputy manager of the National Park Service's interpretive design center in West Virginia.

## Speakers' Biographies

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### JEANETTE POMRENKE

Superintendent, Bering Land Bridge National Preserve, National Park Service, Nome, Alaska

Jeanette Pomrenke currently serves as superintendent of the 2.5 million acre Bering Land Bridge National Preserve headquartered in Nome, Alaska. Pomrenke has an extensive background in administration and management. Before her present position, she was the transportation program director of Kawerak, Inc. in Nome and was responsible for the planning, development and implementation of Kawerak's transportation program. Prior to that, she was the planning, development and tribal services director for Nome Eskimo Community.

This is Pomrenke's second tour with the National Park Service (NPS): from 1994 to 1998 she worked as an interpretation ranger at Bering Land Bridge. She is expert in the preserve's natural and cultural history and its current subsistence uses. She won the NPS Freeman Tilden Alaska Area Award for Excellence in Interpretation in 1997.

Pomrenke graduated from Linfield College in McMinnville, Oregon, in 1994. She holds a Bachelor of Science degree in general science. She is lifelong resident of the Bering Strait region; her parents are Joe and Grace Cross. She is a tribal member of Nome Eskimo Community and one of the troop leaders of the Farthest North Girl Scout Troop 156, also based in Nome.

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### MILLE PORSILD

Founder of NOMADS Adventure & Education Inc., GoNorth! Adventure Learning, Minneapolis, Minnesota

Mille Porsild, founder of NOMADS Adventure & Education Inc., PolarHusky.com, and the non-profit organization GoNorth! Adventure Learning, is a pioneer in the field of online education and adventure learning. A strong voice in Arctic education, Porsild has dog-sledded the circumpolar Arctic on 16 extensive expeditions in the past 19 years.

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### PAT POURCHOT

Special Assistant to the Secretary for Alaska Affairs, U.S. Department of the Interior, Anchorage, Alaska

Pat Pourchot was appointed by Secretary of the Interior Ken Salazar as his Special Assistant on Alaska Affairs in 2009. Pourchot spent seven years with the Department of Interior in the 1970s, including working with the Bureau of Land Management on environmental issues surrounding the transport of Alaska oil to U.S. markets. He left the department to work on Capitol Hill, where he helped fashion the Alaska National Interest Lands Conservation Act and worked on oil and gas, mining, forestry and environmental issues.

In 1981, Pourchot was the land manager for the Alaska Federation of Natives and then worked as resource manager for one of the Alaska Native regional corporations. He held leadership positions in both the Alaska House of Representatives and Alaska Senate. Pourchot served under former Governor Tony Knowles as his Legislative Director and then as his Commissioner of the Alaska Department of Natural Resources (DNR). At DNR, he oversaw state oil and gas leasing, large mine developments, state parks and state land and water management. Before being appointed to his current position, he was the senior policy representative for Audubon Alaska.

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### LILY RAY

Social Scientist, Kawerak, Incorporated, Nome, Alaska

Lily Ray is a social scientist for Kawerak, Inc.'s Department of Natural Resources. She currently leads Kawerak's Ice Seal and Walrus project, which documents seal and walrus subsistence use areas and traditional knowledge of these species. Ray has a Ph.D. in Geography from Clark University and participated in the Resilience and Adaptation interdisciplinary graduate program at the University of Alaska Fairbanks. Her previous work includes documentation of wildfire traditional knowledge in Interior Alaska and research on the potential for community involvement in wildfire management.

## Speakers' Biographies

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### DAN REIFSNYDER

Deputy Assistant Secretary for Environment, U.S. Department of State, Washington, D.C.

Dan Reifsnnyder became deputy assistant secretary for environment in the Bureau of Oceans, Environment and Science on August 20, 2006. He is responsible for a broad suite of issues related to environmental protection and conservation, including transboundary air quality, protection of the stratospheric ozone layer, international chemicals management, the transboundary movement of hazardous wastes, persistent organic pollutants, environmental aspects of free trade agreements, international forestry conservation, biological diversity, desertification, wildlife conservation and the protection of wetlands and coral reefs. In these areas, he leads the U.S. delegation under multiple bilateral and multilateral treaties and agreements.

From 1989 to 2006 Reifsnnyder served as director of the Bureau's Office of Global Change, where he developed and implemented U.S. policy on global climate change. He played a key role in crafting a wide range of presidential initiatives, including the Asia Pacific Partnership on Clean Development and Climate, the Methane to Markets Partnership, the International Partnership for the Hydrogen Economy, the Group on Earth Observations and the Carbon Sequestration Leadership Forum. He was also instrumental in launching or reinvigorating 15 bilateral climate change agreements and in establishing the U.S. Climate Change Country Studies Program, the U.S. Initiative on Joint Implementation and the International Coral Reef Initiative. From 1989 to 2006, he helped shape the work of the Intergovernmental Panel on Climate Change and co-chaired its Financial Task Team. He was alternate head of the U.S. delegation in negotiations that led to the U.N. Framework Convention on Climate Change.

Reifsnnyder served as Visiting Lecturer in Public and International Affairs at Princeton University's Woodrow Wilson School (1999-2000) and as a Research Fellow at Tufts University's Fletcher School of Law and Diplomacy (2000-2001).

He was deputy director of the Bureau's Office of Cooperative Science and Technology Programs (1987-89) and Atlantic Desk Officer in the Office of Fisheries Affairs (1984-87). He came to the Department of State after 10 years with the National Oceanic and Atmospheric Administration in progressively responsible positions. While at NOAA, Reifsnnyder helped negotiate the Pacific Salmon Treaty with Canada, the Convention on Future Multilateral Cooperation in the Northwest Atlantic and the Convention on Salmon Conservation the North Atlantic Ocean.

Reifsnnyder holds a J.D. degree from George Washington University (1981), an M.A. degree in Russian Area Studies from Georgetown University (1976) and an A.B. degree in political philosophy from Trinity College (CT) (1972). He studied at the Institut d'Etudes Politiques (Paris) from 1970-71 and at Leningrad State University (summer 1974). He is a member of the Virginia State Bar and the District of Columbia Bar and has been admitted to practice before the U.S. Supreme Court and the Court of Appeals for the 4th Circuit. He has received numerous awards, including the Department of State's Superior Honor and Meritorious Honor Awards. He has been a member of the Senior Executive Service since 1994 and in 2005 received the Presidential Meritorious Rank Award.

His languages are French and Russian.

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### MARTIN ROBARDS

Director, Arctic Beringia Program, Wildlife Conservation Society, Fairbanks, Alaska

Martin Robards is the Director of the Wildlife Conservation Society's Arctic Beringia Program. He earned his bachelor's degree in Marine Biology from Liverpool University (England), his master's degree in Fisheries Conservation from Memorial University of Newfoundland (Canada) and his Ph.D. from the University of Alaska. He is an avid explorer and accomplished marine ecologist and policy analyst who has worked extensively with indigenous communities and their representatives in the Arctic, particularly the Siberian Yupik communities of St. Lawrence Island in Alaska. Despite a penchant for the high latitudes,

## Speakers' Biographies

he has contributed to field research efforts on Egypt's Red Sea Coast, in the Bangladesh Sundarbans and around Tasmania. Robards also has worked for two years in Washington, D.C., informing policy makers about the challenges of implementing regional-scale policies concerning the conservation of marine mammals in remote subsistence-dominated environments. His goal is to encourage the development and implementation of conservation policies that are more responsive to new scientific understandings and the changes in ecological, social and economic conditions of the Arctic. He has published over 30 scientific articles, served as a reviewer for numerous scientific journals and is affiliate faculty with the University of Alaska.

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### IRINA YUR'EVNA RYABUKHINA

Head, Committee for Sports and Tourism, Chukotka Autonomous Okrug, Anadyr, Chukotka

Irina Ryabukhina is a graduate of Volgograd State University with a degree in literature management. She began her career in 1990 in Petropavlovsk-Kamchatskiy, where she worked at the children's day care center. From 1992 to 2003, Ryabukhina was a manager/executive director of the Customs Department, Director of the Department of Operational Work and advisor for the president of the Pacific Network Company. From 2003–2005, she was a chief specialist in customs processing and operational work at Ferguson Simek Clark Company in Anadyr. From 2005–2008, Ryabukhina served as a manager of customs processing at Ferguson Simek Clark International. Ryabukhina was appointed to her present position in 2008.

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### REBECCA TALBOTT

Chief of Interpretation and Education, Alaska Region, National Park Service, Anchorage, Alaska

Rebecca Talbott is a practitioner in the field of environment and natural resources management. Since 1984, she has worked across the public and private sectors, including federal and state government (principally the National Park Service and U.S. Forest Service), nonprofit organizations and foundations

and academic institutions. Her work has increasingly focused in the area of public/private partnerships and the engagement of broader constituencies in the stewardship of natural resources.

Talbott currently serves as the Chief of Interpretation and Education for the Alaska Region for the National Park Service Alaska Region. Previously she served for two years as the projects coordinator for the Shared Beringian Heritage Program, where she worked closely with the coordinators and researchers advancing our understanding and knowledge of this region.

Talbott earned a Bachelor of Science degree in Forestry from Oregon State University (1985). She was awarded a Loeb Fellowship at the Graduate School of Design, Harvard University (2000-2001) and completed a master's in environmental science and policy from the Kennedy School of Government, Harvard (2002).

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### MEAD TREADWELL

Lieutenant Governor, State of Alaska, Juneau, Alaska

Mead Treadwell was elected as Alaska's Lieutenant Governor in November 2010. Lt. Governor Treadwell places a priority in fulfilling his constitutional duties, supporting Alaska's governor and being accessible to Alaskans. He is committed to strengthening Alaska's economy by filling the trans-Alaska pipeline, helping get a gas pipeline built, bringing affordable energy to Alaskans and standing up to the federal government to ensure access to our natural resources. Treadwell brings a record of private and public sector success to the job of lieutenant governor. He is recognized as one of the world's Arctic policy experts.

Treadwell was appointed to the United States Arctic Research Commission by President George W. Bush in 2001 and designated by the President as the commission's chair in 2006. Under his leadership, a new United States Arctic Policy was developed and adopted by President Bush and is now being implemented by the Obama administration. Treadwell resigned from the commission in June 2010 after he filed to run for lieutenant governor.

## Speakers' Biographies

Treadwell also recently resigned as the chairman and chief executive officer of Venture Ad Astra, an Anchorage company, which invests in and develops new geospatial and imaging technologies. He helped launch a series of technology, manufacturing and service companies, two of which - Digimarc and Emberclear - trade on public stock exchanges.

Treadwell first came to Alaska as a teenager in 1974 and worked as a volunteer intern in Wally Hickel's office. It was the beginning of a friendship that lasted 38 years. After graduating from Yale, Treadwell moved to Alaska in 1978 and worked as lead political reporter for the ANCHORAGE TIMES. In 1980, he was part of a team of writers who won the Blethen Award, a top prize for investigative reporting in the Pacific Northwest. In 1982, after completing his MBA at the Harvard Business School, Treadwell joined former Governor Hickel and former Governor Bill Egan as founders of the Yukon Pacific Corporation, which started the all-Alaska gas pipeline project.

During the 1989 *Exxon Valdez* oil spill crisis, Treadwell went to Cordova and served as the city's director of spill response. He worked with Cordova citizens and Alaska's congressional delegation to launch the Prince William Sound Science Center, home of the Prince William Sound Oil Spill Recovery Institute. He also worked with Southcentral coastal communities, Congress and the oil industry to create the Prince William Sound Regional Citizens Advisory Committee.

When Wally Hickel was elected to his second term as Alaska's governor, he appointed Treadwell to serve as Deputy Commissioner of the Department of Environmental Conservation. Treadwell helped write Alaska's new environmental protection regulations and established the environmental crime unit for the state. He represented Alaska on the U.S. delegation that established the eight-nation Arctic Council, and supported Governor Hickel's establishment of the Northern Forum. Over the years, Treadwell has held leadership positions in a wide range of policy, professional, public service, governmental and international organizations. He served as a member of the board of the Alaska Science and Technology Foundation from 1994 to 1999 and helped establish the Kodiak

Launch Complex. Treadwell was elected a Fellow National of the Explorers Club in 2002 and chairs the North Pacific Alaska Chapter of the Club. He is past president of the Alaska World Affairs Council, the Japan America Society of Alaska and the Visual Arts Center of Alaska. As a founder of the Alaska State Chamber of Commerce Siberian Gateway Project, he worked to open the Alaska-Russia border in 1988. He has served as a board member of Commonwealth North, the Great Alaska Council of the Boy Scouts, the Healthy Alaska Natives Foundation and the Alaska-Siberia Research Center.

Treadwell was a Senior Fellow of the Institute of the North, an endowed public policy research program founded by Wally Hickel to focus on Alaska and Arctic natural resource issues, governance of public assets, geography and national security. His efforts there helped establish missile defense in Alaska and strengthened our alliance in this area with Japan.

With his late wife Carol, he has three children. In her memory, he served as president of the Millennium Society, an international charity that raises scholarship funds and has established a series of scholarships in science education for young people in Alaska.

## Speakers' Biographies

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### MARGARET WILLIAMS

Managing Director, U.S. Arctic Field Program, World Wildlife Fund, Anchorage, Alaska

Margaret Williams, Managing Director of World Wildlife Fund's U.S. Arctic Field program, leads a team of experts in climate change, wildlife biology, fisheries, oil, shipping and communications to implement an international conservation strategy for the Bering, Beaufort and Chukchi Seas. Williams has focused much of her efforts on Russian conservation issues for nearly 20 years. She founded and for 12 years edited Russian Conservation News, a quarterly journal on biodiversity conservation in Eurasia. Before joining World Wildlife Fund in 1997, Williams worked as a consultant to the World Bank on biodiversity projects in Russia and Central Asia. She graduated from Smith College and received a master's degree from the Yale School of Forestry and Environmental Studies. She is a lifetime member of the Council on Foreign Relations.

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### EDUARD VITALYEVICH ZDOR

Executive Secretary, Association of Traditional Marine Mammal Hunters of Chukotka, Anadyr, Chukotka

Eduard Zdor is the Executive Secretary of the Association of Traditional Marine Mammal Hunters of Chukotka. He represents hunters in international and regional forums and works closely with the Native community. Zdor has led the association in both regional meetings and international symposiums. He has traveled extensively throughout the Beringia region, both in Chukotka and Alaska, and has attended meetings in support of his organization's goals in every corner of the world.

He was elected by his colleagues to the position and has maintained the support of his constituency. Zdor has been involved in joint Alaska-Chukotka National Park Service projects as a partner and Principal Investigator for about 10 years. Zdor, as executive secretary of the Association of Traditional Marine Mammal Hunters of Chukotka, is required to represent the organization at

meetings and official functions. He represents the hunters by lobbying for more subsistence quotas, as well as developing relationships with other leaders and organizations. He has worked extensively with other indigenous groups in both Alaska and Chukotka and is an advocate for the benefits of shared indigenous knowledge and observation.

Before becoming head of the association, Zdor was the leading specialist at the Agriculture and Food Department at Chukotka Administration, Anadyr. Zdor studied economics at the Commercial School in Vladivostok and finished in April 1991. He also attended the Moscow Humanitarian University, where he completed studies in July 1988.

He is a partner in several Beringia Shared Heritage Program projects. This year Zdor will receive the David M. Hopkins Award, which recognizes Zdor's commitment to his people

