

2008 Arctic Science Conference Presentation Schedule

Monday, September 15th, 2008 Theme: Observing Change

Time:	Event Description:	Location:
8:00 am	Registration and Coffee Service Begins	Gold Ballroom Entry
9:00 - 9:30 am	Welcoming and Opening Remarks Brian Rogers, Chancellor, UAF Dan Julius, Vice President, UA Buck Sharpton, Vice Chancellor of Research, UAF Carl Benson, Arctic Institute of North America (AINA) Craig Gerlach, President, Arctic Division AAAS	Gold Ballroom
9:30 - 12:00 pm	Plenary Session Climate Change and Policy Directions Buck Sharpton, Vice Chancellor of Research, UAF IPY North by 2020 in the Context of Adaptation and Sustainable Response Hajo Eicken, Associate Professor of Geophysics, UAF As if the Concerns of our Students Mattered; As if our Planet were at Stake Catherine Middlecamp, Professor of Chemistry, University of Wisconsin-Madison Utilizing a Lakota Worldview to develop Science and Cultural Leadership for a new Generation: A Tribal College and University Case Study James Rattling Leaf, South Dakota School of Mines and Technology International Study of Arctic Change Maribeth Murray, UAF Coping with Change Carl Benson, Professor Emeritus, UAF	Gold Ballroom
12:00 - 1:30 pm	Lunch (on own)	--
1:30 - 3:30 pm	Poster Set Up	Minto/Yukon Rooms
1:30 - 4:00 pm	Technical Sessions: Observing Change: Cycles and People <i>David Atkinson</i> <ul style="list-style-type: none"> ▪ Distribution of Active Layer Temperatures and Snow Cover Across a Polygon, Barrow, Alaska <i>Anna Liljedahl</i> ▪ Assessment of the Influence of Ecosystem-Induced Summer-Albedo Changes over Pan-Arctic on Arctic and Global Climate <i>Debasish PaiMazumder</i> ▪ Evaluating the Effective Loss of Wildlife Habitat from Vehicular Traffic in a Subsistence Community <i>Colin Shanley</i> ▪ <i>Break</i> ▪ Vulnerability and Adaptation to Climate-Related Fire Impacts in Rural and Urban Interior Alaska <i>Sarah Trainor</i> ▪ Monitoring for Ecosystem Health: Nushagak Bay Biodiversity Project <i>Sarah Wingert</i> ▪ AAAS Center for Science, Technology, and Sustainability <i>Sarah Banas</i> 	West Gold
	Interdisciplinary Education <i>Catherine Middlecamp and Lawrence Duffy</i> <ul style="list-style-type: none"> ▪ Opting In or Getting Away? A Look at the Choices, Experiences and Outcomes of Mt. Edgecumbe High School 	Middle Gold

Graduates from 1986-2006

Diane Hirshberg

- Growing Sustainability through Place-based Education in Interior Alaska

Laura Henry-Stone

- PolarTREC: Successful Methods and Tools for Attaining Broad Educational Impacts with Interdisciplinary Polar Science

Kristin Timm

- *Break*

- SENCER Courses at UAF and IPY

Lawrence Duffy

- Integrated Graduate Education and Training in Sustainability Science at UAF: The Resilience and Adaptation Program (RAP)

Gary Kofinas

- Developing the UARCTIC Graduate Area

Lawrence Duffy

National Parks and Public Lands in the North

East Gold

Annie Duffy

- One Arctic National Park: Dreams, Necessities and Priorities when using Strategic Conservation Planning.

Falk Huettmann

- Immersion in Wilderness

Bill Brody

- *Break*

- The Historical Role of Alaskan Artists in the Establishment and Interpretation of Denali National Park and Preserve

Kesler Woodward

- Visions, Impressions, and Interpretations: The Denali National Park Art Program's Exploration of the Connection between Art and Science

Annie Duffy

4:00 - 5:00 pm	Poster Session with Refreshments	Minto/Yukon Rooms
5:00 - 6:00 pm	Dinner Break (on own)	--
6:00 - 7:00 p.m.	Sigma Xi and Golden Key Reception, with Awards	Gold Ballroom
7:00 - 9:30 pm	15 th Arctic Institute of North America Forum "Coping with Change" Carl Benson, moderator	Gold Ballroom

Tuesday, September 16th, 2008 Theme: Understanding Change

Time:	Event Description:	Location:
8:00 am	Registration and Coffee Service Begins	Gold Ballroom Entry
9:00 - 5:00 pm	Poster Displays	Minto/Yukon Rooms
9:00 - 12:00 pm	Technical Sessions: Engaging Local Expertise in Food Systems <i>Philip Loring</i> <ul style="list-style-type: none">▪ Gardening, Ethnobotany and Potatoes: A Revitalization of Resilient Sustenance Strategies of Southeast Alaska Tlingit Cultivation Methods <i>Elizabeth Kunibe</i>▪ Ideas from Abroad: International Comparisons of Food Security Models in Canada, Australia, Alaska and Greenland <i>Jacqueline Greenblatt</i>▪ Enhancing the Utilization of Alaska Salmon Byproducts <i>Peter Bechtel</i>▪ <i>Break</i>	West Gold

- What is the Future Role of Wild Game in Alaska Food Systems?
Thomas Paragi
- Voices of the Caribou People
Archana Bali
- Proposed Research on Migrating Food Insecurity: Rural to Urban Movement Amongst Food Insecure Alaskans
David Fazzino
- Redesigning Alaska's Food Systems for Health: The Foodshed.
Philip Loring

Climate Change and Atmospheric Sciences
Ted Fathauer

Middle Gold

- Analysis of the Relation of Annual Pollen Release to the Weather in Fairbanks, Alaska
Ted Fathauer
- Recent Rapid Changes in Atmospheric Circulations: An Impetus for Accelerated Arctic Climate System Changes Under Global Warming Forcing
Xiangdong Zhang
- Developing a Decision-support Tool for Long-term Infrastructure Planning on the North Slope of Alaska
Larry Bright
- Frost Protected Shallow Foundations (FPSF) for Interior Alaska Freezing Indices Between 4,000 and 8,000 Degree-Fahrenheit-Days; A Research Report
Paul Perreault

Quaternary Beringia and Adjacent Oceans: The Key to Recent Change I

East Gold

Nancy Bigelow

- The Prelude to the Present
R. Dale Guthrie
- Prehistoric Changes in Climate, Landscape, and Large Mammal Faunas in the Arctic Foothills, Northern Alaska
Daniel Mann
- Hard Rocks and Soft Dates: Using Molecular Dating to Evaluate the Evolutionary History of Pikas in North America
Lanier & Olson
- *Break*
- Variability in Hunter-gatherer Ecology in Late Pleistocene/Early Holocene Beringia
David Yesner
- Late Pleistocene and Holocene Economic and Technological Change in Interior Alaska.
Ben Potter
- Changes in Oceanic and Atmospheric Conditions During the Last Two Million Years Inferred from Eolian Sediment Records in Alaska
James Beget
- Paleoproductivity of the Northeast Pacific Ocean During the LGM-Holocene Transition: Evaluating the Possible Role of the Marine Ecosystem in the Peopling of the Americas
Jason Addison

12:00 - 1:30 pm

Lunch (on own)

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1:30 - 4:00 pm

Technical Sessions:

Terrestrial Response to Rapid Climate Change and Land Use Change in the Arctic

West Gold

Donald (Skip) Walker and Maribeth Murray

- Spatial patterns of NDVI distribution on the Yamal Peninsula
Martha Reynolds
- Cumulative effects of rapid land-cover and land-use changes on the Yamal Peninsula, Russia
Donald (Skip) Walker
- Cumulative Impacts of Petroleum Development on Reindeer Herding in Northwest Russia
Bruce Forbes
- Trends and Variability of Sea Ice, Land Surface Temperatures, and Vegetation in Northern Alaska.
Uma Bhatt

Northern Engineering I

Middle Gold

Debendra Das

- Quantifying Ice Formation in Course Grain Soils using Tomodensitometry
Matthew Dillon
- Does Particle Size Distribution of Pulverized Coal Impact CO₂ Emissions in a Power Plant?
Rajive Ganguli
- Energy Consumption and Emission Reduction using Electric Vehicles in Alaska
Michael Golub
- Low Salinity Cyclic Water Floods for Enhanced Oil Recovery in Alaska North Slope
Sathish Kulathu
- Estimating Future Costs of Public Infrastructure at Risk from Climate Change
Peter Larsen
- Desorption Kinetics for Cadmium Adsorbed on to Citrus Peels: A Process for Biosorbent Regeneration after Treatment of Mine Tailings
Eloh Njikam
- Measurement of the Thermal Conductivity of Silicon Dioxide Nanofluid to Compare Its Performance with Conventional Fluids
Bhaskar Sahoo
- Comparison of Nanofluids Performance in Building Heating Systems
Roy Strandberg
- Evaluation of the Performance of Nanofluids as Automobile Engine Coolants
Ravikanth Vajjha

Quaternary Beringia and Adjacent Oceans: The Key to Recent Change II

East Gold

Nancy Bigelow

- Variation in the Stable Oxygen Isotopic Composition of Chironomids as Evidence for Shifts in Atmospheric Circulation Patterns During the Late Quaternary in Southwest Alaska
Yiming Wang
- Three New Pollen Records from Southwestern Alaska — the Effects of Plant Migration, Climate, and Tephra on the Vegetation
Nancy Bigelow
- Integrated Records of Holocene Landscape Change: A Holistic View of Vegetation Response to Climate, Geography, and Disturbance in Southwest Alaska
Patricia Heiser
- Holocene Paleoenvironmental Response to the Recession of

Glacial Lake Atna, Copper River Basin, Alaska

Grant Shimer

- *Break*
- A Detailed Paleoeological Reconstruction of a Late Pleistocene (31,600 14C years before present) Paleo-turf from Interior Alaska
Matthew Wooller
- Climate Sensitivities of *Picea glauca* on the Yukon and Tanana River Floodplains
Claire Alix
- Thermokarst Lakes as a Source of Atmospheric CH₄ During the Last Deglaciation and Prospect for Future Emissions as the Yedoma Ice Complex Thaws
Katey Walter

4:00 - 5:00 pm

Poster Session with Refreshments

Minto/Yukon Rooms

7:00 - 9:00 pm

Understanding Change and Forecasting Resilience Using Agent Based Models

Gold Ballroom

Lilian Alessa

- Introduction
Lilian Alessa
- The Role of Agents in Detecting Change and Building Resilience: Social Field Work as a Basis for Agent-based Modeling
Andy Kliskey
- Forecasting Resilience in Arctic Landscapes: Addressing Multiple Social-Ecological Systems and Scales
Mark Altaweel
- Discussion

Wednesday, September 17th, 2008 Theme: Responding to Change

Time:	Event Description:	Location:
8:00 am	Registration and Coffee Service Begins	Gold Ballroom Entry
9:00 - 12:00 pm	Poster Displays	Minto/Yukon Rooms
9:00 - 12:00 pm	Technical Sessions: Circumpolar Health <i>Kriya Dunlap</i> <ul style="list-style-type: none">▪ Environmental Impacts of Coal Development: Carbon Dioxide and Mercury <i>Kendra Zamzow</i>▪ Social Change and Indigenous Culture in Six Circumpolar Communities: Negotiating a Collaborative International Research Study on Youth Resilience and Pathways to Adulthood <i>James Allen</i>▪ <i>Break</i>▪ Effect of Rapamycin on the Lifespan of <i>Drosophila melanogaster</i> <i>Tina Tran</i>▪ The Role of Interleukin-1 and Interleukin-1 Receptor Antagonist in Head and Neck Squamous Cell Carcinomas: Initial Studies <i>Linda Nicholas-Figueroa</i>▪ The Incidence of Syphilis and Combating its Proliferation in the Territory of Yakutia <i>Zoya Pavlova</i>	West Gold
	*11:40 ASCH Annual Business Meeting	

Policy, Sustainability Science and Adaptive Governance

Middle Gold

Gary Kofinas and Chanda Meek

- On Thin Ice: Climate Change, Globalization and the Age of the Arctic
Barry Zellen
- The Scenarios Network for Alaska Planning: Landscape Management Collaboration and Planning in a Climate of Change
Nancy Fresco
- Land-Use Science and Environmental History Approaches to Evaluating the Sustainability of an Alaskan Social-Ecological System
S.F. Loshbaugh
- Break
- Community Resiliency in Natural Resource Exploration: A Health Impact Assessment Approach
James Edwin

AAAS - Shaping a Science Career is Never a Solitary Experience: AAAS Career Development Resources

East Gold

Richard Weibe

12:00 - 1:30 pm

Lunch (on own)

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1:30 - 4:00 pm

Technical Sessions:

Alaska Native Leadership

West Gold

Gordon Pullar

- The Role of Alaska Native Elders in the Cultural Resilience of Native Communities.
Jordan Lewis
- That's Just Our Way
Miranda Wright
- Bean Ridge Corporation: A Small Village Corporation and Adaptive Leadership
Dixie Masak Dayo
- Developing a Leadership Model for Sustainable Development through Implementation of the Wolakota Concept: The Past, Present and Future Continuum
James Rattling Leaf
- Sugpiaq Leadership on Kodiak Island: A History of Egalitarian Turmoil and Cultural Resilience
Gordon Pullar
- Breaking the Ice: From Land Claims to Tribal Sovereignty in the Arctic
Barry Zellen

Interdisciplinary Science/EPSCoR

Middle Gold

Erich Follman

- Could Global Warming Increase Human Exposure to Rabies in the Arctic?
Erich Follman
- The Seasonality of Reproduction in Photoperiod Responsive and Non-Responsive Northern Red-Backed Voles (*Myodes rutilus*) in Southcentral Alaska
Kalb Stevenson
- Biosorption of Cd (II) by Citrus Peels in a Packed Bed Column
Abhijit Chatterjee
- Development of Highly Sensitive Erythral Ultra Violet Detectors for the Arctic
Shiva Hullavarad
- Break

- The Role of Social Paradigm in Human Perception and Response to Change
Paula Williams
- Sustaining the Capital of the Nushagak Watershed using an Interdisciplinary Science Approach
Todd Radenbaugh
- Statewide Trends of Alaska Moose Hunters and Hunts
Jennifer Schmidt
- St. Matthew Island: An Archive of Paleo- and Recent Ecological Change in Oceanic Beringia
David Klein

4:00 - 4:15 pm

Closing Session and Final Remarks

Gold Ballroom