

NSSI news

MAY 2008 Vol:2 Issue: 1

NORTH SLOPE SCIENCE INITIATIVE

Tim Bowman, USFWS



Arctic Tern on Nest

Sustained Arctic Observing Network

In the fall of 2006, the Arctic Council urged all arctic nations to maintain and extend long-term monitoring of change in the Arctic with a view toward building a lasting legacy of International Polar Year activities. Principle investigators have been tasked with developing a set of recommendations on how to achieve long-term pan-Arctic observing and activities that

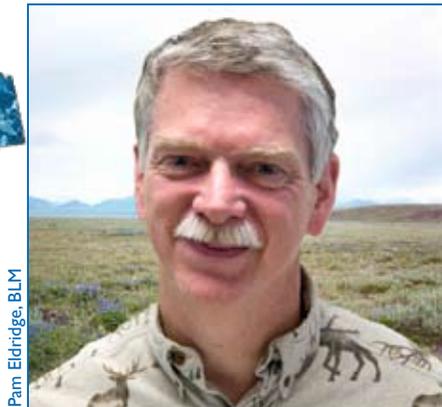
provide free, open and timely access to high-quality data that will realize value-added services and provide societal benefits both in the Arctic and globally. NSSI is positioned as a key player in the design and development of such a lasting, or Sustained Arctic Observing Network (www.arcticobserving.org) with its current agreement with the University of Alaska, and Geographic Information

(continued on back page)



Inside NSSI News

- 2** Science Technical Advisory Panel
Welcome the Alaska National Weather Service
A Busy 2008 Field Season
Bathymetry
- 3** LandFire and NSSI
- 4** NSSI Goes to Washington
Director's Corner
Contact Information



Pam Eldridge, BLM

Denny Lassuy, NSSI Deputy Director

network, as well as being the "workaholic" behind the Director and the Oversight Group. Denny will help ensure strong coordination among the Oversight Group, the Senior Staff Committee, and the Science Technical Advisory Panel. Denny has a Master of Science degree in Biology and a Ph.D. in Fisheries, with a minor in Marine Resource Management. His career experience includes positions as a Legislative Assistant, Congressional Liaison, Endangered Species Biologist, Research Coordinator and more recently, as an Invasive Species Program Manager for the U.S. Fish and Wildlife Service.

Welcome Aboard, Denny!

New Deputy Director

Denny Lassuy has joined NSSI as its first Deputy Director. In keeping with the NSSI being a truly interagency/intergovernmental initiative, Denny comes to us as a U.S. Fish and Wildlife Service employee. This senior position within the NSSI is critical to the continued maintenance and expansion of our support



www.northslope.org



Donna Dewhurst, USFWS

Arctic Ground Squirrel

STAP: An Introduction

The Science Technical Advisory Panel (STAP) is a legislatively authorized body of discipline-specific experts who advise the Director and the Oversight Group. The 15 panel members have expertise in terrestrial and marine biology, marine ecology, oceanography, hydrology, reclamation, permafrost, remote sensing, culture and traditional knowledge. It is a clear and ever-present challenge to effectively use the few hundred years' of cumulative expertise this panel represents. The most recent meeting of the STAP was a joint meeting with NSSI member senior staff in February 2008. The idea of the joint meeting was to culture across agency and membership mandates with the STAP and identify the science needed to move NSSI forward in two-, five- and ten-year outlooks. The STAP was presented with a general list of subject areas and tasked with identifying the science needed in each of the areas. Obviously, this is a big task! It was clear from the beginning of the meeting the NSSI member senior staff needed to provide more detail on each of the broad subject areas and identify the management questions for each. The STAP and senior staff decided to tackle three of the immediate subject areas: permafrost, coastal and riverine erosion, and caribou. The senior staff has provided the STAP with management issues in each of the three subject areas. The STAP will be reporting on the science needed for these in the near future.



Image courtesy of Satellite Imaging Corporation

North Slope Quickbird Satellite Image

Welcome the Alaska National Weather Service

The National Weather Service (NWS) has become an advisor to the NSSI Oversight Group. The NWS Alaska Region provides weather, hydrologic, and climate forecasts, and volcanic ash and tsunami warnings for the State of Alaska and its surrounding waters. The Alaska Region NWS has an outstanding team of employees in three Weather Forecast Offices, 12 NWS offices, the Alaska-Pacific River Forecast Center, Alaska Aviation Weather Unit, Anchorage Center Weather Service Unit, West Coast and Alaska Tsunami Warning Center, Anchorage Electronics Unit, and Alaska Region Headquarters. The Fairbanks Weather Forecast Office, co-located with the International Arctic Research Center at the University of Alaska, is responsible for the North Slope and has the largest land area of responsibility of any NWS forecast office (340,000 square miles). Visit <http://pafg.arh.noaa.gov> for information on the Fairbanks Weather Forecast Office. Since 2001, the NWA deployed four Climate Reference Network sites in Alaska (Point Barrow, St. Paul, Sitka, and Fairbanks) and will be deploying 29 more network sites in Alaska by 2014 in support of the U.S. Multiagency and International Arctic Observation Network. What we learn from Alaska today will portend national and global impacts of climate variability tomorrow. <http://www.weather.gov>.



USFWS

Chandalar River

Here it Comes! A Busy 2008 Field Season

The summer field season in Alaska is fast approaching. Field work gears up throughout the state for all of the NSSI members, as well as for NSSI. Even though NSSI has no operational field staff, it doesn't mean we are not collecting field data!



MHL, University of Michigan

Marine Hydrodynamics Laboratories Bathy-Boat

Bathymetry and Water Quality

Water quality and bathymetry sampling have become important as North Slope lakes shrink and salt water intrusion changes the water chemistry. New technologies for the collection of water quality and bathymetry were first field tested in the summer of 2006. So successful was the initial test that even better technology has been developed for deployment in the summer of 2008. In partnership with the University of Michigan, Michigan Tech Research Institute, Michigan Tech University, U.S. Department of Energy, and BP Exploration Alaska, a second-generation Automated Lagrangian Water-Quality Assessment System, or ALWAS, will be deployed. The newest form of the floating platform or "Bathy-Boat" is significantly smaller and more compact than the original (and collects more water quality parameters). The Bathy-Boat is an autonomous device that can be pre-programmed to collect information and return to its deployment location. It will also be released on a few lakes on the North Slope.



LandFire and NSSI

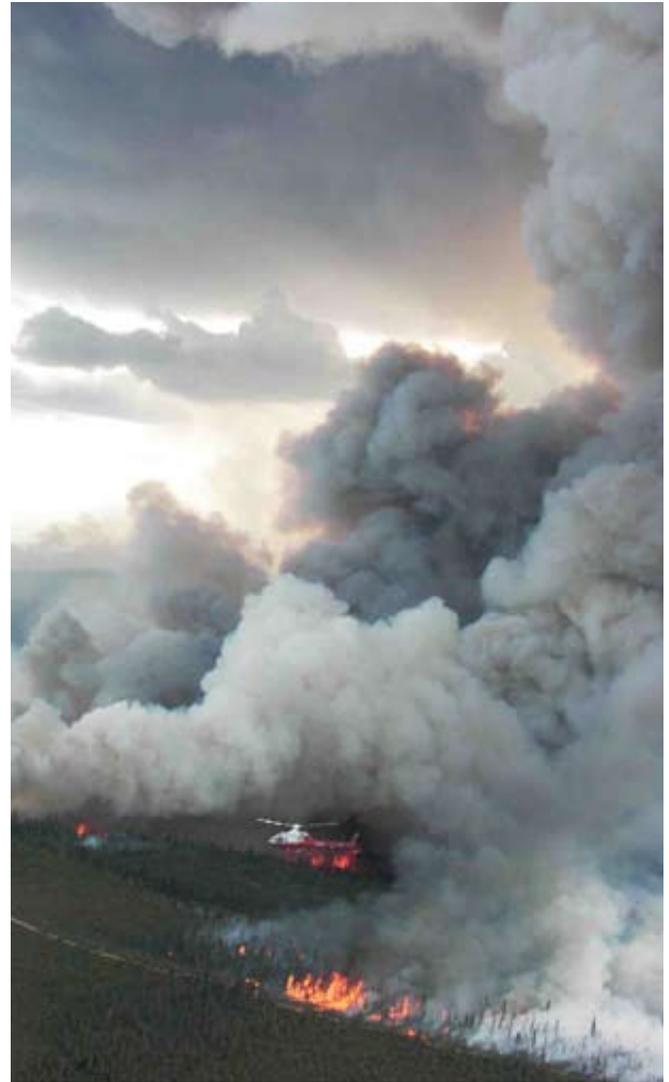
NSSI is working closely with the **National LandFire Program** (www.landfire.gov) to develop high quality digital land cover products for the North Slope. LandFire is also known as the Landscape Fire and Resource Management Planning Tools Project. It is a five-year, multi-partner project producing consistent and comprehensive maps and data describing vegetation, wildland fuel, and fire regimes across the United States. LandFire is a shared project between the wildland fire management programs of the U.S. Forest Service and the U.S. Department of the Interior.

LandFire National data products are produced at scales that may be useful for planning and prioritizing hazardous fuel reduction and ecosystem restoration projects; however, the applicability of data products varies by location and specific use, and products may need to be adjusted by local users.

Obviously, fire fuels have not been the highest priority on the North Slope (they may become so in the future as our climate changes), but vegetation change is an information issue managers and academic institutions are very interested in. This is where NSSI comes in. While LandFire has a national mandate to complete its first comprehensive view of fire fuels in early 2009, it also is tasked with updating its products at regular intervals.

Working in conjunction with LandFire image processing personnel, Alaska Natural Heritage Program, Ducks Unlimited, Inc., and USGS, NSSI will be collecting field data this summer to help validate and improve the next generation of LandFire products that will be available to a broader user community. An interdisciplinary survey crew will travel to the western side of the North Slope this summer. The two-week effort will collect some 500 validation points and will be expanded by adding another crew in the summer of 2009.

The first products of the LandFire/NSSI relationship are expected in the spring of 2010.



Alaska Fire Service



Pam Eldridge, BLM

Director's Corner

It is hard for me to believe I have been the Director for over a year! This past year has brought much-needed direction to the NSSI through the creation of a Business Plan, strong leadership from the Oversight Group, and the ever-increasing respect and understanding of the mission and vision of the initiative. The NSSI mission is to improve scientific and regulatory understanding of the terrestrial, aquatic, and marine ecosystems for consideration in the context of resource development and climate change. NSSI's vision is to identify those data and information

needs that management agencies will need in the future to development management scenarios using the best information and mitigation to preserve environments of the North Slope. The NSSI mission and vision create significant challenges when it comes to implementing the programs necessary to meet our legislative objectives. Membership of the NSSI is both diverse in direction and mandates within their individual missions. Sometimes the individual missions seem to be in conflict with the mission of other NSSI members. However, a major value added for the NSSI is the Oversight Group forum. This forum affords the principles opportunity to discuss agency directions and develop understanding of individual mandates. This, of course, is the core of the NSSI—to define our collective information needs and address how to obtain and distribute such information. As the NSSI matures and a consistent funding stream is secured, forums provided in the context of the Oversight Group and the overall organization of the NSSI will become more visible. This newsletter is one method where the NSSI can share its successes. —John F. Payne

NSSI Goes to Washington

It was Cherry Blossom Festival time in Washington, D.C. Leaving cooler Alaska weather in early April, several members of the NSSI Oversight Group braved the warm weather and fragrant cherry blossom display to work in our Nation's Capitol for a few days. The week's goals included:

- ▶ Present NSSI as a major collaboration between federal, state, and local representation and support;
- ▶ Communicate NSSI accomplishments, goals and objectives to a wide audience;
- ▶ Secure bipartisan support through representatives of the Alaska delegation and key committees; and
- ▶ Discuss legislative alternatives for addressing current and emerging issues for both the terrestrial and marine environment of the North Slope.

The week-long visit seemed like one constant meeting from early morning to late evening. The group met with staff from the Alaska delegation, the Alaska Governor's Office, the North Slope Borough, and Committees on Energy and Natural Resources and Public Policy and the Environment. Those meetings were packed between meetings with the Deputy Secretary of the Interior, Deputy Assistant Secretaries, Bureau Directors, and the external partners and cooperators of the NSSI, the U.S. Arctic Research Commission, and the National Science Foundation. Visit the NSSI Website for more details.

Courtesy of Washington, D.C., Visitor's Bureau



Cherry Blossom Time in Washington, D.C.

Sustained Arctic Observing Network (cont. from page 1)

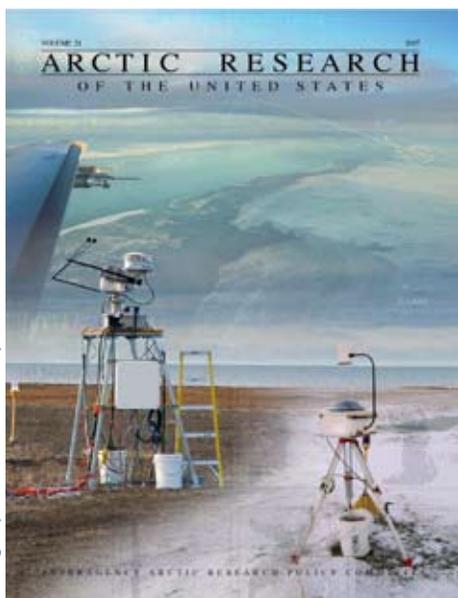
mation Network of Alaska, and connections to the U.S. Arctic Research Commission and major entities having trust responsibilities in the Alaska Arctic.

To aid in developing such a vision for arctic information, the Interagency Arctic Research Policy Committee completed its own *Arctic Observing Network: Toward a U.S. Contribution to Pan-Arctic Observing* (www.nsf.gov/od/opp/arctic/arctrsch/start.jsp). NSSI was a recognized contributor in this report. The report is one way the U.S. is contributing to this worldwide effort.

In November 2007, the first of three international meetings to plan and implement a long-term arctic strategy was held in Stockholm, Sweden. Following an impassioned keynote address by the Crown Princess of Sweden, some 115 participants representing 18 countries formed break-out groups that develop information for the future process. The process outlined was carried forward to the second international meeting in Edmonton, Alberta, Canada, in April 2008.

NSSI continues to provide a significant level of input to this important activity and is looking forward to the final meeting in Helsinki, Finland, in October 2008, and the final report in March 2009.

Interagency Arctic Research Policy Committee



Cover of Arctic Research of the United States, Vol. 21, shows arctic data collection instruments

The NSSI News is published quarterly.

Managing editor/design:

Karen J. Laubenstein, karen_laubenstein@blm.gov

Executive editor and Director, North Slope Science Initiative:

John F. Payne, Ph.D.

Photographs: Donna Dewhurst, USFWS; Pam Eldridge, BLM; Washington, D.C., Visitor's Bureau; Guy Meadows, Marine Hydrodynamics Lab at the Univ. of Michigan; Alaska Fire Service; Tim Bowman, USFWS; Arctic Research Journal online; Satellite Imaging Corporation; Karen Laubenstein, BLM; USGS; Carol Belenski, BLM.

Submit story ideas or articles to john_f_payne@blm.gov.

North Slope Science Initiative

222 W. Seventh Ave., #13

Anchorage, AK 99513

907-271-3431; fax 907-271-5479

E-mail: john_f_payne@blm.gov

www.northslope.org