

NSSI

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NORTH SLOPE SCIENCE INITIATIVE



USFWS

Arctic Fox

North Slope Land Cover Project Moves Forward

This summer (2010), NSSI will work with Ducks Unlimited and the Natural Heritage Program, University of Alaska Anchorage (UAA), to collect data to develop a North Slope-wide land cover map. Land cover data needs are not new, since the 1990's the BLM, National Park Service, and Ducks Unlimited have mapped millions of acres across Alaska. These maps have been used for wildlife habitat evaluation and selection studies, climate change modeling, fire fuels planning, and for a myriad of other studies and uses.

Interior. Where LandFire uses standard vegetation associations for their mission, the NSSI is addressing a multitude of end user needs beyond the LandFire program by building upon the LandFire base with in-situ observations during summer growing seasons. All measurements collected by the NSSI will be provided to the National LandFire Program for their next generation product due in two years.

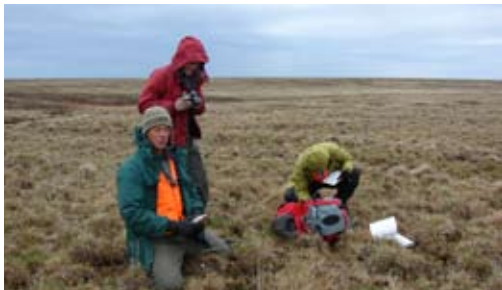


Photo by Scott Guyer

In 2008, the NSSI began the land cover mapping effort by collecting data in west NPR-A near Wainwright. This summer, the project is planned for an area just south of Prudhoe Bay. When complete, a NSSI North Slope

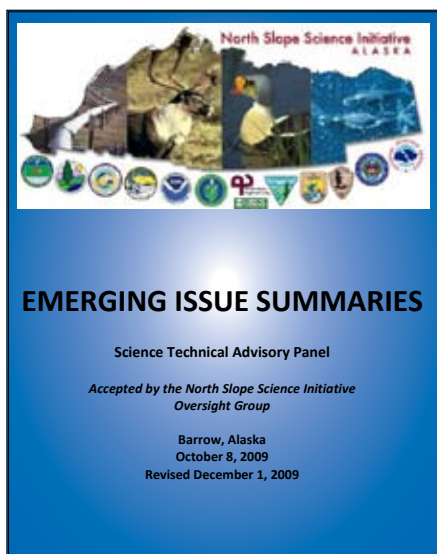
land cover map will provide standard protocols and a base GIS layer for a highly accurate slope-wide map. The land cover map will also address critical NSSI emerging issues, such as: vegetation change, lake drying, saltwater intrusion, changing fire regimes, wildlife habitat selection/availability, weather and climate. The NSSI has worked to build upon the efforts of the National LandFire Program that uses satellite imagery to produce consistent and comprehensive maps and data describing vegetation, wildland fire, and fire regimes across the U.S. LandFire, also known as the Landscape Fire and Resource Management Planning Tools Project, is a five-year, multi-partner project of wildland fire management programs under the U.S. Forest Service and U.S. Department of the



Inside NSSI News

- 2** Emerging Issues Summaries
Project Tracking System
Canada to Host 2nd Oil and Gas Forum
- 3** Director's Corner
- 4** NSSI Deputy Departs
New Chair of Oversight Group
NSSI Data System
Contact Information





NSSI Science Technical Advisory Panel (STAP) Continues Emerging Issue Summaries

The development of Emerging Issues has been the focus of the STAP for the past 18 months. Under the leadership of Bill Streever, STAP Chair, the first 13 Emerging Issue Summaries were accepted by the NSSI Oversight Group in October 2009, and released in December 2009 as a NSSI publication (available at www.northslope.org). The document is a result of an iterative process that began with the identification of important emerging issue topics by the NSSI Oversight Group. These broad topics were then presented to the Senior Staff Committee to develop management questions, concerns and needs. The results of the Senior Staff Committee work were then translated into several subgroups with membership from the STAP and Senior Staff Committee, and the addition of outside expertise where appropriate. Several drafts were circulated among all parties, including the NSSI Oversight Group before the final document was completed. Overall, this process involved about 50 subject matter experts from NSSI member agencies, industry, non-governmental organizations and academia. Additional emerging issue summaries are in preparation for Arctic fish and fisheries, restoration and reclamation, social and economics, and black carbon.



Project Tracking System

Science on the North Slope is conducted in a rigorous and demanding environment. Awareness of ongoing work can foster collaborative opportunities and strategic planning however research on the North Slope is being conducted by a diverse community of scientists from regulatory, academic and industry sources. As a result comprehensive information regarding ongoing scientific work on the North Slope is difficult to obtain since results and publications have not yet been generated. The role of the NSSI Project Tracking System is to meet this need for a broader understanding of ongoing scientific research by providing a comprehensive summary of science based research being conducted on the North Slope.

Information on scientific projects is as diverse as the number of groups engaged in research. Initial efforts at NSSI focused on compilation of existing records through interviews and spreadsheets however more and more institutions are becoming aware of the strategic importance of this information and are developing internal project tracking capacity. As we move forward, NSSI is collaborating with these individual, institutionally based project tracking systems to generate a consolidated picture of overall project work that leverages these individual efforts into one centralized data set and minimizes duplicative effort.

The NSSI Project Tracking System is a web based service that allows broad access to summary information describing scientific research on the North Slope. This will allow decision makers, scientists and the public to be better informed about ongoing science on the North Slope.

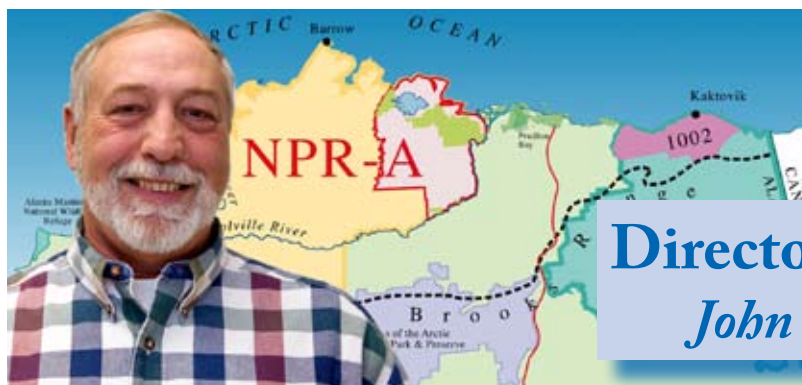


Canada to Host Second Northern Oil and Gas Research Forum

The NSSI helped organize and sponsor the first United States and Canada Northern Oil and Gas Research Forum in the fall of 2008. This first forum brought together scientists, industry and regulators with a focus on sharing research programs and future directions for northern oil and gas exploration and development. More than 300 participants registered for the first forum in Anchorage.

Now, Canada will be hosting the second United States and Canada Oil and Gas Research Forum on Nov. 30-Dec. 2, 2010, in Calgary, Alberta. An organizing committee has been formed and general subject categories have been identified.

Visit the NSSI website (www.northslope.org) in June for the upcoming formal announcement and call for abstracts.



Director's Corner

John F. Payne

Preparing for the Challenges Ahead

It is hard to believe it has been a year since the last NSSI News-letter. The past year has seen the NSSI continue to mature and set directions for the future. The STAP, under STAP Chair Bill Streever's leadership, is energized and fully engaged in the preparation of the emerging issues. The emerging issues turned out to be no trivial task! It has taken nearly 18-months to translate major subject areas identified by the Oversight Group, work with the management questions and needs identified by the Senior Staff Committee, then take those questions and needs, define the problem and providing recommendations to address each of the subjects. This resulted in hundreds of hours of STAP work outside of the scheduled meetings. I cannot say enough about the STAP's dedication as they continue to work on additional emerging issues and an important "connectivity's" paper that will address the crossover points between many of the emerging issues.

We continue to work on several "legacy" projects that were identified before the emerging issues. These include developing new technologies for water characterization, working with several partners to develop a comprehensive digital land cover product for the entire North Slope that is responsive to many end user needs to help evaluate change, develop wildlife and migratory bird habitat maps, fire fuels management, and agency and infrastructure planning. In addition, in 2009, the University of Alaska, Geographic Information Network of Alaska (GINA) implemented the NSSI Data System (<http://catalog.NorthSlope.org/>) for access to imagery, scientific data, and project information relevant to the North Slope. The system made over 200 GIS data layers available through this public portal. This effort is well on its way to becoming a "one-stop shop" and will serve as a comprehensive distributed network that offers data and information to specialists, managers, staff, academia, and the general public. To help insure the data products are always up to date, the NSSI has tasked a STAP standing subcommittee on GIS/Remote Sensing to provide recommendations on content and operation.

The NSSI Project Tracking System (PTS) (<http://catalog.NorthSlope.org/>) makes information readily available about ongoing activities by various entities on the North Slope and its off-shore environments. The PTS provides information on who, what, where, and when of activities. The database began with a spreadsheet of 571 ongoing projects, with the goal of periodically updating information on new project starts. In 2009, the PTS became operational and is now populated with some 1,200 project records representing the work of over 100 public and private institutions and over 800 individuals. These projects are searchable by subject, by agency or entity, or by principal investigator. In the future the PTS will include terrestrial geographic

project locations, sorted project information, printing capabilities, and links to project websites.

In December 2009, the *North Slope Science Initiative 2009 Report to Congress*, NSSI's second report to Congress, was accepted by the Secretary of the Interior and forwarded to both the Speaker of the House of Representatives and the President of the Senate. Like last year's first report, the 2009 report is an attractive document with pictures and graphics throughout. The report conveys the value of the NSSI to its membership, including a section on each member's mission and how they are working with the NSSI. This high quality document was a team effort in its making. While many individuals worked on this report, including the Senior Staff Committee, I would like to especially thank Karen Laubenstein for her editing skills, Vanessa Rathbun for her work on the report layout, and Denny Lassuy for his time and effort to ensure the input and comments received were addressed and complete.

As we look toward the future, the NSSI is facing many of the same challenges that its member agencies and entities face with respect to implementing programs. While individual member agencies have research programs that address many of their mandated science needs, the NSSI is positioned to enhance coordination efforts and fill information gaps that no single member agency can accomplish as well on their own. Coordination and collaboration are among the major value-added benefits of the NSSI. This is also an area where the NSSI can articulate its mission relative to several new Department of the Interior and NOAA initiatives that are being implemented in response to planning requirements, Arctic change, or the ability to more efficiently analyze and serve information. Working in conjunction with these new initiatives, as well as collaboration with existing agency programs, the NSSI will be positioned well for the future. The administration change has served up its own challenges within the Department of the Interior as key personnel that have been engaged in the support of the NSSI have changed. This education of new personnel is on-going, and will be expanded with the annual visit to Washington, DC, by myself and several Oversight Group members, including contacts with Department of the Interior personnel.

Finally, as the Executive Director, I would like to personally thank Denny Lassuy for his dedication and service to the NSSI for the past two years. His ability to work with many science disciplines, as well as agency staff, to bring direction and organization throughout the emerging issues development has been a key asset on the way to the final document. Denny, your successor will have some very large shoes to fill!

Data Products

The NSSI Data Products (or Data Catalog) is a web-based resource at <http://catalog.northslope.org> that promotes awareness and access for a wide variety of users to science-based information about the North Slope. NSSI's goal is to be a "one-stop shop" to facilitate a better understanding about North Slope terrestrial, aquatic, and marine ecosystems and how those ecosystems may be altered by energy development and climate change. There are currently more than 120 GIS data layers available in the catalog for the public to download.

NSSI Data Products stakeholders include regulatory staff at federal, state and local agencies; scientists within industry; academic and NGO institutions; and the general public. These stakeholders each have differing information requirements. The NSSI Data Products' role is to help these stakeholders find the information they need. The NSSI Data Products is developing an improved capacity to handle a wide variety of informational products in addition to the GIS data, including reports, maps, and tabular data, to better serve stakeholder needs.

The NSSI is working closely with partners to share information resources through this data products, to minimize redundant capacity, and to ensure discovery and dissemination of information. Users will soon be able to search the NSSI Catalog for information products maintained at partner sites. Not only will this increase user access to consistent and authoritative information products, but will help identify key data products relevant to decision makers and NSSI Emerging Issues.

Moving forward, the NSSI Data Products will continue to develop products and services that facilitate a better understanding of ecosystems, development and climate change on the North Slope.

Deputy Director Lassuy's Term Ends



Denny Lassuy

Photo by Pam Eldridge, BLM

Denny Lassuy assumed the NSSI Deputy Director duties in February 2008. Denny came to the NSSI on a personnel detail from his permanent position as the invasive species biologist for Region 7, U.S. Fish and Wildlife Service. Denny has been an exceptional addition to the NSSI and has worked diligently with the Science Technical Advisory Panel and Senior Staff Committee to bring cohesiveness and direction to both groups. His facilitation and organizational skills have proved to be of a standard that will be difficult to replace.

A sincere thank you to the Regional Director, Region 7, U.S. Fish and Wildlife Service, and Denny's immediate supervisor, for providing the opportunity for Denny to serve in this detail. He will be missed!

Kolash Chairs NSSI Oversight Group

Karla Kolash, Special Assistant to Mayor Itta of the North Slope Borough, is the fourth Chair of the NSSI Oversight Group.

Karla was elected by the Oversight Group in 2008 as the Vice-Chair (or Chair elect) and assumed the duties as Chair in July 2009. She is the first local government Chair since the group was formed under the Energy Policy Act of 2005. The Oversight Group directs the activities of the NSSI and is made up of federal, state, and Borough land managers.



Photo by John Payne

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