

News and information about Alaska Region Office of Science Applications and LCCs.

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## Alaska Region Office of Science Applications



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## October Contest



A pointed question? How many quills does the average porcupine have? Bonus point to whoever counts them instead of using your favorite search engine!

**[E-mail me your answer](#). The first correct(ish) answer may win a prize similar to the one (normally) shown on the right!**

## Previous Contest Results

Congratulations to James MaCracken for being the first to identify this moose's malady -- Sleigh foot/ hoof. The bonus point(s) go to Todd Eskelin for going beyond the vernacular and supplying the term 'abnormal hoof keratinization', and for identifying the cause: Copper deficiency. James, your prize is in the works; my artist was on strike last night, but I plan on bribing him with raspberries tonight. For a reminder of the previous contest, [click here](#)

**If you have a good idea for a future contest, [e-mail me!](#)**

# Five Alaska and Northwest Canada LCCs Unite

# to Make Presidential Visit Informative



From August 31st to September 3rd, President Obama visited Alaska and saw first-hand how climate change is affecting Alaskans. The President's visit shined a spotlight on several main themes of the Alaska and Northwest Canada Landscape Conservation

Cooperatives (LCCs) such as thawing permafrost, coastal erosion, changes to subsistence hunting and gathering, food security, and freshwater resources, and how Alaskans are adapting. Staff and partners from the Aleutian and Bering Sea Islands LCC, Arctic LCC, North Pacific LCC, Northwest Boreal LCC, and Western Alaska LCC, teamed up to compile information to share with attendees of the [Conference on Global Leadership in the Arctic: Cooperation, Innovation, Engagement, and Resilience \(GLACIER\)](#), associated with the Presidents' visit. A multi-media exhibit highlighted LCC actions to address climate change and support adaptation. A press kit including a concise four-page introduction to projects undertaken by the LCCs to address climate change, an annotated photo gallery, and contact information for subject matter experts can be accessed at [climate.arcticlcc.org](http://climate.arcticlcc.org).

President Obama captured his reflections on the visit in this [video](#).

[Learn More](#)

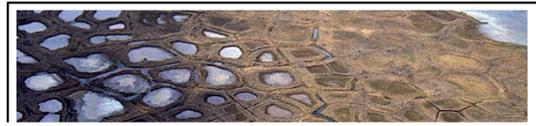
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## Arctic LCC

### Birds on Ice

The Coastal Plain of Alaska's North Slope is summer home for millions of water birds, including more than 16 species of shorebirds and 15 species of waterfowl. These birds are drawn to the region's vast expanses of aquatic habitats, such as low-center polygons (see figure to the right) and shallow lakes. These surface features are caused by thaw and collapse of ice-rich permafrost, a process known as "thermokarst." As the climate warms and permafrost degrades, the land surface is

reshaped. Low-center polygons that retain water, for example, tend to evolve in to high-center polygons that shed water – this transition has already been documented at several locations on the Coastal Plain. The future of wetland-dependent birds on the Coastal Plain may depend on the resilience of arctic wetlands to warming temperatures.



How vulnerable are these aquatic habitats to climate warming? To answer this question, we need to know how much habitat is available now, and how availability may change in the future. Unfortunately, there is no existing map of surface forms that covers the entire area and no model that simulates



thermokarst at the landscape scale. To remedy this, Arctic LCC is working with Drs. Bob Bolton and Mark Lara of the University of Alaska, both members of the team that is developing the Integrated Ecosystem Model (IEM) for Alaska and Northwest Canada, a joint project of the Alaska Climate Science Center

and the Alaska LCCs. Dr. Lara is developing a protocol to map surface landforms from LANDSAT imagery, and will have a draft map completed in early 2016. Dr. Bolton is working on a new Arctic thermokarst model, which simulates transitions among landform types under various future climate scenarios. By the end of 2016, we hope to have the first iteration of model results that project thermokarst-driven landscape change through 2100.

On **26 October**, the Arctic LCC will convene a group of North Slope bird experts to meet with the landscape modeling team. These groups will exchange information on habitat classification and guide the design of the thermokarst model toward a product that is relevant to the study of water-bird habitat selection, population change, and distribution. Presentations from the perspectives of multiple disciplines will be followed by the first of what we hope will be continuing discussions contributing new information and tools to the U.S. Fish and Wildlife Service and other organizations dedicated to bird conservation.

For [more information about how to participate click here](#) and/or [contact Philip Martin, philip\\_martin@fws.gov](mailto:philip_martin@fws.gov).

## Islands LCC

### Marine Vessel Traffic



The goal of the Marine Vessel Traffic project is to help managers and communities understand the magnitude of commercial shipping that transits through the Aleutian and Bering Sea region. Land-based AIS receivers could only document the eastern half of the North Pacific Great Circle Route; the satellite-based data used in this study covers the full geographic range of the Bering Sea and Aleutians. Several of the major shipping routes currently in use pass with 25 nautical miles of key wildlife sites. The lessons learned from our analysis in the Aleutians will be applied to understanding the potential impacts of increased Arctic shipping that passes through the Bering Strait. [More information and additional Images.](#)

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**North Pacific LCC**  
*North Pacific LCC Climate  
Resource Library*

## Notice of Funding Opportunity for Terrestrial Systems Projects



A Notice of Funding Opportunity for Terrestrial Systems projects supported by the Western Alaska LCC is now open. Please see the solicitation on the [FWS website](#) or on the [LCC website](#). We are seeking short (only 1000 words of descriptive text) pre-proposals due November 2<sup>nd</sup> at 12:00pm AKT. There are three categories for proposals: Category 1) Patterns of change, and their impacts, in the phenology and distribution of subsistence resources, harvested species, or other species of management interest; Category 2) Identification and synthesis of information about 'hotspots' of change or of highly resilient 'stable' locations in western Alaska; and, Category 3) Changes in terrestrial habitat characteristics and their impact on important resources or services in western Alaska. Authors of selected pre-proposals will be invited to complete detailed proposals due February 8<sup>th</sup>, 2016.

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**Northwest Boreal LCC**  
*Climate Smart Conservation and  
Scenarios Planning Course*



### North Pacific LCC Climate Resources Library

The NPLCC recently launched a new Resources Library on [nplcc.org](http://nplcc.org) and are requesting submissions for Alaska climate publications. The goal of this library is to host or link to major climate publications so they can be easily accessed by visitors to the NPLCC website. The library is split into five categories: Climate Change Assessments, Climate Change Guides, Regional/National Plans and Strategies, Resource Guides, and Tribal Traditional Knowledges. Before the new library is promoted widely, the NPLCC is seeking relevant documents to be included. If you have any specific climate-related documents from Alaska (state-wide, or with a SE focus) please send them to [Meghan Kearney](mailto:Meghan.Kearney@fws.gov), NPLCC Communication Specialist. You can view the progress of the [Resources Library here](#).

To increase the capacity of the NWB LCC Steering Committee and other partners to use the Climate Smart Conservation Guidance, and Scenario Planning, the LCC sponsored the National Conservation Training Center's (NCTC's) Climate-smart Conservation with Scenario Class. The course is being delivered in both Fairbanks and Whitehorse to LCC partners. [More information about the course](#). Another Climate Smart Conservation and Strategic Planning will be delivered in Homer this fall. Contact [Stephanie\\_Brady@fws.gov](mailto:Stephanie_Brady@fws.gov) for more details.

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## Upcoming Opportunities

### Workshop

*Thermokarst and Birds Workshop (Arctic LCC)*

**26 October, 2015**

**1-3pm**

Fairbanks -- Refuges Conference Room

Regional Office -- Mary Smith Conference Room

Remote Connection -- [Contact Philip Martin for details](#)

## **Webinar**

### **Alaska and Northwest Canada LCCs' Webinar Wednesdays**

*The Influence of Fall Storms on Nest Densities of Geese and Eiders on the Yukon-Kuskokwim Delta*

**Wednesday 14 October**

**12-1pm**

[Location and webinar remote access available here.](#)

Follow us on [Facebook](#) and/ or [Twitter](#) for information on upcoming Webinars!

## **Funding Opportunities**

RFP - [North Pacific Research Board: Arctic Integrated Ecosystems Research Program.](#)

**Proposals due Friday 4 December, 2015**

RFP - [Terrestrial Systems Topics in Western Alaska](#)

**Pre-proposals due Monday 2 November, 2015**

Funding Opportunity - [NOAA Marine Debris Program](#)

**Applications due Monday 2 November, 2015**

## **Job Opportunity**

Alaska Sea Grant is recruiting applicants for a coastal community resilience and adaptation specialist. The research assistant professor position is open to candidates with a master's degree or higher in a broad range of sciences or community planning, with experience in a field such as coastal hazards, coastal engineering, community planning, and rural development.

Applicant review begins **October 26, 2015**. [View the full position description and instructions on how to apply here.](#)



## What's New in Alaska Region Science?

Cavileer TD, Hunter SS, \*Olsen J, Wenburg J, Nagler J.J. (2015). *A Sex-determining Gene (sdY) Assay Shows Discordance between Phenotypic and Genotypic Sex in Wild Populations of Chinook Salmon*. Transactions of the American Fisheries Society. 144(2), 423-430.

<http://www.tandfonline.com/doi/pdf/10.1080/00028487.2014.993479>

Churchwell, R.T., Kendall, S.J., Blanchard, A.L., Dunton, K.H., & Powell, A.N. (2015). *Natural Disturbance Shapes Benthic Intertidal Macroinvertebrate Communities of High Latitude River Deltas*. Estuaries and Coasts. First online 01, 1-17.

[http://link.springer.com/article/10.1007/s12237-015-0028-2?wt\\_mc=internal.event.1.SEM.ArticleAuthorOnlineFirst#](http://link.springer.com/article/10.1007/s12237-015-0028-2?wt_mc=internal.event.1.SEM.ArticleAuthorOnlineFirst#)

Craig, H.R., Kendall, S., Wild, T., & Powell, A.N. (2015). *Dispersal and Survival of a Polygynandrous Passerine*. The Auk. 231(4), 916-925.

<http://dx.doi.org/10.1642/AUK-15-41.1>

Hope, A.G., Waltari, E., Malaney, J.L., Payer, D.C., Cook, J.A., & Talbot, S.L. (2015). *Arctic Biodiversity: Increasing Richness Accompanies Refugia for a Cold-associated Tundra Fauna*. Ecosphere. 6(9), 1-67.

<http://www.esajournals.org/doi/full/10.1890/ES15-00104.1>

Shedd, K.R., von Hippel, F.A., Willacker, J.J., Hamon, T.R., Schlei, O.L., Wenburg, J.K., Miller, J.L., & Pavey, S.A. (2015) *Ecological release leads to novel ontogenetic diet shift in kokanee (Oncorhynchus nerka)*. Canadian Journal of Fisheries and Aquatic Sciences. 72, 1-13.

<http://dx.doi.org/10.1139/cjfas-2015-0146>

\***Bold** font denotes Alaska Region FWS staff.

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We would like to feature your recent publications and/or datasets here!  
If you have something you'd like to bring to a larger audience, please contact:  
[brett\\_parks@fws.gov](mailto:brett_parks@fws.gov).

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MailChimp.