



## **Alaska Region Office of Science Applications**

### **News & Announcements**

## **July 2013**

### **Office of Science Applications**

A national [LCC projects catalog](#) has been released. This catalog provides links to funded projects across all of North America's 22 LCCs, providing transparent and publicly available project support information.

The Beaufort coastal plain, a sub-unit of the Arctic LCC geography, has been chosen as the pilot area for surrogate species selection in the Alaska Region. A landscape team will be convened in late summer to begin work on this initiative. The Beaufort coastal plain was selected based largely on its distinct ecological characteristics, the number of priority and listed species it includes, the large amount of information already known about its ecology, and the

concentration of human activity within it. An "[Arctic LCC Ecoregion Map](#)", shared at the R7 Strategic Habitat Conservation Sharepoint site, shows the boundaries of this sub-unit.

## Landscape Conservation Cooperatives

"Berry Risk Mapping and Modeling of Native and Exotic Defoliators in Alaska" is a southcentral Alaska-based project funded by the [North Pacific LCC](#) in 2013. Study results will help forest managers better understand and adapt to the response of vital subsistence berry plants to climate-change related Geometrid moth outbreaks.

Thermokarst, unlike cave-type karst, occurs when ice in permafrost melts, creating space in the previously frozen and rigid substrate. Thermokarst affects waterways, land forms, and human structures, along with wildlife habitat. The appearance of new thermokarst features is one of the most apparent symptoms of a warming Arctic, but there has been little systematic monitoring of thermokarst to date. Seeking to remedy this situation, the [Arctic LCC](#) has partnered with the USGS Alaska Science Center to review what is known about thermokarst and the methods scientists have used to document thermokarst-related landscape change. These specialists will recommend how scientists might keep better tabs on thermokarst in the future. The first product of this work is already available, a [bibliography of scientific papers on thermokarst](#).

The [Northwest Boreal LCC](#) Science Coordinator represented the Alaska Region at NASA's [Arctic-Boreal Vulnerability Experiment](#) (ABoVE) science definition team in Fairbanks last week. Ways in which Alaska's LCCs can inform or support this partnership initiative will be ongoing. ABoVE is a NASA terrestrial ecology program field campaign that will be conducted in Alaska and western Canada, with special emphasis on geospatial information and remotely-sensed data products.

[Western Alaska LCC](#) staff are currently drafting language for a Request for Proposals (RFP) that they expect to release in early September. The Steering Committee will be deciding on final language at their August 13 meeting. The RFP will focus on "*Changes in Freshwater Temperature and Its Impacts*". One portion of the announcement will be designed to improve freshwater temperature monitoring in western Alaska and the other will be designed to fund studies/analyses on how those changes are affecting the important resources in western Alaska. Please start mulling over ideas and talk with your

FWS Steering Committee members to see how potential project ideas might fit. Funding will be available in FY14, and if additional funding is required after FY14, a mechanism is available to make that work as well.

The [Aleutian and Bering Sea Islands LCC](#) recently established a technical working group to advise the Steering Committee on landscape-scale issues associated with the biological availability of contaminants in the Bering Sea and Aleutians. The group is composed of 20 contaminants specialists from the FWS, the Aleutian and Pribilof Islands Association, NOAA, the state of Alaska, universities, the National Institute of Standards and Technology, and the USGS. Meetings are hosted at the Department of Environmental Conservation's contaminants lab in Anchorage and online. Please contact [Aaron Poe](#), Science Coordinator, for more information.

### **Cross-LCC Coordination**

Accurately depicted streams, rivers and lakes are essential across the nation for everything from mapping, modeling and flood estimation to solving public and private property issues. The reference source for this information is the [National Hydrography Dataset](#) (NHD). Unfortunately, Alaska's NHD is based on 1950's topographic maps and suffers from many errors and deficiencies. All five LCCs in Alaska, the Alaska Hydrography Working Group, the Fish Habitat Partnerships, and the USGS recently combined efforts to help advance updating the NHD in Alaska. These partners successfully competed for \$300K of national multi-LCC funding, which will leverage more than \$300K of other commitments. This funding will extend a [regional southeast Alaska model](#) into a statewide program, allowing all parties to share 'local improvement efforts', among other benefits.

The [Community Subsistence Information System](#) (CSIS), hosted by the Division of Subsistence, Alaska Department of Fish and Game (ADF&G), provides harvest data for over 270 communities. The Division of Subsistence has been collecting harvest data since 1981 for resources harvested by each community including large land mammals, marine mammals, and migratory waterfowl. Data are organized by community and year of study with different levels of data available for each rural community. These data are also depended upon by multiple land and resource managers. Through a partnership between ADF&G and Alaska's LCCs, the data will be made publicly available online in 2014 as a searchable map-based interface. For more information contact [Mary Mahaffy](#) (360-753-7763), Science Coordinator with the North Pacific LCC.

## Upcoming Webinars & Conferences

Registration is open for the July 31 webinar [State Wildlife Action Plans: Lessons Learned in Adapting for an Era of Climate Change](#). This presentation is part of the "Safeguarding Wildlife from Climate Change" web conference series and will showcase the work of several state wildlife agencies to incorporate climate change into their planning.

Registration is also open for the August 20 webinar [Fire Management, Fuels, and Climate Change Tipping Points](#). At what level of climate change will we experience major shifts in landscape composition and structure - the climate change "tipping point"? This webinar explores a fine landscape model that simulates climate, vegetation, and fire interactions in possible climate change scenarios.

The 2013 [EPA Region 10 Tribal Environmental Leaders Summit](#) will be held in Spokane, Washington October 7-11, 2013, hosted by the Kalispel Tribe. This year's theme is "Restoration. Reconnection. Communication." The Red Dog and Pebble Mines, climate change, and subsistence resource protection are just a few of the Alaska-focused sessions on the agenda.

## What's New in Alaska Region Science

### PUBLICATIONS

#### *Conservation Genetics*

**Cook G.M.**, Rothenberger J.P., Sikaroodi M., Gillevet P.M., Peters E.C., and Jonas R.B. (2013). [A comparison of culture-dependent and culture-independent techniques used to characterize bacterial communities on healthy and white plague-diseased corals of the \*Montastraea annularis\* species complex](#). Coral Reefs 10.1007/s00338-012-0989-6.

**Flannery B.G.**, Spangler R.E., Norcross B.L., **Lewis C.J.**, **Wenburg J.K.** (2013). [Microsatellite analysis of population structure in Alaska eulachon with application to mixed-stock analysis](#). Transactions of the American Fisheries Society 142, Issue 4, 1036-1048.

