



Chukchi Sea & Norton Sound Subsistence

Some of the largest per capita harvest of fish and wildlife in Alaska occurs in small communities on the Chukchi Sea coast and Norton Sound — with an estimated 436 pounds of wild foods harvested per person each year. However, information on subsistence harvests does not exist for some communities and in others it is out of date. Baseline data is needed in advance of proposed resource development.

PROPOSED STUDY COMMUNITIES

2013

NOORVIK
POINT LAY
GOLOVIN

2014

LITTLE DIOMEDE
WAINWRIGHT
STEBBINS

2015

DEERING
POINT HOPE
SHAKTOOLIK

PROJECT TIMEFRAME

JULY, 2012-
DECEMBER, 2016

DIVISION OF SUBSISTENCE

<http://www.adfg.alaska.gov/index.cfm?adfg=subsistence.main>

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Through household surveys and interviews, this project seeks to collect baseline subsistence harvest and use information about fish and wildlife habitats and ecosystem change. For generations, subsistence users in this area have maintained close ties to their natural environment in order to make best use of the variety of species that are vital to the mixed economies that characterize small Arctic communities.

Systematic documentation of harvest information and local and traditional knowledge (LTK) can provide local, state, and federal governments and organizations with a network of environmental observations, quantitative and spatial information.

Background

The Arctic is warming. Current climate models project ice free summers in the far north by mid-century. Scientific evidence is borne out at the local level in Alaska and subsistence users are already observing changes in their environment: warmer temperatures contributing to delayed fall freeze up and earlier spring snowmelt, reduced thickness in sea ice, drying tundra lakes, more brushy vegetation, and other changes to the habitats that support the wild resources that subsistence users are reliant upon.

Direct impacts to fish and wildlife have already been observed. For example, in recent years, Pacific walrus have responded to a lack of sea ice in late summer and early fall by hauling out in groups of thousands on the northwest Alaskan coast. Concern exists for other sea ice dependent species, such as seals and polar bears. Alaskans who rely on these resources are forced to adapt to these changes.

Meanwhile, a warming Arctic means increased access to commercial interests. Already, this is drawing attention from far beyond its borders for its potential as a shipping route, a new commercial fishing ground, and as an yet untapped mineral storehouse. Oil exploration and development activities in the Chukchi Sea are underway. More development proposals are likely to follow.

Taken cumulatively, environmental and man-made changes have the potential to bring dramatic changes to life in Arctic Alaska.

In order to make informed decisions about proposed projects and regulations, area residents and state and federal agencies need updated information on subsistence harvests of wild resources. Local and traditional ecological knowledge will assist in evaluating and monitoring environmental impacts associated with both development activities and a changing climate. Together, findings from such research may suggest strategies to mitigate the effects of resource development and guide sustainable management of public resources.

Project Partners

Since 1978, the Alaska Department of Fish and Game's Division of Subsistence has documented community patterns of fish and wildlife harvest and use, as well as local and traditional knowledge about fish and wildlife habitats and ecosystem changes. Despite this effort, gaps in information still exist and some information is significantly out of date.

This project will conduct research in nine communities within the North Slope Borough,



Northwest Arctic Borough, and Norton Sound region, including Noorvik, Point Lay, Golovin, Diomed, Wainwright, Stebbins, Deering, Point Hope, and Shaktoolik.

This will be a collaborative project between the Division of Subsistence and the tribal governments of participating study communities. The Subsistence Division seeks community approval of projects from local governments before conducting research. In communities willing to participate in the project, project partners will hire and train local researchers to conduct surveys within their own community. Researchers will rely upon tribal governments to identify knowledgeable individuals for key respondent interviews. Each community will have the opportunity to review the data and analysis prior to making the summary report final.

Project Goals

- This project seeks to document coastal community environmental information to understand community

harvest levels of fish and wildlife resources, local perceptions on environmental changes, and community subsistence resource and land use patterns. Objectives include:

- Estimate subsistence harvests and uses of wild fish, game and plants in a 12 month period
- Document areas used for hunting, fishing and gathering in the study year and harvest locations
- Document community subsistence land use patterns
- Collect demographic information, such as household size, composition and ethnicity
- Collect economic information such as jobs and income
- Evaluate food security for both store bought and subsistence foods
- Document social networks of subsistence resource (sharing) among households and communities
- Collect local observations of environmental change, including species population dynamics, health, seasonal geographic distribution, and invasive species

What We Will Do

We will meet with communities to review project goals, objectives, and survey forms. With community approval, we will administer a comprehensive household subsistence survey in three communities each year in 2013, 2014, and 2015. We will map areas used by each household for subsistence activities. In interviews with knowledgeable subsistence harvesters, we will map areas used historically for subsistence and document selected traditional knowledge topics. We will prepare a draft report for review by communities, hold community review meetings of draft findings, and prepare a final summary report. We will mail summaries to box holders in each community.

Project Timeline

- Fall, 2012- 2014:**
Community approval
- February - March, 2013 - 2015:**
Harvest surveys
- April - August, 2013 - 2015:**
Data entry and analysis
- September December, 2013 - 2015:**
Community review of draft results
- April, 2014 – 2016**
Draft final report
- June, 2014 - 2016:**
Final report distributed to agencies, resource managers and public
Study summaries mailed to boxholders in each community

