

# Iliamna Lake Freshwater Seal Study: Characterizing Local Use Patterns, Local Traditional Knowledge, and Seal Population Ecology

Helen Chythlook<sup>1</sup>, Courtenay Gomez<sup>1</sup>, and Jennifer Burns<sup>2</sup>

With assistance from Tatiana Askoak of Newhalen, Chasity Anelon of Iliamna, and Renae Zackar of Kokhanok

<sup>1</sup>Bristol Bay Native Association, P.O. Box 310, Dillingham, AK 99576; <sup>2</sup>Department of Biological Sciences, University of Alaska, Anchorage, AK 99508

## Project Overview

In response to concerns about the absence of information on the status of the seals found within Iliamna Lake, the tribal communities of Iliamna and Kokhanok, in partnership with Bristol Bay Native Association, UAA, ADFG, and NOAA have joined together to gather baseline information on seasonal shifts in abundance and distribution of the unique freshwater seal population inhabiting Iliamna Lake, and to document subsistence use patterns and local traditional knowledge (LTK) from nearby communities that traditionally harvest seals from the lake. Findings from the aerial survey work is reported by our collaborator Dr. David Withrow from NOAA, and here we focus on the LTK portion of the project.

To gather information on subsistence use and local traditional knowledge about seals within Lake Iliamna, this project has recruited and trained local community members from Iliamna, Kokhanok and Newhalen to act as local research assistants and conduct in-person interviews throughout their communities. Local research assistants first conduct subsistence household surveys (SHS) in as many households within their communities as possible. The SHS was designed: 1) to collect data on the prevalence and types of use of seal resources by community members in 2009; 2) to gather preliminary local and traditional knowledge about the seals in the lake; and 3) to identify knowledgeable locals with a history of observing and using seals willing to participate in more detailed key respondent interviews and mapping exercises. Preliminary results from the SHS are reported below. Ultimately, data from the SHS will be compared with previous household surveys conducted by ADF&G in 2004 & 2005.

Following identification of those persons within their community who have knowledge about the seals, the LRAs will conduct more in depth interviews. These LTK surveys include sections on subsistence use, seal ecology (abundance, haulout locations, diet, behavior, and movements) and how the local communities have interacted with the seals (traditional and customary use patterns, and socio-economic factors that may be influencing these patterns). This integration is part of an ongoing effort to understand how the variations in environmental and socio-economic conditions impact everyday life in indigenous communities in Alaska.

## Harvest Monitoring

A biosample training class was conducted in Spring, 2010 in collaboration with the Alaska Native Heritage Center, and the Alaska Native Harbor Seal Commission. Local Research Assistants from participating Iliamna Lake communities were trained in how to collect data and samples from harvested seals. Biosampling kits and data forms were distributed to the communities, and are available for use during future harvest seasons.



## Newhalen

**Partner:** Newhalen Tribal Council  
**Local Research Assistant:** Tatiana Askoak  
**Current Population:** 162 people in 39 Households  
**Ethnicity:** 91% Alaska Native  
**Per capita Income:** \$9447

**SHS's completed:** 14 (accounting for 64 people)  
**% Households hunting:** 3/14  
**% households using:** 6/14  
**Seals harvested:** May, September



## Iliamna

**Partner:** Iliamna Village Council  
**Local Research Assistant:** Chasity Anelon  
**Current Population:** 91 people in 33 households  
**Ethnicity:** 58% Alaska Native  
**Per capita Income:** \$19,741

**SHS's completed:** 15 (accounting for 64 people)  
**% Households hunting:** 3/14  
**% households using:** 6/14  
**Seals harvested:** May, September



## Kokhanok

**Partner:** Kokhanok Village Council  
**Local Research Assistant:** Renae Zuckar  
**Ethnicity:** 87% Alaska Native  
**Current Population:** 184 people in 42 households  
**Per capita Income:** \$7,732

**SHS's completed:** 9 (accounting for 29 people)  
**% Households hunting:** 3/9  
**% households using:** 4/9  
**Seals harvested:** March & May in Lake; September in Bristol Bay



## Examples of Local and Traditional Knowledge Quotes from interviews

- “More seals out there now than in the past”
- “Harvested seals are in good condition”
- “It is much more special to get lake freshwater seals. Their fur is thicker and softer than saltwater seals. Saltwater seals are oilier and pelts are harder to process because of the increased oil”
- “If we had a way to hunt, we would hunt more often”
- “Usually hunt when ice is still good and the seals start popping up by the pressure cracks in early spring”
- “Sometimes saltwater seals come up the Kvichak and follow the fish”
- “Seals are even in the Newhalen River”
- “In the last few years more seals in the river, and there haven't been many in the river before”
- “Bottom trawling in Bristol Bay may be causing seals to move into the lake”