

Title: Whitefish trends on the Upper Kuskokwim, Alaska

Project Number: 12-352

1. Project Objectives and Results

Objective 1) Estimate the subsistence harvest of nonsalmon fish by residents of Lime Village (pop. 27) and Nikolai (pop. 96) in 2012 and 2013.

In April 2013 household surveys were administered to document the harvest of nonsalmon fish species for study year 2012 in Nikolai. In May 2013 household surveys were administered for study year 2012 in Lime Village. The section below outlines harvest survey progress in each community.

From April 21 -26, 2013 ADF&G researchers successfully surveyed 26 of 40 Nikolai households (65% sample).

From May 3-4, 2013 ADF&G researchers successfully surveyed 13 of 13 Lime Village households (100% sample).

The second round of surveys will occur between March and April of 2014.

Objective 2) Evaluate the harvest of subsistence nonsalmon fish in terms of species, gear, location, and timing of harvests.

Each harvest survey asks for species specific information, gear type used, month of harvest, and contains a harvest location mapping component. This information was collected in April 2013 in Nikolai and was collected in May of 2013 in Lime Village. Data collection for study year two will occur in March and April 2014.

Objective 3) Document traditional ecological knowledge (TEK) of each whitefish species, including life history, ecology, environmental and climate-related observations, seasonal movement, spawning areas, interactions with other fish and wildlife, local taxonomies, trends in abundance, and traditional management systems.

A key respondent TEK interview protocol has been designed based on topics identified at community scoping meetings and in further consultation with National Park Service (NPS) biologist Dan Young and NPS anthropologist Karen Evanoff. The topics focus on those identified in Objective 3: to document local knowledge of each whitefish species, including life history, ecology, environmental and climate-related observations, seasonal movement, spawning areas, interactions with other fish and wildlife, local taxonomies, trends in abundance, and traditional management systems.

In December 2012, following the completion of community scoping meetings, key respondent interviews were conducted in both of the study communities: Nikolai (2), Lime Village (4). During April and May 2013 fieldwork ADF&G researchers conducted 2 additional key respondent interviews, 1 in Nikolai and 1 in Lime Village.

Participant observation is also useful for meeting Objective 3. Participant

observation will occur during October 2013 in Lime Village and during October 2013 in Nikolai. Researchers from both ADF&G and NPS will conduct participant observation by fishing with community residents in Lime Village, and ADF&G will conduct participant observation by fishing with community residents in Nikolai. Participant observation will provide important opportunities for researchers to learn about whitefish and nonsalmon species, including identification issues, which will be instrumental in determining species availability.

Objective 4) Describe the characteristics and trends of the whitefish fishery by species.

Objective 4 is being accomplished through a combination of methods including the harvest survey, key respondent interviews, and participant observation. Information that will contribute to understanding whitefish characteristics through these methods was collected in December 2013 in Nikolai and Lime Village, in April 2013 in Nikolai, and in May of 2013 in Lime Village. Collection of this information will continue during participant observation research in Lime Village and Nikolai October 2013.

Objective 5) Identify what factors may be influencing the ability of residents to harvest various whitefish species through the ice in the spring.

Each harvest survey includes a 'comments' section that allows households to raise concerns about subsistence issues, in this case about whitefish and nonsalmon resources. While respondents are not prompted to discuss specific issues, this represents an opportunity for households to document any specific concerns including what might affect their ability to obtain whitefish. This information was collected in April 2013 in Nikolai and in May of 2013 in Lime Village. An additional harvest survey with comments sections will be implemented in 2014.

Key respondent interviews and participant observation have also been instrumental in determining what factors might be influencing the ability of residents to harvest various whitefish species. Information that will contribute to understanding whitefish characteristics was collected by these methods in December 2013 in Nikolai and Lime Village, in April 2013 in Nikolai, and in May of 2013 in Lime Village. Additional data will be gathered in October 2013 and in year two of the study between March and May 2014.