



# Kodiak National Wildlife Refuge Spring 2010

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(ADF&G)

Boat and gear ready to sample the Karluk River for chinook salmon fry.

## King Salmon Study Started

The 2010 summer season is fast approaching and with it the anticipation of salmon returning to their natal streams to spawn. Dynamic salmon population trends are occurring across the state, including the Kodiak Management Area which encompasses western Gulf of Alaska waters surrounding Kodiak Island.

The Karluk king salmon fishery, historically important to subsistence users and one of the most popular Kodiak sport fisheries, has recently experienced a downturn in escapement levels. This decline has resulted in restrictions and closures to the subsistence, sport and the commercial salmon fisheries in 2001, 2005, 2007, 2008 and 2009. Furthermore, escapement goals were not achieved from 2006-2009. Because of the low escapement levels, the 2010 season begins with announcements to restrict subsistence and sport fisheries

for king salmon on the Karluk River.

To investigate whether recent declines can be explained by freshwater conditions within the Karluk River system, the Refuge and Alaska Department of Fish and Game – Sport Fish Division (ADF&G) initiated a multi-year cooperative project in 2009. Biologists systematically trap-sampled portions of the Karluk River from April to October to map the distribution and relative abundance of king salmon fry. Habitat and hydrological data were recorded as well as stream characteristics to determine what kind of areas juvenile king salmon prefer.

Juvenile king salmon rely on the Karluk River which provides vital nursery areas in their first 1-2 years before departing to the ocean. They may stay in their natal streams for 12-18 months before travelling downstream to estuaries where they continued on pg. 4

This newsletter is mailed to village communities, permit holders and land neighbors. Additional copies are at the Refuge Visitor Center downtown.

For more information about your Refuge, please also visit the Kodiak Refuge website at <http://kodiak.fws.gov>  
Or the Visitor Center website at <http://www.kodiakwildliferefuge.org>

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# Migratory Bird Harvest Surveys in 4 Villages



Survey forms include most common species hunted by Kodiak Island residents.

If you see someone in your village carrying around a form like you see at the left, it's probably because they are conducting this year's Migratory Bird Subsistence Harvest Survey. Since 2004 the Alaska Migratory Bird Co-management Council (AMBCC) has regularly assessed harvest every two to three years in each of the 11 harvest areas of the state. The AMBCC is composed of the U.S. Fish and Wildlife Service (FWS), the Alaska Department of Fish and Game (ADF&G), and a number of Alaska Native organizations. This harvest survey has its basis in a 1997 amendment to the Migratory Bird Treaty Act. This amendment recognized the customary and traditional use of migratory birds by local Alaska residents and allowed for a regulated spring-summer subsistence bird harvest in selected areas.

This year FWS and ADF&G are partnering with community tribes

to survey Akhiok, Karluk, Larsen Bay, Port Lions and a portion of the town of Kodiak. Households to be surveyed will keep in touch with the surveyor for 3 periods throughout the 2010-2011 harvest season. This survey is voluntary as well as confidential.



Posters announce harvest survey in villages.

# Subsistence Numbers: Why and How Are They Used?

Often, communities feel burdened by being asked to complete surveys. "This is our livelihood", they say. People are asked to give numbers to strangers and often it's not clear why. Managers recognize this "survey burden" and try not to over survey a particular area and to diversify the

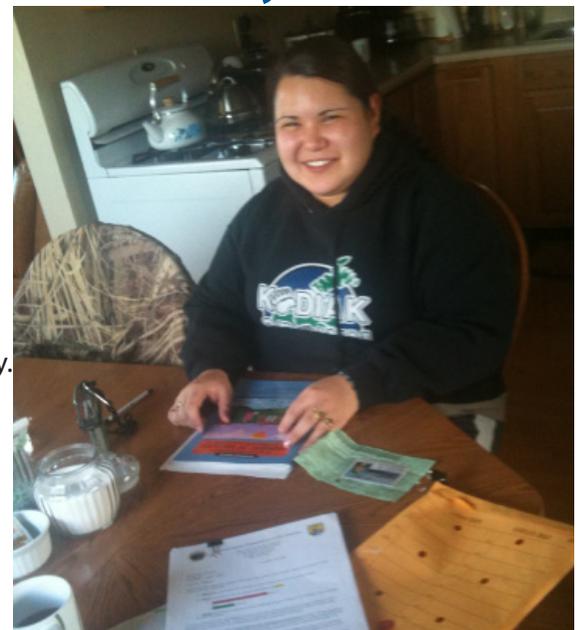
way surveys are conducted. The reason agency managers want your numbers are as varied as there are surveys. Surveys are a form of written record of resource use. Managers need numbers to manage a resource properly. If actual numbers were not sought from real users, then it may be difficult to estimate the subsistence needs of a community.

Surveys also help agency managers become more aware of the real needs of rural residents. For example: managers learn that villages often select hunters in a community who share harvests with many households, and that timing for traditional potlatches and religious ceremonies are necessary.

Subsistence caught salmon accounts for about only 2% of the overall harvest of salmon. Because subsistence needs have priority over sport and commercial harvest, knowledge of subsistence needs helps managers determine what

surplus may be available for the sport and commercial fisheries. Through numbers, rural communities can defend their resource use and tradition. Subsistence remains a priority by law and subsistence numbers help a unique livelihood continue.

A Subsistence Fishing Permit (above) is available in your village or at the Alaska Department of Fish and Game. It allows users to record harvests and receive additional permits if necessary.



Lorana Rozelle gets ready for subsistence bear hunt in December.

(USFWS)

## Tribal Wildlife Grant Overview

The Tribal Wildlife Grants program began in 2003 and has provided over \$50 million to date for building the capacity of Tribes to manage fish and wildlife resources. The goal of the Tribal Wildlife Grant Program is to provide a competitive funding opportunity for federally recognized Tribal governments to develop and implement programs that benefit fish and wildlife resources and their habitat. Tribal wildlife grants enable tribes to develop management capacity, strengthen partnerships, address cultural and environmental concerns and heighten interest of tribal students in fish and wildlife and related studies.

"Alaska Tribes are very important partners in the management of fisheries and wildlife resources," said Geoffrey L. Haskett, Alaska Regional Director of the U.S. Fish and Wildlife Service. "These grants enable tribes



to take a leadership role in carrying out conservation activities that directly benefit these resources and their habitats. We appreciate the time and energy that these tribes are putting into development and implementation of these projects." Alaska's tribes have received 33

grants totaling nearly \$6.3 million since the inception of the tribal grant program in 2003. These grants have funded a variety of projects involving habitat restoration, population surveys and monitoring, scientific research, and conservation planning. The funds may be used for salaries, equipment, consultant services, subcontracts, acquisitions and travel.

### Questions About Applying?

Contact Alaska's Assistant Regional Director for External Affairs, Larry Bell at 907.786.3431, or on the web at <http://alaska.fws.gov/external/nativeamerican.htm> The TWG Application Kit for FY 2011 is due Sept. 1, 2010 and is posted at <http://www.fws.gov/nativeamerican/grants.html>

## Native Village of Port Lions Landfill Project



*Dorinda Kewan of Port Lions talks about the work involved in their landfill project to a group of Old Harbor leaders.*

In 2005 the Native Village of Port Lions received a Tribal Wildlife Grant (TWG) to install chain link and electric fencing around the landfill and to clear trees and brush which provide cover for brown bears. Port Lions is located on Kizhuyak Bay, and is surrounded by beautiful, rugged mountain terrain covered by Sitka spruce, birch, alder, and willows. The Kodiak brown bear population

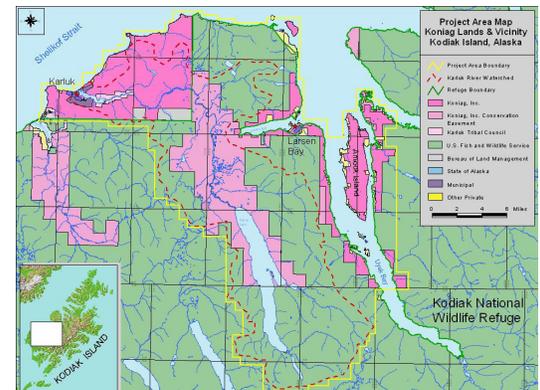
density in Port Lions is about 1 animal per square mile. Until recently, brown bears and residents of Port Lions have peacefully coexisted. However, in recent years there have been increasing numbers of negative interactions between brown bears and humans as bears have become accustomed to feeding at the Port Lions landfill and have been attracted to residents' garbage at home.

Through TWG, the tribe implemented an extensive public education program to teach community members how to avoid attracting bears to residential areas by changing the way we handle garbage cans, dog food, and fish and deer carcasses. The Kodiak NWR and ADF&G were among many partners involved in this project.

This year, the Native Village of Old Harbor received a similar TWG to improve their landfill.

## Larsen Bay TWG: Aerial Photography

After waiting three years for clear sky conditions, Larsen Bay Tribal Council has acquired high-resolution digital orthophotos of the Uyak-Karluk region through Tribal Wildlife Grant funds. GIS equipment, training, hardware and software were included in this grant. Larsen Bay intends to use its grant funds to build its resource management capacity.



*Larsen Bay TWG Project Area Map*

## King Salmon Study, continued

rear for up to 6 more months. King salmon may then spend 1 to 4 years at sea before returning to spawn.

Results of the data for the first year of this feasibility project are preliminary but this study provided some insight on the direction managers need to take in order to understand if any fresh water

environmental factors are the cause of poor king salmon returns. The study will be expanded this year to include additional sections of the Karluk River. It is hoped this effort will provide additional information regarding habitat quality and important rearing areas for juvenile king salmon in the Karluk River.



King salmon fry from Pillar Creek Hatchery (top), and Karluk River's silver and king salmon fry.



Kodiak NWR staff James Lawonn and Heidi Helling discuss sampling techniques with ADF&G biologist Suzanne Schmidt.

### Commercial Fisheries Facilities Management Plan

The 2010 Commercial Fisheries Support Facility Management Plan was recently made available for public review. It is the Refuge's intent to have this plan adopted this Spring so it can be implemented for the upcoming field season. The purpose of the plan is to guide the management of cabin sites and temporary facilities for set net and beach seine commercial operations located on Kodiak and Alaska Maritime Refuge lands within the Kodiak Archipelago.

## Bears to be Collared in the Karluk and Frazer Drainages

In June 2010, biologists from Kodiak NWR and ADF&G will be radio-collaring up to 25 adult female bears in the Karluk and Frazer River drainages. The GPS transmitters on these bears will provide

information on their movements 24 hours per day until they disconnect and fall off in July 2012.

The Project's goals are to: 1. accurately determine the resources and habitats bears are using, 2. learn more about the reproductive success and survival of Kodiak bears, 3. gauge impacts associated with climate change and human disturbance.

This project will provide information to better predict, monitor, and manage brown bear populations on Kodiak Island.



Bear Biologists capture and collar a brown bear sow on Sitkalidak Island in May 2009.



Thumb River brown bear munches on a sockeye salmon in July.

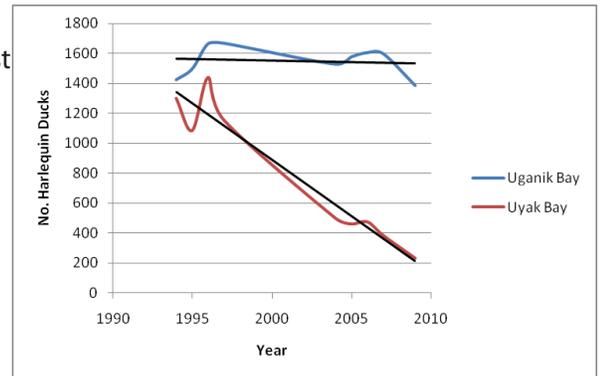


## Harlequin Duck Decline: Need for Awareness, Reduction

The Kodiak-Aleutian Regional Advisory Council emphasized the need for logbooks and active management of Uyak Bay's harlequin duck decline at its March meeting in Kodiak.

Lodges and guiding outfits in Larsen Bay were contacted during the 2008-2009 duck hunting season regarding the decline in harlequin duck numbers in Uyak Bay seen over the last 10 years. A voluntary restriction in harvest is encouraged among lodge owners and local residents. Declines

in Uyak Bay may be the result of multiple factors including harvest and habitat changes. Because numbers remain low and this species is slow to reproduce, outreach to raise awareness of harlequin duck conservation in this area is extremely important. The graph to the right illustrates the severity of the decline seen in Uyak Bay while Uganik Bay remains stable.



This graph illustrates the number of Harlequin ducks counted in Uganik Bay (blue) compared to Uyak Bay (red) since 1990.

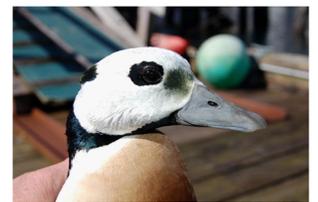
## Wintering Steller's Eiders More Scarce Near Kodiak Island

In February, biologists completed an aerial survey of wintering Steller's Eiders along the eastern coast of Kodiak Island. Steller's Eiders are the smallest member of the four eider duck species. Steller's breed in northern Alaska and Russia and winter from the eastern Aleutians to lower Cook Inlet. The worldwide population of Steller's Eiders has declined as much as 50% in the past 30 years, and in 1997 the Alaska breeding population was listed as threatened under the Endangered Species Act. This winter's count of Steller's Eiders near Kodiak was 2,700, well below

the average of about 4,000 birds seen on previous surveys. Over the years, wintering Steller's eiders have been relatively common in Chiniak Bay and on the east side of Kodiak Island. "Only future surveys can determine if we are seeing a declining trend or if this is an abnormally low year," reflected Kodiak Refuge biologist Robin Corcoran. Kodiak Refuge plans to survey for Steller's Eiders every 5 years to determine the status of this species wintering along the eastern shoreline of the island.

The survey tallied several other species

of sea ducks, including Goldeneye; Bufflehead; Long-tailed Duck; Harlequin Duck; King and Common Eider; Black, White-winged, and Surf Scoter; and Common and Red-breasted Merganser in numbers similar to long-term averages. Emperor Geese were observed in larger numbers this year. Nearly 6,800 were recorded while the long-term average near Kodiak is 2,300.



A flock of Steller's Eiders in Gibson Cove.

### Steller's Eider Bird Flu Sampling

In April, Refuge biologist Robin Corcoran and Boat Operator Jeff Lewis sampled ducks for avian influenza (bird flu), with staff from USGS and USDA. They captured 22 Steller's Eiders and 3 Long-tailed Ducks for sampling. Steller's Eiders are a priority species for bird flu monitoring because most breed in Russia where they mix with Asian wild birds that may carry the virus. All disease samples will be analyzed by the National Wildlife Health Center in Wisconsin.

## Kodiak Refuge Prepares for 2nd Year of YCC

For the second consecutive year, the Youth Conservation Corps (YCC) program will be offered at the Kodiak National Wildlife Refuge. The YCC program is a summer employment program that provides an opportunity for high school age students to work on projects that further the conservation of natural resources. Last year three Kodiak High School students took part in the Kodiak NWR program, greeting hundreds of cruise ship passengers at the Refuge Visitor Center and spending three weeks working on the Refuge.

Program director Kristin Donaldson had high praise for the program. "Last year's inaugural season was a resounding success. Our goal was to get local high school students to understand more about the Refuge and to share that with visitors." The YCC program provides education and team building skills. Through the performance of important conservation work, young people expand their job and leadership skills and develop personal values, ethics, and an awareness of social, political, and environmental issues.

The YCC intern's first trip to the



Bill Leacock (USFWS)

*YCC crew learns about bear biology from biologist Bill Leacock.*

Refuge was to Camp Island on Karluk Lake where they shadowed bear researchers; in July they traveled to the Portage site on the Karluk River to assemble plastic Geoblock trail matting; and in their last trip of the summer, the YCC interns helped maintain a public use cabin at Deadman Bay.

Donaldson said that the Refuge looks forward to making this

program a continued success. "In the past most of the Refuge's efforts have been geared toward grades K-6. However, it is critical that high school youth are better exposed to the natural environment around them. And what better way than getting them out on the Refuge so they can understand what opportunities are available in natural resource careers."

## Will Troyer Visits



In October 2009, we celebrated National Wildlife Refuge Week with a special guest speaker, Will Troyer, retired biologist and Refuge Manager, who enthralled visitors with tales of early bear research in the 1950's and signed copies of his new book, *The Bear Wrangler*.

## Join Kodiak Refuge on Facebook

Why would a government agency want or need social media like Facebook? While websites are a helpful tool for sharing information in a one-directional fashion with interested users, they do not provide for interactive, two-way communication. Facebook helps our visitor center staff stay in touch with visitors—both virtual and local Kodiakans—and educate people from all over the world about why Kodiak Refuge is important. We use Facebook to get ideas for new exhibits, share the latest in on-going Refuge research and promote new events happening at the Center.



What's next for Kodiak Refuge? Podcasting! Kodiak high school students and Refuge staff will be developing an audio and video podcast about Kodiak Refuge research and linking stories and video footage to our website, YouTube channel, Facebook and iTunes. What topics do you want explored? Give us your feedback on Facebook. A link to facebook can be found at: <http://www.kodiakwildliferefuge.org>

# Kodiak Land Mammals Traveling Education Kit



John Aga, Jr. and Jonathonecho Livingston of Larsen Bay explore a bear print mold during a land mammal kit lesson.

their biology? How do humans relate to them - in the past and through hunting and trapping today? How are they managed? These kits are aimed at middle school level academics and tie into state science curriculum standards to assist village teachers or home school parents in science assignments that Kodiak kids relate to.

Next on the Menu for Traveling Education Kits are:

- Wonderful World of Whales
- Bear Awareness & Their Natural History and
- Kodiak Habitats

Education staff at the Kodiak National Wildlife Refuge assembled the first of a series of Traveling Education Kits for a hands-on, all-inclusive learning tool. The Kodiak land mammals kit was developed from a vast number of resources that gear kids toward real-life, backyard, and place-based education about Kodiak's fur bearers. Through reading and activities kids can begin to answer some questions: Why were some land mammals introduced to the island? What is



Collection of land mammal skulls are a fascinating learning tool in the Kodiak land mammal Kit.

Margo Connolly (USFWS)

## New Deputy, Park Ranger and Volunteer Coordinator



Kent Sundseth arrived from Alaska Maritime Refuge to join Kodiak staff as Deputy Refuge Manager.

Kent Sundseth was hired as the new Deputy Refuge Manager from the Alaska Maritime National Wildlife Refuge in Homer where he worked six years as the Manager of the Aleutian Islands Unit and Pribilof Islands Sub-unit. Mr. Sundseth has worked in coastal Alaska for the past 13 years and brings with him some great expertise from his work on the major rat eradication project on Rat Island in the Aleutians and from his work at the Alaska Islands and Oceans Visitor Center in Homer. Kent began his duty in Kodiak on March 1.



Jason Oles rescues a bald eagle trapped in a fox snare near Pillar Creek.

Jason Oles recently joined the Refuge staff as a Park Ranger. His past work includes maintenance, law enforcement, EMS, search and rescue, and bear management in various parts of the country. His most recent bear management experience was at Katmai National Park as well as Glacier National Park in Montana. He was hired to facilitate the O'Malley bear viewing program and act as a Visitor Services field employee for the Refuge.



New Volunteer Coordinator, Lisa Hupp.

This month, Lisa Hupp will join the Refuge staff as our Volunteer Coordinator. Lisa has a diverse set of skills that will serve her well in her new position, including previous work in commercial fishing, at Kodiak College, and most recently, as a program manager for Woody Island Tribal Council. As volunteer coordinator for Kodiak Refuge she will be responsible for oversight of a program that has recently included nearly 100 individuals contributing more than 10,000 volunteer hours a year. Welcome Lisa!

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**Kodiak National Wildlife Refuge** has a mission to work with others to conserve, protect and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people.

