



Yukon Flats National Wildlife Refuge

Newsletter - Spring 2010

Moose Mural Shirts are a Hit

On a cold December day in 2009, Refuge staff and a volunteer visited the Fort Yukon School to lead students in moose educational activities and hand out new T-shirts featuring a moose mural painted by students in 2007.

Over 100 shirts with the message, "Leave the Cow Moose - Leave Our Future Healthy" were distributed to students and school staff. The winning slogan was picked in a contest and was created by Frederick James of Fort Yukon. The shirts are part of a refuge outreach program to highlight the importance of protecting cow moose from illegal harvest.

Students watched a moose video and participated in moose-related activities including "Mooseopoly," a game created by volunteer Kimberley Maher that helps students understand the life history of a cow moose.

Refuge staff are continuing to work with the Yukon Flats School District to distribute shirts to every student and staff in the district this school year. For more information contact Wildlife Biologist Sheila Dufford at <sheila_dufford@fws.gov>. 🦋

Biological Review Update

A review of the Refuge biological program was completed in April 2009. A panel of scientists, managers from various agencies, and local residents from Beaver, Central, Fort Yukon, and Venetie attended the meeting.

The goal was to identify biological information needed in the future to properly manage the Refuge. A final summary of the meeting is being prepared and will be available on the Refuge website later this year at <http://yukonflats.fws.gov>. 🦋



Mark Bertram/USFWS

Venetie students (left to right) Warren Fredson, Dustin Frank, Makayla Tritt, Sloan Frank, and Kayleen Thomas deploy a minnow trap on Venetie Lake.

Students Help Monitor Wetlands

Nine students from Chalkyitsik and Venetie worked with Refuge staff last summer to monitor wetlands of local lakes on private lands. Lakes near each village provide quality waterfowl resources for local residents and offer a stopover point for thousands of waterfowl migrating through the Yukon Flats. Chalkyitsik students observed several thousand molting ducks daily and Venetie students observed 16 broods of ducks.

The Refuge would like to thank Chalkyitsik and Venetie Village Councils and their local schools for assisting in organizing these projects. These programs provide hands on biological experience for local youth, an opportunity for the Refuge to more effectively monitor significant resources on private lands, and an opportunity to further our working relationship with village residents. 🦋

Yukon Flats National Wildlife Refuge is pleased to bring you this newsletter and we value your feedback. If you have comments or suggestions about this newsletter please contact Wildlife Refuge Specialist Nicole Gustine at 800/531-0676 or <nicole_gustine@fws.gov>.



Yukon River Vegetation Study

Refuge Biologist Delia Vargas Kretsinger and crew spent the last two summers on the Yukon River between White Eye and King Slough. The refuge has never done a detailed vegetation study along the Yukon River, so we wanted to take a closer look at shrub communities that are important habitats for moose, snowshoe hare, beaver, and song birds.

Plant and soil samples were collected from 58 sites on the Yukon River and 29 sites on the Tanana River for comparison. During the 2009 summer field season, flooding and ice jams affected a few of the vegetation sites. Although the flooding affected people living on the Yukon River, these natural disturbances are important in maintaining river shrub communities in a productive state for wildlife. Data analyses are just getting under way, and more information will be included in future newsletters.

This study was made possible by support from Doyon, Ltd., U.S. Fish & Wildlife Service, U.S. Forest Service, and University of Alaska Fairbanks. Thank you to the Beaver Tribal Council for kindly allowing us access to their lands. For more information please contact Wildlife Biologist Delia Vargas Kretsinger at 800/531/0676 or <delia_vargas_kretsinger@fws.gov>. 🐦

2009 Fire Season Summary



Chad Wimer/USFWS

Little Black One fire burns near an unnamed lake in mid-July.

Last summer, lightning strikes started nine large fires during a prolonged period of hot and dry weather on the Yukon Flats National Wildlife Refuge. The fires subsequently burned over 400,000 acres from June to October, which is twice the average acreage.

Fire is an important natural force for renewal in the boreal forests of Interior Alaska. Fires burned longer over larger areas last summer when the “end of season” rainy weather did not occur until the end of August.

During the fire season, weather conditions, lightning activity, and other factors are monitored daily by Refuge fire staff. After a fire is detected, the Refuge works with Alaska Fire Service to identify important areas like permitted cabins, native allotments, native lands, private in-holdings or other areas that need to be protected. The majority of the fires that burn on the Refuge are isolated, but are monitored on a daily basis to ensure they do not threaten important areas. For more information contact the Refuge Manager Rob Jess at 800/531-0676. 🐦

Earth Work Quest

The Earth Work Quest Internship Program provided 12 interns with natural resource related experiences during the summer of 2009. These interns represented a cross-section of northern Alaskan villages including Arctic Village, Barrow, Beaver, Grayling, Huslia, Tanacross, and Tok. Organizations hosting these interns were the Alaska Bird Observatory, Alaska Geographic, Arctic and Yukon Flats National Wildlife Refuges, the Fairbanks Alaska Public Lands Information Center, the Fairbanks Fish and Wildlife Field Office, Friends of Creamers Field Waterfowl Refuge, Outdoor Recreation Institute of Guiding for American Indians and Native Alaskans, and the Tanana Chiefs Conference.

With a few recent staff changes the Refuge has been looking for ways to keep the program going, and we are lucky to have a new partnership to do just that. The Cooperative Extensive Service (CES) is an important community resource that works to maintain relationships with the University of Alaska, local Alaskan agencies, and the general public through a variety of programming and educational opportunities.

The Refuge staff look forward to working with CES and continuing hands-on education and work experience for rural youth. For more information about the Earth Work Quest Internship Program contact Wildlife Refuge Specialist, Nicole Gustine at <nicole_gustine@fws.gov>. 🐦

Climate Change Study Begins

This summer Refuge staff will be working with scientists from the U.S. Geological Survey to begin a series of studies to measure habitat changes due to climate change. The Yukon River Basin Initiative's purpose is to better understand how climate change might influence both animal populations and people in the future. The project will continue through 2015.

The products of these efforts will include a hydrology model for the Yukon Flats Basin and other models to help us understand the possible effects of climate change to fish and wildlife resources and subsistence uses in the future. For more information contact Wildlife Biologist Mark Bertram at 800/531-0676. 🐦

Doyon Land Exchange Update

The U.S. Fish and Wildlife Service (Service) released the Final Environmental Impact Statement (EIS) for the proposed land exchange on March 12. The two volume EIS is the result of many years of work and the involvement of communities, Councils, public citizens and many partners of the Refuge.

The Final EIS describes four alternatives, including the proposed action, two other action alternatives, and a no action alternative. The no action alternative, no land exchange, is the Service's preferred alternative. The Final EIS presents an evaluation of the environmental consequences of each alternative.

A 30-day public review period closed on April 12. After reviewing and summarizing comments received, a Record of Decision will be issued to document the Service's rationale for the decision. 🐦

Invasive Plants and Summer Jobs

Many people often wonder why the Refuge is concerned about non-native plants. If non-native plants are invasive they may compete with native plants that are important to wildlife like moose, snowshoe hares, and lynx.

The Refuge received American Recovery and Reinvestment Act funds to hire local youth to help survey roads in three villages this summer. Refuge staff will also work with Council of Athabascan Tribal Governments (CATG), Yukon Flats School District, and University of Alaska Fairbanks (UAF) to train Yukon Flats youth in field biology techniques, including non-native plant survey methods.

The refuge will work with Village Tribal Councils to recruit and hire Youth Conservation Corp (YCC) students in the Yukon Flats. The positions will be advertised through the Village Tribal Councils in late spring. After completing the UAF Field Biology course, YCC students will map non-native plants with their newly acquired skills. The course is slated to begin in early to mid-July with the survey work beginning soon after and going through August 2010. For more information please contact Wildlife Biologist Delia Vargas Kretsinger at <delia_vargas_kretsinger@fws.gov>. 🐦

Wolf Study Surprises Biologists



Bryce Lake/USFWS

One of the fourteen collared wolves in the first year of the study.

Wolves on the Yukon Flats National Wildlife Refuge are unique because they live in a region where their primary prey species, moose, occur at a very low density. In this type of a situation it is likely that wolves take fewer moose simply because they have a hard time finding their preferred prey. However, no study has addressed whether wolves take fewer moose when moose are scarce.

To address this concern, the Refuge began a study to determine the number of moose taken by wolves. In November 2008, fourteen wolves from seven packs were captured. Each captured wolf was weighed, measured, examined for injuries, had blood drawn, and was fitted with a radio collar. In late winter of 2009, daily radio tracking flights were conducted to locate each wolf pack. After a pack was located, the plane used tracks in the snow to find where the pack had been within the last day and located any moose kills.

Results from the survey conducted in 2009 were surprising. Wolves on the Refuge took similar amounts of moose as wolves do where game is abundant. However, because snow depths were greater than normal in the 2008-2009 winter, moose may have been more at risk to predation than in most years.

Future plans are to continue the study for two more years. In early winter 2009, we attached global positioning (GPS) transmitters on 10 wolves. These transmitters record a location every three hours and store all the locations on the collar the wolf wears. Each day the locations are sent to a satellite and biologists can retrieve the information almost instantaneously on a computer. The collars will provide information over the winter, instead of just during two months, providing a better picture of how many moose are taken by wolves on the Refuge. For more information contact Wildlife Biologist Bryce Lake at <bryce_lake@fws.gov>. 🐦

Moose Management Meetings

The Yukon Flats Cooperative Moose Management Plan (Plan) was established in 2002. It was a collaborative effort by Yukon Flats local residents, Alaska Department of Fish and Game (ADFG), and the Refuge to identify ways to manage and grow the moose population on the Yukon Flats.

In 2010, Refuge staff will work with Council of Athabascan Tribal Governments staff to coordinate reviewing the Plan. The group will determine the effects the Plan has had on the moose population and identify what can be done next to grow the moose population while simplifying regulations. It is important to have all stakeholders involved: local representatives from all villages including members of the Yukon Flats Advisory Committee and the Eastern Interior Regional Advisory Council as well as biologists and managers from ADFG and the Refuge. For more information contact Wildlife Biologist Mark Bertram at <mark_bertram@fws.gov> or 800/531-0676. 🐦

Yukon Flats Ducks Go Global!

In December of 1964, an American Widgeon carrying a U.S. Fish & Wildlife Service metal leg band was recovered in Colombia. This duck was unique because its journey began the previous August on the Refuge where it was banded by Biologist Jim King.

More recently, a Northern Pintail banded in 1995 was recovered in Japan. Ducks from the Refuge have been recovered in 43 states, 8 Canadian provinces, and other notable locations, such as Haiti, El Salvador, Mexico, Honduras, Belize, Panama, and even Russia. In total, 4,135 ducks banded on the Refuge from the 1950s to the 2000s have been recovered. The recovery of these ducks highlights the Refuge's importance as a breeding area for birds that travel around the world.

To view an interactive display of the recovery locations of these ducks, visit <http://alaska.fws.gov/nwr/yukonflats/wildlife.htm>. Click on the link to waterfowl band recovery locations (Note: you must have Google Earth installed on your computer to view the locations). Once the file is opened click on individual points for specific details about each of the ducks. For more information contact Wildlife Biologist Bryce Lake at bryce_lake@fws.gov or 800/531/0676. 🐦

Where Are All The Alders?



Knut Kielland with University of Alaska Fairbanks in a "treatment" plot where all willows have been cut, with only alders marked by blue flags remaining.

Moose can have a major effect on plant communities by eating certain plants and not others. Along interior Alaskan river corridors, willows are preferred by moose. In areas along the Tanana River near Fairbanks, where moose numbers are high, moose have heavily browsed willows. This has allowed dense alder stands to develop. Alder is interesting because unlike most other plants, it is capable of taking nitrogen directly out of the atmosphere, and contributing to the productivity of floodplain soils.

In comparison, along the Yukon River between Stevens Village and Beaver, where moose numbers are low and overall browsing is less, willows develop into tall dense stands. Less browsing may be why you don't see dense alder stands along the Yukon like you see along the Tanana.

In August 2009, biologists from the University of Alaska Fairbanks began a willow-removal study along the Yukon River close to Marten Island, down river from Beaver. Willows were cut at ground level in several plots to imitate heavy moose browsing and encourage alder growth. Willows will be repeatedly cut from these plots for several years until the alders are big enough to shade out the willows. The plots will be monitored and compared with plots where no willows were removed to help biologists learn alder's influence on forest development and the willow quality and growth inside and along the edge of the plots. 🐦

Junior Duck Stamp Update

The Junior Duck Stamp program combines art and science to teach youth about waterfowl and wetlands conservation. Each year 100 winners are selected from each state for the national art contest.

During the 2008-2009 school year, 29 students from Fairbanks and the Yukon Flats entered the contest and earned awards. There were 5 winners from Beaver, 9 from Fort Yukon, and 15 from Fairbanks. That's nearly 30% of all winners from across the entire state! For more information about the Junior Duck Stamp program in Alaska visit <http://alaska.fws.gov/jrduck/>. 🐦

Winter Moose Browse Study

In late March, Refuge staff conducted a late winter moose browse survey on the western Yukon Flats (Game Management Unit 25D west). Areas surveyed were along the Yukon River and the uplands to the north and south.

The survey will estimate the amount of moose food, like willows and other woody shrubs, produced in the area during the previous year, and how much of it was removed or eaten by moose over the winter. Moose browse survey results will be compared to results from other interior Alaska game management units.

This project was identified as an information need in Yukon Flats Moose Management Plan. For more information contact Wildlife Biologist Delia Vargas Kretsinger at delia_vargas_kretsinger@fws.gov or 800/531-0676. 🐦



To learn more about the Refuge visit our web site at <http://yukonflats.fws.gov/>, call 800/531-0676, or e-mail yukonflats@fws.gov. This newsletter may be viewed at <http://yukonflats.fws.gov/community.htm>.

Refuge Biologist Joins Refuge Staff

In November 2009, Joshua Rose was hired as our Aquatic Ecologist. Josh is a graduate of Colorado State University with degrees in natural resource management and ecology and has expertise in hydrology, wetland and soil functions, water quality, and herbivory.

Josh's focus this summer will be wetlands inventory and monitoring and he will be our point of contact with ongoing U.S. Geological Survey and University research this summer that investigates the effects of climate change on Yukon Flats wetlands.

With family in Alaska and as an avid outdoor enthusiast, Josh is looking forward to exploring Alaska and working with the Refuge biological program. 🐦

New Subsistence Coordinator

In December 2009, Vince Mathews was selected as the new Subsistence Coordinator serving Arctic, Kanuti, and Yukon Flats National Wildlife Refuges. He will assist the refuges and their associated villages with subsistence management.

Vince began working in subsistence management in Douglas, Alaska working for the Alaska Department of Fish and Game. Initially he was a Subsistence Resource Specialist and then a Regional Boards Coordinator for interior Alaska assisting local advisory committees. Eventually, he moved to the Office of Subsistence Management and then advanced to Regional Coordinator for the two regional advisory councils representing interior Alaska.

Throughout his career in subsistence management, Vince has enjoyed the challenges of facilitating public council meetings covering a wide range of complex and sometimes politically charged topics.

As the subsistence coordinator, Vince looks forward to working more closely with refuge management and the 14 villages on subsistence issues. With increased time working with villages, he hopes to expand his network of friends and contacts. 🐦

Refuge Manager Reflections

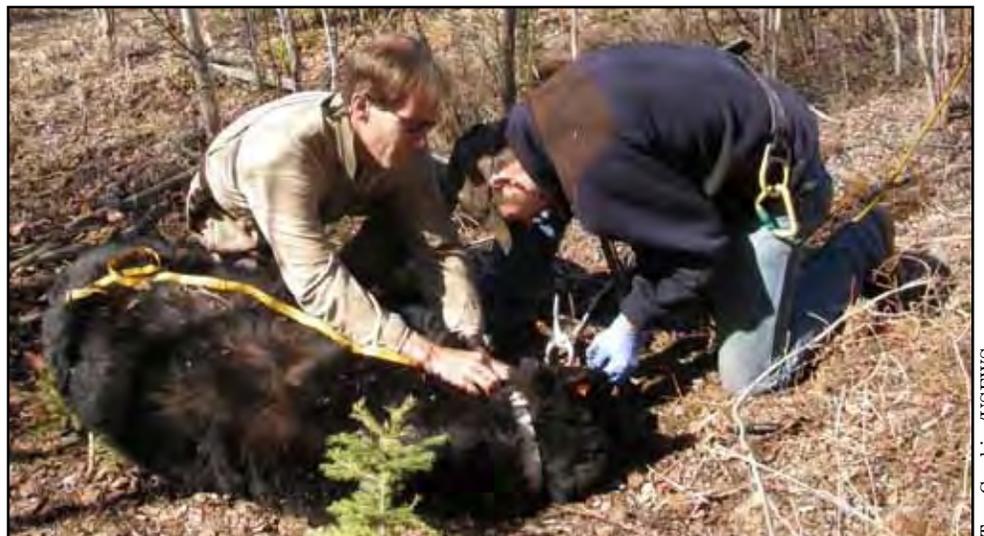
In the early hours of the morning I often reflect on future possibilities and give thanks for what was accomplished. My thoughts most often turn towards family, staff, and the people of the Flats. You on the Flats are a blessed people who are able to subsist off the land while adapting to the changes around you. This change comes in many forms, sometimes as a friend and other times as an enemy: life and death, summer and winter, and joy and sorrow to name a few. In my younger days, my Cherokee grandfather would tell me the survival of the Indian was tied to their willingness to adapt to these changes and to face them as lessons of life. Science similarly states the survival of any species is based on its willingness or ability to adapt to change.

One of the many changes we all face is with the climate. Although scientists are beginning to clearly define its occurrence, people of the land have known this change was upon us for some time. You see the lakes and ponds drying up, less salmon coming upriver, fewer moose to harvest, and even fewer number of minus 50 degree days in the winter (maybe that one isn't so bad). My mentor and friend Paul Williams of Beaver tells me about these changes as do many others of the Villages. I hope you know or soon realize that we are listening to you. We hear the seriousness of your words. This change on the landscape is what we at the Refuge are placing our energy, time, and talents towards through a number of projects.

The Refuge is working with village residents, Tribal Governments, top scientists at the University of Alaska Fairbanks, the State of Alaska, and many others to use the best science and lessons learned to make decisions about the Refuge's course. This was recently captured in our Biological Review which like the land is a living document that allows us to adapt to the needs of the land, the wildlife, and its people.

Once completed the summary of the Biological Review will show our priorities for years to come and give hope that science, alongside common sense, and listening to those of the land will help us adapt to these changes of the land. We all know change can be good and bad, but perhaps it's in how we deal with change that makes us better people. 🐦

Black Bear Study Continues



Troy Cambier/USFWS

Alaska Department of Fish and Game Jason Caikoski and Refuge Biologist Mark Bertram take body measurements and install a radiocollar on a black bear near Beaver.

Refuge staff is working with the Alaska Department of Fish and Game to estimate the number of black bears in a 500 square mile area surrounding Beaver. Since the spring of 2009, 50 black bears were captured and fitted with radiocollars.

After leaf out, planes fly transects across the study area and count the number of both collared and non-collared black bears. Using a mathematical formula, staff will estimate the total number of black bears present. This information will provide a good estimate and allow local residents and managers to better regulate black bear harvest. 🐦

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Wild sweet pea can easily be confused with Indian Potato or “Trih” in Gwich’in which has smaller flowers. Both plants grow on gravel bars along the Yukon River.



A cottonwood stump next to wild sweet pea on a gravel bar upstream from Beaver, Alaska.