

**Annual Report 2009**

# Yukon-Charley Rivers National Preserve



National Park Service  
Department of the Interior



*Those who  
contemplate  
the beauty  
of the earth  
find reserves  
of strength  
that will endure  
as long as life  
lasts.*

*Rachel Carson*

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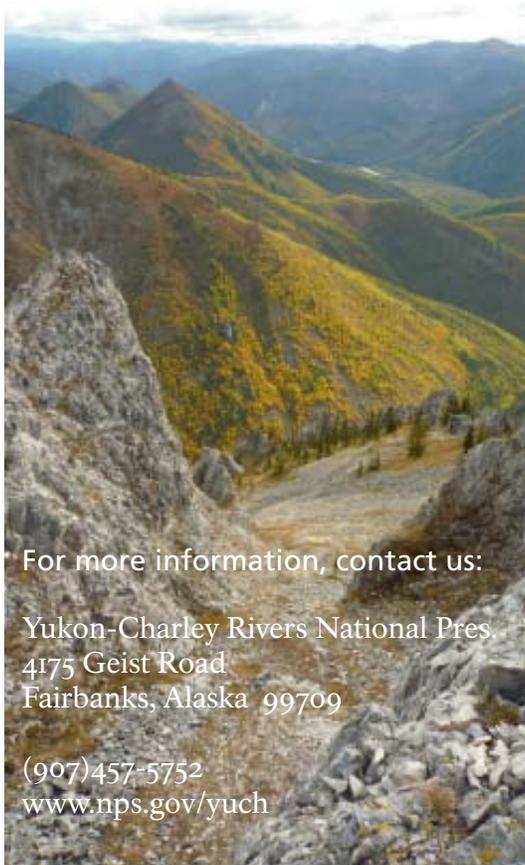
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unless noted otherwise



Clouds hang low between the hills in Yukon-Charley Rivers National Preserve



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## *Purpose and Significance*

Yukon-Charley Rivers National Preserve protects 115 miles of the 1,800-mile Yukon River and the entire Charley River basin. Rustic cabins and historic sites are reminders of the importance of the Yukon River during the 1898 gold rush. Paleontological and archeological sites add much to our knowledge of the environment thousands of years ago. Peregrine falcons nest in high bluffs overlooking the river, while rolling hills that make up the Preserve are home to an abundant array of wildlife. The Charley, a 100-mile wild river, is considered to be one of the most spectacular rivers in Alaska.



### **Purpose of Yukon-Charley Rivers National Preserve**

- ✧ Maintain environmental integrity of entire Charley River basin, including streams, lakes, and other natural features, in undeveloped natural condition for public benefit and scientific study;
- ✧ Protect habitat for and populations of fish and wildlife, including but not limited to peregrine falcons and other raptorial birds, caribou, moose, Dall sheep, grizzly bears, and wolves;
- ✧ And in a manner consistent with foregoing, protect and interpret historical sites and events associated with the Yukon River gold rush, and geological and paleontological history, and cultural prehistory of area; and
- ✧ Protect, conserve, and interpret natural and cultural resources of the Preserve while allowing for appropriate human uses in a manner that provides for similar opportunities for future use and enjoyment.

### **Significance of Yukon-Charley Rivers National Preserve**

- ✧ An internationally significant assemblage of diverse geological and paleontological resources—unusually complete—provide at least a 600-million-year record stretching nearly back to the Precambrian era.
- ✧ The area between Nation, Kandik, and Yukon rivers is postulated to be a portion of the North American plate that has escaped deformation from geological forces, remaining geologically and paleontologically intact. Some of the oldest known microfossils have been found in this area.
- ✧ The entire Charley River watershed is protected in its undeveloped natural condition.
- ✧ The Preserve hosts one of the highest density populations of nesting American peregrine falcons in the United States.
- ✧ Portions of the Han and Kutchin Athabaskan traditional homelands lie within the Preserve.
- ✧ Sites preserving activities and events of regional significance associated with the gold rush era are present and exemplified by bucket dredges, mail trails, trapper's cabins, boats, roadhouses, water ditches, and machinery.
- ✧ The Yukon River is the largest natural, free-flowing river in the National Park System.
- ✧ Large areas within the Preserve may represent an unglaciated refugium for endemic floral and faunal communities.

# Yukon-Charley Rivers National Preserve

National Park Service  
U.S. Department of the Interior



Yukon-Charley Rivers National Preserve lies in eastern interior Alaska, bordering Yukon Territory, Canada. The Taylor Highway will take visitors as far as Eagle, where the Preserve's field office and Visitor Center are located. Travellers into the Preserve typically float the Yukon River or charter a flight into the upper Charley River. We encourage visitors to file a travel plan in Eagle prior to their trip.

Within the Preserve, NPS staff maintain facilities including a public use cabin at Coal Creek Camp, which also serves as a base for many resource projects. At Slaven's Roadhouse on the Yukon, visitors may enjoy learning about the area's rich mining history.



Yukon-Charley Rivers lies in eastern interior Alaska, bordering Yukon Territory.



## *Message from the Superintendent*

It's been said that "When the work speaks for itself, don't interrupt". While that is certainly good counsel, I'm choosing to ignore it for the time being. This 2009 Annual Report for Yukon-Charley Rivers National Preserve is intended to provide an overview of our efforts and accomplishments in the Preserve these past twelve months. As Superintendent, I am proud of what the staff—the caretakers of this 2.5 million-acre unit of the National Park Service—achieved in partnership with park stakeholders. I look forward to this opportunity every year to highlight our work. And most certainly, if there was a one-word theme for the past year, it would be 'cooperation.' Briefly, here are some examples of what I mean by that...

In November park biologists and members of the Central Alaska Inventory and Monitoring Network completed a new moose survey for the Preserve, documenting an increase in the moose population from three years prior. In March, Eagle Resident Andy Bassich assisted the park's Water Ecologist, a Ranger from Gates of the Arctic National Park and Preserve, and staff from the University of Alaska in coring local water bodies to better understand the phenomena of lake disappearances in the North. With transportation provided by a FirePro helicopter, a team of archeologists accessed remote ridgelines in Yukon-Charley where they identified 78 new archeological sites. And in mid-summer, high school students sponsored by the University of Alaska worked alongside an inter-agency research team and Eagle Village elder Isaac Juneby to excavate historic structures near Snare Creek. As you review the pages that follow, you will see more examples of where staff and partners worked together in 2009. Together they increased our knowledge of the resources and people—both past and present—which make Yukon-Charley Rivers National Preserve one of the nation's treasures.

None of us who were here will ever forget the historic Yukon River flood that took place at spring break-up this year. The communities of Eagle and Eagle Village—gateways to the Preserve—were changed in ways none of us fully comprehend. But what we do know is how people working together to save lives and preserve personal property made huge differences in both outcomes and outlook. In the early morning hours of May 5, 2009, an ice jam on the Yukon River poured enormous amounts of water, floating ice chunks the size of houses, and other debris into the two communities. A number of homes and other structures were destroyed by the flood while many others were seriously damaged. The ice jam backed up river water nearly 20 feet over the river's historic flood level of 34 feet. At least 46 of the area's 150 residents were made homeless, including two park employees and their families, while others suffered varying degrees of damage to their own homes and property.

Working together we provided emergency air evacuations for two downriver residents, delivered supplies to Eagle Village and evacuees staying at the Eagle School, and helped keep communications and coordination with emergency responders outside the area functioning in the days that followed. Leadership from local residents and the generosity of volunteers from throughout Alaska and across the country ensured that no one was still homeless by winter.

The work accomplished in 2009 certainly does speak for itself. Thank you for your interest in Yukon-Charley Rivers National Preserve. It is a privilege to "protect and share" this land with you.

Greg Dudgeon,  
Superintendent

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## Preserve Resources

*Natural and cultural resources and associated values at Yukon-Charley Rivers National Preserve are protected, restored and maintained in good condition and managed within their broader ecosystem and cultural context.*

**Goal Ia8: By September 30, 2009, 240 (45% of 536) of Yukon-Charley Rivers National Preserve's archaeological sites are in good condition.  
GOAL EXCEEDED**

*Focusing on upland areas...  
a crew of five archaeologists  
surveyed an estimated  
8,600 acres of  
ridgelines, glacial landforms  
and mountain valleys  
throughout the Preserve.*



Archeologist Dael Devenport documents a site located on a ridgeline above Godge Creek in Yukon-Charley Rivers National Preserve. Pinflags indicate locations of scattered stone artifacts found on the ground surface.

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## Yukon-Charley Rivers 2009 Archaeological Inventory

By Chris Ciancibelli



Examples of artifacts found during the archaeological inventory of Yukon-Charley Rivers. From top: microblade core, projectile point, and biface blade.

The 2009 field season proved highly productive for the archaeology crew in Yukon-Charley Rivers National Preserve. Continuing with the previous year's strategy of focusing on upland areas, and benefiting greatly from access to a helicopter, a crew of five archaeologists was able to survey an estimated 8,600 acres of ridgelines, glacial landforms and mountain valleys throughout the Preserve.

Seventy-eight new archaeological sites were identified during the 20-day field season. In addition, 22 site revisits and condition assessments were performed, totaling 100 site visits in all. Newly identified archaeological sites consisted primarily of surface scatters of stone tools and flaking debris. Revisited sites were generally found to be in stable condition, and only occasional, minor impacts from weathering and natural processes were evident.

While much of our survey efforts were focused on the easily travelled and well exposed high

ridgelines, an emphasis was also placed on revisiting clusters of sites associated with glacial landscapes. High mountain valleys at the headwaters of the Preserve's major rivers provide a multitude of these areas. Revisits to Moraine Creek, Crescent Creek, Copper Creek, the Diamond Fork and the upper Charley River were productive in identifying additional resources, creating detailed maps, completing photographic documentation and creating precise artifact inventories.

Research is continuing into the origins of the obsidian we encounter in the Preserve. When we encounter obsidian tools and debitage, they are carefully recorded and collected for analysis so that we can identify the source of the material, which tells the story of where the material came from and will help to shed light on travel routes and trade networks. More localized research questions have arisen from finds in the Seventymile River region regarding local lithic materials. Dense concentrations of artifacts made from a recognizable low quality chert exist in this area. Further studies could help identify the source(s) of the material as well as how it disperses across the Preserve.



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## Students Join Investigation of Historic Cabin Site

By Chris Houlette

For two weeks in July, six high school students, (participants in the Alaska Summer Research Academy (ASRA), an immersion based “science camp” organized through the University of Alaska), joined an inter-agency research team conducting archaeological excavations at a Historic era site in the Coal Creek Historic Mining District. Instruction was designed to involve the students in an active research project investigating the history of the people who lived and worked in the region.

The team chose to concentrate on the remains of the Juneby cabin, part of the Snare Creek cabin complex which is a series of cabins and associated features initially constructed and occupied during the mid 1940s by three Han Athabascan families from Eagle Village, Alaska. Isaac Juneby, an NPS interpretive ranger from Eagle Village who lived in the family cabin as a child, joined the investigation and provided valuable information on what life was like at the site.



NPS historian Chris Allan (far left) interviews Isaac Juneby as student volunteers excavate the Juneby cabin where Mr. Juneby lived as a boy.

The analysis of the data and artifacts collected from the 2009 has provided intriguing insights which will direct plans for the second phase of the two year project. Continuing the ASRA collaboration, six new students will accompany the investigators for a return visit during the summer of 2010.



A small seed bead decorative element, like one might find on clothing, was excavated from the Juneby house. The beads had melted together, likely caused by the heat from a house fire that destroyed the home, thus enabling the delicate object to survive the decades since.

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## Annual Goal 1b0: By September 30, 2000, Yukon-Charley Rivers National Preserve will continue to expand its ethnographic and historic efforts. GOAL ACHIEVED

### Ethnographic Overview

By Dave Krupa

In partnership with UAF, work continued during the summer of 2009 on a multi-year project to produce a cultural overview of peoples associated with Yukon-Charley. NPS and UAF project staff traveled to Eagle and Eagle Village to introduce the project and seek local participation in producing this overview. Project staff identified important local historical and cultural themes, and

identified area experts to help document and share the fascinating stories of Preserve-affiliated Yukon River communities.



Caches like this one have been used for over a century to store food and supplies away from the prying claws of bears and other wildlife.

*The National Park Service contributes to knowledge about natural and cultural resources and associated values; management decisions about resources and visitors are based on adequate scholarly and scientific information.*

**Goal 1a2B: By September 30, 2009, 4 populations (40% of 10) of Yukon-Charley Rivers National Preserve's species of management concern are managed to desired condition. Species we will learn more about include wolves, peregrine falcons, moose and sheep.**

**GOAL ACHIEVED**



NPS Wildlife Biologist John Burch fits radiocollars on two wolves in Yukon-Charley Rivers National Preserve in February 2009. Eleven new wolves were collared from six Preserve packs.

## **Yukon-Charley Wolf Population Monitoring**

By John Burch

Wolf populations have been monitored in Yukon-Charley Rivers National Preserve from March 1993 to present. Beginning October 2005, the project was incorporated into the Central Alaska Network's vital signs monitoring program.

Wolves throughout the greater Yukon-Charley Rivers area (including lands surrounding the Preserve) are targeted for monitoring of abundance and distribution. Last winter, wolf captures were conducted in November 2008 and February 2009. Monitoring radio-

collared packs via radio telemetry flights occurred throughout the year with a concentrated period of flights in March – April and again in September – October. All field work is conducted using 1 or 2 biologists and 1 - 3 pilots.

In the winter of 2008-2009, 11 wolves in 6 packs were captured and collared. We had fair to good snow conditions for searching for uncollared packs in 3 areas in February, but no targeted uncollared packs were found. Furthermore, old tracks were seen only in the Webber Creek area, indicating that wolf packs may not exist in the other areas where they once did (at least for that winter). At least 3 areas where packs once lived remain without collared wolves and we hope to find and capture wolves from these areas in winter 2009-2010.

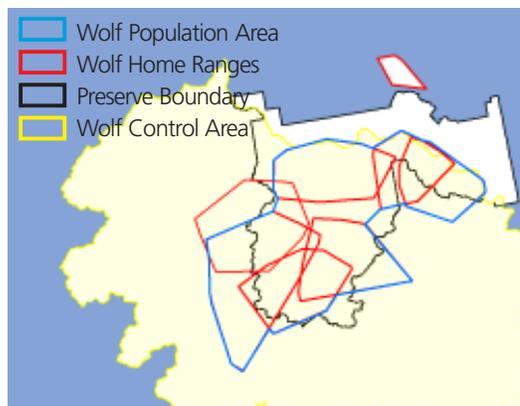
The spring 2007 density was the lowest ever measured since the project began in 1993. Fall 2007 (3.84 wolves/1000 km<sup>2</sup>) and spring 2008 (2.68 wolves/1000 km<sup>2</sup>) densities indicate a slight rebound in Yukon-Charley's wolf population over the past winter. Fall 2008 showed the highest wolf density ever measured in the Preserve, at 5.86 wolves/1000 km<sup>2</sup>, followed by a large drop to a Spring 2009 density of 2.41 wolves/1000 km<sup>2</sup>. Wolf populations always drop from fall to spring due to natural deaths and dispersal. Ironically, the Alaska Department of Fish and Game's aerial wolf control efforts had very little to do with this decrease. Rather, the drop appears to be more a result of the Forty Mile Caribou Herd moving farther (and more thoroughly) away from the Preserve than they typically do. This caused an increase in natural mortality (wolves killing each other and starvation) and an increase in dispersal.

However, wolves continue to prove their resiliency as our very preliminary counts for fall 2009 show good pup production and survival in several packs, which may produce a higher than average Fall 2009 wolf density.

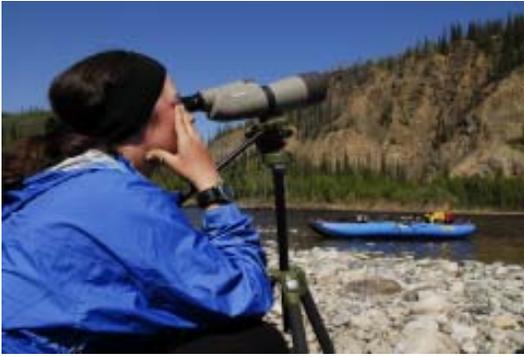
### Accomplishments:

- ✎ This project was instrumental in mitigating the impacts of ADF&G's helicopter based wolf control on YUCH's wolf population in March 2009. Because NPS was able to identify home ranges and pack counts of specific packs vulnerable to control, those wolves were not killed by State control efforts.
- ✎ Population high October 2008 = 5.86 wolves/1000km<sup>2</sup> (about 60 wolves in the Preserve).
- ✎ Fall and Spring wolf density estimates: Fall 2008 = 5.85 wolves/1000 km<sup>2</sup>; Spring 2009 = 2.41 wolves / 1000km<sup>2</sup>.
- ✎ Calculated pup production and survival to Fall (mean litter size Fall 2008 = 4.1).
- ✎ Captured and collared 11 wolves in 6 packs.

*Wolf populations always drop from fall to spring due to natural deaths and dispersal.*



Spring 2009 map depicting the individual home ranges (red) of wolf packs using Yukon-Charley Rivers National Preserve. The wolf density estimate was calculated using the group of home ranges outlined in blue (one pack's home range was not used in the estimate).



At far left, biological technician Sara Turner observes an American peregrine falcon eyrie on a bluff along the Charley River. Peregrines nest on cliff ledges on bluffs on the Yukon River and its tributaries, like this one along the Charley River.

## American Peregrines Soar

By Melanie Flamme

In 2009, 265 km (165 miles) of the upper Yukon River were surveyed for American peregrine falcon territory occupancy and nest sites, and again later for productivity. Extensive flooding occurred in mid-May during the spring thaw, with massive chunks of ice, debris and high water inundating the upper banks and communities of Eagle and Eagle Village. Consequently, the 2009 occupancy survey was delayed a week until the river was safely accessible and services were restored in Eagle. The occupancy and nest-site survey was conducted from May 27 - June 6. Territories were checked for productivity from June 23 - July 8.

Fifty-three nesting territories (53 pairs of adults on territories)—the most ever recorded—were occupied by American peregrine falcons. Thirty-two of the 53 pairs (60.4%) were successful, producing 71 nestlings. Productivity was 1.34 nestlings per total pair and 2.22 nestlings per successful pair (at least 1 nestling observed).

Between 1973 and 2009, the number of total and successful pairs nesting along the upper Yukon River has been steadily increasing, though the percentage of

total pairs nesting successfully has been leveling off. This may be attributable to increased competition for resources due to increased density. In 2009, one new territory was established by a pair of peregrines on cliffs not previously used by peregrines in over 30 years of observations. Of the four new territories established in 2008, only 3 were occupied, and of these three, one was successful, with one nestling in the eyrie. In addition, three new nest sites were established on routinely-occupied territories.

An average of 2.22 nestlings were produced per successful pair. Below are 3 of the 71 nestlings counted in the survey.



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## Sheep Population Stable

By John Burch

From July 2 - 4, 2009, a sheep survey was conducted in the hills surrounding the Charley River drainage of Yukon-Charley Rivers National Preserve. Flying weather and survey conditions were excellent and a total of 333 sheep were counted: 151 ewes, 72 lambs, 43 yearlings, and 67 rams. Overall, the lamb/ewe ratio was 48 lambs/100 ewes, yearlings were at 28 yearlings/100 ewes, and rams were 44 rams/100 ewes.

Comparing this survey with past surveys indicates a stable population with a little better than average lamb production and yearling recruitment. This survey continues to emphasize the need to survey the entire area and not try to rely on smaller trend areas. The sheep in this population move around a lot and move back and forth at unpredictable times. This is illustrated in the current survey

by counting the most sheep ever seen along the Charley River Bluffs (105 sheep) and counting the second fewest sheep on Cirque Lake Mountain (41 sheep) since 1983, yet producing an overall survey result only slightly above average.



A dead sheep was found on the west end of Mt Sorenson while conducting the survey. The fresh and intact 3-year-old ewe was collected by the survey helicopter and necropsied by ADF&G veterinarian Kimberlee Beckman and found to have died from Contagious Hoof Disease. No other dead or sick sheep were reported for the remainder of the summer or fall hunting season.

Dall's sheep in Yukon-Charley Rivers National Preserve move frequently between different areas and at unpredictable times.

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## Survey: Moose Population Up

By John Burch

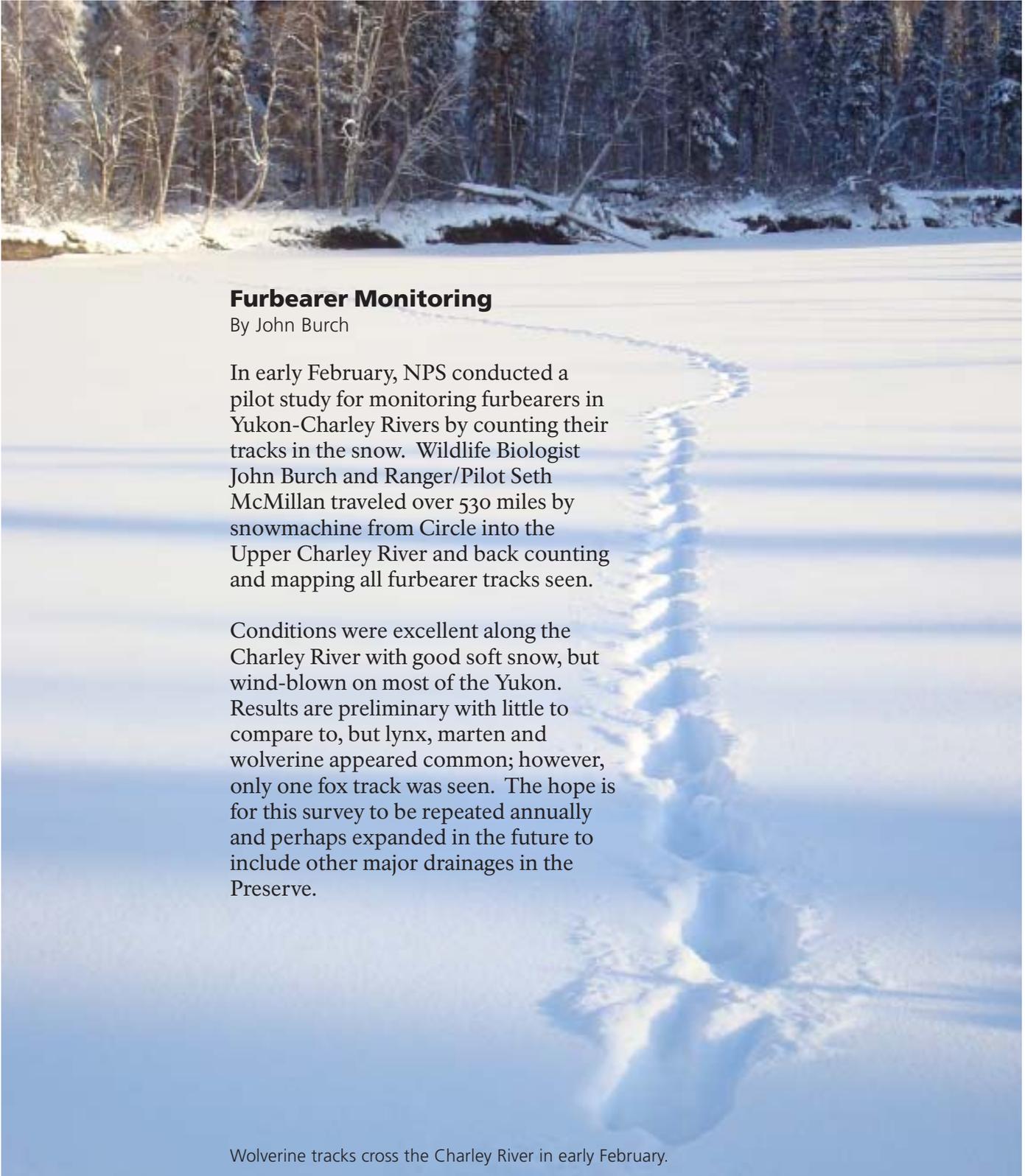
Yukon-Charley's moose survey, a joint effort every 3 years between the Preserve and the Central Alaska Network, was completed in November. Observers counted a total of 308 moose, comprised of 164 cows, 42 calves (including 4 sets of twins), and 102 bulls, resulting in a density estimate of 0.429 moose per square mile.

The point estimate of the overall density of 0.429 moose/mi<sup>2</sup> is nearly twice that of previous surveys which were among the lowest reported in interior Alaska. However, when the confidence intervals of all surveys are taken into consideration, one cannot say the population doubled with any statistical rigor, but it

did increase. The population estimates and sex and age composition of the YUCH moose population appear consistent with a low density, stable population. There was an unusually high number of yearling bulls seen on this survey (21 observed, 86 in the population estimate) when compared to previous surveys, indicating a bumper crop of calves in spring 2008 and /or excellent survival of those calves.



A moose survey in November 2009 resulted in a population density estimate of 0.429 moose per square mile.



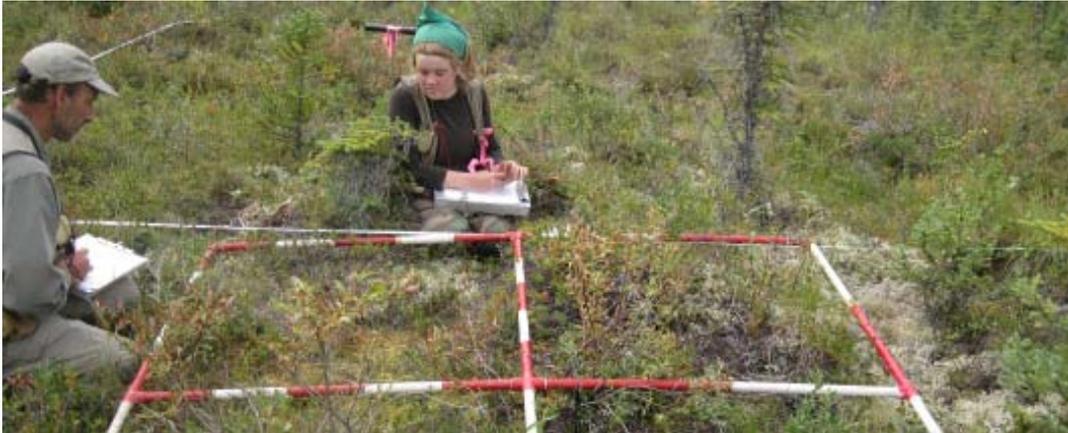
## **Furbearer Monitoring**

By John Burch

In early February, NPS conducted a pilot study for monitoring furbearers in Yukon-Charley Rivers by counting their tracks in the snow. Wildlife Biologist John Burch and Ranger/Pilot Seth McMillan traveled over 530 miles by snowmachine from Circle into the Upper Charley River and back counting and mapping all furbearer tracks seen.

Conditions were excellent along the Charley River with good soft snow, but wind-blown on most of the Yukon. Results are preliminary with little to compare to, but lynx, marten and wolverine appeared common; however, only one fox track was seen. The hope is for this survey to be repeated annually and perhaps expanded in the future to include other major drainages in the Preserve.

Wolverine tracks cross the Charley River in early February.



Technicians Peter Del Zotto and Kara Thies note plant species composition and other vegetation parameters within a plot in Yukon-Charley Rivers.

## Central Alaska Network: Vegetation Monitoring

By Fleur Nicklen

Vegetation provides the energetic foundation to ecosystem processes and defines habitat structure. The Central Alaska Network's vegetation monitoring program in Yukon-Charley Rivers measures physical attributes as well as the structure and species composition of vegetation at multiple scales. The data collected from this program enable us to quantify the relationship between physical and vegetation attributes at the plot (1 m), mini-grid (2.5 km), park or regional level and to detect changes in vegetation at these scales over time.

Analyses of data from the first four years of monitoring (2006-2009) show that Kathul and East Kathul plots are two areas that stand out as unique within Yukon Charley Rivers. These two areas have the highest cumulative number of species out of all the sampled Yukon-Charley grids. When comparing these areas to other areas within Yukon Charley and to areas in the other Central Alaska Network parks, we find they have strikingly high species richness for their low elevation. Having the baseline data for these areas gives us an understanding

of what physical attributes are linked to these uniquely species-rich vegetation types. We can use these physical attributes to identify other potentially species rich habitat types. Additionally, tracking the future changes in these unique areas will prove interesting.

We have begun to establish a baseline of fundamental physical and vegetation data, which is essential for long term monitoring. Although many of our findings are not surprising, this is the first time they have ever been measured in Yukon-Charley, and will allow us to create a quantitative picture of vegetation patterns over a complex landscape. These initial data will then allow us to detect and assess changes that are occurring across the landscape. Without such information, it would be impossible to quantitatively detect tree and shrub encroachment up hillsides, changes in plant species frequency that could be crucial for herbivore habitat, shifts in species richness at unique areas, succession following fire, or any number of potential ecosystem changes that we cannot now foresee.



In a collaborative effort, Gates of the Arctic Ranger Bob Maurer, local resident Andy Bassich, and UAF cooperator Nancy Bigelow extract a core from Six-Mile Lake in Yukon-Charley National Preserve, where 5 m of sediment were retrieved.

## **Understanding Lake Disappearance Through Time in Northern Alaskan Parks**

By Amy Larsen

In 2008 Yukon-Charley staff received funding to core lakes in northern Alaska. The goal of this project is to determine basal ages and sedimentation rates of lakes in the Arctic and Central Alaska Network Parklands and to generate successional profiles of several lakes to better understand lake level fluctuations. Staff and cooperators plan to compare lake histories, including infilling rates and lake level fluctuations, among the parks and determine if there has been a change in successional processes in lakes over the past 8000 years. Investigators also seek to identify climatic proxies for estimating lake levels.

In March 2009, UAF cooperator Dr. Nancy Bigelow, NPS ranger Bob Mauer, and NPS aquatic ecologist Dr. Amy

Larsen cored Ford and Six-mile lakes. Approximately 5 meters of sediment were retrieved from the lakes. During lake coring, the crew was visited by Preserve residents Andy Bassich and Don Woodruff, both taking advantage of the nice day to travel along the Quest Trail. Andy assisted in core collection at Six-Mile Lake and provided crew members with important information regarding the location of suitable sampling sites in Ford Lake. Cores were also collected from Lake Chilchukabena in Denali National Park and Preserve and Long Lake along the Nabesna Road in Wrangell-St. Elias National Park and Preserve. Core analysis was initiated in fall 2009 and will continue for the next two years.

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## Central Alaska Network Continues Long Term Water Monitoring

By Amy Larsen

The Central Alaska Network continued the Shallow Lake Monitoring Project and began to monitor moving water temperatures. Network investigators deployed an array of temperature, water level, and water chemistry loggers in June 2009. Water temperature loggers were deployed in the Yukon, Charley, Kandik, and Nation Rivers as well as Thanksgiving and Woodchopper Creeks. Staff also deployed water temperature loggers in three lakes to record thermal stratification and lake mixing. Water level loggers and multi-parameter meters were also deployed on three lakes to record lake level, pH, specific conductance and dissolved oxygen.



These data will be used to determine seasonal variation as well as to track trends in temperature, dissolved oxygen, specific conductance, pH and water level.

Hydrological Technician Heidi Kristenson returns after deploying a data logger array in June 2009. The data loggers store continuous data used to track trends in water temperature, lake level and water chemistry.

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## Young Chinook Salmon Found in Creeks

By David Daum, U. S. Fish and Wildlife Service

A project to determine the distribution of juvenile Chinook salmon throughout the upper Yukon River drainage is a 3-year study funded by the Pacific Coastal Salmon Recovery Fund. In 2009, seven streams were investigated in late July between the Charley River and the downstream boundary of the Preserve. Juvenile Chinook salmon were found in four of the six streams sampled for fish. These four streams were nominated for inclusion into the Alaska Anadromous Waters Catalog for juvenile Chinook salmon rearing

habitat. Tacoma Creek was investigated but, due to severe drought conditions in the area, was found to be dry. Students from the Eagle Community School monitored Mission Creek throughout the summer to determine colonization timing of juvenile Chinook salmon. The first Chinook salmon juvenile was captured on June 16, with a peak catch on July 16. A final report should be completed by June 2011.

*Juvenile Chinook salmon were found in four of the six streams sampled for fish.*

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## *Provide for the Public Enjoyment and Visitor Experience*

*Park visitors and the general public understand and appreciate the preservation of parks and their resources for this and future generations.*



A student from Eagle Community School helps establish a new flood effects plot in September 2009.

### **Eagle School –Ecology Program**

By Jennifer Mitchell

The Alaska Regional Fire Ecology Program conducted the 5<sup>th</sup> year of our field-based education program for the Eagle Community School. The program was established in 2004 when the town was threatened by wildfire. Every year since, students and NPS fire ecology staff have re-visited the fire effects plots established in 2004.

In May 2009 the town was again threatened by a natural event, this time an unprecedented spring flood. NPS Alaska Fire Program personnel responded

immediately to the emergency. In September of 2009, a group of students, their teacher, and NPS Interpretive Ranger Pat Sanders and Fire Ecologist Jennifer Mitchell established new flood effects plots on Belle Island which is visible from the town of Eagle and located in the middle of the Yukon River. In the classroom we gave a presentation about the flood and lead a discussion about emergency preparedness. Video footage of the flood event was shown to the students. We intend to alternate our annual field trips between the fire- and flood-effects plots in coming years.



Students from the Eagle Community School established flood effects plots on Belle Island following the 2009 Yukon River flood.

*Visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of preserve facilities, services, and appropriate recreational opportunities.*

**Annual Goal IIa1A: By September 30, 2009, 93% of visitors to Yukon-Charley Rivers National Preserve are satisfied with appropriate park facilities, services, and recreational opportunities. GOAL EXCEEDED**

## Rangers on patrol

By Scott Sample

The Visitor and Resource Protection division, with assistance from volunteers and staff from Yukon-Charley, Gates of the Arctic, and Alaska Public Lands Information Center, conducted a variety of patrols this summer to mitigate impacts, improve visitor services, deter or investigate illegal activity, enforce hunting regulations, and provide educational information.

*Charley River*—Rangers patrolled the Charley River using small inflatable boats and light equipment. As a designated Wild and Scenic river frequented by summer visitors, using the lowest means of environmental impact possible for patrols reduces the need for multiple flights, thereby enhancing a visitor's wilderness experience. During these patrols, rangers located and removed numerous impacts and educated visitors on Leave No Trace etiquette.



Washington Creek public use cabin received a new, temporary roof to prevent damage from rain and snow.



The Glenn Creek cabin along the Yukon River is one of several public use cabins maintained by the National Park Service in Yukon-Charley Rivers National Preserve.

*Public Use Cabins*—Cabins are utilized by river users throughout the summer, and also by winter travelers. This summer rangers maintained and provided for a safe and enjoyable experience at the cabins by stocking firewood, inspecting fire extinguishers, fixing screens and—new this year—installing emergency caches. At the Washington Creek cabin, rangers installed a new temporary roof to prevent damage from rain and snow.

*Hunting*—Our most important purpose is to protect visitors and resources. This includes conducting hunting patrols and investigating illegal take of wildlife. This fall, a ram was illegally taken within the Preserve and, thanks to a report from another hunting party, parts were confiscated and charges filed against the hunter.

## Break-up Clean-up

By Josh Spice

In June, backcountry rangers travelled the Yukon and documented the flood's effects, which included leaving debris and trash in its path. Fuel drums, tarps, styrofoam, buckets, buoys, lumber, trash, etc. were strewn about the banks. All trash and debris observed were either picked up immediately or its location documented for future pick up with a larger vessel or more capable means, as in the case of multiple fuel drums, one of which held 500 gallons. As the water level dropped throughout the summer and fall, more trash and debris were exposed along the river's banks and were removed from the Preserve.



Backcountry Ranger Josh Spice digs up trash along the banks of the Yukon River.

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## Ensure Organizational Effectiveness

*The National Park Service uses current management practices, systems, and technologies to accomplish its mission.*

*Threats to life and limb serve as useful reminders of the power of the natural world in which we live and work.*

### Communities, Cabins Threatened by Flood Waters

By Chris Allan

Spring flooding on the Yukon in 2009 was traumatic for communities up and down the river. When flood waters and floating ice hit Eagle and Eagle Village, NPS emergency responders mobilized to help where they could to protect life and property. But there was no way to stop the river's destructive power, which toppled and flooded fuel tanks, battered houses and businesses, and left many

people homeless. While waiting for state and federal emergency services to arrive, NPS employees distributed food and water, assisted city governments with relief efforts, and conducted rescue and reconnaissance flights along the river.

Within the preserve, only two cabins were affected by the flood. River ice pushed its way to the front door of the Glenn Creek Public Use Cabin, but the building did not sustain any significant damage. The Kandik River Public Use Cabin was not so lucky. The cabin broke free of its foundation and was pushed (or floated?) roughly 30 feet away. Efforts are now under way to repair the damage. Threats to life, limb and park-owned infrastructure serve as useful reminders of the power of the natural world in which we live and work.

The Kandik River Public Use Cabin (formally known as the Ricketts/Trainor cabin) was knocked off of its foundation by water and ice during the 2009 spring flooding along the Yukon River. Efforts are now under way to repair the damage.



Members of the Stream Team pause along Coal Creek while exploring ways of improving public access to Coal Creek gold dredge and creating a more durable trail for transporting people and supplies.

### “Stream Team” Investigates Options at Coal Creek

By Chris Allan

The task of improving trail access between Coal Creek Camp and the Yukon River is progressing. The most immediate problems are that the historical upper trail, built in 1936 by the Alaska Road Commission, passes over unstable ground and is subject to seasonal erosion, while the lower road follows the creek bed and is frequently flooded or blocked by high water. The team is exploring ways of improving public access to Coal Creek gold dredge and

creating a more durable trail for transporting people and supplies.

The team examined the effects of high seasonal water levels, previous erosion control efforts, and the effect of the lower trail on tailings piles that are part of Coal Creek Historic Mining District. The preserve has a 5-year permit for stream crossings at present use levels, but the “Stream Team” is committed to finding more permanent transportation solutions.

## Admin Team Offers Full Service Support with a Smile

By Monica Cross

Fiscal Year 2009 brought change and new learning opportunities. In June, Administrative Officer Robyn Burch accepted the position of Alaska Regional Human Resource Officer. This left us short staffed with two IT specialists, one budget analyst (who also acted as AO), and three admin assistants (two in Fairbanks, one in Eagle). We had new programs to learn, new directives, a new charge card contractor, and a new third party draft payment system. We had to learn quickly and then become teachers to help everyone else navigate these changes.

The Administrative Team supports all the GPRRA goals for Gates of the Arctic National Park & Preserve, Yukon-Charley Rivers National Preserve, Fairbanks Alaska Public Lands Information Center, and inventory and monitoring programs for the Central Alaska and Arctic networks. We also support the Eastern Area Fire Management Program. Six organization codes with differing legislation are managed and supported by the Fairbanks Administrative Center. We are thankful for the cooperation and support provided by



everyone, particularly Arctic Network's and Fire Program's admin assistants, who helped with duties beyond their individual programs.

Admin Assistant for Eagle, Louise Flynn, went on a Fire Assignment in Wrangell-St. Elias National Park to assist with aviation dispatch in the remote setting of McCarthy.

Our Fairbanks based admin assistants initiated 230 personnel action requests, paid almost 300 vendors, input 112 purchase orders, and processed over 350 travel vouchers in addition to answering phones, filing, processing mail, greeting visitors, and helping internal and external customers with a smile. We could not have done any of this without our support staff in Eagle and Bettles, who are crucial to successful field operations.

Due to the diligence of our IT specialists, we have had no successful virus attacks on our computer network for 7 years. This year saw major improvements in IT. Among them were: 1) installing HughesNet satellite dish at Coal Creek Camp—the first ever computer connectivity for this remote location; 2) providing DSL service and phone/fax lines for the hangar office used by Alaska NPS pilots; 3) re-connecting FAPLIC subnet after moving to the new Morris Thompson Cultural and Visitors Center (MTCVC); 4) setting up new server system with 10 terabytes of storage space and moving all active data files onto this server configured with 6 network ports, resulting in faster user access with improved reliability; and 5) installing AKR-purchased network accelerators at all network subnets, improving connection speeds for everyone.

Cooperation with others is one of our major strengths. We have shared facilities with BLM in Eagle and FWS in Bettles; we are partners with BLM and FWS at the Arctic Interagency Visitor Center in Coldfoot; and we are a partner in the MTCVC.



(Former) Administrative Officer Robyn Burch picks up trash along NPS's 1-mile stretch of the Parks Highway in the Adopt-A-Highway program. In addition to this biannual project, the Admin Team also recycles paper, aluminum, plastic and unserviceable computer equipment, and participates in the North Star Borough Fuel Saver program.



IT Specialist Paul Atkinson enjoys getting out of the computer room and into the field as much as possible. Here he conducts a snow survey in Yukon-Charley Rivers for the Central Alaska Network. During 2009, Paul also helped lug 400 live traps and gear for the small mammal research project in Denali, and acted as the veterinarian's assistant at Slaven's Cabin during the Yukon Quest International Sled Dog Race.

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## Financial Summary

### Operating Budget Base Allocation (ONPS) Expenditure Highlights

*...wildlife and vegetation monitoring, cultural and natural resource inventories, fire management, facility maintenance, educational outreach, visitor safety, resource protection, staff services and support...*

#### **Research and Studies: \$602,598**

The research and science program continued monitoring wolves and peregrine falcons, and wolf and peregrine genetics efforts with USGS. Also completed sheep survey. CAKN completed more vegetation mini-grids. A team evaluated options to reduce impacts to catalogued anadromous fisheries at Coal Creek. Paleo projects were postponed due to smoky conditions. Cultural resource inventories continued for history and pre-history time frames. A hands-on field camp for several students was held at an excavation in Coal Creek. Completed Fire Management Plan revisions. Prescribed fire planning continued. Implemented shallow-lake monitoring plan.

#### **Facility Operation and Maintenance: \$251,305**

Cleaned and stained Visitor Center exterior. Completed annual HVAC PMs and FMSS work order hierarchy cleanup. Over 90% of outstanding deferred maintenance was completed. Purchased an additional Kawasaki Mule transport UTV for Coal Creek Camp. Installed electrical service battery backup for IT system. Completed costly repairs to 2 park trucks and placed them back in service.

#### **Management and Administration: \$260,805**

We installed the Huges Net Satellite Dish in Coal Creek Camp, giving never-before computer connectivity to this remote location to support the scientific and protection needs of the preserve. We continue to look for ways to improve efficiencies and provide more services to this organization.

#### **Resource Protection and Visitor Services (including NEPA and Subsistence): \$575,840**

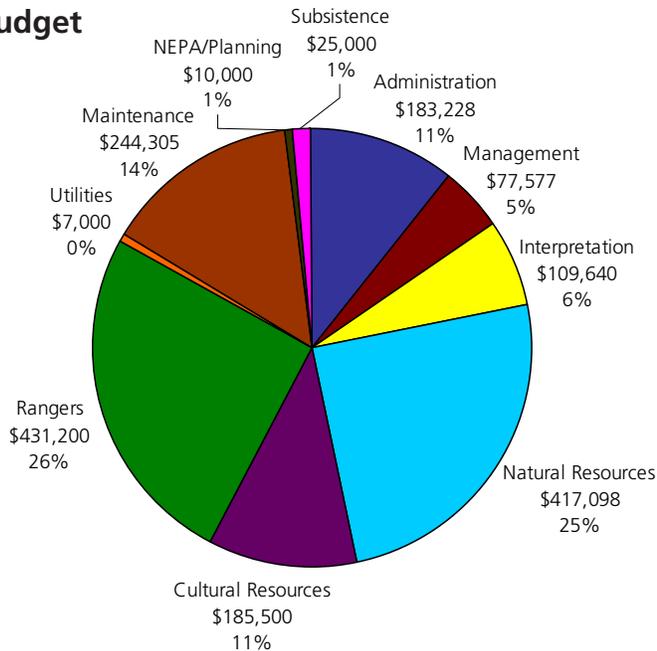
Freeze ups and flooding was a huge part of the Eagle experience this year. Despite these drastic conditions, Education outreach continued to reach local students and many new students in the lower 48. NPS again provided mushers and dogs a rest at historic Slaven's cabin during the Yukon Quest as an official dog drop. Backcountry and hunting patrols assured visitor safety and resource protection. Our Fish Subsistence program continued its great work connecting with resident zone villages and working through local issues and concerns.



Bales of straw stacked outside Slaven's Cabin, which serves annually as a dog drop during the Yukon Quest International Sled Dog Race, are used to provide well-earned warm and dry bedding for tired dogs. NPS staff and volunteers run the station, which has become a favorite of mushers over the years.

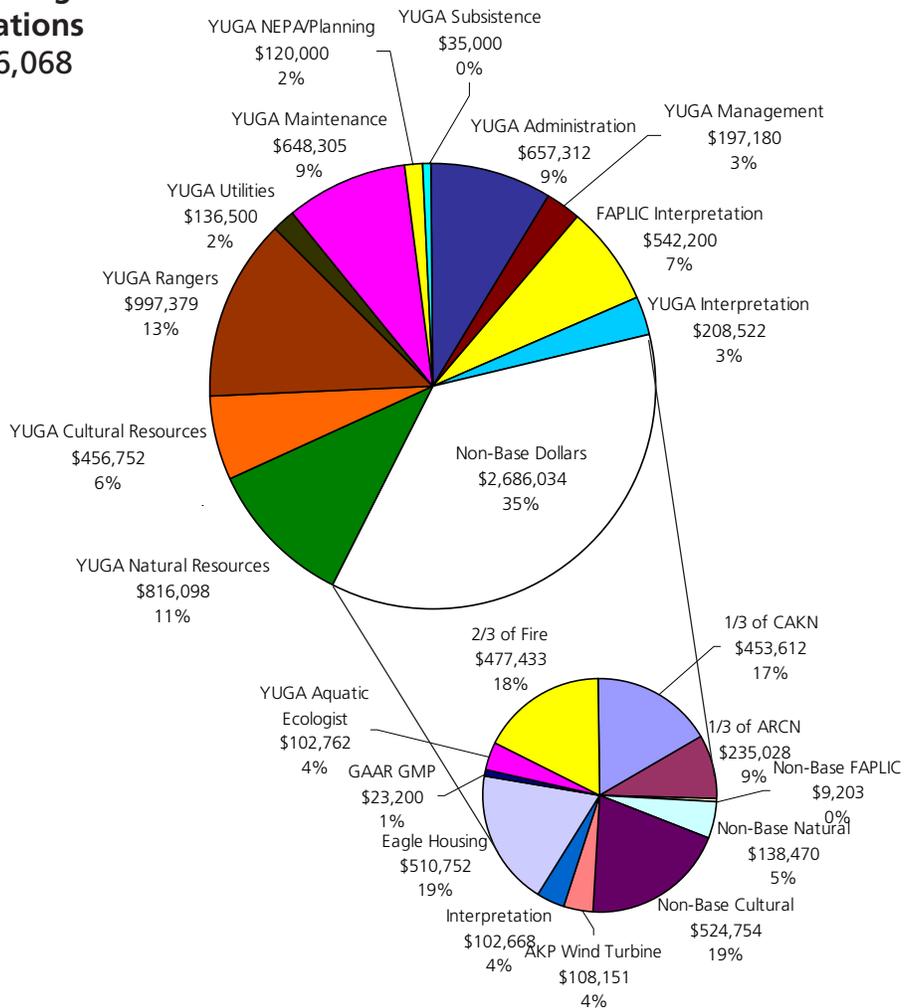
**Yukon-Charley Operating Budget  
Base Allocations (ONPS)  
Expenditures**

Total = \$1,690,548

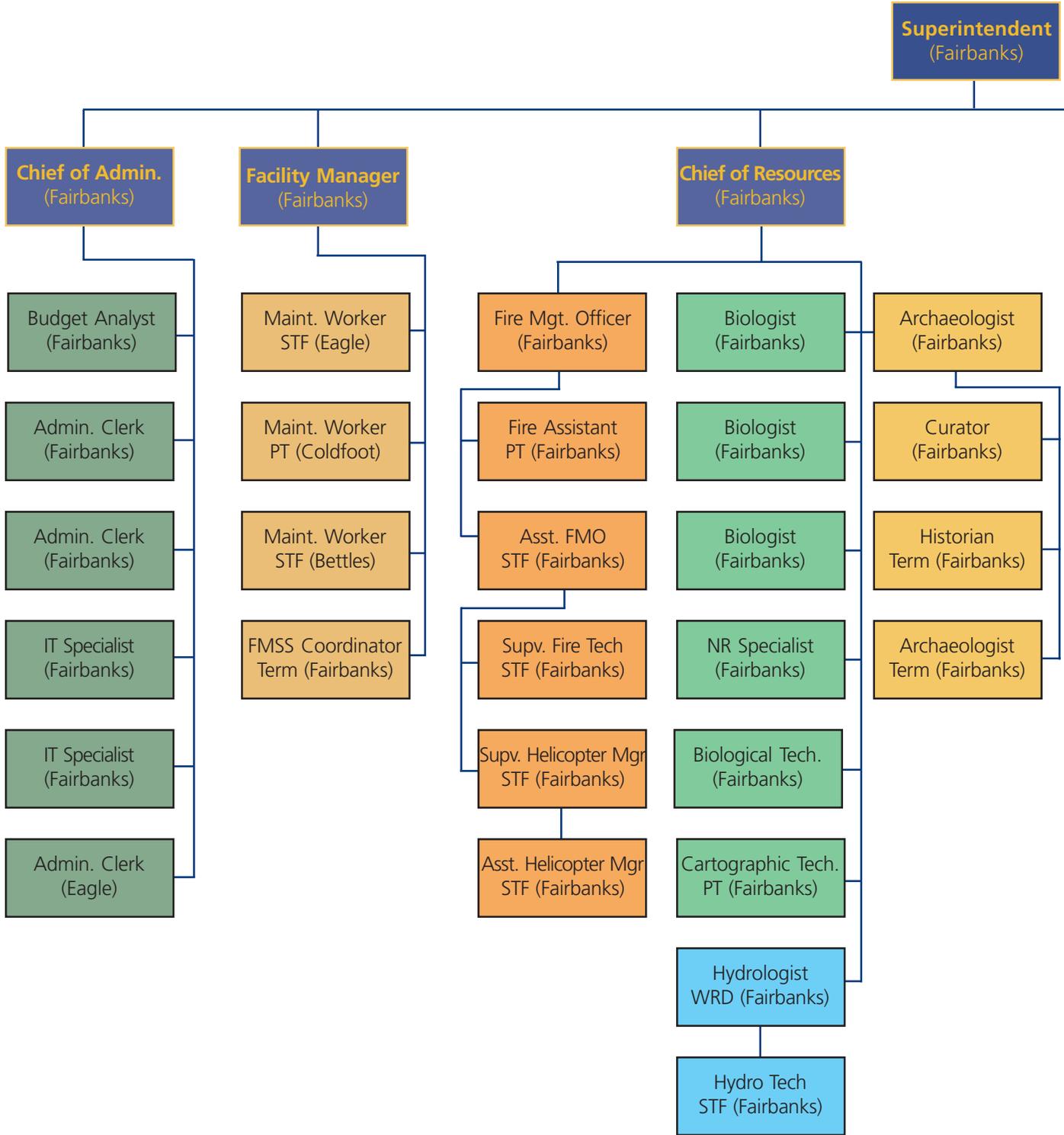


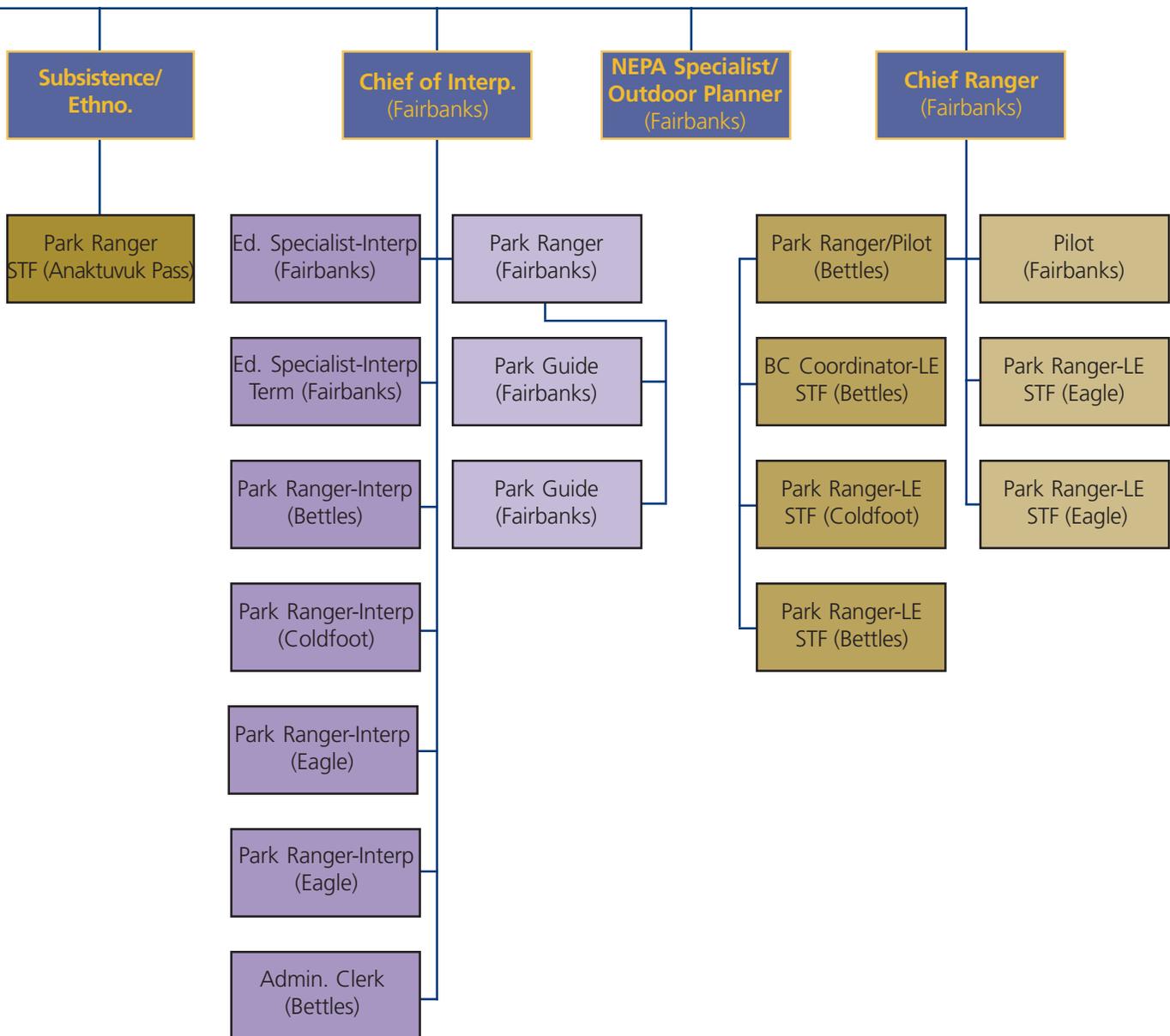
**YUGA All Funding Source  
Budget Allocations**

Total = \$5,896,068



# Yukon-Charley Rivers, Gates of the Arctic, Alaska Public Lands Information Center Organization







Rocks and oars don't mix. Ranger Scott Sample is happy with the minor damage after running a section of Class III rapids on the Charley River in Yukon-Charley Rivers National Preserve.

*The National Park Service cares for special places saved by the American people  
so that all may experience our heritage.*



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