

Yukon-Charley Rivers National Preserve

Annual Report 2001



Table of Contents

Message from the Superintendent.....	1
Purpose and significance of Yukon-Charley.....	2
Map of Yukon-Charley.....	3
Performance and Results Section.....	4-20
<i>Park Resources</i>	4-13
<i>Fire Management</i>	14
<i>Subsistence Management</i>	15
<i>Backcountry Planning</i>	15
<i>Public Enjoyment and Visitor Experience</i>	16-19
<i>Organizational Effectiveness</i>	20
FY 2001 Financial Summary.....	21
Preserve Organization.....	22

Contributors

Dave Mills, Superintendent
Robyn Burch, Chief of Administration
Steve Ulvi, Management Assistant
Kevin Fox, Chief of Operations
Fred Anderson, Fisheries Management Biologist
Doug Beckstead, Historian
John Burch, Wildlife Biologist
Coral Conway, Protection Ranger
Cassy D'Alessandro, Visitor Use Assistant
Eileen Devinney, Anthropologist
Nikki Guldager, Biological Technician
Marsha Henderson, Fire Management Officer
Jim Lawler, Wildlife Biologist
Maggie MacClusky, Monitoring Coordinator
Cyd Martin, Cultural Resources Specialist

Stacie McIntosh, Archeologist
Deb Nigro, Wildlife Biologist
Pat Sanders, Interpretive Ranger
Shelli Swanson, Wildlife Biologist

Layout, Design, and Editing

Donna DiFolco

Maps

Donna DiFolco and Marsha Henderson

Photos

by Yukon-Charley staff, unless otherwise noted

Printed on Recycled Paper



For more information, contact us at:
Yukon-Charley Rivers National Preserve
201 First Avenue
Fairbanks, Alaska 99701
(907) 457-5752
or visit our web site at www.nps.gov/yuch



Message from the Superintendent

I am pleased to submit this annual report for Yukon-Charley Rivers National Preserve. The year 2001 continued to be an active and successful year of accomplishments toward preserving superlative natural and cultural resources in this unique national treasure. Our accomplishments continue to gain increased public support for the protection of the values and resources in this remote area of the upper Yukon River in eastern Alaska. We have made significant improvements in our understanding of the area's cultural and natural resources, in the way we share this information with the public, and in the way we conduct and maintain effective day-to-day operations.

This report is organized along the outline of our National and Park's Strategic Plan and the structure of the Government Performance and Results Act. It links our accomplishments to park mission, long-term and annual goals and tracks measurable outcomes that allow us to determine the effectiveness of our efforts in preserving the park's resources unimpaired for the benefit of future generations and for the appreciation and enjoyment of present generations.

We are improving our ability at the park level to conduct long and short term planning and environment and cultural compliance. This area of Alaska has increasingly been of interest to larger scale tourism. We are attempting to plan for increased activities in order to provide for better visitor services and protection of the area's cultural and natural heritage.

I am especially proud of our continued excellent employee safety record. As in the recent past we continue to demonstrate the effectiveness of our extensive employee training programs by continuing our record of no employee injuries for the year 2001. We have a very hazardous environment in which to live and conduct our business, among the coldest and remotest areas in Alaska. The only way to access the park is by boat, airplane, helicopter or snowmachine. Our committed effort to constantly improve our training and a safety culture among employees continues to yield positive results.

We recently received a regional award for the "Birth of a Peregrine" Program, which provided scientists and the public two months of live video from a wild falcon eyrie near the community of Eagle. Round-the-clock coverage allowed the public to witness a falcon's life from egg to fledgling. We also have dramatically improved our educational and interpretive services provided to park visitors in the heart of the Preserve at Coal Creek. These and other efforts helped us to obtain a 100% approval rating from the visiting public for the first time in our history.

As you will see in more detail in this report, we now have very successful cultural and natural resources programs with over 15 different inventory and monitoring programs active. Being a relatively newly established park unit, our main focus continues to be on understanding and documenting the natural and cultural heritages we are mandated to protect. We continue to expand our programs into new areas working with communities within and outside the Preserve's boundary. An environmental history of the Yukon River is being coordinated by our cultural resources staff in cooperation with Parks Canada and the University of Alaska and other organizations from around the world. Our natural resources staff has provided a leadership roll in coordinating the first Alaska network to inventory natural resources in three park areas in central Alaska.

Partnerships are what allow us to produce the wide array of results that are evident in this report. This past year we have combined our efforts with local communities and organizations like the Eagle Historical Society, Alaska Native tribal organizations, universities from around the world, nonprofit conservation groups, numerous other State and Federal resource agencies from a number of different countries, and even the U.S. Department of Defense.

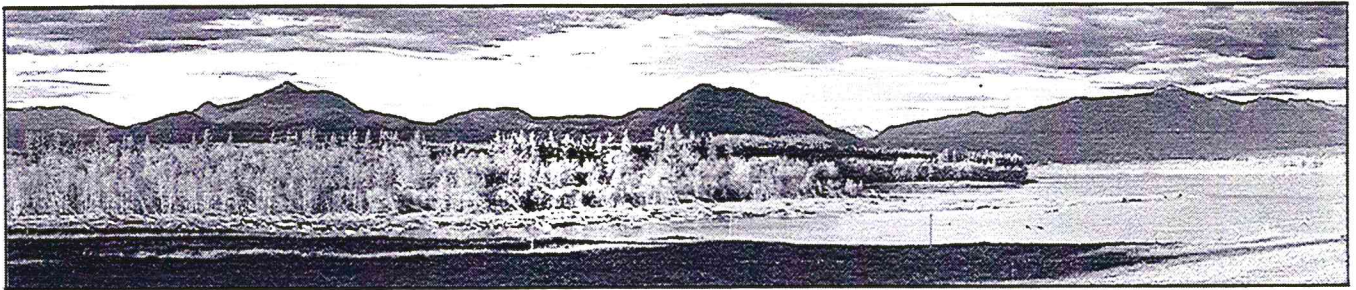
This report is dedicated to the many people, organizations, agencies and partners who have provided considerable effort and support to make the results identified in our Strategic Plan a reality.

Dave Mills

Purpose and Significance of Yukon-Charley Rivers National Preserve

Located along the Canadian border in central Alaska, Yukon-Charley Rivers National Preserve protects 115 miles of the 1,800-mile Yukon River and the entire Charley River basin. Numerous rustic cabins and historic sites are reminders of the importance of the Yukon River during the 1898 gold rush. Paleontological and archeological sites here add much to our knowledge

of the environment thousands of years ago. Peregrine falcons nest in the high bluffs overlooking the river, while the rolling hills that make up the Preserve are home to an abundant array of wildlife. The Charley, a 100-mile long wild river, is considered by many to be the most spectacular river in Alaska.



Overlooking the Yukon River outside Preserve headquarters in Eagle.

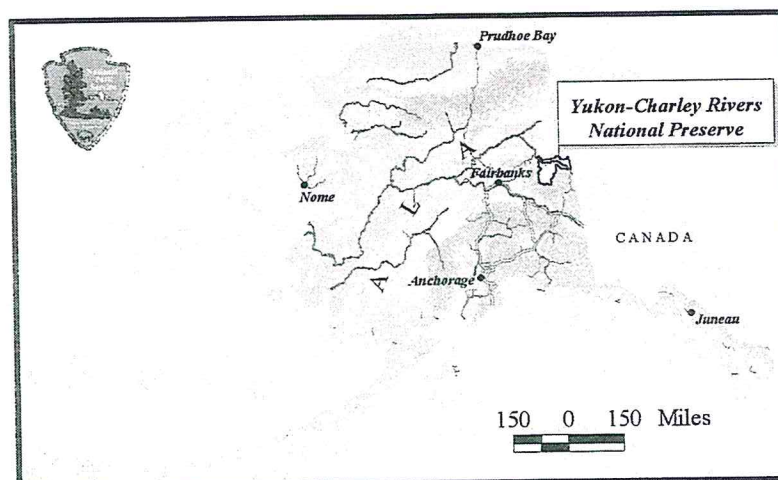
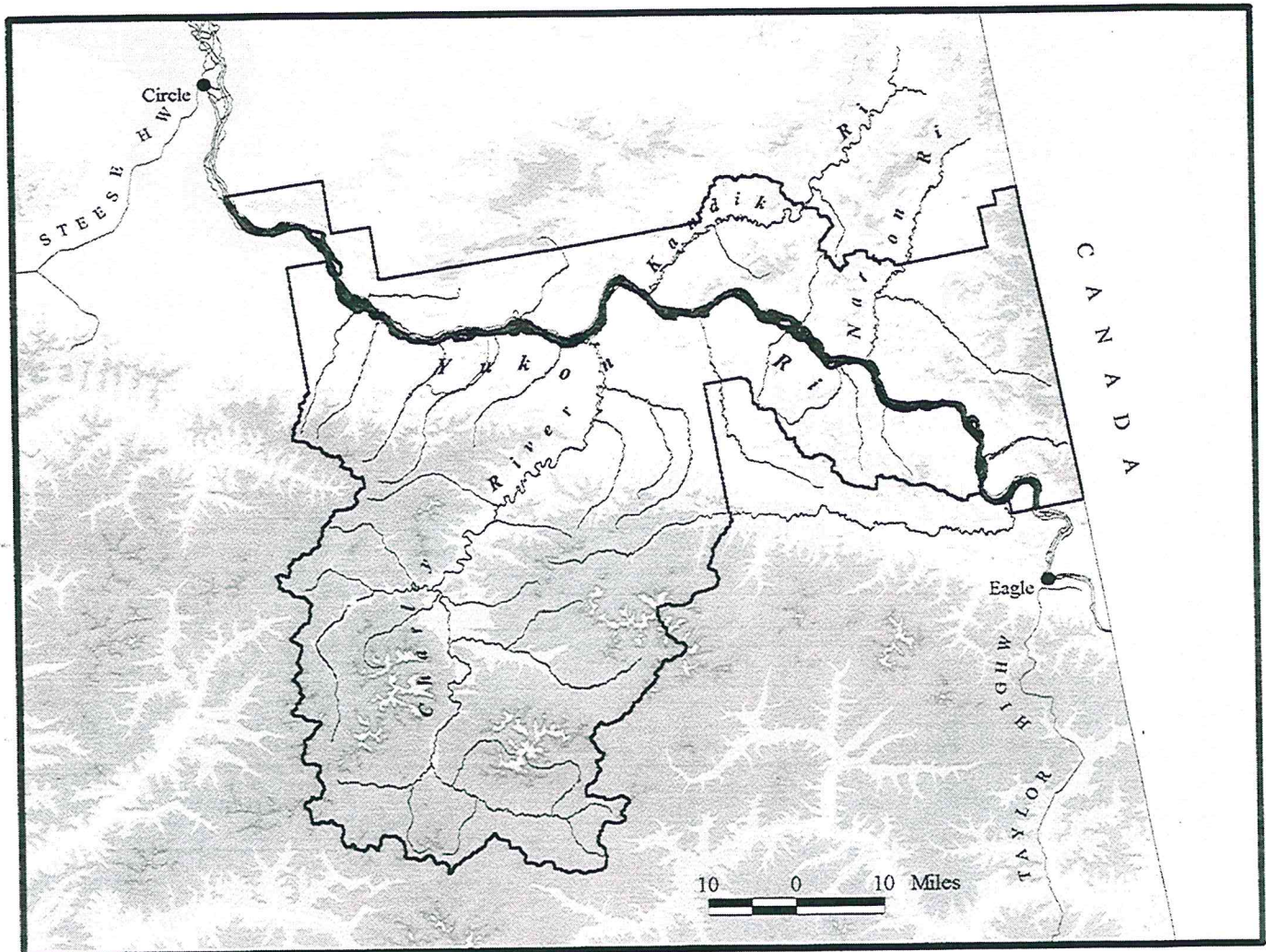
The purpose of Yukon-Charley Rivers National Preserve is to:

- ◆ Protect, conserve, and interpret the 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;
- ◆ Maintain the environmental integrity of the entire Charley River basin in a natural state, to preserve intact a subarctic ecosystem, its healthy flora and fauna, as well as geologic and natural features, for public benefit and scientific study; and
- ◆ Protect and allow for the interpretation of historic sites and events along the Yukon River corridor associated with the Klondike Goldrush.

Yukon-Charley Rivers National Preserve has national and international significance:

- ◆ A world-significant assemblage of diverse geological and paleontological resources that are unusually complete are found here, providing at least a 600 million year record stretching back to the close of the Precambrian era.
 - ◆ The area between the Nation, Kandik, and Yukon rivers is postulated to be a portion of the North American plate which has escaped deformation from geological forces to remain as an incredibly intact geological and paleontological record. Some of the oldest known microfossils in existence have been found in this area.
 - ◆ The entire Charley River watershed is protected in its undeveloped natural condition.
 - ◆ The area encompasses habitat which supports 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 goldrush 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



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 is located. Travellers into the Preserve typically float the Yukon River, or charter an airplane to fly into the upper Charley River. Visitors to Yukon-Charley Rivers are encouraged to check in at the Eagle field office to file a travel plan prior to their trip.

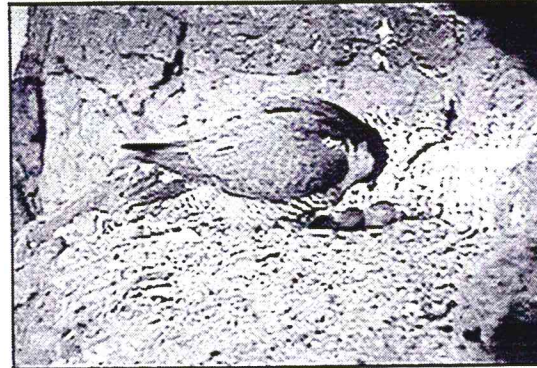
Within the Preserve, NPS staff maintain facilities, including a public use cabin, at Coal Creek Camp, which serves as a base for many resource projects. At Slaven's Roadhouse on the Yukon River visitors may enjoy learning about the rich mining history of the area.

Preserve Resources

Mission Goal: 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.

Long-term Goal: Threatened and Endangered Species. By September 30, 2005, the peregrine falcon (the only known T&E species) in Yukon-Charley Rivers National Preserve will have a stable population.

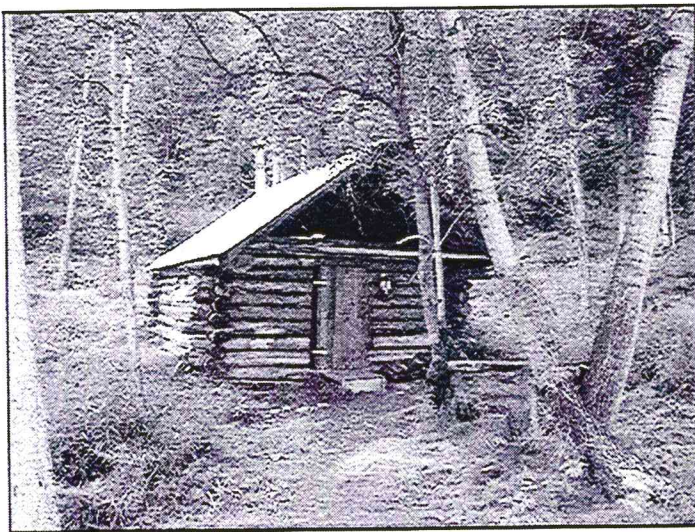
Annual Goal: This will continue through 2005. The species was delisted in 1999, but is currently monitored through the USFWS Species Recovery Plan. The peregrine falcon is jointly monitored by the National Park Service and U.S. Fish and Wildlife Service. This is accomplished through population surveys and nest production monitoring on the Yukon and Charley Rivers.



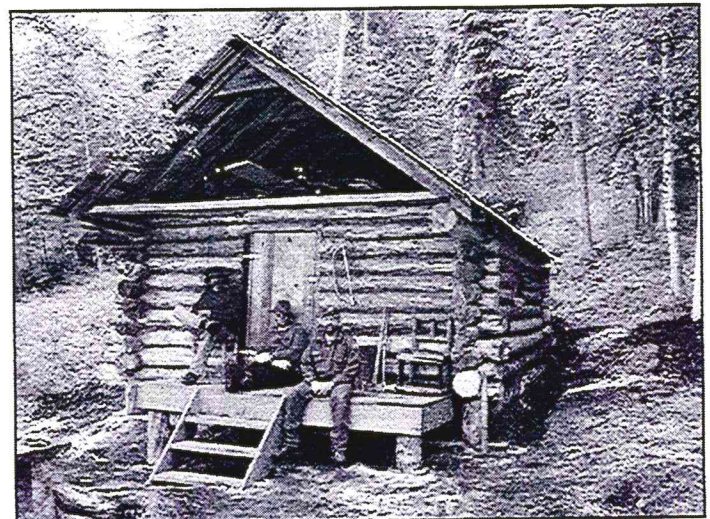
A female American peregrine falcon tends her eggs on Eagle Bluff, near the Yukon-Charley Rivers field office.

Long-term Goal: Historic Structures. By September 30, 2005, 27 structures (40%) of Yukon-Charley River's 66 historic structures on the 1999 List of Classified Structures are in good condition.

Annual Goal: By September 30, 2001, six structures will be stabilized and maintained.



Glenn Creek Public Use Cabin in 2000.



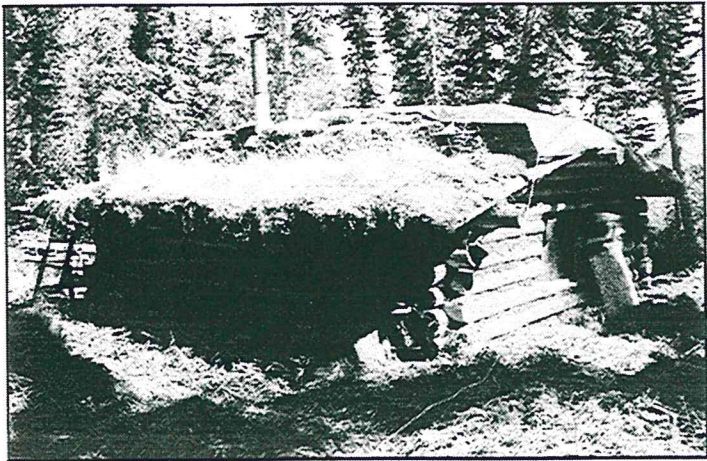
Glenn Creek Public Use Cabin in 2001.

Cabin Maintenance

In July, maintenance staff worked on the Glenn Creek Public Use Cabin. They replaced the floor and rotten logs at the base, made the cabin level, and added stairs and a deck.

Accomplishments:

- ✓ Renovated the Glenn Creek Public Use Cabin.
- ✓ Replaced the Kandik River cabin roof, and relocated and repaired the outhouse.



Cabin maintenance in 2001 included replacing the roof on the Kandik cabin, a public use cabin along the Yukon River.

Cabin Maintenance Plan

Yukon-Charley includes within it many historic and non-historic structures. A variety of these have been identified for restoration and rehabilitation work, including cabins along the Yukon River that now serve as public use cabins. The Yukon-Charley Rivers National Preserve Cabin Maintenance Plan outlines basic history of these buildings, identifies their historic use whenever possible, and outlines measures for annual maintenance work that will ensure the long-term viability of the structures. It identifies major components of the structures and recommends a time frame for a variety of maintenance activities, including inspections, painting, and replacement.

Long-term Goal: Museum Collections. *By September 30, 2005, 75% of the applicable preservation and protection standards for Yukon-Charley Rivers museum collection will be met.*

Annual Goal: *By September 30, 2001 the museum standards will be improved to 75%. In doing this the long term goal will be met.*

Funds were used for cataloging the backlog of archival collections and purchasing storage cabinets. 67.18% of the museum preservation standards were met. Due to the present circumstances of the storage facilities, full compliance with the NPS museum standards is not possible.

Long-term Goal: Archeological Sites. *No goal*

Annual Goal: *We will monitor and assess the condition of archeological sites during field work. We are, however, unable to maintain them at the good condition as described in the GPRA guidance because we cannot protect them from environmental degradation. As we monitor known sites we will assess site stability. If the site is in danger of losing its integrity we will collect additional information so we do not lose the cultural site information.*

Cultural Site Monitoring

Annual cultural site monitoring was conducted in two locations in the summer of 2001. This work was completed in accordance with a schedule set forth in the Preserve's 1999 Cultural Site Monitoring Plan. Prehistoric sites discovered during previous archaeological surveys were relocated, and natural and human impacts/threats to the sites were assessed. Sites assessment data was also reported to the Washington, DC office in order to satisfy a nationwide request to validate the accuracy of information contained in the National Park Service's Archeological Sites Management Information System (ASMIS) database.

Prehistoric sites discovered during previous surveys were relocated, and natural and human impacts/threats to the sites were assessed.

Accomplishments:

- ✓ Four prehistoric sites were relocated and assessed (EAG-264, 270, 271 and 273). The four sites appeared to be free of adverse natural and human impacts.

Mission Goal: 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.

Long-term Goal: Natural Resources By September 30, 2005, 8 natural resource inventories identified in the Resource Management Plan are completed for Yukon-Charley Rivers.

Annual Goal: By September 30, 2001 one natural resource inventory in the Resource Management Plan will be completed. Numerous Resource Inventories are planned to be completed or implemented during the period of this Strategic Plan: wilderness resource, wolves, sheep, human use including traditional subsistence activities, fire burns, natural sound, moose, neotropical birds. This goal incorporates the majority of the non-visitor related activities for the preserve and thus the majority of FTE and a significant portion of funding.

Bird Inventory and Monitoring

In 1998, Yukon-Charley Rivers received funding from the Service-wide Inventory and Monitoring Program to conduct bird inventories. We conducted March/April owl surveys (1999-2001), winter resident bird surveys in March/April of 1999 and 2000, and point count surveys for breeding birds in June 1999 and 2000. Beyond the winter owl survey, work in 2001 has consisted of data analysis and report writing.

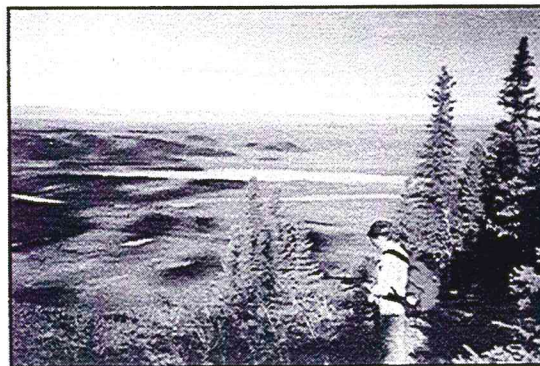
Snowmobiles were used to access the survey areas. Owl surveys began immediately after sunset and were completed within 4 hours.



2001 owl surveys

Nine 8-12 mile transects in the Kandik River, Nation River, and Coal Creek areas were surveyed for owls in March 2001. A total of 1 Boreal owl and 2 Great-horned owls were detected during the surveys. These detection numbers were down precipitously from the 1999 field season when 56 Boreal owls and 8 Great horned owls were detected. The number of owl detections was low and late in the season for much of Interior Alaska in 2001. Further investigation into the possible causes of seasonal owl irruptions and the timing of calling

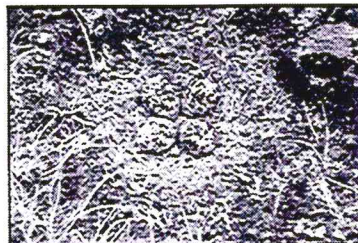
is necessary to develop an effective monitoring plan for owls in the Preserve. Additional work in the Coal Creek vicinity looking at seasonal changes in owl detection rates is hoped for in March/April 2002.



Navigating between points on an off-road point count transect. Data are used for species presence/absence information.

2001 Off-road Point Count Transects

Two-person crews completed two 12-point transects of variable circular plots in an ecological unit not sampled during the 1999 and 2000 field seasons. The data collected in this work will be used for species presence/absence information for interpretive products produced from the inventory project. Twenty-six species were identified, with common redpolls, Wilson's warblers, and white-crowned sparrows being most abundant.

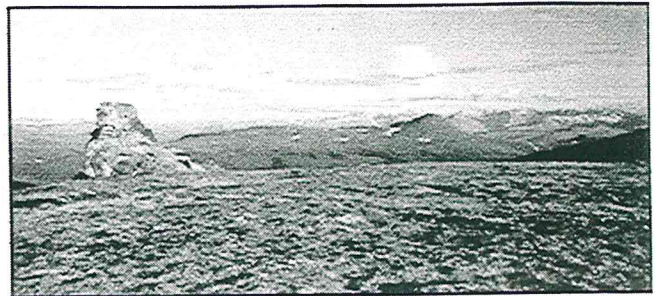


An American Golden Plover nest with four eggs lies inconspicuously on the tundra. During the off-road point counts, 26 species of birds were identified. Common redpolls, Wilson's warblers and white-crowned sparrows were the most abundant.

Natural resource inventories, continued: Bird Inventory and Monitoring

Data management and analysis for Point Count Surveys

Data from these surveys has been entered into databases and verified. Alaska regional staff developed an Access database from our Excel spreadsheets that will be highly applicable to other bird inventory and monitoring projects in NPS and other agencies. *Alaska GIS* is preparing an interactive tool for visitors and staff to determine which bird species they are likely to see in different parts of the Preserve and to examine individual species distribution. Bird songs recorded during the project were sent to *Alaska's Spirit Speaks: Sound and Science* to be edited, audio processed, and archived on CD media.



Early morning light on an alpine ridge in Yukon-Charley Rivers. Bird surveys usually ran from 2 a.m. to 7 a.m.

Data analysis is being conducted jointly with USGS-BRD at the Alaska Science Center. The software program *DISTANCE* is being used to estimate species abundance at the park and ecological unit level. A methods paper for conducting bird inventory work on large landmass administrative units that is intended for journal publication is in progress.

Accomplishments:

- ✓ Designed and implemented an avian inventory plan in Yukon-Charley Rivers National Preserve with methodology applicable to large NPS units with minimal access.
- ✓ Developed a long-term monitoring protocol for birds in the Preserve.

Taking notes on habitat during the bird inventory and monitoring project in Yukon-Charley.



Fifth Annual Breeding Bird Survey at Coal Creek

Many neotropical migrant landbird species have experienced population declines throughout North America over the last 20-40 years. Many species that breed in interior Alaska winter in Central and South America where habitat loss,

2001 marks the fifth season of conducting bird surveys in YUCH, assisting national and international efforts in monitoring neotropical migrant bird populations.

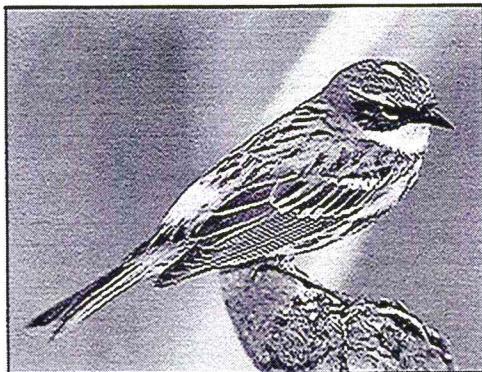
pesticide use, and extensive deforestation threaten the existence of healthy migratory landbird populations. Information about populations of neotropical migrants that breed in or migrate through eastern interior Alaska is essential to determine distribution, abundance, age structure, and survivorship parameters that will assist managers in assessing the status of these populations. Several species of neotropical migrants that breed in the Preserve have been designated as "Species of Management Concern" by the U.S. Fish and Wildlife Service. These include the olive-sided flycatcher, alder flycatcher, gray-cheeked thrush, Swainson's thrush, blackpoll warbler, Wilson's warbler, and the Tennessee warbler.

Natural resource inventories, continued: Annual Bird Surveys

2001 marks the fifth season of conducting bird surveys in YUCH, assisting national and international efforts in monitoring neotropical migrant bird populations. Transects along the Coal Creek drainage are surveyed annually by Resource

staff, contributing to the nationwide effort to monitor these populations. We also conducted a Breeding Bird Survey (an international effort to monitor bird populations) along the previously established Eagle route.

The myrtle warbler is commonly heard throughout the boreal forest and along the Coal Creek bird survey routes.

**Accomplishments:**

- ✓ Conducted annual off-road point count surveys near Coal Creek, detecting 22 bird species, including 2 peregrine falcons, and contributing to the (Alaska) Boreal Partners in Flight database.
- ✓ Conducted Breeding Bird survey on 50-point Eagle route, detecting 25 species and a total of 322 individual birds.

The Effects of Military Overflights on Movement, Activity, Habitat Use, and Behavior of Dall's Sheep in Interior Alaska

This multi-year project is examining Dall's sheep movement, activity patterns, behavior and habitat use in relation to military overflight activity, major flying exercises, mitigated air space and sound events. By-products from this project will include insights into timing of seasonal shifts in habitat use and life stages associated with these shifts in interior Alaska Dall's sheep populations and characteristics of Dall's sheep habitat in interior Alaska. Age, weight and pregnancy rates were obtained from sheep captured and fitted with radio collars to obtain location, movement and activity data. Two areas, one in the Preserve under mitigated airspace, and one outside the Preserve in

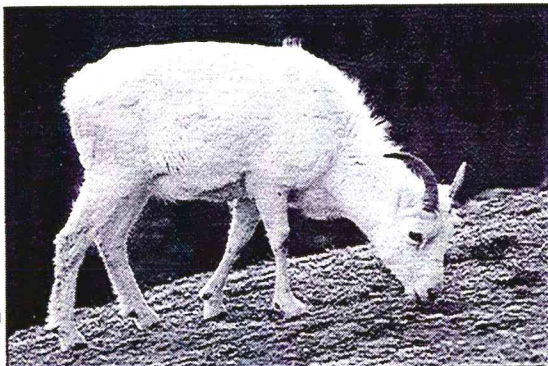
Field efforts have resulted in over 300 hours of Dall's sheep behavior observation and over 200 hours of sound measurements.

an unmitigated area, were selected to observe Dall's sheep behavior and to collect information on habitat selection and sound levels. Field efforts have resulted in over 300 hours of Dall's sheep behavior observation and over 200 hours of sound measurements. We are currently in the process of organizing this large data set. Once the data have been analyzed, we will be able to address a primary objective of this project, which is to assess the effectiveness of current mitigation measures that are intended to reduce negative impacts of military overflights on Dall's sheep in interior Alaska.

Accomplishments:

- ✓ Investigated the impacts of Military Operation Areas on Dall's sheep in interior Alaska.
- ✓ Investigated the impacts of major military flying exercises on Dall's sheep in interior Alaska.

The project will assess the effectiveness of current mitigation measures intended to reduce negative impacts of military overflights on Dall's sheep.

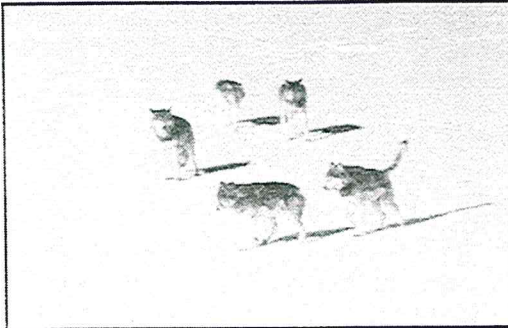


*Natural resource inventories, continued***Wolf Monitoring**

For many years the Alaska Department of Fish and Game (ADF&G) proposed to reduce the wolf population in the Fortymile area in order to help the Fortymile caribou herd increase at a faster rate following a dramatic fall in numbers. In 1995 ADF&G proposed to use non-lethal means of sterilizing the alpha pair of wolves and moving any

No wolves considered as Preserve packs were sterilized or translocated even when they were outside the Preserve and in the treatment area. Currently we are following 23 collared wolves in 13 packs and averaging about 35 locations per year for each pack. Fall 2000 population estimate for the preserve is 70 wolves, up from 50 in fall 1999. Pup production for 2000 was up from 1999. Wolf harvest increased for 2000-2001 season to about 20% from 5% in 1999-2000.

The Yukon-Charley wolves are a control group to compare with the population of wolves that were sterilized and moved during the State's wolf control program.



remaining wolves out of the area. Some of the packs that would have been sterilized and moved lived primarily within Yukon-Charley Rivers National Preserve. NPS asked that wolf packs living primarily within Yukon-Charley not be sterilized or moved. ADF&G agreed to this request, but NPS would need to continue to identify and monitor these wolf packs. In addition the population of wolves in Yukon-Charley would be used as a control group to compare and contrast to the population of wolves that were sterilized and moved.

The State agreed not to sterilize or move wolves living primarily within the Preserve, but NPS would need to continue to identify and monitor these wolf packs.

Accomplishments:

- ✓ Monitored the population size, demography, and home ranges of wolves in YUCH relative to the Fortymile caribou plan for sterilizing and translocating wolves that live outside the preserve.
- ✓ Provided follow-up information on wolf demography after wolf sterilization stopped and as the caribou population continues to increase.

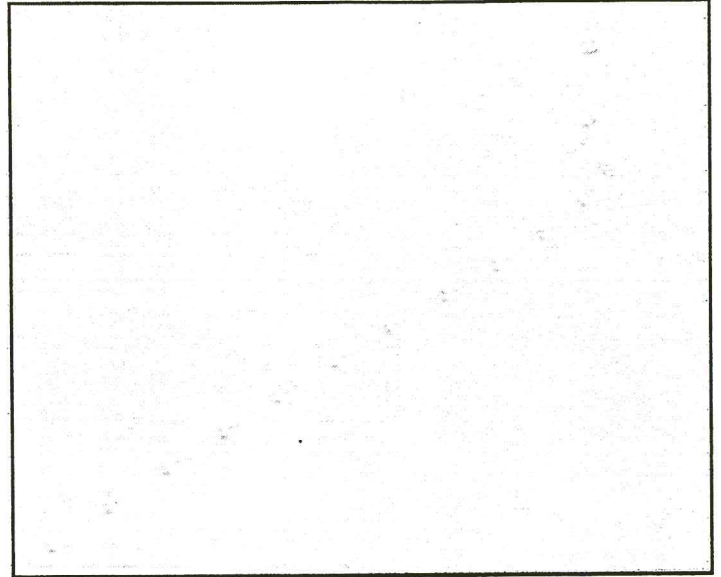


Preserve biologists currently track 23 collared wolves in 13 packs, averaging about 35 locations per year for each pack.

*Natural resource inventories, continued***Development and Testing of Videography Techniques to Monitor Furbearer Populations**

An interagency team involving National Park Service, U.S. Fish and Wildlife Service, Alaska Department of Fish and Game, and Biological Resources Division (USGS) is working to develop and test protocols for monitoring furbearer and snowshoe hare populations and habitat use throughout the Preserve. Protocols include the use of high-resolution aerial videography to conduct snow track surveys. Flights were conducted in Yukon-Charley Rivers in February 2001 to test the applicability of aerial videography techniques to complex hilly terrain. Results from this preliminary fieldwork successfully demonstrated that videography techniques are a feasible and efficient method for conducting snow track surveys in YUCH.

In 2002, the Preserve plane will be modified and outfitted with videography equipment, and sampling, data processing and statistical methods will be field-tested. The interagency group will also develop visibility correction factors from ground based surveys. The final product, due in 2003, will be written and demonstrated protocols for surveying furbearer and snowshoe hare population trends and habitat use in large management units typically found in Alaska.



Snowshoe hare tracks captured on video. Results from this preliminary fieldwork demonstrated that videography techniques are a feasible and efficient method for conducting snow track surveys in complex hilly terrain.

Accomplishments:

- ✓ Developed a protocol for using aerial videography to monitor furbearer and snowshoe hare populations and habitat use.

Snow Depth Monitoring with Aerial Markers

Snow data is baseline information that aids in understanding ecosystem processes. Snow markers provide information on winter severity that is necessary to understand wildlife population trends and habitat use. Information on snow depth is also valuable for monitoring long-term weather trends and hydrology that may be affected by climate change, as well as for predicting severity of fire seasons.

A snow marker from which data had been collected for 20 years was reestablished.

This is a cooperative project with the Natural Resource Conservation Service, USDA. A snow marker from which data had been collected for 20 years (1970-1989) was reestablished, thereby extending the life of a valuable long-term data set. In addition, 6 new markers were established throughout the Preserve. The aerial markers will be read annually each month during the snow season (November through April). Data collected for this project will be incorporated into statewide and Preserve databases and reports.

Accomplishments:

- ✓ Established 7 snow markers in order to monitor snow depth within the Preserve.

*Natural resource inventories, continued; Archeological Investigations***Dall's Sheep Radiotelemetry**

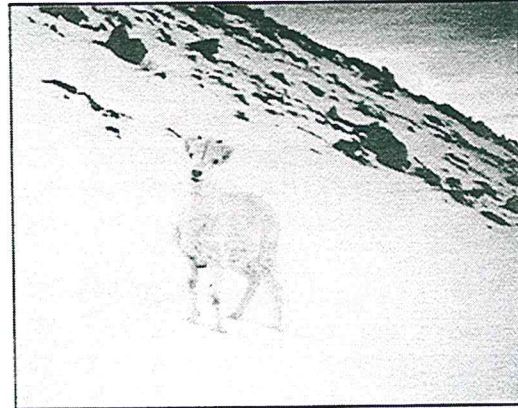
In past years Dall's sheep surveys in the Preserve were occasionally confined to 2 or 3 areas known to contain larger groups of sheep. These areas were intended to be used as trend count areas to monitor the Preserve's population of Dall's sheep. The data from those trend counts varied widely from area to area and year to year, so much so that the differences could not be explained by population changes alone. It was clear that sheep were moving into and out of the trend areas. This problem, combined with a concern that increased military overflights were impacting Dall's sheep populations, prompted a radiotelemetry study.

After 3 years of collecting data, results show that sheep are moving farther and more frequently than predicted. Critical use areas (lambing and rutting) appear to occur throughout the sheep range. Population surveys indicate the Preserve's sheep

population is approximately 350 sheep and stable.

Accomplishments:

- ✓ Documented movement patterns of sheep.
- ✓ Developed sheep population survey strategies.
- ✓ Identified critical use areas to assist with mitigation of military overflights.



A young sheep in Yukon-Charley Rivers National Preserve. Results of the radiotelemetry study have shown that sheep move farther and more frequently than predicted.

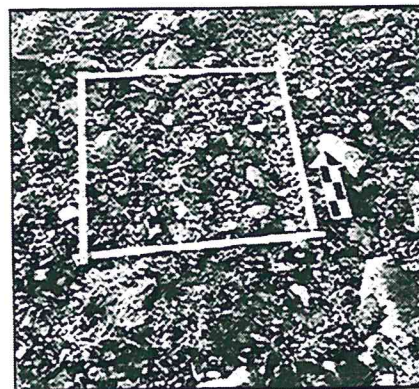
Long-term Goal: Archeological Baseline By September 30, 2005, the number of Yukon-Charley Rivers archeological sites inventoried, evaluated and listed in the National Park Service ASMIS is increased from 0 in FY1999 to 195.

Annual Goal: By September 30, 2001, 40 records will be input into ASMIS.

Archeological Investigations at the Foster-Keith Site

The Foster-Keith site, officially known as CHR-077, is a prehistoric site located on a high ridgeline straddling the boundary of NPS and Doyon, Ltd. lands. This site, notable for its extensive scatters and Tuktut and Campus style blade cores, was first reported to NPS archeologists in 1986 but has had little attention until the 2001 field season. Yukon-Charley sought assistance from archeologists at Lake-Clark/Katmai National Parks to conduct in-depth investigations. While earlier recommendations prioritized site mapping, findings regarding the extent of the site in 2001 altered plans. As a result, limited mapping of the original locality was conducted by two archeologists while the remainder the crew investigated distributions to the west of the original locality. The eastern portion of the ridge was also investigated and those sites documented by the two

person mapping crew. A final report and site maps are expected by spring 2002.



About 200 artifacts are encompassed by this 50 cm square on the Foster-Keith site. Most of the material is of gray chert, including microblades, blade fragments, blade-like flakes, and other artifacts, nearly all debitage from blade and tool manufacture.

Accomplishments:

- ✓ Recorded over 50 clusters or localities of artifacts.
- ✓ Mapped 3 central site localities using a transit.
- ✓ Surveyed approximately 2 miles of ridgeline.

Long-term Goal: Historic Structures Baseline: By September 30, 2005, all 66 (100%) of Yukon-Charley Rivers historic structures on the FY1999 List of Classified Structures (LCS) have updated information in their LCS records.

Annual Goal: By September 30, 2001, site visits will be made for 10 historic structures and the LCS for these sites updated. Site visits will be conducted primarily via river float and surveys, inventories, and photo documentation will be done.

National Register of Historic Places Mining History Multiple Property Nomination

Section 110 of the National Historic Preservation Act of 1966 (as amended) requires Federal agencies to identify cultural resources under their management and, where appropriate, nominate them to the National Register of Historic Places. Where resources share a common theme, a multiple property nomination can be developed, streamlining the nomination process.

A multiple property nomination focusing on the theme of mining was developed and written, incorporating information from the Coal Creek Historic Mining District and including aspects of history from Fourth of July Creek, Ben Creek, Sam Creek and Woodchopper Creek.

Additional mining sites can be added to the National Register by using the theme already developed. This will assist greatly with work planned for implementing the Preserve's Fire Management Plan.

Upper Woodchopper Creek Cabin Reconnaissance

During the mid- to late-1980s, NPS archeologists conducted cursory surveys of mining areas in Alaska parklands as part of the Cultural Resources Mining Inventory and Monitoring Program. During July 2000, a survey was conducted of Alice Gulch and Mineral Creek, tributaries of Woodchopper Creek. A variety of cabin and mining sites were re-located and documented including three cabins, an extensive mined area, and a dam and hydraulic piping system. When combined with the extensive research being done on mining history in the area, the cabins' builders and a chain of inhabitants has been established and a much more thorough history of the two drainages written. As time permits, these sites will be added to the National Register of Historic Places as part of the mining history multiple property nomination.

Interviews and Reconnaissance with Dale Patty

During July 2000, Mr. Dale Patty returned to Alaska to volunteer for a variety of projects at Coal Creek. Mr. Patty grew up at Coal Creek, having first gone there as a youngster with his father, Ernest N. Patty, who managed and ran the dredging operations on Coal Creek and Woodchopper Creek. Mr. Patty learned the mining and dredging business literally from the ground up, and eventually managed the Gold Placers Inc. and Alluvial Golds Inc. operations until the companies shut down the dredges in 1960.

Calling upon Mr. Patty's vast experience and expertise, many pieces of equipment, large and small, were identified and documented. Various scattered parts were re-assembled into working equipment.

Additionally, Mr. Patty went to great lengths identifying, sorting, cleaning, and organizing the tools and equipment on the Coal Creek dredge. The dredge now more accurately portrays how it appeared during the time it operated on Coal Creek, under the management of Gold Placers Inc., and for the period that the Coal Creek Historic Mining District is listed on the National Register of Historic Places.

Large Mining Artifact Recommendations and Collection Plan

Yukon-Charley Rivers and Wrangell-St. Elias National Park and Preserve were the focus of a great deal of mining activity throughout the 20th century. As a result, both parks have vast numbers of artifacts in them. Many of these remain where the miners left them. Due to limited curatorial facilities in both parks, little or no collecting has taken place to date.

During July 2000, the staffs of the two parks co-operated in hosting a team of outside NPS cultural resource professionals with extensive backgrounds in mining history to assess, evaluate and make recommendations on the best way to deal with the daunting problem. Their final report is expected this fall.

Long-term Goal: Vital Signs. By September 30, 2005 Yukon-Charley Rivers has identified its vital signs for natural resource monitoring.

Annual Goal: By September 30, 2001, the study plan for determining the vital signs will be developed. Yukon-Charley Rivers is within Group 3 for Central Ecosystem Network, Alaska. Vital signs are indicators of the key ecological processes which, collectively, capture the function of a healthy ecosystem. This goal is required and will be important in determining the "health" of the Preserve. Vital Signs will be identified through facilitated scoping workshops.

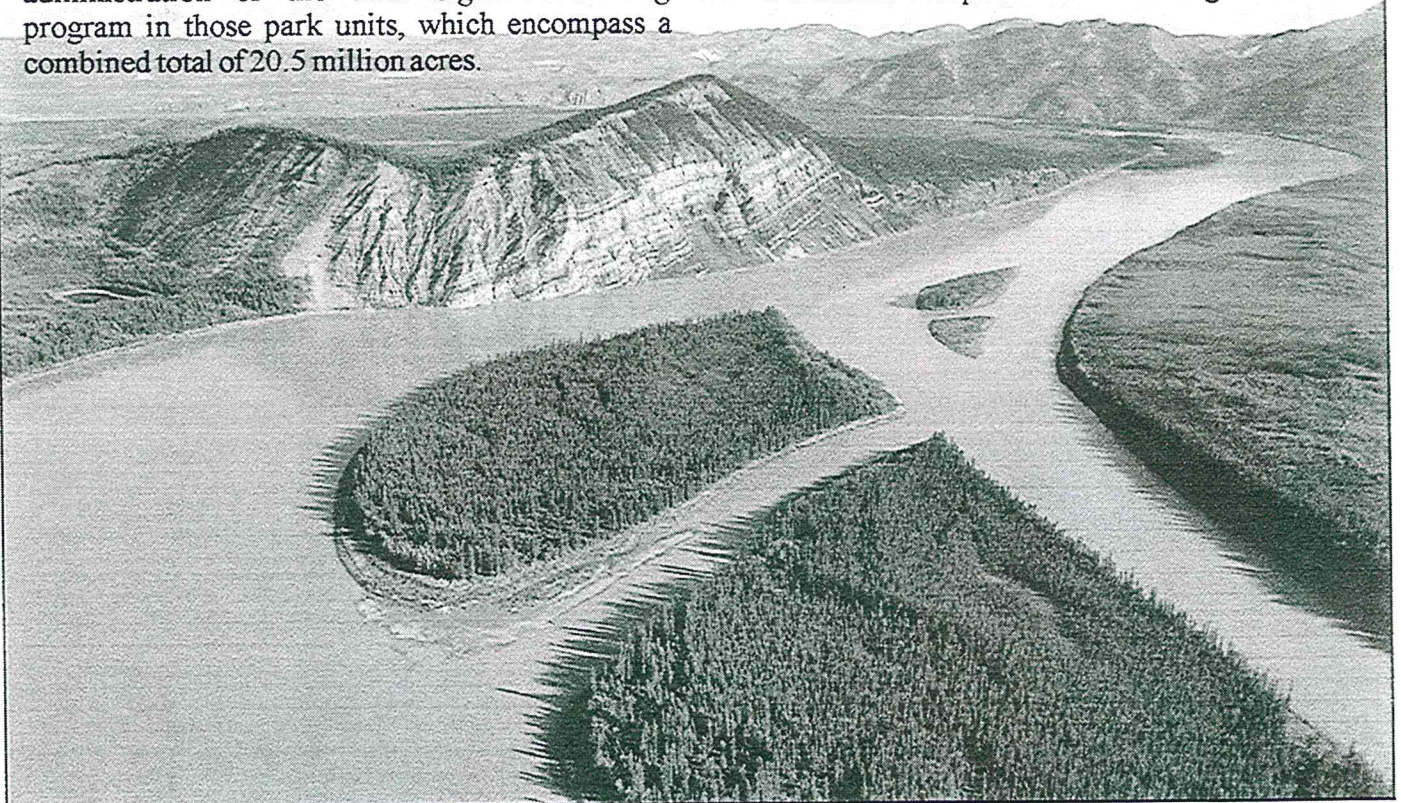
People traditionally visit parks to recreate and see wildlife. Historically, fire was suppressed and predators were killed to "save" the parks. However, we did not understand the systems. This did not fundamentally fulfill the mission of the NPS. The *Vital Signs Monitoring* program is the result of a new management policy for the NPS, which states that "natural systems in the national park system, and the human influences upon them, will be monitored to detect change. The Service will use the results of monitoring and research to understand the detected change and to develop appropriate management actions."

The Central Alaska Network, comprised of Yukon-Charley Rivers National Preserve, Denali National Park and Preserve and Wrangle-St. Elias National Park and Preserve, was established for the administration of the *Vital Signs Monitoring* program in those park units, which encompass a combined total of 20.5 million acres.

The first step of the project is to identify the "vital signs" of systems, ie. the fundamental ecological parameters that indicate the ecosystem is functioning. Once these parameters are identified, the monitoring program will entail assembling baseline inventory data and then monitoring those resources in order to provide reference points to which comparisons may be made with other more disturbed areas.

The goals of the *Vital Signs Monitoring* program are to:

- ♦ Identify status and trends in ecosystem health;
- ♦ Define normal limits of variation;
- ♦ Provide early warnings to reduce costs and increase treatment success;
- ♦ Suggest remedial treatments;
- ♦ Frame research hypotheses; and
- ♦ Determine compliance with law/regulation.



Fire Management

Cultural Resources and the Fire Management Program

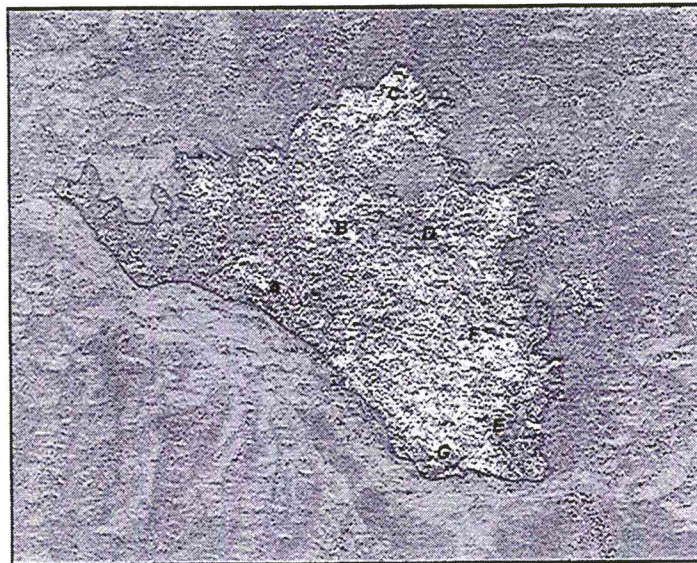
During the past decade, wildland fires have become increasingly more of a threat to areas of population growth and expansion. As a result, fire suppression efforts have been focused in those areas where there is a threat to life and property, frequently to the detriment of local natural and cultural resources. In 1995, an interagency review of the risks and expenses associated with wildland fire management culminated in the Final Report of the Federal Wildland Fire Management Policy and Program Review. This review contained several principles, policy changes, and recommendations that spawned the issuance of *Director's Order #18: Wildland Fire Management (DO-18)* in 1998. Central to DO-18 is the development of individual fire management plans (FMP) for each park unit, to more closely tailor wildfire management to park resource management objectives while still following the national guidelines.

Implemented in 2000, this plan divides the Preserve into several Fire Management Units (FMUs), each with a predetermined protection category that will guide fire management strategies in the event of a wildland fire. In order to minimize possible negative impacts to significant cultural resources, additional protection statuses have been defined that, when applied to individual properties, will supplement the FMU designations and subsequent response strategies during a wildland fire.

Because the protection of every cultural resource within NPS lands is not possible, potential adverse effects to individual properties need to be resolved. Implementation of the FMP necessitates not only identifying and evaluating all cultural resources that have the potential to be impacted by wildland fire or fire suppression activities, but also mitigating adverse effects that may impact these resources. To this end, a Programmatic Agreement was created in order to specify the terms by which the Parks' Fire Management Programs will fulfill their obligations under Section 106 and Section 110(f) of the National Historic Preservation Act of 1966, as amended.

Fire Severity Mapping

According to the Yukon-Charley Rivers National Preserve Fire Management Plan, the goals for the fire management program include the coordination and scientific management of wildland fire, the education of employees and public about the scope and effect of wildland fire management, and the provision of fire situation, fire behavior and fire effects information to the Preserve Superintendent. Three large fires burned a total of 125,000 acres in Yukon-Charley Rivers during the summer of 1999 (figures for 2001 were not available). Final fire perimeters were mapped using a handheld GPS in a helicopter. Mapping of interior unburned islands within these perimeters and mapping of different burn severity levels was not done due to the high cost and increased risk to personnel. Burn severity is considered a measure of effect, based on conditions and ecological impacts following fire. In order to map these effects, a new process called Normalized Burn Ratio (NBR) was field tested this summer on the 1999 fires. This process of comparing pre-fire and post-fire satellite imagery results in a final fire perimeter, a map of unburned islands, and a map of severity.



Nation River fire. The red shades indicate high severity fire, the yellow shades indicate moderate, and the blue/gray shades indicate low severity. The letters (A through G) are points that were visited this summer to ground truth this process in Alaska vegetation.

Subsistence Management

Federal Fisheries Program

As a result of the State of Alaska's failure to comply with terms of the "Katie John" court decision, the role of the federal government was significantly expanded in October, 1999. Since that time, federal agencies have assumed responsibility for ensuring conservation of fish stocks and for priority use of fisheries resources by rural Alaskans within 34 national parks, monuments, and wildlife refuges. State and federal subsistence fishing regulations have diverged since that time. For example, certain federal waters were temporarily closed to non-rural residents by the Federal Subsistence Board in 2001.

In the spring of 2000, NPS hired a fishery biologist to, among other things, ensure that management of subsistence fisheries on navigable waters within Yukon-Charley Rivers National Preserve is consistent with terms of the Alaska National Interest Lands Conservation Act, Title VIII, which governs subsistence use in the Preserve.

Traditional Ecological Knowledge

Work continues on a project to record the Traditional Ecological Knowledge of fisheries practices in the communities of Eagle and Circle. The study objectives include determining:

- ◆ traditional harvest patterns,
- ◆ utilization and methods of preservation and storage,
- ◆ harvest methods, and
- ◆ distribution and habitat preferences of salmon and various species of freshwater fishes that occur within Yukon-Charley.

Charley River Salmon Survey

Approximately 100 spawning Chinook salmon were spotted during an aerial survey of the Charley River in August.



Salmon dry on a fish rack. Fishwheels are commonly used by subsistence users on the Yukon River for harvesting salmon and other species of fish.

Backcountry Management and Planning

Visitor use in Yukon-Charley has never been well understood. This summer at Slaven's Roadhouse on the Yukon River, recreational visitors were observed and counted to provide accurate recreational use figures.

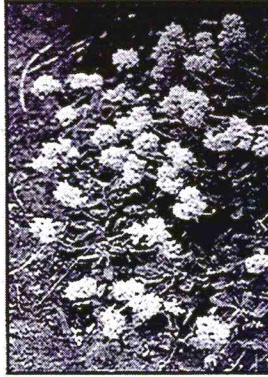
Administrative activities, scientific research and special events in backcountry areas suitable for inclusion in the wilderness system can be controversial. A process for evaluating the potential impacts to wilderness character and other purposes for which the unit was established, as required by NPS Management Policies (2001), has been effectively merged into an integrated compliance process to better meet public needs.

An inter-disciplinary Backcountry/Wilderness Advisory Group continues to address backcountry use issues in order to improve organizational effectiveness and efficiency and respond to public needs in a timely manner.

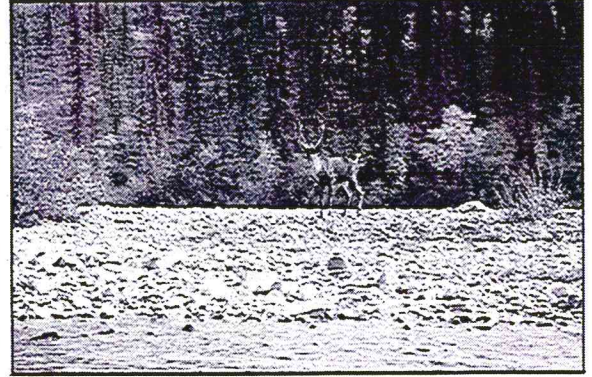
Backcountry Management and Planning, continued.



Cliffs rise sharply above the Yukon River.



Eriogonum flavum is one of several rare species of plants that grow on the bluffs in Yukon-Charley.



A caribou pauses on a gravel bar along the Charley River.

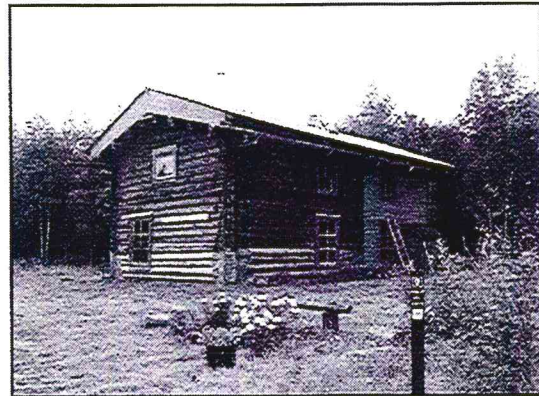
Providing for the Public Enjoyment and Visitor Experience

Mission Goal: Visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities.

Long-term Goal: Visitor Satisfaction. By September 30, 2005, 95% of visitors to Yukon-Charley Rivers are satisfied with appropriate park facilities, services, and recreational opportunities.

Annual Goal: By September 30, 2001, 95% of Preserve visitors will be satisfied with appropriate park facilities, services, and recreational opportunities. The Preserve will utilize the Visitor Survey Cards to determine any improvements needed to improve visitor satisfaction. Much recreational visitation is for river running; improvement of the historical sites (e.g. Coal Creek Camp) will ensure visitor interest and enjoyment. Also, the upcoming long term Interpretive Plan will assist the staff in interpretive programs, exhibits, etc, which will increase satisfaction.

In Yukon-Charley Rivers National Preserve, Carl Stapler, equipped with a sampling schedule, binoculars, notebook, and a wonderful sense of curiosity and duty kept track of visitors passing Slaven's Roadhouse. Carl kept meticulous records of those who floated past on the Yukon, and with a sampling procedure to ensure randomness, spent hour and a half blocks of time "watching the river". Due to Carl's diligence we will have the best river use data that we've ever had in Yukon-Charley, and some of the best backcountry use information in the Alaska Region.



Slaven's cabin looks out over the Yukon River. Many visitors stop here on their way down the river to enjoy this historic site.

Long-term Goal: Visitor Safety. By September 30, 2005, the number of Yukon-Charley Rivers visitor accidents/incidents is maintained at the FY1992-FY1996 five-year annual average of 0.

Annual Goal: By September 30, 2001, the Preserve's visitor accidents/incidents is maintained at 0. The Preserve has been very fortunate to have no visitor accidents in its known history.

An Unprecedented Season: Fatalities in Yukon-Charley

Up until June 8, 2001, Yukon-Charley had never experienced a fatality. This year the Preserve saw three fatalities and one Search and Rescue of two hunters who were stranded.

On June 8, six men from outside Alaska arrived at Gelvin's airstrip on the Charley River. The river was unusually high, and the pilot that flew them in cautioned them to wait until the water dropped. The men were eager to get started, however, and within hours, and only 2.6 miles below the airstrip, 3 of the 4 inflatable canoes had capsized in the churning water in an area known as "Boulder Alley." The 5 survivors were rescued

nearly 4 days later after a passenger on a mail plane reported seeing an orange tarp on a gravel bar with the word "HELP" spelled out in rocks. The body of the sixth man was found later and retrieved.

The second fatality was of Dick Cook, a well-known and liked trapper who lived on the Tatonduk River, which took his life at the age of 70. NPS joined forces with the Alaska State Troopers, PAWS (search dogs) and local volunteers to locate Mr. Cook, who had drowned after swamping his heavily loaded canoe in the flooding Tatonduk.

On July 26, a British Royal Air force Jaguar jet crashed into a mountainside in the Preserve. The pilot was participating in the international military training exercise "Cooperation Cope Thunder."



Long-time area resident Dick Cook travels down the Yukon River on a raft carrying his truck and other supplies. This photo was taken in 2000, a year before his death.

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

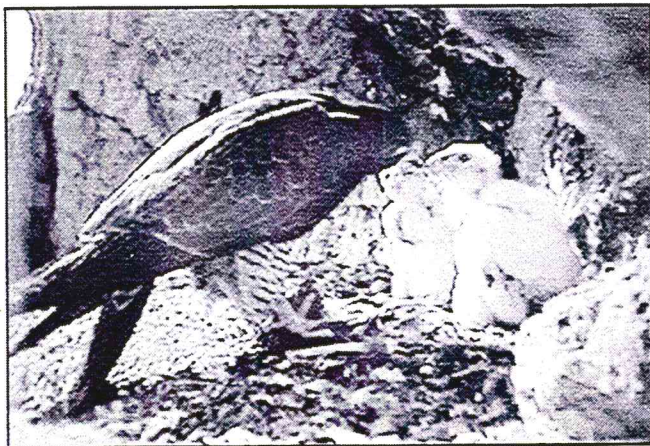
Long-term Goal: *Visitor Understanding and Appreciation. By September 30, 2005 86% of Yukon-Charley Rivers visitors understand the significance of the Preserve.*

Annual Goal: *By September 30, 2001, 86% of the preserve visitors will understand the significance of the Preserve. Interpretive programs, including walks and talks, are provided in Eagle. Outreach programs are provided in Eagle, Circle, and Central. The Preserve is looking forward to hiring two additional interpretive rangers with its FY01 base increase.*

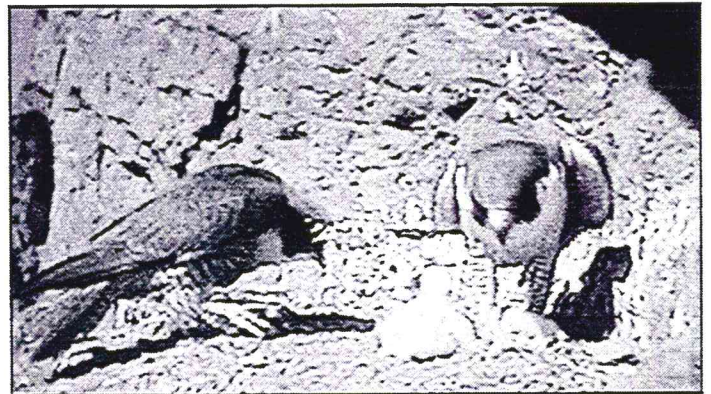
Birth of a Peregrine Project

The Birth of a Peregrine project, funded by *Parks as Classroom*, became a reality during the 2001 summer season. A video camera placed in an active American Peregrine Falcon eyrie, captured live footage of the reproductive cycle of the once endangered species. Although a number of cameras currently record images at peregrine nesting sites, this was one of the first video cameras placed in a natural habitat setting to capture 'round-the-clock documentation of activities. Visitors and researchers could view and document the peregrines from June 1 through July 29, when the chicks fledged. A student volunteer recorded data and video recordings were made 12 hours each day. The videotapes are currently being edited and still images collected during the summer have been placed in the files for access by those interested.

The Birth of a Peregrine project, spearheaded by Yukon-Charley Interpreter Pat Sanders, won the Freeman Tilden Award for Excellence in Interpretation in 2001.



The female feeds both chicks, July 1, 2001.



Family of four American peregrine falcons, June 17, 2001.

Accomplishments:

- ✓ Recorded live coverage of American peregrine falcons at their nest with young.
- ✓ Presented several programs on the peregrines to residents and visitors.
- ✓ Involved local students in the project.
- ✓ Prepared several bulletins for educational purposes.

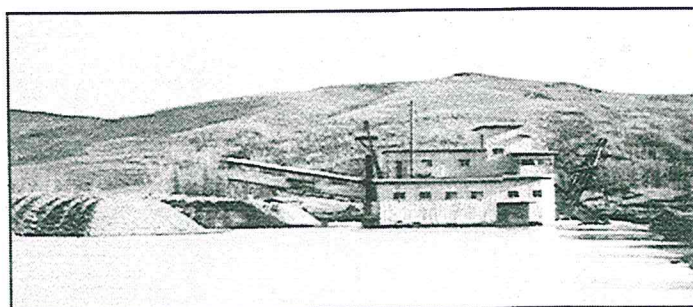


The oldest chick tries its wings July 15, 2001.

*Visitor Understanding and Appreciation, continued***Interpretive Posters for Slaven's Roadhouse**

Five interpretive panels describing the mining history of the Coal Creek region of Yukon-Charley were revised and redesigned for an updated, professional display at Slaven's Roadhouse, a National Register building which serves as a public use cabin for preserve visitors.

Slaven's Roadhouse, c 1937. (Photo courtesy of Sherrie Harrison.)



The Coal Creek dredge in operation during the 1930s. (NPS photo, Bill Lemm collection.)

Accomplishments:

- ✓ Revised and redesigned 5 interpretive panels describing mining history in the Coal Creek region.

Yukon-Charley Rivers Website Expansion

Since 1997, when the original Yukon-Charley website was created, information had not been updated. The new, expanded website incorporates some original topics (with updates as appropriate) plus additional information from the branches of cultural and natural resources. The site also includes extensive mining history. Many graphics

The new, expanded website incorporates the original topics plus additional information from the branches of cultural and natural resources.

and historic photographs make the site much more appealing. This project helps promote Yukon-Charley's presence on the Internet and fulfills, in part, the Regional Director's emphasis on education and outreach.

Accomplishments:

- ✓ Updated and expanded the Yukon-Charley Rivers website.

Project Jukebox Upgrade and Enhancement

Project Jukebox was originally conceived by the Oral History Program at the University of Alaska-Fairbanks. The program consists of 38 oral histories from people associated with the Yukon-Charley Rivers area including people who have lived there for many years, NPS personnel who were involved with the planning and implementation of the Preserve, and Preserve administrators. The interviews were collected in 1991. Although the original *Project Jukebox* was a multimedia presentation that was ground-breaking technologically at the time, it is now very outdated and unable to function.

The updated *Project Jukebox* utilizes the original 38 narratives. They have now been digitized, "cleaned up," and are Internet compatible. The new program includes more graphics, maps and other interactive options. It will be distributed both on the Internet as part of the expanded Yukon-Charley homepages and also on CD for locations without reliable Internet service.

Accomplishments:

- ✓ Updated and enhanced the *Project Jukebox* program.

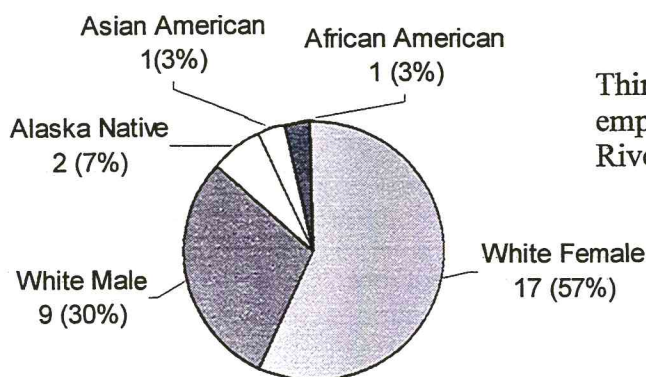
Ensure Organizational Effectiveness

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

Long-term Goal: Workforce Diversity. By September 30, 2005, the number of Yukon-Charley Rivers permanent positions in the 9 targeted series filled by under-represented groups will be increased by 1 (15%) of the FY99 level.

Annual Goal: By September 30, 2001, as vacancies occur active recruitment will be made to increase the diversity of park permanent staff. Supervisors, the Personnel Specialist and other park staff all assist in actively working to recruit diverse candidates. This will include working with region-wide partners and UAF faculty in recruitment as well as continuing to offer application workshops to Work First in Fairbanks and attending job fairs. Recruitment efforts vary depending on the position that is available.

Workforce Diversity

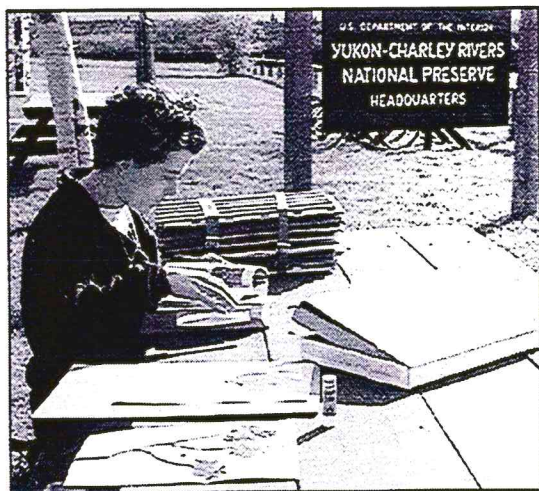


Thirty permanent staff are employed at Yukon-Charley Rivers National Preserve.

Volunteers

Volunteers worked 1,915 hours for Yukon-Charley Rivers.

Student Conservation Association Volunteer Sarah Nowak collected and preserved native flora for an interpretive exhibit.



Employee Safety

Long-term Goal: Employee Safety. By September 30, 2005, the number of Yukon-Charley Rivers employee lost time injuries is reduced to 0 from the FY1992-FY1996 five-year annual average of 3.372.

Annual Goal: By September 30, 2001, the employee lost time injury rate will be reduced to 3. The preserve will continue stressing safety at employee meetings, hold "tailgate" safety sessions, and discuss safety in regards to individual projects/assignments.

Employee Safety Main Accomplishment:

✓ No injuries occurred during Fy01.

FY 2001 Financial Summary

Operating Budget Base Allocations (ONPS) Expenditure Highlights

\$600,000 for Resource Preservation and Management

Major work included scientific studies on Dall sheep, bird and wolf populations and habitat. Cultural studies documented and monitored archaeological and historical sites. Historical structures were maintained. An environmental history of the Yukon River continued. Work continued in the communities around the Preserve to ensure opportunities for traditional subsistence activities will continue. General wildlife populations and consumptive uses of these populations were monitored to ensure they remain healthy.

\$228,000 to Address Visitor Services

Interpretive and educational programs were conducted in communities near the Preserve as well as for visitors arriving at in Eagle. Educational programs were developed and provided for backcountry visitors to help ensure a safe and enjoyable visit. Search and rescue capabilities were improved. Airstrips providing access to the Preserve were maintained.

\$294,000 for Facility Operations and Maintenance

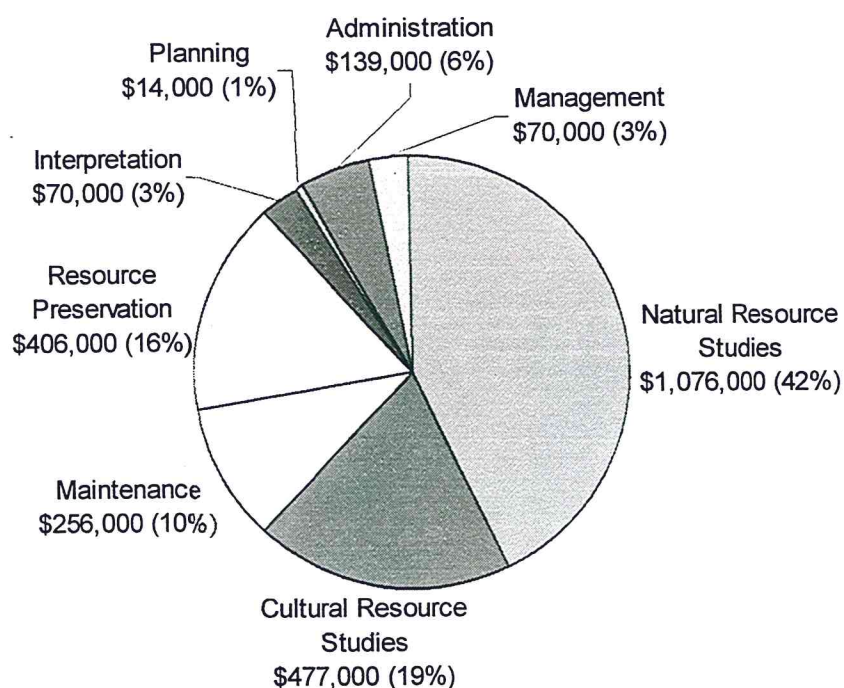
Existing facilities were made more energy efficient and alternative energy systems were improved in remote locations. Historic structures were stabilized and maintained. Fee revenues available from a general fund were used to provide public restrooms at the Eagle visitor center where backcountry orientation and information will be available to the public.

\$159,000 for Park Administration

The computer network in the Fairbanks office was upgraded. In Eagle, network connectivity was upgraded and improved.

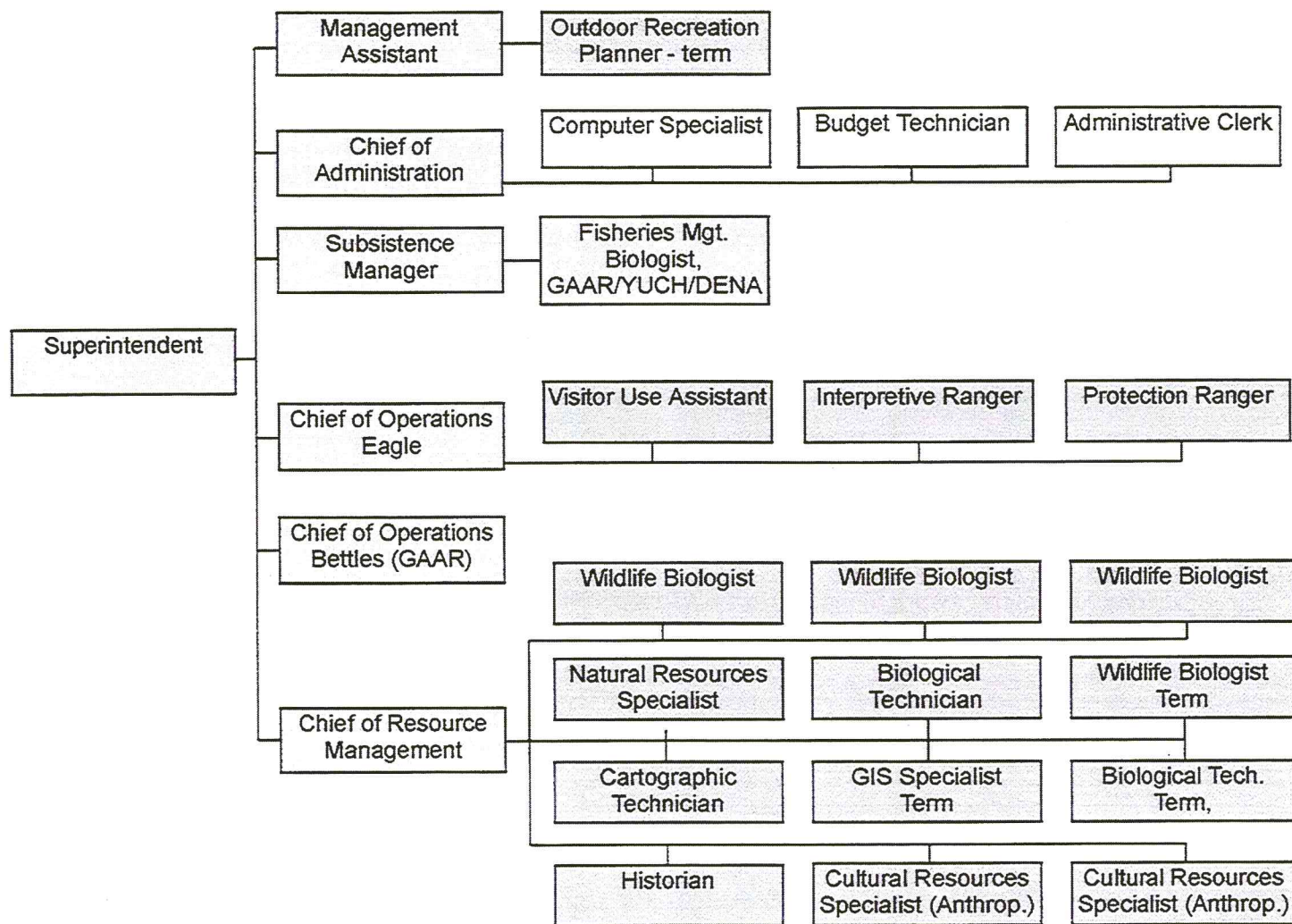
All Sources of Park Funding

\$2,508,000 Total



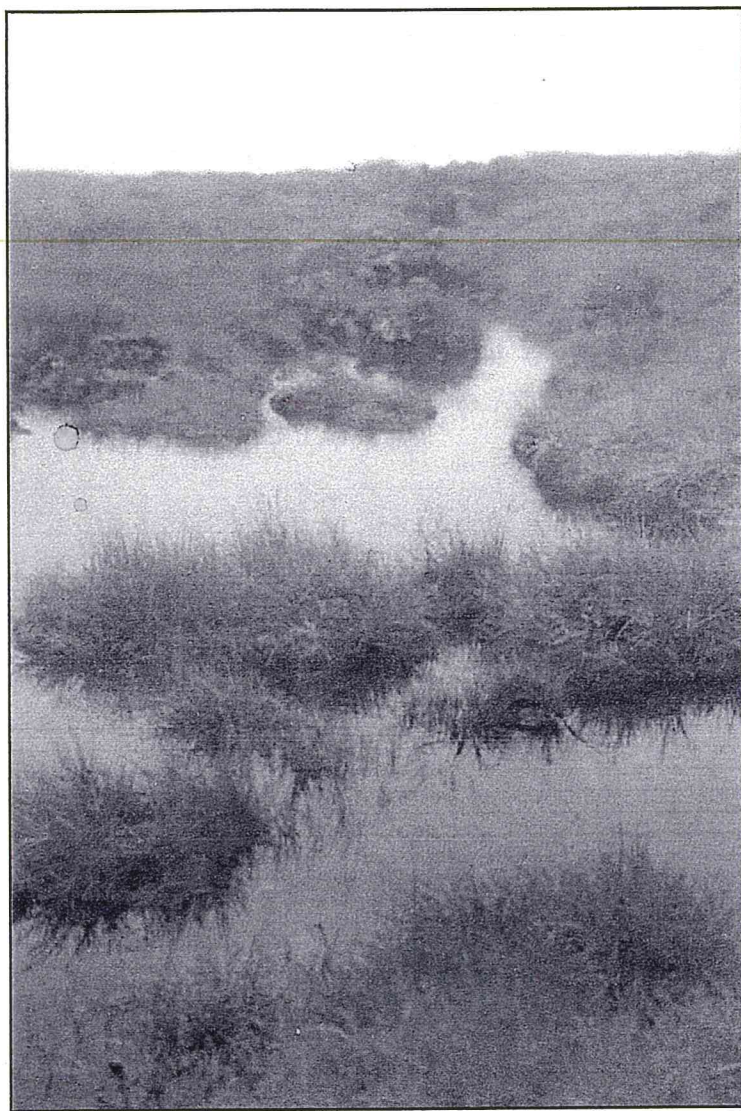
Park Organization

Yukon-Charley Rivers National Preserve Organizational Chart



Note: All positions are shared with Gates of the Arctic National Park and Preserve except those under the Chief of Operations in Eagle.





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

EXPERIENCE YOUR AMERICA

U.S. Department of Interior • National Park Service