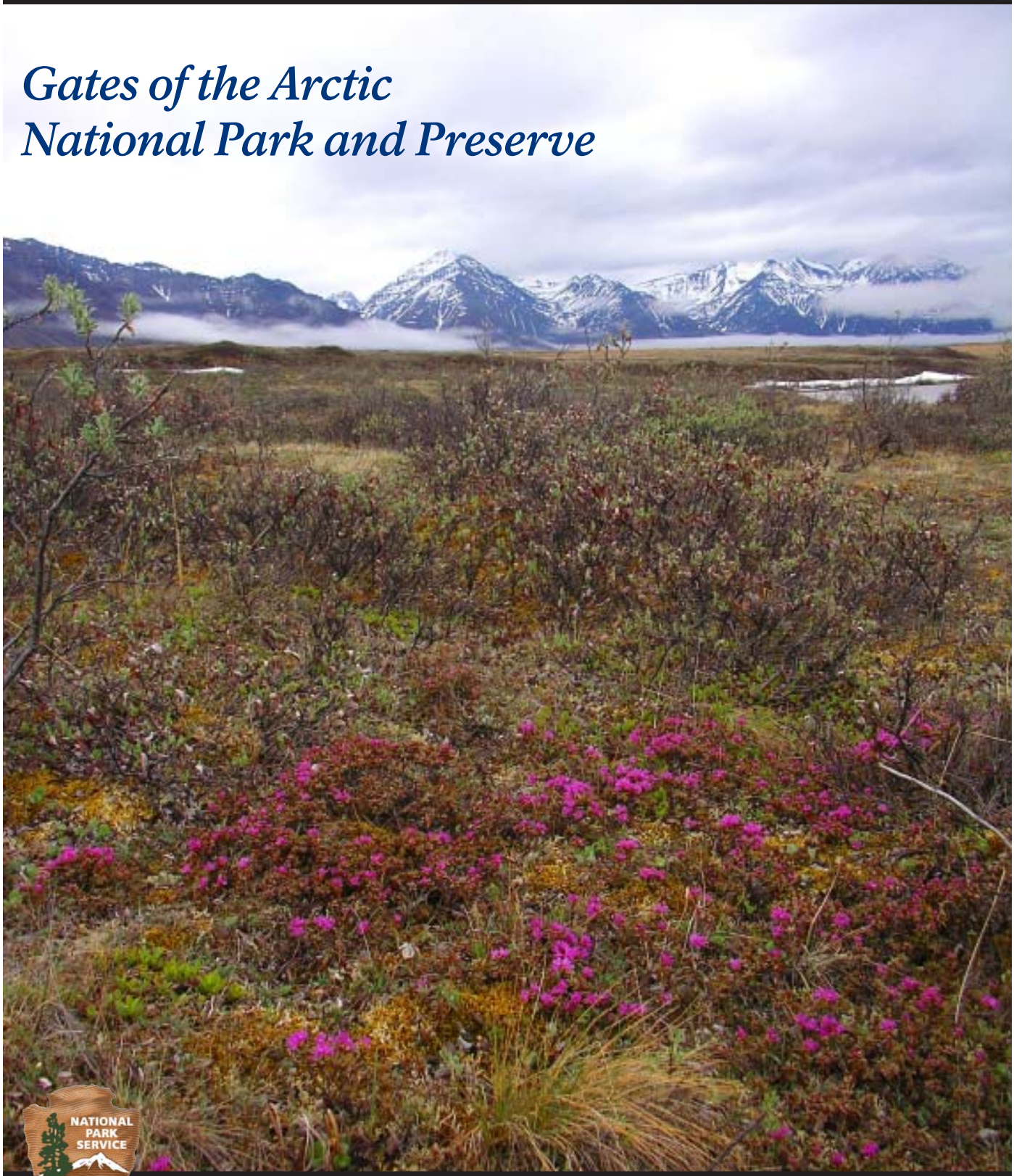
Annual Report **2006**

Gates of the Arctic National Park and Preserve



National Park Service
Department of the Interior

The Arctic has a call that is compelling.
The distant mountains make one want to go on and on
over the next ridge and over the one beyond.
The call is that of a wilderness known only to a few...
This last American wilderness must remain sacrosanct.

William O. Douglas

Message from the Superintendent

I am pleased to present Gates of the Arctic National Park and Preserve's Annual Report for 2006. This report, a collaborative effort by the staff for the past six years, represents many of the diverse programs crucial to managing this National Park. Special thanks go to all who contributed articles to this report, but especially to Donna DiFolco who has organized, designed, edited and been the leader for this annual tradition since its inception.

It has now been 12 wonderful years since I began as the fourth superintendent of the national park that many consider one of the most remote and wild in the country, if not the world. Through the years, our capacity to appropriately provide stewardship to this 8.5 million acre protected area has diversified and improved, especially in the natural and cultural resources fields. During the last decade we have expanded and professionalized our expertise from a few seasonal biological technicians and no cultural staff to a collection of scientists in many fields, including anthropology, archeology, wildlife biology, fisheries, aquatic biology and fire sciences. Most of these specialists also provide services to other national park areas. This past summer we moved into the new Fairbanks Administrative Center, home base for about 10 different National Park Service organizations that provide services throughout northern Alaska. This rented facility is adjacent to University of Alaska's main campus for science and research and will enhance our abilities for further collaboration on the many issues that face arctic communities and environments around the central Brooks Range.

Our field-based operations in the communities of Bettles, Coldfoot, and Anaktuvuk Pass continue to mature and improve our relationship with local communities and provide oversight for this large remote wilderness. This past summer our operational preparedness was tested when field staff responded to a plane crash that left two passengers critically injured at a remote location. Thanks to quick thinking and emergency training, our staff and community members from Bettles saved lives and assisted with getting the victims transported to emergency medical surgery hundreds of miles away.

I am very grateful for the many accomplishments of our organizations and collaborating partners over this past year as well as our ability to continue to improve the way we address many of the diverse challenges facing the Park. I hope you enjoy reading about the efforts highlighted in this report.

Sincerely,

Dave Mills
Superintendent
Gates of the Arctic National Park and Preserve
February 2007

Purpose and Significance

By establishing Gates of the Arctic National Park & Preserve in Alaska's Brooks Range, Congress reserved a vast and essentially untouched area of superlative natural beauty and exceptional scientific value – a maze of glaciated valleys and gaunt, rugged mountains covered with boreal forest and arctic tundra, cut by wild rivers and inhabited by far-ranging populations of caribou, Dall sheep, wolves, grizzly and black bears. Congress recognized that a special value of Gates of the Arctic is its wild, undeveloped character and the opportunities it affords for solitude, wilderness travel, and adventure. Gates of the Arctic encompasses several congressionally recognized elements including the national park, national preserve, wilderness, six wild rivers, and two national natural landmarks. The National Park Service is entrusted to manage this area to protect its physical resources and to maintain the intangible qualities of the wilderness and the opportunity it provides for people to learn and renew its values.

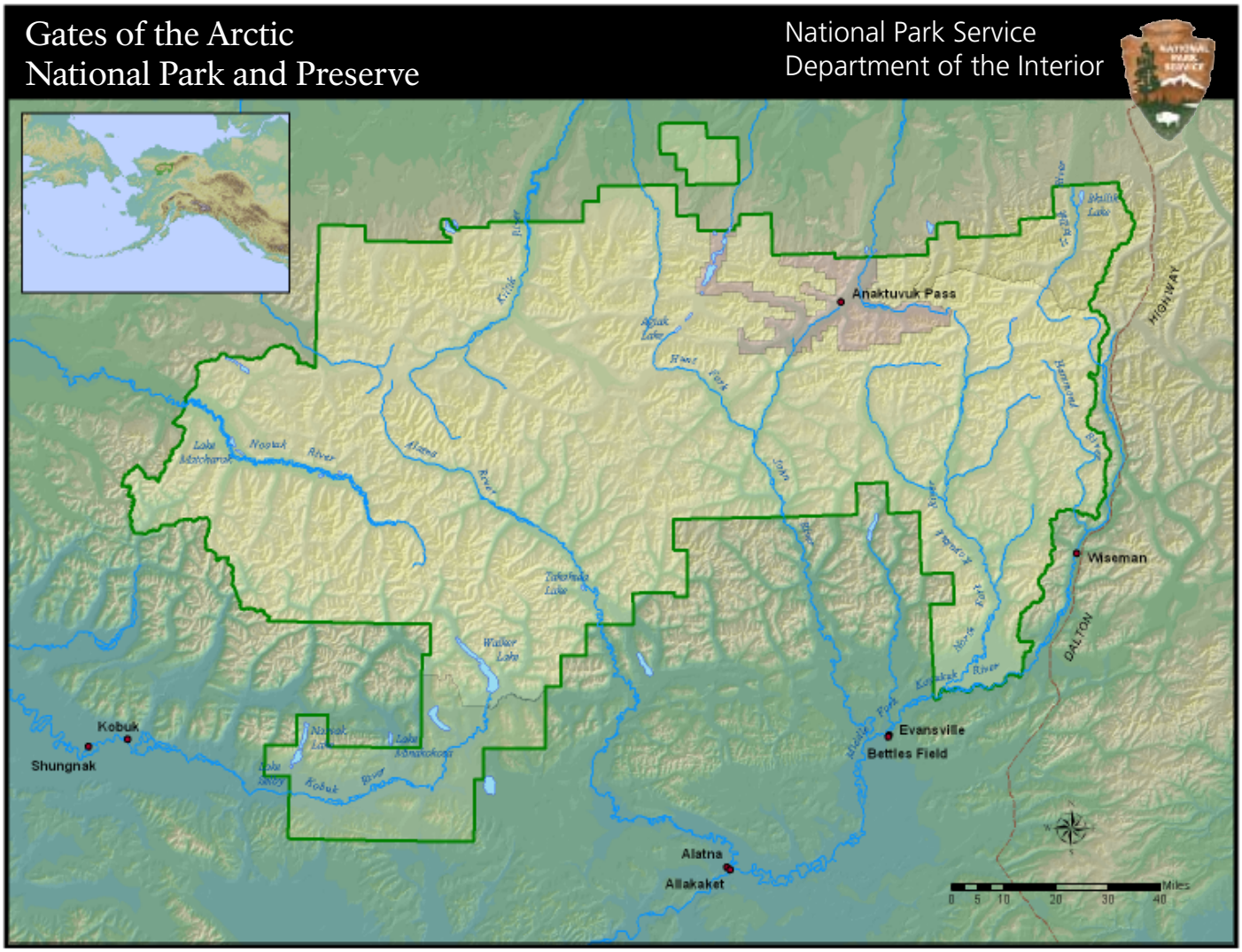
The Arrigetch Peaks are exemplary of the "wild and undeveloped character" of the land that Gates of the Arctic was established to preserve.

Purpose of Gates of the Arctic National Park and Preserve

- Preserve the wild and undeveloped character and natural environmental integrity—including natural processes, habitat, and biodiversity—of the central Brooks Range;
- Provide opportunities for appropriate wilderness recreational activities and solitude; and
- Allow rural residents engaged in a subsistence way of life to continue to do so.

Significance of Gates of the Arctic National Park and Preserve

- Gates of the Arctic is the central component of a 40-million-acre contiguous, undeveloped protected area, one of the largest protected areas in an increasingly developed world.
- Due to its vastness and undeveloped character, Gates of the Arctic provides outstanding recreational wilderness opportunities.
- Gates of the Arctic protects the core of the traditional homelands of the Nunamiut peoples.
- The area inspired Bob Marshall, who coined the term "Gates of the Arctic," and was one of the earliest proponents of arctic preservation and one of the founders of the American wilderness system.
- Gates of the Arctic exemplifies an intact, high latitude arctic ecosystem with its corresponding natural processes, flora, and fauna.



Gates of the Arctic National Park and Preserve lies north of the Arctic Circle in the central Brooks Range of Alaska. Visitors to the Park typically access the area via the Dalton Highway and hike in, or by air. Commercial carriers serve Bettles and Anaktuvuk Pass, where the Park maintains field offices. Air charter operators based in Bettles fly visitors into the Park using float planes that land on many of the larger lakes and rivers.

Visitors to Gates of the Arctic are encouraged to check in at one of the Park's field offices in Bettles or Anaktuvuk Pass, or at the Visitors Center in Coldfoot prior to their trip. Park Rangers and VIPs offer orientations which brief visitors in safety issues and Leave No Trace camping techniques.

Visitors are encouraged to practice "Leave No Trace" techniques while travelling in the Park so that everyone may enjoy the same pleasures of pristine wilderness and joys of discovery.

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M. Syndonia Bret-Harte, Martin Sommerkorn, Peter M. Ray, Andrew W. Balser, Kenneth D. Tape, Gregory R. Goldsmith, Lis Sufke, and Andrew McCarthy all contributed to the article on the Arctic I&M program's work studying the potential advancement of tree-line and shrubs in the Noatak.

Editing and Layout

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Photos

by the National Park Service, unless noted otherwise

Cover photo: Rhododendron bloom in the Itkillik River corridor in Gates of the Arctic National Park and Preserve.

Printed on recycled paper.

Preserve Resources

Natural and cultural resources and associated values at Gates of the Arctic National Park and Preserve are protected, restored and maintained in good condition and managed within their broader ecosystem and cultural context.

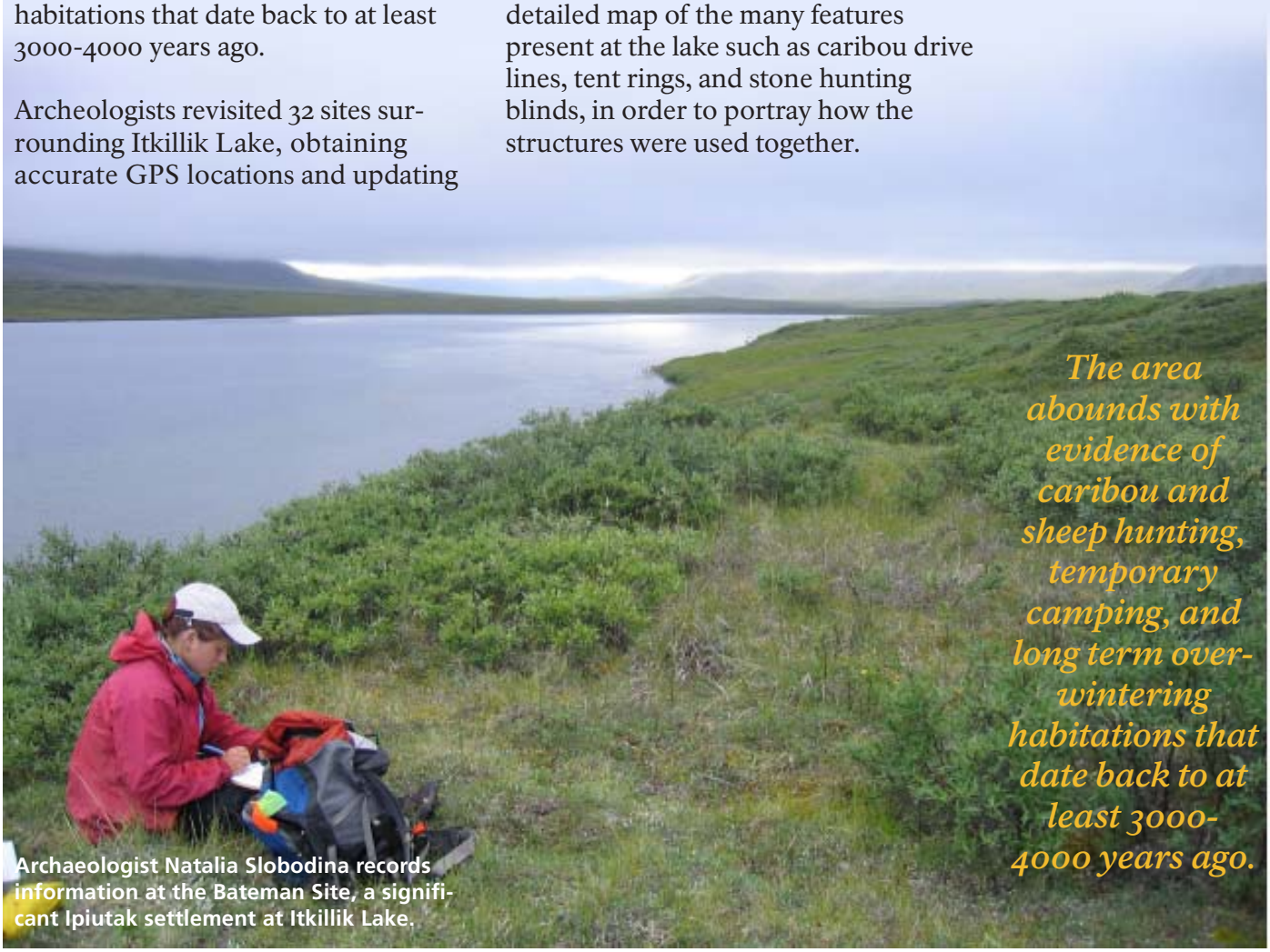
Itkillik Lake Archeology and Cultural Landscape Documentation

By Jeff Rasic

Itkillik Lake was a hot spot for prehistoric and more recent human activity. The area abounds with evidence of caribou and sheep hunting, temporary camping, and long term overwintering habitations that date back to at least 3000-4000 years ago.

Archeologists revisited 32 sites surrounding Itkillik Lake, obtaining accurate GPS locations and updating condition information for them. The team also located 2 previously unrecorded sites.

The goal of this project was to create a detailed map of the many features present at the lake such as caribou drive lines, tent rings, and stone hunting blinds, in order to portray how the structures were used together.



Archaeologist Natalia Slobodina records information at the Bateman Site, a significant Ipiutak settlement at Itkillik Lake.

The area abounds with evidence of caribou and sheep hunting, temporary camping, and long term overwintering habitations that date back to at least 3000-4000 years ago.

Left: A 5,200-year-old spearpoint from the Rosaliya site.

Right: Archeologists examine sites at Kipmik Lake.

Archeologists Glean More Information from Prehistoric Sites

By Jeff Rasic

Archeological Site Condition Assessments at Lake Kipmik

Archeologists spent a week at Kipmik Lake in the upper Noatak River drainage revisiting a series of sites first recorded in the 1960s and 1980s. Sites surrounding the lake date to as old as 4,000 years ago and include two important Late Prehistoric age villages (dated to ca. 400 years ago). Archeologists revisited 16 sites and obtained accurate GPS locations and updated condition information for them. The team also located 14 previously unrecorded sites, which were mostly prehistoric stone tool scatters, but also included a caribou drive line system.

Rosaliya Site Excavations

A team of archeologists, led by University of Alaska Anchorage student Natalia Slobodina, conducted small scale test excavations at the Rosaliya site in the northwestern part of the park. The site, first discovered in 2003, is interesting because it contained a dense scatter of artifacts that reflect a very brief period of occupation, perhaps a few days or even hours, and therefore represents a time capsule of sorts of a very specific set of activities. Artifacts included hundreds of delicate stone microblades, several microblade cores, and a few large spear points. The site also contained a preserved fire hearth with charcoal that was radiocarbon dated to 5,200 years ago.

Tingmiukpuk Site Geoarcheological Assessment

Radiocarbon dates of 8,000 years were obtained in the 1990s from samples collected at this site, named after the Inupiaq term for golden eagle. The site has potential to be the oldest radiocarbon dated site in the park, but archeological materials have not yet been securely placed within the stratigraphic sequence. Work in 2006 sought to determine the age and geological context of the site's artifacts. Mounting evidence is suggesting that the site is in fact about 3,000 years old, yet it remains one of the more interesting sites in the park, given its unique geological archive, and the fact that it contains spear points and butchering tools that suggest it was a caribou kill site, a type of site rarely seen in the archaeological record of northern Alaska.

Inactive Fire Season Allows Fire Management Helicopter to Support Other Projects

By Andrew Ruth

Aside from the Parks Highway fire in the beginning of the summer, the Alaska fire season of 2006 was not an especially active one. The helicopter contracted to Alaska Eastern Area Fire Management (EAFM) was therefore tasked to a variety of operations in support of other projects within Gates of the Arctic National Park and Preserve, Yukon-Charley Rivers National Preserve, Wrangell-St. Elias National Park and Preserve, and other areas.

In Gates of the Arctic, EAFM supported Resource Management Specialist Jobe Chakuchin with the sling load removal of 28 fuel drums in the Iniakuk River drainage that were abandoned in 1964.

The EAFM helicopter also helped with other agencies' projects including shuttling brown bear researchers in Kenai National Wildlife Refuge and transporting State of Alaska radio technicians to radio repeaters in the Copper River drainage.

Above, NPS Fuels Technician James Savage readies a load of abandoned fuel drums to be hoisted by the EAFM helicopter from the Iniakuk River drainage in Gates of the Arctic National Park. Over the course of the summer, the EAFM team safely and efficiently completed complex helicopter operations while assisting Park resource staff and other agencies' personnel.

A total of 1,125 fuel drums were hauled out of the Iniakuk River drainage. Of these, 385 gallons of diesel were donated to the Bettles fire department. The remaining 840 gallons were sent to Anchoarage for recycling. The metal drums were also recycled.

Jobe Chakuchin, Resource Management Specialist, GAAR

Noatak River Impact Monitoring Shows Recovery

By Jobe Chakuchin

Out of 13 sites observed in 2001, only 4 sites had measureable impacts in 2006... This represents roughly 72 percent recovery of impact edge measurements.

This year marked the fifth year for revisiting impact sites along the Noatak River. Many changes have occurred in the area between 12 Mile Slough to Matcharak Lake, the most popular put-in and take-out points. Out of 13 sites observed in 2001, only 4 sites had measureable impacts in 2006. Impact edge measurements went from 506.44 square meters in 2001 to 141.48 square meters in 2006. This represents roughly 72 percent recovery of impact edge measurements.

Some reasons for this dramatic change could be directly related to a decrease in visitation along the upper Noatak River in the last 5 years. Informal queries indicate a decrease in Noatak River business from air taxi operators based in Bettles. Other contributing factors include the education efforts by park staff about minimum impact camping.

Visitors are encouraged to camp on gravel bars away from the put-in and take-out points. This information is also prominantly displayed on the park website and repeatedly articulated by park staff in Bettles.

The location of these sites may have something to do with their recovery as well. Minor changes in the river course and their tributaries accounted for the recovery of 7 sites. These sites are on low benches and are susceptible to influence from rising waters during seasonal floods. In its short history, since observations began in 1982, a total of 22 sites have been observed along the upper Noatak River. While there are bound to be further changes, a majority of these sites are clearly gone and indiscernible even as former sites.

Jennifer Reed with U.S. Fish & Wildlife Service and Jobe Chakuchin measure the impact edge of a site on the Noatak River.

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: Species of Management Concern. By September 30, 2008, 33% (3 of 9) species of management concern in Gates of the Arctic have improved information regarding their occurence, distribution, and abundance in the park, subject to availabilityof funding.

Annual Goal: By September 30, 2006, 11% (1 of 9) species of management concern in Gates of the Arctic will have improved regarding their occurence, distribution, and abundance in the park, subject to availabilityof funding.
GOAL ACHIEVED

Moose Population Numbers Still Low in Upper Kobuk

By Jim Lawler

The Alaska Department of Fish and Game and the National Park Service cooperatively surveyed moose in a 4,001 mi^2 (10,363 km^2) area in the upper Kobuk River drainage during April of 2006. This survey was undertaken because of reports that moose densities were low and declining in this area, and to compare population levels to surveys conducted in this area in 2003 and 1995. Our objective in this study was to update our understanding of the upper Kobuk River moose population.

Results from April 2006 indicated that the density of moose was 0.18 moose per mi^2. This was roughly the same as the 2003 density estimate in the same area. Both the 2003 and 2006 estimates were substantially lower than a 1995 estimate of 0.57 moose per mi^2 for a survey conducted in a portion of the 2003 and 2006 survey area. Densities of moose calves were the same in 2003 and 2006 at 0.02 calves per mi^2 and calf density during those two years was substantially less then densities observed in 1995 (0.06 calves per mi^2).

An estimate of 0.20 moose per mi^2 is extremely low and indicates the need for a conservative approach to managing moose in the upper Kobuk River drainage. Moose population numbers are low enough to warrant maintaining the current conservative harvest levels to prevent hunting from reducing the population.

See the final report of this study online at: www1.nature.nps.gov/im/units/arcn/products_technical_reports.cfm.

An estimate of 0.20 moose per square mile is extremely low and indicates the need for a conservative approach to managing moose in the upper Kobuk River drainage.

Distribution, Abundance of Smith's Longspur in Brooks Range

By Melanie Wike

Scant data exist for the Smith's Longspur, a songbird known to breed in the Brooks Range of Alaska. As one of the least known North American birds with a restricted range and small population size, Smith's Longspur has been listed as a species of high conservation concern by Boreal Partners in Flight, the 1999 Landbird Conservation Plan and the Canadian Wildlife Service. Effective conservation of a species requires knowledge of its ecology, abundance, distribution, population dynamics, habitat requirements and threats throughout the year, in both its summer and winter ranges and along its migratory route.

Photo by A. Swingley

In a collaborative effort, the National Park Service and U.S. Fish and Wildlife Service developed a pilot study to assess the distribution, abundance and phenology of Smith's Longspurs in the Brooks Range at Sunset Pass, Arctic National Wildlife Refuge, and along the Itkillik River in Gates of the Arctic National Park and Preserve. We hope to continue our partnership with the U.S. Fish and Wildlife Service in Arctic National Wildlife Refuge and the Bureau of Land Management in National Petroleum Reserve, Alaska, to study these birds across the Brooks Range.

Accomplishments from June 2006 study include:

- ✧ Identifying the general distribution of Smith's Longspur in the Itkillik River corridor and Sunset Pass;
- ✧ Identifying Smith's Longspur breeding habitat (macro scale around adults, micro scale around nests);
- ✧ Documenting the timing of nesting (further work planned for 2007); and
- ✧ Documenting behavior of breeding adults (again, further study planned).

Four Smith's Longspur eggs blend into their grassy surroundings in a nest in the Itkillik River corridor.

Law enforcement ranger Teri McMillan assists in conducting research on Smith's Longspurs along the Ikillik River corridor, June 2006.

Arctic Network Begins Monitoring Possible Tree-line, Shrub Advance

By M. Syndonia Bret-Harte, Martin Sommerkorn, Peter M. Ray, Andrew W. Balser, Kenneth D. Tape, Gregory R. Goldsmith, Lis Sufke, Kumi Rattenbury, Andrew McCarthy and Diane M. Sanzone

Shrub expansion and treeline advance are two of the largest land surface changes expected with climate warming in arctic tundra ecosystems, and are already occurring in some places on the Alaskan North Slope. A transition from tundra to shrubs or shrubs to forest changes fundamental ecosystem functions such as plant productivity, regional climate, nutrient dynamics, hydrology, and wildlife habitat. In addition, vegetation transitions inherently change the character of a landscape and may affect visitor perceptions.

This collaborative project assessed the potential for shrub expansion in the upper Noatak River Basin in Gates of the Arctic National Park and Preserve and Noatak National Preserve. Vegetation and soils were characterized along 9 transects within existing shrub populations between 12-mile Slough and Kavachurak Lake. Plant community composition and structure, and accompanying soil characteristics were measured.

The shrub sites we sampled in the upper Noatak contain a highly diverse understory of forb and prostrate deciduous shrub species, with relatively few evergreen shrub species. Approximately 132 different plant specimens were collected, of which 47 represented species not previously known to occur along the upper Noatak River, and 7 represented species not previously known to occur anywhere in the Noatak Basin.

Of the various shrub sites we encountered in the upper Noatak, those dominated by alder (*Alnus crispa*), shrub birch (*Betula glandulosa*), and balsam poplar (*Populus balsamifera*) all showed evidence of relatively recent expansion via seedling establishment. Saplings of all 3 species were encountered, but were not highly abundant. Alder saplings were most evident in hillslope areas, where erosion had occurred. It is possible that increased slope movement due to climate change could mediate alder expansion via seedling establishment. Birch saplings were less frequent, and were primarily seen on river terraces. Poplar saplings were seen in both stands of poplar that were assessed, on soils with a minimal organic horizon.

The low abundance of seedlings and sapling suggests that clonal growth of existing shrub individuals is also likely to be an important mechanism of shrub expansion in the upper Noatak, as it is across much of the North Slope of Alaska. Baseline photographs of vegetation and soils that were taken along our transects will provide a means of assessing future shrub expansion caused by both clonal growth and establishment of new individuals.

A transition from tundra to shrubs or shrubs to forest changes fundamental ecosystem functions such as plant productivity, regional climate, nutrient dynamics, hydrology, and wildlife habitat.

Andrew McCarthy of the Alaska Regional National Park Service office weighs samples as part of a NPS Inventory and Monitoring project to investigate the possible expansion of shrubs in the Noatak River Valley. The red umbrella acts as a wind shield for the sensitive scale.

Archeological Inventory on the Killik River

By Jeff Rasic

Recent work has shown that the Killik River valley contains the densest concentration of known archeological sites in the central Brooks Range that document an estimated 8000 years of human occupation.

Archeologists continued a three-year effort to identify and document archaeological sites on the Killik River. In 2006, crews found 59 new sites, which consist primarily of prehistoric stone tool scatters. Recent work has shown that the Killik River valley contains the densest concentration of known archeological sites in the central Brooks Range that document an estimated 8000 years of human occupation. Archeologists have also found that the archeological record in this area is a vulnerable one as it is frequently exposed on the surface and prone to impacts from erosion and collecting. Our inventory is an attempt to take stock of this resource and design ways to protect the information contained in the sites.

A modified fuel can was found at a cabin site during the Killik River archeological inventory.

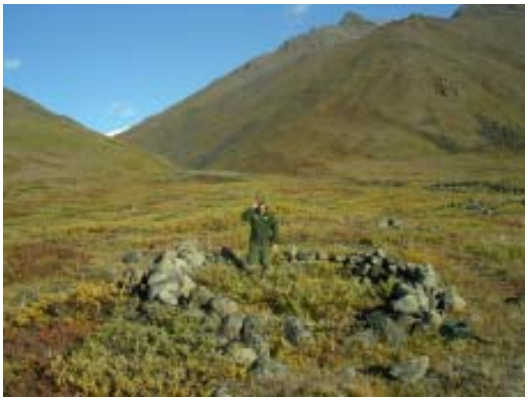
Below, seasonal NPS archeologist Andy Tremayne works at a rock cairn along the Killik River.

Archeological Discoveries by Rangers, Residents and Guides

By Seth McMillan

Rock Structures in Itkillik Preserve

A hunting guide discovered a new archeological feature in the Itkillik Preserve. A preliminary site visit by rangers found four major rock structures. The one seen here is about a 10-foot diameter circle. Another nearby structure is a 10- by 15-foot rectangle. The walls of both structures are three feet high constructed of heavy rocks that would have required two or more people to lift and set.



Mammoth Tusk Discovered by Anaktuvuk Pass Residents

While hunting caribou in the upper John River valley, Anaktuvuk Pass residents Mickey Paneak and Mike Moore found an 8-foot-long mammoth tusk. The tusk was found on private lands within Gates of the Arctic National Park. Park Archeologist Jeff Rasic has examined the tusk and collected samples for carbon dating. Currently the tusk is on display in the Simon Paneak museum.

Historic Miner's Cabin on Koyukuk

Rangers discovered an old miner's cabin along the Middle Fork Koyukuk River. Although the cabin collapsed long ago, clues remain to help historians piece together the story of its inhabitants. A refuse pile near the cabin will help date the use of the cabin. A series of trenches contoured into the hillside and associated small dams in a nearby creek are evidence of the miners' activities.

Cultural Resource Database for Allakaket and Alatna

By Dave Krupa

NPS cultural resource staff contracted with Tanana Chiefs Conference to produce a database and annotated bibliography of cultural research relating to the resident zone communities of Alatna and Allakaket. Materials referenced in the database include publications, reports, maps, newspaper articles, journals, and even archival material such as historic photographs and artifact collections. This project was designed to provide a comprehensive, searchable database of existing cultural resource information, research, and publications and will be expanded to include other resident zone communities in the near future. The effort responds to local concerns that research is often conducted in local communities without sufficient efforts to *return* the results, reports, and products to their communities of origin. This comprehensive database will be of benefit to local communities, prospective researchers, and resource management agencies for identifying future cooperative research needs in and around Gates of the Arctic National Park and Preserve.

Project Jukebox Continues to Expand

By Dave Krupa

"Project Jukebox" continues to expand with new interviews added for both Gates of the Arctic and Yukon-Charley Rivers National Preserve. Beginning in the early 1990's and in cooperation with the University of Alaska Fairbanks Oral History Program, NPS sponsored the development of multimedia oral history databases that allow park planners, staff, local communities, and virtual visitors to hear and experience accounts of life in and around Alaska's premier parks and preserves. These "Jukebox" projects integrate oral recordings with maps, pictures, and text in an interactive computer program. These programs have been migrated to a web accessible format and the entire corpus of programs can now be found at: www.uaf.edu/library/jukebox.

Developments from 2006 include the addition of a "People of the Brooks Range" module to the existing Gates of the Arctic Jukebox, bringing the total number of featured interviewees to 75. A new Jukebox focusing on the Dalton highway and the pipeline corridor has been funded and is in the planning stages. Interviewees have been contacted and the project calls for the inclusion of 14 interviews.

Gates of the Arctic Archeology in Print: Reports and Articles, 2006

Esdale, J. and Gal, R. (2006) Archaeological Investigations in Anaktuvuk Pass: Nunamiut Students Uncover their Past. *Alaska Park Science* 5(2):10-17.

Rasic, J. T. (2006) Excavations at the Hungry Fox Archaeological Site, Gates of the Arctic National Park and Preserve. *Alaska Park Science* 5(2):30-37.

Wilson, A. (2006) *A Hunting Landscape: The Archaeology of Agiak Lake, Central Brooks Range, Alaska*. Gates of the Arctic Cultural Resource Studies Technical Report No. 10. National Park Service, Fairbanks.

New Museum Collections

We catalogued 6,953 new museum specimens this year, bringing the total number of items in our collections to 67,439. New cataloging included artifacts and samples from recent archeological site testing. Our museum collections also contain archives, and ethnology, history, biology, paleontology and geology items.

Provide for Public Enjoyment and Visitor Experience

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, 2008, 95% of visitors to Gates of the Arctic National Park and Preserve are satisfied with appropriate park facilities, services, and recreational opportunities.

Annual Goal: By September 30, 2006, 95% of visitors to Gates of the Arctic National Park and Preserve are satisfied with appropriate park facilities, services, and recreational opportunities.
GOAL EXCEEDED

Cleanup Begins at Chandler Lake

By Seth McMillan

Operations staff began the initial phase of a clean up project in the Chandler Lake area. In July rangers recorded the location of approximately 130 empty 55 gallon drums and 700 empty fuel cans scattered along the margin of Big and Little Chandler Lakes. These lakes were a popular aircraft fueling stop in the north-central Brooks Range during the initial surveys of the area in the 1950s and 1960s by the Department of Defense (DOD). The site had been previously reported to the DOD for clean up.

Ranger Seth McMillan is working with Natural Resource Specialist Jobe Chakuchin of Gates of the Arctic's Resource Division to organize the clean up at Chandler Lakes. They are pursuing assistance from DOD and Army Corps of Engineers through the Native American Land Environment Mitigation Program.

Big and Little Chandler Lakes are popular subsistence hunting and fishing areas for the residents of Anaktuvuk Pass. The National Park Service plans to include residents and high school students from Anaktuvuk Pass in a cooperative effort to clean up the area.

Empty fuel drums clutter the margin of Little Chandler Lake (background photo). The National Park Service is working to remove these and piles of empty fuel cans at Chandler Lake (below).

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. By September 30, 2008, 90% of Gates of the Arctic National Park and Preserve visitors understand the significance of the park.

Annual Goal: By September 30, 2006, 90% of visitors to Gates of the Arctic National Park and Preserve understand the significance of the park.
GOAL EXCEEDED

Gates of the Arctic Junior Ranger Booklet Created

By Tracie Pendergrast

The Student Conservation Association awarded Gates of the Arctic with a Junior Ranger Ambassador grant for the summer of 2006. Our ambassador, Kat Sever, worked on Junior Ranger Programs for both Gates of the Arctic and Fairbanks Alaska Public Lands Information Center. Although her season was short she did a huge amount of work and brought the project to 90% completion. The Junior Ranger Booklet will be available for use this spring in our educational outreach programs. They look great, with lots of fun activities. Children will love them!

The Junior Ranger Ambassador Program has as its goal to develop Junior Ranger programs for park units that do not already have one. The grant was paid by Ocean Spray Cranberries and administered through the National Park Foundation.

Kat Sever, Junior Ranger Ambassador for Gates of the Arctic in 2006, created Junior Ranger booklets that will be used in the Park's educational outreach programs.

Educational Outreach

By Tracie Pendergrast

Children in the Fairbanks North Star Borough School District enjoyed four educational programs about Gates of the Arctic this year. The programs were well received and we are poised to grow next year. While it will be easy to increase our presence in Fairbanks, the challenge will be to foment educational outreach in the rural communities surrounding the Park.

Program	Presentations	Participants
Skins and Skulls Alaskan Mammals	21	452
Ranger Backpack Leave no Trace	26	305
NPS History ANILCA	6	166
Geobear	4	104
Moose Preschool Program	2	18
Job Fair and Science Fair	NA	30
Totals	**59**	**1,075**

Reaching the World through the Web

By Tracie Pendergrast

This summer we met the minimum requirements for a new website that conforms with the official National Park Service standard website format. This was a huge effort, and we appreciate the input and critiques from everyone who helped make it a better website. This process is ongoing, and although the website offers new opportunities for outreach, there remain large gaps and missing information. Park staff are encouraged to contribute by developing pages for their programs and research.

The world can visit our website at **www.nps.gov/gaar.**

Interpretive Programs Reach Thousands of Visitors

By Tracie Pendergrast

A total of 167 interpretive programs were delivered to 2,932 visitors. One hundred forty-nine backcountry orientations were given to 423 visitors.

Visitor safety and resource protection are the main focus of interpretive efforts at Gates of the Arctic. In 2006, visitors entering the park could receive back country orientations in Fairbanks, Coldfoot, Anaktuvuk Pass and Bettles.

This year our interpretation opportunities grew. The Arctic Interagency Visitor Center (AIVC) continued to offer interpretive programs to visitors traveling the Dalton Highway. Gates of the Arctic Interpretive Ranger Heidi Schoppenhorst led this effort with two interpretive programs and a new flower brochure. Ranger Schoppenhorst also helped seasonal ranger staff and Student Conservation Association volunteer develop programs. In all, National Park Service staff offered 7 different programs to visitors at the AIVC.

In Anaktuvuk Pass, Warbelows Air Service began offering guided trips. Several times a day visitors arrived in Anaktuvuk Pass and stopped by the Ranger Station where Ranger Gladys Parnell gave an interpretive program on Anaktuvuk Pass and Gates of the Arctic National Park and Preserve. In Bettles, Tracie Pendergrast gave interpretive programs when requested. Next year, interpretive programs will be offered at regular and predetermined times in Bettles.

Seasonal Ranger Clint Talley surveys the John River near the boundary of Gates of the Arctic National Park and Preserve.

Stevens Village Youth Joins Park Staff for a Season

By Seth McMillan

Carmen John joined Gates of the Arctic Operations staff for eight weeks as an intern with the Earth Work Quest Program. This internship program was initiated in 2006 with a mission to:

- ✧ inspire student interest in natural resource careers;
- ✧ build a natural resource workforce from northern Alaska rural communities; and
- ✧ bridge the gap between rural communities and natural resource professionals.

This program offers students the opportunity to experience working in the field of resource protection while allowing park staff and visitors the chance to learn more about Native Alaskan culture.

Ms. John, a student from the rural Alaskan community of Stevens Village, participated in two backcountry patrols, presented a program about Athabascan culture in the Arctic Interagency Visitor Center, and worked on a fish weir project on the Koyukuk River. Carmen's internship culminated with a summit gathering where she and other Earth Work Quest interns gave a presentation on their experiences and attended presentations by Native village elders, representatives from various agencies, and the University of Alaska Fairbanks Alaska Native Science and Engineering program.

Far North Films in Fairbanks

By Tracie Pendergrast

Gates of the Arctic partnered with U.S. Fish and Wildlife Service, UAF and the Fairbanks Arts Association to present the third annual Far North Conservation Film Festival. The Festival presented a diverse group of outstanding films about the conservation and sustainability of wildlife, wild places and cultures around the world. Nearly 400 people enjoyed the 2-day event.

The website of the 2006 Far North Conservation Film Festival contained listings of the films and show times, along with other information.

Ensure Organizational Effectiveness

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

New Space Meets the Needs of Fairbanks Staff

By Robyn Burch

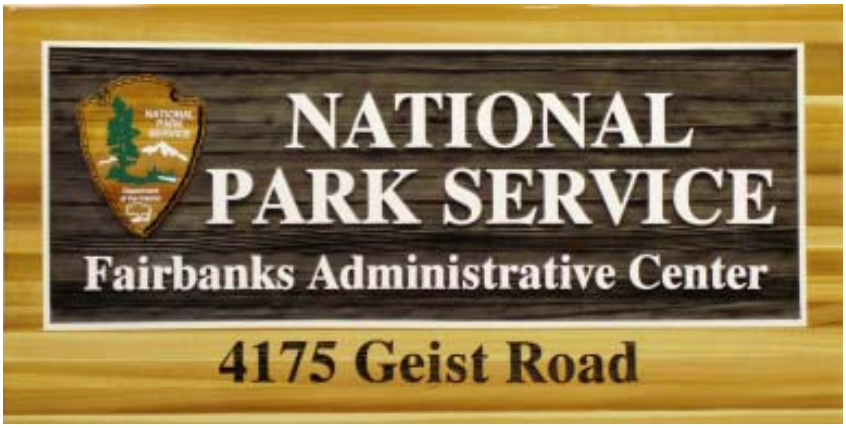
We had no storage, curatorial, or lab space, only one small meeting room, and the IT server room was a coat closet.

The National Park Service staff in Fairbanks had the rare opportunity to help plan, from scratch, an efficient, modern new office. Our lease in the Al Ketzler building had expired, and after twenty-some years, it was time to move. We had expanded from a small portion of the first floor to the entire level and had run out of room. We had no storage, curatorial, or lab space, only one small meeting room, and the IT server room was a coat closet. After determining our exact needs, GSA put out a bid for the construction of a new office and Jerry Sadler was given the bid.

We were extremely fortunate in that the owner and contractor both welcomed our involvement during the planning and construction of the new building. The regional IT staff helped us determine our needs and requirements for a server room and network infrastructure, and two NPS employees knowledgeable in curatorial requirements helped with the requirements for our curatorial space. Committees of Fairbanks staff helped with all aspects of the construction and move into the new building. Every staff member had a hand in helping to make this new office "ours."

To insure staff was kept informed our intranet site had information and photos posted regularly, meetings were held to update/ask questions, staff was asked to help in the committees or individually, and a bulletin board was dedicated to the new office – posting floor plans for comments, asking for ideas, selecting artwork and bike racks, etc.

Moving out of the old office and into a newly constructed facility was a huge undertaking and couldn't have been done at a busier time of year for much of the staff. With help from the committees established to organize our transition and many individuals that helped in the actual move process we moved out of the Al Ketzler building, emptied and cleaned, moved into the new building and had offices up and running with phones and network connections in under two weeks!



New furniture was ordered but delayed and much of the old furniture was excessed and so many staff were making due with folding tables and working from boxes. When the furniture arrived, again, the staff participated in helping to get the furniture checked in, put in the right offices, and all the finishing touches done including printing staff photos for framing, hanging artwork and bulletin boards, and recycling lots of cardboard boxes.

We now have a much more functional work space that is enjoyable to work in. Our new office provides us with additional office space for staff including a conference room, lab, curatorial space, and warehouse…none of which we had before. Previously we had to pay for hotel conference rooms for large all-staff meetings, utilize the UAF lab to do wet lab work, and had to lease storage units. Now all of this can be done within our office building. The office is located directly across from UAF and just a few miles from the airport which are two places staff travels to routinely. Being this close to both certainly increases the efficiency of dealing with both.

Building owners Jerry and Dawn Sadler cut the ribbon with YUGA Superintendent Dave Mills during the opening ceremony of the new Fairbanks Administrative Center.

We are now completely settled and very happy in our new digs. Not only was organization and communication the reason for our success but the huge involvement of all staff. It is a good feeling to know that we all had a say and something to contribute to make the building and our transition into it a complete and huge success, which we will certainly appreciate over the duration of our 20- year lease.

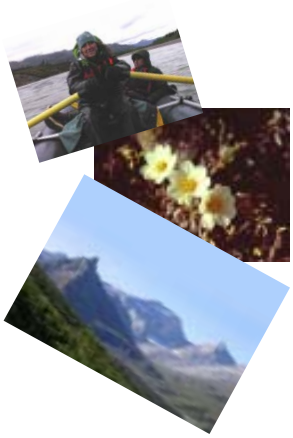
We now have a much more functional work space that is enjoyable to work in.

Creating Order from Chaos

By Tracie Pendergrast

A Photo Management Protocol and Plan for Gates of the Arctic is currently being developed by Rangers Teri McMillan and Tracie Pendergrast. We lost most of our slides when the old ranger station burned down, and the few digital copies we have are poorly labeled and do not address ownership. Each year rangers generate many more digital photos of varying degrees of

usefulness, quality and content. These photos are usually saved unlabeled to a folder that may be named by drainage and year. The result is an unwieldy and unusable stash of digital images. This summer the focus was on this year's photos. The organization is in place. We've also identified some photo quality issues that will be addressed next season.



Maintenance meets Environmental Management Plan in Bettles

By Julia Youngblood

As a part of our ongoing effort to make positive environmental protection changes in the Bettles NPS office and residence area, we undertook a project this past summer to change our underground fuel oil storage tanks for above ground tanks.

Three new above-ground storage tanks purchased in the fall of 2005 were delivered to Bettles over the ice trail in January. There they waited patiently for the ground to thaw and for permits to dig to be received. Along with permits from the Department of Transportation, we contracted with a local environmental engineering company in Fairbanks to be on-sight to inspect each hole for fuel contamination as the old tank was "yanked" from the ground.

In late July all was ready. Bettles maintenance mechanic RJ Johnson pumped existing fuel oil from the underground tanks into the new cubes, and with the help of Marion Creek maintenance mechanic Scott Schoppenhorst, installed piping into each of four residences. The housing and office were not without heat at any time during this process.

Then the fun began as each underground tank was dug out, carefully avoiding the sewer and water lines that ran close by. Tank #l, up and out with clean soil! Tanks #2 and #3 the same. Then Tank 4 surfaced and we had some contamination, most likely from an overfill incident. We corrected this by building a soil remediation site in the maintenance yard for about 10 cubic yards of contaminated soil and constructing an underground air circulation system to decontaminate the soil in the existing hole.

Now the new tanks are working great and it is so much easier to monitor the fuel filling as well as inspect the tanks monthly with everything above ground.

Another Environmental Management target checked off by our maintenance team!

Out with the old, in with the new... Bettles maintenance mechanic RJ Johnson (left) guides the removal of an underground fuel storage tank. The new above-ground storage tanks (right) will be easier to monitor and should prevent accidental overfill spills.

Financial Summary

Operating Budget Base Allocations (ONPS) Expenditure Highlights

Research & Studies: $500,000

We continued research and inventories of historic and prehistoric sites around the Killik and Itkillik rivers and Lake Kipmik. Site impact monitoring was completed on the Noatak River. Wildlife monitoring included a moose survey and monitoring Smith's longspur, a Species of Concern, in addition to several other research projects. Also, over 700 old fuel cans and drums were removed from the Chandalar River area – eliminating hazardous materials and significantly reducing future environmental problems.

Facilities Operation & Maintenance: $340,000

Significant and much needed improvements were made to the Bettles housing including flooring, painting and other interior work. Underground storage tanks were replaced with above ground tanks.

Resource Protection & Visitor Services: $815,000

A Junior Ranger booklet was developed to start off a Gates of the Arctic Jr. Ranger program. In addition, educational outreach in Fairbanks familiarized hundreds of students with the NPS mission and resources. Backcountry and hunting patrols were conducted to assure safety of visitors and protection of resources.

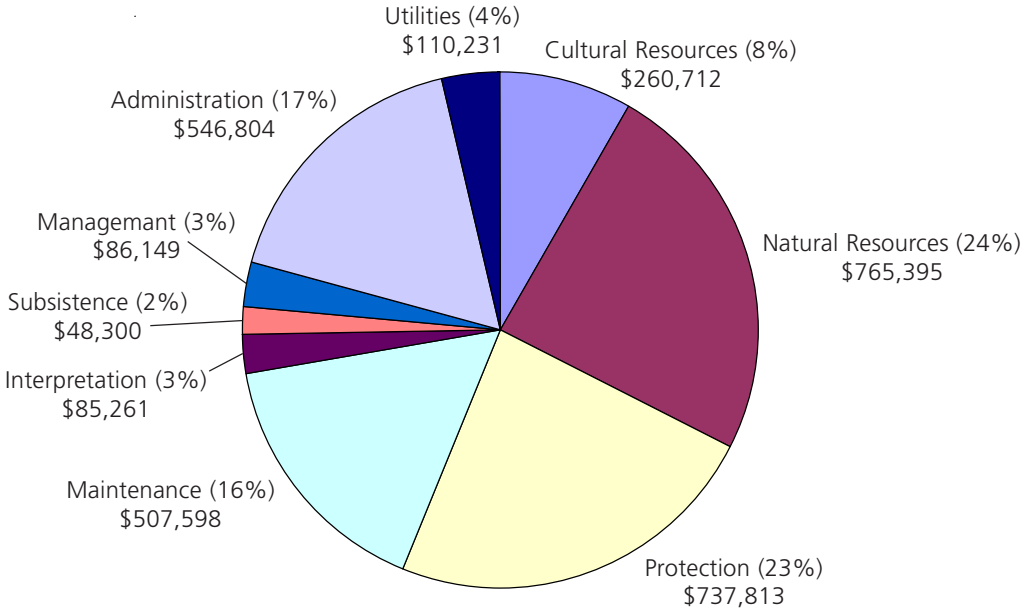
Management & Administration: $400,000

Our leased building was constructed and we were able to move in June. We installed a new phone and LAN system, replacing our very out-of-date equipment. We also installed TelNPS in the new Fairbanks office. Moving into the new facility was a huge undertaking but is a tremendous boost to our organizational effectiveness.

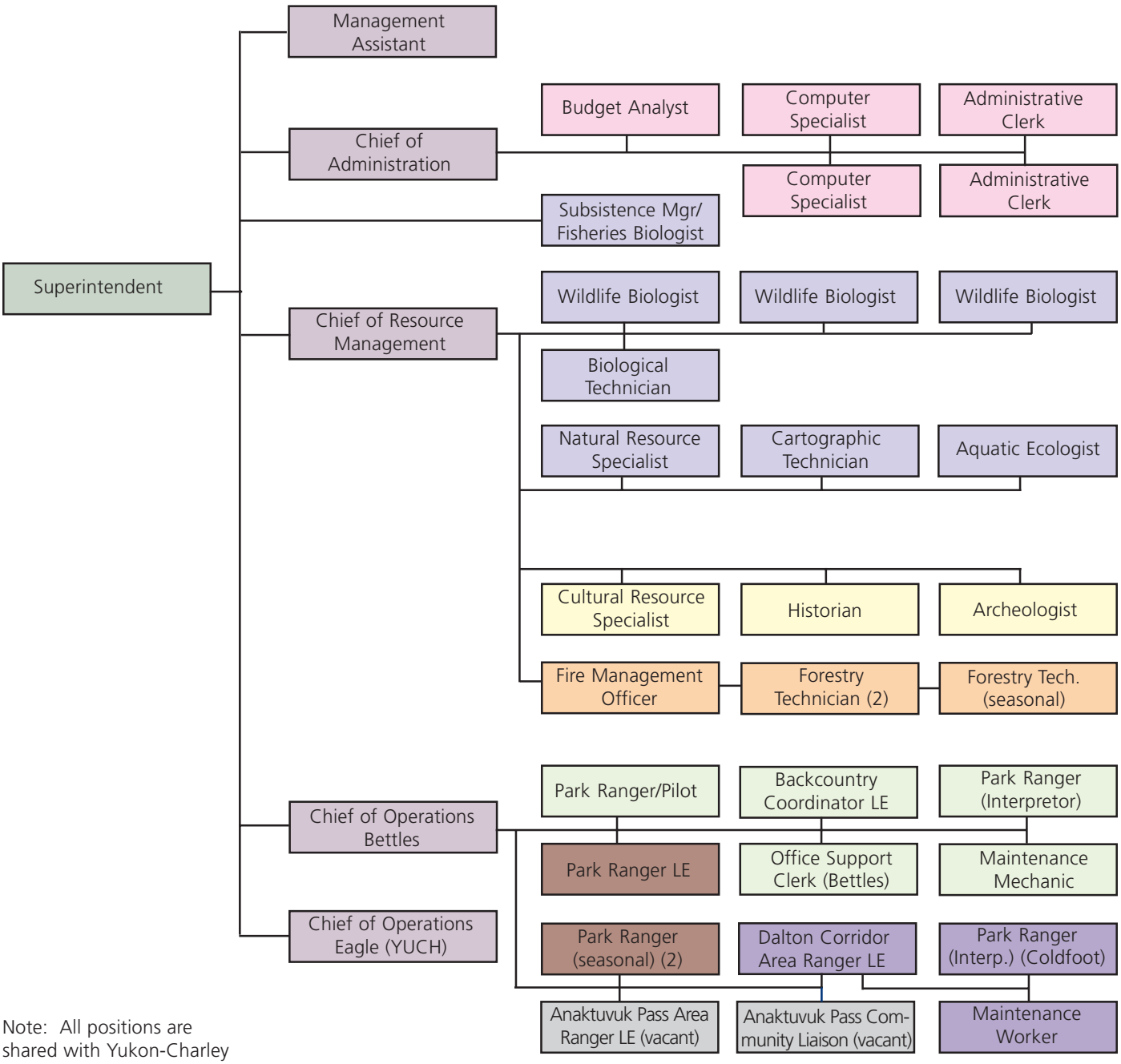
Accomplishments in 2006:

- ✧ Inventoried historic and prehistoric sites
- ✧ Surveyed moose
- ✧ Monitored Species of Concern
- ✧ Removed hazardous materials
- ✧ Remodelled housing
- ✧ Educational outreach
- ✧ Visitor safety
- ✧ Resource protection
- ✧ Moved into new facility

All Sources of Funding: $3,148,263



Gates of the Arctic National Park and Preserve Organization



Note: All positions are shared with Yukon-Charley Rivers National Preserve except those under the Chief of Operations in Bettles.

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

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