



RESOURCE MANAGEMENT NEWS

Summer 2009



A black oystercatcher (Haematopus bachmani) on the rocks in Kenai Fjords National Park. Recent research results highlight the importance of habitat conditions which help black oystercatchers avoid predators.

Summer is a busy season in Kenai Fjords National Park. Snow melts; bears emerge from their dens; work sites become accessible; and park staff, partners, and visitors arrive.

This spring the park marks the passing of 20 years since the Exxon Valdez oil spill of 24 March 1989. The event and aftermath remain a pivotal experience in park management.

The Resource Management program at the park encompasses all aspects of management, research, planning, and learning. This newsletter provides a few examples of what we anticipate doing in 2009 including: assessing environmental conditions and monitoring for change; protecting cultural resources such as archeological and historical features; compiling a history of the park; managing our information; providing for visitor experiences while maintaining natural processes; and encouraging best

management practices for resource protection and visitor enjoyment.

This year also brings many changes to the National Park Service. As this newsletter is being prepared, economic recovery legislation has the potential to address a host of long-standing issues—from rectifying safety concerns at abandoned mine lands to providing improved visitor facilities. While it is uncertain what will become of these specific projects at Kenai Fjords, it is certain that 2009 will be another year to learn about, share, enjoy, and protect our National Parks.

We hope you enjoy reading about our activities and look forward to seeing you in the field!

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Inventory & Monitoring

The Inventory and Monitoring (I&M) Program is a result of the National Park Service's effort to "improve park management through a greater reliance on scientific knowledge". The Southwest Alaska I&M Network (SWAN) consists of Alagnak Wild River, Aniakchak National Monument and Preserve, Katmai National Park and Preserve, Kenai Fjords National Park, and Lake Clark National Park and Preserve—organized based on geographic proximity and ecological similarity. The parks within this network share funding

and a small professional staff, who implement an integrated long-term ecological monitoring program.

During the past several years, the Southwest Alaska Network conducted biological inventories of vascular plants, small mammals, freshwater fish, and landbirds. Effective management of these resources requires information on ecosystems trends acquired through long-term monitoring of selected park resources—vital signs. Vital signs can be



physical, chemical, and biological elements and processes of park ecosystems that represent the overall health or condition of the park. Staff from Kenai Fjords National Park and the Southwest Alaska Network will be working on several vital signs monitoring projects throughout 2009.

Fifteen years of vegetation change

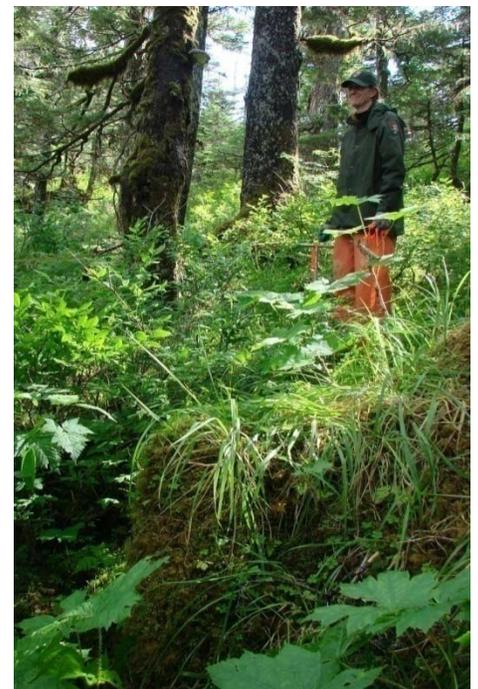
Glaciers in Kenai Fjords National Park have been receding since the Little Ice Age maximum approximately 150 years ago, and in their place meadows, thickets, and young forests have established. Increasing temperatures and continued glacial recession have likely contributed to an overall increase in vegetation in the park over the last fifty years.

In 2008, staff from Kenai Fjords National Park, the Alaska Natural Heritage Program, and the Southwest Alaska Network re-measured inventory plots that were established in 1993 to document short-term vegetation change in the park. Twenty-six plots were re-located and re-sampled, providing biologists with an estimate of successional patterns and rates of change. Most plots showed an increase in shrub cover over the fifteen-year period (1993-2008), and this increase was apparent in both forested and non-forested areas. Species diversity tended to

decrease in sites recently colonized by alder, but appeared to increase in some of the coastal meadows.

In 2009, plot data and photographs from the 2008 field season will be used to further quantify and interpret vegetation change. A detailed report will be available at the end of the year. Additional field work will focus on identifying monitoring sites in alpine and forest-peatland vegetation communities, which are expected to be sensitive to environmental change. Perhaps by looking backward in time, we may be better able to anticipate future changes in park resources.

Christina Kriedeman inspects a vegetation monitoring plot near Granite Passage.



Increased species diversity in a coastal meadow in Aialik Bay between 1993 and 2008. Shrub (willow) encroachment into the meadow is apparent in the background in 2008.

Inventory & Monitoring

Climate

The Harding Icefield weather station—located seven miles southwest of the Exit Glacier Nature Center at a rocky outcrop high on the Harding Icefield (4,200 ft)—is now in its fifth year of continuous operation. It records temperature, wind speed and direction, relative humidity, snow depth, and solar radiation. Current weather observations and summary reports can be viewed at: <http://www.raws.dri.edu/cgi-bin/rawMAIN.pl?akAHAR>

In 2008, a new weather station was deployed on the coast. The McArthur Pass weather station is similar in design to the Harding Icefield station; and is located on a ridge (1,300 ft elevation) immediately north of McArthur Pass (north of Ragged Island). Current weather observations and summary reports can be

viewed at: <http://www.raws.dri.edu/cgi-bin/rawMAIN.pl?akAMCA>

A brief comparison of observations at the McArthur Pass and Harding Icefield weather stations during July and August 2008 indicate that conditions at these two locations are diverse and perhaps not what might be expected:

Condition	McArthur Pass	Harding Icefield
Temperature	Warmer	Cooler
Solar radiation	Less	More
Precipitation	Wetter	Drier
Wind speed	Windy	Windy
Wind direction	Less variable	More variable

With additional data collected over time, it will be interesting to see how such relationships vary.



McArthur Pass weather station.

Nearshore Ecosystems

The marine coastline of the Southwest Alaska Network parks spans 1,180 miles (1,900 km) in the Northern Gulf of Alaska and contains almost one-third of the marine coastline in the national park system. The marine nearshore zone is defined as that portion of the coastline that stretches from the high tide line to approximately 20 m depth. The brackish and salt-water habitats of the marine nearshore zone are some of the most productive habitats in the Gulf and are highly susceptible to human disturbance. In conjunction with various partners, the

Southwest Alaska Network is monitoring six marine nearshore vital signs at Kenai Fjords National Park. This involves both late-winter and summer field work.

Highlights from 2008 and plans for the 2009 field season are listed for each vital sign below.

Marine water chemistry—one salinity sensor is currently located in Aialik Bay; four more sensors will be deployed in 2009. Data collected from the tissues of Pacific blue mussels in 2007 showed low levels of a variety of organic, metallic and

hydrocarbon contaminants. Data collection and analysis will be repeated every five years.

Kelp & eelgrass—in 2008 underwater video imagery was used for an initial density estimate of five different eelgrass beds. These beds will be re-visited in 2009 to look for changes in eelgrass density and distribution.

Marine intertidal invertebrates—in 2009 we will complete our 3rd year of sampling in rocky substrate and our 2nd year of sampling in soft sediments. Invertebrate species composition and density, percent algae cover, soft sediment samples, and Pacific blue mussel (*Mytilus trossulus*) distribution and density are monitored.

Marine birds & mammals—late-winter (March) boat-based systematic shoreline surveys were conducted in 2008, the first since the Exxon Valdez oil spill in 1989. Surveys primarily focus on over-wintering sea ducks that use the nearshore prior to migrating to their nesting grounds. In future late-winter surveys, emphasis will be on habitats such as protected bays and lagoons that support over-wintering marine ducks. The next late-winter survey is scheduled for 2010 and every other year thereafter. Summer (June) surveys were completed in 2008 and will be conducted annually.



Heather Coletti, NPS and Dr. Allan Fukuyama conduct rocky intertidal count sampling of algae and small invertebrates, June 2008.

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Cultural Resources

Administrative History

Work on the Kenai Fjords Administrative History continues in 2009. Dr. Ted Catton, of Environmental History Workshop, visited Alaska during the summer of 2008 to conduct research in Seward and Anchorage. He spent many hours reading reports and searching through files and photographs to gather information for the

document. Catton and his partner also conducted oral history interviews with previous and current park staff, as well as members of the community. The administrative history is now being drafted and a completion date is set for December of 2009.

Scope of Collections Statement

Kenai Fjords' Scope of Collections Statement (SOCS) will be revised in 2009. Originally written in 1988, this document guides the acquisition of museum objects that relate specifically to the park's mission and themes.

The revision will address the purpose of the collection by setting limits that specify the types of collections that may be made, and from which geographic locations and time periods they may be collected. For instance, a plant collection made in the Chugach National Forest would not fall within the park's SOCS. However, plant specimens collected from Aialik Bay would be acceptable if a collection permit has been issued by the Park.

Ore samples collected from Surprise Bay in 1984, catalog #s KEFJ 29 & 30, accession KEFJ-00012.



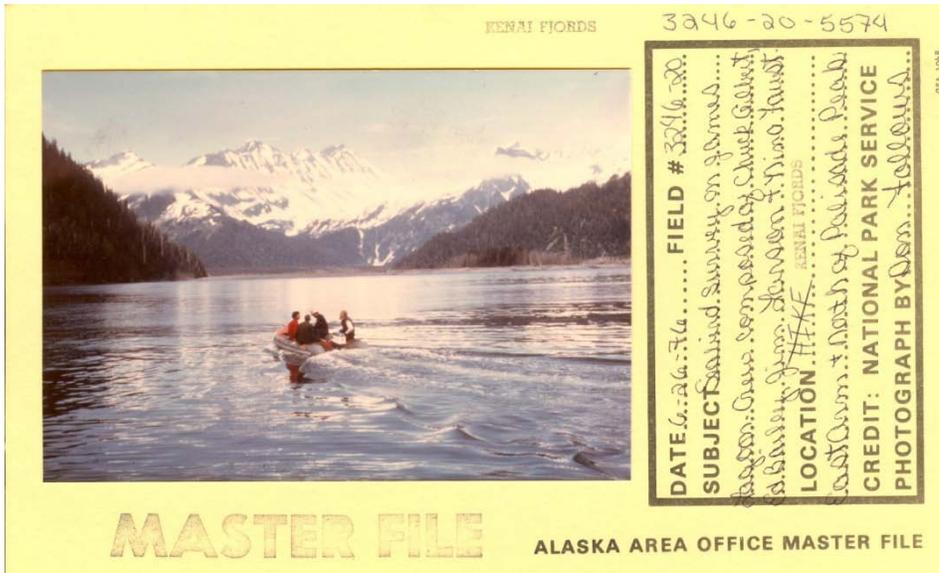
The Scope of Collections Statement will include guidance on:

- Research permits
- Collection access
- Use of the collection
- Restrictions
- Management actions

The project is expected to begin this spring and be completed by the end of the year. It will be an ideal tool for the future management of the Kenai Fjords museum & archive collection.



Collecting oil mousse at Pony Cove on 4/14/1989 after the Exxon Valdez oil spill. This photograph (not the oil sample) is another example of a 'collection'. KEFJ-1306.



Chuck Gilbert, Ed Bailey, Jim Larson & Nina Faust survey James Lagoon during a pre-park seabird survey in 1976. Photograph from the Alaska Task Force Collection – catalogue # KEFJ-12776.

Archeological Site Monitoring

Each year Resource Management and the park's coastal rangers team up to monitor the condition of sensitive archeological and historical sites along the coast of the fjords. Condition assessments rate the overall condition of individual sites, i.e. good, fair, poor, destroyed, or unknown if a site can't be located. Threats, disturbances and impacts are also recorded.

Sites can be classified as threatened or disturbed for a number of reasons: park operations, visitor use, development/construction, mineral extraction, or natural forces. During the 2008 season, disturbances were noted at two archeological sites located in the same general area. The ground was covered with shallow holes and the surface vegetation was missing. Close examination revealed the disturbance to be the work of an industrious bear. The activity and level of impact were noted on the assessment form, and in 2009 the sites will be reassessed.

During the busy summer months when the park's coasts host a growing number of visitors, the rangers regularly visit these sensitive cultural sites to ensure they remain undisturbed and in good condition.



Surface disturbance at an archeological site in 2008.

Natural Resources

Bear Management

Bears are common throughout Kenai Fjords National Park, and the opportunity to see a bear in its natural habitat contributes significantly to enjoyment of the park. This experience, however, can increase the potential for conflict between humans and bears and alter normal bear behavior. All bears are capable of injuring people or damaging property. This presents a challenge when striving to preserve bears as a component of the ecosystem while providing for public safety.



A black bear patrols the beach at Kenai Fjords National Park.

As a management guide, the park has an Interim Bear Management Plan. The goals of this plan are to:

- Provide for visitor and staff safety by minimizing bear-human conflicts.
- Minimize the effects of human activities on the distribution, abundance, and behavior of black and brown bear populations.
- Ensure opportunities for visitors to observe, understand, and appreciate black and brown bears, as a part of an intact ecosystem.

The bear management program consists of proactive measures such as food storage and education, and management actions such as hazing and aversive conditioning of bears. All park employees, cooperators, and commercial operators assist in bear management in countless ways; emptying garbage cans, giving bear talks, filling out Bear-Human Information Management System forms, and keeping a clean camp.

Primary responsibility for bear management in the park lies with Interpretation & Visitor Services (IVS) and Resource Management (RM) teams. The Bear Incident Response Team consists of trained RM and IVS staff, available to respond to incidents and conduct hazing or aversive conditioning operations. They

are the employees you see in the campground and along the trails monitoring bear activity and educating visitors.

By understanding the types of bear-human interactions that occur; employees and visitors can improve their understanding of bear behavior and avoid negative interactions. Common themes include:

- Properly store all food in bear resistant food containers.
- Be aware of bears while hiking and make noise to avoid surprise encounters.
- Do not harass habituated bears by approaching too close.
- Avoid camping in high use bear areas.
- Keep tents, kayaks, and other gear in close proximity.
- Be ready to defend your food and gear if a curious bear approaches.

The Bear Management Team was awarded the 2008 NPS Andrew Clark Hecht Memorial Public Safety Achievement Award. This is the highest award bestowed by the NPS for outstanding public safety achievement and is presented annually by the Director of the National Park Service. In 1970, a nine-year-old boy, Andrew Clark Hecht, accidentally fell into a hot spring in Yellowstone National Park and died. The Andrew Clark Hecht Memorial Public Safety Achievement Award was created in his memory, and is annually given to the individual or group who contributes the most in public safety. This is a great honor for the park and a tribute to all the hard work that has gone into our bear management program at the park.

Visitors who encounter a bear should report it to park staff as soon as possible. Park staff will in turn complete a 'Bear-Human Information Management System' form and immediately forward it to the Bear Management Team. This will alert others and enable park staff to respond to the situation if necessary. We look forward to receiving your suggestions and reports of bear encounters!



Park staff mapping and removing common dandelions.

Exotic Plant Management

2009 marks the sixth consecutive year of inventory, monitoring, and manual pulling of exotic plants using Alaska's regional Exotic Plant Management Team protocol. Exotic plant species continue to be a concern where road, trail, and coastal camping activity are found, as they are vectors for introducing exotic plants into the Park.

Manually pulling of individual plants is the only method used for removal from the park and has been a successful strategy for several invasive species. Five plant species inventoried and controlled in 2007 did not reappear in 2008. Because not all invasive plant species can be eradicated by hand pulling, a regional Invasive Plant Management Plan (IPMP) is being developed to address invasive plant infestations in national park areas throughout Alaska. The IPMP uses a decision flow chart to select appropriate physical (pulling, digging, burial, mowing, cutting, burning, and other heat treatments) and herbicide treatments to eradicate or contain invasive plant infestations.

In 2008, park staff and volunteers pulled 793 pounds of weeds (over 50 garbage bags). Common plantain, common dandelion, and pineapple weed were three of the most commonly removed species.

Goals for 2009:

- Continue to monitor and treat infested sites in the Exit Glacier area.
- Inventory and map exotic plants adjacent to park lands at the Pedersen Lagoon development and work with the lodge owners to prevent the spread of invasive plants.
- Conduct surveys and pull Yellow Sweet Clover along the Resurrection River to prevent its spread upstream.
- Conduct surveys in conjunction with coastal campsite monitoring in Aialik Bay.

Natural Resources

Wildlife Observations

Visitors and employees are encouraged to report unusual or otherwise notable wildlife sightings for documentation in the park Wildlife Observations database. Observations yield valuable data on species occurrence, relative abundance and distribution, and contribute to our overall understanding of the natural history of the park. These observations help document the rate of range expansion in Alaska, such as with black-tailed deer, as well as the disappearance of species such as rusty blackbirds.

The park maintains a comprehensive list of known wildlife species (http://science.nature.nps.gov/im/units/swan/in dex.cfm?theme=inventory_species). If you observe uncommon species or unexpected activity, please fill out and submit a Natural History Field Observation card, available at both the Information Center and Nature Center. You can also send us an email describing your sighting. We always appreciate photos if you can obtain them without approaching or disturbing the animal. Last year we received nearly 80 reports from staff and visitors. We greatly appreciate these efforts to contribute observations, and look forward to receiving your reports in 2009.

A few examples of wildlife observations received during 2008 include:

- A juvenile Kittlitz's murrelet (*Brachyramphus brevirostris*) was observed in Holgate Arm. This is the first such sighting since 1980.
- Thousands of moon jellies (*Aurelia aurita*) were in Abra Cove late one evening.
- Multiple wolverine (*Gulo gulo*) sightings—on both the coast and at Exit Glacier.
- Millions of ice worms (*Mesenchytraeus solifugus*) on a snowfield near the Harding Icefield trail.
- Black bear (*Ursus americanus*) crossing the Harding Icefield in April.
- Chum salmon (*Oncorhynchus keta*) in Beauty Bay streams and pink salmon (*Oncorhynchus gorbuscha*) in Exit Creek.
- Nesting bird species in the Exit Glacier area including common redpoll (*Carduelis flammea*), hermit thrush (*Catharus guttatus*), orange-crowned warbler (*Vermivora celata*), and Wilson's warbler (*Wilsonia pusilla*).

Warbler nest in Northwestern Fjord, Harris Bay.



Glaciers

The Harding Icefield and other glaciers comprise a large portion of Kenai Fjords National Park. Park management is interested in understanding how the Icefield has and is changing in response to the driving forces of climate.

In 2008 a series of workshops were held to solicit advice and ideas on what the park should be doing to address Icefield management needs. Understanding the links of this resource to coastal ecosystems as well as fish and wildlife was identified as a critical component.

We also experienced a glacial outburst flood in 2008—a rapid and unexpected

August 6, 2005, B.Molnia, U.S. Geological Survey photo.



Before and after photographs of an unnamed, glacier-dammed lake. In August 2008, the water drained down-glacier toward Bear Glacier Lake, which is to the right (and out of view) in the photographs above.

release of large volumes of water from a glacier-dammed lake—through an unidentified conduit into Bear Glacier Lake. This event raised the water levels in Bear Glacier Lake, stranding icebergs in the vegetation, and resulted in cancellation of kayak tours.

Plans for 2009 include:

- Draft & begin implementing glacier and icefield strategy.
- Measure seasonal snow accumulation in April.
- Measure seasonal ice melt (ablation) in September.
- Map terminus position of Exit Glacier.

August 19, 2008, C.Lindsay, NPS photo.



Bald Eagle Surveys

With nearly 150 nests identified along the coast, bald eagles (*Haliaeetus leucocephalus*) are a treasured sight in Kenai Fjords NP. The park has a long history of monitoring our national symbol, especially since the Exxon Valdez oil spill 20 years ago.

As we've learned more about bald eagles, we've come to realize that our methods of collecting information need to be updated. To that end, the park will be refining bald eagle monitoring protocols during the summer of 2009. Specific objectives of this work include:

- Identify all active bald eagle nests;
- Estimate time required to survey for nests using a helicopter; and
- Evaluate the feasibility of conducting comprehensive surveys versus monitoring randomly selected samples.

A careful determination of the amount of effort required to monitor the occupancy of known nests and their productivity (number of chicks fledged from occupied nests) is critical. This can then inform management when balancing demands on staff time and park budgets.

This is a joint effort, involving park staff, inventory and monitoring program scientists, and bald eagle specialists with the U.S. Fish & Wildlife Service. With most eggs laid in the park between late March and early May, the initial field surveys will be completed before summer has begun.

Bald Eagle chick in its nest, along with prey remains.



Interdisciplinary

Avian Influenza Surveillance

Avian influenza viruses, frequently called avian flu or bird flu, occur naturally and are common among domestic poultry and some wild birds, especially waterfowl and shorebirds. Avian flu viruses mainly infect birds. In rare instances, these viruses can be passed to other animals and people. The virus is passed through infected bird fecal droppings, saliva, and nasal discharges. Asian H5N1 Avian Influenza virus began in Southeast Asia causing death in domestic poultry and in some domestic and wild birds. People have caught Avian H5N1 from domestic poultry and become very ill or died. To date, highly-pathogenic H5N1 has not been detected anywhere in Alaska or on the American continent (<http://www.pandemicflu.alaska.gov/avianflu/>).

This summer in Kenai Fjords National Park, we are conducting several coastal bird surveys:

- Marine Nearshore Vital Signs monitoring including marine bird and mammal surveys will be conducted in June along the entire coast of the park.
- Throughout the summer, the coastal law enforcement rangers and Resource Management staff will be surveying beaches for dead birds as part of the Coast Observation And Seabird Survey Team (COASST). COASST is a citizen science program of the University of Washington in partnership with state, tribal and federal agencies, environmental organizations, and community groups (<http://depts.washington.edu/coasst/>). Beaches surveyed monthly in summer include: Bulldog Cove, North Verdant, Pedersen, Northwestern Spit, James Lagoon, and Yalik Glacier.

During all of these surveys and whenever park personnel are on the coast, they are on the look-out for dead and injured birds.

Last year, survey teams found just one dead seabird, a juvenile glaucous-winged gull, at Pedersen Lagoon during a regular COASST survey. The bird had apparently been killed by a large raptor.

Remember, if you find a dead bird in the park without evidence of obvious death by physical injury (e.g., bird hit your window), please contact us.

Geographic Information

Geographic information: maps, building coordinates, trail routes, wildlife sighting locations, and glacier terminus positions; represent some of the principal information sources the park uses in every-day management. A Geographic Information System (GIS) is the tool we use to manage, organize, and present this information. In addition, Global Positioning Systems (GPS) are used to help navigate and collect location information.

It is all too easy to continue to collect information in the field, leaving behind the unorganized, collected data collected last week for processing some other day. With hundreds of thousands of information points collected over the years; this information must be organized and maintained for use by park managers and accessible to the public.

In 2008, buildings were mapped and a website developed where users can create maps and look up a host of information about every structure in the park...without ever having to leave the office. In 2009 we

will be making high resolution elevation data available to the public, and developing an annual workplan for keeping up with the wide-ranging tasks of managing complex GIS data. We also intend to update our existing GPS data for more productive time in the field. To access this information visit <http://science.nature.nps.gov/nrdata/>.



This July 2003 cloud-free satellite image is being processed for use in Harding Icefield maps and park informational materials. Image courtesy DigitalGlobe.

Soundscapes

In August 2008, with the assistance of two acoustic technicians from the NPS Natural Sounds Program Center, park staff set up sound monitoring equipment in four management zones in the Exit Glacier area. Sound monitoring equipment was left in place for one month. Baseline sound data was collected for each zone and is being analyzed and interpreted.

This data will be used to provide park managers with knowledge about the status and condition of park soundscapes. It will also aid the establishment of desired conditions for levels of human-caused sounds, as required by the Exit Glacier General Management Plan Amendment.

Project goals for 2009 include:

- Conduct baseline winter sound monitoring in the Exit Glacier Area.
- Establish indicators and standards for Soundscape management in summer and winter zones.
- Establish a sound monitoring program.



Technicians from the Natural Resource Program Center assemble sound monitoring equipment in the Exit Glacier area.

Interdisciplinary

Campsite Resources & Condition

A night on the coast; it comes with spectacular waterfront views, peace & quiet, and fresh air. Camping on the Kenai Fjords coast is an amazing experience that draws hundreds of visitors to the park each summer.



Dr. Chris Monz (in red jacket) explains campsite monitoring methods to Kenai Fjords National Park staff.

Although the park is comprised of over 500 miles of spectacular coastline, most of the coast is characterized by steep, rocky headlands, cliffs, and boulder beaches that are virtually inaccessible to boaters and campers. As a result, opportunities for camping are limited to only about 60 sheltered sand/gravel beaches scattered along the length of the park from Nuka Bay to Bear Glacier. About half of these potential campsites are located in the more remote southern end of the park, the outer coast and Nuka Bay, and consequently receive very little overnight use. As a result,



Campsites along the coast provide unparalleled opportunities to experience the wonders of the Kenai Fjords coast.

nearly all backcountry camping is concentrated at about 30 sites located in Aialik Bay and Northwestern Lagoon.

These same areas also contain sensitive cultural and natural resources, including salmon spawning streams, ground-nesting marine birds, coastal sedge meadows and, bald eagle nests.

Periodic surveys of selected sites revealed impacts to park resources and the visitor experience, including fire rings, charred wood, cut stumps, root exposure, vegetation trampling, trash, human waste, soil erosion, campsite proliferation, increased human-wildlife interactions, and social trails. In 2007, park staff completed a rapid assessment of campsite impacts at 55 landing beaches between Nuka and Aialik Bays. In 2008, Dr. Christopher Monz, a Recreation Ecologist from Utah State University, spent two weeks in the park testing, refining, and implementing campsite monitoring protocols. In 2009 Dr. Monz will return to the park to complete this thorough update of campsite monitoring at regularly used campsites in Aialik Bay and Northwestern Lagoon. This effort will allow park managers to better understand how backcountry visitor use affects natural and cultural resources and the quality of the visitor experience in the fjords.

For More Information

In recent years, the entire National Park Service has taken advantage of technological advances to better manage wide-ranging, existing information sources. For example, Kenai Fjords NP was initially designated 'Kenai Fjords National Monument', and a master plan and environmental impact statement were prepared. With a network of nearly 400 sites across the nation, there are thousands if not millions of such documents and related data sets.

In 2009, we will continue to bring the park archive collections up to current standards (see article on page 4). We are also updating the organization and documentation of our park library and document files.

This augments the efforts of recent years. With the help of the Southwest Alaska Inventory & Monitoring Network and Alaska Regional Office we now have scientifically documented species lists for vertebrates and vascular plants, as well as a suite of GIS data sources and tools.

Whenever possible, these tools are made public and searchable. As these efforts continue at a local and national level, we look forward to expanding the information sources available about the Kenai Fjords region.

Park Enabling Legislation

- http://www4.law.cornell.edu/uscode/16/ch5_1.text.html
- http://www.nps.gov/history/history/online_books/williss/

Historical & Management Documents

- <http://www.nps.gov/history/history/>

Resource-oriented data sources, including GIS

- <http://science.nature.nps.gov/nrdata/>

Inventory & Monitoring Publications

- <http://science.nature.nps.gov/im/units/swan/>

Land Information

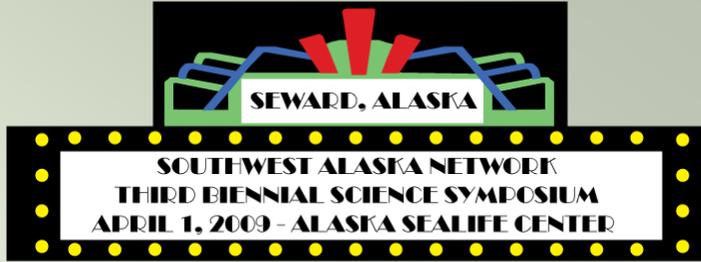
- <http://landsnet.nps.gov/>

Maps & Data of park facilities

- <http://insidemaps.nps.gov>

Park Website

- <http://www.nps.gov/kefj/>



The Southwest Alaska Network will hold its third Biennial Science Symposium in Seward on April 1, 2009. Researchers from Alaska Biological Research, Inc., the Alaska Natural Heritage Program, Alaska Sealife Center, NASA, National Park Service, U.S. Geological Survey, University of Alaska Anchorage, University of Alaska Fairbanks, and University of Kentucky will present information on long-term ecological monitoring projects at national parks in southwest Alaska (Alagnak Wild River, Aniakchak National Monument and Preserve, Katmai National Park and Preserve, Kenai Fjords National Park, and Lake Clark National Park and Preserve). Topics will include remote sensing of changing glaciers on the Kenai and Alaskan Peninsulas, bird inventories at Aniakchak, vegetation change in Kenai Fjords, historic insect outbreaks on the Alaskan Peninsula, and sea otter abundance from Katmai to the Aleutian Islands. Afternoon presentations will be followed by an evening keynote address and poster session.

This public event will be held at the Alaska SeaLife Center and everyone is welcome and encouraged to attend!

Remembering the Exxon Valdez Oil Spill...



Left: Hot water wash to remove oil at 'Exxon Beach 4' (south of Pony Cove), 8/15/1989; KEFJ-2092.

Right: "Pom-pom" booms were used to contain oil washed into the water during cleanup activities. Shown here at McArthur Pass on 8/03/1990; KEFJ-6020.



Nearshore Ecosystems, continued...

Black oystercatchers—skiff-based shoreline surveys will be conducted for a third year in 2009 to estimate breeding pair density and overall density of breeding and non-breeding black oystercatchers and to sample nest site prey remains that are used to provision the chicks. These surveys are conducted on an annual basis. Twenty nest sites were visited in 2008 and will be re-visited in 2009 to determine nest success and to collect prey remains around the nest site. Shifts in species composition of the prey remains may indicate a change in the prey base available to black oystercatchers to feed their chicks.

Sea otters—are considered a 'keystone species'. Monitoring sea otter abundance, density, distribution, survival, and diet can help managers anticipate ecosystem response to population changes of such keystone species. Examples of these effects elsewhere in Alaska include

increases in kelp cover as healthy sea otter populations eat urchins that feed on kelp. Aerial surveys showed an increase in sea otter abundance from 799 animals in 2002 to approximately 1,511 animals in 2007. Beaches are scoured annually for sea otter carcasses as well, although only rarely found in the park. A tooth from the carcass is sent to a lab for age analysis. Similar work is planned for 2009.



Jim Bodkin, USGS, surveying for marine birds and mammals, March 2008.

Moving On!

In March of this year, Resource Management Team member Meg Hahr moved from the position of Ecologist at Kenai Fjords NP to Chief of Science and Natural Resources at Pictured Rocks National Lakeshore on the Michigan shores of Lake Superior.

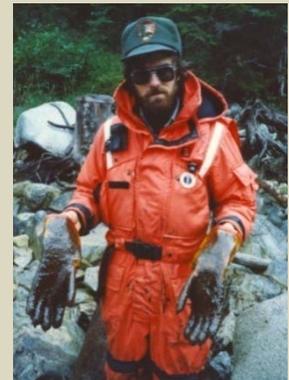
Meg worked for the NPS in Alaska since 2002 at both Kenai Fjords in Seward and Klondike Gold Rush in Skagway. She leaves behind a strong imprint and lasting legacy. The campsite condition assessment project summary presented in this newsletter is a prime example. With strong partnerships established, scientific foundation laid, clearly defined management applications identified, and concern for her colleagues, the public, and the resources of the Park; Meg always hit the nail on the head in her work.

We wish her the best in her new endeavors and in coming years look forward to hearing about great things happening at Pictured Rocks.

Meg Hahr lending a hand with brown bear management at Brooks Camp in Katmai National Park.



There are of course many faces behind the work summarized in this newsletter. Former Resource Management Specialist Mike Tetreau will return to assist with several projects this summer.



Former park employee, Mike Tetreau, holds oiled gloves at McArthur Pass over a year after the Exxon Valdez oil spill on 8/3/1990; KEFJ-6020.



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National Park Service
U.S. Department of the Interior

This is the second annual issue of Resource Management News produced by the Resource Management team at Kenai Fjords National Park.

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

Kenai Fjords National Park

Kenai Fjords National Park was established on December 2, 1980 by the Alaska National Interst Lands Conservation Act (ANILCA). The park comprises approximately 670,000 acres within its legislative boundary. The National Park Service manages approximately 607,000 acres, with the remaining acreage owned and managed by the State of Alaska, Port Graham Native Corporation, and private inholders.

The park is located on the east coast of Alaska's Kenai Peninsula, thrust into the Gulf of Alaska, windward of the Kenai Mountains. Large fjords and bays cleave the coastal mountains and create a rugged coastline. A narrow slice of temperate rain forest fringes the coastline and provides a brief respite from the stark seas and expansive Harding Icefield. The icefield stretches from tidewater glaciers at sea level to broad expanses of ice and snow, interrupted only by the nunataks of the Kenai Mountains.

The park enabling legislation identifies the following purposes: "to maintain unimpaired the scenic and environmental integrity of the Harding Icefield, its outflowing glaciers, and coastal fjords and islands in their natural state; and to protect seals, sea lions, other marine mammals, and marine and other birds and to maintain their hauling and breeding areas in their natural state, free of human activity which is disruptive to their natural processes" (ANILCA sec.201(5)). Unlike most other park units added to or created in 1980, ANILCA did not allow for sport hunting or Federal subsistence in Kenai Fjords National Park.