

**Denali National Park and Preserve**  
**Division of Research and Resource Preservation**

**Resources Report for October 2001**

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The lands and waters encompassed by Denali National Park and Preserve's boundaries provide outstanding examples of subarctic and mountain landscapes, wildlife, and vegetation in relatively pristine condition. In addition, Denali has rich cultural resources of historical and archaeological significance, and on-going subsistence ways of life. The Division of Research and Resource Preservation is charged with understanding and managing these 9,400 square miles to insure these Park resources and associated subsistence activities are unimpaired as a lasting legacy for future generations.

What has the Division done recently in carrying out this charge? Below is a synopsis of important inventory, monitoring, research, management, education, and administrative activities that have occupied the resource management staff during the month of October 2001.

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**Selected Resource Highlights for October 2001:**

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Linking temperature, hydrogen isotopes and global warming ...page 1

Dunkel Hills quieter than the average office...page 2

Discussing trade of subsistence-caught fish and eggs... page 3

Will Eielson Visitor Center be eligible for the National Register of Historic Places? ... page 3-4

Twelve linear feet of archival material...page 5

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<u>I. BIOLOGICAL RESOURCES</u> .....	1
<u>Wildlife</u> .....	1
<u>Fire Management</u> .....	1
<u>II. PHYSICAL RESOURCES</u> .....	1
<u>Meteorology</u> .....	1
<u>Glaciology</u> .....	2
<u>Mining</u> .....	2
<u>Snowmachine Studies</u> .....	2
<u>Soundscape</u> .....	2
<u>III. SUBSISTENCE AND CULTURAL RESOURCES</u> .....	3
<u>Subsistence</u> .....	3
<u>Cultural Resources</u> .....	4
<u>IV. SOCIAL SCIENCES</u> .....	4
<u>V. MONITORING, INVENTORY, AND RESEARCH PROGRAM MANAGEMENT</u> .....	4
<u>Monitoring</u> .....	4
<u>Research</u> .....	4
<u>VI. PROGRAM SUPPORT</u> .....	5
<u>Planning and Compliance</u> .....	5
<u>Curatorial Management</u> .....	5
<u>Outreach and Interdivisional Activities</u> .....	6
<u>Training and Meetings</u> .....	6

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## **Denali National Park and Preserve Resources Report for October 2001**

### **I. BIOLOGICAL RESOURCES**

#### **Wildlife**

A panel of professionals in the fields of wildlife biology and resources management will be challenged to **review the Denali wolf program**. In October, Pat Owen joined Acting Superintendent Diane Chung, Acting Deputy Superintendent Gordon Olson, Acting Resources Chief Susan Boudreau and Regional Science Advisor Kirk Lohman at a meeting to discuss naming the panel of experts. The panel will determine what information about Denali wolves is necessary for their effective management. They will also consider if the information can be collected by methods other than those currently used (radiocollaring, aerial flights for radiotracking). Panel members will be chosen and begin work by the end of the 2001.

#### **Fire Management**

The Hazard Fuels environmental assessment is being reviewed. See Planning and Compliance page 5.

### **II. PHYSICAL RESOURCES**

#### **Meteorology**

Here is a **September** weather summary for Denali Headquarters (HQ):

Maximum Temperature:	65° F
Minimum Temperature:	23° F
Average Temperature:	43° F
Total Precipitation:	0.60 inches
Total Snowfall Amount:	0 inches
Snow on Ground at end of month:	0 inches

September **requests for weather data** were:

A student from the University of Colorado requested daily temperature data from the Headquarters area from 1989 –Present. He works in the stable isotope lab of the Institute of Arctic and Alpine Research in conjunction with the National Atmospheric Deposition Program. As part of his research to determine the cause and effects of global warming, he also has been measuring the percentage of hydrogen isotopes in the precipitation sampled at Headquarters.

Child Magazine's Advisory Board, which conducted a survey to determine the "top ten" national parks for children, requested the following weather information: average temperature, humidity and rainfall amount in the following months: May, June, July, August, and September.

Ed Debevec and Eric Rexstad from the University of Alaska-Fairbanks, who are working on the Long Term Ecological Monitoring (LTEM) small mammals monitoring project, requested updated weather files from Denali National Park headquarters for use in their models.

### **Glaciology**

Monitoring glaciers was the primary discussion topic at the **North Cascades Glacier-Climate Symposium** in Mt. Vernon, Washington. Guy Adema, who attended the symposium, learned about the data that have been collected on glaciers in Northern Cascades (NOCA) and the applications of the data. Because the Long-term Ecological Monitoring protocol development is at similar stages in Denali and NOCA, it was a good opportunity to consider these protocols and techniques. This timing was particularly good because soon after the symposium, Guy attended a meeting in Anchorage where the glacier monitoring plans for the Central Alaska Network and Denali's Long-term Ecological Monitoring Program were discussed (see also Monitoring page 4).

### **Mining**

The park's Gravel Acquisition Plan will identify potential sources of gravel within the park that can be used primarily for park road maintenance. Preliminary actions have included project scoping, determination of potential extraction sites, and contractor-assisted wetland delineation at those sites. Phil Brease, Ken Karle, and other park staff members have been heavily involved in the development of this plan.

### **Snowmachine Studies**

To test the effectiveness of the cleaner quieter technology that 4-stroke engines have over 2-stroke engines, the park is trying to obtain an early production **4-stroke snowmobile model**. Shan Burson is negotiating with Arctic Cat to use a demonstration model this winter.

### **Soundscape**

Acoustical data is still being collected from the **winterized sound monitoring station** in the Dunkle Hills south of the Alaska Range. Shan Burson is beginning to analyze the massive amount of decibel and audibility data collected so far this year. One of the findings so far is that on April 19 at the Dunkle Hills there was a Leq of 18.2 dBA. To explain, a Leq is the sound Level equivalent of all frequencies over the course of one hour. For comparison, the typical Leq in an office is in the high 30's. The Dunkle Hills value represents a very low level of sound.

Another finding is that on July 18, recordings of 73 propeller planes were documented over the toe of the Tokositna Glacier. This remote wilderness area is near a popular high-mountain air-tour flight path from the town of Talkeetna. Watch for more results soon.

### III. SUBSISTENCE AND CULTURAL RESOURCES

#### Subsistence

**Regional Subsistence Advisory Councils** (Southcentral, Eastern Interior, and Western Interior) met in October to review and make recommendations on subsistence fishery research proposals and fishery regulatory proposals for 2002-2003. Hollis Twitchell attended these meetings. He also presented the Denali Subsistence Resource Commission's hunting plan recommendation to establish a three-year residency requirement for Cantwell residents before they would become eligible for subsistence uses on Denali Park lands. All three advisory councils passed motions in support of the Denali Subsistence Resource Commission's recommendation.

The National Park Service's Customary Trade Workgroup met in Anchorage on October 11 to discuss progress made by the Federal Subsistence Board's **Customary Trade Workgroup regarding trade of subsistence-caught fish and eggs**. The NPS workgroup will make recommendations regarding customary trade of fish and eggs, as well as other resources such as plant materials and minerals. Hollis Twitchell serves on the NPS Customary Trade Workgroup along with Don Callaway (Alaska Regional Support Office), Bob Gerhard (Alaska Regional Support Office), Devi Sharp (Wrangell-St. Elias), and Rachel Mason (Alaska Regional Support Office).

The National Park Service Subsistence Advisory Council met on October 22 in Anchorage. The Council discussed **subsistence issues and priorities**. Workgroups were formed to accomplish high priority areas of "roster regulations, subsistence access and use of ORV's, education and public outreach, customary trade, and natural and health determinations". Hollis Twitchell serves on the workgroups for customary trade, roster regulations, and education and public outreach.

The **Annual Subsistence Resource Commission's Chairs meeting** was held in Anchorage on October 23. Florence Collins presided over the meeting. Hollis Twitchell gave a presentation on "user conflict resolution" and Mike Tranel presented an update about Denali's draft backcountry management plan. Other agenda topics included draft roster regulations options, taking of free-roaming furbearers with a firearm, negotiations with tribal governments, and park-specific issues.

## Cultural Resources

The **Eielson Visitor Center will be replaced** by a new center in 2004. In compliance with the National Historic Preservation Act, Section 106, a Determination of Eligibility (DOE) to the National Register of Historic Places must be made. To discuss how the DOE will be handled for Eielson, Ann Kain met on October 10 with Steve Peterson, Alaska Support Office Senior Historical Architect; Sande Anderson, Alaska Support Office Senior Historian; Bonnie Houston, Alaska Support Office Coordinator for the List of Classified Structures; and Brad Richie, Alaska Support Office Architect. The Eielson structure will be evaluated using criteria developed for Mission 66 visitor centers. A deadline of May 1, 2002 was established to have the DOE complete.

Volunteer Sue Deyoe came on board October 22. She will work a few days a week through November **consolidating and organizing the cultural site files**.

## IV. SOCIAL SCIENCES

Scoping meetings with the **Nikolai Tribal Council** will be scheduled in December. The topics to be considered are conducting subsistence community use profile studies in Nikolai and Telida, establishing community harvest monitoring programs for these communities, and internship opportunities at Denali.

## V. MONITORING, INVENTORY, AND RESEARCH PROGRAM MANAGEMENT

### Monitoring

#### *Central Alaska Network (CAN) for Inventory & Monitoring*

Guy Adema, Susan Boudreau, and Carl Roland attended the **CAN Technical Committee meeting** in Anchorage. Participants developed monitoring objectives for the Network and planned the scoping meeting to be held in April. Task groups were assigned to spearhead the monitoring plans for various resource components.

### Research

#### *Research communications*

A new “**Science in the Park**” **resource bulletin** was re-drafted by Lucy Tyrrell. This handout is designed for visitors and interpreters and describes science in general and gives examples of

the kinds of inventory, monitoring, research, and mitigation projects currently or recently active in the park. Projects listed include those of a biological, physical, social, cultural, and subsistence nature.

### ***Research administration***

Research files are overflowing the current space in the fireproof file cabinets. Three **new fire-proof cabinets** were ordered by Lucy Tyrrell.

Comments on **improving the national Research Permit and Reporting System (RPRS)**, as well as suggested guidelines for improving the quality of Investigator's Annual Reports (IARs), were drafted by Lucy Tyrrell and relayed to Lisa Fox, Alaska Region's coordinator for RPRS, and Tim Goddard and John Dennis, both involved with RPRS nationwide.

A draft **format for writing annual resources reports** was completed by Lucy Tyrrell and circulated to other division staff for comment. Once an annual report is written for a program area or resource project, any other reports can be easily generated from the annual report. The format was drafted keeping in mind the need to have the format be useful for other reports.

## **VI. PROGRAM SUPPORT**

### **Planning and Compliance**

Gordon Olson began the process of incorporating staff comments on the draft Hazard Fuels Management Environmental Assessment into the document. This review round was a very preliminary one to make sure that the document was headed in the appropriate direction. A broader review of the document will be forthcoming.

### **Curatorial Management**

An important highlight of Denali curatorial work performed in fiscal year 2001 is that **12 linear feet of archival material** were processed. The procedure involves cataloguing suitable material into the DENA museum collection. Each item (folder, report, correspondence) was evaluated for cultural or historical significance.

The park collection is faced with a number of serious issues including anticipated growth due to inventory and research activities, modernizing the Scope of Collection to better reflect park science needs, and improving relationships with curatorial cooperators. Additionally, there is a need to integrate the collection with various visitor facilities (e.g., new visitor center, science and learning center) that may rely on the collection. To address these issues, Jon Paynter, Jennifer Wolk, Gordon Olson, and Susan Boudreau held meetings to discuss a **strategy for conducting museum management planning** during Fiscal Year 2002. It is anticipated that an independent

review team will be involved in this planning effort, with the assistance of Betty Knight, Alaska Regional Curator.

### **Outreach and Interdivisional Activities**

Ann Kain contacted Donna Habecker, of the Denali Borough School District to plan a **History Day Program for the local school district**. The program is a three-tiered competition enabling students in grades 6-12 to compete in several categories including historical paper, exhibit, documentary, and performance. At each level (local and state), students are encouraged to improve their projects, taking into consideration judges' comments before progressing to the next level of competition. This year's theme is "Revolution, Reaction, Reform in History." The local contest will be held February 9, 2002 at Tri-Valley School.

On October 27-29, **National History Day hosted a nationwide State Coordinators meeting** in College Park, MD. Ann Kain attended the meeting along with Darrell Lewis, Alaska Support Office Historian, who is the new State Coordinator for National History Day in Alaska. The National Park Service is a nationwide sponsor for National History Day.

Pat Owen has joined the **Operations Impacts group**, an interdivisional group formed to address how the new frontcountry construction projects will affect day-to-day operations. For example, the group considered how travel would be delayed due to rerouting the park road.

Hollis Twitchell participated on a review and evaluation panel regarding the **Hunting Guide Concessionaire prospectus** on October 24-25.

Denali participated in a **survey for Child Magazine**, which is slated to publish a story on the ten best national parks. Child Magazine's Advisory Board, including park professionals, assisted in the development of survey questions to determine which parks are the "top ten" for children. The Board will also be involved in the tabulation of the results. The top 20 parks will be listed on the Child magazine website ([www.child.com](http://www.child.com)), and the top 10 parks will be profiled in the magazine. Pam Sousanes provided weather information (see Meteorology) and Lucy Tyrrell summarized some resource information about the park.

### **Training and Meetings**

- ◆ Training

Shan Burson, Pat Owen, Guy Adema, Hollis Twitchell, Jane Bryant, and Gordon Olson (along with 30 others) attended a two-day PMIS (**Project Management Information System**) course offered at Denali.

Guy Adema attended **contracting officer training** (COR/COTR) in Fairbanks.

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**Research and Resource Preservation (Resources) Division staff members are:**

Guy Adema, Andrea Blakesley, Susan Boudreau, Phil Brease, Jedediah Brodie, Jane Bryant, Shan Burson, John Cataldo, Olga Helmy, Ann Kain, Ken Karle, Amy Larsen, Janie Lasell, Carol McIntyre, Wendy Mahovlic, Gina Moreno, Gordon Olson, Pat Owen, Jon Paynter, Jason Ransom, Carl Roland, John Shook, Pam Sousanes, Hollis Twitchell, Lucy Tyrrell, Ed Vorisek, James Walton, Larry Weddle, Kahlil Wilson, Jennifer Wolk.

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This month's report was edited by Lucy Tyrrell.