Denali National Park and Preserve

Interpretation Training Manual

2008

Cover photo:

2008 Interpretation Training Manual

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Denali National Park & Preserve

Division of Interpretation MISSION STATEMENT

While fostering preservation, understanding, and enjoyment of Denali National Park and Preserve, we challenge the public to explore the connections between themselves and Denali's diverse environment, and to integrate the resulting insights into their everyday lives.

Interpreter Reading List

Denali National Park & Preserve

The Basics

If you read nothing else, read these.

Denali: Symbol of the Alaskan Wild.....William E. Brown
Mammals of Denali.....Adolph Murie
Guide to the Birds of Alaska.....Robert H. Armstrong
Wildflowers of Denali National Park.....Verna Pratt & Frank Pratt
Western Boreal Forest & Aspen Parkland.....Johnson, Kershaw, MacKinnon, & Pojar
Tundra.....April Pulley Sayre
Taiga.....April Pulley Sayre
The Geology of Denali National Park.....Michael Collier
The Denali Road Guide.....Kris Kapps
Denali Trails: Entrance Area Hiking.....Sheri Forbes
Earth in Mind:
On Education, the Environment & the Human Prospect.....David Orr

Denali National Park

General:

In Denali.....Kim Heacox
Denali CD-ROM.....ANHA/Cordillera Group
Denali: The Story Behind the Scenery.....K.C.Publications
Denali Wilderness (video).....National Park Service
Heartbeats of Denali (video).....National Park Service
Alaska's Wild Denali (video).....Alaska Video Postcards
For Denali's management documents, see.....nps.gov/dena/parkmgmt/managementdocs.htm

Plant Life

Taiga:

Taiga.....April Pulley Sayre
Alaska's Forests & Wildlife.....Alaska Department of Fish & Game

Tundra:

Tundra.....April Pulley Sayre
One Small Square: Arctic Tundra.....Donald M. Silver
Arctic & Alpine Environments.....Jack D. Ives & Roger G. Barry
Alaska's Tundra & Wildlife.....Alaska Department of Fish & Game
Arctic Adaptations in Plants.....D.B.O. Savile

Medicinal & Edible Plants:

Alaska's Wilderness Medicines.....Eleanor Viereck
Discovering Wild Plants.....Janice Schofield
Tanaina Plantlore.....Priscilla Russell Kari
Wild Edible & Poisonous Plants of Alaska.....Christine Heller

Guidebooks:

Wildflowers of Denali National Park.....Verna Pratt & Frank Pratt
Western Boreal Forest & Aspen Parkland.....Johnson, Kershaw, MacKinnon & Pojar
Flora of Alaska.....Eric Hultén

Miscellaneous:

Alaska Trees & Shrubs.....Leslie A. Viereck
Alaska's Mushrooms.....Harriette Parker
The World of Northern Evergreens.....E.C. Pielou

Wildlife

General:

Animals of the North.....William O. Pruitt
Wildlife of the North.....Steven Kazlowski
Animals of the Arctic: Ecology of the Far North .....Bernard Stonehouse
Mammals of Denali.....Adolph Murie
Alaska's Wildlife .....Tom Walker
Portrait of Alaska's Wildlife .....Tom Walker

Tracking:

Animal Tracks of Alaska.....Chris Stall
Tracking and the Art of Seeing .....Paul Rezendes
Animal Tracks of Alaska.....Ian Sheldon
Peterson's Field Guides: Animal Tracks.....Olaus J. Murie
A Field Guide to Mammal Tracking in N. America.....James Halfpenny
Mammal Tracks and Sign.....Mark Elbroch

Bears:

No Room for Bears .....Frank Dufresne
The Grizzlies of Mt. McKinley .....Adolph Murie
Field Guide to the Grizzly Bear.....Lance Olsen
Bear Attacks: Their Causes and Avoidance .....Stephen Herrero
The Great Bear Almanac.....Gary Brown
Alaska's Grizzlies (video).....Alaska Video Postcards
Backcountry Bear Basics.....Dave Smith
Where the Grizzly Walks .....Bill Schneider
Alaska's Bears of the North .....Steven Kazlowski
Bears of Alaska .....Erwin & Peggy Bauer
Alaska's Bears, Pocket Guide .....Bill Sherwonit

Wolves:

Wolves: Behavior, Ecology and Conservation.....Mech and Boitani, eds.
Ecology gand Conservation of Wolves in a Changing World.....Carbyn et al., eds.
Wolves, Bears and Their Prey in Alaska.....National Research Council
Of Wolves and Men .....Barry Lopez
The Wolves of Mt. McKinley .....Adolph Murie
The Wolves of Denali .....L. David Mech, et al.
The Wolf: Ecology & Behavior of an Endangered Species .....L. David Mech
A Society of Wolves: National Parks & the
Battle Over the Wolf .....Rick McIntyre
The Company of Wolves.....Peter Steinhart
Wolves .....Candace Savage
North to Wolf Country .....James W. Brooks

Fox:

The World of the Fox .....Rebecca Grambo

Beavers:

Beaver Behavior: Architect of Fame & Bane.....Morrell Allred
In Beaver World.....Enos A. Mills
The World of the Beaver.....Leonard Lee Rue III
Beavers: Where Waters Run .....Paul Strong

Porcupines:

The World of the Porcupine.....David E. Costello
The North American Porcupine.....Uldis Rose

Birds:

The Sibley Filed Guide to Birds of Western North America.....David Allen Sibley
The Sibley Guide to Birds.....David Allen Sibley
Sibley's Birding Basics.....David Allen Sibley
Birds of Denali.....McIntyre/Eagleson/Seegert
The Birders' Handbook.....Paul R. Ehrlich, David S Dobkin & Darryl Wheye
Field Guide to the Birds of North America .....National Geographic
Guide to the Birds of Alaska .....Robert H. Armstrong

Wildlife: Birds, continued…

Songs & Calls of AK Birds (CD) ..... AK Bird Observatory
Sibley Guide to Bird Life and Behavior ..... David Allen Sibley
The Migrations of Birds ..... Jean Dorst
Life Histories of North American Birds ..... Arthur Cleveland Bent
Bird Brains: The Intelligence of Crows, Ravens,
Magpies & Jays ..... Candace Savage
Ravens in Winter ..... Bernd Heinrich
The Mind of the Raven ..... Bernd Heinrich
The Cry of the Sandhill Crane ..... Steve Grooms
Loon Magic ..... Tom Klein
Living on the Wind ..... Scott Weidensaul
The Wind Masters: The Lives of North American Birds of Prey ..... Pete Dunne
Hawks in Flight ..... Pete Dunne
Raptors: Birds of Prey ..... John Hendrickson
Alaska Owlmanac ..... AK Dept of Fish & Game

Caribou:

Caribou and the Barren Lands ..... George Calef
Moose, Caribou & Muskox ..... Alaska Geographic
Caribou, Wanderer of the Tundra ..... Tom Walker

Moose:

Moose, Caribou & Muskox ..... Alaska Geographic
Wild Moose Country ..... Paul Strong
In the Company of Moose ..... Victor VanBallenberghe

Sheep:

Mountain Sheep of North America ..... Raul Valdez
The Wolves of Mount McKinley ..... Adolph Murie
Dall Sheep. Alaska Notebook Series ..... Alaska Dept. of Fish and Game

Earth Sciences

Geology:

The Geology of Denali National Park ..... Michael Collier
A Geologic Guide to Mt. McKinley National Park ..... Wyatt G. Gilbert
The Geology and Glacial History of Denali N.P. & Vicinity ..... Phil Brease & Alison Till
Geology of National Parks ..... Ann Harris & Esther Tuttle
The Geology of North America:
Vol. G-1, The Geology of Alaska ..... The Geological Society of America
Roadside Geology of Alaska ..... Cathy Connor & Daniel O'Hare

Glaciers:

Living Ice ..... Robert P.Sharp
Glaciers ..... Robert P. Sharp
Blue Ice in Motion ..... Sally Wiley
The Geology and Glacial History of Denali N.P. & Vicinity ..... Phil Brease & Alison Till
Glaciers ..... Michael Hambrey & Jürg Alean
Glaciers of North America: A Field Guide ..... Sue A. Ferguson
Alaska's Glaciers ..... Alaska Geographic
Glacier Ice ..... Austin Post
Sculpted by Ice: Glaciers and the Alaska Landscape ..... Michael Collier
Glaciers: Alaska's Rivers of Ice (video) ..... USGS

Northern Lights/Aurora Borealis:

The Aurora Watcher's Handbook ..... Neil Davis
Understanding the Aurora ..... UAF Geophysical Institute
Aurora Borealis: The Amazing Northern Lights ..... Alaska Geographic
Aurora: Mysterious Northern Lights ..... Candace Savage
Northern Lights: The Science, Myth & Wonder of Aurora Borealis ..... George Bryson
Aurora: A Celebration of the Northern Lights ..... Cary Anderson & Dave Parkhurst
Alaska's Spectacular Aurora ..... Todd Salat
The Aurora Explained (video) ..... University of Alaska
Aurora: Rivers of Light in the Sky (video) ..... Alaska Video Postcards

Ecology

Alaska Natural History, General:

After the Ice Age:
The Return of Life to Glaciated N. America ..... E.C. Pielou
Naturalist's Guide to the Arctic ..... E.C. Pielou
The Ice Age History of Alaska National Parks ..... Scott A. Elias
The Great Alaska Nature Factbook ..... Susan Ewing
Alaska Science Nuggets ..... Neil Davis
Alaska Park Science (Volume 5, Issues 1 and 2) ..... National Park Service, Denali Resource Mgmt
Northern Ethnographic Landscapes:
Perspectives from Circumpolar Nations ..... Krupnik, Mason & Horton

Fire:

Effects of Fire in Alaska and Adjacent Canada ..... Leslie Viereck
A Test of Adversity and Strength: Wildland Fire in the
National Park System ..... Hal K. Rothman

Arctic & Subarctic/Winter:

Winter: An Ecological Guide ..... James C. Halfpenny & Roy Douglas Ozanne
A Naturalist's Guide to the Arctic ..... E.C. Pielou
Alaska's Ecology ..... Alaska Department of Fish & Game
Boreal Ecology ..... William O. Pruitt
Animals of the Arctic: Ecology of the Far North ..... Bernard Stonehouse
Life in the Cold ..... Peter Marchand
Winter World: The Ingenuity of Animal Survival ..... Bernd Heinrich
Snow Sense ..... Jill Fredston

Why Do We Need...Intact Ecosystems, Biodiversity, Wilderness, National Parks?

The Sinking Ark:
A New Look at the Problem of Disappearing Species ..... Norman Myers
Why Big, Fierce Animals are Rare ..... Paul Colinvaux
Deep Ecology: Living as If Nature Mattered ..... Bill Devall & George Sessions
Preserving Nature in the National Parks ..... Richard West Sellars
The Idea of Wilderness ..... Max Oelschlaeger
Wilderness & the American Mind ..... Roderick Nash
Large Carnivores and the Conservation of Biodiversity ..... Ray et al., eds.
Monster of God ..... David Quammen
Where Mountains are Nameless ..... Jonathan Waterman
This Last Treasure: Alaska National Parklands ..... William E. Brown
Northern Landscapes: The Struggle for Wilderness Alaska ..... Daniel Nelson
Visions of a Wild America ..... Kim Heacox
An American Idea: The Making of the National Parks ..... Kim Heacox
Sold American ..... Donald Craig Mitchell
Take My Life, Take My Land ..... Donald Craig Mitchell
National Parks: The American Experience ..... Alfred Runte
Seeking Awareness in American Nature Writing ..... Scott Slovic
Geography of Childhood ..... Gary Nabhan
Last Child in the Woods ..... Richard Louv
The Practice of the Wild ..... Gary Snyder
Another Turn of the Crank ..... Wendell Berry
The Enduring Wilderness ..... Doug Scott

Human History

Denali Park - 20th Century:

Denali: Symbol of the Alaskan Wild ..... William E. Brown
Crown Jewel of the North: Administrative History of
Denali National Park & Preserve, Volume 1, 2006 ..... Frank Norris, NPS
Kantishna: Mushers, Miners, Mountaineers, the Story
Behind Mt. McKinley National Park, 2005 ..... Tom Walker
Kantishna Mushers, Miners, Mountaineers ..... Tom Walker
In the Shadow of Mt. McKinley ..... William N. Beach

Human History: Denali Park – 20th Century, continued…

Changing Tracks: Predators and Politics in Mt. McKinley National Park, 2001 ..... Timothy Rawson
My Life of High Adventure ..... Grant Pearson
A History of Mt. McKinley N.P. ..... Grant Pearson
The Wilderness of Denali ..... Charles Sheldon
The Wilderness of the Southwest (has great bio. of Sheldon) ..... Charles Sheldon
Searching for Fanny Quigley ..... Jane Haigh
A Naturalist in Alaska ..... Adolph Murie
From Myth to Reality ..... Gail Evans
Land Use in the North Additions of DNP&P: An Historical Perspective ..... Schneider, Gudgel-Holmes & Dalle-Molle
Mt. McKinley: The Pioneer Climbs (Short bio. of Karstens in back) Terris Moore
Mt. McKinley: Icy Crown of North America ..... Fred Becky
Alaska's Wolf Man, Frank Glaser ..... Jim Rearden

Alaska:

Two in the Far North ..... Margaret Murie
Interior Alaska ..... Robert Thorson
ALASKA: Saga of a Bold Land ..... Walter R. Borneman
Alaska's History, Pocket guide ..... Harry Ritter
Gold Rush Women ..... Claire Rudolf Murphy

Dog Mushing:

Ten Thousand Miles With a Dog Sled ..... Hudson Stuck
A Dog Team Runs Through It (video) ..... NPS
Winter Patrol: Denali by Dog Sled (video) ..... NPS
The Sled Dogs of Denali National Park ..... Karen Fortier

Alaska Native History/Culture/Anthropology:

Denali: Symbol of the Alaskan Wild ..... William E. Brown
Dichinanek' Hwt'ana: A History of the People of the Upper Kuskokwim Who Live in Nikolai and Telida, Alaska ..... Raymond L. Collins (Ask Ann Kain)
Make Prayers to the Raven ..... Richard K. Nelson
The Athabaskans: People of the Boreal Forest ..... Richard K. Nelson
Hunters of the Northern Forest ..... Richard K. Nelson
Tracks in the Wildland ..... Richard K. Nelson, Kathleen H. Mautner & G. Ray Bane
Athapaskan Adaptations ..... James W. Van Stone
Land Use in the North Additions of DNP&P: An Historical Perspective ..... Schneider, Gudgel-Holmes & Dalle-Molle
Shadows on the Koyukuk ..... Sidney Huntington as told to Jim Reardon
The Native People of Alaska ..... Steve J. Langdon
Inhabited Wilderness: Indians, Eskimos, and National Parks in Alaska ..... Theodore Catton
Arctic Village ..... Robert Marshall
Native People and Languages of Alaska (map) ..... Todd Communications
American Beginnings ..... Ed. Frederick West
Quest for the Origins of the First Americans ..... E. Jane Dixon
Growing Up Native in Alaska ..... Alexandra J. McClanahan
Cold River Spirits ..... Jan Harper-Haines
Raising Ourselves ..... Velma Wallis
Alaska Native Ways ..... Roy Corral
Another Culture/Another World ..... Father Michael Oleksa
Howard Luke: My Own Trail ..... Luke & Steinbright Jackson

Mountaineering:

The Conquest of Mount McKinley ..... Belmore Browne
Mt. McKinley: Icy Crown of North America ..... Fred Becky
The Ascent of Denali ..... Hudson Stuck
Climbing Denali ..... Bill Sherwonit
Surviving Denali ..... Jonathan Waterman
In the Shadow of Denali ..... Jonathan Waterman
Mt. McKinley: The Pioneer Climbs ..... Terris Moore
Denali: Symbol of the Alaskan Wild ..... William E. Brown

Human History: Mountaineering, continued…

To the Top of Denali ..... Bill Sherwonit
Alaska Ascents ..... Bill Sherwonit
Climbing Alaska ..... Alaska Geographic
Minus 148° ..... Art Davidson
Mount McKinley: The Conquest of Denali ..... Bradford Washburn
Mount McKinley: Icy Crown of North America ..... Fred Beckey
17 Days, A Denali Diary (video) ..... KAKM Videos
Ways to the Sky:
A Historical Guide to North American Mountaineering ..... Andy Selters
Mt. McKinley's West Buttress ..... Bradford Washburn
Climb Denali ..... Laurent Dick
Alaska: A Climbing Guide ..... Mike Wood, Colby Coombs
The Dishonorable Dr. Cook ..... Washburn and Cherici
Staying Alive in Avalanche Terrain ..... Bruce Tremper

Transportation:

Across Time & Tundra (17-minute tourism history video) ..... Jane Bryant & Jane Ahern
From Myth to Reality ..... Gail Evans
Denali: Symbol of the Alaskan Wild ..... William E. Brown
Transportation in Alaska's Past ..... Alaska Historical Society

Subsistence:

Subsistence Resource Use in the Proposed North
Additions to Mt. McKinley N.P. ..... Richard H. Bishop
Land Use in the North Additions of DNP&P:
An Historical Perspective ..... National Park Service
Alaska Subsistence: A National Park Service Management
History ..... Frank Norris (NPS)
Dichinanek' Hwt'ana: A History of the People of the Upper
Kuskokwim Who Live in Nikolai and Telida, Alaska. ..... Raymond L. Collins

Miscellaneous

Native Alaskan Tales:

The Raven and the Totem ..... John E. Smelcer
Raven Tales ..... Peter Goodchild
Two Old Women ..... Velma Wallis
Tales from the Dena ..... Frederica De Laguna & Dale DeArmond
Bird Girl ..... Velma Wallis
K"etetaalkkaabee: The One Who Paddled Among the People ..... Catherine Attla
As My Grandfather Told It ..... Catherine Attla
Tanaina Tales from Alaska ..... Bill Vaudrin
In the Shadows of Mountains ..... John E. Smelcer

Quotable Quotes/Arctic Anecdotes:

Things Precious and Wild: A Book of Nature Quotations ..... John K. Terres
The Earth Speaks ..... Steve Van Matre & Bill Weiler
The Collected Poems of Robert Service ..... Robert Service
Minus 31° and the Wind Blowing ..... 9 different authors
New and Selected Poems of Mary Oliver ..... Mary Oliver

A Feel For Alaska:

Trapline Twins ..... Julie & Miki Collins
Riding the Wild Side of Denali ..... Miki & Julie Collins
The Way Winter Comes ..... Sherry Simpson
The Wilderness of Denali ..... Charles Sheldon
Two in the Far North ..... Margaret Murie
Journeys to the Far North ..... Olaus Murie
A Naturalist in Alaska ..... Adolph Murie
The Life I've Been Living ..... Moses Cruikshank
My Life of High Adventure ..... Grant Pearson
Denali Journal ..... Tom Walker
Old Yukon ..... James Wickersham

Miscellaneous: A Feel For Alaska, continued…

Last New Land: Stories of Alaska.....Wayne Mergler, editor
Readers Companion to Alaska .....Ed. Alan Ryan
Winterdance .....Gary Paulson
Arctic Dreams .....Barry Lopez
Shadows on the Koyukuk.....Sidney Huntington
Arctic Dance: The Mardy Murie Story .....Charles Craighead
Our Alaska .....Ed. Mike Doogan
Denali: A Literary Anthology .....Ed. Bill Sherwonit
Last New Land .....Ed. Wayne Mergler
Reader's Companion to Alaska.....Ed. Alan Ryan
The Stars, the Snow, the Fire .....John Haines
Coming Into the Country.....John McPhee
Travels in Alaska.....John Muir
Exploring the Unknown .....Bradford Washburn
The Accidental Adventurer .....Barbara Washburn
A Schoolteacher in Old Alaska .....Jane Jacobs

Art:

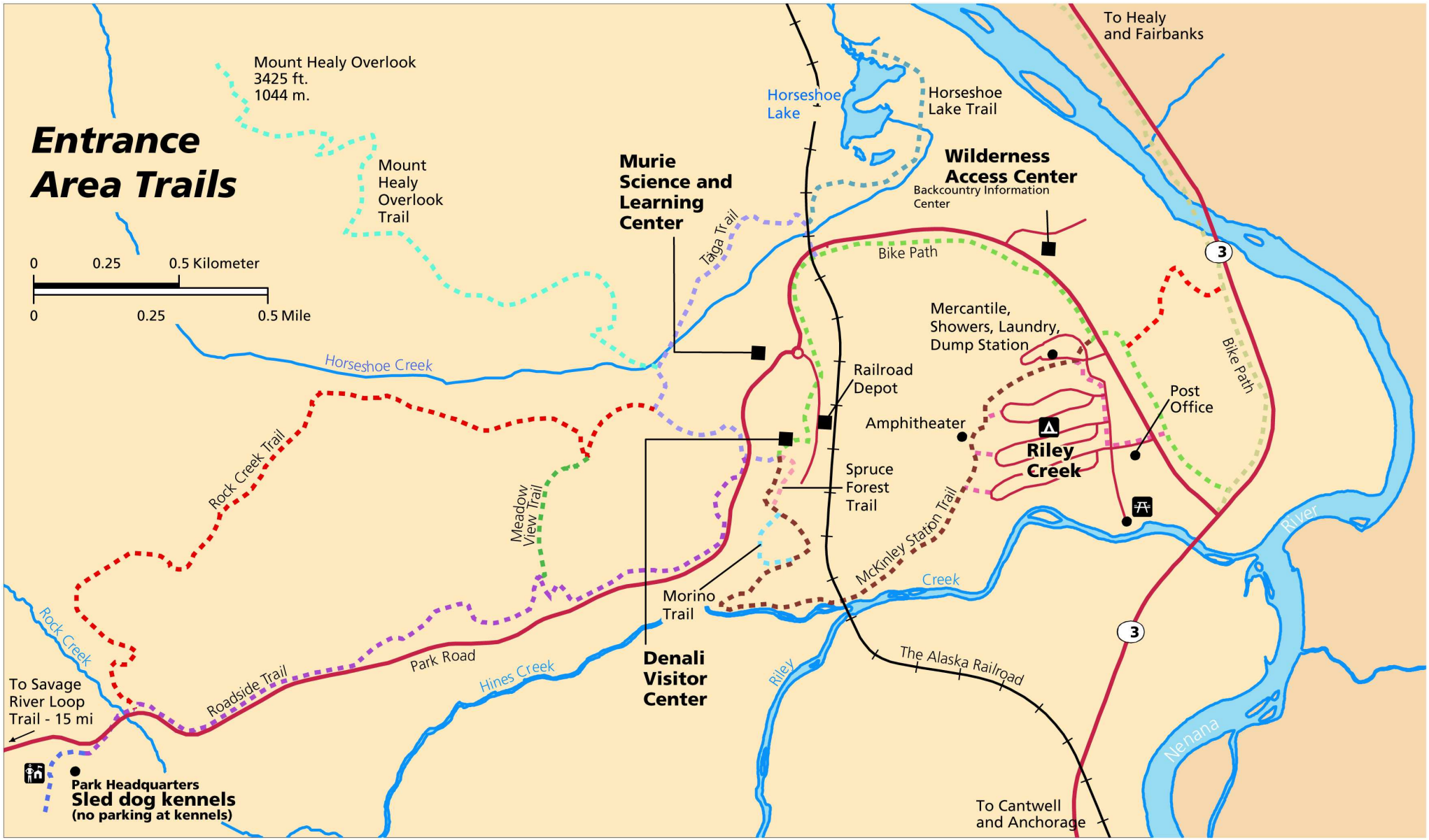
Sydney Laurence: Painter of the North .....Kesler E. Woodward
Alaskan Field Sketches .....Ed. Elizabeth Berry
Hands on Alaska (children's crafts) .....Yvonne Y. Merril
A Special Gift: The Kutchin Beadwork Tradition.....Duncan & Carney

Backcountry Ethics:

Backcountry Companion.....Jon Nierenberg
Leave No Trace: Alaska Tundra Outdoor Skills & Ethics .....NOLS
Leave No Trace: Guide to the New Wilderness Ethic.....Annette McGivney
NOLS Wilderness Guide.....Mark Harvey

Other:

National Park Ranger: An American Icon.....Charles Farabee
John Muir: Nature's Visionary.....Gretel Ehrlich
Earth in Mind:
On Education, Environment, and the Human Prospect ..... David Orr


Entrance Area Trails
Mount Healy Overlook 3425 ft. 1044 m.
Mount Healy Overlook Trail
0 0.25 0.5 Kilometer
0 0.25 0.5 Mile
Horseshoe Creek
Rock Creek Trail
Meadow View Trail
Roadside Trail
Park Road
Hines Creek
Rock Creek
To Savage River Loop Trail - 15 mi
Park Headquarters
Sled dog kennels
(no parking at kennels)
Denali Visitor Center
Morino Trail
Taiga Trail
Murie Science and Learning Center
Horseshoe Lake
Horseshoe Lake Trail
Wilderness Access Center
Backcountry Information Center
Bike Path
To Healy and Fairbanks
Mercantile, Showers, Laundry, Dump Station
Railroad Depot
Amphitheater
Spruce Forest Trail
Riley Creek
Post Office
McKinley Station Trail
Creek
Riley
The Alaska Railroad
To Cantwell and Anchorage
Nenana
River
3

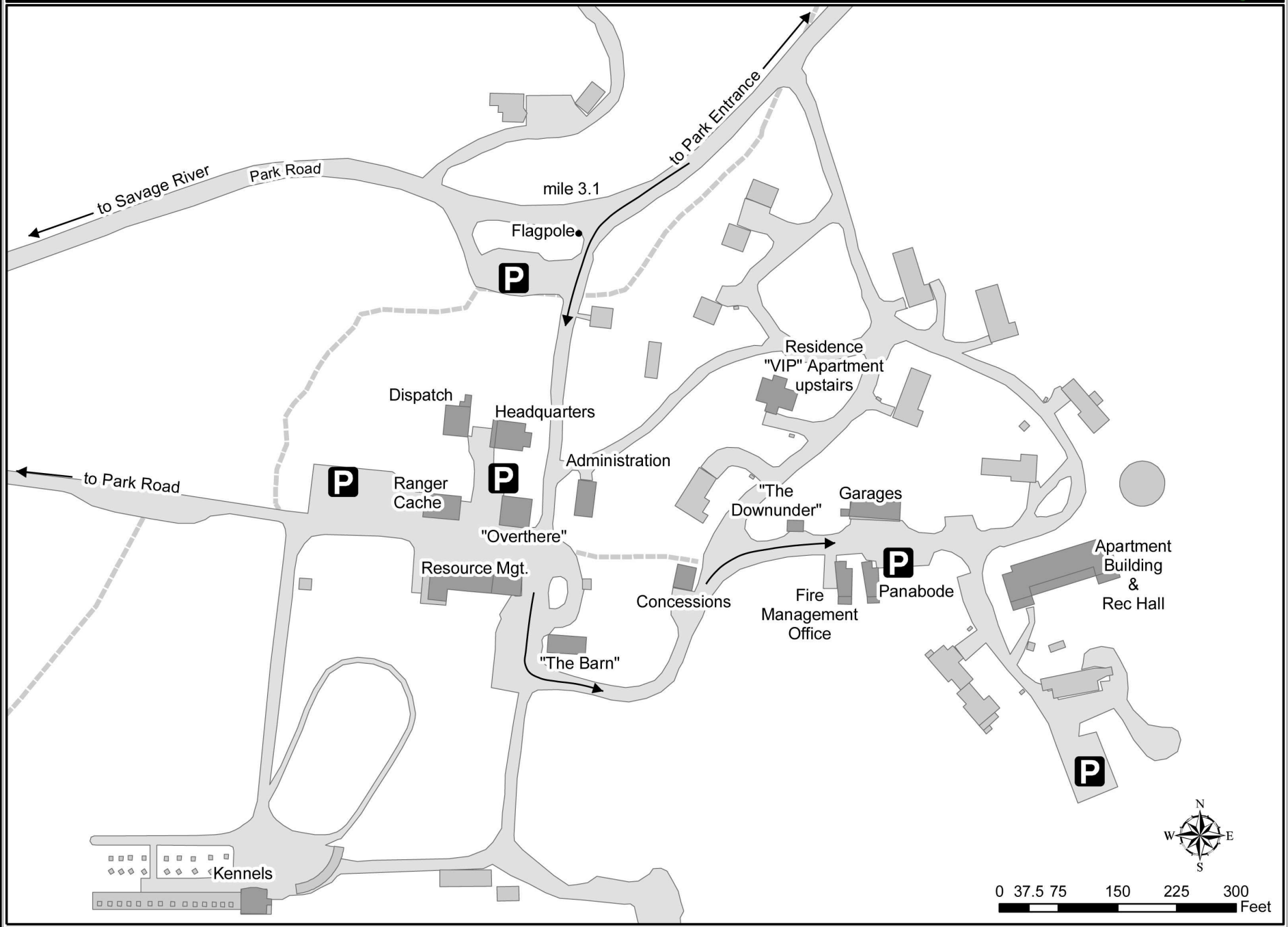
C-Camp
Denali National Park and Preserve

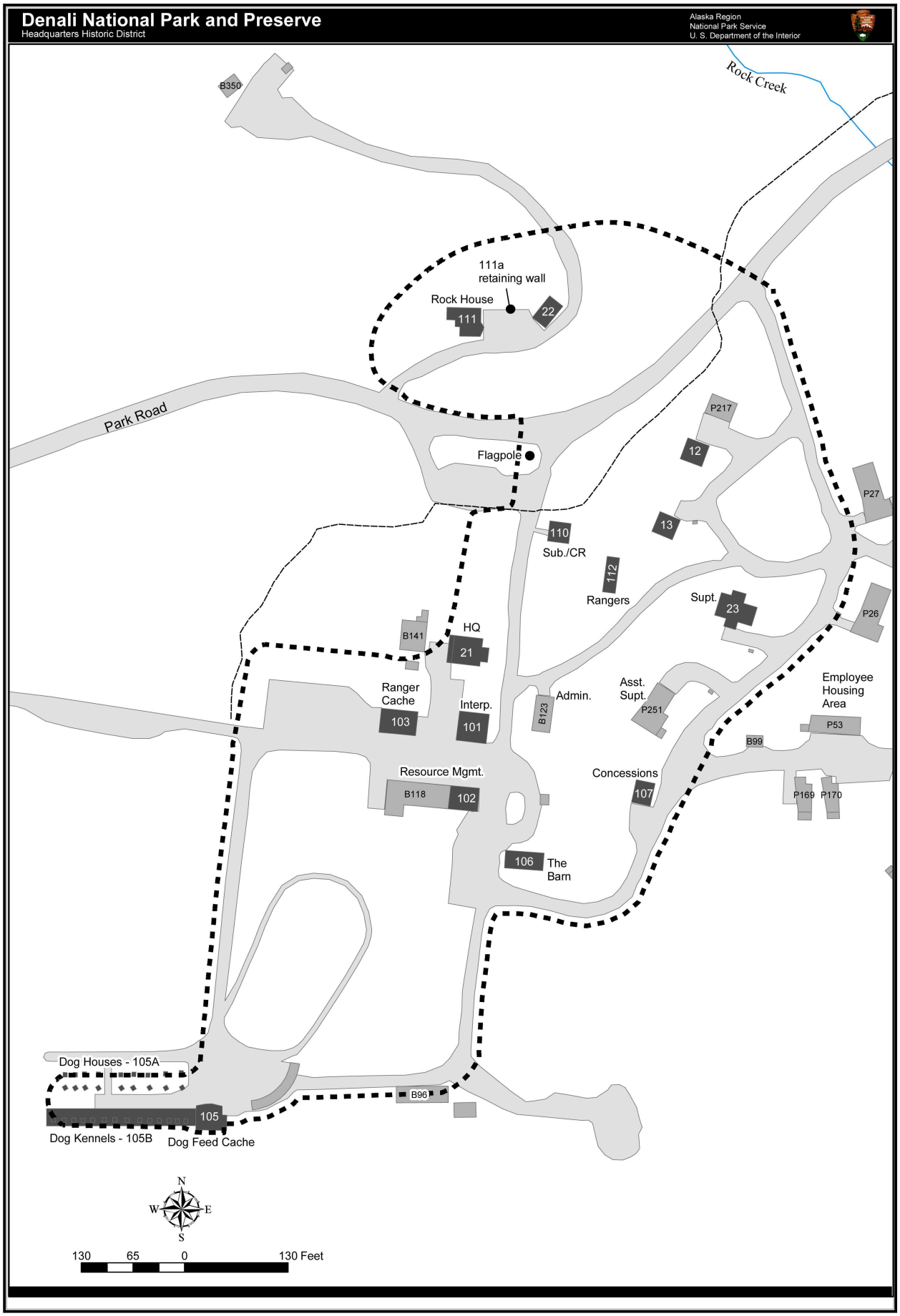
Alaska Region
National Park Service
U. S. Department of the Interior

Headquarters/Guest Housing

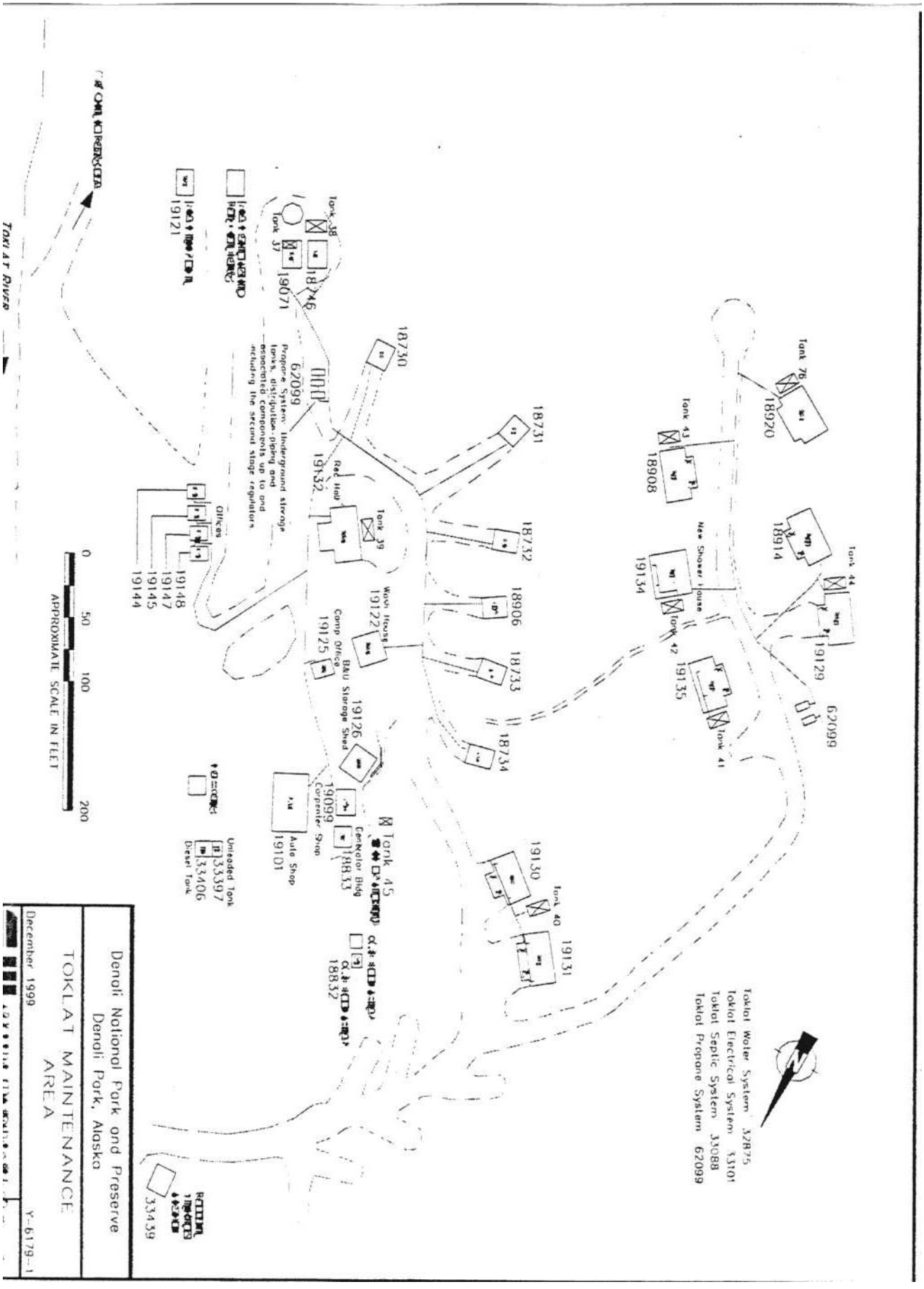
Denali National Park and Preserve

Alaska Region
National Park Service
U. S. Department of the Interior




Denali National Park and Preserve
Headquarters Historic District
Alaska Region
National Park Service
U. S. Department of the Interior
Rock Creek
B350
111a
retaining wall
Rock House
111
22
Park Road
Flagpole
P217
12
P27
13
110
Sub./CR
112
Rangers
Supt.
23
P26
B141
HQ
21
Ranger
Cache
103
Interp.
101
B123
Admin.
Asst.
Supt.
P251
Employee
Housing
Area
P53
B99
Resource Mgmt.
B118
102
Concessions
107
P169
P170
106
The
Barn
Dog Houses - 105A
B96
105
Dog Kennels - 105B
Dog Feed Cache
N
W
E
S
130
65
0
130 Feet

Toklat Road Camp



Denali National Park Interpretive Division

Uniform Matrix

R *Required*
p *Preferred*
o *Optional*

NOTE: Outermost layer must have your badge and name tag.

Please do not wear dangling earrings, visible necklaces or any excessive jewelry or other items that will detract from the uniform.

Uniform Item	DVC Theater & Princess Programs	DVC Info Desk	CG Program	Dog Demo	Discovery Hike	Short Hikes/Walks
L/S Service Dress Shirt w/ Tie and Tie Tac	p	p	p	p	o	o
L/S Service Dress Shirt w/ Black Turtleneck			o	o	p	p
S/S Service Dress Shirt	o	o	o	o	p	p
Pullover Sweater	o (w/L/S shirt & tie)	o	o	o	o	o
Fleece Jacket			o	o	o	o
Vest, either fleece-lined or insulated			o	o	o	o
Hip-Length GORE-TEX Shell w/ badge tab and name plate			o	o	o	o
Winter or Summer Dress Trousers	p	p	o			o
Jeans (the park service green kind!)		o	p	p	p	R
Field Twill Trousers	p	o	p	o	o	o
Embossed Belt	R	R	R	R	R	R
Rain/Wind Pants			o	o	o	o
Gaiters					o	
Felt Ranger Hat (Worn outside only)	R	R	R	R		p
Rain Hat Cover	o	o	o	o		o
Ball Cap – Mesh or Twill (Worn outside only)					R	o (hot weather only)
Front Country Hiker (shineable!)	p	p	p	p	p	p
Back Country Hiker		o	p	p	p	p
Talus Boots			o	o	o	o
Dress Shoe	p	p	o	o		
Rocky Walker	o	o	o	o		o
Brown Socks	R	R	R	R	R	R

11/15/2007

S94 (DENA-A)

March 25, 2003

TO: All Uniformed Employees

FROM: Superintendent

SUBJECT: Conduct and Behavior While In Uniform

We have received several inquiries regarding conduct and behavior when wearing the uniform. As a reminder, in accordance with NPS-43, Uniform Program Guidelines, Conduct and Bearing Standards, the following activities are prohibited while in uniform or wearing a readily identifiable uniform component:

a. Purchasing alcoholic beverages and/or consuming them in a public place, whether on or off duty.

b. Smoking or carrying cigars, pipes or cigarettes in their mouths or chewing gum or tobacco while in public view.

c. Gambling in any form while on or off duty.

d. Participating in or attending any demonstration or public event wherein the wearing of the uniform could be construed as agency support for a particular issue, position, or political party.

e. Sleeping while on duty and in public view.

Violations of the above activities may warrant disciplinary action. NPS employees are held in high esteem by the public and are also highly regarded as role models. Successfully preserving our natural and cultural heritage requires that we also present a positive image to the public. We appreciate the fine appearance you present and hope this memo clarifies to everyone the importance we place in wearing the uniform properly and proudly!

If anyone has any questions, needs further clarification, or would like to review the NPS Uniform Guideline, please contact Human Resources, x503.

Paul R. Anderson
Superintendent

The National Park Service Organic Act

An act to establish a National Park Service, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is hereby created in the Department of the Interior a service to be called the National Park Service, which shall be under the charge of a director, who shall be appointed by the Secretary and who shall receive a salary of $4,500 per annum. There shall also be appointed by the Secretary the following assistants and other employees at the salaries designated: One assistant director, at $2,500 per annum, one chief clerk, at $2,000 per annum; one draftsman, at $1,800 per annum; one messenger, at $600 per annum; and, in addition thereto, such other employees as the Secretary of the Interior shall deem necessary: Provided, That not more than $8,100 annually shall be expended for salaries of experts, assistants, and employees within the District of Columbia not herein specifically enumerated unless previously authorized by law. The service thus established shall promote and regulate the use of the Federal areas known as national parks, monuments, and reservations hereinafter specified by such means and measures as conform to the fundamental purposes of the said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations

Denali National Park and Preserve

Mission Statement

The National Park Service is dedicated to conserving unimpaired the natural and cultural resources, as well as the aesthetic and wilderness values of Denali National Park and Preserve, for the benefit, use, education, and inspiration of present and future generations. The Service is also responsible for sustaining a subsistence and frontier lifestyle, and a setting conducive to scientific investigation, provided they can be accommodated within the constraints of the mission at large.

Park Purpose And Significance

(from Statement for Management, Sept. 1995)

The park purpose, or the reason for which it was set aside, can be found in the area's authorizing legislation and legislative history. Park "significance statements" identify the area's important resource values and their significance relative to similar resources elsewhere in the U.S. and the world. They capture the essence of the park's importance to our nation's natural and cultural heritage. The following purpose and significance statements are used as a fundamental guide for all general objectives and specific strategies used to develop plans and make management decisions for Denali.

PARK PURPOSE

Denali National Park and Preserve is a vast area that provides visitors of all abilities with opportunities for superlative, inspirational experiences in keeping with its legislative mandates. Over the long term, preservation of the wilderness and its continually evolving natural processes is essential to providing the opportunity for outstanding resource-based visitor experiences.

Terms and phrases are found throughout the park's legislation and legislative history that address this fundamental purpose of the park.

In 1917, Congress established Mount McKinley National Park to "set apart as a public park for the benefit and enjoyment of the people . . . for recreation purposes by the public and for the preservation of animals, birds, and fish and for the preservation of the natural curiosities and scenic beauties thereof. . . said park shall be, and is hereby established as a game refuge" (39 Stat. 938).

In 1980 Congress passed the Alaska National Interest Lands Conservation Act (ANILCA) and enlarged the park. Section 101 describes the broad purposes of the new and enlarged national parks and preserves. These include:

- Preserve lands and waters for the benefit, use, education, and inspiration of present and future generations
- Preserve unrivaled scenic and geological values associated with natural landscapes
- Maintain sound populations of, and habitat for, wildlife species
- Preserve extensive, unaltered ecosystems in their natural state
- Protect resources related to subsistence needs
- Protect historic and archeological sites
- Preserve wilderness resource values and related recreational opportunities
- Maintain opportunities for scientific research and undisturbed ecosystems
- Provide the opportunity for rural residents engaged in a subsistence way of life to continue to do so

Congress renamed and enlarged Denali National Park and Preserve under ANILCA, sec. 202, to be managed for the following purposes, among others:

- Protect and interpret the entire mountain massif, and the additional scenic mountain peaks and formations

- Protect habitat for, and populations of, fish and wildlife including, but not limited to, brown/grizzly bears, moose, caribou, Dall sheep, wolves, swans, and other waterfowl

- Provide continued opportunities, including reasonable access, for mountain climbing, mountaineering and other wilderness recreational activities

The intent for Denali is further clarified by the legislative history on ANILCA. The northern addition was to provide large sanctuaries for wildlife, protect entire ecological systems, and preserve the critical range. The southern addition was to include the entire Mount McKinley massif and provide ecological diversity and opportunities for recreation and access.

The purpose of Denali is also tied to the traditions of the other parks and preserves added to the system through ANILCA. The park includes several administrative subsets with different legislative histories and legal mandates (original national park, national park additions, national preserve, and designated and proposed wilderness), and it is a place where special uses related to subsistence and a frontier-type way of life continue, subject to regulation to ensure they do not jeopardize the integrity of park resources.

The park's administrative history also clarifies the park purpose. The park's origins are loosely linked to the "old-line," large, western parks that were established during the first two decades of the last century. Because of its early designation within the park system, Denali has evolved to become one of the most well-established of the national parks. Outstanding natural resources in general - and accessible wilderness in particular - have resulted in Denali becoming the most heavily visited of the national parks in Alaska. Still, development and use have been limited because of the park's remote location (compared to lower 48 states) and by park plans and management decisions aimed at achieving its legislative purposes.

These legislated purposes and administrative history set a high standard for park management, public use, and resource preservation for this unit of the national park system. Key concepts include the immense scale, whole systems management, and minimization of human disturbance. Denali's rich legislative and administrative history affords a very special opportunity to the public: the possibility of observing free-roaming wildlife at close range and spectacular, world-class scenery in a rugged wilderness setting. Opportunities for this experience are rare in other regions of the country and the level of access is unusual for Alaska. Yet the park's impressive wildlife, premier vistas, opportunities for solitude, and 1imited development remain consistent with the Park Service's understanding of visitor expectations for the nation's parks, particularly those in Alaska. Even the intrinsic value of the park, for people in the lower 48 that may never even visit the place, is recognized.

The nation's public lands offer a spectrum of recreational opportunities to their users. All national park system units, by virtue of planning and administrative decisions, fall somewhere in that spectrum, which ranges from highly pristine, remote and sparsely used lands to highly developed, readily accessible, and intensively used recreation areas. Denali's legislative mandates and administrative history places the park toward one end of that spectrum with parks that can be characterized as wild, rustic, and expansive. Denali rests somewhere between the extremely remote, lightly used Alaskan

national park units and the large, wilderness parks of the lower 48 states that are highly accessible and more developed. This blend of largely pristine conditions and an intense focus for use and access in a relatively small but critical portion of the park, coupled with the unique provisions of ANILCA, creates unusual management challenges and is often the core of most controversial issues (see appendix A for additional information on ANILCA).

PARK SIGNIFICANCE

• **International Significance:** Denali National Park and Preserve is a park of international significance. The United Nations proclaimed it a biosphere reserve under its Man and the Biosphere program, significant for its potential for subarctic ecosystems research.

• **Large Protected Area:** The vast protected area of Denali, over 6 million acres or about the size of the state of Vermont, enables a spectacular array of flora and fauna to live together in a healthy natural system, over 2 million acres of which has been in a protected status since 1917. This is the largest continuously protected area in the world. The park offers excellent opportunities to study large area natural systems in settings that are primarily undisturbed by humans.

• **Mountains:** The park contains a major portion of the Alaska Range, which is one of the great mountain uplifts in North America. The Denali fault is North America's largest crustal break. The Alaskan Range is dominated by North America's highest peak, Mount McKinley, with its summit at 20,320 feet above sea level. Towering 18,000 feet above the adjacent lowlands, the mountain's dramatic vertical relief rivals any other mountain range in the world; it exceeds the vertical relief of Mount Everest.

• **Glaciers:** The park contains a number of large, active glaciers and major glacier-fed rivers and streams. Its glaciers are some of the longest in North America, up to 45 miles long and 4 miles wide.

• **Wildlife:** The park was originally established in 1917 as a refuge for large mammals. Dall sheep, caribou, wolves, grizzly bear, moose, and fox are often observed in the park, especially along the park road on the north side of the Alaska Range. While populations fluctuate, nowhere else in America can such concentrations of these large species of wildlife be observed in a natural setting in so readily accessible a place. The park is also significant for its waterfowl habitat. The area from Wonder Lake northwest to Lake Minchumina is a large nesting area for great numbers of migratory waterfowl.

• **Plant life:** Denali contains outstanding examples of subarctic plant communities. Only plants that have adapted to long, bitterly cold winters can survive in the various plant communities in the park. Even with these extreme conditions, over 650 species of flowering plants inhabit the slopes and valleys of the park. Denali offers extensive opportunities to observe tundra plant life in a natural setting.

• **Air Quality and Scenic Resources:** The exceptional air quality in Alaska and the lack of city lights near the park provide the conditions for outstanding daytime views and excellent night sky visibility in fall and winter. On a clear day, Mount McKinley can be seen from Anchorage, over 130 air miles to the south. Denali National Park and Preserve is a designated Class I airshed. Outstanding views of natural features, including mountains, glaciers, faulting, and other geological processes dominate the park landscape. The lower southern slopes of the Alaska Range are steep between glaciers, containing some spectacular lower elevation wells, spires, and peaks. Views of Mount McKinley from the south are much different than the classic views from the north side, offering alternative but equally impressive viewing opportunities at certain locations on the south side.

• **Cultural Resources:** There are over 180 known cultural sites and complexes located within Denali's boundaries, many of which are listed on the National Register of Historic Places. Because cultural resource inventories have been limited to date, this number most likely represents a fraction of the total sites contained in the park. Known resources include archeological and historical sites associated with Athabascan Indian groups, early explorers, mining history, and the early days of the park. Major prehistoric sites in the park include the Teklanika Archeological District, a property listed on the National Register of Historic Places. Numerous historic structures are found in the park headquarters area (a national historic district), along the main park road, and on the boundaries of the Denali Wilderness (along the original park boundary). These are mainly patrol cabins and other structures dating back to early years of park management, mines, and related mining structures. Historic mining activity dates back to 1903 in the Kantishna Hills (which includes the Kantishna Historic District), the Stampede area, and the Dunkle Hills near Cantwell.

• **Access and Tourism:** A convergence of factors puts Denali among the most popular visitor destinations in Alaska and makes it a symbol of what Alaska offers. The Alaska Railroad links the park with Anchorage, Fairbanks, and the ports of Whittier and Seward, a direct access route that is available to only two national parks in Alaska (Denali and Kenai Fjords National Park). The railroad also links Denali to major international package tours that carry visitors by ship, bus, rail, and air in a route generally running from Seattle, through Interior Alaska, and back. The George Parks Highway roughly parallels the railroad, and provides similar access for both out-of-state visitors and Alaska residents. Most visitors to Denali want to travel all or a portion of the 90-mile road into the heart of the park. The mountain, wildlife viewing, and park road experience are broadly marketed as a "must do" adventure. The park road is, therefore, a significant visitor use resource, offering an experience distinctively different from that found in typical national parks in the lower 48. It offers a unique bus trip that is rustic and that transports people through a narrow corridor into the wilderness, containing prime wildlife viewing areas unlike any other.

• **Mountaineering:** Because it is the highest peak in North America, has a high northern latitude location, and is relatively accessible, Mount McKinley is considered one of the world's premier mountaineering destinations, drawing climbers from all over the world. It is touted as one of the "seven summits of the world." Numerous other peaks in the park, including Mount Foraker, also offer outstanding climbing opportunities. The remote Kichatna Spires offer another spectacular area for climbing.

• **Wilderness Recreation Opportunities:** Denali offers superlative opportunities for primitive wilderness recreation. Outstanding cross-country hiking, backcountry camping and winter touring possibilities are available for one willing to approach the area in its natural condition. This huge park contains large, almost entirely trailless areas where evidence of human use is minimal to nonexistent. These backcountry conditions are in contrast to most lower 48 wilderness areas where maintained trails, designated campsites, footbridges, and signs are the norm.

LEGISLATIVE HISTORY (ACT OF 1917 - ACT OF 1932)

An Act To establish the Mount McKinley National Park, in the Territory of Alaska, approved February 26, 1917 (39 Stat. 938)

Mount McKinley National Park, Alaska, established.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the tract of land in the Territory of Alaska particularly described by and included within the metes and bounds, to wit: Beginning at a point as shown on Plate III. reconnaissance map of the Mount McKinley region, Alaska, prepared in the Geological Survey, edition of nineteen hundred and eleven, said point being at the summit of a hill between two forks of the headwaters of the Toklat River, approximate latitude sixty-three degrees forty-seven minutes, longitude one hundred and fifty degrees twenty minutes; thence south six degrees twenty minutes west nineteen miles; thence south sixty-eight degrees west sixty miles; thence in a southeasterly direction approximately twenty-eight miles to the summit of Mount Russell; thence in a northeasterly direction approximately eighty-nine miles to a point twenty-five miles due south of a point due east of the point of beginning; thence due north twenty-five miles to said point; thence due west twenty-eight and one-half miles to the point of beginning, is hereby reserved and withdrawn from settlement, occupancy, or disposal under the laws of the United States, and said tract is dedicated and set apart as a public park for the benefit and enjoyment of the people, under the name of the Mount McKinley National Park. (U.S.C., title 16, sec. 347.)

Description.

SEC. 2. That nothing herein contained shall affect any valid existing claim, location, or entry under the land laws of the United States, whether for homestead, mineral, right of way, or any other purpose whatsoever, or shall affect the rights of any such claimant, locator, or entry man to the full use and enjoyment of his land. (U.S.C., title 16, sec. 348.)

Existing entries, etc., not impaired. (Amended by 46 Stat. 1043. See p. 203.)

SEC. 3. That whenever consistent with the primary purposes of the park, the Act of February fifteenth, nineteen hundred and one, applicable to the location of rights of way in certain national parks and national forests for irrigation and other purposes, shall be and remain applicable to the lands included within the park. (U.S.C., title 16, sec. 349.)

Rights of way, Vol. 31, p. 790.

SEC. 4. Nothing in this Act shall in any way modify or affect the mineral land laws now applicable to the lands in the said park. (U.S.C., title 16, sec. 350.)

Mineral land laws not affected.

SEC. 5. That the said park shall be under the executive control of the Secretary of the Interior, and it shall be the duty of the said executive authority, as soon as practicable, to make and publish such rules and regulations not inconsistent with the laws of the United States as the said authority may deem necessary or proper for the care, protection, management, and improvement of the same, the said regulations being primarily aimed at the freest use of the said park for recreation purposes by the public and for the preservation of animals, birds, and fish and for the preservation of the natural curiosities and scenic beauties thereof. (U.S.C., title 16, sec. 351.)

Regulations of control, etc.

SEC. 6. That the said park shall be, and is hereby, established as a game refuge, and no person shall kill any game in said park except under an order from the Secretary of the Interior for the protection of persons or to protect or prevent the extermination of other animals or birds: *Provided*, That prospectors and miners engaged in prospecting or mining in said park may take and kill therein so much game or birds as may be needed for their actual necessities when short of food; but in no case shall animals or birds be killed in said park for sale or removal therefrom, or wantonly. (U.S.C., title 16, sec. 352.)

Game refuge established.

Proviso.

Killing for food permitted. (Repealed by 45 Stat. 622. See p. 202.)

SEC. 7. That the said Secretary of the Interior may, in his discretion, execute leases to parcels of ground not exceeding twenty acres in extent for periods not to exceed twenty years whenever such ground is necessary for the erection of establishments for the accommodation of visitors; may grant such other necessary privileges and concessions as he deems wise for the accommodation of visitors; and may likewise arrange for the removal of such mature or dead or down timber as he may deem necessary and advisable for the protection and improvement of the park: *Provided*, That no appropriation for the maintenance of said park in excess of $10,000 annually shall be made unless the same shall have first been expressly authorized by law. (U.S.C., title 16, sec. 353.)

Leases for accommodations for visitors (Amended by 39 Stat. 535, as amended. See pp. 9-12.)

Proviso.
Limit on appropriations. (Repealed by 45 Stat. 622. See p 202.)

SEC. 8. That any person found guilty of violating any of the provisions of this Act shall be deemed guilty of a misdemeanor, and shall be subjected to a fine of not more than $500 or imprisonment not exceeding six months, or both, and be adjudged to pay all costs of the proceedings. (U.S.C., title 16, sec. 354.)

Punishment for violations.

An Act To repeal the proviso of section 6 and the last proviso of section 7 of "An Act to establish the Mount McKinley National Park in the Territory of Alaska," approved February 26, 1917, approved May 21, 1928 (45 Stat. 622.)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the last proviso of section 7 of an Act entitled "An Act to establish the Mount McKinley National Park, in the Territory of Alaska," approved February 26, 1917, which is in the words and figures following: "*Provided*, That no appropriation for the maintenance of said park in excess of $10,000 annually shall be made, unless the same shall have first been expressly authorized by law," be, and the same is hereby, repealed.

Mount McKinley National Park, Alaska.

Limit on appropriations for, repealed. See p. 201.

Vol. 39, p. 939, repealed. See p. 201.

SEC. 2. That the proviso of section 6 of an Act entitled "An Act to establish the Mount McKinley National Park, in the Territory of Alaska," approved February 26, 1917, which is in the words and figures following: *Provided*, That prospectors and miners engaged in prospecting or mining in said park may take and kill therein so much game or birds as may be needed for their actual necessities when short of food; but in no case shall animals or birds be killed in said park for sale or removal therefrom, or wantonly," be, and the same is hereby repealed. (U.S.C., title 16, 6th supp., sec. 352, 353.)

Provision allowing killing of game for food in, repealed.

Vol. 39, p. 939, repealed. See p. 201.

LEGISLATIVE HISTORY (ACT OF 1917 - ACT OF 1932)

Joint Resolution To provide for the naming of a prominent mountain or peak within the boundaries of Mount McKinley National Park, Alaska, in honor of Carl Ben Eielson, approved June 14, 1930 (46 Stat. 588.)

Mount Eielson, Alaska.

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That a mountain or peak, unofficially known as Copper Mountain, located at the headwaters of the Mount McKinley River, lying in a northeasterly direction from Mount McKinley in the Mount McKinley National Park, Alaska, is hereby permanently named Mount Eielson in honor of the pioneer work in aviation performed in Alaska and the North by Carl Ben Eielson.

Mountain in Mount McKinley National Park named in honor of Carl Ben Eielson.

Excerpt from " An Act To provide for uniform administration of the national parks by the United States Department of the Interior, and for other purposes," approved January 26, 1931 (46 Stat. 1043)

SEC. 2. That hereafter the Secretary of the Interior shall have authority to prescribe regulations for the surface use of any mineral land locations already made or that may hereafter be made within the boundaries of Mount McKinley National Park, in the Territory of Alaska, and he may require registration of all prospectors and miners who enter the park: *Provided*, That no resident of the United States who is qualified under the mining laws of the United States applicable to Alaska shall be denied entrance to the park for the purpose of prospecting or mining. (U.S.C., 6th supp., title 16, sec. 350a.)

Mount McKinley, Alaska. Regulations for surface use of mineral lands within. (Amends sec. 2, Vol. 39, p. 936. See p. 200.)
Registration of miners, etc. Proviso.

Entries.

An Act To add certain lands to Mount McKinley National Park, Alaska, approved January 30, 1922 (42 Stat. 359)

Mount McKinley National Park, Alaska. Lands added to.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the south, east, and north boundaries of the Mount McKinley National Park are hereby changed as follows: Beginning at the summit of Mount Russell, which is the present southwest corner of the park; thence in a northeasterly direction one hundred miles, more or less, to a point on the one hundred and forty-ninth meridian, which is twenty-five miles south of a point due east of the upper northwest corner of the park; thence north along the one hundred and forty-ninth meridian twenty-five miles; thence west forty miles, more or less, to the present upper northwest corner of Mount McKinley National Park. And all these lands lying between the above-described boundary and the present south, east, and north boundaries are hereby reserved and withdrawn from settlement, occupancy, or disposal, and under the laws of the United States said lands are hereby made a part of and included in the Mount McKinley National Park; and all the provisions of the Act to establish Mount McKinley National Park, Alaska, and for other purposes, approved February 26, 1917, are hereby made applicable to and extended over lands hereby added to the park. (U.S.C., title 16, sec. 347.)

Vol. 39, p. 938. See p. 200.

LEGISLATIVE HISTORY (ACT OF 1917 - ACT OF 1932)

An Act To revise the boundary of the Mount McKinley National Park, in the Territory of Alaska, and for other purposes, approved March 19, 1932 (47 Stat. 68)

Mount McKinley National Park, Alaska. Boundary Changed. Vol. 39, p. 938. See p. 200.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the boundary of the Mount McKinley National Park is hereby changed so as to read as follows: Beginning at the summit of a hill between the Toklat River and the Clearwater Fork of that river at an approximate latitude of sixty-three degrees forty-seven minutes forty-five seconds, longitude one hundred and fifty degrees seventeen minutes forty seconds, which is intended to be same point of beginning of the boundary description as contained in the Act of February 26, 1917; thence southerly along the summit of the ridge between Toklat River and the Clearwater Fork of said river and across Stony Creek at its confluence with the said Clearwater Fork to the summit of the ridge between Stony Creek and the Clearwater Fork of the Toklat River; thence following the summit of said ridge and the summit of the ridge between the tributaries of said Clearwater Fork, the headwaters of the North Fork of Moose Creek and Boundary Creek to the intersection with the present boundary of Mount McKinley National Park at approximate latitude of sixty-three degrees thirty-two minutes forty-five seconds, longitude one hundred and fifty degrees twenty-four minutes forty-five seconds; thence southwesterly fourteen and three-tenths miles, more or less, to a point one-half mile north of Wonder Lake on the stream flowing out of Wonder Lake into Moose Creek; thence south sixty-eight degrees west forty-three and five-tenths miles, more or less, to the point of intersection with the southwest boundary extended; thence southeasterly thirty-three miles, more or less, to the summit of Mount Russell; thence in a northeasterly direction following the present south boundary approximately eighty-eight miles to Windy Creek at approximate latitude sixty-three degrees twenty-five minutes forty-five seconds, longitude one hundred and forty-nine degrees one minute thirty-five seconds; thence easterly following the north bank of Windy Creek to the western boundary of The Alaska Railroad right of way; thence northerly following the west boundary of The Alaska Railroad right of way to a point due east of the present north boundary of the park as extended due east; thence due west following the present north boundary of the park to the summit of the ridge between Toklat River and the Clearwater Fork of said river; thence southerly following

Description.

the summit of said ridge to the place of beginning: *Provided, however*, That such isolated tracts of land lying east of The Alaska Railroad right of way and the west bank of the Nenana River between the north bank of Windy Creek and the north park boundary as extended eastward are also included in said park; *Provided further*, That nothing herein contained shall affect any valid existing claim, location, or entry under the land laws of the United States, whether for homestead, mineral, right of way, or any other purpose whatsoever, or shall affect the rights of any such claimant, locator, or entryman to the full use and enjoyment of his land. (U.S.C., 6th supp., title 16, sec. 355.)

SEC. 2. That the provisions of the Act of August 25, 1916, entitled "An Act to establish a national park service, and for other purposes," and the Act of February 26, 1917, entitled "An Act to establish the Mount McKinley National Park, in the Territory of Alaska," together with all Acts supplementary to and amendatory of said Acts are made applicable to and extended over the lands hereby added to the park. (U.S.C., 6th supp., title 16, sec. 355a.)

Alaska National Interest Lands Conservation Act

The origins of the Alaska National Interest Lands Conservation Act date back to the late 1950's when the Territory of Alaska became our 49th state. The Alaska Statehood Act of 1958 authorized the newly established State to select, over time, 104 million acres from the total land area of 375 million acres as an economic base. Thus began a lengthy process of withdrawals, selections and re-designation of lands within Alaska by State, Federal and Native organizations.

During this same period, Alaskan Natives were actively pursuing a native lands claim settlement. In the 1960's, the Secretary of the Interior responded by putting a freeze on State land selections until the Native land claims could be settled.

In December 1971, Congress passed the Alaska Native Claims Settlement Act (ANCSA) which recognized and settled the long-contested rights of Alaska Natives by granting them the right to select approximately 44 million acres of Federal land in Alaska. The Act also afforded the Secretary of the Interior the opportunity to designate new natural, cultural, recreational, and wildlife areas in Alaska. Section 17(d) (2) of ANCSA authorized the Secretary to withdraw 80 million acres of land to be studied for possible additions to the National Park, National Wildlife Refuge, National Wild and Scenic River, and the National Forest Systems.

Until President Carter assumed office in 1977, d-2 seemed to be going nowhere, despite the lobbying efforts of a powerful group of 55 conservation organizations known as the Alaskan Coalition, and support by many Native organizations. Opponents were able to stall the bill until its deadline approached, forcing President Carter to use the National Antiquities Act to designate 17 National Monuments encompassing 56 million acres, and suspending mining claims and logging on the rest of the lands under consideration.

The changing political climate that resulted with Ronald Reagan's victory over Jimmy Carter produced the compromises necessary for passage of ANILCA. After extended debate, which span three administrations and five sessions of Congress, the Alaska National Interest Lands Conservation Act was passed in December of 1980. The act placed 104.5 million acres under protection, doubling the size of the National Park System, and tripling the size of the National Wilderness Preservation System.

Following is an extremely brief synopsis of sections of ANILCA and its implications for Denali National Park and Preserve.

ANILCA, Title I, Purposes:
It was the intent of Congress to preserve unrivaled scenic and geological values associated with natural landscapes; to provide for the maintenance of sound wildlife populations and their habitat; to preserve extensive unaltered arctic tundra, boreal forests, and coastal

rainforest ecosystems; to protect the resources related to subsistence needs; to protect and preserve historic and archeological sites; to preserve wilderness values and related recreational opportunities, including but not limited to hiking, canoeing, fishing, and sport hunting, and to maintain opportunities for scientific research and undisturbed ecosystems.

It was further the intent and purpose of this Act, consistent with management of fish and wildlife in accordance with recognized scientific principles and the purposes for which each conservation unit is established, designated, or expanded, to provide the opportunity for rural residents engaged in a subsistence way of life to continue to do so.

ANILCA, Title II, National Park System:
The overall objective of Title II was to establish as complete as possible a system of parks in Alaska, which would represent the most outstanding available characterizations of natural, historical and cultural themes. Approximately 49 million acres of park, preserve and monument lands were added to the National Park System in Alaska.

Mount McKinley National Park was nearly tripled in size with the addition of 2.43 million acres of new Park land, and 1.33 million acres of Preserve land, and the whole area was re-designated as Denali National Park and Preserve.

ANILCA, Title III, Wildlife Refuge System
ANILCA, Title IV, National Recreational Areas
ANILCA, Title V, National Forest System
ANILCA, Title VI, Wild and Scenic River System

ANILCA, Title VI, Wilderness Preservation:
Approximately 32.8 million acres of land within eight National Park areas in Alaska was designated as Wilderness. 1.9 million acres of lands within the former Mount McKinley National Park boundaries was designated as Wilderness.

ANILCA, Title VIII, Subsistence Management and Use:
The overall objective of this Title was to ensure the opportunity for local rural residents who have engaged in a subsistence way of life to continue to do so. Consistent with sound management principles and the conservation of healthy populations of fish and wildlife, the utilization of public lands in Alaska is to cause the least adverse impact possible on rural residents who depend upon subsistence uses of the resources.

Denali National Park and Preserve lands added by ANILCA are open to subsistence use activities. Lands within the former Mount McKinley National Park are not open for subsistence use activities. Eligible users must be local rural residents with a past personal or family customary and traditional use of park resources.

ANILCA, Title IX, Native Claims Settlement Act and Statehood Act:
State and Native Corporations had been selecting lands for many years preceding ANILCA. Land selections over their entitlement, and/or overlapping selections often occurred. These selected lands remain in Federal domain until the actual conveyance occurs at which time it becomes private land or public state land. Congress knowingly established conservation boundaries, which often over-laid these selected lands.

ANILCA, Title XI, Transportation/Access into Conservation Units:
While most of this Title deals with transportation and utility systems, rights of ways, procedural requirements and judicial reviews; this Title also affirms any valid existing right of access and authorizes the use of snowmachines, motor boats, airplanes, and nonmotorized surface transportation methods for traditional activities on conservation unit lands in Alaska, subject to reasonable regulations.

On Denali National Park and Preserve lands added by ANILCA, the use of motorboats, airplanes, snowmachines and traditional nonmotorized surface transportation is allowed. Lands within the former Mount McKinley National Park boundaries are closed to use of motorboats, airplanes and snowmachines.

On all National Park Service lands in Alaska, the use of airplanes for subsistence taking of fish and/or wildlife is prohibited.

ANILCA, Title XIII, Administrative Provisions:
Directs the NPS to develop General Management Plans and assures public participation in the process, provides authority and guidance for land acquisitions and exchanges. This Title allows under certain conditions, the use and occupancy of cabins and other structures on park and preserves lands; and under special conditions, may allow the temporary use, occupancy, construction and maintenance of new cabins or structures if it is determined that the cabin or structures use is necessary to accommodate reasonable subsistence uses.

Directs that National Preserve lands in Alaska be administered and managed as a unit of the National Park System in the same manner as a national park except that the taking of fish and wildlife for sport purposes be allowed under applicable State and Federal law and regulations.

Denali National Park has two areas within its boundaries that are designated as Preserve lands. The Yentna River drainage in the southwest region, and the Herron River/Foraker River/Muddy River drainages in the northwest region of the park, for a combined total of approximately 1.3 million acres of Preserve lands.

Sport and subsistence hunting, trapping and fishing are allowed under State and Federal regulations within Denali National Preserve. Guided sport hunting activities are allowed under a Concession license from the National Park Service.

29 March 2007

To: All Park Employees

From: Wildlife Biologist

Subject: Pepper Spray Bear Deterrent (Bear Pepper Spray)

Bear Pepper Spray has become widely available to the public. Park personnel should be familiar with its use and be prepared to answer questions from the public regarding its effectiveness.

Bear Pepper Spray has proven effective in deterring bears under both laboratory and field conditions. A bear *properly* hit with Bear Pepper Spray will likely back off and move away. However, certain precautions must be taken for these products to be effective.

The aerosol that is expelled from the canister is extremely light and even the slightest wind can make it difficult to hit a target. Because conditions in Denali are often windy, hikers may inadvertently spray themselves rather than the bear during an encounter. Even a small quantity of Bear Pepper Spray can temporarily incapacitate you by causing eye and respiratory irritation. It is imperative that you position yourself with the wind at your back before deploying the product.

In addition, you have to be very close to a bear to hit it effectively, even under windless conditions. The range of the spray is only 6-8 meters (18-24 feet). Aerosol cans are never completely reliable and can fail to fire. Users should be sure to carry only fresh, full cans. It is recommended that cans be replaced every 3 years.

It is important to understand that Bear Pepper Spray is not bear repellent. It does not work like insect repellent and will not keep bears away by spraying in on things. In fact, used in this fashion, it has just the opposite effect and acts as an attractant. Don't spray it on the ground or your belongings (tent, backpack, etc.) and expect it to keep bears away. It is designed to deter an attacking bear and must come in full contact with mucous membranes (eyes, nose, mouth) to be effective.

It is important to keep in mind that Bear Pepper Spray should never be carried in the interior of an aircraft. Only a small amount of Bear Pepper Spray can completely disable the pilot and everyone on board. The pilot should always be consulted about how and where Bear Pepper Spray canisters should be stored during any flight.

There are a number of brands of Bear Pepper Spray on the market. The Interagency Grizzly Bear Committee (IGBC) has guidelines on Bear Pepper Sprays that take into consideration things like size of canister, duration of spray, distance of spray, and spray pattern. These are good guidelines to follow when purchasing Bear Pepper Spray for personal use. If purchasing with park funds the product must also carry Environmental Protection Agency (EPA) registration and must be approved before purchase. The Wildlife Biologist or the Wildlife Technicians can provide IGBC guidelines and the current list of EPA registered products.

If you plan to carry Bear Pepper Spray it is a good idea to become familiar with the product before you ever need to use it. The Wildlife Biologist and the Wildlife Technicians keep cans on hand for training purposes and would be happy to show you how to use it and let you test some out.

A very significant problem with Bear Pepper Spray may be the change in attitude that goes along with carrying something designed to protect people from bear attacks. This false sense of security may cause hikers to disregard the bear safety advice. Don't be lured into a false sense of security.

In summary, Bear Pepper Spray can provide an added measure of protection against unwanted bear encounters when used properly. *Bear Pepper Spray is not a substitute for safe behavior in bear country.*

Denali National Park and Preserve

Information for People With Disabilities

Introduction	Congress designated much of Denali National Park a wilderness area, which is to remain a primitive area in many respects. For visitors with disabilities, most facilities are accessible while a few are not. While a number of activities can be enjoyed by visitors with disabilities, bear in mind that some obstacles must be overcome until all facilities and programs can be fully adapted.
Information Centers	The Denali Visitor Center and Wilderness Access Centers are fully accessible with handicapped parking spaces and restrooms.
Shuttle Buses -- Watching Wildlife	Travel on the park road is mainly by shuttle bus. To help reduce stress to wildlife we have had to limit the numbers of vehicles traveling along the park road. Each and every vehicle has its effect on the animals that we come to see. Please help reduce vehicle traffic and stress to the wildlife by taking a bus. An experienced shuttle driver combined with many other eager wildlife watchers will result in your seeing more wildlife than you could see by traveling alone or in a small group in your own car. Riding a shuttle bus may take a little more time and effort but it is worth it. Should you have special needs please ask for assistance from one of the shuttle drivers. They will be happy to help you make your trip both comfortable and enjoyable.
Bus With Wheelchair Lift	Buses with wheelchair lifts are available. Advanced reservations for accessible buses can be made by calling 1-800-622-7275. Be sure to advise the reservation clerk of your needs when you make your reservations. Accessible toilets are located at stops along the bus route. For those who can take only short trips and do not need the lift or wheelchair tie-downs you may transfer to a returning shuttle bus on a space available basis by contacting your driver. If you have difficulty in climbing the bus steps you may use the wheelchair lift on the accessible bus.

	Wheelchairs are available for those who may be unable to walk between buses and rest areas. Ask for these at the Wilderness Access Center. Collapsible wheelchairs can be taken on all buses.
Special Road Passes for People With Disabilities	The park road is paved only to Savage River Bridge, milepost 15. Anyone may travel the first 15 miles in their private vehicle without restrictions. On clear days Mt. McKinley can be seen from this stretch of road. Special road travel passes are available to those physically unable to take a bus. Check at the Denali Visitor Center. These special passes are extremely limited. Please do not ask for a special pass unless it is the only way possible for you to get into the park. Please note that oversized vehicles may go only as far as Teklanika Campground with the special pass.
Park Campgrounds	Riley Creek, Savage, Teklanika and Wonder Lake have accessible campsites. Campsites can be obtained in advance by calling 1-800 622-7275 or at the Wilderness Access Center on a first-come, first-served basis up to two days in advance. Campsites have accessible picnic tables, grills and toilets.
Interpretive Programs	Interpretive programs may be accessible depending upon your ability. There are discovery hikes, sled dog demonstrations, slide shows and campground programs. Ask rangers for information and how strenuous programs may be.
Survey	Please help us by filling out a Visitor Access Survey form, attached. Your suggestions will help us make the park more accessible to all visitors.
Where to Go for More	For additional information please stop at the Denali Visitor Center or call (907) 683-2294. For more information about other national parks in Alaska…
IPhone Numbers	…call (907) 271-2738 (Anchorage) and (907) 451-0532 (Fairbanks).

Denali National Park: Accessible Activities & Areas

The Denali Visitor Center Campus: Information desk, interpretive exhibits, retail sales building, food court, theater, restrooms.

The Wilderness Access Center Campus: Information desk, theater, retail area, campground and backcountry registration, coffee and packaged food service area, restrooms, Backcountry Information Center.

The Murie Science and Learning Center: Information desk, exhibits, classrooms, restrooms.

Accessible Shuttle Bus: Some buses are wheelchair accessible - please advise staff when making your reservation.

Riley Creek Campground: Some campsites, picnic tables, grills, interpretive programs at outdoor amphitheater, restrooms.

Riley Creek Mercantile: General store, public showers, public laundry, campground check in, bus ticket sales.

U.S. Post Office: Service window and post office boxes.

Park Headquarters: Accessible ramp in back of building; restrooms.

Park Kennels: Interpretive sled dog demonstrations and dog kennels as well as restrooms. Wheelchairs may need assistance on gravel.

Savage Campground: Some campsites, restrooms, grills, picnic tables, interpretive programs at outdoor amphitheater.

Teklanika Campground: Some campsites, restrooms, grills, picnic tables, interpretive programs at outdoor amphitheater; two adjoining campsites hold eight people each and can accommodate a group.

Teklanika River Rest Stop: Accessible restrooms.

Toklat River Rest Stop: Accessible restrooms.

Polychrome Pass Rest Stop: Accessible restrooms.

Eielson Visitor Center: Observation deck, book sales area, observation room with adjustable portable spotting scope, interpretive program area, picnic tables, drinking fountain, restrooms. Wheelchairs may need assistance in gravel parking lot.

Wonder Lake Campground: One campsite, tables, restrooms, outdoor amphitheater.

Tundra Wilderness Tour Bus (7 hrs.) and Natural History Tour Bus (3 hrs.): Fee charged. Some buses wheelchair accessible.

Special road travel permit: Those unable to take a tour or shuttle bus should inquire at the Denali Visitor Center. Special permits are very limited. If it is at all possible to use the buses, please do. Save permits for those who have no other means of entering the park.

T:\Interp Folder:
The Main Categories
and What Goes Into Them

Admin: The types of responsibilities that are handled by the administrative assistants such as budget and payroll.

Division Management: A lot of this folder pertains mostly to the chief, with some sub-folders such as meeting agendas, meeting notes, and property pertaining to all perm & term staff.

Media: Any type of interpretive, informational *non-personal* services product would have a sub-folder here.

MSLC: All files generated by Education Specialist staff that doesn't belong in one of the other folders go here. Media, budget and planning documents generated by education staff do *not* go here.

Ops All: Sub-folders here contain documents that pertain to all front-line operations or to more than one district or sub-operation that happens once the summer seasonals arrive. Program flyers, training documents, coaching documents go here.

Ops Interp & VCs by District: Each district has its own sub-folder here for district-specific schedules, SOPS, projects, seasonal staff folders, etc. Any document that pertains to a wider group than a particular district should be filed in an Ops All folder or an Ops Support folder.

Ops Support: Functions that are not front line interp or education, but support front-line ops and/or are handled as much before or after the summer season as during the season. VIP management and the fee program go here.

Planning: Documentation of any effort directed at new, future activities belong here. This includes all the documentation of special events, planning involving new buildings and their exhibits, new programs being developed by concessions and partners, any notes or draft documents generated by ongoing planning committees (final documents that will affect how we do things should go into the Division Management/Guiding Documents folder). New non-personal services such as publications and bulletin boards goes under Media.

Guidelines for Storing Files
On Interp Computers

1. Ideally, no folder on the computer should contain more than 10 to 15 sub-folders.

2. When you're in the Interp folder on the T drive, you shouldn't have to click through more than 5 layers of sub-folders to get any document, 3 is even better. Trying to find documents that are "buried" under more than 5 layers of subfolders can be frustrating.

3. No folder should be so narrowly labeled as to have only 1 file/folder in it.

4. Please do not add new folders to the collection of folders you see after clicking into T:\Interp. If you have a file or files that you think may need a new folder here, please contact Marisa.

5. Nothing should ***ever*** be saved into a C: drive on ***any*** computer.

6. Any files that are of a personal nature should be saved on CDs or personal flash drives, not on the hard drive of any government computer or on the network.

7. East district seasonal employees should create a folder at T:\Interp\Ops Interp & VCs\Summer East\Staff Folders labeled with your name, which should be used for your program outlines and other program materials that only you will be using. West and South district seasonal employees should check with your supervisors.

8. Any document that you create or work on that applies to anyone besides yourself should ***NOT*** be stored in your "personal" folder!!! It should be saved in a sub-folder in T:\Interp to be accessible and easily found by anyone else who might need it. Check the "T:\Interp: Main Categories And What Goes Into Them" to find the appropriate location or ask Marisa for guidance.

9. Feel free to create and use shortcuts for files or folders that you commonly need, particularly if it is a file or folder that is "buried" in several layers of folders.

10. At the end of the season, you will be responsible for cleaning out and deleting your "personal" folder.
    - Any photos left in your folder will be assumed to be government property and will be moved to a photo directory as a *public domain* or *all use* photo for anyone to use or, if deemed not useful for our collection, will be deleted.
    - Any files that you would like to save for the following year should be copied onto a CD or flash drive. You may either take it with you or arrange with Clare to have a CD stored somewhere at the DVC over the winter.

Tilden's Principles of Interpretation

1 Any interpretation that does not somehow relate what is being displayed or being described to something within the personality or experience of the visitor will be sterile.

2 Information, as such, is not interpretation. Interpretation is revelation based upon information. But they are entirely different things. However, all interpretation includes information.

3 Interpretation is an art which combines many arts whether the materials presented are scientific, historical or architectural. Any art is in some degree teachable.

4 The chief aim of interpretation is not instruction, but provocation.

5 Interpretation should aim to present a whole rather than a part and must address itself to the whole man rather than any phase.

6 Interpretation addressed to children should not be a dilution of the presentation to adults, but should follow a fundamentally different approach. To be at its best it will require a separate program.

Effective Interpretation

According to the National Park Service Interpretive Development Program, an effective interpretive product is:

1) successful as a catalyst in creating an opportunity for the audience to form their own intellectual and emotional connections with meanings/significance inherent in the resource;

2) appropriate for the audience, and provides a clear focus for their connection with the resources(s) by demonstrating the cohesive development of a relevant idea or ideas, rather than relying primarily on a recital of chronological narrative or a series of related facts.

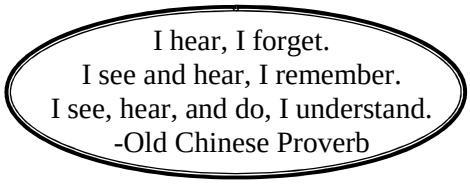
Assumptions About Learning

William J. Lewis

1. People learn better when they're actively involved in the learning process.

2. People learn better when they're using as many senses as appropriate. It is generally recognized that people retain about...

10% of what they **HEAR**	50% of what they **SEE**
30% of what they **READ**	90% of what they **DO**



3. Each person has unique and valid ways of processing information and experience.

4. New learning is built on a foundation of previous knowledge.

5. People prefer to learn that which is of most value to them at the present moment.

6. That which people discover for themselves generates a special and vital excitement and satisfaction.

7. Learning requires activity on the part of the learner.

8. Friendly competition stimulates learning.

9. Knowing the usefulness of the knowledge being acquired makes learning more effective.

10. People learn best from first-hand experiences.

11. People learn best when an experience is close to them in time and space.

12. An organized presentation is more memorable than an unorganized one.

13. Increasing the ways in which the same thing can be perceived helps people derive meanings.

14. Questions can be effectively used to help visitors derive meanings.

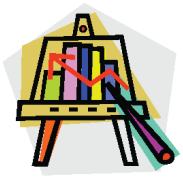
15. Giving visitors expectations at the beginning of an interpretive activity will focus attention and thus improve learning.

16. Using a variety of approaches will enhance learning.

17. The ways in which interpreters respond to people will affect their learning.

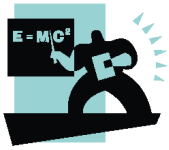
Multiple Intelligences/Learning Styles

Visual/Spatial



Tend to think in pictures and need to create vivid mental images to retain information. Enjoy looking at maps, charts, pictures, videos, movies. May be skilled at sketching, painting, creating visual metaphors and analogies, interpreting visual images.

Logical/Mathematical



Think conceptually in logical and numerical patterns making connections between pieces of information. Tend to ask lots of questions and like to do experiments. May be skilled at working with geometric shapes, problem-solving, working with abstract concepts and classifying and categorizing information.

Verbal/Linguistic

Tend to take in and understand information by reading it , writing it, hearing spoken words, or speaking. They think in words rather than pictures. Use language as a means to remember information. May be skilled in reading comprehension, writing, poetry, explaining, teaching, storytelling, discussion.

Naturalist

Tend to learn best in outdoor settings or when the learning can be easily related to the natural world. Are likely to be comfortable interacting with animals and be good at growing and nurturing things.

Bodily/Kinesthetic

Express themselves through movement. Have a good sense of balance and eye-hand coordination. Through interacting with the space around them, they are able to remember and process information. May be skilled at dancing, sports, hands on experimentation, using body language, crafts, acting, miming, using their hands to create or build, expressing emotions through the body.

Musical/Rhythmic

Think in sounds, rhythms and patterns. They immediately respond to music. May be very sensitive to environmental sounds. May be skilled at singing, whistling, playing musical instruments, recognizing tonal patterns, composing music, remembering melodies.

Interpersonal/ Social

Try to see things from other people's point of view in order to understand how they think and feel. Often have an uncanny ability to sense feelings, intentions and motivations. Are great organizers. Generally try to maintain peace in group settings and encourage cooperation. Use both verbal and non-verbal language to open communication channels with others.

Intrapersonal/ Solitary

Try to understand their own inner feelings, dreams, relationships with others, as well as their own strengths and weaknesses. May be skilled at analyzing themselves, being aware of their inner feelings, desires and dreams, recognizing their own strengths and weaknesses, reasoning with themselves, and understanding their role in relationship to others. May excel as theorists or philosophers.

Creating an Interpretive Program

PLAN

1. Find a **topic** that *you* are passionate about and which is appropriate to Denali
2. Know your audience. Be aware of different learning styles and ages.
   - Average visitor to Denali is 57 years old
   - Foreign visitors – speak slowly and clearly, but NOT more loudly
   - Urban vs. rural
   - Lower 48 vs. Alaskans
   - Women vs. men
   - Kids – often at DVC, campgrounds
3. Brainstorm widely and freely.
   - Tangibles, intangibles, universals
   - Ideas for illustrating each link
   - Ideas for reaching different types of learners
4. Research thoroughly and creatively.
   - Denali Library - Books in offices - old program outlines
   - Resource Specialists - Healy Library - the Web
   - Fairbanks: UAF Polar Archives, Rasmussen Library, professors, UAF museum
   -Resource Division Library
5. Identify one central **theme**.
6. Identify your **goals & objectives**.

PREPARE

7. Organize the information, write an **outline** (a logical structure).
8. Decide on and plan out each method you will use to convey your information - props, songs, poetry, activities, something for visual learners, auditory learners, kinesthetic learners, etc. Interactive is best!
9. Write it up, work it out, then trim it down mercilessly. Make SURE it fits within the specified time limit.
10. Select a title.
11. Acquire or create props, tools, and/or slides.

PRACTICE

12. Practice, practice, practice.
13. Anticipate audience questions.
14. Practice, practice, practice.
15. Visit site and anticipate placement of props, where you'll stand, etc.
16. Consider possible circumstances that could arise and how you'll handle them. What are the potential distractions? What if there is thunder & lightening? What if wildlife walks through the amphitheater? Will audience be sitting or standing? Is seating cushy or rustic? What if it rains or snows or is very hot or very cold?

PRESENT

Process Model
In Brief

1. **Pick a topic.**

2. **Brainstorm tangibles and choose one as an “icon.”**

3. **Brainstorm intangibles you associate with the “icon” tangible. (As many as possible.)**

4. **Identify which intangibles are universals.**

5. **Write a theme or themes using the above info.**

6. **Pick a favorite or one that seems to have the most potential for developing into a program.**

Denali National Park & Preserve

Pointers for Themes

A Few Important Points:

1. You should be able to state your theme in one simple, complete sentence.
2. Your theme should contain only one idea.
3. Your theme should reveal the overall purpose of your presentation.
4. Your theme should link a tangible to one or more intangible meanings. The most compelling interpretive products have themes that tie a tangible to a *universal* concept.
5. Your theme should be interestingly worded. If the theme doesn't inspire you, it may be difficult to create an inspiring program around it!
6. Are you finding it hard to organize your program or come up with a good ending? Feeling overwhelmed by the amount of info you want to use? Maybe your theme is too broad. Examples of overly broad themes are "birds are interesting" or "mammals are important."
7. Finding it hard to create a program that lasts more than 3 minutes? Maybe your theme is too narrow. An example of an overly narrow theme is "the nictitating membrane in the eye of the American Dipper is white and 3 cm wide."

Sample Themes

For Hikes:

For longer, looser types of programs such as the Discovery Hikes, a relatively "big" theme is appropriate such as the following:

- Keep your eyes attuned to the small details of Denali and big pictures will begin to reveal themselves.
- The tundra is full of tiny surprises.
- In order to make a home in this challenging sub-arctic environment, Denali's plants and animals have developed remarkable adaptations.
- Wherever you stand in Denali, there are stories all around you if you learn how to read them.

For Campgrounds, Auditorium Programs, etc.:

For our average programs of from 15 to 45 minutes, the following themes would be narrow enough to help you stay focused but broad enough to give you plenty to talk about...

Biology

- Tundra (or taiga) plants have unique adaptations that enable them to survive & thrive in their challenging home.
- Many of Denali's plants can help you avoid visits to the doctor's office.
- Fire is as legitimate a citizen of the taiga as the trees and squirrels.
- Here in Denali, the feast of summer sunlight and the famine of winter sunlight profoundly affect the lives of plants.

Geology

- Water, in its myriad forms, has played and continues to play an important role in shaping the landscape you see today.
- The creation of the Alaska Range is only one act in a play that has been going on for a very long time, and isn't over yet!

Human History

- The Denali kennels is not only an important piece of Denali's history, but of its future as well.
- The park road is both a boon and a disaster for the future of Denali.
- Humans have been impacting the wilderness of Denali for thousands of years.

Types of Goals & Objectives

Entertain: To amuse, make laugh, cause to enjoy.

Educate: To help audience increase their knowledge of an idea, concept or technique.

Persuade: To change an audience's attitudes or beliefs.

> **(Remember that even when trying to promote a particular idea that is espoused by the NPS such as wilderness preservation, "the audience is sovereign" and that "accurate information can lead intelligent people to different conclusions." Any persuasive goals or objectives that you have will probably be along the lines of correcting misconceptions or opening people's eyes to some perspective that they had not thought of before. You, as a National Park Service interpreter, do not determine the "truth" for any audience.)**

Provoke: To incite behavior change.

Facilitate: To help people help themselves.

Note: If you have a goal or objective in mind, and it doesn't seem to fit tidily into one of these categories, that is NOT a problem. These categories are meant to 1) help you expand your thinking about what might be possible in a program, and 2) help you clarify in your own mind why you are doing your program.

Recognizing Objectives

Components of objectives:

Conditions: circumstances under which desired behavior would be observed
Performer(s): those whose behavior you want to affect (in our case, Denali visitors)
Criteria: minimum acceptable performance *quantity* or *quality*
Measurable behavior: what observable actions performers/audience will *do*

Read through the following sentences and decide which contain all of the components explained above. Circle the number of each correctly written objective.

1. At the end of this session, the student will be able to describe three policies and two regulations relating to the receipt of donations.

2. After visiting the Lincoln Memorial students will be able to list two important speeches Lincoln made during his life.

3. After visiting the city museum, visitors will understand the importance of interpreting cultural history.

4. After attending the evening program at Wonder Lake, each visitor will be able to recite at least three safety precautions to take while camping in bear country.

5. Visitors will come to appreciate the beauty of Denali National Park & Preserve.

6. Three weeks after attending the chain saw safety class, all maintenance employees will be able to explain the safety hazards of using a chainsaw.

7. At the end of the guided bus tour, 2 out of 3 visitors will be able to identify three large mammals that live in Denali.

8. After attending supervisory training, each supervisor will really understand their employees' needs.

9. During dog sled demonstration training, interpreters will learn to empathize with rangers who do winter patrols by dog team.

10. At the end of this exercise, all participants will be able to write a concise, measurable objective for any interpretive program that they develop.

Entertainment objective:

When hearing the story of what food the Sourdough expedition took on the final leg of their ascent of Denali, 95% of the audience will laugh.

Educational objective:

When confronted by a grizzly bear, 100% of the audience will stand their ground and wave their arms rather than running

Persuasive Objective:

When presented with a choice of whether to buy shade-grown or regular coffee, 10% of the audience will choose shade-grown from now on.

Provocational Objective:

The next time that each member of the audience reads about a new development scheme that would negatively impact a place that they care about, 65% of them will contact the appropriate agency to make their views known.

Facilitative Objective:

Within one year of having heard my program on the 5 steps necessary for turning one's backyard into viable wildlife habitat, 75% of the audience will have taken at least one of the 5 steps.

Organizational Patterns for Programs

Sequential Pattern: Chronological, spatial, general to specific (simple to complex, familiar to unfamiliar) or vice versa. Examples include…

- A program on history could be organized chronologically
- A program having to do with the park road could be organized spatially – start at the park entrance and finish at the end of the road.
- A program on the physiology of a grizzly bear could be organized from general (size, weight, color of bear) to specific (details about the reproductive system, the circulatory system, etc.).
- A program on bear behavior could be organized from familiar (bears running, bears standing on hind legs) to unfamiliar (bear turning sideways to a nearby human, bear snapping teeth together).

Cause & Effect Pattern: Causal (show direct influence of one variable on others) or problem & solution (a question and answer approach – pose a question, answer the question, pose another question that is perhaps suggested by the first answer, answer the question, etc.). An example might be…

- A program about how environmental damage in distant places impacts Denali's ecosystem.

Topical Pattern: Break the main subject into natural divisions. An example would be…

- In a program on the differences between the mating habits of three different types of birds you could talk about each bird in turn and it doesn't necessarily matter which bird comes first or last.

You will likely choose one pattern for organizing the main 3 or 5 or 7 "chunks" of your program. However, for developing each "chunk" there may be a different pattern that works best for each separate chunk.

Example: Wilderness has meant different things to different people through Denali's history. (Pattern: Sequential/Chronological)

I. The Athabaskans saw Denali as Home. (Pattern: Topical)
   a. Description of where Athabaskans came from and where they are dispersed to today
   b. Description of their perception of the land they lived in and the fact that they have no word for "wilderness"
   c. Examples of how they "used" the land in contrast to modern western culture

II. Early Explorers (Pattern: Sequential/Chronological)
   a. Earliest explorers
   b. Later explorers

III. Creation of the National Park (Pattern: Cause and Effect/Problem and Solution)
   a. Impacts that were happening in what was to become the park
   b. The work of Charles Sheldon to prevent destruction of wildlife

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Denali National Park and Preserve
Division of Interpretation

Interpretive Program Outline

Ranger:
Date Prepared:

Program Title:
Type of Program:
File Name:

Theme (A simple sentence with one major concept or idea.)

Goal(s) (Statement of overall purpose for your presentation.)

Objectives (Measurable & quantifiable.)

Links Briefly list your tangible/intangible links that are developed into connection opportunities, whether you think the connection you make is Intellectual (I) and/or Emotional (E), and the techniques you use to make this connection:

Connection Opportunity	I/E	Technique(s)

Introduction

Body Outline

Conclusion

References

Denali National Park and Preserve
Division of Interpretation

Interpretive Walk Program Outline

Ranger:
Date Prepared:

Program Title:
File Name:

Theme (A simple sentence with one major concept or idea. The "take home message.")

Goal(s) (Statement of overall purpose for your presentation.)

Objectives (Measurable & quantifiable. Did you get your point across?)

Universal Concept(s) (With what intangible "big ideas" are you tying your facts together? What universally understood issues does your program illuminate? What big human questions help make your program compelling?)

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1. Introduction

2. Planned Stops

	Stop Location	Content/Concepts	Props/Games/Action	Special Considerations
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

3. Conclusion

4. References

Interpretive Talks

Structuring Your Talk

Audiences cringe at decapitated chicken presentations, talks that flop around in all directions with no conscious purpose. Audiences want talks that stand up and crow. They want to be awakened by your first words. They want to be marched off as a flock to feed on a meaningful flow of ideas.

There are many ways to create a flow of ideas, but here is a simple four-step strategy.

Step 1: Pow. Capture the group's attention with a provocative introduction.

Step 2: Bridge. Answer the questions, "Why was that said?" and "What does it mean to me?"

Step 3: Body. Illustrate the main message of your program with examples. Listeners enjoy personalized "for instances."

Step 4: Conclusion. Conclude your presentation by summarizing or giving a call to action. Answer the question, "So what?"

Pow

An introduction does two things. It promises your listeners a rewarding experience and it introduces your talk's theme.

Your introduction can be startling or humorous, a rhetorical question or an apt quotation. Your goal is provocation. You need to grab your audience with your first words.

For instance, when a county naturalist spoke to a local hunters club about their image, he ignited interest with: "Hunters are blood-thirsty slobs trying to prove their masculinity." He quickly added, "That's what I read in an animal rights newsletter today."

An introduction doesn't need to be a verbal firebomb to be provocative. One plant lore program began when a hooded monk, illuminated by a flaming mullein stalk, stepped into the darkened room. "With this 'witch's candle,' I'll take you back to the time when plants symbolized our gods and demons and healed our bodies."

Aside from catching a group's attention, the pow introduces the program's theme and sets group expectations.

Bridge

Bridges connect the introduction to the body of the talk and to the interests of the audience. For example, in the talk to the hunter group, the interpreter began to build a bridge when he said, "That's what I read in an animal rights newsletter today. We have an image problem. Hunters will lose their sport if we don't collectively work toward changing our image."

Bridges should answer the questions, "OK, you have my attention, but what's your purpose? Why should I care?"

Body

Your theme serves as the skeleton to which you attach your ideas. The body is made up of facts and for instances that flesh out your theme. Without a theme, the body of your talk will be flabby and shapeless with little appeal to your audience.

Limit the number of ideas presented in the body. Psychological researcher G. A. Miller theorizes that people best understand and remember new information when it is "chunked" into seven categories or less.

> "To be effective, every major idea presented should be illustrated in some way."

With your main points outlined, you now must decide how to illustrate them. To be effective, every major idea presented should be illustrated in some way. Use visual aids, such as props, slides, or other audiovisual devices. Create mental images through metaphor and analogy, guided imagery, or storytelling. Involve the audience physically. Make sure you breathe life into cold, dead abstractions.

Conclusion

Your conclusion should tell the listener you are done. It can be a call to action or can summarize your main points. It might be a thought provoking quote or a dramatic ending for emotional impact.

One interpreter created a dramatic mood at a campfire talk by speaking from behind a lighted candle. She talked about fears of the night and eased them by telling stories of animals that live in the night. She ended her talk by blowing out the candle and inviting the audience on a night walk.

How to Give a Talk

Setting the Stage

You begin "speaking" to your audience long before you utter your first words. Your grooming whispers about your dependability. Your posture states your competence. Your clothing shouts your credibility as an expert on the subject.

Be appropriately groomed and dressed with an alert, confident posture. Let your appearance assure the audience that you are competent. Don't let them wonder if you are.

Be a good host. Arrive before your audience in time to ready equipment, prepare props, and check that everything is set for your guests.

By the time the first visitors arrive you should be ready to make as many acquaintances as possible. Your warmth can melt barriers that exist between strangers. Gather some insights about your audience during your talk. One naturalist discovered he had a doctor from a poison center at his edible wild foods talk. This doctor was a great addition to the program when poisonous plants were shown.

Many members of the audience may have something to show or something that you can relate to. A rancher has unique perspectives on prairies. A language teacher has a particular interest in the root meanings of plant names.

Come prepared. You should know your subject so well that you can concentrate on your delivery and respond to your audience.

Your Beginning

The first thirty seconds of your talk are critical in establishing rapport. You need to project warmth, confidence, and competence. To do this, you must feel prepared. You should have practiced your talk so that it flows easily.

Don't put barriers between you and your audience. Don't stand behind a podium or a table. Meet the audience standing upright with a smile and eye to eye contact. Be casual but not sloppy. Don't sit down or stand with hands in your pockets. Don't be too formal though, with hands behind you, wooden posture, and gloomy expression.

Notes

Don't write out your talk. Notes can become a crutch and impede your eye contact and gestures. At most, have an outline on a note card. If you need a cue to get back on track, simply pause, look at your note card, and carry on. Make this act seem natural. Don't hide your note cards or it will look like you are "sneaking a peek," and it will disrupt the flow of the talk.

Don't memorize your talks. It will prevent a fresh spontaneous delivery. Instead, picture your talk from start to finish. Keep the main points in mind and you will easily remember the examples that illustrate them.

Voice

Talk with the same conversational inflections that you would use with a group of friends. You are not delivering a scientific paper. Speak spontaneously and with simple directness.

Your voice is an instrument. Learn to play it. Beethoven's Moonlight Sonata arrests us with variations in pitch, volume, and rate. The unceasing monotony of Muzak, on the other hand, serves only as dull background. Play Beethoven, not Muzak.

Orchestrate your talk with a contrast of high and low notes. Use the full range of your voice. Emphasize some parts of your talk with a slow, deliberate pace. Breeze through other parts lightly.

Moments of silence can be used to set off main points of your talk. Pauses are like speed bumps on a road; they alert your audience that something important is coming up.

The Words You Use

Well chosen words create vivid images. The time you spend in choosing words will be appreciated by your audience.

Be specific. The statement, "People often shoot porcupines because they damage trees" conveys a vague image. Compare that to "I know a woodsman from Polonia, who blasts a dozen porcupines a year for stripping bark off his white pines. "

Why does the second statement convey a sharper image? It refers to a specific person (even better if you could name him) in a specific place with porcupines in specific trees. He doesn't just shoot porcupines, he blasts them. The personal pronoun "I" tells us this is a real story you can vouch for.

For more effective imagery, **use active verbs, specific, concrete nouns, familiar people and places, and personal language.**

Avoid Fillers. Avoid unnecessary words. Trite expressions, cliches, redundancies, ahs and ums, and "weasel words" are fillers. Those trained in science are particularly adept at using "weasel words," or disclaimers like, "According to Jones," or "It would appear that..." Eliminate fillers from your talk.

Body Language

We communicate with our arms, face, and posture. As Sigmund Freud said, "No mortal can keep a secret. If his lips are silent, he talks with his fingertips, betrayal oozes out of him at every pore."

Communicate through facial expressions. Some experts claim that fifty-five percent of understanding from messages is from facial expressions, not words.

In our culture, eyes are especially important. Look at your audience all the time. Make friendly eye contact with everyone.

Communicate through posture. Alert posture conveys confidence. Use body language to punctuate ideas.

Avoid distracting mannerisms. Are you nervous about giving a talk? You aren't alone. Actor Sir Lawrence Olivier got physically ill before every performance. A good performer like Olivier nets those butterflies and puts them to use. Convert nervousness to energy. But, don't let nervousness spill out into distracting mannerisms. Guard against:

- weight shifting
- body rocking
- table leaning
- arm swinging
- hand hiding
- clothes fidgeting
- foot scuffling

Communicate through gestures. Punctuate and describe points in the program with your hands. Use natural, unexaggerated gestures. Be tasteful and understated. Good gestures do not call attention to themselves. They fit the content of the message and reinforce ideas.

Walk with purpose. Ducks waddle, ostriches strut, elephants trudge, and panthers stalk. The way you walk conveys your image. Choreograph your performance. Every movement should have purpose; it should either draw the audience's attention or punctuate an important point.

Walking toward listeners focuses their attention on the next thing you say. Timing is critical. Your movement should start just before you make your statements.

Fluid movement takes practice. Rehearse your movements as thoroughly as you do your talk.

Props

People pay attention to things they are curious about. Props heighten curiosity, especially when they are used provocatively.

Mounted specimens are effective props. A redheaded woodpecker mount can tell an audience a lot about cavity dwellers. People can see the special arrangement of toes and can feel the tail feathers.

Props can give you credibility. Tools like a spotting scope or a parabolic recorder create an aura of expertise. Holding a ten-gauge shotgun while telling the story of the passenger pigeon adds authenticity to your tale. Quoting Thoreau from a frayed, yellow copy of *Walden Pond* helps create atmosphere.

Tips for Using Props

- **People respond to familiar objects when they are used in innovative ways.** Such props help you draw analogies between common objects and the natural world. Assembling a flashlight - batteries and all - clearly shows the concept of interdependence, the idea that different parts work together to make a system.

- **Colors draw attention.** Red excites people. Green and blue reduce tension. Colors can have cultural significance as well. Who do you think of when you see ruby red shoes? A pig-tailed girl from Kansas and her scruffy dog Toto. Why not use this prop to metaphorically lead a group down the yellow brick road?

- **Involve different senses with props.** Odors and noises capture a group's attention. For example, owl calls can draw in people as well as owls. Reveal that great horned owls prey on skunks by opening a jar of skunk scent (but quickly!).

- **Involve people with props.** A visitor who touches the soft plumage of an owl will appreciate its silent flight. If they hold an owl egg, they'll never forget its shape or color. We remember what we experience.

- **People are drawn to historical artifacts.** Artifacts create an atmosphere of a bygone era. Rolling a big log with an old cant hook or touching the button from the jacket of a Confederate soldier are ways of traveling through time.

Humor

One naturalist began an evening talk on calling barred owls with a story from his own experience:

There's a danger in coming too close to another species. The danger could be that you'll be misunderstood by that species. Or, more often, that your actions will be misinterpreted by your own species. My personal experiences have often involved the latter.

I house a barred owl in my basement. It happens he has only one eye. I call him Jerry. We often visit school groups which requires he be transported in a portable dog kennel.

Being of an independent nature, Jerry sometimes enters or leaves the kennel with reluctance. Such was the occasion several weeks ago.

After some near misses at capturing him, I found myself leaning into the dog kennel on hands and knees. Jerry jumped on my back. After some careful consideration, I determined that the most expedient and logical maneuver would be to simply crawl to his flight cage on the other side of the basement.

As we concentrated on getting around piles of sorted laundry, I suddenly realized that I was being watched. My twelve year old son had brought home a friend - his first visit. Their four eyes were glued on us. Our three eyes stared back. It was at this point that I realized there were social dangers in getting too close to owls.

Let me share with you some other close encounters with owls. I have brought slides...

Tips for Using Humor

The story above illustrates several points about use of humor.

- The humorous story relates to the talk theme. It makes a point about the subject. Even if no one laughed aloud, it serves as an appropriate introduction to the evening's talk. **Humor should only be used if it illustrates an important point.** If it is used only to gain a laugh, it is inappropriate.

- Use a story if it is inoffensive and is one with which the audience can identify. Commonplace incidents can take on humorous aspects when seen from a new perspective. It is important to exercise good taste and not embarrass your audience. If anyone is a target of the humor, make it you.

- A humorous story or anecdote should arrive unannounced. It should drift in and out of the plot as unobtrusively as Clark Kent, not as flamboyantly as Superman.

- Humor requires timing and delivery to be effective. Use it only if you feel comfortable with it and understand it.

Questioning

Many interpreters question visitors to get them involved. Questioning is a highly useful skill to add to your repertoire. Questions serve several purposes:

- They stimulate interest.
- They help organize a program.
- They encourage creative thinking.
- They emphasize important points.
- They offer visitors a chance to share thoughts and feelings.

Types of Questions

Ask different types of questions during a program. Let each question have a preconceived purpose, however. Quality not quantity of questions is the key to a good presentation.

- **Focus questions,** the most basic kind of questions, ask for specific information. They often begin with "who, what, or where." For example:

"What have you heard about acid rain?"
"What do you observe about the cricket chorus we hear?"
"What does this snake feel like?"
"What do you observe about this barred owl that makes it a perfect night hunter?"
"Where are the white pines distributed in the forest, compared to the cedars?"

Focus questions help to structure a program and solicit involvement. However, they do not always provoke creative thinking.

- **Process questions** have a wider scope of possible responses than focus questions. Process questions ask people to integrate information, rather than just remembering or describing.

Process questions often begin with "What does this mean? What would happen if...? What experience supports...? Why did...?" For example:

"What evidence indicates acid rain is affecting this lake?"
"Why do crickets chirp?"
"How does a snake keep its cool?"
"Why do owls have disks around their eyes/face?"
"Why are there more of these cedars down here and more of those white pines up there?"

- **Evaluative questions** usually deal with matters of value, choice or judgment of the participants. They offer group members a chance to express their feelings. Evaluative questions often begin with "What do you think? What about..." For example:

"What do you think should be done about acid rain?"
"How could crickets communicate if they couldn't chirp?"
"Why do people think snakes are slimy, repulsive creatures?"
"How would owls have to change if all of their prey were active during the day?"
"Why is it important to have different kinds of trees in a forest?"

Rhetorical Questions

Not all questions require a verbal response from visitors. **Rhetorical questions** are asked when you don't expect visitors to answer aloud.

Involving and dramatic, rhetorical questions help emphasize important points in a program. For example, "If we do not solve air pollution, what will become of our Northeastern forests? What will become of the pine and oak we depend on for our houses? What will we do when there are no more maple trees and no more maple syrup for our pancakes? What will happen to the plants and animals that depend on those trees for food, shelter, and protection?" These questions don't demand a response, but they do involve the listener.

Tips for Questioning

- Direct most questions to the entire audience rather than a single individual. This indicates to the group that everyone is expected to think.
- Ask only one question at a time.
- Allow time for an answer. This is called "wait-time." Research has shown the longer the questioner allows for an answer, the better the answer will be. Never answer your own questions. If no one offers a response, leave it open to be answered later or rephrase the question.
- Do not start a question with "Does anyone know..." or "Can anyone tell me..." Such phrases express doubt that the question can be answered.
- Pace questions to the ability of the group.
- Develop ideas and concepts through a series of questions. Build from focus questions to process questions to evaluative questions. This challenges your group to higher levels of thinking.
- Accept answers to questions gracefully, even if the answers are wrong. Never make someone feel foolish for participating in the program.
- Finally, never ask a question that requires a simple yes or no.

Development of Program Components
Guidelines, Tips, Ideas

Introduction

- Work on introduction last.
- Write it out. You're trying to do a lot in a few sentences, so it pays to get it down in writing in just the right order and in just the right words.
- Set the audience's expectations: how long the talk will take, what type of program, that there will be time afterwards for asking questions, etc.
- Gain good will, respect, credibility, rapport.
- Introduce talk's theme, subtly or directly.
- Pow! Grab attention. Your goal is provocation.
  - -Arouse curiosity.
  - -Ask a question.
  - -Make a striking quotation.
  - -Open with a startling assertion or fact.
  - -Tell about an interesting, *short* personal experience or humorous anecdote.
  - -Use a dramatic prop or effect.

Body

- **Work on the body first.**
- Do *not* write it out in word-for-word detail. (However, by the end of the season you will probably want to either have it written out word-for-word or have it videotaped so that when you return the following summer you will not have lost track of all of the facts, fine points, perfectly worded passages, delivery techniques, etc., that you worked so hard to develop.)
- Try for 3 main points, 5 main points, at most 7 main points.
- ***Plan your transitions*** between the main points. You may want to write out, word-for-word, the sentence that you will use to make your transition.
- The body serves the following purposes:
  - -Substantiates points with data, real-life examples, authoritative quotes.
  - -Explains interrelationships by describing how pieces of the talk fit together in a cohesive package.
  - -Presents important concepts from *several perspectives*.
  - -Explains complex concepts as well as technical terms that are crucial to understanding your message.
- Use a logical sequence (props can help you remember the order).
- Rule of thumb: As a minimum, every main idea (chunk) should be illustrated in some way with a prop, picture, activity, etc.
- Be aware of different learning styles and include material for all types. At minimum, visual & active components to supplement verbal.
- Reiterate the theme and touch on both its tangible and intangible aspects.
- Most common mistakes: too much info, theme that is too general or not well thought through causing muddled message or components not hanging together in a satisfyingly coherent way.

Conclusion

- Work on conclusion after the body of the program and before the introduction.
- Like the introduction, think it through carefully. Write it out.
- The last words are likely to be remembered the longest.
- Make it clear that the program is ending.
- Suggestions for closings:
  - **Summarize** and briefly restate the main points you covered.
  - Make an **appeal for action** and provide information about how audience can help solve a situation.
  - Quote **thought-provoking** poetry, saying, or idea from a book or article.
  - Do a review of your main points in the form of a quiz or a song or some other activity in which the audience can participate.

Question & Answer

- This can be as valuable a time for connection with visitors as the program itself.
- ALWAYS repeat questions before answering.
- May invite people with questions to the front so others may leave if they wish.
- Remain at the site until all visitors have left. Be available to everyone that you can.
- If you don't know, don't fake it…
  - "That's a great question. Here's where to find an answer..."
  - "That's a great question. Here's a blank postcard. Put your name, address and question on it, give it back to me and I'll look up the answer and send it to you."

After It's All Over

- How did it go?
- What could you have done differently or better?
- What innovation will you try next time?

A Few Techniques

- Involve your audience physically – stomping, clapping, chanting.
- Ask questions.
- Have action or vocalization for the audience to do every time a particular word or gesture is used.
- Make abstractions and statistics tangible. Use analogies, anecdotes, props.
- Alliteration (Example: “Fuzzy flora and fauna find functioning in freezing weather fairly easy.”).
- Props (Examples: Dress up as a musher; bring pelts and skulls; use local features…).
- Relate through humor.
- Repetition (also known as a triphammer – suggesting a power hammer in loud pounding or persistent action).
- U-Turn (Ex.: “Hunters are bloodthirsty slobs trying to prove their masculinity” followed by a pause and then, “That’s what I read in an animal rights newsletter today.”).
- Comparisons and contrasts.
- Charm bracelets (one “bead” for each of several concepts).
- Poetry.
- Music.
- Groupings of 3 or 4.
- Personalize your topic, even if all of your knowledge about it is 2nd hand: childhood memory, first encounter with Denali or one of Denali’s animals, sharing your original misconceptions about your topic, etc.
- Storytelling: Make up your own, children’s, traditional, historical.
- Silence.
- Quizzes**.**

Interpretive Walks
A Few Tips About Logistics

An interpretive walk is an interpretive program that is spread out along a trail in serial form, as a series of experiences that offer excellent opportunities for engaging all of a visitor's senses. It should have all of the elements of any interpretive program - theme, introduction, transitions, and conclusion.

Preparation

1. Plan your route.
2. Gather equipment: Radio, first-aid kit, props, water.
3. Look good - sharp, professional, like a leader.

Beginning the Walk

1. Arrive at least 15 minutes early.
2. Greet hikers individually, engage in conversation; don't just stand around waiting.
3. Start introduction right on time; don't wait for stragglers.
4. Introduce yourself and the NPS.
5. Let visitors know what to expect:
    -Which hike this is
    -Distance to be covered
    -Time hike will take
    -Terrain to be covered, trail conditions
    -Wildlife precautions (See Bear, Moose & Wolf Warnings in next section of manual)
    -Necessary gear: Water, good shoes/boots, raingear if appropriate, bug repellent
    -Ending location (Horseshoe: guided 1-way only.)
6. Remind visitors of conservation issues: Leave the flowers, rocks, everything for future visitors and for use by wildlife.
7. Introduce your theme.

The Walk

Logistics/Crowd Control

1. Start off briskly, make first stop in sight of starting location so that stragglers can find you.
2. Stay in the lead; don't let kids (or adults!) run ahead.
3. Stop at planned points of interest that you have developed to support your theme but take advantage of the unexpected interpretive moment.
4. When asked questions while walking, defer questions to next stop.
5. Notice if someone needs a rest.
6. Constantly consider visitor & personal safety.

At Stops:

A. Don't make stops too long; be aware of signs of restlessness.
B. Keep track of group; gather everyone at stops before talking.
C. Stop where all can see and hear.
D. Make adjustments for group size: Know where good stopping places are that can accommodate large groups.
E. Project your voice; you shouldn't have to shout.

Talk Tips

1. Involve the group:
   -Avoid lecturing
   -Use questioning; allow people to theorize, speculate
   -Avoid technical vocabulary
   -Involve all 5 senses
2. Repeat visitor questions and responses for whole group.
3. If you don't know an answer, say so.
4. Keep explanations simple, relevant, concrete. Silence can be powerful.
5. Have transitions! End the talk at one stop with something pointing toward your next stop. Start the talk at your next stop by referring back to your previous stop.
5. Visitors usually love to hear your personal experiences but notice if you hear yourself saying "I" too often.
6. Share your enthusiasm, be yourself.

Finishing the Walk

1. Make sure all visitors are accounted for.
2. End with a strong conclusion that wraps up your theme; mention the NPS.
3. Release the visitors, invite them to walk on, stay awhile or walk back with you. Hang around for a few minutes to answer questions.
4. Return equipment.
5. Record attendance statistics.

Delivery Tips

Tips to remember:

- We are the National Park Service (not NPS) and this is Denali National Park & Preserve (not Denali, not DENA)
- Be conversational, spontaneous – use simple directness.
- Be enthusiastic – but avoid cheerleading.
- Vary the pitch of your voice - loud, soft, fast, slow, high, low.
- Speak slowly – use pauses and silence.
- Convey sharp images. Be specific.
- Use active and dynamic verbs ("avoid bears" rather than "to avoid contact with bears is advisable")
- Be alert, in manner and posture.
- Use your hands in a natural, unexaggerated, tasteful, understated manner. (Your gestures should reinforce your ideas, not call attention to your hands).
- Remember to breathe.
- Make eye contact with variety of visitors.
- Presentation begins as soon as you're visible to the audience, not when you start speaking.
- Use ONE side of paper or note cards so that you don't have to be flipping pages.
- Watch gender – e.g. don't assume all dog mushers are male.
- Look good! Uniform clean, unwrinkled, clean shoes, tidy hair.
- Practice, practice, practice… in a car, in front of a mirror, with a microphone, get videotaped.

Don't do it!

- Avoid acronyms and lingo – NPS, ANILCA, "Outside."
- Avoid making stuff up just to avoid having to say, "I don't know."
- Avoid putting your hands in your pockets.
- Avoid apologizing *"This is my first program." "The AV equipment at this park is awful."*
- Avoid fillers: "Ah," "um," "it would appear that," "like," or starting lots of sentences with "OK,…."
- Avoid distracting movements – pacing, tapping your leg, rocking the podium, rustling papers.
- Avoid technical language unless very appropriate, e.g. Latin names are OK if used in conjunction with common names.
- Avoid whipping laser pointers around on the screen. It's not nice to make the audience seasick.

The Interpretive Development Program (IDP)

http://www.nps.gov/idp/interp/index.htm

What is the IDP?
The IDP is designed for NPS interpreters, and all others both within and outside the NPS who may take advantage of the material in the quest for interpretive excellence. The foundational ideas within this program combine the very best philosophy of those who have come before with new concepts, to create a common language and focus from which to build one's professional career in interpretation. The program emphasizes the outcome rather than the process. Park rangers concentrate on meeting certification requirements for each competency in pursuit of professional excellence, rather than simply attending a specific training course. Employees may use alternative developmental opportunities to work toward the certification standards. An employee can prepare to demonstrate the standards through on-the-job experiences, local college coursework, correspondence courses, self-teaching, peer discussions, or workshops sponsored by the NPS or other organizations. Any source is acceptable as long as it contributes to the ability of employees to demonstrate the national standards.

What is a benchmark competency?
An interpretive benchmark competency is a collection of knowledge, skills, and abilities that together create an interpretive program or product which, when demonstrated at a defined level of proficiency, defines a key element of the Ranger Careers Benchmark Interpretive Position Descriptions.

Who are the certifiers?
Those who certify the competencies are interpreters trained in the process of peer review certification--measuring the interpretive effectiveness of programs and products using the appropriate "rubric" standard. The reviewers are themselves "certified" to apply the rubrics by going through an intensive training program that includes meeting a standard for certifiers.

How does an interpreter get certified?
When an interpreter and supervisor feel ready, they prepare and submit the required interpretive project (say, an actual interpretive talk on videotape), to the training manager at Mather Training Center. The training manager forwards the tape to two randomly selected certifiers on the national list. The certifiers peer-review the project and, using the "stem" statements on the appropriate rubric, either certify or withhold certification, annotate their observations, and return the tape to the training manager, who returns it with the feedback to the interpreter through the supervisor. This peer-review is not intended to measure daily performance, nor long-term application of the standards; that is the job of the supervisor.

Who can participate in the IDP?
The program is for ALL who do interpretation in the NPS, including seasonals, terms, volunteers, maintenance employees, cooperating association interpretive and sales staff, concession employees, and others. Everyone doing interpretation in the national parks is welcome to participate.

Who developed the program?
The professional development program is a product of over 300 field interpreters, regional, WASO Interpretation staff, and representatives from other disciplines, with the concurrence of the

Ranger Activities Division through the Ranger Careers initiative. Field interpreters from all levels of the interpretive profession reviewed the program spirit, content, and intent, and changes have been made along the way, and revisions always considered. Outside education professionals in performance assessment provided critical input and guidance in developing the assessment rubrics, standards for their application, and methods of certification.

Competencies

"The Foundation of the Curriculum"
Module 101: Fulfilling the NPS Mission: The Process of Interpretation

Entry Level Competencies	Developmental Level Competencies	Full Performance Level Competencies
Module 102: Informal visitor contacts	Module 210: Prepare and present a conducted activity	Module 310: Planning park interpretation
Module 103: Prepare and present an interpretive talk	Module 220: Prepare and present an interpretive demonstration or illustrated program	Module 311: Interpretive media development
	Module 230: Effective interpretive writing	Module 330: Leading interpreters: training and coaching
	Module 270: Present an effective curriculum-based program	Module 340: Interpretive research and resource liaison

The Interpretive Development Program identifies essential "Benchmark Competencies" for all interpreters in Ranger Careers positions. Others who do interpretive work, including volunteers, VUAs, and partner organizations, can also use the specific competencies that apply to their work. A **competency** is a combination of knowledge, skills, and abilities which, when acquired, allows employees to perform a task or function at a specifically defined level of proficiency.

Interpretive Development Program

Aiming For The High Ground

The Interpretive Development Program encourages the stewardship of park resources by facilitating meaningful, memorable visitor experiences. The program is based on the philosophy that people will ***care for*** what they first ***care about.*** This is accomplished by aiming for the highest standards of professionalism in interpretation.

The Interpretive Development Program provides…

- NPS mission-based training and development curriculum
- Field-developed national standards for interpretive effectiveness
- Peer review certification program
- Developmental tools and resources

The Interpretive Development Program is designed to…

- Foster accountability and professionalism in interpretation in the NPS
- Facilitate meaningful, memorable experiences for all visitors
- Result in a higher level of public stewardship for park resources
- Facilitate learner-driven skill development

Since 1995, the Interpretive Development Program has…

- Peer-reviewed over 4,000 interpretive programs and products for park rangers, volunteers and partners
- Provided substantive feedback to interpreters for program and product improvement
- Pioneered a professional language and standards for interpretation that have drawn the interest of other federal and state agencies, universities, professional and international organizations
- Pioneered in the NPS an employee development strategy of performance-based competencies
- Focused employee development on "outcome" rather than process

In The Beginning:

Things to Remember
When Starting a Program

The following is an overview of things to consider when beginning your programs. Remember that visitor impressions are often made before you even start talking. And certainly you can either grab or lose an audience within the first few minutes of your introduction. To start your program you will need to cover some general factual details about wildlife and other programs *and* set the tone for your program. Ideally these facts are woven into your program in an artful way. They should not sound like something you really don't care about but were made to do. The details to be covered vary somewhat between different programs--refer to the individual SOPs for points particular to each program. How long should your introduction be? Aim for **10 minutes** (except for dog demos and porch talks which will be shorter).

Before the program begins:

ARRIVE EARLY Arrive a minimum of 15 minutes early so you are ready and relaxed. Remember that your program begins *before* you start talking. How you look, how you interact with the audience before the talk, the music you select, will all have an effect on the overall impression that your program makes. If you have equipment to set up and test, arrive even earlier. How early depends on your familiarity with the equipment. For example, when doing a slide program it's a good idea to arrive at least an hour early.

GREET PEOPLE Greet people as they arrive. It sets a friendly tone and helps you to relax.

Before the formal introduction of your interpretive program, you will have an "introduction" that includes the following:

INTRODUCE YOURSELF Welcome people to Denali, introduce yourself and tell a little bit about yourself--where you're from, how long you've worked/lived in Alaska/Denali, etc.

ADVERTISE OTHER INTERPRETIVE PROGRAMS Advertise other upcoming interpretive programs and point people to the Park newspaper. It's nice to have the actual titles of the next day's programs plus a word or two on the content. Also, remember to mention the Junior Ranger booklet and encourage "kids" of all ages to participate.

GIVE AN OVERVIEW What's the condition of the trail? How far will we walk? How long will the hike/program take? What will the hike/program entail (steep hills, slides and music, mud, a video)?

GIVE BEAR, MOOSE & WOLF WARNINGS Provide a solid review of safe behavior in bear, moose & wolf country (see following page). The amount of detail will depend on the location and the activity (e.g. if you're in a campground you will want to mention food storage lockers). Recommend the Grizzly article in the *Alpenglow.*

TRANSITION TO THE FORMAL INTRODUCTION OF YOUR INTERPRETIVE PROGRAM In a polished introduction you'll have a smooth segue into the beginning of the program itself. For example, for a program on mountaineering you might follow the bear & moose warnings with, "Bears and moose aren't the only hazardous things in the Denali area..." For a program on history, "So, how do we know so much about bear and moose behavior here in Denali National Park? Well, the park has been around for 80 years and..."

Bear, Moose & Wolf Warnings:

Bears

- If you see a bear in the distance: Quietly re-route to avoid.
- If you see one nearby ignoring you: Quietly move away and re-route to avoid.
- If you see one near or far that is aware of you and shows any interest: Raise arms, wave them around and talk to the bear while backing slowly away.
- If a bear charges: STAND YOUR GROUND. Continue to wave and talk. It's probably a bluff charge and the bear will stop short of touching you or veer away at the last minute.
- If a bear makes contact: Fall to the ground, keep pack on, put hands behind neck and curl up in a fetal position so vital organs are protected. Play dead & be as boring & unthreatening as possible.
- If a bear starts a full-fledged attack: Fight back.
- NEVER TRY TO RUN AWAY. Running causes bears to react to you as if you were a prey animal (lunch). Also, bears run much faster than humans, so running is futile.

Regarding food:

- Do NOT leave behind food when moving away from a bear.
- When eating outdoors, do not spread out picnic-style. You should be able to pick up all food and items with food odor on a moment's notice.
- Dispose of food in bear-proof garbage cans. If camping at a campground, please do NOT dispose of food in the bathroom trash cans.

At Campground programs, please add the following information:

- Do not dump gray-water on the ground. First, clean bits of food out of the water and put them in a bear-proof garbage can or into a plastic bag that you can then keep in a bear-proof food container. Then…
    - Teklanika campground has gray-water drains next to the bathrooms
    - Riley Creek campground has drains in the middle of the restrooms.
    - Savage campground has flush toilets into which you can pour your gray-water.

Moose

- Do not approach.
- More deaths and injuries from moose than from bears.
- They're faster than they look.
- If they charge, RUN.

Summary of bear & moose: Moose-run, bear-don't run.

Wolves

- A wolf that doesn't act very, very wary around humans is potentially dangerous.
- Do not do *anything* to encourage a wolf to approach you.
- If a wolf does approach, make noise, group up with other people, try to look big and intimidating, and try to frighten them away. In the extremely rare event that they continue to approach, throw sticks or rocks at them, poke them with a long stick or pole and/or use pepper spray.
- Do not leave ANY food scraps, crumbs, paper, cans or any type of trash anywhere that wildlife may be able to get to it. Be especially careful of crumbs dropped on the ground.
- Attacks are extremely rare. If one *were* to attack, you would want to fight back, never run and never 'play dead." A wolf about to attack is unlikely to growl or bare its teeth or give any of the signs that you'd expect from an aggressive dog.

Summary: A wolf that has lost its fear of humans is a potentially dangerous wolf. Do NOTHING to cause habituation.

Tip: It can be fun and effective to present much of this info as a series of questions for visitors to try to answer before you present the correct information.

The Issue of
Crowd Control

1 In general, don't be afraid to be very specific about what you want people to do. It's quite possible to be very clear, very specific, and very assertive without coming off as rude or pushy. Don't forget that you are the one in uniform and people *expect* you to be in authority.

2 When doing any type of program, it's a good idea to let people know what's coming up ahead of time. That way, they're more likely to follow your directions, and they're more likely to concentrate on the substance of your program because they're not busy wondering what's coming up next. Consider giving a 30-second overview of <u>everything</u> at the very beginning. In the case of a dog demo, you can, in addition, give a 1-minute overview of the logistics of the sled run immediately before the run, and then after the run *another* overview of how the question and answer period will work and how much time it will take. Don't be afraid of repeating yourself!

3 If you're doing a program that's likely to generate lots of questions, and your time is limited, it's a good idea to go from one side of the audience to the other. Don't feel like you have to call on everyone that has his or her hand up. In the dog demo, for example, start at one end of the viewing stands and move down to the other, calling on a few people from each section. People can then SEE when the question and answer time is coming to an end, and it makes it easier for <u>you</u> to bring it to a clear conclusion when you want to. Don't forget to repeat the questions before answering them, and remember to address the answers to the whole audience, rather than just the questioner.

Guide To Using
The Interpretive Study Collection

There are two collections of artifacts:

A. **Park Museum Study Collection:** A collection of valuable objects of scientific and historic importance to the park. This collection is not available for interpreter use as props, but is available for research purposes. It is stored in a locked, climate-controlled room in the basement of the Resources building at headquarters. The museum curator is responsible for overseeing this collection.

B. **Interpretation Props Collections:** A collection of objects to be used for interpretive programs. Each district has a collection, which may include skins, bones, rocks, scat, miscellaneous animal parts, and large photographs. The museum curator is not responsible for these collections. Any questions regarding these collections should be directed to an interp supervisor or to the interpreter who has it as their summer project.

The steps involved in finding and using objects from the <u>East District</u> Props Collection are as follows:

1. **FIND THE OBJECT.** Either peruse the shelves and cabinets, look in the “Interpretive Collection Index” (a small file cabinet) under “Subject Cards,” or look in the database on the *t:* drive. Note the catalog number (*e.g.*, "I-57") and where the item is stored. Information about the object (*e.g.*, where it was collected) is located in the “Interpretive Collection Index” file cabinet under "Object Cards".

2. **CHECK IT OUT.** Record the necessary information on the "Interpretive Checkout List" posted on the wall. The required information includes your name, the date, the items checked out, the program title, and a list of the items including both a description and the catalog number for each. Recording the catalog number helps us keep track of what gets used and what doesn’t. This in turn helps us when weeding the collection and when deciding what new items to acquire. Remember that other interpreters may need the same prop. Please do not have props any longer than is absolutely necessary.

3. **TAKE IT AWAY.** Carefully place the object in a sturdy box and/or plastic bag for transport to your program. Don't expose objects to rain, dust, or snow. Have a contingency plan for program presentation in case of bad weather.

4. **PUT IT BACK.** When you return from a program, return the objects and the transport box to the Collection as soon as possible in case another ranger is waiting for them. Enter the date the item is returned. If an item was damaged, notify an interp supervisor.

Note: West & South staff should check with their supervisors for current props checkout procedures.

Denali National Park & Preserve

Dog Demo Checklist & SOP

Before Demo:

1. Arrive 1 hour before the start of the demonstration.
2. Double-check the latches attaching wheeled sled to chain in the ground.
3. Learn your demo team - write names on hand if you want.
4. Select appropriate harnesses and attach to tug lines.
5. Set up speaker, turn on, and set volume.
6. Discuss with kennel staff who will get which dogs.
7. Find out where your dogs are located. Get to know them!
8. Walk the demonstration trail.
9. Greet all visitors to kennel and give safety messages:

    - **ALL CHILDREN MUST BE ACCOMPANIED BY A RESPONSIBLE ADULT**
    - **SMALL CHILDREN MUST BE KEPT IN HAND**
    - **MOVE AWAY FROM ANY DOG THAT BARKS OR SEEMS AGITATED**
    - **NO RUNNING**
    - Stay on the human side of the ropes
    - Do not feed the dogs anything
    - Do not eat while visiting dogs
    - No trash or cigarette butts on ground
    - Don't allow dogs to jump up on you; if dogs jump on you, tell them NO!
    - There is limited seating at the stands; please reserve the seats for those people who need to have a seat for the 30-minute program.

10. Monitor visitor/dog interaction for safety concerns.

Beginning the Demo:

1. Clip microphone to uniform and announce beginning of demonstration.
2. Assist mobility impaired visitors to benches at front of viewing stands. There is wheelchair space in the first viewing stand.
3. Direct visitors into viewing stands. Each viewing stand can hold 80 people. Determine the number of stands you need to use. Take control and be sure the stands are used to maximum efficiency for large crowds.
4. Overflow can be accommodated by having visitors stand next to the first stand and the large spruce tree. Visitors are not allowed to stand underneath the trees located near the gravel pit.
5. Consider the weather and exposure endurance of your crowd.
6. Speak for 10 min. - 15 min. maximum if weather is good.
7. Explain the run. Don’t forget to describe how/why we lift the dogs when bringing them from their houses to the sled. All visitors must be in viewing stand or be behind overflow rope.
8. Remove microphone.
9. Get dogs - Lead dog first, and clip collar to tie-down. Keep yourself between your dog and other dogs or visitors.
10. Step onto sled runners.
11. **WAIT FOR THUMBS UP SIGNAL** from kennel staff at lead dog.

12. HANG ON!!
13. Release smaller backup anchor latch first--then release largest anchor.
14. Have your feet on the runners and hang on for a great ride, LET'S GO!!!
15. Steering: Put weight on inner runner to prevent sled from tipping in the corner. If you feel you might cut a corner and clip a tree, DO NOT BRAKE. Shift weight to outside and accelerate. If you feel you're going too fast step on the brake. Brake before you need to when approaching the landing pit.
16. If you fall off the sled or lose control, let go of the sled, do not let yourself be dragged, just let go of the sled and the kennels staff will catch the team.
17. Once you've stopped, NEVER let go of the sled, until the kennels staff...
18. ...anchors sled to carabiner in the ground.
19. Put your microphone back on!
20. Take questions.
21. Reiterate safety messages.
22. Mention sale of books "Sled Dogs of Denali N.P.", "Running with the Big Dogs" and video "Winter Patrol."
23. Announce how long it will be until buses leave.
24. Tell visitors of the following rules and opportunities:

    - **Please do not approach the dogs in harness, stay behind the yellow line. The dogs feel intimidated when a lot of people come out of the stands toward them.**
    - Please feel free to visit the other dogs.
    - Feel free to take pictures on the back of the sled but please do not climb into the sled basket.
    - Feel free to ask any questions you might have.
    - If there is anyone who would like to make a donation to help support the kennels operation they may visit with "Buck".

27. GIVE YOUR CONCLUSION! Some people prefer to do this before these last announcements to help your program run more smoothly- your choice.

After Demo:

1. Stand near lead dogs for informal questions and to control dogs and people. Keep people from approaching the dogs. Remind them to stay on the outside.
2. Announce when the buses are about to leave.
3. Assist kennel staff returning dogs to posts and pens.
4. Keep dogs out of reach of other dogs and visitors.
5. Put harnesses away.
6. Reposition sled.

Words of Wisdom:

1. **THINK SAFETY FIRST:** priority should be given to visitors, then you, then the dogs.
2. Tell the kennel staff if you have a problem with any specific dog(s).
3. Say "I don't know," if you don't know when fielding questions. Refer to the kennel staff for any questions you are unsure about.
4. Use ONLY "hike," "let's go," and "whoa" commands during demos.
5. You may run behind the sled if it is a slow run - but hang on to it.
6. Expect corrections from kennel staff; that's part of their job.
7. Expect to see dogs corrected - training is an on-going process.
8. Things may go wrong--if you have a hunch about a dog, the sled, the crowd, or the trail, take the time to find out what's wrong and avoid problems. NEVER RUSH YOURSELF. If for any reason you feel unsafe about riding the sled, a kennel staff member can do the run for you.
9. Don't expect the dogs to know what to do - they are trained but they're only dogs. You are the one driving the sled.
10. Get involved with the dogs off-hours - see kennel staff.
11. If there is a dogfight (very unlikely), let the kennel staff handle it. Only step in if the staff asks for your assistance.
12. Ask lots of question of kennel staff when time is available. Many park employees and local residents have mushing experience and can give you insights.

Denali National Park Kennels

Most Frequently Asked Questions And Their Answers 2007

A key technique for answering visitor questions is to use each question as a springboard for answering a whole bunch of related questions. For example, if a visitor asks, "how old are the puppies when they start running in harness," you can tell the whole life cycle of the sled dogs starting with how newborn puppies are handled to get them used to people, how they are allowed to run, unharnessed, alongside a harnessed team to watch and learn from their elders, the age that they are put in harness, the age and reasons for retiring them and what happens to them in retirement (see items 6 & 11 below). This gives you a chance to tell a simple and interesting mini-story in a couple of minutes, which also answers a bunch of other questions that would likely to come up if there was enough question and answer time to get to every visitor's questions. It should be a very rare question that you would answer with one word or one sentence. Be aware that this is something for which interpretive coaches will be watching.

Two other points that all interpreters should be aware of when answering visitor questions at the kennels:

A. It is essential to emphasize is the active role the dogs play in this park all winter long. Visitors see these dogs in the summer when they are hot, not getting much exercise, and pretty lethargic. Some visitors think that these dogs are just here for the tourists - for show. It's up to interpreters to paint the picture of what life is like for them in the winter. Of course, this is asking a lot since most of you don't have the firsthand experience with the dogs in winter. The following information is meant to help bridge this gap.

B. Though visitors often ask questions with *winter* dog sledding in mind, it is easy for the summer interpretive staff to assume that some of these questions are about summer dog sled demonstrations, since that's the part of the operation with which summer interpretive staff are familiar. For example, visitors often ask how a person learns to run the sled. Most likely they are wondering how one learns to run a sled on snow, not necessarily how interpreters learn to run a wheeled sled on a gravel track. Please be sensitive to this and in keeping with the mini-story idea above, answer the question for both seasons.

Finally, after the run and before the question and answer period, remember to introduce the team and the positions, explain the traditional harnesses and lines, explain how the leather ones are used only for our summer demonstrations (for historical representation), describe the sled, and talk a little bit about the dogs themselves. These are common questions from visitors that can be answered right up front.

Following are the most common questions and their detailed answers. Please notice that following these is another, longer set of questions with shorter answers that should cover just about everything else that a visitor may ask.

1. Purpose of winter patrols

1. **Contacting winter visitors.** We are essentially a winter version of a back-country ranger. Visitors in winter may come to Denali to ski, ski-jor, go mushing with their own dog teams, or go with a guided dog sled concessioner, or generally to winter recreate. We are able to talk with visitors, give trail reports, assess conditions for staff issuing back-country permits and generally be a ranger presence in the park during the winter months. Our dog trails also make great travel routes for these users.
2. **Hauling supplies**. To supply back-country cabins, bring in firewood, or haul out garbage. Over the years we have done a variety of work such as hauling out debris from cabin re-habs, hauling in gear, supplies and equipment for cabins, carrying mountaineering equipment to cache for south disctict rangers attempting north side Denali attempts or traverses, or for any other park Division needing materials or supplies moved in winter.
3. **Transporting park researchers/Conducting park research.** Our dogs are used to collect snow samples, transport equipment or personnel for sound monitoring, and collect wildlife data in general.
4. **Patrolling to help ensure against illegal activities**. Please down play the role of the dogs in finding poachers. Though our presence in the back-country probably helps deter poachers we are not specifically out there in search of poachers. In recent years we have specifically patrolled for illegal snow-machining in the wilderness area. And we have gathered evidence on people illegally taking antlers from within the park. But today, dogs are not an effective means to patrol against poachers in the vast area of Denali. Planes and snowmachines provide a more efficient tool for these purposes.

2. How long are our winter patrols?

Our patrols can last anywhere from a day in length to up to 4 weeks long. During the early winter (from Oct.-late Nov.), we are usually working on getting the dogs back in shape, and the rivers have not frozen up, so our

patrols are shorter. Once the rivers freeze and the dogs have more endurance, the patrols build to several days to a week in length. Our longest patrol of the winter is the Wonder Lake patrol. Two to three teams will leave in late February or at the first of March and return late in March. This patrol is usually 3-4 weeks long. The bulk of our winter visitation is during the month of March when our snow conditions are usually very good, temps are often warmer, and day light length is longer. Visitors sometimes will do extended trips and either ski or mush from headquarters all the way to Wonder Lake or fly into Kantishna and ski/mush back. Basing out of the Wonder Lake ranger station during March allows us to contact these visitors, set a trail all the way from HQ to Wonder Lake, provide information to dispatch on trail conditions, and make sure that folks are safe.

3. How many miles a day do we travel?

In good conditions a typical day might be 20-30 miles. On days when we might be breaking trail through deep snow a 10 mile day is a very long day. In late March when everyone is in their best shape a 50 mile day is not unheard of. Generally we rest the dogs for 5-10 minutes each hour. Of course this is dependent upon temperature and conditions. With temperatures above +10 we might have to rest quite frequently because the dogs risk overheating. If they are working really hard and breaking trail we would rest more often.

4. Information on the breeding program.

Each spring or summer we have one litter of puppies. We do extensive genealogy research on the dogs we are considering breeding. Occasionally, we will breed a male and female from this kennel but more often than not we will find a male or female that has all of the qualities we are looking for from an outside kennel and then breed them with one of the park's dogs in order to bring in some new blood lines. The qualities we are looking for when deciding which dogs to breed are those dogs that are intelligent, those that love to run and pull with a great work ethic, dogs with long legs, good 2-layer coats, bushy tails, and compact, durable and healthy feet--and of course dogs that are very good with people.

5. What kind of dogs are these?

These dogs are called Alaskan huskies or simply sled dogs, which is not a pure breed (such as Siberian huskies or Malamutes), but is not necessarily a mix of purebreds either. Native peoples had been running sleds dogs in Alaska for hundreds if not thousands of years before the first white people ever set foot here. During the gold rush days, stampeders brought with them any dog capable of pulling a sled and many of those were bred into the native stocks over the years. So it is difficult to say exactly what is in the genetic make-up

way in the past of any of our dogs. The resulting dog has become what we refer to as the Alaskan husky. Depending on how you use your sled dogs, whether it be for racing, recreational, trapline, tour business, etc. along with the types of snow and temperatures in your part of Alaska will determine what style of Alaskan husky you breed for. They have never been or will never be considered a purebred according to the AKC standards because they are not bred at all for looks but are bred for performance standards. Denali's sled dogs are considered to be freight style Alaskan huskies. They weigh between 55-80 pounds on average as opposed to racing dogs who are typically 35-45 pounds.

6. What is the training like? How old are the dogs when they start pulling?

Pups are born here at the kennels and they begin their socialization right away. They are handled lots by kennels staff and visitors so that they are very comfortable with everyone. When they are **4 weeks old** they begin venturing out of the pen with kennels staff--running around the demo loop chasing someone, we show them new things in their environment such as a little stream, steep hills, bushes to climb through. At **6-8 weeks** you can begin teaching them some commands such as sit, come, and stay. By the time the pups are about **5 months old** they begin running loose with the team. Not yet in harness the young pups run alongside, behind, or in front of the sled, and begin seeing what it's like to be a sled dog. At **6-7 months** or so the pups are ready to be put into the team for short runs in harness. You always make the young dogs' first runs be all about fun--never giving them any stressful conditions or run them too long. By the time the pups **are 9-11 months** old they are full members of the team, though they may not be working real hard that first winter. By their second winter they are full-fledged sled dogs.

Much of the training also comes from the other dogs. Young dogs will be paired in team with an older experienced dog. Lead dog training might start during a pup's second winter. By running with an older lead dog, the young pup will learn commands and gain confidence running in many different situations.

7. How do we choose a lead dog?

To sum it up, there is a great quote by mushing legend Gareth Wright: "It's like Einstein, he didn't learn to be that smart, he was born that way. It's just like our dogs--we ***have*** a lead dog, we don't ***make*** a lead dog." That being said most huskies are incredibly smart and if you were able to devote endless time it would likely be possible to make just about any dog a lead dog.

Lead dogs need to be intelligent, focused, confident, and, above all else, need to love to get down the trail. Some dogs just don't have what it takes, while

others stand out almost immediately. From the time they are puppies you will begin to see which dogs are particularly in tune with you, which ones learn to sit, come, and stay quickly, which ones focus on the task at hand. We focus most of our initial leader training energy on ones that show these traits. Other dogs may sometimes mature slower and we will wait a few years before we spend too much time on leader training. Occasionally you will see a dog take a command from another position besides lead and that may tell you that maybe it is time to give them some leader experience.

8. How do these dogs differ from racing dogs?

The dogs which run in races such as the Iditarod are bred specifically for their speed and endurance. Racing dogs can maintain speeds of 15 miles/hour or more for long distances. Race dogs may travel 100 miles or more a day. They are lean and muscular, and tend to have a lighter bone structure and lighter coats than our dogs. If you look at Willow and Aspen, they are more similar to racing dogs. Their mother is originally from a racing kennel, while their dad is a freight style dog. At our kennel the larger dogs, with good thick coats and long legs work better for the work they do.

9. What do they eat?

They primarily eat a premium dried kibble dog food that is designed specifically for working sled dogs. It is called Caribou Creek Gold. It is made up of 37% protein and 25% fat. This is almost twice the amount of protein and almost 3 times the amount of fat as the leading grocery store brands. The main ingredients are poultry liver, chicken by-product meal, dried egg, herring meal, corn, poultry fat, blood meal, beet pulp, oat flour and brewer's rice, flaxseed oil, fish oil, canola oil, and wheat germ meal. During the summer they eat once a day (right after the 4:00 pm demo). During the winter they are fed twice each day, plus they get poultry fat snacks when the weather is cold or to add extra calories for thinner dogs. As an aside, dogs process fat in the same way that humans process carbohydrates. It is instant energy for them.

10. How much do the sleds weigh?

The winter patrol sled (made of polyethylene plastic, wood, and aluminum) weighs 80 lbs., whereas the summer demo sled (made of wood w/steel runners & 3 wheels) weighs 150 lbs. On a typical patrol we carry approximately 100 pounds of equipment in the sleds such as sleeping bag, food for the dogs, snowshoes

11. What happens to them when they are too old to run

Once a dog reaches the age of 8 we begin to look for signs that they are ready to retire. Typically after their 8th winter, (when the dogs are about 63 years in human years!-good retirement age) when they are nearing their 9th birthday we see that they not be able to keep up as well, or that they are slightly less enthusiastic about getting their harness on. Often by this time we already have a plethora of people who have applied to adopt each individual dog. Anyone can apply to adopt one of our dogs but our requirements are that they must live in the north, preferably in Alaska (about 95% of our dogs stay in Alaska) but we may consider other cold weather places such as Montana, Minnesota or northern Wisconsin. They must live an active lifestyle so we choose people who are physically active, and they must live in a stable home with lots of space. We review the applicants for our dogs several months before they retire and then place then with the best home. Often they stay right here in the local area so we still get to see them fairly often.

The Kennels Scoop: More Questions & Answers

Rev. 4/07

1. Why are some in pens?

   Some of our dogs chew on gravel, so they can be found in the cement-padded pens. Puppies are raised in the pens with their mother until they are 6-8 weeks old. Females in heat will be placed in pens to prevent any unintentional pairings. We also have some dogs who are shy and feel more secure in the pens, and we have a few with whom we may not be as trusting around small children.

2. What is the rope fence for?

   The fence gives the dogs the option to decide whether or not they wish to be petted. They see about 40,000 visitors each summer, and some get rather tired of so much attention.

3. Do they ever get off of their chains?

   Yes, in the winter several dogs at a time are let loose when we arrive at cabins, and the puppies run loose alongside the sled until they are about 6 months old. Loose dogs wouldn't run away but they might harass wildlife or create a disturbance, so in the summer they are mostly at their houses. In the summer we have a volunteer dog walking program in which people working in the area can adopt a dog for the summer to walk up the park road at night.

4. Why are they barking during hitch-up?

   They are all anxious to go, but only five or six will run in a demo--they don't know which ones are scheduled.

5. Will they bite?

   No one has ever been bitten by one of the kennels dogs. This is due to the fact that we breed only the dogs with the best demeanor, and we carefully watch the interactions between visitors and the dogs to ensure safety. Any dog will bite if provoked, so we make sure we keep a close eye on interactions, especially with children.

6. How much do they weigh?

   The average is 68 lbs. The heaviest is around 80 lbs. And the lightest (Willow), 52 lbs.

7. How much can they pull?

   On good trails maybe 100 lbs./dog on a sustained travel basis. On soft or poor trails sometimes they have trouble hauling an empty sled. We try to keep our loads down to 50 lbs. or less per dog for cross-country travel. Sled dogs are pound for pound the strongest draft animals in the world and are capable of pulling up to one ton, but while on the trail, we like to keep a reasonable load to not overburden the dogs.

8. How fast can they go?

   This largely depends upon conditions, but they may sprint out of here at 15 mph and then settle into a traveling pace of 8 mph on good trails. Sprint race dogs can average well over 20 mph over a 30-mile track; distance racers try to average more than 10 mph; freight dogs may only go 2 or 3 mph. If we are breaking trail through deep snow, we may only make it 1-2 miles/hour.

9. How far can the dogs go in a day?

   This depends on many factors, such as the condition of the trail, the temperature, the dogs' conditioning, the load in the sled, etc. Fifty to sixty miles is not unrealistic for a long day with ideal conditions. We seldom travel more than 35 miles in a day. Even 10 miles could be a really long day if we are breaking trail.

10. What do they eat?

    Commercial dry dog food, approximately 1 lb./dog/day. The food is very high in protein and fat and is specially formulated for working dogs. The first four ingredients are poultry liver, chick by-product, dried egg, and herring meal. In winter they also receive fat and a dietary supplement, which add vitamins and minerals to their diet. During the winter, warm water is added to their food so that they stay well hydrated.

11. How often are they fed?

During the summer once a day, in the late afternoon. Mothers and pups are fed more often. During the winter they are fed twice each day.

12. Can I feed them treats?

No. Their diet is carefully controlled. They can develop bad habits if visitors feed them.

13. Are these part wolf?

No. None of our dogs have any recent wolf ancestry. Wolves naturally form dominance hierarchies, which you don't necessarily want in a sled dog team. They have many of the same physical characteristics as wolves such as bushy tail, thick coat, and long legs.

14. What kind of dog are they?

They are called Alaskan sled dogs or Alaskan huskies. <u>They are not purebred nor crosses of purebred dogs.</u> They have been bred for hundreds of years before the whole concept of AKC registered breeds. Purebreds are bred to have a very uniform appearance, whereas sled dogs are bred for specific attributes that make them good at what they do.

15. Are the dogs with blue eyes blind?

No. Blue eyes are just a more common trend in northern dogs. Some people believe the blue eyes originated from the Siberian huskies. According to some Native legends, those dogs that have blue eyes can see the wind.

16. Do you use the females for pulling sleds?

Yes, males and females make equally good sled dogs. We have fewer females only because of the complications it can cause in a team when they go into heat.

17. What is the male/female ratio in the kennels?

Currently we have about a 50/50 mix at the kennels.

18. Have any of your dogs been neutered?

Yes, several of the dogs we know we are not going to breed have been spayed or neutered. It provides health benefits, prevents unwanted pregnancies, and cuts down on complications in the teams when a female is in heat.

19. How many puppies are in a litter?

We've had as many as 13 pups in a litter. 5-8 is more typical. More than this is tough for the pups and mom.

20. What do you look for in selecting puppies?

We look for size and signs of intelligence, well-furred dogs but not long-coated dogs. Long-haired dogs tend to overheat and get snowballs in their fur. In general, we're looking for healthy, alert, responsive pups.

21. When do puppies begin their training?

We begin socializing and general obedience training of the pups quite early. Kennel staff begins handling them when they are just a few weeks old. This begins their socialization. By the time they are 6-8 weeks old, they go on short walks out of the kennels. By the time they are 8 weeks old, they will be brought out of the kennels area to be exposed to new things such as creeks, steep hills, and brush. They also learn a lot from association with the other dogs. We let them run loose with the teams in early winter before putting them in harness. They will be working on short patrols by 6-7 months.

22. How long can they work?

Their prime is between 2 and 7 years. By the age of 9 they start having trouble keeping up or they lose some of their enthusiasm to run, and then they are retired.

23. What do you do with old or extra dogs?

Our dogs are adopted, sometimes by park staff, by visitors, or occasionally by their adoptive walkers. We require that the adoptees live in a cool climate, be willing and able to exercise the dogs frequently, and have enough land and a stable enough home for an energetic sled dog. Interested? We have applications for adopting a dog.

24. What do you do if they get into a fight?

We rarely ever have any problems with fighting, but if we do, we break it up as soon as possible so injuries are minimal. We never breed dogs that show any sign of aggression. The one time where we tend to see the dogs become more aggressive is when several females are in heat.

25. Why are they shedding so much?

They are losing some of their thick winter coats now.

26. Do you race these dogs?

No. We use these dogs strictly for park purposes. Also, racing sled dogs are built very differently than these dogs. Race dogs are much smaller, have lighter coats, and are bred specifically for speed.

27. Can you do anything with the fur?

When we groom the dogs, we save their fur and give it to some local craftspeople who spin it and knit with it. Inside the kennels building are some examples of hats and headbands made with dog fur.

28. Can I have some fur?

Sure, here is a brush. Help yourself.

29. Do the dogs like to work?

You'll be able to answer that yourself after the demo. We call it work, but to them it is pure enjoyment. They can't wait for winter.

30. What do the dogs do for fun?

There is nothing that a sled dog (any dog ?) would rather do than run with other dogs. It's part of their nature to "travel" with a pack. Their training is based on taking what they want to do for fun and training them to do it how and where the musher wants.

31. Why are some so shy and others so friendly?

Just individual differences, like people. We find that pups that grew up in larger or remote kennels may suffer "kennel shyness." We like our pups to be born here so that they are used to lots of people, but we occasionally get pups from other kennels for diversity in breeding stock.

32. Why are they so thin?

Most people are used to seeing dogs that are obese. These dogs are simply in shape and are kept at their optimum weight by monitoring and adjusting their food intake. These dogs are similar to a marathon runner who has little body fat. Extra weight can cause increased muscle strains and joint injuries.

33. Do you use a whip when you are "mushing?"

Never! Our training is based on positive reinforcement.

34. Do you reward them?

Yes, often with verbal praise, petting, and with pups, especially, food treats. Sometimes when a leader or another dog has done a particularly good job, he or she sleeps inside the patrol cabin for the night.

35. Do you have favorites?

The closest relationships tend to be with our lead dogs, but it's important for all the dogs to feel special.

36. Do the mosquitoes bother the dogs?

Sometimes, but they don't tend to be too bad at the kennels. If it's bad, we'll put a little repellent on the dogs' snouts or ears, where they are more susceptible.

37. What would happen if some wildlife came into the kennels?

We rarely have problems with wildlife. Moose occasionally wander into the area, and the dogs will get excited and bark. A few times bears have wandered through the kennels area, but they have never posed a threat to the dogs, probably because the dogs bark at wildlife, and the barking tends to scare off wildlife. We also don't keep in the kennels area any food items which could attract bears.

38. Do the dogs know when there are wolves nearby?

Yes, and occasionally they may howl back and forth with each other.

39. Why can't I bring my own dog down to the kennels?

It causes undue disturbance. Also, we are very careful not to bring into the kennels any viruses from dogs that may be infected.

40. What's the longest race a dog can go in?

The Iditarod, from Anchorage to Nome, is 1161 miles.

41. Why do some dogs eat their feces?

Possibly to recycle enzymes or because it tastes good to the dogs. Lots of individual variation.

42. What do you do with it all?

We scoop the poop and carry it away to the compost bins. We add organic material, mix it, and add water. By the end of a summer, much of it turns into great soil. We then give it away to the community for flower gardens, lawns or fill material. It is not recommended for food crops.

43. What is that long pole coming out of the front of the sled used for?

The guide pole is used by the second person as a steering device. May be on gee or haw side. "Gee" means right, "haw" means left.

44. Why have skis?

If two people are traveling together, then the second person might ride on the skis and help steer the load with the guide pole. It is a method that is rarely used anymore.

45. How do you stop them?

By using the "Whoa!" command in combination with the brake. In deep snow the brake may not work very well, and the driver may have to tip the sled over to get the dogs to stop.

46. Do you say "mush" to make them go?

No, here we say "Ready, let's go" or "O.K." Saying "mush" went out with Sergeant Preston and Yukon King. The French word "marche" was probably the origin of the term "mush."

47. What's that chain used for?

It's called rough-locking; wrapping the chain around the runners to help check speed on ice and down hills. It gives you more traction--kind of like chaining up your tires.

48. Why are there sometimes two in front?

We commonly run 2 lead dogs. Some dogs perform better with a partner. Also the dogs have different strengths and weaknesses, so it is good to pair them up with another dog that complements them.

49. How do you pick the leader?

Enthusiasm, willingness to run in front, "trainability". A dog team is only as good as the lead dog.

50. How do you train the leader?

We put a trainee next to an experienced leader, then create situations that allow the old dog to teach the young. Usually by a dog's second winter, it may be tried out in the lead position alongside an experienced leader.

51. Which ones are leaders?

See update at the end of the questions. About a third of our dogs are leaders at varying levels of aptitude. Some leaders are better as trail leaders while others are better at breaking trail.

52. What do the middle dogs do?

The swing dogs, behind the leader, will help to maneuver (swing) the team around corners. This is a good training position. It's a "backup" for novice leaders to have old leaders running swing. The team dogs are any pairs behind the swing dogs and in front of the wheel dogs (position closest to the sled). They are the general pullers of the team.

53. Why are the biggest dogs usually right in front of the sled?

The dogs running in the wheel position need to be strong to help with the starts, stops, and turns. It is also a good place to put pups or problem dogs so you can get to them quickly if necessary. We like pups to be familiar with all positions.

54. How many dogs are in a team?

This depends on conditions, driver's experience, and objective of the patrol. Commonly 8-10, and sometimes as many as 12 will be hitched to our patrol sleds with one driver.

55. How much does a sled dog cost?

Racing dogs are expensive, e.g. $5,000 for a leader. Utility working dogs like ours may be priced at $500 for a good leader. A puppy from a well-known racing kennel may sell for $500-$1,000. There is a big range of prices, depending upon demand, blood lines, etc.

56. Why are their collars so tight?

If their collars were any looser, they might slip out of them.

57. Do you raise all your own dogs or buy them?

We have the best success raising our own puppies so that they're familiar with our unique kennel requirements. We do buy an occasional dog to bring in new bloodlines. We often bring in an outside male or female to breed with to maintain healthy, diverse bloodlines.

58. What are all those names hanging in the kennels building?

These are dogs that once were in the kennels. Some have retired, others died. We have reused a few of the names. The oldest name in the building dates back to 1939, although we've had our dogs here since 1921.

59. What smells in here?

Harnesses, dog food, dogs, medicine, people.

60. How come there are different kinds of harnesses?

The leather ones historically were used for freighting. The nylon webbing harnesses are what we use in the winter and are standard for racing and training.

61. Is there a vet here?

Our full-time kennels manager, Karen Fortier, has some veterinary training, and the kennels staff are all trained in basic veterinary/first aid. Preventative care and minor emergencies are handled here. If we have a more serious problem, then we will bring the dog to the nearest veterinarian, who is in Fairbanks.

62. What are the common problems or illnesses?

Our dogs are very healthy and rarely have any health problems. We may see small cuts, minor skin ailments, viruses, gastro-intestinal problems, or occasional pulled muscles or strains.

63. Are they bothered by ticks?

Not up here.

64. Do they have fleas?
No, not Alaskan sled dogs.

65. Do they get heart worm?
None so far. Common parasites are roundworms, hookworms, and tapeworms. We routinely administer worming medicine twice annually.

66. Are these dogs for sale?
No. When we retire our dogs, we make sure they get great homes, but they are not sold.

67. Do other National Parks have sled dogs?
This is a program unique to Denali National Park.

68. Where do you get your harnesses?
Most feed stores in Alaska sell dog mushing equipment. You can buy harnesses in Fairbanks or Anchorage or order them through the internet.

69. Where do you get your sleds?
They are made here by our kennels staff.

70. What kind of wood are they made of and how much do they weigh?
We use hickory and ash. Birch and oak are also used. Woods used need to be strong and flexible with straight grains. Racing sleds weigh about 20-40 lbs. Our patrol sled weighs between 70-90 pounds empty.

71. What is on the bottom of the runners?
We use plastic (ultra high molecular weight polyethylene) for the "shoes." Historically steel, baleen, animal skins, ivory, mud, wood, and dung were used on the running surface.

72. Where can I buy a sled? How much do they cost?
There are a variety of manufacturers. Sleds may range from around $250 to several thousand.

73. Where can I get plans to build my own?
You may copy ours or consult the reference materials in the kennels.

74. How do you bend the runners, rails, handle bows, etc.?
Bends are either made by steaming or laminating and then clamping the wood into a form. Often handle bows and brush bows are plastic.

75. How long does it take to build one?
An experienced sled builder can make a basket sled in about two weeks of uninterrupted work. A plastic toboggan takes much less time.

76. Does someone work here all year round?
Yes, two of our staff are employed year round to work with the dogs. There are two full-time volunteers who also work in the kennels in the winter.

77. What are the dogs used for in the winter?
To go out on patrols in the park. The purposes of the patrols are to gain resource knowledge, keep trails open, contact park visitors and neighbors, monitor activity around the borders of the park, assist research and resource management, assist mountaineering staff, supply and maintain backcountry cabins, haul trash, monitor wildlife activity, provide orientation for staff, and public relations (VIPS).

78. How come you don't use snowmobiles?
In compliance with the 1964 Wilderness Act, snowmachines are not allowed in the wilderness portion (2 million acres) of Denali NP. Snowmobiles are used in the non-wilderness portions of the park. Dog teams

are the traditional means of transportation, they don't break down, run out of gas, create pollution, or disturb the quiet and solitude of the wilderness.

79. Do the dogs eat more in the winter?
    Yes, they are given more food in the winter and will eat snow, as well as being watered regularly. They get fat and supplements in winter.

80. How do they stay warm?
    They curl up covering their noses with their tails. Thick undercoats and long guard hairs insulate them well.

81. What is the coldest you can go out with them?
    At about -35º F neither the dog nor the driver is too anxious to go outside. We sometimes bring in the lighter coated dogs to spend the night with us in the cabin.

82. Don't their feet get sore?
    One of the things we breed for is tough feet. However, the pads could be cut by ice, or splits might result from the buildup of snowballs in the webbing of their feet. We have nylon booties which protect the dogs' feet if the conditions warrant, not to provide warmth but to act as a preventative and a curative.

83. Can the dogs get frostbite?
    Yes, if they were traveling in really cold temperatures. Feet, nipples, and scrotums are susceptible.

84. Who uses the dogs in the winter?
    The dogs are used by kennels (ranger) staff all winter long.

90. Can I take pictures of them?
    Yes. After the demo you can get your picture taken on the back of the demo sled, but please stay behind the yellow line which surrounds the dogs.

85. Where can I throw trash?
    Please put it in the designated cans. The dogs will try to eat anything. Use cans for cigarette butts.

86. Where can I get some more information about the dogs?
    Libraries and book stores (especially in Alaska), Yukon Quest HQ in Fairbanks, Iditarod HQ in Wasilla, reference books in the kennels, Sled Dogs of Denali National Park and the Winter Patrol video.

87. Where can I buy a dog in Alaska?
    Check feed store outlets in Wasilla, Anchorage, and Fairbanks. There are many wonderful sled dogs in the dog pounds/animal shelters throughout Alaska as well.

88. Is there a rest room here?
    No. There are rest rooms near the bus parking area.

89. Where can I get a drink?
    There are some cups and a faucet inside the cook room or a faucet outside.

90. Where can I leave my dog while I hike in the backcountry?
    There are kennel services in the area. Check local information at the DVC.

91. My dog ran away. Where should I inquire about him?
    Contact dispatch. A patrol ranger should be contacted before returning a found dog to its owner.

92. How long are the patrols?
    The patrols can last anywhere from a day to as long as a month. In late February or early March the whole kennel heads out to Wonder Lake, where they monitor spring recreational activity, stock cabins with wood, set trails, and monitor use.

Interesting Quotes:

"We had dogs, Scott did not."

Roald Amundsen, 1911 (on why he survived his quest for the South Pole and Robert Falcon Scott did not).

"He who gives time to the study of the history of Alaska learns that the dog, next to man, has been the most important factor in its past and present development."

Judge James Wickersham, 1938.

“The earth split in two, and the men and the beasts were separated by a profound abyss. Thus in the great chaos of creation, the birds, insects, and four-legged creatures sought to save themselves in flight.

“All but the dog.

“He alone stood at the edge of the abyss barking, howling, pleading, and the man moved by compassion, cried, ‘Come!’ And the dog hurled himself across the chasm to join him. Two front paws caught the far edge...He certainly would have been lost forever had the man not caught him and saved his life.”

-Eskimo Creation Myth from Travelers of The Cold, by Dominique Cellura.

Interesting Tidbit:

There is a 7% difference found when comparing the DNA of a coyote to a wolf. There is a 1% to 2% difference when comparing domestic dog DNA to wolf DNA. (Yes, that means that a Chihuahua is more closely related to a wolf than a coyote is.)

Historic Tidbits:

Martin Frobisher, 1577:

> Taking in his hand one of those countrey bridles, he caught one of our dogges and hampred him handsomely therein, as we do our horses and with whip in his hand, he taught the dogge to draw in a sled as we do our horses in a coach, setting himselfe thereupon like a guide: so that we might see they use dogges for that purpose that we do our horses. They draw with dogges sleads upon the ice, and remove their tents therewithal wherein they dwell in Summer.

Superintendent's Report, December 1923:

> Ranger McFarland reports he observed a man coming from the direction of the park with a loaded dog sled, the load covered with canvas. Early the next morning the ranger took a dog team and followed the back track of the sled. The track was followed to a point about three miles inside the park boundary where it was plainly seen that a (wildlife) killing had taken place.

Superintendent's Report, January 1924:

> -45 degrees. Too cold to take horses out, hauled a load of coal from the railroad station to headquarters with dogs.

Superintendent's Report, November 1936:

> Previous to the airplane mail contracts, which went into effect a few years ago, huskies were plentiful in Alaska. However, the mail delivery by dog team in most sections has been discontinued, consequently dogs have become scarce and are difficult to purchase.

Superintendent's Report, December 1946:

> All patrols were made in the M-7 snow jeep, which worked satisfactorily. However, park ranger Rumohr, an experienced dog team driver, says of the snow jeeps, "The distance traveled in a day over unbroken trails exceeds the best a dog team could perform but the dogs have less trouble with their carburetors."

Superintendent's Report, February 1947:

> ...efforts to reach the stalled snow jeep at Savage River failed when the tractor broke down and required expensive repairs.

KENNELS ROSTER 2007

NAME	BORN	PARENTS	POSITION	HARNESS
CREEK LITTER	**1998**	**JANICE X MO**		
JENNY (f) (retiring in 07)			TEAM/LEAD	L
CARLO (m) (retiring in 07)			TEAM	XL
HOGAN (m) (retiring in 07)			TEAM	XL
WHALE LITTER	**1999**	**SASKA X EIDER**		
MINKE (f)			TEAM	S
BELUGA (m)			LEAD	Mikes (L)
BLUE (m)			LEAD	Mikes (M)
ORCA (m)			TEAM	L
TREE LITTER	**2000**	**DESMOND X SOXY**		
ASPEN (f)			TEAM/LEAD	S
WILLOW (f)			TEAM	Mikes (S)
ATHABASKAN LITTER	**2001**	**ARAMIS X ELIAS**		
SESI (f)			TEAM	Mikes (S)
TIKAANI (f)			TEAM	M
TAHLUU (m)			LEAD	Mikes (L)
YAKONE (m)			TEAM	L
AK LANDFORM LITTER	**2002**	**KERRI X BROOKS**		
PINGO (f)			LEAD	Mikes (S)
ESKER (m)			LEAD	Mikes (L)
TOR (m)			LEAD	Mikes (L)
RIVERS LITTER	**2003**	**TIKAANI X HOGAN**		
MUDDY (f)			TEAM	M
CHULITNA (f)			TEAM/LEAD	M / Mikes (M)
TONZONA (m)			TEAM	XL
SWIFT (m)			TEAM	XL
ALASKA SALMON LITTER	**2004**	**JENNY X SCOTTY**		
KETA (f)			TEAM/LEAD	S
KOKANNE (f)			TEAM	M
COHO (m)			TEAM	L
CHINOOK (m)			TEAM/LEAD	L
NORTHERN LIGHTS LITTER	**2005**			
AURORA (f)		**SIG X CLARENCE**	TEAM	M
ARC (f)		**GRETCHEN X WHARF**	TEAM	Mikes (S)
CLIMBING ROUTES LITTER	**2006**	**JENNY X BELUGA**		
SULTANA (f)			TEAM	M
SPUR			TEAM	L
CASSIN			TEAM	L
FIN			TEAM	L

What Breed of Dog is This?
or
"...They Don't Look Like Huskies..."

Even if some of the Denali Park dogs don't **look** like huskies to you, they in fact **are** huskies. The term "husky" or "Alaskan Husky" is a general term used for any dog that pulls a sled in Alaska. Mostly they are just known as sled dogs.

There are several types of "purebred" northern dogs as described by the American Kennel Club (AKC). It is interesting to note that the Malamute, which originated in North America, was the last to be recognized (in 1935). Samoyeds were recognized in 1907, Siberians in 1930, and Greenland Eskimo remains unrecognized. One could ask what breed of dogs these were before the American Kennel Club stepped in.

The idea of a purebred sled dog is a fairly recent notion. There were sled dogs centuries before the existence of the American Kennel Club. The dogs in the Denali Park Kennels are not purebred dogs. They are the descendants of native dogs and other types of dogs introduced to Alaska, and they are the products of a long and careful breeding program.

In talking with breeders of sled dogs, the terms "purebred," "pedigree," and "papers" are never heard. What is considered important are attitude, conformation, feet, and intelligence--probably in that order. When selecting dogs for breeding, the traits of the grandparents, litter mates, parents, and previous offspring are all taken into consideration. What breeders look for are dogs that love to work. Racers will look for dogs that love to work and that are fast. At Denali we look for dogs that love to work, can handle tough trail-breaking, and that like people. The perk of ear and the color of eye and fur are not considerations.

The Denali Park dogs are neither purebred dogs nor crosses of purebred dogs. They are the products of the careful breeding of well-known bloodlines. They are huskies who like being around people and who love to work.

Description and Origin of the Alaskan Husky

by Joe Runyan

Historically, the origin and refinement of the Alaskan husky began some 10,000 years ago when it is theorized the first dogs crossed the Bering land bridge with a wave of humans occupying North America.

One of the first western encounters with North American natives using sled dogs was recorded by Martin Forbisher in 1577. This is a verifiable date, but some researchers believe the dog has been used as a draft animal for three thousand years in North America, a number I actually find inconceivable. Why wouldn't dogs be used to pull in the North from the time of domestication? I have watched six-year-olds, without any prompting, spontaneously use a pet Labrador as a draft animal to pull a sled. Well, this remains a debated question.

My panel of experts agrees that the evolution of the Alaskan husky, as they know it, began in earnest during the 1890's gold rush to Alaska. Native dogs were used in teams to supply the mining camps but it soon became evident that there was a shortage of dogs. A trade in suitably sized dogs of all breeds developed, and soon a steady number of dogs left Seattle in the holds of ships destined for service in the gold fields of Alaska. Jack London's fictitious canine character Buck, for example, was hijacked from his California home by an unscrupulous trader and was one of these dogs in the novel Call of the Wild.

As mining towns became established, sled dog racing spontaneously became a feature of Northern life. The Nome Kennel Club, for example, hosted the 400-mile All Alaska Sweepstakes from 1908 to 1917 and offered large prizes to the contestants.

Early heroes of the sport, including Iron Man Johnson, Scotty Allen and Leonhard Seppala were retained by the large businesses and mining concerns of the region and were paid to assemble race teams. The development of the modern Alaskan husky used for racing had seriously begun.

Competition motivated mushers to selectively breed dogs for racing. Some of the mushers even ventured to Russia and negotiated with Eskimos for carefully chosen "Siberian" sled dogs, the possible genetic source of the blue eyes characteristically seen in the modern Alaskan husky. Invariably these were crossed with other dogs in hopes of improving performance. (Conversely, the first Siberian registry established in the United States consisted of a pool of forty related dogs. Of these, five were considered the essential foundation.)

Mary Mogg, an Eskimo from Diomede Island, Alaska told me that her husband Sammy Mogg used his nine best dogs to transport Muktuk Marston over two thousand miles from village to village in a World War II effort to organize the Eskimos. Marston delegated the Bering Sea coast villages into a defense line of National Guard Units. She matter of factly told me the dogs were crosses between an English setter and a village sled dog. This is another anecdotal piece of evidence which demonstrates the wide acceptance of experimental breeding in the development of the Alaskan husky.

Doug Swingley, the 1999 Iditarod winner, explained, "The Alaskan husky is a continuous experiment in breeding and really nothing more than a successful mixed breed mutt. The diverse gene pool is an advantage because it allows mushers to very quickly develop dogs for specific traits."

The dogs developed for racing were also prized as utilitarian work animals for freighting, delivering the mail, and on the trapline. The Alaskan husky experiment has never stopped.
By the 1930's, however, the dog team was being gradually replaced by the airplane and more reliable delivery of supplies by ship. The Superintendent of McKinley Park reported in November 1936:

"Previous to the airplane mail contracts which went into effect a few years ago, huskies were plentiful in Alaska. However, the mail delivery by dog team in most sections have been discontinued and consequently dogs have become scarce and are difficult to purchase."

After World War II, the Alaskan husky had almost disappeared from the Alaska landscape as a work animal and was maintained only as a recreational diversion in most areas. Fortunately, natives of a few villages along the Yukon River and its tributary the Koyukuk supported small populations of Alaskan Huskies for racing, and also for trapping. One of the most famous reservoirs of quality Alaskan huskies was maintained in the small village of Huslia, also the birthplace of the legendary native musher George Attla.

I called up George Attla, a household name in Alaska and the Yukon Territories, and asked him how a small remote village of 150 Athabascan Indians managed to maintain kennels of such excellence. All of the experts on my panel referred to Huslia as the foundation origin of the superior modern Alaskan husky.

George told me about his post WWII childhood, "It was a very interesting time for me growing up in Huslia. I don't know the reason, but the people always wanted the best in everything they did. They were very motivated people. The families of the village always tried to breed the fastest and hardest working sled dogs. The dogs were used mostly on the trapline, but the people still found pleasure in a dog that could race and could travel fast. They were never satisfied with average performance. When I was young and became interested in racing, I used to study the dog yards of the different families and try to understand what made their dogs."

Out of that diminutive village, seven mushers beside George Attla became dominant sled dog racing champions, which is incredible. The most famous foundation stud dogs were Attla's Scotty and Lingo. These dogs are found in the lineage of almost every successful kennel of the 1980's and 90's.

George Attla and his competitors raised dogs to compete in races from ten to thirty miles. The most regarded races, like the Fur Rendezvous in Anchorage and the North American Championship in Fairbanks, feature three days of racing with twenty to thirty mile heats.

In l973, however, Joe Reddington, Sr., organized a 1200 mile race from Anchorage to Nome, Alaska which was to become known worldwide as the "Last Great Race." The Iditarod Sled Dog Race induced mushers to redefine the Alaskan husky used for "sprint mushing" into a travelling machine which could cover 150 miles a day, endure severe weather, and possessed remarkable physiological resilience.

Mushers found that many Alaskan Huskies used for sprint races were also ideal for distance racing. Still, the grand experiment continues.

Five time Iditarod Champ, Ric Swenson, who is well known for his curiosity and innovative breeding programs, told me, "I think of an Alaskan husky as a dog that can show three generations of running sled dog pedigree. At this moment (1999) I would say only about one third of the dogs in my kennel are in this category. The rest are one or two generation attempts to make the Alaskan husky even better. I am always looking to the future and know that I must continually experiment or I will not be competitive."

Clearly, Swenson thinks of the Alaskan husky as a concept of excellence and performance, not a breed defined by static descriptions.

Still, I was interested in asking my panel of experts how they would define the breed known so widely as the Alaskan husky in 1999. This is the consensus:

Ideally, the females should be 45 to 50 pounds, and the males between 50 to 55 pounds. It is important that they are no heavier than 55 lbs. because that seriously compromises their speed, resilience, and endurance.

The Alaskan husky is willing to please, has a strong instinct to pull, even in adverse conditions, and is easily trained.

Presently, the Alaskan husky is expected to travel at over 20mph in a lope for distances to thirty miles. At distances of fifty to sixty miles, average speeds of 15 to 17 mph can be expected. In long races, such as the Iditarod, the Alaskan husky is capable of covering 150 miles per day for ten days or more by alternatively loping and trotting.

The dog has a coat sufficient to counter extreme weather. The feet are durable and resist abrasion and damage from rough trail and icy conditions. The dog is able to rest comfortably on the top of snow.

Physiologically the dog is capable of consuming and utilizing up to 10,000kcal per day while exercising. In addition, recuperation from exercise is a prime consideration. Dogs should be able to travel 12 hours per day for extended periods of time at a slow lope or fast trot. Or, lope at fast speeds for twenty to thirty miles, for days in a row.

Capable of exercising in either warm or cold weather. This is an important physiological adaptation. Generally, mushers discover that an exercising dog capable of physiologically dealing with extreme heat can also handle an extreme in the other direction.

Contemplating the breeding history of the Alaskan husky, my panel of experts agreed that three contemporary stud dogs have been notably influential in defining the breed. These include George Attla's Scotty, Ross Saunderson's Victor, and Larry Tolman's Sailor.

Finally, I asked my panel of experts to look forward to the Millenium and the future of the Alaskan husky. In 1999, Swedish born mushers Egil Ellis and Helen Lundberg campaigned a team of Sailor bred Alaskan huskies crossed with English Pointer and German Shorthair, and so thoroughly dominated the major North American sprint racing circuit, that it appears inevitable the Alaskan husky has once again been redefined.

Ric Swenson has been experimenting for several years with crosses to a Forstehr shorthair he purchased in Norway, while Doug Swingley has contacted his friends in the American Field Trial circuit for a suitable American bred All-Age English Pointer.

George Attla, one of the most successful and innovative caretakers of the Alaskan husky in sled dog racing history, had this final cogent observation.

"It is true that the pointer-Alaskan husky cross was a very successful project in 1999. However, I have seen success like this in the past. Sometimes, chemistry develops within a team that is hard to explain. Usually, even the musher doesn't realize how it happened. Sometimes the magic lasts just for one year.

It will take of couple of years for us to see how these crosses work. In the meantime, someone else might be developing a team that's better."

The Alaskan husky may have a different look in the next century, but you can bet one thing will remain the same. The Alaskan husky pulls harder and runs faster than any dog in the world.

Kennels Update 2005

- Trail and snow conditions this year in the park were excellent. Teams were able to get to Sanctuary cabin and further west earlier this year than in years previous, due to plenty of snow in November.

- Two of our main leaders, Blue and Tahluu, logged the most miles, running 1307 and 1306 miles respectively.

- Last year's puppies, Keta, Kokanee, Chinook and Coho, performed very well this winter, running 418, 365, 472 and 420 miles, respectively. By this spring, the puppies ran up to 15 miles a day in harness and up to 50 miles a day running loose with the team.

- This year we plan to breed Minke with a handsome stud from Eagle named Typhoon. Minke should come into heat in May, which means puppies in July.

- We had a number of volunteers working at the kennels throughout the winter. Bridget Borg and Jared Zimmerman volunteered all winter, donating over 1000 hours of time and running well over 1000 miles each with the dogs. Carmen Adamyk and Scott Sample also volunteered at the kennels.

- While at Wonder Lake this year, we had an opportunity to break trail on the way to McGonagall Pass and haul some gear for a Talkeetna mountaineering ranger. Another noteworthy project this year involved felling, limbing, bucking, and hauling logs at the Lower East Fork cabin. The project was unique because it was completed using traditional tools such as cross-cut saws, instead of chainsaws. The project is part of a park-wide effort to use primitive tools for work within the wilderness boundary.

Kennels Update 2006

- This year Carmen Adamyk was acting Kennels Manager, as Kennels Manager Karen Fortier took the winter off to be at home with her new baby girl, Riley! Our winter volunteers were Trish Rodriguez and Brad Ogle, both volunteering more than 1,000 hours of time and each running well over 1,000 miles with the dogs.

- A total of 3,247 patrol (sled) miles was logged. (Patrol miles are the sum of each sled's mileage. For example, if three teams travel 20 miles each, total patrol miles equal 60.)

- Three of our main leaders, Esker, Tahluu, and Blue, logged the most miles, running 1,296, 1,218, and 1,211 miles, respectively.

- Our pups from last summer, Arc, Patch, and Aurora, did a great job for their first winter, running 743, 671, and 849 miles, respectively. Aurora did amazingly well for her first year. We're sure to see great things from her in the years to come.

- Snow conditions were poor early on this winter. During Thanksgiving we finally got the big winter storm we were hoping for—and delivery of the snow we needed to start running dogs on the sleds.

- The dog teams patrolled to all ranger cabins except for Lower Savage and Lower Toklat. One of the main projects this winter for the kennel staff was to haul out new cabin supplies, such as cook stoves, lanterns, buckets, emergency food, and first aid kits, to all of the patrol cabins. The dog teams also hauled several sled loads of firewood into Upper Windy cabin.

- We currently have 27 dogs in the park kennels, 14 females and 13 males. Shadow retired this spring to James Walton and Larissa Yocum. Happy retirement, Shadow!!!

- This spring we have the gorgeous and lovable Typhoon visiting us from Eagle. We hope to breed Typhoon with our female, Jenny, once she comes into heat.

Kennels Update 2007

- This past winter Assistant Kennel Manager Carmen Adamyk began her new position at the kennels. Her duties include oversight of field operations. She was assisted by VIP's Jessica O'Connor and Bridget Borg. Karen Fortier is still the Kennels Manager who has assumed responsibility of the Backcountry Desk Operations.

- Over 3,000 patrol (sled) miles were logged. (Patrol miles are the sum of each sled's mileage. For example, if three teams travel 20 miles each, total patrol miles equal 60.) Jess and Bridget each mushed over 1,100 miles this winter.

- Our pups from last summer Sultana, Spur, Fin, and Cassin grew into leggy, beautiful hard-working dogs over the winter. They continually amazed us with their enthusiasm and friendliness. We are excited about their future here at the kennels.

- Snow conditions were poor early on this winter. It was not until November 20th that we got on sleds and that was mostly along the north boundary. It was not until early December when the park received enough snow to allow us to switch from the ATV to sleds.

- The dog teams patrolled to all ranger cabins except for Lower Savage, Lower East Fork, and Riley Creek. In addition to putting in trail in for recreational users, teams hauled 12 loads of firewood to Upper Windy Cabin, accessed a sound monitoring station on the north boundary near the East Fork river, and did a three week patrol to the Wonder Lake/Kantishna area.

- We currently have 30 dogs in the park kennels. 13 females and 17 males. Jenny, Carlo, and Hogan will retire this spring/early summer. We will miss them hugely but we now have several of their offspring to carry on the tradition at the kennels.

- This summer we are planning to breed a female from Eagle, AK to one of our males. We hope to have pups by early July.

Adopt A Dog
For The Summer

Denali is home to working sled dogs. During the summer they are used for living history interpretive demonstrations held three times per day at the kennels. This is not enough exercise for a dog that is used to pulling rangers and equipment in deep snow for many miles and over long periods of time in the winter. These dogs need a friend with whom to commiserate about the vicissitudes of dealing with the public all summer long, and a chance to get away from the kennels.

The Kennels Staff is looking for dependable folks who would like to "adopt a dog" for the summer. Once you "adopt a dog" (sign up for a certain dog for the duration of your stay in Denali), you will be responsible for walking or jogging with it at least three times a week. We are looking for folks who are reasonably sure that they would enjoy participating in the program for the entire summer. You can share responsibility for a dog with a roommate or friend. This is a great way to keep you in shape, too! If you are interested in "adopting a dog," contact the kennels staff at 683-9586. They can sign you up and provide the necessary information and instructions. Dogs can only be taken from the kennels with prior approval and after you sign a volunteer agreement.

40 Favorite Rove Questions

1. Where are the caribou? Where do they migrate to?

The caribou you see in the park are all part of the Denali Caribou Herd. At this time of the year they are scattered throughout the low-lying areas north of the Alaska Range, like the ones the buses pass through. In the fall, they move north of the Outer Range and northwest of Wonder Lake. In the spring, they move to calving grounds that include some areas south of the park road near the glaciers. While they do follow a seasonal movement pattern, our Resource Management staff considers this a non-migratory herd of caribou.

2. Why aren't the caribou moving in large herds?

Most people have seen pictures of large herds of caribou. There are two reasons that similar sized groups are not seen in Denali:

a) The Denali herd is smaller. Only 2000 animals live in this area instead of the hundreds of thousands which are found in larger herds like the Western Arctic and the Porcupine.
b) The Denali herd is considered "non-migratory." The animals do move around the park on a yearly cycle, but they don't migrate hundreds of miles like some herds, such as the Porcupine Herd on Alaska's North Slope.

3. How come there are cars on the road?

There are five basic exceptions to the no-cars rule:

a) People staying at Teklanika Campground are allowed to drive in at the beginning of their stay and out at the end of it but cannot use their cars while at the campground and may not drive farther than the campground.
b) Professional photographers are given special permits to practice their trade. Applicants must have published photographs in publications with a large distribution. Only five permits are granted per day.
c) Individuals owning property in Kantishna are able to use the road to access their land since the road provides the only access for vehicles. The Kantishna exception also includes family, friends, and invited guests of these landowners, as well as employees of businesses in the town.
d) Researchers who need vehicles are sometimes allowed to drive cars on the road.
e) People with severe physical disabilities who cannot take the regular or wheelchair accessible buses.

In addition, Park Service employees drive the road to perform maintenance and law enforcement duties. Rangers living inside the road-restricted area of the park are given a limited number of permits to drive out.

4. Why do photographers get special treatment?

Back to the Park Service mission: preservation and access. Professional photographers allow thousands of people to experience the park even if they are never able to visit. They also provide the park with free publicity. Professional photographers also donate slides to the park slide file.

5. How did you get your job?

This is tough. You are not required to reveal details of your personal life but many people will ask. They are curious, probably because they are impressed to meet a real ranger. Try to be honest, good humored, and roll with it.

6. What do you do in the winter?

See question #5.

7. How much snow do you get?

Headquarters gets an average of 80 inches a year, but it can vary from as little as 13 inches to as much as 174 inches.

8. What do you see if you go all the way to Wonder Lake?

Wonder Lake. Spectacular views of the Alaska Range if it's visible, lots of tundra ponds with water birds, beaver, and moose. Not so many bears - you begin moving out of the mountains and out of prime grizzly habitat.

9. Is there fishing in the Park?

Sure, and you don't even need a license. Problem is that there are very few fish. Glacial silt in the rivers discourages fish from inhabiting the river water along the park road. You may find an occasional clear stream with grayling such as Caribou Creek or Hogan Creek. There are also lake trout in Wonder Lake.

10. Is hunting allowed in the park?

No sport hunting is allowed inside either the wilderness area or the new park boundary. Sport hunting is allowed in the Preserve, but that area is not accessible by bus. Subsistence hunting for individuals possessing subsistence permits is allowed inside the new park but not inside the wilderness area.

11. Is the road open in winter?

No. It is open as far as Teklanika until the park gets its first snow, but then it is closed at Headquarters.

12. How long does the road stay open?

It is open for buses from Memorial Day weekend through about the second week in September (variable). Usually there is a short period during which private vehicles are allowed to drive the road in the third week of September. This privilege is granted by lottery. Inquire at the DVC for details or refer to the *Alpenglow*.

13. What's the difference between a white and black spruce?

Black and white spruce are two different species of tree which can look so much alike it is difficult to tell the difference outside of a laboratory. The following are indicators which may help differentiate the two:

a) Habitat. White spruce thrive in well-drained areas, while black spruce can only compete in bogs or on moist ground.
b) Size of cones. Black spruce cones are smaller.
c) Shape. White spruce have a Christmas tree shape while black spruce look more like pipe cleaners.

14. What is tundra?

Tundra is simply the land above treeline. Treeline varies with latitude, existing at about 18,000’ at the equator, about 10,000’ in Colorado, about 2700’ in Denali and drops to sea level in the vicinity of the Arctic Circle. Tundra comes in two basic forms: dry tundra, which is usually found on well-drained mountain slopes and ridges, and moist tundra which is damp to downright boggy. The word tundra comes from a Lapp word meaning "marshy plain."

15. Do the river beds ever fill up during spring melt-off?

No. Denali's river beds never fill up. There is never enough water to fill the entire bed. Denali's rivers are known as braided rivers because they are always in several channels. Most of the rivers in the park begin at glaciers. As a result they carry a large amount of silt. As the rivers flow the silt is deposited. Over time the silt builds up to the point that it changes the course of the river. Thus, the river is always changing but always in channels on the river bed.

16. What do sheep eat?

Sheep eat a variety of different plant species. Many of the tundra plants (such as Dryas sp.) are evergreen so that they don't have to waste the short growing season sprouting new leaves each year. These evergreen plants provide the sheep a year round source of nutrients and energy.

17. Do the sheep stay up high in the mountains in the winter?

Yes. Since the sheep's chief defense from predators is its maneuverability on steep slopes, it is important for them to stay high during the winter while wolves are hunting large prey in packs. They usually move off the northern slopes of the Alaska Range and into the Outer Range where it snows less and it is easier to paw through to find food.

18. How many wolves are in the park?

Check the stats. Approximately 100 as of summer 1994.

19. How much does it weigh (any animal)? How long does it live? What are its mating habits? What do they eat?

On your first few bus roves take a laminated copy of The Great Denali Cheat Sheet. Also, reading Adolph Murie's A Naturalist in Alaska can provide many anecdotes.

20. Where can we see a particular type of bird?

There is a bird checklist that identifies each bird's habitat in the bookstore at the DVC. Find out the habitat and then ask someone where you can find such a place. There is also a Bird Finding Guide to Denali National Park, which provides some more specific tidbits on a few birds.

21. How many bears are in the park?

No biological surveys have been conducted but the grizzly population has been estimated at 200-300. We know even less about black bears.

22. Are there any black bears in the park?

Yes, but you are unlikely to see them on this bus ride. The park road travels through grizzly habitat and black bears cannot compete. An occasional black bear has been spotted in forested patches along the road and you do reach the edge of their range at Wonder Lake and Kantishna.

23. Are you a ranger?

Yes! (I think?)

24. How far is Eielson Visitor Center?

66 miles from the DVC.

25. Do you control game populations in the park?

No. Denali National Park is an intact ecosystem. Natural balances are allowed to reign unaltered by people. In the park, we prefer to call animals "wildlife" rather than game.

26. Can I feed the ground squirrels?

No. It disrupts their natural ability to find food and produces an overpopulation of fat ground squirrels. This disrupts the workings of Denali's complete ecosystem which we work so hard to preserve. Besides, it is against park rules and you could get a ticket for it.

27. Why is that area closed?

Closures exist to protect both people and wildlife. Areas with a high risk of bear danger - around a kill, for instance - are closed. Denning or nesting sites are also protected along with any other resource where managers feel it is important for animals & vegetation to be undisturbed.

28. Why can't I see Mt. McKinley?

Options:
a) The mountain creates its own weather causing clouds to obscure the view. The mountain is only visible one day in three or four during the summer.
b) It's not visible from here.
c) You're looking in the wrong direction.

29. How many rangers work here? In winter?

There are approximately 170 summer seasonal employees in Denali. In winter, there are around 100 permanent employees plus a handful of temporary staff.

30. What causes the color in these rocks (at Polychrome) ?

These are the volcanic rocks of the Cantwell formation (which includes basalt, andesite, and rhyolite) and provide the subtle colors of Polychrome.

31. How high are we here (at Polychrome)?

The rest area is at about 3700' above sea level and 800' above the valley floor.

32. What is that cabin (at East Fork)?

The large cabin you see was built in the 1930's by the Alaska Road Commission to support the park road-building effort. In the 1950's, Adolph Murie and his family lived there while he was researching Dall sheep predation by wolves in the park. Today, the cabin is used in winter as a stopover for dog team patrols. During the summer it is used to house Denali's Artists in Residence. The smallerl cabin was built in the 1970's by researcher Frederick Dean and is still used by wildlife researchers in the park today.

33. Are these timber wolves in the park?

The wolves in Denali are commonly called gray wolves. The scientific name is Canis lupus. This is the same animal seen in the upper peninsula of Michigan or Minnesota. However, in those areas the commonly used name is timber wolf. The only other species of wolf in the U.S. is the red wolf found in the southeast states.

34. What is the difference between caribou and reindeer?

Caribou and reindeer are the same species, Rangifer tarandus. Reindeer are the European subspecies, tending to be smaller and domesticated. Reindeer were introduced to the Seward peninsula of Alaska a few decades age and are now flourishing there.

35. Do you have any deer or elk in the park?

Denali has only two members of the deer family, moose and caribou.

36. Are there any bald eagles in the park?

Only an occasional one passing overhead. Bald eagles are fish eaters and the park has virtually no fish. If you keep your eyes on the sky you are likely to see a golden eagle soaring overhead.

37. Does the park have a problem with poaching?

The park does have some poaching problems. Most poaching occurs just inside the park boundaries and can involve either aerial or ground-based hunters. There are two to three known occurrences each year. Poaching activity tends to concentrate along the south boundary of the park.

38. Does the Park Service limit the number of planes and helicopters flying over the park?

No. In Alaska, the National Park Service has no authority to regulate its own airspace. At Denali, we have an informal agreement with local helicopters and small plane tour operators to stay within certain travel corridors and 500 feet above the ground.

39. Ranger, when are we going to see a grizzly bear?

It could happen anytime. Informal surveys have shown that over 90% of all people who ride the park's buses see grizzly bears so keep your eyes peeled.

40. Didn't these shuttle buses used to be free?

Yes, until 1994 any park visitor could ride park shuttle buses for seven days just by paying the park entrance fee. However, the cost of the shuttle bus system to the federal government was becoming prohibitive. The decision was made to contract out transportation to a concession-run operation.

Denali Visitor Center
Most Frequently Asked Questions

Bus Systems

1. Why can't I drive my car on the road?

You are welcome to drive your car on the first 15 miles of the park road. Please turn around in the parking lot on the right hand side of the road **before** the Check Station. Beyond that point, road travel is restricted to minimize the impact of human activity on the park's wildlife so that Denali will remain as much of a wilderness as possible even though several hundred thousand people visit each year.

2. Where do I catch a bus?

Courtesy shuttles, Dog Sled Demonstration buses and the Savage River Shuttle pick up at the DVC bus stop, as do many of the hotel courtesy buses. Shuttle buses going deeper into the park are boarded at the WAC. Tour buses will board at various locations. Have visitors look at their bus tickets for boarding locations. Camper buses can be boarded at the Riley Creek Campground bus stop, the WAC or Savage Campground bus stop.

3. When I return for the bus tomorrow, where can I park if the WAC parking lot is full like today?

There is an overflow parking area at Riley Creek Campground. It is a half-mile walk from Riley Creek to the WAC, and a bus leaves Riley to the WAC every thirty minutes. Be sure to give yourself plenty of time before boarding so that if you must make the extra journey you won't miss your bus while in transit.

4. I have no car, how can I get to the WAC?

The Riley Creek Loop bus travels between Riley Creek Campground, the Riley Creek Mercantile, the WAC, the Horseshoe Lake trailhead, the MSLC and the DVC. It makes this trip every 30 minutes. Times vary a bit throughout the summer – refer to the current schedule.

5. How far can I drive into the park?

A private vehicle may be driven to Savage River Check Station (mile 15), after paying the park entry fee. This section of road is paved and is open 24 hours a day.

6. Is it worth it to drive to Savage River?

It is very scenic, and it is possible to see every species of animal in the park in that first 15 miles. However, traffic density can be high and usually few (if any) animals are seen. There is a day-use parking lot on the east side of the river. This parking lot is marginally large enough to allow most RVs to turn around. There are 13 parking spaces, a picnic area and restrooms as well as a maintained trail (2 miles in length) that goes down one side of the river, crosses over a bridge and loops back.
Pullouts along the road are also great places for picnics and short hikes, although you should be aware that much of the south side of the road may be closed to hiking (ee wildlife closure maps).

7. Is there food along the way?

No. Only water is available at Eielson. It's a good idea to bring lots to eat and drink since you may be out longer than expected and there is NOTHING available, not even soda machines or coffee.

8. When we take the shuttle bus, are there bathrooms or bathroom stops along the way?

The buses make stops approximately every hour and fifteen minutes. The bathrooms are chemical toilets except at Eielson where there are flush toilets.

9. What do you see on the bus ride?

You're certain to see beautiful scenery throughout your trip, from dense spruce forests, to alpine tundra meadows, rugged mountains and boggy wetlands. Most wildlife viewing occurs in mountain passes (Primrose, Sable, Highway, Thoroughfare), as these areas are both less brushy (giving increased visibility) and are good habitat for most of Denali's wildlife. Generally speaking, the longer your bus ride, the better your chances of seeing wildlife.

10. Is it worth it for me to go beyond Eielson to Wonder Lake?

Pros: If the mountain is out, going to Wonder Lake puts you closer to the mountain and the view is unparalled. If you're interested in waterfowl and beavers, this section of road is the best place for viewing them.

Cons: It adds 3 more hours to an already long day. The terrain flattens out considerably and is much less dramatic, though the Alaska Range to the south is still spectacular if it's not covered by clouds. The road is narrower and the type of buses allowed out that far are a bit more cramped. If you plan to get out and hike at Wonder Lake, be forewarned that the mosquitoes can be spectacularly abundant.

11. Is there a shorter bus trip than Eielson Visitor Center?

Yes, the park offers a round trip to Toklat. This trip is two hours shorter than Eielson (6 hours vs. 8 hours). You can also cut any trip short by switching to a returning bus before you reach Eielson. This is a risk, as buses may be full. We cannot guarantee that you will return any earlier than scheduled. There is also a late evening bus to Polychrome. There is also a short tour available through the concessionaire.

12. But if I get off the bus, won't all the others that go by be full?

Possibly. However, the buses are not as full as the "Full" signs lead you to believe. When people don't show up for their bus, we leave those seats empty to pick up hikers, bus-switchers, and people staying at campgrounds in the park. Still, at certain times of day during peak season, visitors have occasionally had to wait by the side of the road an hour or so for a bus.

13. Do you see more wildlife on earlier buses?

The time of day seems to have little impact on the quality of wildlife viewing. During the short growing season, animals are active 24 hours a day in order to build up food reserves for the winter. On warm days there is sometimes a lull in activity during the midday hours but all the buses travel part of the route during those hours.

14. Where's the best place to hike to see wildlife?

Depends on what you want to see. Dall sheep live up on the alpine tundra, moose in the spruce forests or among the beaver ponds near Wonder Lake. Bears and caribou are most frequently spotted on the moist tundra. Point on the map to as many of these zones as you can. Let the visitor know they may see wildlife anywhere in the park.

15. We can't get on the bus today. Has this system always been this way?

Travel into the park has been restricted to buses since 1972. The specific operation of the bus system changes every year. For several years in a row, visitors arriving at peak season have waited a day, sometimes more, to get on the bus. Park managers have resisted increasing the number of buses because studies have indicated that increased traffic causes wildlife to move away from the road. Further studies are underway.

In 1994, the park instituted an advance reservation system. It is now possible to insure that you have a seat on a bus the day you arrive in the park. Generally speaking, the park concessionaire is allowed to sell 2/3 of the seats on every shuttle bus in advance, but must guard the remaining 1/3 on all shuttles for folks who show up two or

fewer days in person at the WAC – thus giving even walk-ins a chance at getting on a bus, particularly if they show up early in the morning (8 am or earlier).

16. Can we go to Savage River and catch the bus?

NO ONE will be allowed to board at Savage River check station. If someone has a ticket for a specific bus, they are allowed to board at the Savage River Campground bus stop. You must possess a ticket to board at a campground, including Savage River, and you must specify your pickup location when purchasing your ticket. This allows the bus driver to know whether or not they need to pause at a given campground looking for more passengers.

17. How do I get back to my hotel...it's the Denali Lodge, or McKinley Lodge, or maybe it's the McKinley Hotel...?

Do you have your hotel key with you? May I see it? (Every hotel sounds about the same, and this is the one way to end confusion. Maybe get a description of the hotel. Some hotels have regularly scheduled courtesy bus service to and from the DVC, and their schedules are posted on the wall near the info desk. Some hotels and B&B's will pick up their clients when called on the phone.)

Camping

1. How can I reserve a campsite in Denali National Park?

All park campgrounds can be reserved in advance by phone at 1-800-655-7275, online at www.reservedenali.com (same as for bus reservations), or by walk-in at the WAC or the Riley Creek Mercantile. The fee for campgrounds varies year to year – consult the Alpenglow. Detailed information on facilities is also provided in the Alpenglow.

2. Which is the best campground?

The campgrounds can be rated on four scales: accessibility, remoteness, privacy, and scenic views. There is a 14-day limit on camping in the park. All campsites in the park can be reserved in advance by calling 1-800-622-7275 or online at www.reservedenali.com. No campgrounds within the national park have hook-ups of any kind, though all except Igloo have potable water.

- **Riley Creek** is the most accessible, largest and least remote. It is located at the park entrance area in spruce forest and you will have full use of your vehicle. There is a dump station and mercantile located in this campground. Tent or RV.
- **Savage River** is 12 miles into the park on the park road. You still have access to your vehicle but you are more remote from services (like restaurants, interpretive programs, etc.). It is located in a stand of spruce forest. On a clear day (about 1 in 4 or so), Denali can be seen from the south side of the campground. Tent or RV.
- **Teklanika River** is more remote and larger than Savage. There are a few trees and a fair amount of willow brush to screen you from other campers. It is 29 miles into the park, within the restricted-access portion of the road. When reserving Teklanika (Tek) CG you receive a permit to drive one time to the campground and one time back to the park entrance. All other travel must be by shuttle bus, and it is strongly recommended that campers buy the "Tek Pass." The Tek Pass is roughly the cost of a normal shuttle bus ticket, but can be used every day of the campers' stay at Tek, by boarding shuttles on a space-available basis. Teklanika Campground has a three-night minimum stay requirement. Don't travel east of the campground until you are ready to leave! Tent or RV. Tent campers accessing Tek CG by shuttle bus, rather than private vehicle, are not subject to the minimum stay requirements.
- **Sanctuary and Igloo** campgrounds are accessible only by shuttle bus and are for tent campers only. No private vehicles are allowed. Both are very remote and private, each being located in a small spruce forest and having only 7 campsites a piece. Igloo Campground has been closed to the public for several years. Check the Alpenglow or a supervisor for updates.

- **Wonder Lake** campground is the most remote and least accessible but is quite a bit larger than Sanctuary and Igloo. Since there are very few trees and little brush, many campsites are fairly open to view. Access is by bus only and it is located at the far end of the park road. It is the only campground which stands heads above the others in terms of scenic beauty--on clear days the view of Denali and the Alaska Range is phenomenal. There are hoards of mosquitoes most of the summer - bring head nets.

3. I drove through the campground and it was empty. Why does it say "full?"

Often, people in the campgrounds will pick up their permits and claim a site, but spend the day elsewhere inside or outside the park, and will not set up their campsite until later in the evening. Other times, folks have claimed a site, but then boarded a bus going into the park, so that it looks “empty” but is in fact full. When they return - which can be as late as 11:00 p.m. - they will want to go to the campground and set up and will be quite disturbed if we've given the site to you.

4. The park's campgrounds are full, where can I camp? What is the best private campground?

We don't recommend. Hand them one of the Lion's Club brochures or the Denali Summer Times newsletter.

5. Can I hike into the “backcountry” and set up a wilderness camp?

Overnight stays in the backcountry require a free backcountry permit, available at the Backcountry Information Center next to the WAC. Permits are issued in person, no more than one day in advance, and advance reservations are not possible. Permits are not required for day hikes, but some areas are closed to entry. Hikers should stop at the Backcountry Information Center for a map and current information.

6. What is the best place to go backpacking?

We don't recommend. Refer them to the Backcountry Information Center near the WAC. Assure folks that there are no truly bad hikes in Denali. Staff at the Backcountry Information Center can help plan an itinerary **with** backpackers, but not **for** backpackers.

NPS Program Offerings

1. Are there any “Ranger Programs” that I can attend?

Lists of this week’s ranger programs are kept at the desk. These sheets include the location, time and usually topic of the offerings. These will be walks, talks or hikes and will usually be free, with no reservation required.

2. What is the Discovery Hike?

Discovery hikes are led by a ranger in the wilderness areas of the park. The hike is limited to 11 people, plus the ranger. Signup is at the DVC, 2 or 1 days in advance – no earlier, and no sign-ups the day of a hike. Location, route, length and difficulty change each day and hikers need to be advised of the details of the hike and equipment needed. These details are to be highlighted by a hike leader on the sign-up sheet. River crossings can be included and river crossing shoes may be needed. After signup at the DVC, the hiker then takes a voucher to the WAC and purchases a Discovery Hike Bus ticket.

3. What does “strenuous" mean on a discovery hike? Can I do it?

The level of difficulty is explained in greater detail at the top of the Discovery Hike description posting. Encourage people who are still unsure to talk about their experience and level of fitness and give them as many details as you know. If you are unsure of the hike, ask a supervisor or returnee.

4. How can I see the Dog Demo?

In the middle of the summer, the 30-minute program is given 3 times a day, at 10 am, 2 pm and 4 pm. Early and late seasons change – check the current schedule. Dog Demo buses leave the DVC bus stop 40 minutes prior to show time. Direct the visitor to follow the dog prints painted on the sidewalk that will lead them to the loading area. About 1.5 hrs of time is needed from departure to return to bus stop. The latest time to board a bus is approximately 20 minutes before the hour – if they're any later than that, they have likely missed the bus and the program.

5. Do I need a bus ticket for the dog sled demonstration?

No. Free buses make pick-ups approximately half an hour before the dog demos at the DVC. If there is an overflow crowd, the buses will return for another load and the program won't start until they get back. Up to 4 buses will transport visitors for the demonstration, so folks who show up on time should not need to worry about missing out because the bus is full.

6. Can I drive to the dog sled demonstration?

No, there is no parking at the dog kennels, therefore you must take the free shuttle bus. If someone in your group is handicapped you may receive special permission to drive to the demonstration. NPS employees can call up to the kennels to let them know what to expect.

7. What is the Jr. Ranger Program?

Activity books are available for kids, age 4-8 and age 9-14. These activity books are completed by the child during their stay. The booklets are brought back to the DVC desk, where a ranger will look over the work, have the child recite the pledge, and award a "Jr. Ranger" badge for the learning accomplished. If parents would like to take a photo, there is a ranger hat on the wall that the new little ranger can wear while the badge is awarded.

8. What is the "Discovery Pack?"

A discovery pack is a day pack, full of activities for families with children, available for checkout. It's designed to give children a variety of Denali-specific educational activities to work on during their visit to the park. A checkout book is located under the desk and the packs are stored in the closet at the base of the stairs to the offices. One pack per family is usually sufficient. Kids can share the journals in order to extend our supplies. There is no fee. The packs are not available for sale, though all the interior parts can be bought at the bookstore next door, and the day packs themselves can be purchased at most outdoor gear stores such as REI.

9. What is the Scavenger Hunt?

The "Scavenger Hunt" is an activity sheet with questions about the interpretive displays in our visitor center. There are two age groups, one for the 4-8 year old and one for the 9-14 year old visitor. These activity sheets are kept in a notebook, under the counter, along with the answer key for the questions.

Other Activities

1. When will the next film be shown?

The film, Heartbeats of Denali, is shown in the Karstens' Theater every 30 minutes, on the hour and half-hour. Duration is 18 minutes. The first film will start one half hour after opening and the last show will be one half hour before closing. There may be exceptions to the schedule, for special programs.

2. Where can I go hiking?

The Entrance Area Trail Map shows where front country trails are located, along with descriptions of the trail length and approximate time to complete. Hiking beyond Savage River is cross-country wilderness hiking

without a trail system. The park is open to day hiking almost anywhere except for a few closures for the protection of wildlife. Please consult an up-to-date closure map if you plan to do any hiking off-trail.

3. What's your favorite hike?

We don't recommend specific hike routes, since we don't want to funnel too many people into any one area, and there are so many great places to hike! You can explain the pros and cons of various types of terrain and where each of those types of terrain are likely to be found and encourage people to go exploring and find their own favorite place.

4. What do you see on these local trails?

That depends on which one and what time of the year: Flowers in late May – mid July, berries from late July – early September, rushing creeks, rain, snow, spruce and aspen trees, snowshoe hare, beaver and muskrat sometimes (at Horseshoe Lake), moose sometimes, bears occasionally, lynx once or twice a year. A guide book to the entrance area trails is available for sale in the bookstore.

5. Is it safe to hike on the local trails?

Safe is a relative term. There are potential hazards on these trails. People have been charged by moose when they approached a mother and her calf too closely, bears wander through occasionally, and sudden weather changes can turn a hike up to the Healy Overlook into a miserable and potentially hypothermic experience. Being prepared and knowing what to do in these situations will help assure your safety and enjoyment of the hike. Don't worry about snakes. There are none in Alaska. No poison ivy/oak or ticks here either!

6. What can I do while I wait for the bus?

Walk local trails (give trails map, mention trail guide book at ANHA), take in naturalist programs (show them the bulletin board), drive the first 15 miles, picnic at Riley Creek or Savage River or one of the pullouts in the first 15 miles, try some off-trail hiking in the first 15 miles, visit local gift shops, take in one of the ever-growing number of activities offered outside of the park (like rafting).

7. Where can I go fishing?

Denali has some of the worst fishing in all of Alaska. This may be because of the load of glacial silt in the streams. There are a few clear streams and lakes which have fish (mostly grayling), but nothing compared to the rest of the state. A license is not required.

8. Where can I go horseback riding?

Again, we don't recommend. Again, hand them the Lion's Club brochure or Denali Summer Times.

9. Where can I ride my bike?

There is an established bike-path from the DVC Campus to the Canyon. Riding of bikes west of the DVC, can only be done on the park road.

10. Where can I take my dog?

Pets must be leashed at all times. They are allowed only on roadways, parking lots or campground loops. Feces should be disposed of in garbage cans. Secure pet food inside a vehicle or food locker.

11. How do I apply for the road lottery?

The application period for road lottery is July 1 – July 31 (this may change to June 1 – June 30, or June 1 – July 31 in 2008). Applications are simple – just an envelope mailed to the park (PO Box 9, Denali Park, AK 99755), with the following: a legible return address (so we know who the applicant is); a $10 check or money order

(made out to NPS) for the application fee; and on the back of the envelope, the road lottery dates listed in order of preference. One application per person, but everyone in the family can separately submit an application. The drawing is done 10 or so days after the application period closes, and winners' names are posted on our website (www.nps.gov/dena/whatsnew/index.htm). Confirmation letters are sent to all winners via regular mail and "sorry, you lost" postcards are sent to all losers. Odds of winning vary based on number of applicants, but generally people have a 1 in 6 chance of winning. If name is drawn, person will still need to pay for their park entrance fee ($20/vehicle) and road lottery permit fee ($25/permit) upon arriving for road lottery. Dates of road lottery vary year to year, but are typically the second weekend (Fri – Mon) after Labor Day. In 2008, they'll be the 12th – 15th of September.

Services, General Questions

1. Where are the restrooms?

Outside the DVC lobby doors, to the left. There's a big ol' sign hanging over the area. Also, down by the bus stop/bag claim is the "comfort station."

2. Where's the best place to eat? Well, where do you eat?

We don't recommend. There are several establishments. Hand them the Lion's Club brochure or Denali Summer Times. Within the park, the only restaurant is the Morino Grill, located right across the path from the DVC.

3. Where can I put my luggage?
All baggage can be stored at the baggage claim next to the bus stop for a fee. Bags may not be stored behind the desk in the Visitor Center under any circumstances.

4. Where can I find an auto mechanic for my RV/car?

Healy CarQuest is north of the park in Healy, right on the highway. After that, you're probably looking at Cantwell, 30 miles south, Nenana, 70 miles north, or more likely, Fairbanks, 120 miles north.

5. Where can I purchase/rent hiking/backpacking/fishing gear?

Limited gear is available in the local area. The Riley Creek Mercantile carries some basic equipment. There are also likely to be at least one or two shops in the canyon that carry gear. Check the Denali Summer Times, the phone book or a supervisor for up-to-date information on where to find gear locally. For a full selection of gear, the nearest source is Fairbanks.

6. Where is Mt. McKinley from here? Can you see it from here?

The Mountain is approximately 80 air miles west and a bit south. It is not visible from the DVC. The first opportunity to see the mountain is at mile 9 on the park road.

7. What is the weather forecast for tomorrow?

The weather forecast is posted on a bulletin board on the corner of the information desk.

8. Can I have a map of the park?

Sure. Have one of our colorful Denali brochures, which has a basic map and an inset depicting the park entrance area - one map per family, please. The ANHA Bookstore carries more detailed maps including USGS quads.

9. I lost a lens cap off my camera. Have you found it? OR Has anyone turned in my wallet/backpack/camera?

Items turned in at the DVC migrate upstairs to the desk of the information specialist. They live there for a day or two before moving over to the baggage claim. All items eventually make their way to a central L&F in Anchorage, run by Aramark. Items lost in the kennels typically stay there for a short time before making it down to the info specialist. Items lost on any bus will go first to Joint Ventures bus dispatch before going to the central location – either call bus dispatch or ask the info specialist to do so, to see if items lost on a bus have gone there yet. There is also a central phone number for folks to call re: L&F.

10. I want to go into the backcountry for a week but my dog is in the back of my pickup. What can I do?

Sorry, dogs are not allowed off the roads, so you can't take it with you. If you decide just to take a day trip on the bus, please don't leave your dog tied to the bumper of your vehicle. Predators such as bears and wolves do occasionally frequent the area and a lone dog may not be safe. We may have a couple of numbers to call for locals that will take care of pets – check with your supervisor. Runaways that are caught will go up to doggy jail, located near the kennels poop-pile. Give either the kennels or Comm Center a call if folks are looking for their runaway dog.

11. Where do I find "Outside the Park" information?

Two local publications can be found behind the desk, the "Lion's Club Brochure" and the "Denali Summer Times". These two publications have phone numbers as well as information on lodging and recreational activities. On a shelf, under the counter, one will find an information book with local business phone numbers as well as lots of information about the park, such as history timeline and road miles.

12. A bear/wolf was stalking/chasing me…

Any time a visitor encounters a bear or wolf and the animal's behavior **changes** in any way (i.e., it stalks them, charges them, flees from them, roars at them, eats their shoes, brushes against their tent, holds a lengthy, civilized conversation with them), they should fill out a wildlife encounter form. For bear encounters, this form is called a "Bear Incident Management" form, or **BIM**. For wolf encounters, it's called the "Wolf Encounter Form," or **WEF**. These forms are located behind the DVC desk, and are collected periodically by the Wildlife Technicians. These forms are vitally important to safe and effective management of human-wildlife encounters, and visitors should be strongly encouraged to fill one out after an encounter.

13. What is the MSLC?

The Murie Science & Learning Center is a facility at the entrance area of the park that supports research and education efforts in our national parks. Instructors from the Murie Center offer education programs such as guided park excursions, science presentations, field seminars, teacher trainings, and youth camps. There are also a few displays in the lobby. To find out about specific courses, visit www.murieslc.com.

14. Where is the train depot?

The Alaska Railroad train depot is located in the DVC compound. It is about a two minute walk from the visitor center to the train depot. See a map for more details.

15. Where is the gift store?

The Alaska Natural History Association bookstore is in the DVC compound. It serves as a gift shop as well as a bookstore. You can see it from the information desk.

Any question you need help with, call your supervisor or the information specialist (x532).

Natural History Information For Mammals

Mammal, Species, Population	Migration Trends	Food	Reproductive Age, Mating Season/ Gestation Period, Offspring Stats	Weight, Size, Longevity	Male, Female, Young, Group, Other Facts
MOOSE *Alces alces gigas* 2000 - 2200	"Local" to river bottoms and willow patches. May cover 20 - 40 miles.	HERBIVORE Spring: Sedges, grasses, *Equisetum*, pond plants. Summer: Willow, aspen, and birch leaves. Also pond plants. Winter: Twigs, bark, saplings.	2 - 3 years Sept. - Oct./240 days (8 mo.) 1 - 3 calves born May-June, 28 - 35 lbs.	Male: 1000 - 1600 lbs. Female: 800 - 1200 lbs. Max.: 7.5 feet at shoulders Lives 17 - 20 years	Bull, Cow, Calf Largest member of deer family in N. America. Called "Elk" in Europe. Usually have only one calf. Calf weighs over 300 lbs. at 5 months. Max antlers 80 inches. Velvet shed Aug.-Sept. Antlers shed Nov.-Dec. Wolf is primary predator of adult moose. Alaska population is 130,000-160,000.
CARIBOU *Rangifer tarandus* 2000	Summer: Along road & SE. Winter: N and NW Calving: SW above timberline.	HERBIVORE Summer: Willow, dwarf birch, grasses, sedges, succulents. Winter: Lichens, moss, dried sedges.	3 years October/240 days (8 mo.) 1 calf born May - June, 10 - 15 lbs.	Male: 350 - 400 lbs. Female: 175 - 225 lbs. 3.5 - 4 feet at shoulders Lives at least 11 - 12 years	Bull, Cow, Calf, Herd Caribou and domestic reindeer are same species. Only member of deer family in which both male and female have antlers. Record antlers: 44 inches. Velvet shed Aug.-Sept., antlers shed in Dec. (pregnant females shed antlers Apr.-June). Newborn calf can walk after 1 hour, run after 2 days.
DALL SHEEP *Ovis dalli dalli* 2500	"Local" to high tundra near rock outcrops. Migrate between Alaska Range and Outer Range.	HERBIVORE Summer: Avens, flowers, grasses, willows, sedges. Winter: Mosses, lichens.	3 years Nov.-Dec./180 days (6 mo.) 1 lamb born May - June, 2 lambs rare.	125 - 200 lbs. 3 - 3.5 feet at shoulder Lives 11 - 14 years	Ram, Ewe, Lamb, Band Nursery gatherings in May-June. Horns are never shed but continue to grow. Rings on horns give approximate age. Full curl at 7-11 years. Record spread of horns 35 inches. Male and female remain in separate bands except during rut. Wolf is main predator.
GRIZZLY BEAR *Ursus arctos* 300 - 400	"Local"	OMNIVORE 80-85%: Roots, grasses, berries 15-20%: Ground squirrel, moose calf, caribou calf, rodents, carrion.	6 - 10 years May-July/180 days (6 mo.) Twins common, born Jan. - Feb, less than 1 lbs.	Male: 300 - 500 lbs. Max: 650 lbs. Female: 200 - 400 lbs. 6 - 7 feet standing 3.5 feet at shoulders Lives at least 16 - 20 years	Boar, Sow, Cub Significant predator of caribou and moose calves. Brown and grizzly same species; coastal browns weigh 500-1400 lbs. and are 9 ft. tall b/c of fish diet. Enter dens in Oct., emerge in April-May. Sow mates every 3 years. Temperature drops only 5-10°F during dormancy. Waste products recycled by kidneys during dormancy.
GRAY WOLF *Canis lupus* 80 - 120 12 - 20 packs	"Local"	CARNIVORE Rodents, hare, beaver, birds, moose, caribou, sheep, carrion.	2 years Feb.-March/63 days 2 - 10 pups (avg. 5) born May	Male: 85 - 115 lbs. Female: 75 - 105 lbs. 2.5 feet at shoulders Lives 9 - 12 years	Dog, Bitch, Pup, Pack Individual color varies from black to white, gray most common. 25-150 sq. mile territory per wolf, 200-600 sq. mile per pack. Average pack size is 8 wolves. *2003 - 22 wolves in 12 packs radio collared. Study goal is 2 animals per pack.
RED FOX *Vulpes fulva* no census	"Local"	OMNIVORE Mice, voles, lemmings, squirrels, hares, birds, eggs, insects, berries, vegetation.	1-2 years Feb.-March/53 days 4 - 10 kits (avg. 4) born Apr-May, 4 oz.	6 - 15 lbs. 22 - 25” long (head/body) 14 - 16” tail Lives 3 - 5 years	Dog, Vixen, Kit or Pup, Family Silver fox, cross fox, and other color variations are all red fox. Several color phases can occur in a single litter. Dens extend 15-20 feet. Both parents and other related adults care for young.
LYNX *Lynx canadensis* no census	"Local," usually below tree line.	CARNIVORE Hare, squirrel, ptarmigan, rodents, carrion.	1 year Jan.-Feb/62 days 1 - 4 kittens (avg. 2) born Mar. - May	11 - 35 lbs. 3 feet long (head/body) 4” tail Lives 3 - 4 years	Male, Female, Kitten Hare main food source. Population cycles every 9-10 years, 1-2 years after hare population. Nocturnal. During hare scarcity will prey on sheep and other lynx. Kittens cry similar to gyrfalcon.
HOARY MARMOT *Marmota caligata* no census	"Local" burrow in rock outcrops.	HERBIVORE Grasses, flowering plants, berries, roots, mosses, lichens.	2 years Mar. - May/40 days 2 - 6 young born May - June	8 - 20 lbs., max 30 lbs. 20 - 24”, max 31 in. Lives 5 years	Warning whistle can be heard 2 miles. Hibernates Sept.-Apr. Body temperature drops to 40°F. Arouses every 2 weeks to eat, defecate, urinate. Latin name "caligata" means "boots" referring to dark blackish brown feet.

4/27/98

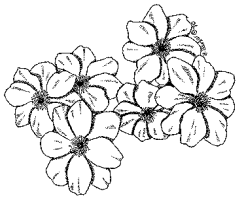
Geology

sed=sedimentary, *ign*=igneous, *met*=metamorphic

Where?	What?	When?
Hines Creek Valley to Teklanika CG	**Hines Creek Fault** Divides schist from Cantwell Formation	
Nenana to Savage, south	**Cantwell Formation** Sandstone and conglomerate, *sed*	50-65 mil yrs
Nenana to Teklanika, north (Outer Ranger)	**Yukon-Tanana Crystalline Terrane** Schist - oldest rock in the park, *met*	600+ mil yrs
Between Savage and Sanctuary, south	**Nenana Gravel** Conglomerate, *sed*	2 mil yrs
Double Mountain and Igloo Canyon	**Upper Cantwell Formation** on top of **Cantwell Formation**	41-61 mil yrs 50-65 mil yrs
Cathedral	**Teklanika Formation** Dark rocks - basalt, light rocks - rhyolite, *ign*	41-61 mil yrs
Sable Pass, south side	**Usibelli Group** Light tan sandstone (mined in Healy), *sed*	8-50 mil yrs
Polychrome	**Teklanika Formation**, *ign*	41-61 mil yrs
Highway Pass	**Nenana Gravel** Conglomerate, *sed*	2 mil yrs
Thorofare Mountain, Mount Galen, mountains south of Thorofare Pass	**Mount Galen Volcanics** Ash fall rock, *ign*	38 mil yrs
Alaska Range	Uplifted, probably through action of tectonic plates.	60 mil yrs to present
Cantwell-Anderson Pass, north of Denali	**Denali Fault**	
Denali	Uplifted granitic pluton - 20,320 feet tall, *ign*	60 mil yrs
Mount Foraker	Granodiorite pluton - 17,400 feet tall, *ign*	38 mil yrs
	Glaciations:	
	Brown Advance	150,000 yrs ago
	Lignite/Iron Creek Advance	125,000 yrs ago
	Healy/Mcleod Creek Advance	70,000 yrs ago
	Riley Creek/Wonder Lake Advance	17,000 yrs ago

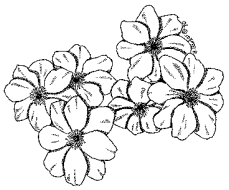
History Highlights

Date	What Happened?
15-30,000 yrs ago	Humans first cross to Alaska from Asia over the Bering Land Bridge.
1896	William Dickey, gold prospector, gives Denali a new name, "Mt. McKinley."
1903	Judge James Wickersham makes first attempt to climb Denali.
1905	Gold stampeders populate the Kantishna Mining District.
1906	Charles Sheldon visits region to study sheep; returns for winter of 1907-08.
1910	Sourdough Expedition reaches north peak of Denali.
1913	Karstens-Stuck expedition climbs true (south) summit of Denali.
1917	Mt. McKinley National Park created by Congress.
1921	Harry Karstens hired as the first superintendent; stationed in Nenana.
1922	Headquarters established on Riley Creek. 1st extension of the park- from @16miles west of McKinley Station to approx. 4 miles west. 12 miles of road completed.
1923	Alaska Railroad completed between Seward and Fairbanks. Visitor accommodations at Savage River Tourist Camp established.
1923-1938	The park road constructed from Savage River to Wonder Lake. 1932- second boundary extension- from the 149th parallel to Nenana River and to include Wonder Lake.
1939-1941	Adolph Murie conducts an extensive study of the park's wolves. Mt. McKinley Park Hotel opens for tourist accomidations-1939.
1942	The Alaska Highway is completed.
1957	The Denali Highway is completed from Paxson to McKinley Park entrance.
1959	Alaska becomes the 49th state. Eielson Visitor Center opens.
1972	Parks Highway from Anchorage to Fairbanks is completed. The Park Service restricts road access and institutes the shuttle bus system. Park hotel burns down and is replaced by a temporary structure lasting until 2001.
1980	Alaska National Interest Lands Conservation Act passed by Congress enlarging park to 6 million acres & changing the name to Denali National Park & Preserve.
1985	Court order imposed injunction on mining in Kantishna until EIS's completed. EIS's completed in 1990 but mining not resumed.
2002	Park Hotel sold and shipped out of the park. Front country construction began.
2004	Front country construction continuing. Murie Science and Learning Center will open in August. Last year for current Eielson Visitor Center (new EVC to open 2007.)



Medicinal Plants

Of Denali National Park



Remember that everyone reacts differently to different medicines. Know yourself. Know what you are collecting (some plants are poisonous). Too much of a good thing can make you sick. **In Denali National Park, it is legal to collect plants for personal consumption, <u>not</u> for commercial sales.** Remember that any plants collected within thirty feet of a road are probably contaminated with heavy metals from car exhaust. Most importantly, medicinal plants are powerful. Use only what you need. Do not pick a plant just to pick a plant. As many Alaska Natives say, if you disrespect a plant, the plant may cause you harm.

BALSAM POPLAR/
COTTONWOOD
Populus balsamifera

The buds can be collected in the spring/early summer: add lard and vitamin E then boil and strain to make a Balm of Gilead. This has been used as a salve for cuts, burns, and sores, including frostbite.

BIRCH
Betula sp.

The leaves and bark are like aspirin (they contain methyl-salysate.) Birch leaves made into tea have been used as therapy for gout and rheumatism; it relieves sore muscles, tendons, bones, and joints. The inner bark is an astringent and has been fevers. Birch sap is used as medicine and is bottled and sold as a spring tonic in Russia.

BLUEBERRY
Vaccinium sp.

Berries are a good source of vitamin C and iron. They are also good for stimulating the appetite and used for upset stomachs and as a throat lozenge. Gargling with the juice is good for a sore throat and irritated gums.

CAPITATE VALERIAN
Valeriana capitata

Root tea is used as a mild sedative. Valerian is a base ingredient in Valium.

CARIBOU MOSS
Cladina rangiferina

This is not a moss but a lichen. It is an important winter food source for caribou and a survival food for people; it must be boiled in water several times before eating. Native peoples have used lichen for chest pain; those who climbed hills ate it in order “to maintain their wind.” Several lichen species have antibiotic activity.

CINQUEFOIL/
TUNDRA ROSE
Potentilla sp.

The entire plant is used as a powerful medicine. The *Potentilla* species are astringents. Make a tea from the stems and use as a gargle for sore throats.

COLTSFOOT *Petasites frigidus,* *Petasites hyperboreus*	The leaves or flower shoots have been used in teas/syrups since ancient times to treat coughs. For bronchitis, the dried leaves can be smoked. Crushed fresh leaves are applied externally for insect bites, inflammations, general swellings, burns, and leg ulcers; it has a soothing, cooling effect.
CROWBERRY *Empetrum nigrum*	The leaves and stems are the Tanaina peoples' medicine for diarrhea: boil and soak crowberry leaves and stems in hot water and drink the tea. The root is medicine for sore eyes and has been used to cure cataracts: boil the roots and wash the eyes with the cooled juice.
DANDELION *Taraxacum* sp.	The name *Taraxacum* is derived from *taraxos* (disorder) and *akos* (remedy). Leaves and roots are boiled into a tea and used for bad cramps. It is a general liver and kidney stimulant and is often prescribed for kidney, liver, and gall bladder troubles. It can be a laxative and diuretic.
FIREWEED *Epilobium angustifolium,* *Epilobium latifolium*	Fireweed tea (whole herb) is good for stomachaches, coughs and asthma. The tea leaves are stronger than chamomile tea and are good for restlessness. Dried fireweed roots can be mixed with grease and spread on infected sores and bites.
HORSETAIL *Equisetum* sp.	Horsetail is diuretic and has been used to treat kidney and bladder problems including dissolving kidney and bladder stones. It is used as a wash for insect bites and skin rashes. A horsetail poultice can be used for hemorrhages, cancerlike growths, and ulcerous wounds.
LABRADOR TEA *Ledum palustre*	Very aromatic. Makes a fragrant tea that is good for colds. It has also been used as a laxative.
LOW-BUSH CRANBERRY/ LINGONBERRY *Vaccinium vitis-idaea*	Berries are good for preventing and curing upset stomachs and make great throat lozenges! For headaches, swelling, and tonsil troubles, heat the berries, wrap in a cloth, and put the hot pack on the sick place.
MOUNTAIN ALDER *Alnus crispa*	Fresh leaves are applied and massaged into burning, aching sore feet and used as a foot bath when brewed. Alder leaves are used to cure inflammation. Native people boil the bark and drink the tea to get rid of gas in the stomach and to lower fever.
PINEAPPLE WEED/ ALASKA CHAMOMILE *Matricaria matricariodes*	Use the whole herb to make a soothing tea good for insomnia, nervousness, gas pains, colds, and upset stomach. The vapor is good for bronchial and congestion troubles. It can be used as a compress for tight muscles, headaches, inflammation, and sore eyes. A cooled tea has been used as a wash for rashes.

QUAKING ASPEN
Populus tremuloides

The leaf buds of aspen can be used to make a salve for cuts and sores.

ROSEROOT
Sedum rosea

The name “roseroot” describes the smell of the root. The dried root has been used as a poultice (dried powder) on cuts and sores. Ancient Chinese have used the succulent leaves in similar ways to aloe vera. Athabaskans prepare the leaves and roots to make teas for use as a sore throat gargle and eye wash (cooled tea). The green leaves are a good source of Vitamins A and C and can be eaten in salads.

PRICKLY ROSE
Rosa acicularis

The rose is an excellent source of Vitamin C. Stems and branches are used for colds, fever, stomach troubles, weak blood and menstrual pains. For sore eyes, wash with juice made by soaking the flowers in hot water. Native peoples use rose in many ways: The Skagit of Washington State make sore throat medicine by boiling the roots with sugar and the Cowlitz use the tea for bathing babies.

SOAPBERRY
Shepherdia canadensis

Make a tea with the stem for a tonic beverage. A cooled tea is used as a wash for cuts and swellings.

SPRUCE
Picea sp.

The new green spruce tips are an excellent source of Vitamin C. Teas from the spruce tips can be used for colds and flu and are inhaled for bronchial and congestive problems. The gum from the spruce tree is used as a medication for cuts and scratches. For headache relief, put pitch and snow or ice on a large piece of cloth and wrap the cloth around the head. Boil the pitch and drink as much as you can for urinary problems. Spruce is a diuretic.

WILLOW
Salix sp.

The history of aspirin begins with willow which contains salicin, aspirin’s active ingredient. Willow was used to treat pain in ancient Greece more than 2,400 years ago. It was used in Europe to treat fevers, problems with the digestive system, scurvy, and dysentery. Today, one can still make a tea from the leaves for aches and pains. Chewing the bark is good for canker sores. Bark is used as a rope material. Willow is a diuretic.

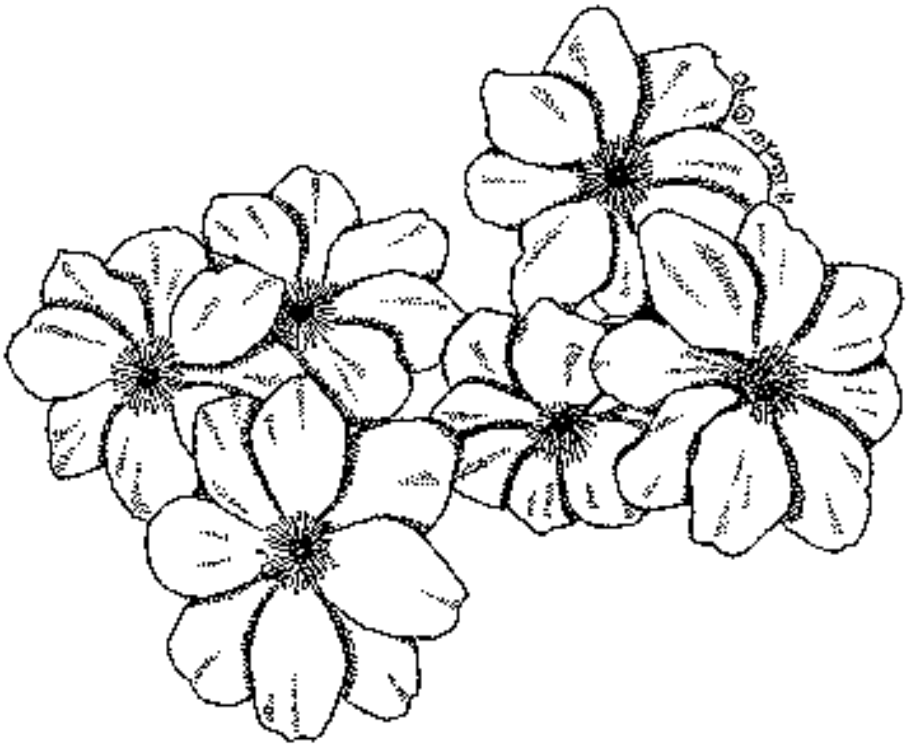
WORMWOOD
Artemisia sp.

Wormwood got its name because it was used as a treatment for worms for people and pets. Make a tea out of the leaves for colds and cramps. Use moistened, dried leaves on infected sores and cuts: use just enough leaves to cover the sore, then wrap with a bandage. It can be placed in shoes for foot odor and supposedly relieves fatigue and athletes’ foot. It makes a great natural insect repellent! Rub crushed leaves on skin or prepare a cool tea of the leaves. Placed under a doormat, wormwood was believed to keep away annoying people.

YARROW
Achillea sp.

It is used as a tonic and stimulant to induce perspiration and reduce fever. It is also a diuretic and astringent. It is a great herb for the common cold, especially if the hot tea is sipped slowly while inhaling the vapors. It can be boiled and used as a wash on wounds.

Happy Healing!



For more information:
Discovering Wild Plants: Alaska, Western Canada, The Northwest by Janice Schofield; Alaska Northwest Books, 1992.
Tanaina Plantlore by Priscilla Russell Kari; National Park Service, 1987.

Climate and Vegetation in Denali National Park & Preserve

Denali National Park is located at 63 degrees latitude, about 200 miles south of the Arctic Circle. The vegetation is characteristic of many circumpolar landscapes. Temperatures and humidity fluctuate widely. The growing season is less than 100 days. Freezing temperatures and snowstorms are a possibility at any time during the growing season. Permafrost (permanently frozen sub-surface ground) is found in many places and produces poorly-drained, deoxygenated soils. This seemingly harsh climate has allowed several climatically durable plant communities to evolve.

	Average Maximum °F	Average Minimum °F	Average Precipitation Inches	Average Snowfall Inches
January	11	-6	.7	12
February	17	-3	.6	10
March	25	1	.4	8
April	38	16	·4	6
May	53	30	.8	3
June	64	40	2.2	Trace
July	66	43	3.0	Trace
August	61	40	2.7	Trace
September	51	31	1.6	3
October	33	16	1.0	13
November	18	1	.8	13
December	12	-5	.8	13

This chart is a guide to Denali's weather. These averages are from park headquarters at an elevation of 2100 feet. Much of the park is at a higher elevation meaning that summer temperatures could be lower and the possibility of snow, even in summer, is greater. In August 1984, "traces" of snowfall meant 10 inches of fresh snow in a sudden storm with drifts up to five feet. Hikers and campers need to be prepared for sudden changes in weather.

The lowest in elevation of these plant communities is the taiga (Russian for 'land of little sticks') or boreal forest. The dominant plants here are the white spruce *(Picea glauca).* Black spruce (*P. mariana)* is common in areas with poorly drained soil. Other boreal trees include aspen *(Populus tremuloides),* balsam poplar (*P. balsamifer),* paper birch *(Betula papyrifera)* and tamarack *(Larax* sp.*).* The forest floor is vegetated with a variety of low shrubs in including blueberries *(Vaccinium* sp.*),* crowberries *(Empetrum* sp.*),* wild rose *(Rosa* sp.*)* and lowbush cranberries *(Vaccinium* sp.*).* Boreal trees are slow growing; a 50 foot tall tree, 15 inches in diameter may be 400 years old. Timberline in Denali occurs at 2500 to 2800 feet and is the elevation where the mean temperature in July is 50 degrees F. At this elevation moist tundra supplants the boreal forest. Here, dwarf birch *(Betula nana)* and many varieties of willow *(Salix* sp.*)* form a dense, knee to waist high ground cover. Above the wet tundra is the third major plant community, dry alpine tundra.

Alpine tundra occurs at varying elevations throughout the world. In Denali it usually occurs above 3400 feet on well-drained soils. It is 2-3 inches thick and perhaps Denali's most attractive plant community, and surely the easiest for foot travel. The dry tundra consists of dwarf perennials such as avens *(Dryas* sp.*),* heathers *(Cassiope* sp.*),* cinquefoil *(Potentilla* sp.*),* and saxifrage *(Saxifraga* sp.*).* The tundra begins to bloom in mid-June and takes the appearance of a vast green blanket with white, yellow, and pink ornaments. These plants have short growing seasons and may not be able to produce seeds every season.

Dwarf fireweed *(Epilobium* sp.*)* occurs in disturbed areas such as river bars and along the road side.

In addition to these major plant communities, there exist several special vegetation types produced by local conditions or micro-climates. One of these micro climates, the gravel bars, characterizes the major rivers in the park. Centuries of shifting river channels, gravel deposition, and intermittent flooding have produced a unique plant community. Legumes such as pea vine *(Hedysarum* sp.*),* Oxytrope (*Oxytropis* sp.*)* and dwarf fireweed *(Epilobium* sp.*)* colonize the gravel surface. The river bar environment is one of the harshest available to plants. There are no barriers to wind, and these plants may be abruptly wiped out by flooding and shifting river channels.

Although conditions in Denali National Park are extremely harsh from the human perspective, these plants have been sculpted by sub-arctic extremes. The plants that occur here are finely adapted to the climatic conditions of the far north; to a sub-arctic plant Denali National Park has the perfect climate.

For more information check the list of titles available through the Alaska Natural History Association

Black Bear Characteristics and Behavior In Denali National Park

Black Bears are not often seen in Denali National Park, and are typically more reclusive and shy than the grizzly bear. Black bears tend to remain in the forested portions of the park and are excluded by grizzlies where their habitats potentially overlap. Most of the terrain where backpackers commonly venture is the domain of the grizzly. However, it is important for backcountry users to be aware of the potential to encounter either species and to be familiar with the behavioral and physical characteristics of black bears as well as the more commonly encountered grizzly.

Physical Characteristics:

- Black gears range in color from pure black through various hues of brown to cinnamon and blond. They tend to be more consistent in their individual colors, lacking the multi-toned patterns that can occur in grizzlies.
- The black bear's profile is a straight line from the forehead to the nose, which appears longer than a grizzly bear's.
- Black bears lack the hump over the shoulder, a distinguishing characteristics of the grizzly.
- Black bears have short, curved, sharp claws which make them well suited for tree-climbing.
- Black bears weigh between 150 and 250 lbs. and are typically smaller than grizzlies.

Behavioral Characteristics:

- Curious black and grizzly bears may investigate a campsite or approach people. Such behavior may be indicative of a food-conditioned bear. It is best to aggressively chase such animals away immediately. Clapping, yelling, banging pots and pans together, or throwing rocks will often cause the bear to leave the area.
- In many areas black bears tend to be more inquisitive and adaptable than other bears, making them more likely to come into developed areas and into conflict with humans. Once a either species of bear becomes habituated to humans and conditioned to human food it is difficult to break them of "bad habits."
- Black bears are usually less aggressive in defending their cubs than grizzlies. Usually, a female black bear will send her cubs up a tree when she feels they are in danger. A female black bear with cubs may act more aggressively in defense of her young when trees are unavailable.

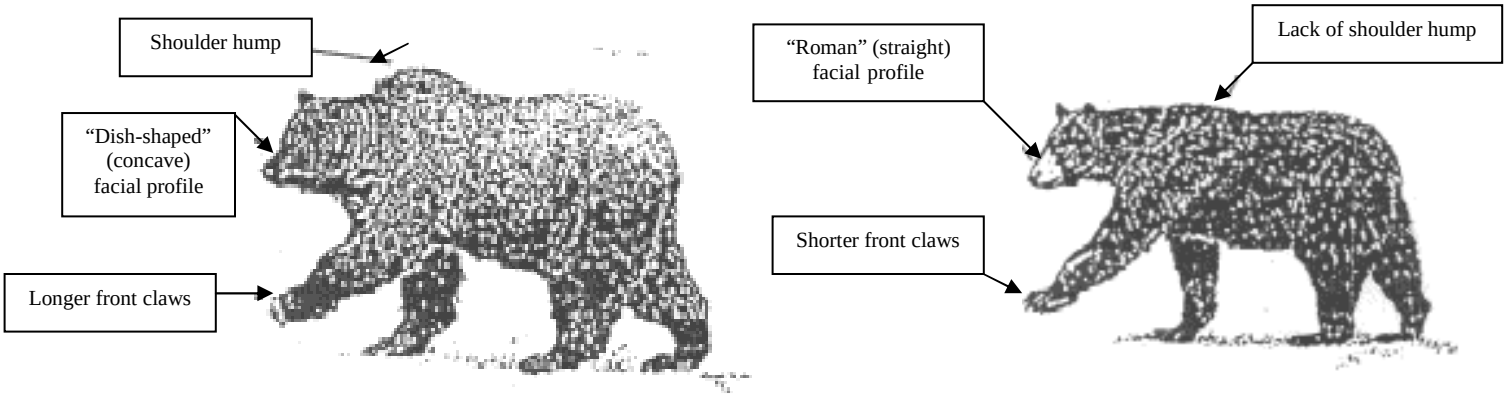
Black bear attacks on humans:

Unless provoked, black bears are very unlikely to attack people. In addition, 90% of black bear inflicted injuries are minor. Most black bear inflicted injuries can be attributed to food-conditioned bears foraging in campgrounds in national parks and begging along roadsides; a situation which does not occur in Denali. However, on rare occasions black bears have aggressively stalked and preyed on humans (also not in Denali).

Predacious behavior may begin with the bear slowly approaching the person or circling. The bear then charges intending to knock the person down. Multiple charges have not been documented during such events as they have for bears aggressively defending their young. Typically a predacious attack continues until the bear is overpowered, injured or scared away by the victim or other people.

Once a black bear has "made up its mind" to go after someone in a predatory mode it will likely continue to stalk and attack unless the bear is aggressively forced to back off. Therefore, the best way to respond to a predacious attack by a black bear is with dedicated aggression! The sooner a stalking bear is aggressively deterred the better. In 1976, a 10-year-old child successfully fought off an attacking black bear by herself. Research suggests that 90% of black bear-caused fatalities are due to predatory behavior. Unlike grizzly bear attacks, 93% of the predacious black bear attacks occurred during daylight hours. Black bears that have not been around humans are more likely to attempt to prey on people than those that are habituated. In general, sudden encounters with black bears are not likely to result in predacious behavior or aggression.

GRIZZLY BEAR **BLACK BEAR**



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Anonymous. The Bear Facts. Yukon Wildlife Branch, Canada.

Herrero, Stephen. Bear Attacks, Their Cause and Avoidance. Lyons and Burford 1985.

Mottram, Bob. "Fatal attack no surprise to expert on black bears." Anchorage Daily News. 7-30-92

Grizzly Bear Forage Items

Denali National Park

Adolph Murie, 1981

Roots: May through early June, late fall

* -*Hedysarum alpinum americanum*: eskimo potato, peavine; river bars and ridge slopes
-*Epilobium latifolium*: rock fireweed
-*Petasites frigidus*: coltsfoot
-*Dryas octopetala*: mountain evens; may have been exploratory
-*Lysichiton* sp.: skunk cabbage; not reported in park

Grasses and sedges: June through August

-*Calamagrostis canadensis*
* -*Arctagrostis latifolium*: moist hollows, draws, and streamlets
-*Carex podocarpa*

Herbs: Late June through August

* -*Equisetum arvense*: horsetail; late May through summer
* -*Boykinia richardsonii*: saxifrage; damp hollows, streamlets, openings among tall willows
-*Rumex arcticus*: sourdock; moist hollows and small streams, eaten extensively
-*Oxyria digyna*: mountain sorrel; eaten frequently but limited availability, early summer
-*Oxytropis viscida*: viscid oxytrope; old river bars, especially near headwaters, limited availability

Shrubs: Spring

Salix sp.: willow; catkins, twigs and leaves used occasionally in Denali, catkins relished on Kamchatka Peninsula, Russia

Berries: Mid-July through September

* -*Vaccinium uliginosum*: blueberry; crop uniformly good at lower elevations
* -*Empetrum nigrum*: crowberry; widely distributed, woods, and open country and far up the slopes, usually abundant
* -*Shepherdia canadensis*: soap berry, buffaloberry; gravelly terrain, lower slopes, old washes and river bars, usually abundant
-*Eleagnus commutate*: silverberry; limited distribution, may produce berries and be eaten at lower elevations
-*Vaccinium vitis-idaea*: cranberry; widely distributed, bear fruit heavily, consumed more in spring
-*Arctostaphylos alpine*: open country, eaten occasionally
-*Arctostaphylos rubra*: moist areas in the woods, eaten occasionally
-*Rosa acicularis*: rosehips; perhaps used in low country

Grizzly Bear “Poop Scoop”

In a study from 1975 by Arthur M. Pearson...

Bears were studied during the hyperphagic period when they are eating primarily berries. They followed individual bears feeding on soapberries.

In summation, their findings (or the “poop scoop”) are as follows:

As they followed the bears, they collected their scat/feces and they counted how many seeds were in each of the feces. On average they found.....**20,210 berry seeds per feces**

Each soapberry has.....**1 seed per 1 soapberry**

They estimated that each bear pooped .....**10 times per day**

Therefore, they estimate that a grizzly could eat about .....**200,000 berries per day**.

200,000 berries are equivalent to 6,000 kg or 20 lbs. of digestible matter/day.

In a more recent non-published study currently being done by Charlie Robbins at Washington State University in conjunction with their “Capture Breeding Program”...

They have found that first year cubs weigh about 83 lbs. in September (in contrast, Denali cubs in September weigh about 50 lbs.).

They asked the question: How much could a bear eat if the bear were given as much as it wanted? To answer this question, they weighed how much they fed the bear and how much food was left after the bear had eaten. Their findings are as follows...

They eat about 1/3 of their weight per day.
They eat an equivalent of about 100,000 blueberries per day.
They gain a maximum of 1/2 lb. per day.
To get this, they have to eat <u>continuously</u> for 6 hours each day.

Other interesting facts...

Bears have different methods of harvesting different berries! They simply bite blueberries, but soapberries are eaten from the bottom to top of the stem - like eating a corn cob.

The bears at Denali feed heavily from mid June to early August on green vegetation (grasses, sedges, horsetail, bearflower, milkvetch, etc.). Because they do not have a caecum (the digestive organ of many herbivores that contains bacteria and Protozoa necessary for digesting cellulose) or the bacteria to digest cellulose they feed on the new, green, tender growth which has the most digestible protein. They do have a longer small intestine that helps digest grasses but apparently do not digest starches well. Higher altitude

plants must grow more rapidly during the short summer and so have higher protein contents than lower elevation plants. Bears prefer these areas for feeding (e.g.: Sable Pass).

Before hibernation bears may eat 20,000 calories per day. In Denali this probably is not the case since large quantities of high-caloric food is generally not available.

Black bears can add 4 inches of fat prior to hibernation, gaining 2-3 pounds per day.

Brown bears may add 6 to 8 inches of fat prior to hibernation.

A grizzly was documented gaining 1.40 pounds per day over a 16-day period while eating only soapberries. (Study by Art Pearson in the Yukon).

Near the end of summer, grizzlies begin to eat *Hedysarum* (eskimo potato) roots again because the plant's energy has been transferred back to its roots.

Failure of berry crops can motivate bears to travel great distances while searching for food or cause them to den earlier.

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History Time Line
For Denali National Park & Preserve

c.15,000 B.C. to 1900's	Several separate cultural groups all belonging to the rich and complex Athabaskan tradition develop special refinements in tools, clothing, food processing, travel and housing that reflect their special knowledge of the Denali region they call home. Those occupying this area roam the upper reaches of the various river systems and the foothills of the Alaska Range in their search for the big game on which they depend. Those living in the Minchumina area northwest of the current park are some of the last Native Alaskans to be contacted by European/Americans. By the turn of the 20th century, diseases brought by non-native visitors, traders and settlers cause significant losses in Native populations. Other changes brought by newcomers to the Denali area cause severe distortions of Indian patterns of life to which current Athabaskan people continue to adapt.
1794	The first recorded reference to Mt. McKinley appears in the journal of British explorer George Vancouver. He notes "distant stupendous mountains covered with snow and apparently detached from each other."
1834	Russian Creole explorer Andrei Glazunov notes in his journal that he "saw a great mountain called Tenada to the northeast." His rendering of the name, Tenada, is traced to the Ingalik Dengadh. (The Koyukon name Deenaalee is the source of the modern Denali; all Athabaskan variants north of the Alaska Range mean "The High One.")
1839	Baron Ferdinand von Wrangell, publishes a map of Alaska approximately locating the massif with the label "Tenada." Due to cartographic ambiguities, the mountain is dropped from later Russian maps. Thus the Native naming fades from use.
1867	Russia sells Alaska to the United States of America.
1868	William H. Dall proposes the name "Alaskan Range" which later becomes modified to "Alaska Range" by local usage.
1878	Trader-prospectors Arthur Harper and Al Mayo report the first known record of Mt. McKinley as a single peak from the Interior. Harper's son Walter, born of an Indian mother, would be the first man to set foot on McKinley's summit a generation later.
1889	Frank Densmore and several companions, while prospecting near Lake Minchumina, come closer to the mountain (within 65 miles) than any previously recorded expedition. Densmore's enthusiastic descriptions of the great mountain to the southeast prompt fellow prospectors to call it "Densmore's Mountain."
1896	Prospector William A. Dickey names the mountain "after William McKinley of Ohio, who had been nominated for the Presidency, and that fact was the first news we received on our way out of that wonderful wilderness. We have no

doubt that this peak is the highest in North America, and estimate that it is over 20,000 feet high."

1897 Dickey's descriptions of "Mt. McKinley" are published in the New York Sun on January 24.

1898 Robert Muldrow makes the first professional instrument determinations of Mt. McKinley's altitude and position, confirming that its height exceeds 20,000 ft. His figure of 20,464 ft. comes remarkably close to today's accepted altitude of 20,320 ft. above sea level.

1899 A party of the U.S. Geological Survey disputes Dickey's claim of naming the Mt. McKinley massif but the New York Sun promptly calls their attention to the two year precedence of Dickey's map and his naming of the peak which were published and widely circulated in 1897.

Joseph S. Herron names 17,400 ft. Mt. Foraker after U.S. Senator J.B. Foraker of Ohio. (According to Orth's Dictionary of Alaska Place Names, Native names included variants on Denali--thus treating Foraker as part of the massif--and "Sultana" and "Menlali," meaning Denali's Wife.)

1902 July 22: Felix Pedro discovers gold 16 miles north of what would soon become the town of Fairbanks. The town, founded by merchant E.T. Barnette, is named for U.S. Senator Charles W. Fairbanks of Indiana at the suggestion of Judge James Wickersham.

August 6: Alfred Hulse Brooks is the first person known to set foot on the slopes of Mt. McKinley. He turns back after reaching approximately 7,500 ft.

1903 National Geographic Magazine publishes "A Plan for Climbing Mount McKinley" in which Brooks suggests the best way to ensure mountaineering success would be to approach the mountain from the north.

Judge James Wickersham makes the first attempt to climb Mt. McKinley. His expedition travels up the Peters Glacier on the north side of the mountain and reaches nearly 8,000 ft. before finding the route impassable. "Our only line of further ascent would be to climb the vertical wall of the mountain at our left, and that is impossible." That vertical wall, now known as Wickersham Wall, rises 14,000 feet from Peters Glacier to McKinley's North Peak.

Judge Wickersham and the four other members of this expedition stake the first mining claims in the Kantishna Hills.

Dr. Frederick A. Cook attempts to climb Mount McKinley via Peters Glacier. The expedition reaches 11,000 ft. on the North Peak's northwest buttress before turning back. They name the high point of their climb Mount Hunter after one of their financial backers. The name "Hunter" did not remain on the mountain they had just named. Instead, on today's maps "Mount Hunter" designates a much higher mountain on the south side of Mount McKinley. Cook's expedition is the first to circumnavigate the McKinley massif.

1905 Early prospectors stake mining claims in the Kantishna Hills. The new boom town of Eureka grows to roughly 2,000 inhabitants.

1906 Studies of mountain sheep bring hunter/naturalist Charles Sheldon to the Mt. McKinley area. After 45 days collecting specimens for the Biological Survey, Sheldon decides to return to the region later for more in-depth studies. Sheldon names Cathedral Mountain as he scans it looking for sheep.

1906 A climbing party including Dr. Frederick A. Cook, Herschel C. Parker, and Belmore Browne attempts to climb Mt. McKinley from the south side and is unsuccessful. Disbanding the party in mid August, Dr. Cook makes a third attempt with horse packer William Barrill. On September 27th, after just two weeks, Dr. Cook sends off the telegram, "WE HAVE REACHED THE SUMMIT OF MOUNT MCKINLEY BY A NEW ROUTE FROM THE NORTH." Thus begins a great controversy.

Gold boom over. Mass exodus of miners from most areas in Kantishna.

1907 Charles Sheldon returns to the Mt. McKinley area and builds a cabin on the Toklat River. He arrives about August 1, and remains until June 11, 1908. Harry Karstens assists Sheldon with packing and other camp duties. It is during this time that Sheldon becomes concerned that "market hunters" will decimate the area's sheep populations.

1908 Charles Sheldon mentions the idea of a "Denali National Park" in his journal entry for January 12.

Dr. Cook writes To the Top of the Continent, including a summit photograph to help support his claims. It is this photograph that eventually discredits him.

1910 Alaskan Sourdoughs Thomas Lloyd, Charlie McGonagall, Billy Taylor and Pete Anderson attempt to climb Mt. McKinley. Thomas Lloyd never goes above the base camp near 11,000 ft. However, Taylor and Anderson make it to the top of the North Peak with a bag of donuts, a thermos of hot cocoa, and a fourteen foot long spruce pole to fly the American flag. (McGonagall turns back near 18,000 or 19,000 ft. since it is no longer his turn to carry the pole.) Due to conflicting stories, their amazing accomplishment is discredited until 1913.

Herschel C. Parker and Belmore Browne lead the Explorer's Club-American Geographic Society Expedition charged with finding solid proof concerning Dr. Cook's claims of climbing Mt. McKinley. Parker and Brown, discover Dr. Cook's "Fake Peak" at around 5,300 feet and some 19 miles from Mt. McKinley's true summit.

1912 Herschel C. Parker, Belmore Browne and Merle La Voy attempt to climb Mt. McKinley (for a third time) via the same route followed by the Sourdough Expedition in 1910. They are turned back "within an ace of success" by bad weather and a shortage of supplies only 200 ft. below the summit.

1913 Hudson Stuck, Harry Karstens, Walter Harper and Robert Tatum reach Mt. McKinley's South Peak (the true summit) on June 7th, the first expedition to attain the highest point in North America. Walter Harper, a Native Alaskan, is credited with being the first man to reach the summit.

1915 Alaska Railroad construction between Seward and Fairbanks begins.

1916	Maurice Morino (the man Morino Campground is named after) homesteads in the Frontcountry area and sets up a roadhouse.
1917	February 19: Congress passes a bill to create a Mt. McKinley National Park. Charles Sheldon is delegated to deliver the act personally to President Wilson, who signs it on February 26th and gives the pen to Sheldon.
1921	April 12: Director Mather sends a 10-page letter of instruction to Harry Karstens, formalizing the multifaceted charge that Karstens takes on as first Superintendent of Mt. McKinley National Park. He receives an interim appointment as Ranger-at -Large until funds become available July 1st. He is stationed in Nenana.
1922	Park headquarters moves from Nenana to the Riley Creek area.
	East boundary extended to the one hundred and forty-ninth meridian.
1923	Savage River Tourist Camp established. 34 visitors stay there during the 1923 season.
	July 8-9: The Brooklyn Eagle Party of 70 persons holds dedication ceremonies for Mt. McKinley National Park.
	July 15: President Warren G. Harding's party of 70 persons arrive at Mt. McKinley National Park on their way to Nenana to drive the "Gold Spike," the symbolic signal of the completion of the Alaska Railroad between Seward and Fairbanks.
1924	Carl Ben Eielson, an early Alaskan aviator, flies a W.W.I Jenny to Copper Mtn., landing on the Thorofare Bar below the current location of Eielson Visitor Center. Herning, a Fairbanks miner, places a mining claim on the mountain.
	12 miles of park road completed.
	Forest fire burns in the area where the Park Hotel is currently located.
1925	Park headquarters moves from Riley Creek to its present location.
1926	Park sled dog kennels constructed.
1927	Completion of a stage coach road from the Savage River Tourist Camp to the head of the Savage River. Construction began in 1926 and the road was last used in 1941.
1928	Visitation to the park is 400 to 500 visitors.
	40 miles of park road completed.
1930	Copper Mtn. renamed Mt. Eielson.
	Construction begins on rangers' quarters building at park headquarters.

1932	First seasonal naturalist, David Kaye, hired June-August.
	Park road completed as far as Thorofare.
	Park boundary extended east to Nenana River and north to include Wonder Lake.
1933	Construction of current airstrip located near the post office and train depot.
1935	Ranger club built to house unmarried rangers (current headquarters building).
1937	Road completed to Wonder Lake.
	Maurice Morino dies and is buried near the Park Hotel.
1938	Civilian Conservation Corp. camp established near headquarters and operated from 1938-1939. The abandoned camp, known as C Camp, becomes seasonal housing.
1939	Wonder Lake Ranger Station completed.
	First sled dog demonstration.
	McKinley Park Station Hotel opens, administered by the Alaska Railroad.
1939-1941	Adolph Murie completes extensive study of wolves which leads to the publication of The Wolves of Mount McKinley.
1942	Alaska Highway completed.
1943	Park Hotel taken over as Armed Forces R & R Center.
1948	Teklanika campground established.
1952	Temporary campground at Wonder Lake set up. Igloo and Morino campgrounds established.
1953	Denali Highway completed from Paxson to Cantwell.
1956	Muldrow Glacier surges.
1957	Denali Highway completed to park entrance. Visitation increases from 5,000 in 1956 to 25,000 in 1958.
1959	Eielson Visitor Center opens.
	Alaska becomes a state. Congress authorizes conveyance of 104 million acres of federal land to the new state.
1965	Town of Kantishna closed to new mining claims by BLM.
1968	Oil discovered at Prudhoe Bay.

1971	Alaska Native Claims Settlement Act (ANCSA) passed. Forty-four million acres of land and 1 billion dollars awarded to Alaska Natives.
1972	Construction of the George Parks Highway (Highway 3) links the park to Anchorage and Fairbanks. Visitation immediately doubles from 44,528 in 1971 to 88,615 in 1972. (By 1987 annual visits soar to 570,071.)
	Shuttle bus system instituted. Riley Creek Information Center opens.
	Park Hotel burns. “Temporary” hotel built which is still in use today.
1976	Eielson Visitor Center wildlife observation tower completed. On July 6 approximately 80 climbers summit Mt. McKinley.
	Mt. McKinley NP designated as International Biosphere Reserve.
1980	Alaska National Interest Lands Conservation Act enlarges the park from 1.9 million acres to 6.2 million acres and changes the name from Mt. McKinley National Park to Denali National Park and Preserve.
	95% of the original 1.9 million acres of the park is designated as Wilderness.
1984	Naomi Uemura, a famous Japanese explorer, becomes the first person to make a solo winter ascent of Denali. Just after reaching the top he disappears and his body is never found.
1985	Federal Court imposes an injunction on further mining in Kantishna until an Environmental Impact Statement (EIS) assesses the cumulative impacts of mining.
1986	General Management Plan approved by Asst. Secretary of the Interior.
	Road use limitations set at the 1985 plus 15% level.
1990	New Visitor Center (VC) completed.
	Lottery system instituted for fall road opening - 300 cars per day for 4 days.
1992	Denali National Park and Preserve celebrates its 75th anniversary.
	A record 11 climbers lose their lives on Mt. McKinley, many due to vicious storms and extreme cold. Two others die on Mount Foraker.
1993	Secretary of Interior Bruce Babbitt and National Park Service Director Roger Kennedy visit Denali on separate occasions.
1994	Advanced reservation by phone system instituted for park shuttle buses.
	Fall road lottery limit increased from 300 vehicles per day (for 4 days) to 400 per day.

1995	Permit system for climbing Mt. McKinley begins. This includes a $150 fee.
	Fee system instituted for park shuttle buses. Denali Park Resorts wins the shuttle bus contract. Now both shuttle and tour buses are run by Denali Park Resorts.
	Eielson Visitor Center exhibits are remodeled.
	Dog kennels rehabilitation begins.
1996	Dog kennels rehabilitation is completed.
1998	New kennels viewing stands are completed and in use for dog sled demonstrations by the end of the summer.
2000	Snow machines are allowed into the old park (the wilderness area) for the first time.
2001	Snow machines banned in old park.
2002	New Mercantile opens. Old mercantile torn down. Auditorium moved to Healy. Parts of Denali Park Hotel moved to Healy, parts to McKinley Village area. Clearing begins in front country for new facilities.
2004	New Murie Science & Learning Center opens. Final season of old Eielson Visitor Center.
2005	New Denali Visitor Center opens. Temporary Toklat visitor center opens near road camp mid-summer. Old Eielson Visitor Center torn down.
2007	Denali celebrates its 90th anniversary with a speaker series, commemorative pin, and special edition of the Alpenglow highlighting park history.
2008	New Eielson Visitor Center opens.

**Timeline extracted in large part from William E. Brown's books, A History of the Denali - Mount McKinley Region, Alaska, and Denali: Symbol of the Alaskan Wild.