

# FOIA MARKER

**This is not a textual record. This is used as an administrative marker by the William J. Clinton Presidential Library Staff.**

---

**Collection/Record Group:** Clinton Presidential Records  
**Subgroup/Office of Origin:** Speechwriting  
**Series/Staff Member:** Terry Edmonds  
**Subseries:**

---

**OA/ID Number:** 10985  
**FolderID:**

---

**Folder Title:**  
8-26-95 WY - National Parks (Radio) [3]

Stack:	Row:	Section:	Shelf:	Position:
S	0	0	0	0



# United States Department of the Interior



OFFICE OF THE SECRETARY  
Washington, D.C. 20240

## FAX COVER PAGE

FAX NUMBER: 202/208-3231 or 202/208-5133

PHONE NUMBER: 202/208-6416 or 202/208-3171

TO:

Don BAER

AGENCY/FIRM:

PHONE:

FAX:

456-5709

FROM:

PAUL BLEDSIE

COMMENTS:

NAT'L PARK SERVICE part  
closure clips.

RB

There are 14 page(s) including this cover page.

OFFICE OF THE SECRETARY  
OFFICE OF COMMUNICATIONS  
1849 C STREET, N.W.  
WASHINGTON, D.C. 20240

Volume 18  
Issue 105

Weekend, May 25-28, 1995

FREE

# Jackson Hole Daily

## Babbitt: Budget means closure of national parks

Rockefeller Parkway targeted, Yellowstone could close in winter

By Angus M. Thurner Jr.  
Jackson Hole News

Secretary of the Interior Bruce Babbitt Thursday blasted a House budget resolution that would cut his agency's funding and force it to reduce the public's access to national parks.

The resolution for the fiscal year '96 budget "has draconian impacts for the West," Babbitt said in a telephone interview with selected Western reporters. The proposal would see a

36 percent reduction in National Park Service funding by 2002.

If enacted, it would force the closure of the Rockefeller National Parkway and limit tourism in Yellowstone — possibly closing the world's first national park in the winter.

"We simply cannot keep the public lands open and available if we are required to cut," Babbitt said. The

Continued on page 3

## Senate approves GOP balanced-budget plan

WASHINGTON (AP) — The Senate passed a milestone Republican plan Thursday that promises to halt three decades of budget deficits and change the face of government while leaving the door open for tax cuts.

budget-balancing outline, the Senate voted 57-42, mostly along party lines, to bring \$958 billion out of federal ledgers by 2002. The savings would be forged chiefly from Medicare, Medicaid and dozens of other benefits, and 181 agencies and

*Maureen -  
I am having difficulty tracing down the "Billings Gazette" article you requested. Here is a related article (2 pages) for your information and interest. I will keep searching. Thank You!*

*Stacy  
(307) 344-2013*

A television commercial records the "shapelier, rounder and firmer bottom" on a model wearing Blue's Best jeans during a press preview Thursday in New York. Denim company Sue Apparel Inc. introduced the blue jeans that are described as providing a "shapelier, rounder and firmer bottom" without padding. Sue Apparel Inc. is a... 15

**LOCAL**

**Babbitt**

*Continued from page 1*

Point will come in which we will have to be closing them for three months a year, six months a year or putting restrictions on visitor days."

The House resolution would cause the Park Service to close 200 of the smallest parks or monuments and reduce access to others, Babbitt said. Among the 200 smallest units are the Rockefeller National Parkway between Yellowstone and Grand Teton, Fossil Butte National Monument, Devil's Tower, Little Bighorn, Craters of the Moon, Fort Laramie, Arches, City of Rocks and Canyon de Chelly.

Babbitt said he would work to preserve the system. But the national treasures cannot be thrown open to wanton misuse.

"What we got to do is guarantee to protect the resource and provide a minimum level of public safety," he said. "Yellowstone is a nice example. You have millions of people up there interacting with the geysers, wildlife."

The "most likely scenario" would

first be the reduction of seasonal employees. "Pretty soon you have to limit visitors," Babbitt said.


The Park Service will say "You can't come in the summer, you have to come in the off-season."

Another alternative would be "to shut Yellowstone down in the winter," Babbitt said. "There are the kinds of choices."

"At some point that will have a real economic impact," Babbitt said of the effect on Jackson Hole and surrounding communities.

"This is not about budget austerity," he said. "Rather, the move reflects a broader, ideological shift against 25 years of environmental protections, and against Interior department agencies like the U.S. Fish and Wildlife Service which administers the Endangered Species Act."

"They are singling out these agencies for disproportionate cuts, knowing there's no support for a head-on dismantling of the National Park Service," he said. The House is saying "Just in case we miss the Endangered Species Act, we're coming at it from another direction — gutting the budget."




**BUFFALO MEATS**

Visit our Factory Sales Center  
 1 mile north of McCall, on Hwy 20  
 1000 on Hwy 20, 1000 on Hwy 20  
 For info call 1-800-343-3347 or 733-5143



**Teton 350**

A classic, durable, and sure mountaineering pack  
 73 1/2" General purpose from the West  
 1000 on Hwy 20, 1000 on Hwy 20  
 733-5143



MS MS MS MS MS

**MOUNTAIN CAMERA SUPPLY**

125 West Broadway - Arches, Utah, Phone - 733-7115



**LEE'S TEES**

125 West Broadway - Arches, Utah, Phone - 733-7115

**THE MOVIES**

**CINEMA**

7:00 & 9:30  
 CRIMSON TIDE

7:00 & 9:15  
 ALICE IN WONDERLAND

7:00 & 9:00  
 WHILE YOU WERE SLEEPING

7:00 & 9:15  
 FORGET PARIS

7:00 & 9:00  
 JOHNNY

## THREATENED FEDERAL PARKLANDS IN ARIZONA

Congress is considering putting the National Park Service budget and forming of a commission to recommend closure of some parks. There are 22 federal parklands in Arizona.

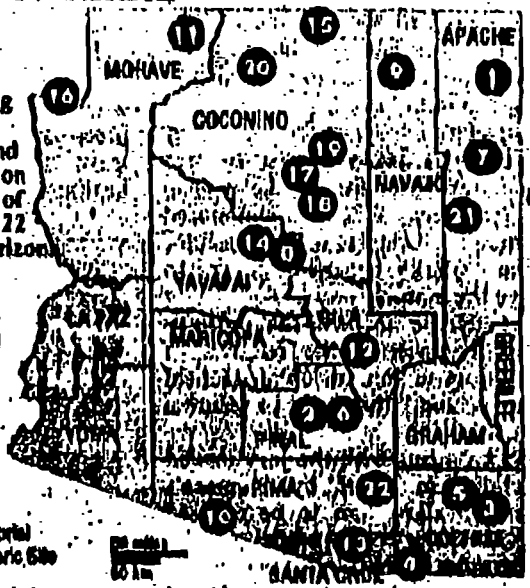
May be subject to closure because of federal budget cuts:

- 1 Canyon de Chelly National Monument
- 2 Casa Grande Ruins National Monument
- 3 Chiricahua National Monument
- 4 Coronado National Memorial
- 5 Fort Bowie National Historic Site
- 6 Hohokam Pima National Monument
- 7 Hubbell Trading Post National Historic Site
- 8 Montezuma Castle National Monument
- 9 Navajo National Monument
- 10 Organ Pipe Cactus National Monument
- 11 Pipe Spring National Monument
- 12 Toiyote National Monument
- 13 Tuzigoot National Monument
- 14 Tusigoot National Monument

- Subject to closure by the proposed National Park Review Commission:
- 15 Glen Canyon National Recreation Area
  - 16 Lake Mead National Recreation Area
  - 17 Sunset Crater National Monument
  - 18 Walnut Canyon National Monument
  - 19 Wupatki National Monument

- Exempt from closure:
- 20 Grand Canyon National Park
  - 21 Petrified Forest National Park
  - 22 Saguaro National Park

Source: National Park Service & National Parks and Conservation Association



# Famed Arizona sites on the chopping block

By Steve Yozwisk  
The Arizona Republic

As Texas tourist Phil McGraw gazed up at a 9-centuries-old adobe building once used to track the changing seasons, he mused on the future of Casa Grande Ruins National Monument.

Casa Grande and 13 other federal parks in the state may face the same fate as the Hohokam people who built the four-story structure.

The Hohokam disappeared, and there may come a time when some of Arizona's parklands no longer have federal protection.

Last week, National Park Service Director Roger Kennedy released a "hit list" of the 200 smallest sites in the 366-unit National Parks System that he said could be closed by a 10 percent budget cut proposed by Congress.

The proposal could mean closure of the parks, turning them over to the state for management or to private business owners.

The list includes some of Arizona's most well-known and revered

“  
Most of the places we've been lately have already cut back. They're already in a holding pattern as they are.

**PHIL MCGRAW**

TEXAS TOURIST WHO HAS VISITED SEVERAL NATIONAL PARKS

parks.

Casa Grande, Arizona's first federal park and the nation's first archaeological preserve, includes the adobe built by the Hohokam people. It once overlooked irrigation canals that flowed from the now dry Gila River. Windows in the structure may have allowed sunlight through the building at different times of the year, telling the people when to plant and when to harvest their crops.

McGraw, of Lake Jackson, Texas, has visited many parks across the

— See TIMES, page A8

85

# Famous Arizona parks are on the chopping block

— FAMOUS from page A1

nation and sadly noted the deteriorating condition of some of them.

"Most of the places we've been lately have already cut back," McGraw said. "They're already in a holding pattern as they are."

"I don't think it should be abandoned," he said of the monument southeast of Phoenix that is visited annually by 180,000 people.

Other Arizona parks that could lose federal funding are Canyon de Chelly National Monument, one of the most photographed pueblo ruins in the Southwest; Pipe Spring, site of a fort built by Mormon pioneers; and Coronado National Memorial, site of the first exploration of Arizona by European settlers.

Chinicahua National Monument, a collection of bizarre rock formations near a favorite hiking area for backpackers, also may be in for a change.

The proposal would exempt the nation's 54 largest parks, including Grand Canyon, Petrified Forest and Saguaro national parks in Arizona.

During a visit to Rocky Mountain National Park last month, Interior Secretary Bruce Babbitt called congressional budget proposals a "sneak attack" against the national parks. Babbitt said the real agenda is to auction off the parks to timber, mining and other development interests.

In addition to funding cuts, Congress is moving ahead on plans to form a National Park Review Commission. The proposal to form the commission has been approved by a key committee in the House but has yet to pass Congress. If the commission is formed, it will consider cutting funding to five parks in Arizona.

Critics liken it to another congressional commission that resulted in the recent closure of military bases nationwide.

Some Western Republicans said that Babbitt is trying to play politics and that the Republican-controlled

## National parks are worth the money, Americans say

By Steve Yezwisk  
The Arizona Republic

Most Americans think national parks are worth the tax money it takes to support them, with some people willing to pay higher entrance fees, a recent survey said.

When asked to rate the amount of federal tax dollars spent on national parks, only about 6 percent said the money was "too much," according to a national survey of 943 people conducted by Colorado State University.

Taxpayers pay more than \$1 billion a year toward national parks.

Two-thirds of the respondents said funding is "about right," but nearly a third said that, if anything, "not enough" is being spent on parks.

"The same (political) leaders who say we can't afford so many parks have failed even to consider new park revenues," said Paul Pritchard, president of the National Parks and Conservation Association, an advocacy group that commissioned the survey.

Pritchard said that if the park service were allowed to develop its own fee structure and if conees-

stonaires contributed more, \$100 million would be raised annually.

That is about the same amount as the budget cuts being proposed by Congress that Interior Secretary Bruce Babbitt said could close nearly 200 of the nation's smallest federal parklands.

Some Republican members of Congress believe Babbitt is using scare tactics. Congress is taking a look at the cuts in its efforts to balance the budget.

The survey also showed that nearly four out of five people favor increasing entrance fees, if the money would be spent on park improvements and protection.

Park fees now are collected by the Treasury Department and rarely are returned to the parks.

In addition, three out of four respondents said they would support a \$1 checkoff on their federal income-tax returns to help fund the National Park System.

The survey was conducted by telephone in early February by the CSU College of Natural Resources. Its margin of error is plus or minus 3 percentage points.

Congress is just trying to make the park system more efficient.

Rep. John Shadegg, R-Ariz., said he doubts many parks would be closed. The comparison to the base-closure commission is unfair, he said, because the park review board's recommendations require specific action by Congress before any parklands would be closed.

"There's nothing automatic," said

Shadegg, who was joined by another freshman Arizona Republican, Rep. J.D. Hayworth, in voting to set up the commission.

Shadegg said the parks review is no different from a bipartisan measure that passed the House last year by a unanimous vote. He said the measure would try to establish which areas don't warrant being a park and see which could be turned over to the

# Park chief: Cuts would mean loss of revenue

SCOTT McMILLION  
Chronicle Staff Writer

Cutting 10 percent of Yellowstone National Park's budget will mean shorter tourist seasons, locked gates and closed campgrounds and lodges, park superintendent Michael Finley says.

It also means mountain passes won't be plowed, emergency services will suffer and potholes will go unattended, Finley said in a report to his supervisor in Denver.



Finley

Plus, the \$2.4 million in cuts would mean losing almost two dollars in revenue for every dollar saved. A partial shutdown of services also could break contracts with park concessioners, possibly requiring an additional \$10 million payment to them.

"It is ironic that the reductions in services, closures, and other costs savings actions will actually result in more revenue being lost than the proposed cuts would save," Finley wrote in a May 25 memo to the field director of the Inter-mountain area.

Committees in both houses of Congress have asked for a 10 percent cut in the National Park Service budget and parks nationwide are looking at ways to make cuts, according to Jean Anselmo, the park service's spokeswoman in Washington D.C.

The request applies to the budget year beginning in October and other cuts may be coming, she added.

In Yellowstone, the Park Service is "pretty much at the limit now of what we can accomplish" with its existing budget, according to spokeswoman Martha Karle.

Karle stressed that none of the cuts are final at this point. They are only suggestions in response to a congressional request, she said, and

(More on Park cuts, page 8)

OPTIONAL FORM NO. 7-89

FAX TRANSMITTAL

# of pages = 3

To: Elaine Seiry	From: Mollieen
Dept: Agency	Phone #
Fax # Please Deliver	Copy
NEN 7540-01-317-738 508 101 GENERAL SERVICES ADMINISTRATION	

## Park cuts/ from page 1

all none or some of them may be implemented. Finley's memo spelled out the following possibilities.

- Close facilities at Canyon Village, saving \$424,000, eliminating 280 campsites, 607 rooms and other facilities.
- Close facilities at Grant Village, saving \$412,000, eliminating 403 campsites and 296 rooms and other facilities.
- Close facilities at Madison, saving \$298,000, eliminating 292 campsites and recreational programs.
- Close facilities at Norris, saving \$110,000, eliminating geyser basin access and museums.
- Shorten winter and summer seasons by locking some park gates, saving \$335,000 in the summer and \$51,000 in the winter.
- Stop plowing Beartooth Pass, saving \$35,000 and delaying opening of that road until July 15.
- Stop plowing Dunraven pass, saving \$10,000.

- Cut the wolf program in half, saving \$140,000.
  - Reduce road crews, saving \$100,000, but allowing roads to deteriorate further.
  - Reduce trail crews, saving \$100,000 but possibly closing some trails.
  - Cut staff travel, saving \$150,000.
  - Cut educational programs, don't replace vehicles as quickly, and reduce grizzly bear, fisheries, geothermal monitoring and exotic weed programs.
- Payroll is the park's biggest expense, Karle said, and most of the cuts would result from not hiring seasonal workers or extending seasonal layoffs for other people. Some of the work now done by seasonal people would be done by permanent employees, she said, but many trails would go undone.
- A spokesman for Sen. Conrad Burns, R-Mont., today said Finley's memo may be part of a general bureaucratic overreaction to congressional efforts to limit spending.

25

8A

THE DENVER POST

# Many U.S. parks facing closure

By Gannon Howe Sheldon

WASHINGTON — Republican budget cuts could close scores of small national parks, from the Massachussetts battlefield to Mount Rushmore, and slash seasonal visitation to such national treasures as Yellowstone and Grand Canyon, Interior Secretary Bruce Babbitt said yesterday.

"These cuts cannot be carried out if we are to have a national park system as we know it," Babbitt told the Senate Appropriations panel that oversees the Department of Interior.

Stepping up his rhetoric on the perils of still-uncertain Republican plans to balance the federal budget in seven years, Babbitt warned senators that he already has chopped 3,000 of 7,600 Interior jobs he plans to eliminate this year. But he said there's no way his department can make deeper

## Babbitt fights GOP cutback plan

cuts without vaporizing services and facilities that many Americans see as their birthright.

Senior Senate Republicans downplayed Babbitt's warning, telling him he should eliminate other Interior functions and curtail still others to make up the estimated \$1.6 billion in budget cuts. Senate Budget Committee chairman Pete Domenici, R-N.M., called Babbitt's comments premature, since the House and Senate have yet to agree on how much the administration must pare in order to meet the balanced-budget goal.

Sen. Blode (Iowa), R-Wash., chairman of the appropriations subcommittee, also said the panel may direct Babbitt to spare the national parks

from the brunt of the cuts while digging deeper into such areas as protecting endangered species.

Babbitt insisted he doesn't want to be the first Interior secretary to close the gates on a national park, and he said he's opposed to shutting down such urban parks and memorials as Baltimore's Fort McHenry or Washington's Ford's Theater.

But his options are clearly limited. Funding is cut \$100 million this year and then from 1998 through 2002, as the Senate Budget Committee recommends, closing parks would become one of the few ways to make up what would be a \$311 million shortfall by 2002.

If the government cut the parks

from the bottom, eliminating the least expensive ones first, it would have to close 200 of its 300 units. That includes some little-known and sparsely visited facilities such as California's Devils Postpile National Monument and the Kalapappan National Historical Park, the Hansen's disease (leprosy) colony on Hawaii's Molokai Island.

But it also includes Mount Rushmore, Appomattox Court House and Carvers of the Moon National Monument.

Moreover, Babbitt is leaving open the possibility of sparing some of those smaller units by drastically cutting services at the big parks. On the table is a possible summer closing of the Everglades and winter closings of Grand Canyon's North Rim and Yellowstone.

Denver Post  
6/7/95

*Oregonian*  
5/26/95

A18

4M

NATION

# Babbitt slams proposed cuts, says that they threaten parks

**■ The U.S. Geological Survey and the Fish and Wildlife Service face deep staffing cuts; some wildlife refuges will close**

By JAMES LONG  
of The Oregonian staff

Interior Secretary Bruce Babbitt vilified Republican spending proposals Thursday as an "undercover assault on the environment" that would cripple national parks and advance a conservative agenda of selling off public lands.

He said he might have to close Mount Rushmore and 197 smaller national parks, monuments and historical sites if Congress passes the spending cuts.

"This is ideology masquerading as a budget," Babbitt told Western states newspaper reporters.

Babbitt lashed out at a House budget resolution that would shrink the Interior Department by a third in the next five years.

The House passed the resolution last month, and the Senate passed its own plan this week. Both congressional chambers are under Republican control.

Babbitt's list of threatened closures includes Oregon's John Day Fossil Beds and the Oregon Caves National Monument.

"Some congressional Republicans have proposed selling federal property to help balance the budget. But they don't as hypocrite the accusations of Democrats that the Grand Canyon could end up in private hands.

The House budget would reduce the Interior Department's spending by nearly 17 percent next year —

then freeze it for the next five years for an effective reduction that Babbitt estimated at 23 percent.

The former Arizona governor termed the proposal "radical." Besides Mount Rushmore and the Oregon sites, Babbitt's closure list includes the Fort Vancouver National Historic Site, Appomattox Courthouse — site of the surrender of the Confederacy to end the Civil War — and George Washington's birthplace in Virginia.

Except for three that cost nothing, the cost of maintaining each of the National Park Service sites ranges from \$25,000 to \$1.5 million a year.

Babbitt said other options include closing six large parks, renegotiating concession leases and turning over some of his department's functions to the states.

"The National Park Service will have no choice but to pull rangers off the landscape, close many parks and limit access to others" if the cuts become law, Babbitt said.

The secretary said the budget would abolish the National Biological Service and its 1,600 wildlife scientists, and reduce by one-third the U.S. Geological Survey and its cadre of earthquake and water quality experts.

Another major casualty, he said, would be the Fish and Wildlife Service. "Forty-five national wildlife refuges will be closed to the public or mothballed with no active conservation management," he said.

He also warned that the Bureau of Land Management would have to reduce recreational access to public land, while the Office of Surface Mining would lose much of its ability to prevent violations such as acid mine drainage into watersheds.

Al Hanricks, superintendent of

Crocker Lake National Park, said Thursday that it was premature to speculate about the impact on Oregon's only national park.

"I don't want to make dire predictions based on a proposal that is just that — a proposal," he said.

Oregon also is home to 16 federal wildlife refuges, ranging from large popular birding areas such as the Malheur and Klamath national wildlife refuges in the high desert to a series of small Willamette Valley preserves set up to protect migrating waterfowl.

Susan Saul, a spokeswoman for the U.S. Fish and Wildlife Service in Portland, said the agency was exploring cost-saving alternatives but had not decided which refuges to close in the event of deep budget cuts.

"We are anticipating budget will remain static or take real cuts in the future," Saul said. "We are looking at alternative scenarios about how our we get home when we are already here."

The National Biological Service, the Interior Department's research arm, was created two years ago in an efficiency move to house its various life scientists under one administrative roof.

"It's one-stop shopping for science," said Michael Colopy, director of the Forest and Rangeland Ecosystem Research Center in Corvallis.

There, 20 scientists specialize in forest and range management. Their \$6.5 million budget pays for about 70 wildlife studies, ranging from the northern spotted owl and marbled murrelet to the impact of forest fragmentation on wildlife.

Brian Meehan of The Oregonian contributed to this report.

# GOP uses spending bills to

The Coloradoan, Monday, July 17, 1995, NATION/WORLD, A5

## reshape environmental policy

By H. JOSEF HEBERT  
The Associated Press

WASHINGTON — From endangered species protection to easing standards for drinking water, the Republican-led Congress is using its power of the purse to refashion the nation's environmental protection policies.

Spending bills moving through the House were stocked with riders that directly affect the way the federal government will implement laws to protect the environment.

The effect, critics said, is essentially to rewrite the nation's environmental agenda without a full, public debate on the laws.

"It's a sneak attack," said Interior Secretary Bruce Babbitt, whose department has been the subject of numerous directives through the appropriations process from how it implements the

Endangered Species Act to the size of its public relations office.

"It's a tremendously cynical approach to public service," he added. "They are basically sitting down in back rooms with the lobbyists and conspiring to find ways to avoid having any debate."

A spending bill moving toward House approval, for example, would curtail the Environmental Protection Agency's budget by almost a third and cut its enforcement program by \$130 million.

Agency officials said violations by some polluters would no longer be pursued. The agency would also be prohibited from pressing pending regulations on toxic releases from cement kilns and certain incinerators.

The measure would scrap rules on pollution from automobiles and industrial plants, and scale back a public information program on

### Environment

toxic emissions from factories.

Restrictions in a House spending bill would "effectively create a moratorium on the Clean Water Act," said EPA Administrator Carol Browner. One House provision would forbid the EPA from using money to require pretreatment of sewage or to protect wetlands.

"What you see when you look at the whole picture is an organized, concerted effort to undermine public health and safety and the environment," Browner said.

Congress' power of the purse has never before been used this broadly to affect environmental protection programs, said Rep. Gorry Studts, D-Mass.

Rep. Bob Livingston, R-La.,

PAEN = NEED TO  
SEND THIS TO BAER, too.

chairman of the Appropriations Committee, said he isn't happy about all the policy riders either, but explained that his party is reacting after having been out of power for decades in the House.

"You've got to understand there are a lot of hungry Republicans here who want to resolve immediate issues," he said.

Babbitt said there's no better example of Republicans using the power of the purse to affect policy than in the controversy over Southern California's Mojave Desert.

Last year, the Democratic Congress, after years of trying, set aside a vast part of the Mojave as a protected preserve under the National Park Service. Now the House, at the insistence of Rep. Jerry Lewis, R-Calif., a staunch opponent of the desert protection bill, has moved to block the land's

transfer to the park agency. It stripped away all but \$1 for the preserve's management.

Various money bills moving through Congress would also:

- Ban new listings of endangered species and curtail sharply the Interior Department's research and preliminary work related to species protection.

- Make it easier to build roadways in national parks and wilderness areas, open national forests to increased logging and freeze most land purchases for parks.

- Sharply cut money for research programs to protect the Pacific salmon and various ocean fisheries protection programs.

- Prohibit or curtail scientific research and surveys of species. Federal officials would be banned from going on private land to make ecological surveys.

- Limit the ability of the government to declare wetlands, and require property owners to be compensated for lost land values as a result of wetlands protection.

Appropriators also dramatically curtailed Energy Department conservation programs and cut funding for federal programs to deal with the prospects of global warming. The GOP's seven-year budget envisions opening the Arctic National Wildlife Refuge in Alaska to drilling for oil.

"Every economic interest that makes a living exploiting the public lands is lined up because their friends are in power," said Brock Evans, legislative director of the National Audubon Society.

"We're seeing one environmental statute after another being gutted, repealed or strangled through this process," said Karl Gawell of the Wilderness Society.

Serving Flagstaff and northern Arizona since 1883

June 6, 1995

# Canyon faces deep cuts

## But other parks would shut down

by LUKAS VELUSH  
a Staff Reporter

If proposed National Park Service budget cuts go through, some Grand Canyon visitors will be denied the chance to use West Rim Drive, take day hikes to the canyon's lower regions, visit the north rim, set up camp or ride a mule. If they can get in at all, that is. The park will make restrictions all

around if it feels the chop of Congress' budget cleaver, which may hack 10 percent from the funding Grand Canyon National Park currently receives.

Gary Cummins, deputy park superintendent, said the park may also be forced to adopt a reservation system and shut its gates to about a half million of its nearly 5 million annual visitors if an across-the-board 10 percent National Park Service budget cut becomes reality.

In that scenario, the canyon would be one of the luckier Park Service entities. Interior Secretary Bruce Babbitt says 200 of agen-

cy's smallest parks, monuments and historical sites would be shut down to pay for the proposed budget cuts. That's more than half of the 360 areas the Park Service manages.

Both the U.S. House of Representatives and the Senate have passed bills ordering a 10 percent Park Service budget cut, and the legislation is now in the hands of a joint conference committee to reconcile the differences.

"The park needs more resources, not less, to properly serve the 5 million people who visit the park each year," said Sen. John McCain, R-Ariz., in a statement issued today.

"Visitors pay for the park's operation through their entrance fees," McCain said. "It would be grossly unfair to the park, to visitors and to Arizona for that money to be diverted for other purposes, particularly when the needs at the Grand Canyon are so great."

Lisa Jackson, a spokeswoman from the office of Rep. Bob Shump, R-Ariz., said the Park Service budget cuts are far from final.

She said it is still early in the budgeting process as the two houses still have to reach a consensus.

See DREP, Page 5

61

# Don't Give Sagamore Hill a Rough Ride

A classic bureaucratic response to threatened budget cuts is an impassioned warning that they will force the bureaucracy to curtail its most vital or popular services. In Washington this is sometimes called the close-the-Lincoln-Memorial syndrome. The Long Island version might be shut down Sagamore Hill.

Theodore Roosevelt's delightful family retreat in Cove Neck is on a list of 188 sites the National Park Service says could be closed in seven years unless Congress relents on its budget-balancing plans.

Trust us, that's a fantasy. The hit list includes Mount Rushmore, Appomattox Court

House (where Lee surrendered to Grant) and Little Bighorn (where Custer made his last stand). Nobody's going to close them down.

But the reality is bad enough. Sagamore Hill, the first Summer White House, is looking at a 10-percent budget reduction this year, and a freeze after that -- effectively an endless series of further cuts because of inflation.

A Friends of Sagamore Hill group is being organized to help raise private funds, and they're badly needed. Even more essential is a Congress that won't sacrifice access to the nation's finest historic sites and scenic grandeur on the altar of a balanced budget.

---

NEWSDAY, TUESDAY, JUNE 8, 1995

---

55

DENVER POST 6/6/95

# Romer: Possible closure of 7 parks in Colo. 'dumb'

By Kit Miniclier  
Denver Post Staff Writer

Gov. Roy Romer and several local officials expressed disbelief and outrage yesterday at word the National Park Service is considering closing as many as seven park units in Colorado because of possible congressional budget cuts.

"This is a grave mistake. This is just a dumb, dumb thing for the federal government to be thinking about," Romer said. "This is our land. We ought not to be kept from using it. We ought to be condemned as a government if we can't find an efficient, cost-effective way to get people on national lands."

Colorado park sites facing closure:

- Black Canyon of the Gunnison National Monument, near Montrose.
- Great Sand Dunes National Monument, in the San Luis Valley.
- Colorado National Monument,

near Grand Junction.

- Bent's Old Fort National Monument, near La Junta.

- Florissant Fossil Beds National Monument, west of Colorado Springs.

- Hovenweep and Yucca House national monuments, near Cortez.

Romer said that if the federal government needs partners to keep park sites open, it "should come up with a creative proposal and get local and regional support."

There already are agreements that give the state a roll in managing certain federal parklands, including the Arkansas Headwaters Recreational Area and Mount Evans. Together the seven Colorado sites attract nearly 1.6 million visitors annually and local communities rely heavily on their dollars to keep local businesses alive.

Both houses of Congress have ap-

---

Please see PARKS on 5B

# Romer: Possible closure of parks is 'dumb, dumb'

PARKS from Page 18

proved resolutions calling for an initial 10 percent cut in the National Park Service annual budget and what amounts to a cumulative decrease of 40 percent over the next seven years, according to the watchdog National Parks and Conservation Association. The congressional Joint Appropriations Committee is expected to consider the cuts next week.

If enacted, some park facilities would be closed to the public or access would be limited until an alternative management system could be found, said Destry Jarvis of the Park Service's Washington office.

Agency officials say they are considering shutting down the 150 least-visited park service facilities, or the 200 with the smallest budgets.

Is such talk just a scare tactic?

"I don't think so. The truth of the matter is that the Park Service is faced with some pretty draconian budget cuts and it is hard to imagine not having to close some parks," said spokesman Kathy Westra of the conservation association.

"This Congress has been very busy with negative parks legislation and failed to even hold hearings on reforming concession and park entrance fees," steps that would have brought in additional revenue, added Westra. Private concessionaires that run park hotels and other tourist facilities pay the government under a negotiated fee system.

Instead of cutting parks while Colorado's population is growing, the government should be adding parks, said both Romer and Laurie Mathews, di-

rector of Colorado State Parks.

"Those treasures need to stay in the federal system and Congress needs to give the (Park Service) the ability to charge reasonable amounts of money and keep the money within the park," said Mathews, whose 40 state parks pay 70 percent of their own way through fee collections.

A 10 percent cut in the park operations budget of \$1.1 billion would be about \$108 million, equal to the total operating budgets of the Park Service's 152 least visited units. Four Colorado facilities are on that list, and all seven Colorado sites being considered for closure are among the 200 with the smallest annual budgets.

"I think the community of Montrose would be outraged if they close the Black Canyon," said Montrose Mayor Pro Tem Tom Cheney. "It is one of the things which makes us a destination rather than just a space in the road.

Last year, more than 214,000 people visited the monument, which features a narrow, sheer-walled gorge on the Gunnison River.

"We would try to do anything possible" to keep Great Sand Dunes open, said Alamosa Manager Michael Hackett, noting that the expanse of sand hills attracts more than 312,000 tourists annually.

Nearly 900,000 people a year visit Colorado National Monument to enjoy its spectacular red cliffs and spires.

"If the feds abandon it, the local community would try to adopt it in some way to assure its continued operation," said Mark Achen, city manager of nearby Grand Junction.

THE PRESIDENT'S CRIME PREVENTION COUNCIL  
736 JACKSON PLACE, NW  
WASHINGTON, D.C. 20503

(202) 395-5555

fax (202) 395-5567

Karen Pittman, Director

DATE: 8/22/95

NUMBER OF PAGES INCLUDING COVER: 3

FROM: Shirley Panetta

TO: Jerry Edmunds

COMPANY: \_\_\_\_\_

FAX NUMBER: \_\_\_\_\_

OFFICE NUMBER: \_\_\_\_\_

MESSAGE: more info re base  
re use -

*JP*

Sylvia -

This was in the Sunday (30 July) Examiner. This provides a little more detail on the issue I alerted you to last week.

Fred.

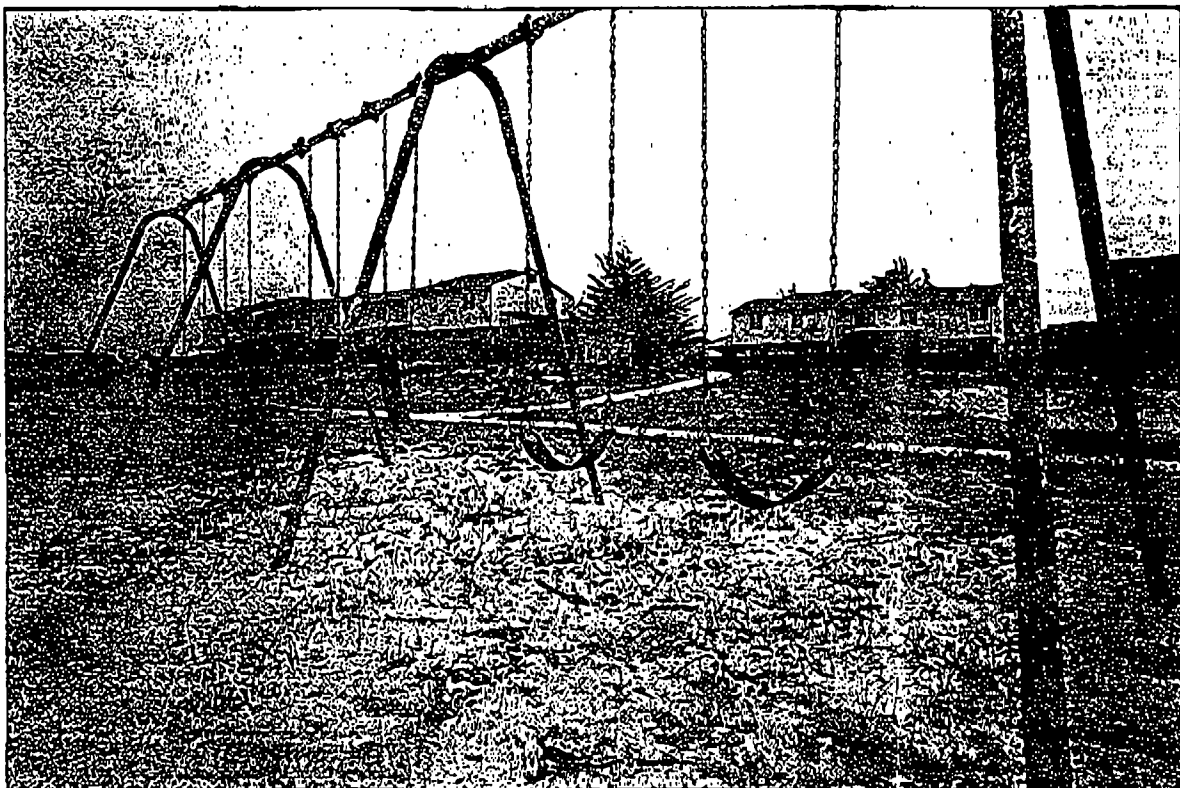
SAN FRANCISCO EXAMINER

A Division of the San Francisco Public Examiner and Chronicle

# • STATE •

'YOU'VE GOT PROPERTY OUT THERE DECLINING 20 TO 25 PERCENT A YEAR.'

- Les White, executive director of the Reuse Agency



Rusted playground equipment on the Fort Ord Army base sits in a weed-strewn field.

EXAMINER PHOTOS BY RUST ROGERS



EXAMINER PHOTOS BY ALBERT ROOSENS

Grassed playground equipment on the Fort Ord Army base rusts in a wind-stream field.

# Going to seed

## Two years after the last families left Fort Ord, base housing is falling apart

By Eric Basil  
OF THE EXAMINER STAFF

**PORT ORD** — When President Clinton visits this closed Army base on Labor Day, he'll witness a problem that has the military and the city of Marina seriously worried: 1,327 vacant, next-to-now homes, falling apart fast.

"We're very apprehensive about that deterioration," said Jim Volovks, mayor of Marina, which includes 3,100 acres of Fort Ord within its limits. "We don't want to have that happen at all, and we're not going to let it happen."

Nevertheless, two years after soldiers and their families left the post, their boarded-up townhouses are mildewing inside, shingles are blowing off roofs, windows are broken. Manicured lawns and landscaped neighborhood parks have reverted to sand and weeds. Unused playground equipment rusts in the damp ocean breeze.

Although Fort Ord has been designated a base-closure model by the Department of Defense, both the military and civilians have had a tough time figuring how to salvage that housing, equal to about 25 percent of Marina's housing stock. It is also a cautionary tale for the Bay Area, Sacramento, Orange County and other areas with surplus military housing.

"Sometimes we wonder what the Army has been doing for the last three years," said Dick Goblirsch, housing and economic development director for Marina, population 32,000. "They act like it's brand new to them."

### Putting renters on the front lines

Despite Army skepticism, Marina and the Fort Ord Reuse Agency have begun an ambitious plan to put renters in the empty houses early next year.

"You've got property out there declining 20 to 25 percent a year, and if we gave six months when we start occupying, then we've halted 5 to 10 percent of the deterioration," said Les White, executive director of the Reuse Agency, a public corporation.

The subdivisions, called Preston and Abrams parks, were constructed in the 1970s and '80s amid Fort Ord's scrub oak, sagebrush and sand dunes, during a Defense Department building boom.

For communities dealing with base closures, the Fort Ord situation is an example, although the Army says no other closed base has as much vacant housing.

San Francisco has to

figure out what to do with 804 units of Treasure Island housing now occupied by Navy personnel, who will vacate in 1997. Because it's expensive to make the housing earthquake-safe, Mayor Jordan's Citizens Base Re-Use Committee may recommend demolition.

Marina, the Army and the Fort Ord Reuse Agency are all painfully aware that allowing the two-, three- and four-bedroom units to fall into disuse would be an embarrassing waste of publicly funded assets and a potentially long-term social problem.

Conveying title to Marina could take two years, maybe more. Marina and the Reuse Agency want to temporarily lease homes to keep them from going further downhill.

"We don't really anticipate that all the units will be rented out, but we're trying to get enough people in there to be able to patrol the area, to have a presence," said Goblirsch.

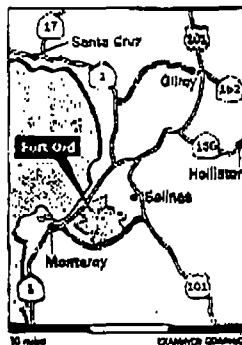
He hopes the leasing program could be ready to go in six months.

Marina officials say the city's future is tied to the military housing. It could provide homes for workers in industries Marina aims to attract. The prices could be among the lowest on the Monterey Peninsula: \$100,000 to \$175,000.

"The prices are low enough that people can live close to the ocean, and they'll get a lot of value for their money," said Mayer Volovks.

Army is deluged with closures

But the Army and the Department of Defense have little enthusiasm for the leasing plan, partly because it



would slow the transfer of title, said Col. Ila Metes-McCubben, garrison commander of the Pacific of Monterey and what used to be Fort Ord.

Metes-McCubben is dealing with a base closure of vast complexity, with 72 separate properties on 44,000 acres. It involves all the cities in Monterey County and the county itself, plus the Reuse Agency and other public agencies such as the Bureau of Land Management.

Goblirsch acknowledged that the Army was "deluged with base closures, and Congress gave them no staff to handle it," but his mandate is to keep the houses from falling apart.

When Clinton visits the base, attention will focus on California State University-Monterey Bay, where

classes begin Aug. 28. The Army's swift transfer of 1,365 acres, plus school buildings and 1,250 units of duplex and apartment housing to the school was a landmark of government efficiency.

But the obstacles in readying the Preston and Abrams parks for conveyance to Marina, with no glamorous, high-profile tenants waiting eagerly in the wings, are far more challenging.

Goblirsch estimates that renovation costs could run as high as \$30,000 per unit. Residences must meet the state building code. They need water and gas meters, sound walls and insulation. The Army has to clear up a toxic ground-water "plume" underlying both areas.

"We need to crystallize this in two to three months," said Reuse Agency executive director White. "This base is going downhill fairly quickly, and we won't have the money to do it perfectly, but if we get the titles involved in maintenance, that will help."



Housing on Fort Ord, some of it nearly new townhouses, equals about 25 percent of the total housing stock of Marina. The Reuse Agency and Marina have begun plans to put renters in the empty houses.

NATIONAL PARK SERVICE  
 YELLOWSTONE NATIONAL PARK  
 WYOMING 82190

DATE: August 21, 1995 FAX # 307-344-5709

TO: Kristen White House Research Dept.

FROM: Martha Kieckhefer, Chief Public Affairs

SUBJECT: Yellowstone Info

TOTAL # OF PAGES INCLUDING THE COVER SHEET 16

MESSAGE

*Kristen Following is info on Yellowstone. We will also be sending several issue papers shortly that might be of interest.*

DEPARTMENT OF THE INTERIOR  
 307-344-2015

IF THERE IS A PROBLEM, PLEASE CALL (307) 344-2013  
 Facsimile Machine No.: (307) 344-2014

A BRIEF HISTORY OF YELLOWSTONE NATIONAL PARK  
BY AUBREY L. HAINES, PARK HISTORIAN

In the truest sense, the history of this park covers only a little more than 150 years, for our written record had its origin in the vague information Indians gave explorers as Lewis and Clark were toiling up the Missouri River on their journey across the continent.

And yet, men had lived on the Yellowstone Plateau for a very long time. A projectile point unearthed a few miles from Park headquarters indicates that Indians may have hunted where the town of Gardiner, Montana, now stands as much as 5,000 years ago. The finding of ancient campsites and stone articles at many points within the area of the park, and in the mountains and valleys around it, hints strongly that men have lived here for most of the 8,500 years since the last ice age.

At the opening of the historic period, the only Indians making their home in the park area were the "Sheepeaters" (whose name indicates their staple food, not their tribe). They were a mixed group of Shoshone and Bannock Indians who lacked the horses and guns necessary to compete with their neighbors, and had retreated into the mountains to live furtive impoverished lives, even by Indian standards.

John Colter, a fur trapper, appears to have been the first white man to see this land of hot springs and geysers. He probably passed through it during the winter of 1807-08, while searching for Indian customers for a trading post established by Manuel Lisa, lower down the Yellowstone River. The fur trade flourished briefly in the Rocky Mountains, bringing such men as Jim Bridger, Joe Meek, Daniel Potts, Osborne Russell and Warren Angus Ferris into the area which is now Yellowstone Park; but a growing scarcity of fine furs, coupled with changes in fashion, brought the fur trade to an end about 1840. The trapper disappeared from the Yellowstone Plateau, leaving it nearly-forgotten wilderness.

The discovery of gold in neighboring Montana a little more than twenty years later, brought exploring parties of miners to the upper Yellowstone country in 1863. In the years that followed, mining activity established a chain of rude settlements and isolated claims up the Yellowstone and Lamar Rivers to the headwaters of the Clark's fork River. Some of the knowledge which had been a commonplace to the fur trappers was rediscovered and interest in the geyser regions was rekindled.

In 1869, a different type of exploration, based on curiosity rather than profit, was begun. The first group to come into the Yellowstone country for the sole purpose of seeing what it contained was the Folsom-Cook-Peterson party, and the information brought back led to a more thorough exploration by the Washburn-Langford-Doane party in the following year. The writing and lecturing done by members of this second expedition resulted in an official exploration by the United States Geological Survey of the Territories in 1871. From that came a recognition of the superlative nature of the Yellowstone "wonder", and the Congress of the United States was persuaded to set aside a vast area of 2.2 million acres as The Yellowstone National Park, established March 1, 1872.

The new park was placed in the care of a superintendent, who was left without funds for its maintenance and without laws for its protection; hence he could not accomplish what they expected of him. The four superintendents who followed him were likewise incapable of adequately developing and protecting the park, so that the job of managing it for the nation was given, at last, to the United States Army.

From 1886 until 1917, that trust was ably handled. The necessary public works were completed by officers of the Corps of Engineers, while soldiers stationed at key points brought respect for law and order with the assistance of hardy scouts. Thirty-two years of brusque but fair administration had so far corrected the early abuses that civilian management could again be tried.

A new organization, the National Park Service, was authorized by Congress on August 26, 1916. Under it, the park was administered by a superintendent, assisted by a corps of rangers, who had the powers of civilian policemen. The new form of management has proven satisfactory through the intervening years to the present, allowing the Yellowstone National Park to serve the people of this nation as an unrivaled vacation land; a place where they may see some of nature's grandest works, do some wholesome, refreshing things, and go away with their spirits lifted and their viewpoints broadened. The proof that it has been a worthwhile venture lies in the marvelous growth of the National Park System in this country, and its influence throughout the world.

In 1972, Yellowstone and Grand Teton National Parks hosted the Second World Conference on National Parks. In 1976, Yellowstone was designated a U.S. Biosphere Reserve, and in 1978, a World Heritage Site, emphasizing the park's evolving significance as a natural phenomenon and as a cultural heritage.

## OLD FAITHFUL INN

The first hotel built at the Upper Geyser Basin was erected in 1885; a plain, uninviting, frame structure. It burned in 1894 and was not replaced immediately because the law prohibited placing a building within one-fourth mile of an object of interest in the park. The old hotel had been illegally placed closer to Old Faithful Geyser than that, but a new one would have to comply with the law. The Yellowstone Park Association, then hotel concessioners felt this would be too far from Old Faithful for the convenience of their guests. The law was changed in 1894 to permit construction up to one-eighth mile from an object of interest.

In 1902 a young architect, Robert C. Reamer, was selected to design and build the new hotel. Construction was begun in 1903, continued through the long, cold winter, and was completed before the park opened in 1904. The primary building materials were native to the area. All the logs and twisted supports were gathered locally, the stone, including the 500 tons required for the fireplace, was quarried from a hill about five miles from the site, on the road to West Thumb. The original building contained 140 rooms and was described as the largest log hotel in existence.

The Inn was designed to harmonize with its environment in both style and scope. It does not face Old Faithful, as might be expected, but is placed so that guests have a direct view of the geyser as they draw up to the entrance. The entrance doors are made of split logs and hand-wrought hardware. The central lobby is 64 feet square and rises to 85 feet at the ridge. Dormer windows light the soaring ceiling. This use of dormer windows became a trademark of Mr. Reamer's later designs. Four overhanging balconies descend the walls. The massive, rough-stone fireplace is actually four fireplaces combined into one structure. The clock on the front of the fireplace, the copper light fixtures under the balconies, and all other hardware used in the building were designed by Mr. Reamer and wrought by a blacksmith on the site.

The wings of the Inn were also designed by Mr. Reamer and added 230 rooms to the original structure. The east wing was built in 1913 and the west wing in 1928. The automatic sprinkler system was installed throughout the building in 1948.

In winter temperatures at Old Faithful Inn may reach 60 degrees below zero and snow may drift 20 feet deep around the building. Each autumn it is prepared to withstand this onslaught. Wooden shutters are placed over the lower windows to prevent breakage from the pressure of the snow and extra roof supports are added to withstand its weight. All water, steam, and drain pipes are disconnected and blown out with air to prevent freezing. A winter keeper is assigned to care for the building. One of his duties is to remove snow from the roofs when it becomes excessive.

The summer staff arrives in early May and soon the Inn is ready to receive guests. Approximately 90,000 park visitors stay here each season.

You are indeed a welcome guest at this renowned Inn. We invite you to extend your stay - and visit with us often.

## PRESIDENTS WHO HAVE VISITED YELLOWSTONE NATIONAL PARK

### While In Office:

Chester A. Arthur (1881-85) -----	August 1883
Theodore Roosevelt (1901-09) -----	April 1903
Warren G. Harding (1921-23) -----	June 1923
Calvin Coolidge (1923-29) -----	August 1927
Franklin D. Roosevelt (1933-45) ---	September 1937
Gerald Ford (1973-77) -----	August 1976
Jimmy Carter (1977-81) -----	August 1978
George Bush (1989-93) -----	June 1989

### While Not In Office:

Theodore Roosevelt -----	1886, 1890, 1891
Benjamin Harrison (1889-93) -----	August 1881
Herbert Hoover (1929-33) -----	1936, 1938, 1939, 1941 and possibly other years
Jimmy Carter -----	August 1993



# United States Department of the Interior



## NATIONAL PARK SERVICE

Yellowstone National Park  
Wyoming 82190

IN REPLY REFER TO:

F30(YELL)

May 25, 1995

### Memorandum

To: Field Director, Intermountain Area

From: Superintendent, Yellowstone National Park

Subject: 10% budget reduction impacts

Enclosed for your review are the actions that we propose to take at Yellowstone National Park in order to meet our anticipated funding reductions. It should be noted that our \$2.4 million dollar reduction includes a 10% reduction which equates to \$1.95 million, plus \$450,000 pay and inflation factors for the total figure of \$2.4 million.

It is ironic that the reductions in services, closures, and other costs savings actions will actually result in more revenue being lost than the proposed cuts would save.

In summary, a budget reduction of \$2.4 million will result in the following lost revenue and, most notably, increased financial obligations: (estimates)

1. Lost collection revenue	
a. shortened shoulder seasons	\$1,311,500
b. lost campground revenue	120,500
c. Norris closure	85,000
	<u>\$1,517,000</u>
2. Concessions	
a. loss of concessions revenue to U.S.	
1. Grant Village	\$1,000,000
2. Canyon Village	1,300,000
3. Lost aid to National Park System from reduced sales at Cooperating Associations outlets, minimum.	\$ 250,000
<b>Total lost revenue to the U.S.</b>	<b>\$4,067,000</b>

#### 4. Increased Financial obligations

Existing concession contracts  
(Hamilton Stores) would require  
compensation to the concessioner  
for facilities closed at Canyon  
and Grant Village--compensation  
for possessory interest.

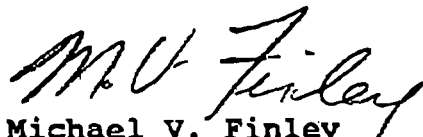
\$10,000,000

- #### 5. Impacts to local and regional economy (example just Maintenance)
- a. loss of jobs in park maintenance  
(60 reduced work schedules)
  - b. 65 terminations

These losses would increase unemployment costs and result in loss  
of training and continuity of workforce.

In summary, in order to save \$2.4 million, we would lose  
\$4,067,000 in potential revenue due the United States. In  
addition, we would incur a one time cost of \$10,000,000 to buy  
out the possessory interest from our concessioner.

Moreover, there is no way to reduce park operations of this  
magnitude without compromising visitor safety and increasing the  
potential tort liability of the U.S. While I understand the need  
to reduce federal expenditures, it doesn't make sense to target  
parks and park operations where more money is generated to the  
Treasury than is lost. Saving one dollar to lose two dollars in  
revenue doesn't make sense.

  
Michael V. Finley

Enclosure

**EFFECT OF REDUCTION ON OPERATIONS**

**Rocky Mountain Region  
Yellowstone National Park**

<u>Area</u>	<u>Proposed Action</u>	<u>Impacts</u>	<u>(\$000) FY 1995</u>	<u>(\$000) FY 1996</u>	<u>(\$000) Savings</u>
<b>Parkwide</b>					
	Shorten Winter Season (3rd wknd in Dec. through President's Day wknd)	Major socio/economic to surrounding communities, increased crowding/ congestion in park areas, reduced opportunity for visitor enjoyment of park features, increased response time for emergency services, increased waits for food, gas, and other services. Reduced concession revenues, loss of fee revenue to Treasury. Impacts on outfitters and concession operations.	51,000		51,000
	Shorten Summer Season (June 15-Sept. 15)	Same as above. Additionally, loss of 850K in fees to Treasury in shoulder seasons. Impacts on outfitters and concession operations.	335,000		335,000
	Reduce Fisheries Program 30% (No work outside Yell Lake)	No stream monitoring, loss of continuous data on Grayling and fisheries diseases resulting in damage to Yellowstone fisheries.	45,000		45,000
	Reduce Grizzly Bear Management (Seasonals)	Loss of continuous data on bear statistics necessary to support delisting.	14,000		14,000
	Reduce Geothermal Operations (Seasonals)	Loss of scientific monitoring.	8,000		8,000
	Reduce Exotic Weed Control	Loss of native species and increase in exotic plants.	10,000		10,000
<b>Yellowstone Center for Resources</b>	Increase furloughs for six (STF) people for 12 pay periods.	Delayed planning/publications documents including six-year soil survey.	30,000		30,000

**EFFECT OF REDUCTION ON OPERATIONS**

**ROCKY MOUNTAIN Region  
YELLOWSTONE NATIONAL PARK**

<u>Area</u>	<u>Proposed Action</u>	<u>Impacts</u>	<u>(\$000) FY 1995</u>	<u>(\$000) FY 1996</u>	<u>(\$000) Savings</u>
<b>Beartooth Pass</b>	Open July 15 through Labor Day	Loss of visitor access/experience to the GYA, impact USFS campground opening dates, resulting in lost fees, reduced access for hunting, socio-economic impacts on communities.	35,000		35,000
<b>Dunraven Pass</b>	Do not open area	Loss of visitor access/experience to park, increased traffic congestion on other road corridors.	10,000		10,000
<b>Canyon</b>	Do not open area. (this includes VC, campground, housing, all concession facilities.)	Significant loss of facilities for visitor use, i.e. 280 campsites, 2 stores, 607 lodging units, 2086 beds, 72 nights, VC, gas station, and access to Grand Canyon of the Yellowstone River. Loss of concession revenues of 1.3 mil to U.S.	424,000		424,000
<b>Madison</b>	Do not open area (this includes VC, campground housing, etc.)	Busiest corridor in winter, second busiest in summer, loss of 292 campsites and elimination of all naturalists walks/talks/roving.	298,000		298,000
<b>Horris</b>	Do not open area (this includes VC, campground, housing, etc.)	No geyser basin access, loss of 116 campsites, 2 museums closed including Museum of National Park Ranger. Loss of fees to Treasury.	110,000		110,000
<b>Grant Village</b>	Do not open area (this includes VC, campground, housing, concession facilities)	Loss of 403 campsites, 296 lodging units, 1184 beds, 109 nights, gas station, 2 stores, 2 VCs. Loss of concession revenues of 1 mil to U.S.	412,000		412,000

**EFFECT OF REDUCTION ON OPERATIONS**

**ROCKY MOUNTAIN Region  
YELLOWSTONE NATIONAL PARK**

<u>Area</u>	<u>Proposed Action</u>	<u>Impacts</u>	<u>(\$000) FY 1995</u>	<u>(\$000) FY 1996</u>	<u>(\$000) Savings</u>
Parkwide	Wolf Reduction 50% (No more Canadian Wolves)	Limits our ability to meet commitment to surrounding states, and properly manage wolves, i.e., fewer monitoring flights, etc.			140,000
Parkwide	Reduce Road Crews	Accelerated deterioration of NEW roads due to lack of maintenance and little or no maintenance on remaining OLD roads.	100,000		100,000
Parkwide	Cut EE Program	Loss of residential program which denies local/regional children educational opportunities. Eliminates day-use programs to gateway communities.	12,500		12,500
Parkwide	Cut travel by 50%	Minimize opportunity for training, reduce coordination with other agencies, limits ability to keep up with technological advances, reduces communication within GYA.	150,000		150,000
Parkwide	Reduce Trail Crew operations	Resource impacts including damage to trails through lack of maintenance; may cause closure of trails which would impact outfitters.	100,000		100,000
Parkwide (Administration)	a. Increase efficiency in purchasing.	Additional burden placed on Supervisory staff, vendors not paid promptly.	25,000		25,000
	b. Delay replacement of emergency service vehicles.	Increased maintenance costs, breakdowns.	110,000		110,000
	c. Terminate some planning processes. (i.e. PB Campground Replacement EIS)				
<b>Total</b>					<b>2,419,500</b>

# Environmentalists prod Clinton on parks

By Paul Bedard  
THE WASHINGTON TIMES

JACKSON HOLE, Wyo. — Environmental groups, armed with polls showing President Clinton can't win re-election without a repeat victory in most Western states, are urging him to battle threats to parkland that they say are being orchestrated by the GOP and corporations.

But Mr. Clinton, whose popularity in the region is at an all-time low because of policies seen here as anti-West, isn't eager to stir up a dispute that will only draw more attention to such decisions as proposed grazing-fee increases or even the reintroduction of wolves to Yellowstone National Park.

For example, while Mr. Clinton plans to tour Yellowstone Park on Friday and speak out against GOP cuts in funding for parks and environmental protection, he is expected to snub environmentalists who want him to fly over a proposed gold-mine site nearby that foes claim will pollute its streams.

"If he did that, people would ask, 'If you want to avoid prob-

lems, why are you being so public [on the mine project]?' It's a flash point," said James King, an associate professor of political science at the University of Wyoming.

Mr. King said the president must walk a middle road and take pains to woo rural Westerners, and not just environmentalists, if he is to do well here. But, he added: "I don't think Clinton can turn his image of a liberal president conducting a war on the West."

White House officials hope that Mr. Clinton's 17-day vacation here will show his affection for the area and give him a few chances to speak out on generally popular Western issues, such as fighting Republican efforts to cut funding for the Park Service and environmental protection.

He already has been seen sporting a cowboy hat and other Western wear. Yesterday he hiked in Grand Teton National Park with first lady Hillary Rodham Clinton and daughter Chelsea.

The trip comes as the White House wants to bolster Mr. Clinton's political standing that dropped when he proposed — and then withdrew — increased graz-

ing fees, challenged a 123-year-old mining law, banned some assault weapons and signed a budget bill that allows new timber harvesting.

With each move, he appeared to anger rural Westerners and environmentalists alike. "People here feel policies are being made by people who don't understand life in the West," Mr. King said.

In Wyoming, the president's popularity is at a dismal 22 percent. He won eight of 13 Western states in 1992, due largely to the independent candidacy of Ross Perot, who did well in the region. But unless Mr. Clinton's image is rehabilitated, aides fear he is not likely to win more than three Western states in 1996 — possibly California, Washington and Oregon.

That's where environmentalists hope they can play a role. They claim that if Mr. Clinton can re-establish his environmentalist roots, he can collect enough liberal votes here to win re-election.

"The administration's record on Western issues is mixed. He now has an opportunity to show environmental leadership," said Randy Showstack, of American Rivers, the nation's leading river-

conservation organization.

He said Mr. Clinton can redeem himself with environmentalists by opposing a Canadian firm's proposal to mine for gold, copper and silver on Henderson Mountain, 2 1/2 miles from the northeast corner of Yellowstone.

In a June meeting in Billings, Mont., Mr. Clinton expressed concern about the New World Mine and a plan to store mining waste in fortified pools.

The pools would be built in a wetland now occupied by Fisher Creek, which flows into a larger river that reaches into Yellowstone. Fisher Creek would be diverted around waste ponds where mining tailings would be stored.

Despite the request for high-level inspection, however, officials said that while he will visit the park Friday to commemorate National Park Day, he isn't scheduled to fly over the mine.

In fact, an administrative policy paper on the mine, owned by Crown Butte Mines, Inc., a Montana firm owned by a web of Canadian corporations, calls for monitoring tougher regulations rather than outright opposition.

## Westerners set for fight over grazing

### Babbitt imposes tough new rules

By Valerie Richardson  
THE WASHINGTON TIMES

DENVER — The ranchers who flocked here for last week's meeting of the American Sheep Industry Association had more on their minds than wool.

Many were less worried about the wolves on the range than the predators in Washington. When voters ushered in a posse of land-use conservatives in November, many ranchers were elated, hoping Congress would rein in Interior Secretary Bruce Babbitt's unfriendly rangeland agenda.

Unfortunately for the ranchers, Mr. Babbitt has proved much more adept at playing defense than he was at offense. Blocked by Western senators from passing his pro-green rangeland program two years ago, the secretary plans to enact today a series of grazing restrictions via administrative fiat.

Western Republicans, unable to persuade Mr. Babbitt to delay the move, have vowed to pass a 90-day moratorium on the administrative rules as soon as Congress reconvenes. A coalition of ranching interests, including the sheep association, have filed suit in U.S. District Court in Cheyenne, Wyo., to stop Mr. Babbitt.

For the nation's 29,000 cattle and sheep ranchers, the dispute means another year of being caught up in the struggle between

Congress and the Clinton administration over how to administer millions of acres of public land. "It's depressing," said Truman Julian, director of the National Public Lands Coalition and a southwest Wyoming sheep rancher.

"We're trying to resolve this issue so we can get on with our lives," he continued. "We're right back in politics as usual. We're a political football, and depending on who's at Interior, we get kicked."

Like most Western ranchers, Mr. Julian favors the proposed Livestock Grazing Act, a package sponsored by Sen. Pete Domenici, New Mexico Republican, and Rep. Wes Cooley, Oregon Republican. The proposal would raise grazing fees from \$1.60 per animal-unit month to \$2.10 and allow ranchers greater autonomy on public land used primarily for grazing.

The Babbitt regulations omit fee increases but toughen environmental restrictions and give non-ranchers greater voice over public lands through newly constituted Resource Advisory Councils. Ranchers say the new rules would put as many as 20 percent of them out of business as a result of the more onerous regulations.

Republicans are confident they can send the bill to the White House. Unfortunately for them, the administration is almost certain to veto the measure in its current form, particularly with the Babbitt plan in place.

And Washington isn't the only trouble spot.

In the West, environmental groups have undercut support for

the grazing act with a public information campaign, including anti-grazing radio ads in Mr. Domenici's home state of New Mexico. The senator is using the recess to bolster statewide public opinion for the measure, say aides.

Environmentalists also appear to have scored a key victory in winning over recreation groups. In their literature, green groups say the Republican proposal would close public land for hiking, fishing and hunting in favor of ranching.

"For the 907 million visitors that use forests and rangeland each year, the impact could be severe," said Fran Hunt of the Wilderness Society in a mailing.

Republicans say the bill does nothing to exclude non-ranchers from enjoying public lands. "It specifically points out that multiple use is still the rule of the land," said Domenici spokesman Chris Gallegos. "Recreationists may be wary, but if those groups take time to read the bill, I think they'll walk away confident that nothing will impinge on their right to hunt, fish and hike."

Western lawmakers have also accused the Interior Department's Bureau of Land Management of violating federal law by lobbying against the Domenici-Cooley bill. Sen. Craig Thomas, Wyoming Republican, has launched an investigation into allegations that the department has instructed its rangers to praise the Babbitt rules at the expense of the GOP proposal among recreationalists.

The Washington Times  
MONDAY, AUGUST 21, 1995

PHOTOCOPY  
PRESERVATION

# Advertisers call tobacco proposal a virtual ban

By Karen Riley  
THE WASHINGTON TIMES

A1

The cigarette ad of the future will be a white page full of black type that reads: "Marlboro Cigarettes — A Nicotine-Delivery Device."

Gone will be the colorful Kool clocks marking the time in gas station minimarts and curbside Camel signs promising gas, coffee, cigarettes and newspapers. Gone too will be the Marlboro signs on shopping baskets at the nation's 7-Elevens. And, countryside barns will have to paint over signs for Red Man chewing tobacco.

"They want the ads to become invisible," complains Daniel Jaffe, executive vice president of the Association of National Advertisers lambasting the Food and Drug Ad-

see TOBACCO, page A18

From page A1

ministration's sweeping new rules released last week aimed at curbing teen-age smoking.

"The government has now become the copywriter and the ad director for tobacco advertising. They can speak through your ads, but you can't. It's a very substantial step in a free society," Mr. Jaffe said.

After a week of examining the fine print of the new cigarette and smokeless tobacco rules, advertisers say the FDA proposal is potentially even more damaging than they first thought.

Industry officials say that a closer look at the regulations shows that advertisers would be limited to using only ads that either no one will notice or companies won't want to run.

"We think this whole thing is a complete tobacco ban," scoffed John Fithian, a lawyer with the Washington firm of Patton Boggs who is representing the nation's six major advertising associations

in a lawsuit to block the new rule.

For convenience stores, race tracks, farmers and others who agree to carry cigarette advertising, the FDA rule also means lost fees, such as the \$10 a month RJR Nabisco Inc. pays minimarts to display its Camel tank-top promotion.

"My folks are going to be under the gun. Cigarettes are profitable. They do much more promotion than soft drinks," said Jim Daskal, counsel for the Service Station Dealers of America and Allied Trades in Lanham.

Since the federal government prohibited cigarette advertising on television and radio in 1970, cigarette advertising and promotional spending has grown from \$361 million to \$6 billion, according to the Federal Trade Commission.

FDA Commissioner David Kessler said at a Georgetown University seminar Wednesday that his proposals are intended to "dramatically change" the public landscape, where cigarette advertising is ubiquitous.

"Listen to the words of one 18-year-old, and I quote: 'I figure if it's really so bad for you, they won't be selling it everywhere. I mean, you walk into the Stop-and-Go and there's a whole wall of them right up front at the cash register.'"

The proposed regulation would outright forbid caps and T-shirts and other paraphernalia bearing cigarette logos, ban cigarette sponsorship of sporting events, and prohibit all cigarette advertising on billboards or other outdoor displays within 1,000 feet of a playground or school.

Although the distance may seem short, some industry officials did a quick survey of one big city — Detroit — and found that there are few locations that would qualify for a cigarette billboard.

Experts who have examined the rule say that buses and taxis could also be barred from carrying cigarette ads on placards because they invariably pass in front of schools during any day.

Under the proposed rule, the FDA would allow limited advertising in magazines and newspapers, on posters and store placards, and on other outdoor displays away from schools, provided they include the added language "Cigarettes — A Nicotine-Delivery Device."

The agency's rules for print advertising are twofold. Ads appearing in magazines read by teens can be black-and-white text only — no pictures, no color.

Ads in teen magazines must also carry a special health statement in addition to the surgeon general's warning, such as "About one out of three kids who become smokers will die from their smoking." The FDA has begun testing these warnings with teen focus groups.

Publications that are read by adults are free to continue to run traditional ads. But to do so, they must provide the FDA with market data proving that no more than 2 million children read the publication or that at least 85 percent of its readers are adults.

"There's just huge confusion" about how to comply with the rule because there's scant information on teen readership, said a major magazine publisher.

The FDA rule says magazines must count readers, not subscribers. "How does the magazine count the teen who has access to Daddy's magazine at home or to a magazine available at any school or public library?" asks Mr. Fithian.

The upshot: Most major publications that currently carry tobacco ads, such as Sports Illustrated or Rolling Stone, will be restricted to the plain vanilla ads.

The rule would also limit in-store placards, billboards away from schools and direct mail (even if the mailing list is drawn from the seniors magazine Modern Maturity) to the black-and-white text-only format.

And the FDA is talking about writing other rules as well. It is reviewing whether to require ads to carry "contraindications" — those lengthy lists of potential side effects and other medical data it now requires for all prescription drug advertising. And it also wants to take over the Federal Trade Commission's jurisdiction over ad claims so in the future it could review claims made in ad copy aimed only at adults.

# GRAND TETON NATIONAL PARK



DATE: 8-21-95 TIME: 12:02 ROCKY MTN. DAYLIGHT

TO: KRISTEN

FAX NUMBER: (202) 456-5709

FROM: BILL SWIFT - GRAND TETON NATIONAL PARK

SUBJECT: ATTACHED GENERAL INFO

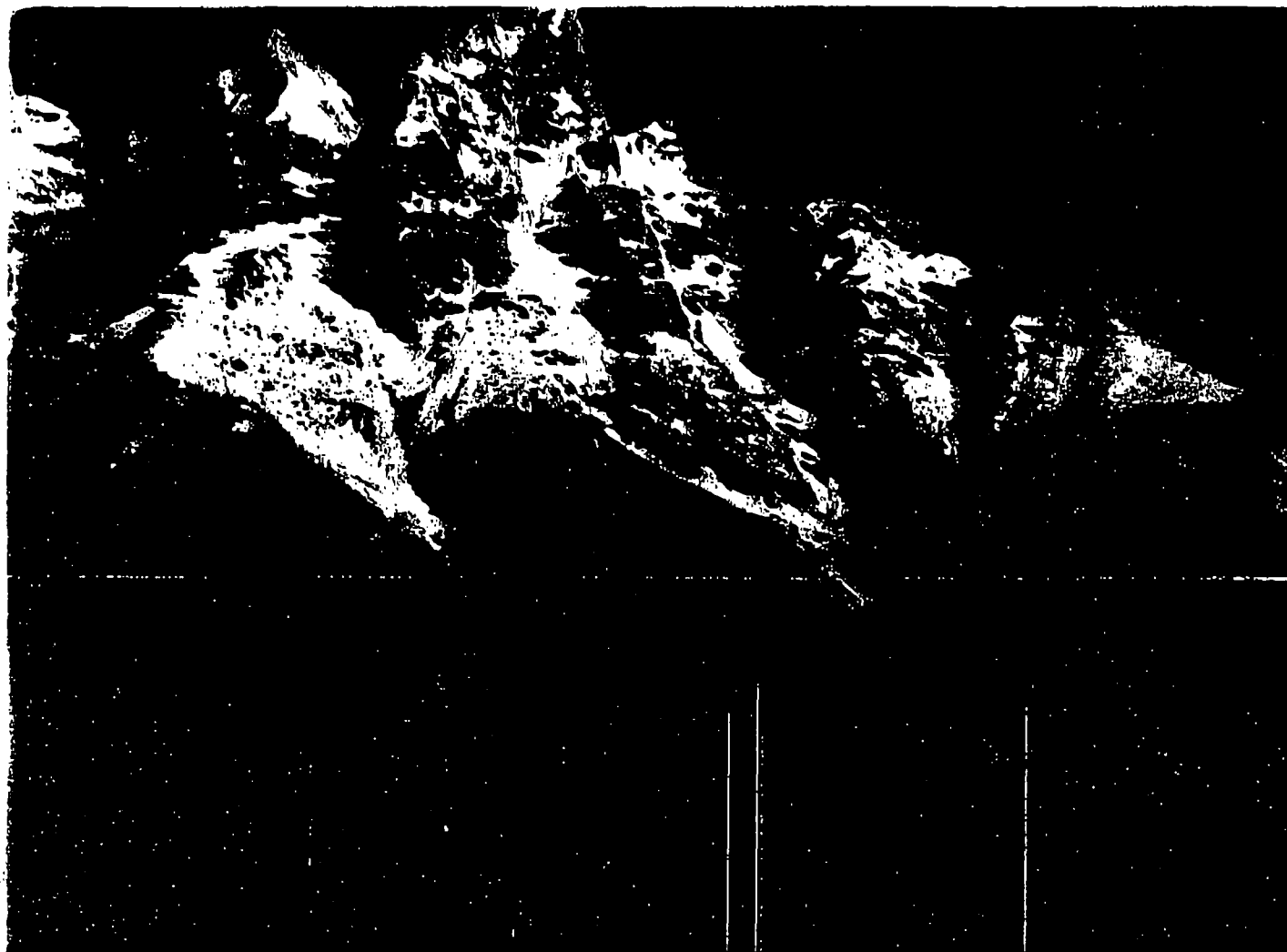
NUMBER OF PAGES TO FOLLOW: 34

SPECIAL INSTRUCTIONS: MANY PAGES ARE COMBINATION PAGES FROM 8 1/2" x 14"

THIS FAX WAS SENT BY: Bill Swift

**SHOULD RETRANSMISSION BE NECESSARY:  
PLEASE CALL SENDER OR  
TERI LINDEBURG  
307-739-3437**

**TO REPLY BY TELEFAX:  
307-739-3438**



Deery photo by Franz Camenzind

Towering more than a mile above the valley known as Jackson Hole, the Grand Teton rises to 13,770 feet above sea level. Twelve Teton peaks

reach above 12,000 feet elevation, high enough to support a dozen mountain glaciers. In contrast to the abrupt eastern face, the west side of the range

slopes gently, showing the angle of tilt of this rectangular block of the Earth's crust. Youngest of the mountains in the Rocky Mountain system,

the Teton Range displays some of North America's oldest rocks.

Photo above by Pat O'Hara



The geologic forces and natural systems that interact to produce inspiring scenery also nurture a remarkable diversity of animals. Despite a short growing season, the Greater Yellowstone Ecosystem supports the largest elk herd remaining in the world. Nearly 3,000 summer in Grand Teton. A small herd of buffalo also summers in the park and winters on the National Elk Refuge. Moose meander beside canyon streams during warm weather but seek protection from frigid winds in valley bottomlands. Seldom seen black bears, and an occasional grizzly, forage in canyons and woodlands to store body fat for winter sleep.

Bald eagles and ospreys fish and nest along the Snake River. Several eagles endure the cold months. Each spring great blue herons return to their rookeries. Trumpeter swans, the largest North American waterfowl, build sizable pond-level nests; when ice prevails they depend on warm springs in the region. Beavers dam streams to create ponds that benefit Canada geese, mallards, cinnamon teal, and a multitude of summer and migratory waterfowl.

The Greater Yellowstone Ecosystem, which includes the Teton Range and Jackson Hole, remains as the largest essentially intact natural area in the contiguous United States. Evergreen forests and wild rivers abound. Elk, buffalo, bears, eagles, and swans that once thrived nationwide now survive on this island of land. They exemplify the spectacular wilderness that

Nearly 3,000 elk summer in the park. Free ranging and migratory, elk spend all summer gaining weight to sustain them through the coming winter. Snow

triggers migration to the National Elk Refuge immediately south of the park. Fall migratory herds sometimes number 200 or more.

season. Meadows of scarlet gills, balsamroot, lupine, larkspur, and wild buckwheat bloom in multiple com-

## History

People entered Jackson Hole an estimated 12,000 years ago. Archeological evidence indicates that small groups hunted and gathered plants in the valley from 5,000 to 600 years before the present. During historic times no one tribe claimed ownership to Jackson Hole, but Blackfoot, Crow, Gros Ventre, Shoshone, and other Native Americans living on surrounding lands used this neutral valley during the warm months. Severe winters prevented year-round habitation.

John Colter allegedly was the first white man in the valley, entering in the winter of 1807-1808. Mountain



Pierce Cunningham reached near Spread Creek about 1889. He circulated a petition in 1925 among local land owners asking Wyoming or the Federal Government to set the valley aside "for the education and enjoyment of the Nation as a whole." A self-guiding trail explores the Cunningham Cabin Historic Site.

**Camping**

Camping is permitted in 5 park campgrounds; fee charged. All except Jenny Lake (tents only) accommodate trailers, RVs, and tents. Campgrounds operate first-come, first-served. Advance reservations are not accepted. Backcountry camping is permitted only in designated areas. A permit is required for all overnight trips.

**Water Safety**

Floating the Snake River within the park is allowed only in hand-propelled boats and rafts, but never in inner tubes. Each craft must be registered yearly at the Moose or Colter Bay Visitor Centers. Although the Snake may not seem powerful on the surface, only experienced floaters should attempt this swift, cold river.

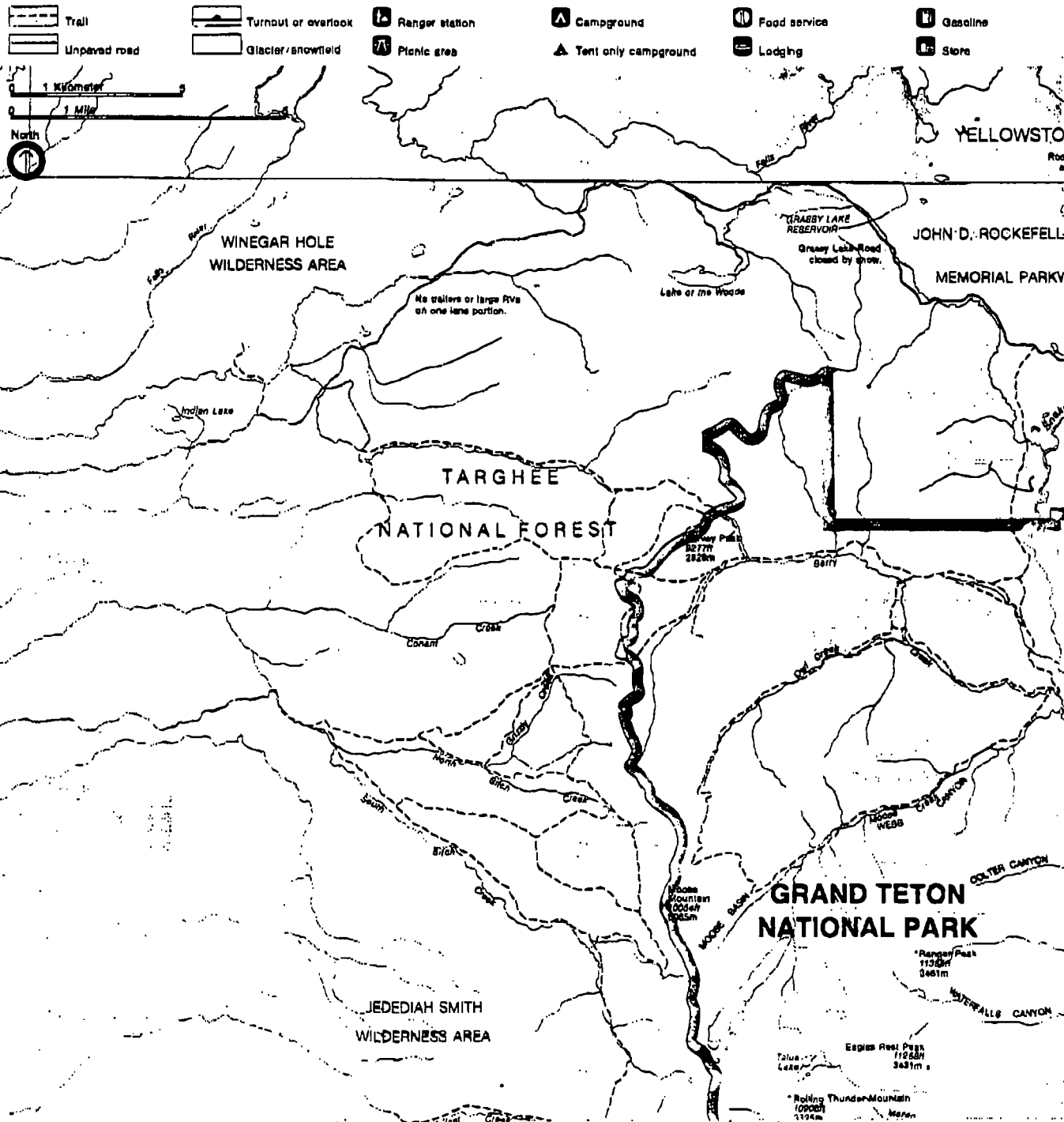
Motorboats are permitted on Jackson, Jenny (7 1/2 h.p. limit), and Phelps Lakes. Hand-propelled craft are permitted on Jackson, Jenny, Phelps, Emma Matilda, Two Ocean, Taggart, Bradley, Bearpaw, Leigh, and String Lakes. Sailing, windsurfing, and jet and water skiing are allowed only on Jackson Lake. Permits required for all craft.

Swimming in park waters is generally a cold experience. Shallow areas of Jackson, String, and Leigh lakes have reasonable water temperatures during July and August, but there are no swimming areas with lifeguards. Swimming in the Snake River is not recommended.

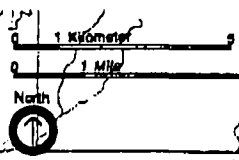
Water in all streams and lakes, although clear and cool, should not be drunk unless properly treated. Untreated water may contain *Giardia*, *Campylobacter*, and other harmful organisms. These can cause severe gastrointestinal distress. Before being used, untreated water must be brought to a boil to kill harmful organisms.

**Wildlife and Wildflow**

Feeding wildlife is prohibited. Animals in the park are part of complex and protected natural systems. Let animals find natural foods. Ground squirrels can carry diseases and should never be touched. Larger animals are quick, powerful and unpredictable. Approaching too closely can result in serious injury.



- Trail
- Unpaved road
- Turnout or overlook
- Glacier/snowfield
- Ranger station
- Picnic area
- Campground
- Tent only campground
- Food service
- Lodging
- Gasoline
- Store

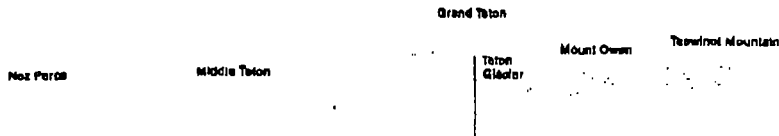
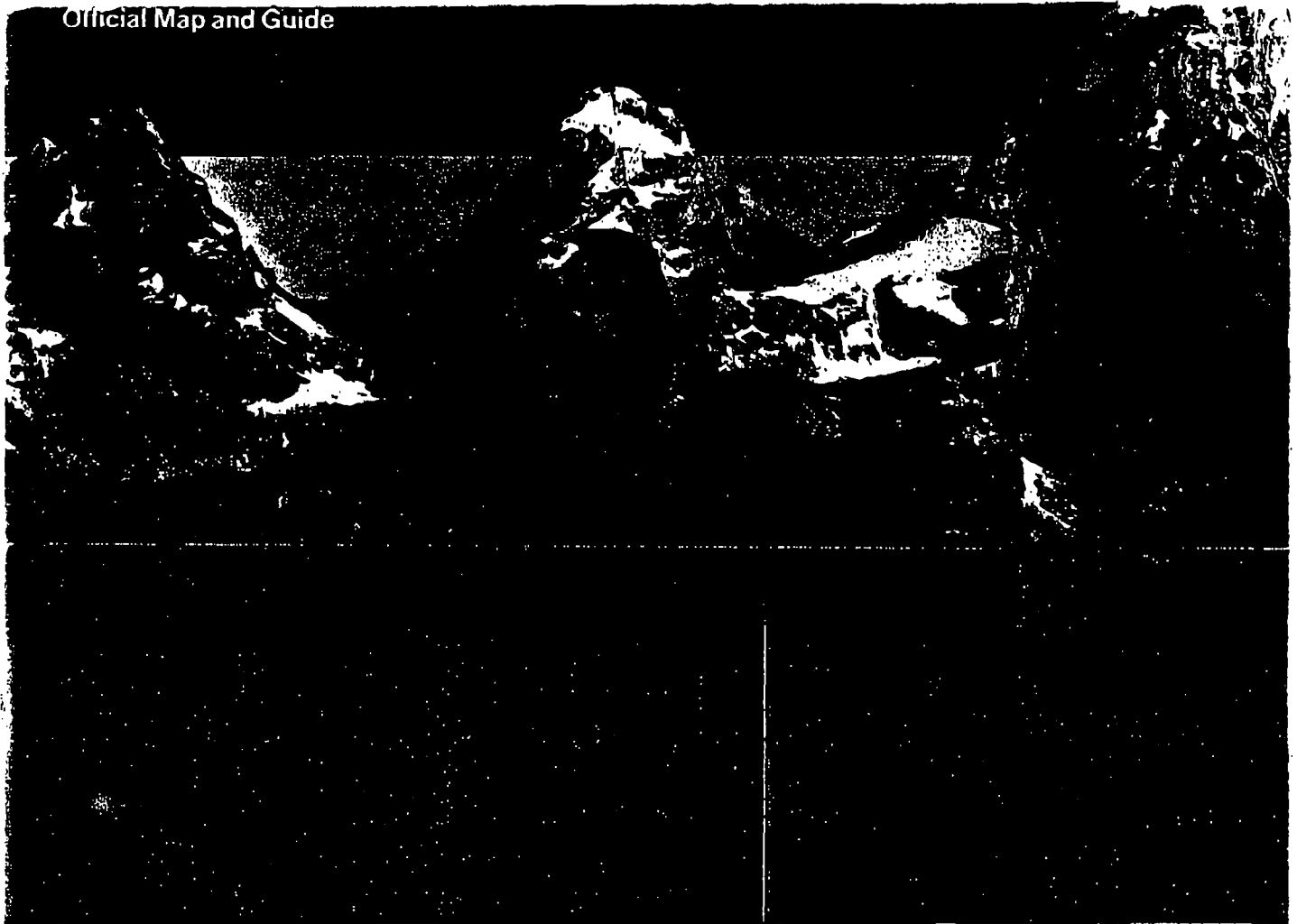


YELLOWSTONE  
 JOHN D. ROCKEFELLER  
 MEMORIAL PARK

TARGHEE  
 NATIONAL FOREST

GRAND TETON  
 NATIONAL PARK

Official Map and Guide



**Interspersed Range**

Rocky Mountain scenery offers dramatic vistas but few more impressive than the Teton skyline. As the Teton Range rose through sporadic earthquake-producing jolts, the valley called Jackson Hole subsided. Because of the way the mountains formed, no foothills hide jagged peaks and broad canyons. At the base of the range, large lakes mirror the mountains on calm summer days, doubling their prominence.

During the immense span of time before the mountains' rise, vast seas repeatedly advanced and retreated, leaving behind a thick, nearly flat blanket of sedimentary rock layers. Between 60 and 70 million years ago ancestral mountains rose here as a broad, northwest-trending arch, and the last seas retreated eastward. Jackson Hole east of the arch became the site of enormous sheets of gravel interspersed with thick volcanic ash, lava, and freshwater lake sediments. Enormous tensional faults fractured these formations, and 9 million years ago today's Teton Range started rising. Broken sedimentary layers of ancient sandstone, shale, dolomite, and limestone still cap each end and the west side of the range. The sandstone remnant atop Mount Moran, over 6,000 feet above the valley, once connected to the same sandstone layer that now lies an estimated 24,000 feet below the valley floor block resulting from the faulting process that created these mountains.

In addition to this great displacement along the Teton

**Glacial Shaping**

Over a comparatively short span of time, mountain glaciers of the last major glacial period shaped the Teton skyline more than any other erosional force. At upper elevations, where the most snow accumulated, the heads of the glaciers scooped out depressions, and frost wedging augmented their quarrying action. Sheer cirque walls, rugged ridges, and jagged peaks reflect the slow, dynamic carving by these great masses of moving ice.

Rocks of all sizes, falling onto and plucked by these moving glaciers, increased their grinding power. The flanks of the range display scoured canyons that dive toward the valley. Upon leaving confining canyons, the larger glaciers spread onto the valley floor, while melting at a speed equal to their flow. An immense volume of unsorted rock, transported and dumped by these glaciers in a conveyor-belt action, formed natural dams. These now encompass lakes called Leigh, Jenny, Taggart, Bradley, and Phelps. Similarly a lobe of the extensive Yellowstone snowcap extended southward as a broad glacier that deposited rock as moraine ridges, damming meltwater to create Jackson Lake.

South of Jackson Lake, torrential meltwaters spread cobbles and gravels to form broad terraces. Additions of loess (wind-deposited silt) helped to form fair soils, but rainfall percolates rapidly through the underlying

**Snake River**

The Snake River originates in the wilderness near the south boundary of Yellowstone and meanders into Jackson Lake. The Snake River flows out of the lake through Jackson Lake dam, then runs eastward past Oxbow Bend. The slow-moving water of Oxbow Bend, a cut-off meander of the Snake River, provides rich habitat for a diverse array of wildlife including herons, waterfowl, pelicans, muskrats, beavers, river otters, and moose. At Moran Junction the river turns abruptly southwest and flows down the broadened bed of the ancestral Snake, which diagonally bisects Jackson Hole. Today's river erodes with a fraction of its original force.

From Jackson Lake the Snake winds in braided channels for 27 miles within the park. Slower moving water in side channels ensures essential habitat for numerous aquatic animals and plants. Beavers, river otters, and trout swim by moose feeding on aquatic plants. Native Snake River cutthroat trout depend on the park's natural aquatic system for survival. Trout consume aquatic insects and small fish. Bald eagles, ospreys, and otters in turn feed on the trout.

Along the river, willows thrive among tall cottonwood, spruce, and occasional aspen trees. Moose browse on shrubs and trees that line the river's banks. Beavers eat the inner bark of willows, aspens, and cottonwoods

(307) 733-2053. Basic information about the park is available in German, French, Spanish, or Japanese. The Superintendent of Grand Teton also administers the John D. Rockefeller, Jr., Memorial Parkway.

**Fishing** is allowed in most park lakes and streams. A Wyoming fishing license is required and may be purchased at the Moose Village Store, Signal Mountain Lodge, and Colter Bay Tackle Shop. Visitor centers have information on special park fishing regulations, bait restrictions, creel limits, and open seasons.

**Wildflowers** are part of the park's natural setting and add a special touch of color to the mountain and valley scenery. Regulations prohibit the destruction, injury, disturbance, or removal of public property or natural features including plants, animals, or rocks. Firewood may be collected for personal use if the tree is dead and down.

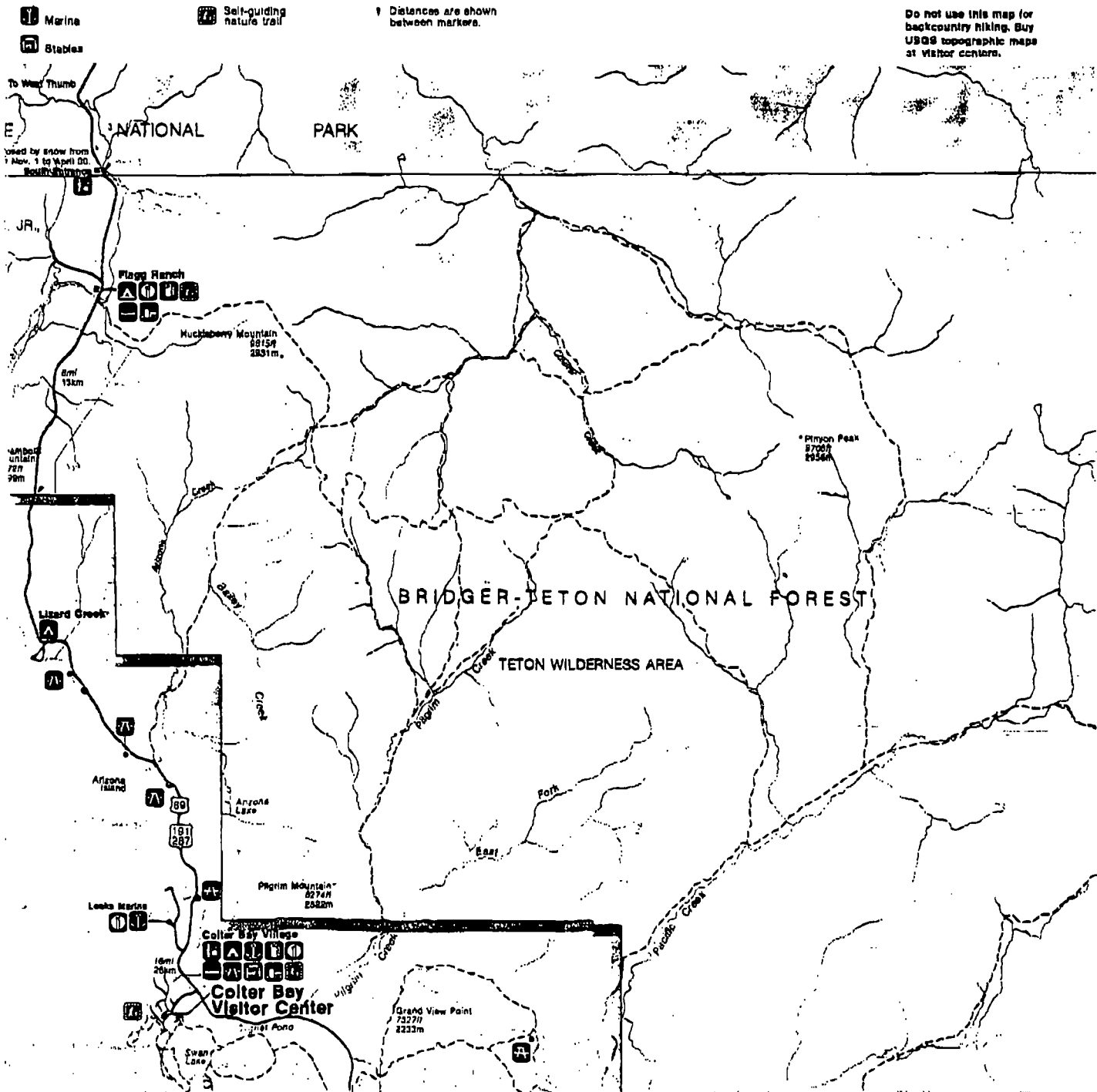
**Vehicles and Pets**  
Drive only on established roadways and observe all posted speed limits. Use caution when passing bicycles. Dawn and dusk are excellent times to observe wildlife, so watch other drivers for sudden stops. Pull vehicles well off the road into the paved or gravel turnout to observe wildlife and scenery or to take photographs. Be alert for animals crossing the roads.

**Over-snow vehicles** must be registered yearly at the Moose or Colter Bay Visitor Centers. A state snowmobile registration is also required. Snowmobiles are permitted on designated unplowed roads when snow conditions permit. Maps of permitted snowmobile routes are available at Moose.

**Pets** must be kept on a leash (maximum length 6 feet) at all times. Pets are not permitted in public buildings, on trails, in the backcountry, on ranger-led activities, or in visitor centers. They are prohibited in boats on rivers and lakes other than Jackson Lake. Never leave pets unattended. Pet regulations are strictly enforced.

**Climbing**  
Climbing mountains is a technical sport requiring proper knowledge, experience, physical condition, and equipment. Climbers must sign in before and immediately after each climb. The Jenny Lake Ranger Station is the center for climbing information and registration from June through mid-September. Solo climbing is not advised.

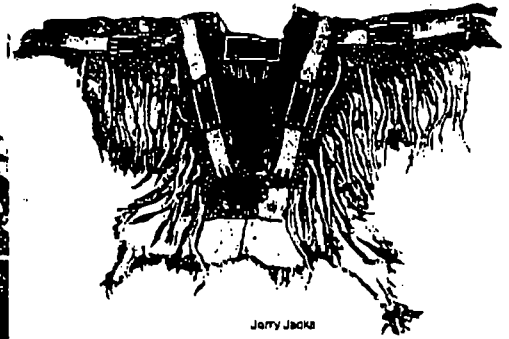
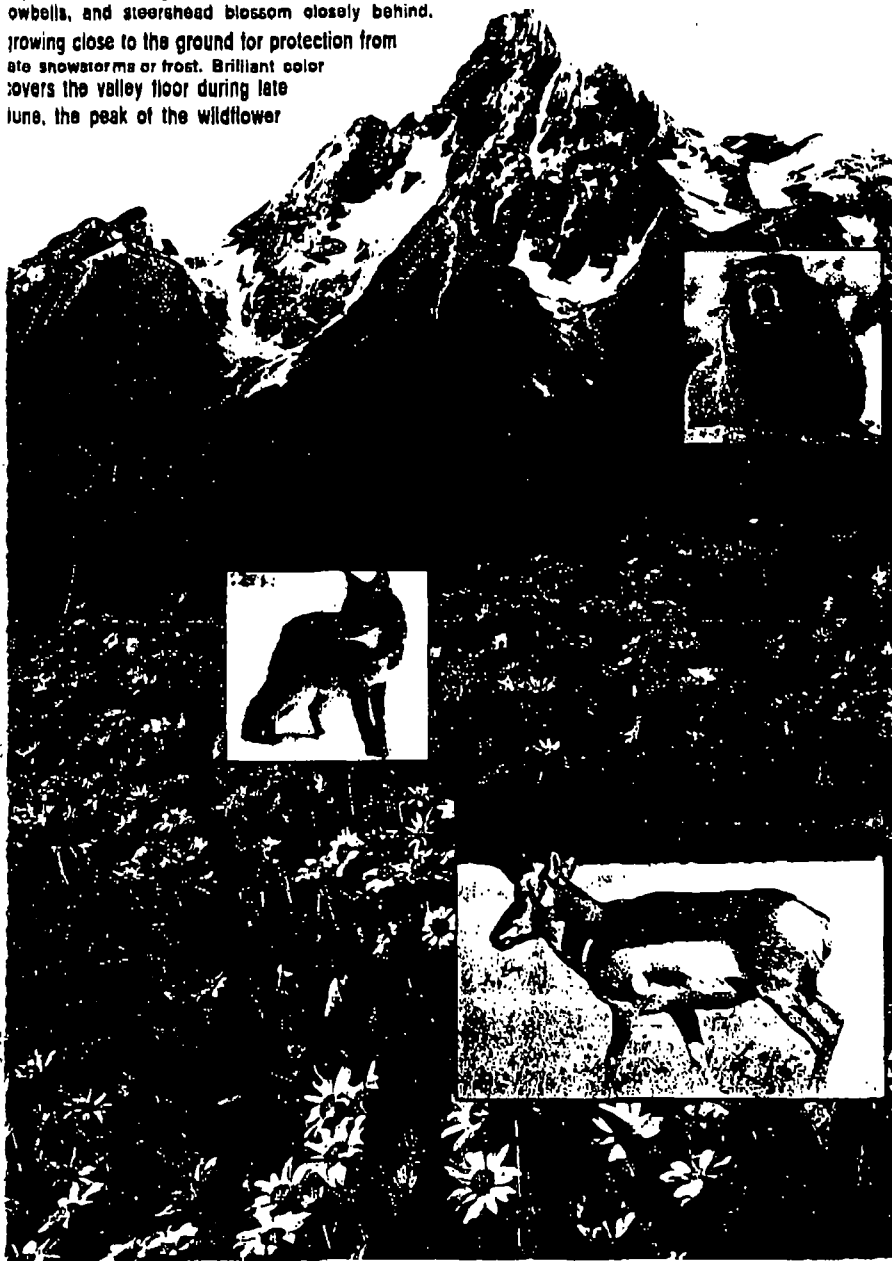
DOI-PO-1965-287-02a/00119 Revised 1992



Wildflowers in an amazing variety and profusion bloom through the warm months. Sagebrush buttercups follow receding snowpack. Spring beauties, yellowbells, and steerhead blossom closely behind, growing close to the ground for protection from late snowstorms or frost. Brilliant color covers the valley floor during late June, the peak of the wildflower

tors to the alpine zone discover brilliant cushions of color that hug the ground, including the official flower of the park, the alpine forget-me-not.

trappers traversed this crossroads of the western fur trade until the era ended about 1840. Valley settlement began in 1884. After 1900, some settlers realized that



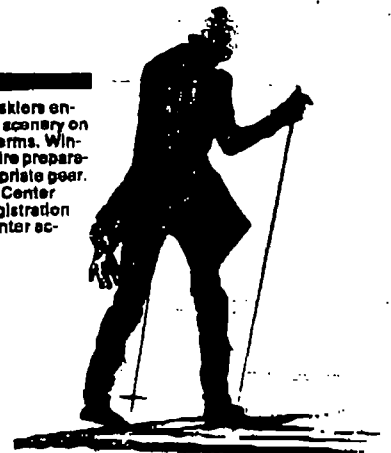
Jerry Jacks

See a fine collection of Native American art at the Collier Bay Visitor Center. Exhibits illuminate the creativity, be-

liefs, and lifestyle of numerous North American nations, especially the Plains Indians.

"dudes winter better than cows" and started dude ranches.

In 1929, much of the Teton Range received protection through the establishment of the park. After years of debate Congress added the Jackson Hole portion in 1950. Prehistoric people came to feed the body. Today's visitors nourish the spirit. Management of the park honors the mandate to protect, for the enjoyment of future generations, the natural systems that produce the scenery and wildlife.



Jackie Glimmer

Crosscountry skiers enjoy impressive scenery on winter's own terms. Winter sports require preparation and appropriate gear. Moose Visitor Center serves as a registration point for all winter activities.

Where to Watch Wildlife

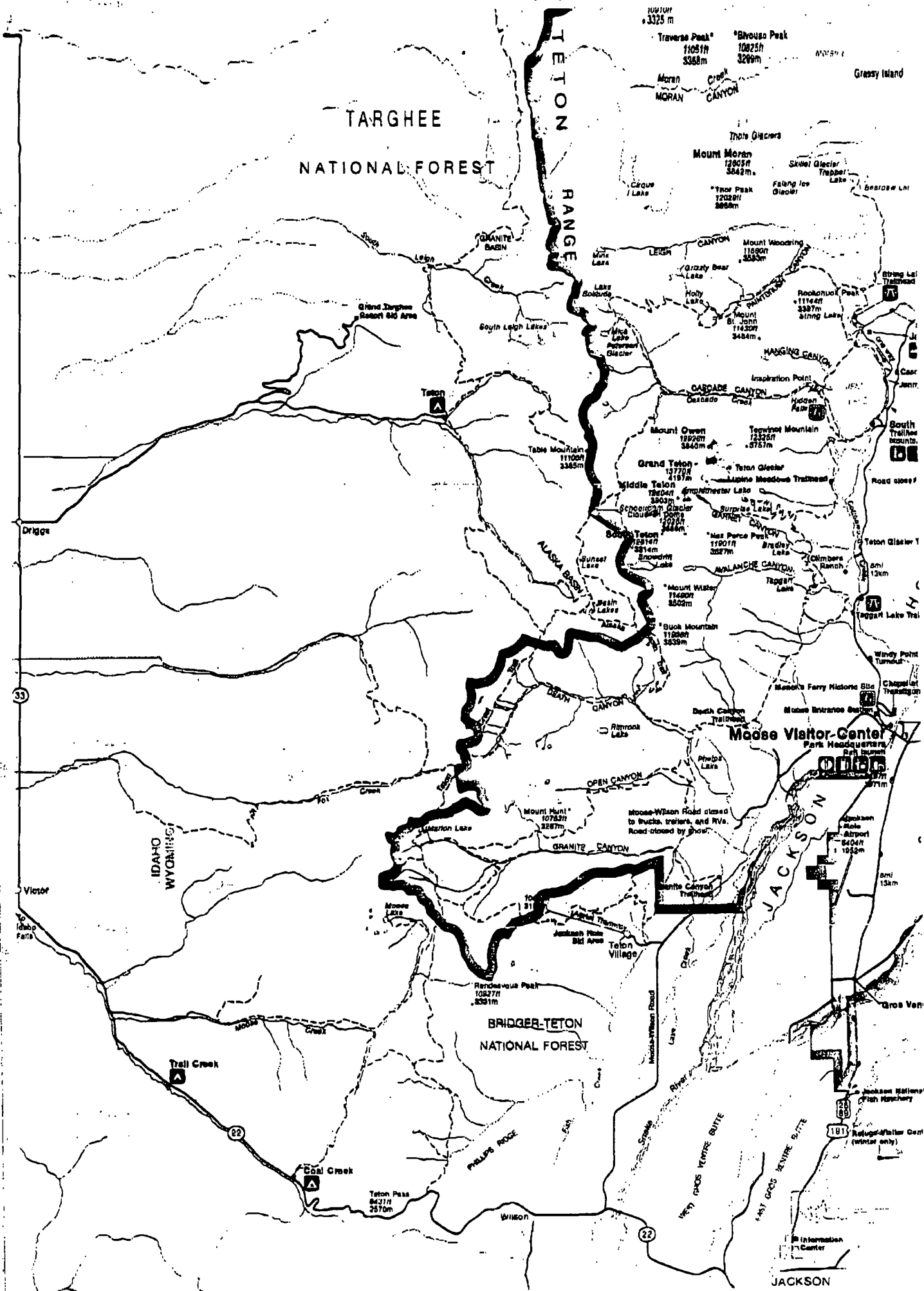


	Elk	Moose	Mule deer	Black bear	Bighorn sheep	Buffalo	Pronghorn	Coyote
Willow Flats and Orbow Bend		●						●
River bottomlands and pond areas	●	●	●	●		●		●
Sagebrush flats	●					●	●	●
Long Teton Park Road	●		●			●	●	●
Wooded slopes	●	●	●	●				●
Mountain canyons		●	●	●	●			●
Alpine grass					●			

Winter

Winter dominates the Teton country for more than half the year. Deep snows cover the backbone of the range. Prevailing winds from the southwest often howl past high peaks. Storm clouds may hide the mountains for days, but, after they pass, cold, clear air permits unsurpassed views. Lower temperatures and avalanche potential make mountain travel risky for those without proper knowledge, skills, and equipment. Crosscountry skis and snowshoes permit safe travel to exceptionally quiet, open windless valley vistas. In central Jackson Hole an average of 4 feet of snow covers sagebrush and fallen trees. Nightly temperatures often fall below -25°F during December and January, but low humidity and the warming sun greatly lessen the effects of the cold. Moose, coyotes, and snowshoe hares make tracks in freshly fallen snow. Seeing them enriches any ski trip.

Moose Visitor Center distributes the map of park ski trails, along with information on weather, avalanche, and road conditions. Plows clear the main park road, but the roads at the foot of the range, and in Yellowstone, remain closed by snowpack until spring. Also at Moose, rangers provide snowshoes for twice-weekly hikes to help visitors appreciate winter in the park.



TARGHEE NATIONAL FOREST

TETON RANGE

BRIDGER-TETON NATIONAL FOREST

JACKSON

Moose Visitor Center

IDAHO WYOMING

181

22

39

3325 m

11051 ft  
3368 m

12625 ft  
3842 m

11900 ft  
3630 m

10926 ft  
3340 m

13770 ft  
4197 m

11889 ft  
3619 m

10752 ft  
3277 m

8437 ft  
2570 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

8404 ft  
2561 m

glaciers long ago stripped sedimentary layers off the central peaks, uncovering basement rock nearly as old as the Earth itself. Resistant granite, sculpted into

water essential to stands of lodgepole pines and sub-alpine firs. High on alpine slopes, trees and flowers struggle in fragile soil, where harsh weather limits growth. At all elevations, geology and available water

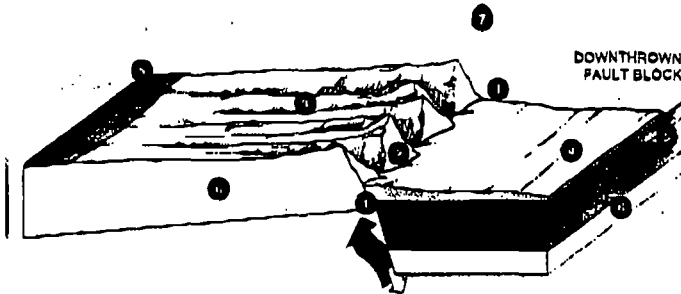


Jeff Gutsa

and weaves branches into lodges and dams along side channels. In the summer the riverbottom teems with diving, wading, and woodland birds, while elk graze in wet meadows. During darkness owls and other predators hunt in this riparian ecosystem.

Born of wilderness snowpack, the Snake River swells with meltwater. Trappers and settlers called it the Mad River, as it was more than a challenge to cross during the spring. Today's challenge is to protect this powerful life-supporting river as it flows through the park and as it winds westward to the Pacific Ocean.

UPTHROWN FAULT BLOCK



- 1 Teton Fault Zone
- 2 Steep eastern face
- 3 Gentle western slope
- 4 Valley floors filled with sediments of cobbles, gravel, and sand.
- 5 Sedimentary rock layers
- 6 Bedrock
- 7 Sedimentary rock layers now worn away; these matched layers 5.

Two rectangular blocks of the Earth's crust moved like giant trap doors, one swinging skyward to form the mountains, the other hinging downward to create the valley. Wind, rain, ice, and glaciers constantly eroded the rising range. Meanwhile, enormous glaciers and torrential meltwaters flowed southward carrying cobbles, gravel, and coarse sand and periodically leveled the floor of the sinking valley.

The Grand Teton and adjacent peaks, towers as the central range's exposed core.

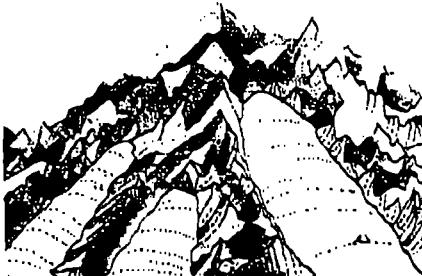
Cascading water initially cut steep, V-shaped gorges throughout the rising range. Changes in the Earth's climate caused long periods when snowfall exceeded

determine vegetation, which in turn controls the variety, abundance, and distribution of wildlife.

At upper elevations a dozen smaller glaciers slowly flow from the cirques cut by ice age giants. Schoolroom Glacier, so named for its easily observable classic characteristics, represents but one page of the living textbook that includes the accessible rock of the Teton Range, Jackson Hole, and adjoining features. This rock offers the most complete geologic record in North America. Future events will include infrequent earthquakes that signal movement along the fault zone as the Teton Range continues to rise, and Jackson Hole drops down. Wind, water, and ice will sculpt ancient rock into a different, but no less impressive skyline.



melting, precipitating glaciers in sizes beyond imagination. Glaciers advanced, and in warmer times receded, in mountain gorges and cut across the floor of Jackson Hole. Southward-flowing ice more than 3,000 feet thick filled the valley, overriding buttes and surrounding mountains. Only the high Teton peaks protruded through engulfing ice. Mountain glaciers, particularly during the last ice age, widened steep gorges into broad, U-shaped canyons.



Jeff Foot

Moose browse on willows along rivers and streams. When bulls raise their heads while feeding on underwater aquatic plants in ponds, water pours off their palm-shaped antlers. Killdeer feed in wet areas. They nest on gravel where camouflage conceals their eggs.



At right, top to bottom, yellow-bellied marmot, coyote, and pronghorn are inset into Mt. Moran and a meadow of balsamroot.

## Visiting the Park

Visitor centers at Moose and Colter Bay provide assistance and information, offer audiovisual programs and exhibits, and issue permits daily from mid-May through September. Moose Visitor Center is open daily the rest of the year on a reduced schedule. Park headquarters adjoins Moose Visitor Center. Colter Bay Visitor Center exhibits an extensive collection in its Indian Arts Museum and offers audiovisual programs. Publications for sale at each visitor center by the Grand Teton Natural History Association include the official national park handbook, *Grand Teton*, and Association publications: *Creation of the Teton Landscape*, *From Trapper to Tourist*, and *Teton Trails*. Write to P.O. Drawer 170, Moose, WY 83012, for a complete list of books and maps. Earnings from this non-profit corporation support the park's interpretive efforts, including tree publication and audio program production.

*Teewinot*, the free park newspaper, offers current information on a host of subjects, including natural history, camping, and self-guiding trails. *Teewinot* also contains a comprehensive list of concession services, notably lodging, restaurants, stores, gas stations, and mountaineering and float trip services.

Ranger-led activities offer increased understanding and appreciation of park resources. The *Teewinot* lists a variety of talks, walks, hikes, demonstrations, and other programs conducted from mid-June through September. Slide-illustrated campfire programs cover a wide range of topics at Gros Ventre, Signal Mountain, and Colter Bay Amphitheaters.

Wayside exhibits at many turnouts along main park roads identify major peaks and explain natural features. Turnouts also insure safe parking for viewing and photographing the mountain scene.

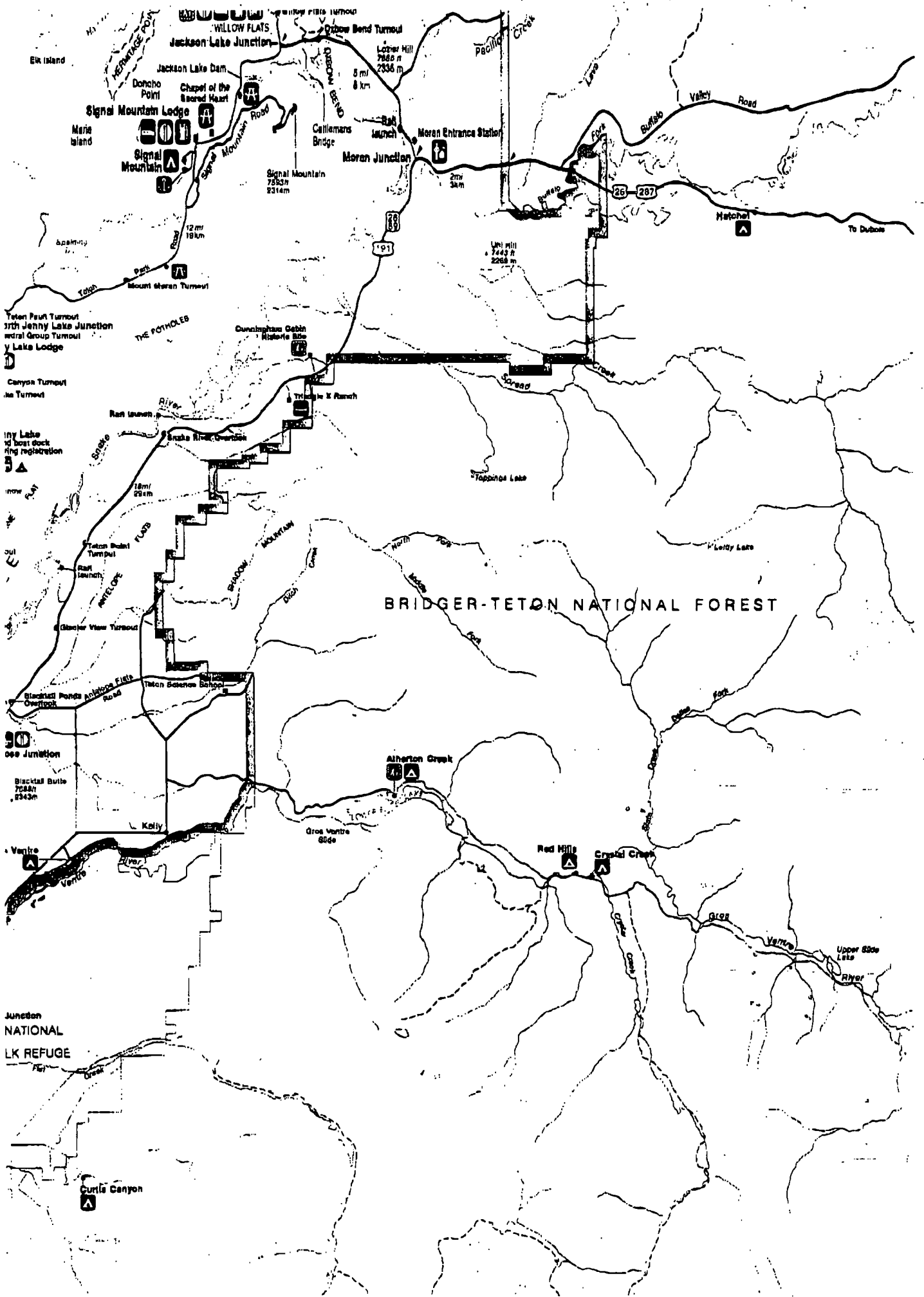
Located in the park, Teton Science School offers a wide variety of in-depth courses year-round. This non-profit school employs highly qualified instructors to teach a spectrum of topics related to the Teton Range and Jackson Hole. Courses for all ages in natural history and ecology stress field study supplemented by informal lectures. Summer seminars last 3 to 5 days and usually cover geology, plants, animals, birds, and photography. For information and schedules, write to the Director, Teton Science School, P.O. Box 68, Kelly, WY 83011, or call (307) 733-4765.

## Trails

Self-guiding trails provide insight into the story behind the scenery. Booklets available at each trailhead describe prominent features bordering the 2-mile Colter Bay Nature Trail and the 3-mile Teggari Lake Trail and discuss history along the 1/2-mile Menor's Ferry and the 1/2-mile Cunningham Cabin Trail. Trailhead locations are shown on the park map. The Cascade Canyon trail begins at the south end of Jenny Lake, and the booklet explains natural features up to Lake Solitude, 9 miles from the trailhead.

Trails traverse the valley and mountains for more than 200 miles. They provide access to backcountry lakes, streams, canyons, and camping zones. Trail difficulty levels range from easy to strenuous, and lengths vary from hikes of a few minutes to several days.

Visitors who take the time to hike mountain trails discover the magnitude and hidden qualities of the peaks and canyons. The Teton Crest Trail runs from the south boundary of the park to Paintbrush Canyon. It offers extensive views of the range and distant land. Visitors unaccustomed to high elevations may descend to the Crest Trail from the top of the tram at Teton Village. Rewarding trails in Granite, Death and Cascade



# Grand Teton

National Park  
Drawer 170  
Moose, WY 83012  
13071733-2880

## WEATHER

High valley elevation and mountains influence weather patterns in Grand Teton National Park and the John D. Rockefeller, Jr., Memorial Parkway. Summers are brief but spectacular. Winters last up to five months and snowstorms may occur throughout the year.

2 SHEETS

### SPRING (LATE APRIL - JUNE)

Mild days and cold nights intersperse with rain and occasional snow. Valley lakes usually thaw by late May. Depending on snowpack, snow level remains just above valley elevation until mid-June. Valley wildflowers begin blooming as the snow melts, peaking in June and July.

### SUMMER (JULY AND AUGUST)

Warm days and cool nights prevail, with afternoon thundershowers common. Snow level gradually retreats, with divides between mountain canyons free of snow by August. As valley wildflowers fade, canyon and alpine wildflowers peak.

### FALL (SEPTEMBER - NOVEMBER)

Sunny days and cold nights alternate with rain and snowstorms. Aspen and cottonwood turn gold in late September and early October. As snow becomes persistent by late fall, elk move to wintering areas at lower elevations.

### WINTER (LATE NOVEMBER - APRIL)

Snow blankets mountains and valley, with accumulations of ten feet common in the mountains and two to five feet in the valley. Travel is not advised during blizzard conditions. Between storms, sunny days and frigid nights provide perfect conditions for winter photography and cross-country skiing.

## TEMPERATURE AND PRECIPITATION

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Average High Temp. (°F)	25	31	38	48	61	71	81	79	69	57	39	28
Average Low Temp. (°F)	2	6	11	22	31	37	41	39	32	24	15	3
Extreme High Temp. (°F)	50	55	58	72	81	88	92	93	88	78	62	48
Extreme Low Temp. (°F)	-46	-39	-25	-10	10	20	27	23	15	1	-20	-43
Average Snowfall (Inches)	49	33	24	11	3	0	0	0	1	6	25	40
Average Rainfall (Inches)	0	0	0	1	3	2	1	1	1	1	0	0

## FOR YOUR SAFETY

Road elevations in Grand Teton National Park and the John D. Rockefeller, Jr., Memorial Parkway range from 6400 feet to 7600 feet. High elevation may cause breathing difficulties and may aggravate heart problems.

Remember the chill factor, which means that wind reduces the effective air temperature, and dress accordingly. When hiking, always carry extra clothing and rain gear.

## HYPOTHERMIA

Caused by exposure to cold and aggravated by wind, exhaustion and being wet, hypothermia can kill! Prevent hypothermia by choosing proper equipment and clothing to keep you warm and dry.

Watch for the warning signs of hypothermia: uncontrollable shivering, incoherent speech, and apparent exhaustion. Help the victim immediately. For mild

cases, give the victim warm, non-alcoholic drinks and dry clothes. For serious cases, keep the victim warm, dry and awake - to sleep is to die! Put the victim, stripped, in a sleeping bag with another person and give warm drinks.



PRINTED ON RECYCLED PAPER!

Rev. 1/91



# Grand Teton

John D. Rockefeller, Jr., Memorial Parkway

National Park  
P.O. Drawer 170  
Moose, Wyoming 83012  
307 739-3300

## Journey Through the Past: A Geology Tour

Read the past as you view the Teton Range today. The ancient geologic processes that shaped the mountains and valley have left visible marks. Watch millions of years of dynamic geology unfold before you while exploring Grand Teton National Park.



### Rock Formation

The geologic story of this range starts with the formation of the rocks that make up the mountains, rocks far older than the mountains themselves. The process began over 2.5 billion years ago when sand and volcanic debris settled in an ancient ocean. For millions of years, additional sediment was deposited and buried within the earth's crust. Heat and pressure metamorphosed (changed) the sediment into gneiss, the rocks that comprise the main mass of the Teton Range. The stress of metamorphism caused minerals to segregate. Today, alternating light and dark layers identify banded gneiss, readily seen in Death Canyon ② (numbers refer to map on back) and other canyons in the Teton Range.

Next, magma (molten rock) forced its way up through cracks and zones of weakness in the gneiss. This igneous (formed by heat) rock slowly cooled, forming light-colored dikes of granite, inches to hundreds of feet thick. Look for larger dikes as you view the mountains from the Jenny Lake ③ and String Lake ④ areas. Uplift and erosion have exposed the granite that now forms the central peaks of the range ⑤ and ⑥.

Diabase, a dark-colored igneous rock, 1.3 billion years ago flowed up through the gneiss and granite, resulting in the prominent vertical dikes seen today on the faces of Mt. Moran ⑦ and the Middle Teton ⑧. The diabase dike on Mt. Moran protrudes from the face because the gneiss surrounding it erodes faster than the diabase. The

diabase dike on the Middle Teton is recessed because the granite of the central peaks erodes more slowly than the diabase.

Shallow seas that covered the Teton region 600 million to 65 million years ago have left sedimentary formations, still visible at the north and south ends of the Teton Range and also on the west slope of the mountains. Marine life, especially tiny trilobites, corals and brachiopods, flourished in the shallow seas covering this area.

The seas repeatedly advanced and retreated. During retreat of the younger seas, this area became a low-lying coastal plain frequented by dinosaurs. Fossilized bones of a horned dinosaur, the *Triceratops*, have been found east of the Park near Togwotee Pass ⑨.

JOIN  
↑  
JOURNEY  
THROUGH  
THE PAST

### MOUNTAIN BUILDING

Compression of the earth's crust 80 million to 40 million years ago caused uplift of the Rocky Mountain chain, from what is now Mexico to Canada. While the mountains on the south and east formed during this period, the rise of the Teton Range as we now see it had not yet begun.

Stretching and thinning of the earth's crust caused movement along the Teton fault to begin about 6 - 8 million years ago. Every few thousand years, when the elasticity of the crust stretches to its limit, a fault or break of about 10 feet occurs, relieving stress in the earth's crust. The blocks on either side of the fault moved, with the west block swinging skyward to form the Teton Range, the youngest and most spectacular range in the Rocky Mountain chain. The east block dropped downward, forming the valley called Jackson Hole. The valley block under your feet has actually dropped down four times more than the mountain block has uplifted.

Total vertical movement along the Teton fault approaches 30,000 feet. Evidence for the amount of movement comes from the present location of Flathead Sandstone. Activity along the Teton fault separated this

formation on the opposing blocks. On the summit of Mt. Moran, 6,000 feet above the valley floor, lies a pink cap of Flathead Sandstone, visible when the snow has melted. On the valley side of the fault, this formation lies buried at least 24,000 feet below the surface.

Early nineteenth century fur trappers referred to high mountain valleys as "holes." When they named this valley Jackson Hole, they were geologically correct! Today the sheer east face of the Teton Range, rising abruptly more than a mile above the valley, captures our attention more than the valley does. Rocks and soil, thousands of feet thick, transported into the valley over the past several million years, mask the subsidence of the valley.

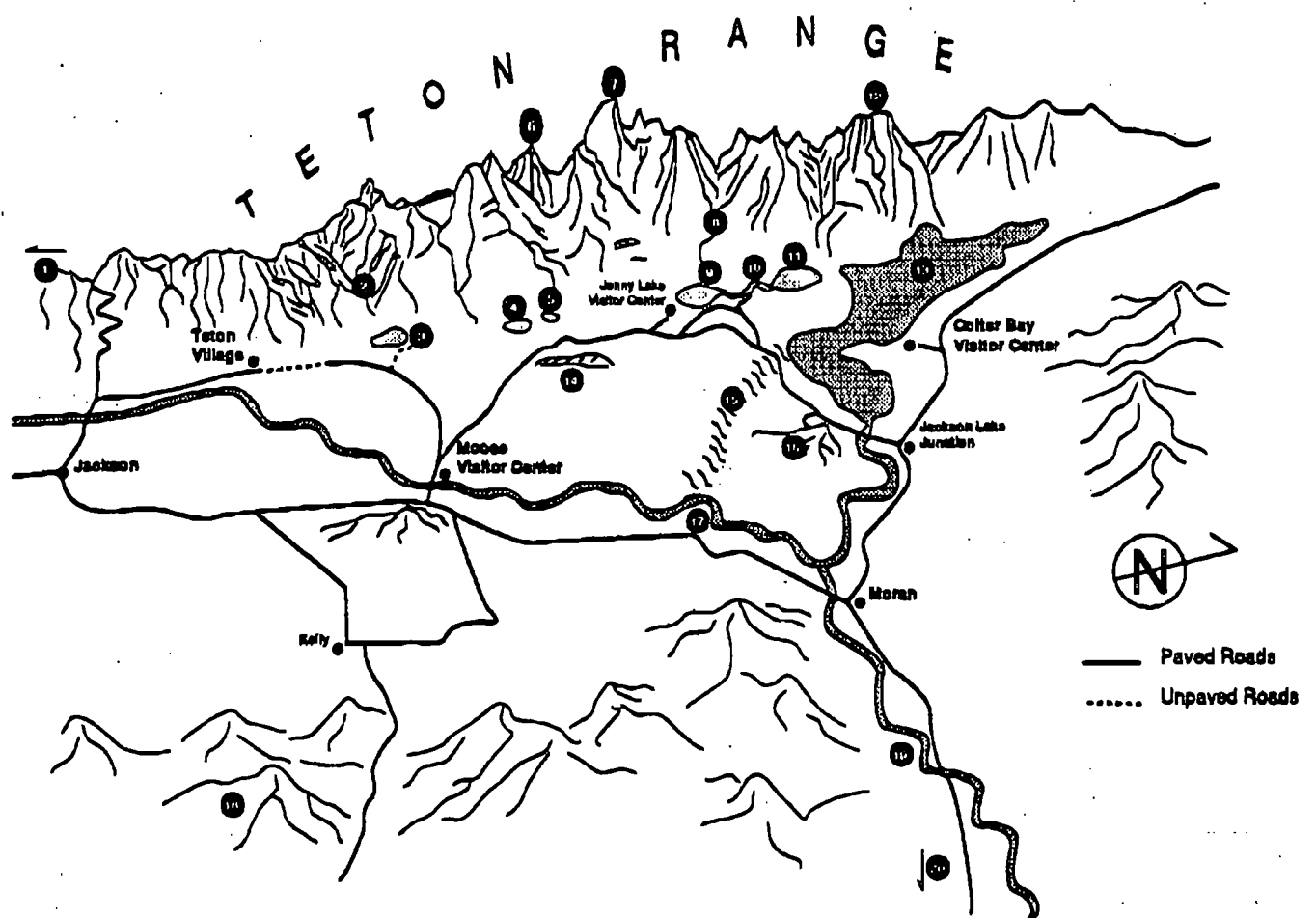
Some of the deposits filling Jackson Hole contain innumerable rounded rocks varying in color from white to pink and purple. These quartzite rocks eroded from an ancestral mountain range probably located 20 to 70 miles northwest of the Teton Range. Rivers rounded the quartzite into cobblestones as they carried the rocks into this area.

### VULCANISM

Vast clouds of volcanic ash blew into the Teton region from the west and north, beginning more than 20 million years ago. White ash accumulated on the sinking floor of Jackson Hole 9 million to 10 million years ago, leaving deposits nearly one mile thick. Between 6 million and 600 thousand years ago, fiery incandescent clouds of gaseous molten rock originated in what is now central Yellowstone Park and flowed southward on both sides of the Teton Range. Remnants of this flow are exposed on Signal Mountain and on the north end of the Teton Range.

### Collecting Rocks

Park law prohibits collecting. Please leave rocks where you find them so that others may enjoy the intact geologic story.



- |                     |                  |                        |
|---------------------|------------------|------------------------|
| ① Snake River Range | ⑧ Cascade Canyon | ⑮ Burned Ridge Moraine |
| ② Death Canyon      | ⑨ Jenny Lake     | ⑯ Signal Mountain      |
| ③ Phelps Lake       | ⑩ String Lake    | ⑰ Snake River Overlook |
| ④ Taggart Lake      | ⑪ Leigh Lake     | ⑱ Gros Ventre Range    |
| ⑤ Bradley Lake      | ⑫ Mount Moran    | ⑲ Buffalo Valley       |

↓ JOIN

↑ Join  
 JOURNEY  
 THROUGH THE  
 PAST - BACK SIDE

6 Middle Teton

13 Jackson Lake

20 Togwotee Pass

7 Grand Teton

14 Timbered Island

## Glaciation

The sculpturing influence of ice has provided a final spectacular touch to a scene that already boasted mountains rising sharply from a broad, flat valley. About 150,000 years ago this region experienced a slight cooling that allowed an accumulation of more and more snow each year. Eventually glaciers (masses of ice) began to flow from higher elevations. Over two thousand feet thick in places, the ice sheet flowed from north to south through Jackson Hole. The glacier finally halted south of the town of Jackson and melted about 100,000 years ago. About 60,000 years ago the glaciers returned, first surging from the east down the Buffalo Valley 10, stopping near the Snake River Overlook 17. The most recent ice advance flowed from the Yellowstone Plateau south down the Snake River drainage and east from the canyons in the Teton Range, about 20,000 years ago. The Yellowstone ice mass gouged out the depression occupied today by Jackson Lake 11.

Smaller glaciers flowing eastward down the Teton Range broadened the V-shaped stream canyons into U-shaped canyons, typical evidence of glaciation. Ice flowed from the canyons into Jackson Hole, then melted to form the basins that small lakes occupy today. Glacial lakes include: Phelps 12, Taggart 13, Bradley 14, Jenny 15, String 16 and Leigh 11.

As glaciers flowed down the canyons, rocks and ice smoothed and polished canyon floors and walls. Look for glacial polishing today in Cascade 18 and other canyons. Other telltale signs of glaciation include cirque lakes high up in the canyons, such as Lake Solitude in the north fork of Cascade Canyon. The peaks of the Teton Range became more jagged from frost-wedging, where water freezing in the rocks exerted a prying force, eventually chiseling the rocks free, leaving the sharp ridges and pinnacles seen today.

Although the last great ice masses melted about 15,000 years ago, a dozen re-established glaciers still exist in the Teton Range. Mt. Moran 19 exhibits five glaciers: Triple Glacier on the north face, prominent Skillet Glacier on the east face and Falling Ice Glacier on the southeast face. Teton Glacier lies in the shadow of the Grand Teton 2. One way to view a glacier up close involves a ten-mile hike (twenty miles roundtrip) up the south fork of Cascade Canyon 18 to School-room Glacier. It demonstrates all the features of a classic glacier.

Moraines (deposits of glacially-carried debris) accumulated at the terminus of each ice surge. Because moraines contain a jumble of unsorted rocks and soil that retains water and minerals, glacial debris today supports dense lodgepole pine forests. To locate moraines, look for large stands of pines on ridges

projecting above the valley floor, such as Timbered Island 14 and Burned Ridge 16. Glacial moraines also surround the lakes at the base of the peaks.

Where glacial meltwater washed away most of the soil, the cobbles and poor, thin soil left behind cannot retain moisture or nutrients. Sagebrush, certain wildflowers and grasses can tolerate such desert-like growing conditions. Thus the geologic history of a region determines the vegetation and ultimately the wildlife, too.



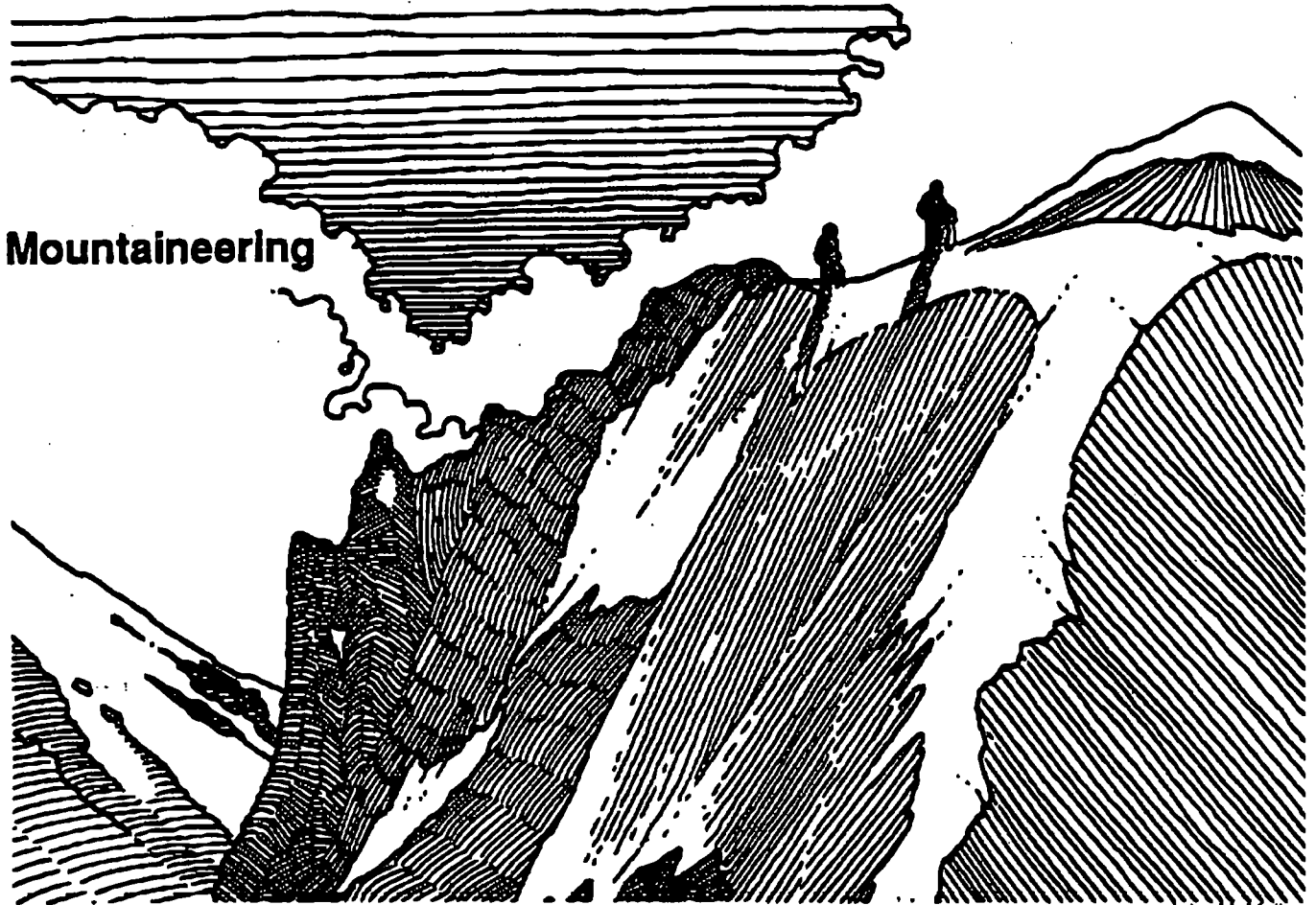
Mount Moran

*As you enjoy the scenic beauty of the Teton Range and Jackson Hole, remember that the physical forces that created these features still exert their influence. Mountains continue to rise, while erosion by wind, water and ice pares the mountains down. And so the story never ends.*

# Grand Teton

John D. Rockefeller, Jr., Memorial Parkway

National Park  
P.O. Drawer 170  
Moose, Wyoming 83012  
307 739-3300



## Mountaineering

John McMullen

### General Information

The mountains in Grand Teton National Park offer some of the most accessible and diverse climbing in the country. A wide array of rock, snow and ice, and mixed routes are available that range from easy outings to very difficult undertakings. Nearly all of the peaks have been climbed in one day. The higher and more remote peaks and the longer and more difficult routes are usually climbed from a high camp or with a bivouac, however, and can take two or more days.

There are many inherent risks and hazards associated with climbing and mountain travel (hiking, skiing etc.). Risks include, but are not limited to: lightning, rockfall, avalanches, crevasses, and extreme weather conditions (even during the summer months). Falls on steep snow and the subsequent inability to use an ice axe to perform a self-arrest have been the number one cause of accidents and deaths over the years.

Any person pursuing these activities assumes all risks of and responsibility for any injury, including death, that may result. Competent technique, experience, safety equipment, physical fitness and good judgment are essential to preventing or minimizing the chances of an accident occurring.

John ↓

MOUNTAIN CLIMBING -  
JOIN ↑  
BOTTOM

### Mountain Weather

Weather conditions are usually best from mid-July through August, although afternoon thundershowers are common during these months. At least one period of extended inclement weather with snowfall in the high country usually occurs in late August. In the fall, major storms can occur anytime after mid-August, producing snow and ice on most routes. Winter weather in the Teton Range can be severe with heavy snowfall, high winds, and extremely low

temperatures. During the period of heavy snow accumulation from December through May, avalanche danger is frequently high. Winter mountaineering trips should be undertaken only by well-equipped, self-sufficient parties with considerable experience. May and June are characterized by prolonged periods of heavy rain, some snow and sub-freezing temperatures. During these months, rockfall and wet-snow avalanche activity is a common occurrence.

### Climbing Information

The Jenny Lake Ranger Station is the center for climbing information from June to mid-September. Climbing rangers on duty provide current information on the nature and condition of climbing routes, equipment and experience considerations, and time factors. Guidebooks, maps, and photographs of various peaks and routes are available to assist in planning climbs.

## Registration

Registration is not required for climbing, mountaineering or day hiking. A free permit is required for all overnight use. The park does not check to see that you get safely out of the backcountry. Make a friend or relative aware of where you are going and your itinerary. It is your responsibility to have someone report your absence if you are overdue. If you do not have a friend or relative in the area with whom you can leave this information a voluntary registration system is available at the Jenny Lake Ranger Station.

## Equipment

Conventional mountaineering equipment is satisfactory for climbing in the Teton Range during the summer. An ice axe and expertise in its use is perhaps the single most important technique that one can possess for early season climbs. Climbing helmets are strongly recommended for technical climbs and for routes where rockfall could occur. Climbing equipment and food suitable for backpacking may be purchased in the area, and a limited selection of equipment may be rented.

## Accommodations

The Grand Teton Climbers' Ranch, a concession operated by the American Alpine Club, provides low-cost accommodations for registered climbers. For information contact the manager, Climbers' Ranch, Moose, WY 83012. Park campgrounds may be used as base camps, although each campground has a limit-of-stay. Off-trail campsites or bivouac sites are not reservable, but are assigned on a first-come, first-served basis.

## Rescue Guidelines

### Self-Rescue

In the event of an accident or other problem, depend first and foremost on yourself, other party members, and your own efforts! Enlist the aid of other climbers in the area. Practice self-sufficiency to the greatest extent possible; do not depend solely on the park rescue team. In the event of a known injury, the rescue team will make reasonable efforts to help you. Keep in mind, however, that the decision if, when or how to initiate a search or rescue is left to the discretion of Grand Teton National Park. Many factors, such as weather, darkness, and hazards to the rescue team may delay or indefinitely postpone any rescue effort by the park.

### Grand Teton National Park Rescue Team

The park's search and rescue team is fully staffed only during the summer months. If self-rescue is impossible, notify the park as quickly as possible.

### What To Do When An Accident Occurs

Do not leave an accident victim alone unless absolutely necessary. If it is necessary to leave an injured person alone, provide first aid, secure the injured person to prevent further injury, leave him/her as much food, water and warm clothes as possible and then go for help. Relay the following information: Name, age and weight of victim(s), exact location of the accident,

nature of the injuries, time of the accident, equipment at the accident scene, number of persons remaining at the accident scene and their plan of action, if any.

### Search and Rescue Funding

All climbers should be aware that search and rescue operations are funded from the park operating accounts and large expenditures may result in the elimination of other services. Donations to support the rescue team are a welcome source of new rescue equipment. Send tax deductible contributions to: Mountain Rescue Fund, Grand Teton National Park, P.O. Drawer 170, Moose, WY 83012.

## Literature

The guidebooks that are currently available for the Teton Range include *Teton Classics* by Richard Rossiter and selected Alpenglow guides by Jim Olson. Topographic maps of the park and a guide for the park trail system, *Teton Trails*, are also available. These publications may be purchased at park visitor centers or by mail from the Grand Teton Natural History Association, Grand Teton National Park, P.O. Drawer 170, Moose, WY 83012.

## Guide Services

Mountaineering guide service and instruction may be obtained from:

- Exum Mountain Guides, Inc., P.O. Box 56, Moose, WY 83012
- Jackson Hole Mountain Guides, P.O. Box 7477, Jackson, WY 83001.



John McMullen

## A Climbing Ethic—Renew your commitment to leave no trace!

We are appealing to all climbers to accept personal responsibility for the care of fragile resources. Toward this goal, please adhere to the following code of ethics for minimum impact climbing:

- Use existing access trails to approach climbs. Short-cutting trails causes plant damage and erosion and is prohibited.
- During approach and descent where there are no trails, carefully choose routes to avoid the heavy impact of human feet. Step on rocks and non-vegetated surfaces where possible.

- Know and respect environmentally sensitive areas. Be considerate of wildlife and other users. Keep a respectful distance from all animals to avoid disturbing their natural routines.
- Leave the rock and its environs in its natural condition. Avoid placing permanent protection. Motorized drills are prohibited.
- Plan your trip. Know and abide by all park regulations.

- Accept responsibility for yourself and others. "Leave No Trace" depends more on attitude and awareness than on regulations.

- Pack out all litter. Use toilets where available or bury human waste 200' from water and high use areas. Double bag toilet paper in ziplock bags and carry it out or use natural options such as stones, sticks or snow.

Only by following a minimum impact climbing ethic can outstanding natural features be protected for future generations of climbers. The future of climbing is in your hands!

Printed on recycled paper.

MOUNTAIN CLIMBING  
BACK SIDE

GRTE 4-86

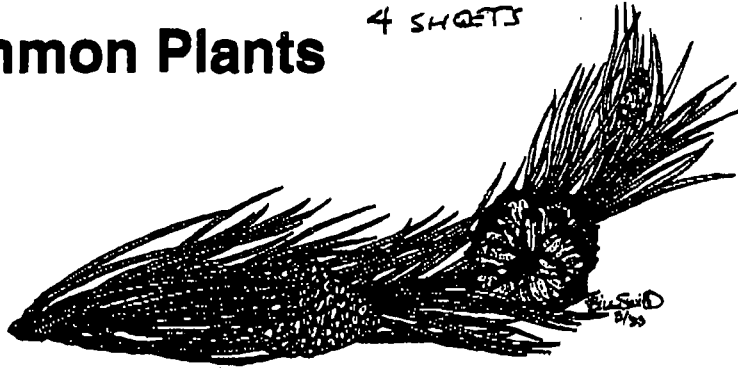
# Grand Teton

John D. Rockefeller, Jr., Memorial Parkway

National Park  
P.O. Drawer 170  
Moose, Wyoming 83012  
307 739-3300

## Common Plants

4 SHEETS



### Growing Zones

#### ALPINE (above 10,000 feet)

Above treeline, plants adapt to wind, snow, and lack of soil by growing close to the ground. Alpine plants take advantage of a brief growing season by flowering soon after the snow melts. Some species grow only in the alpine area; others grow tall at lower elevations but are dwarfed in the alpine.

#### CANYONS AND SUB-ALPINE (7,000 - 10,000 feet)

Between the crags of the Tetons, ice Age glaciers have carved deep canyons. Today the canyons contain dense conifer forests and open meadows of wildflowers. As elevation increases, wildflowers abound while trees become stunted and eventually shrublike. "Krummholz" (German for "crooked wood") plants are dwarfed forms that are tree-like at lower elevations.

#### VALLEY (5,400 - 7,000 feet)

Porous valley soils support plants able to tolerate hot and dry conditions. In addition to abundant sagebrush, numerous wildflowers and grasses grow. During June and July, a profusion of color enlivens the valley; the yellow of balsamroot, the blue of lupine, and the red of gilia. During August, sunflowers replace balsamroot.

### Common Trees

Most of the trees in the park are conifers because of the short growing season. Conifers retain their leaves (needles) throughout the year and can produce food (photosynthesize) on warm spring days. Deciduous trees shed their leaves in the fall and must grow new ones each spring before they can photosynthesize. Aspens and cottonwoods have chlorophyll in the bark and so can photosynthesize before producing leaves.

Lodgepole pine, the most obvious and abundant conifer in the park and parkway, grows on the lower slopes of the Tetons and on well-drained glacial soils throughout the valley. Needles are 2 - 3 inches long, clustered in bundles of two; cones are 1 - 2 inches long.

Douglas fir inhabits dry, south- and east-facing slopes, although dense stands of young trees grow on some north-facing slopes. Large diameter trees have coarse, furrowed bark.

Subalpine fir occurs on wetter north-facing valley sites and at higher elevations in the mountains. Smooth bark and spire-like growth form identify subalpine fir. Needles occur singly and feel soft. Cones grow upright on branches.

Engelmann spruce occurs with subalpine fir, especially along creeks in the canyons between Teton peaks. Rough bark and abundant cones hanging down from upper branches identify Engelmann spruce. Cones have papery scales and are 1 1/2 inches long.

Blue spruce lines rivers and creeks in the valley. Cones have papery scales and are twice as large as those found on Engelmann spruce. Spruce needles occur singly and are sharp to the touch.

Individual limber pines grow on open, dry valley sites. Needles grow in bundles of five. Cones are 4 - 8 inches long.

Whitebark pine grows above 8,000 feet in the mountains. Needles are in bundles of five. Cones are purple and shorter than those of limber pine.

Aspen grows in stands on level, moist sites and on dry slopes. Aspen bark is smooth and cream-colored. Reproduction is primarily from shoots sprouting from horizontal roots.

Wildflowers color the Tetons as the snow melts. Warm weather arrives first in the Jackson Hole valley. Snow level gradually retreats up the mountain canyons throughout the summer. Behind the melting snow come the wildflowers, brightening valley then canyon. Eventually snow leaves areas above treeline, allowing dwarf alpine plants their time to flower.

Cottonwoods, close relatives of aspens, grow along rivers and creeks in the valley and lower parts of mountain canyons. Bark on mature trees is heavily furrowed. The species that occur in the park—lanceleaf cottonwood, narrowleaf cottonwood and balsam poplar—hybridize freely, so identification of individual species may be difficult.

### Common Shrubs

Big sagebrush thrives in dry habitats and carpets most of the valley floor. Plants are one to five feet tall; leaves are grayish green. Tiny yellow flowers bloom in August. Antelope bitterbrush occurs with sagebrush in the southern half of Jackson Hole. Bitterbrush grows to three feet tall. Cream-colored flowers bloom in June.

Huckleberry grows two to four feet tall in lodgepole pine forests in the valley and mountain canyons. Purple berries are produced in August.

Serviceberry grows to ten feet tall. Showy white flowers bloom in spring, producing purple berries by late summer.

Chokecherry is a large shrub that grows to twenty feet tall. Cylindrical clusters of showy white flowers bloom in spring.

Utah honeysuckle grows in open lodgepole pine forests. Leaves are opposite. Paired cream-colored flowers bloom in early June, producing fused red unpalatable berries.

Mountain ash grows on the lower slopes of the Tetons. This tall shrub has compound leaves. Flat-topped clusters of white flowers bloom in June. In fall bright orange fruits complement vivid red leaves.

Willows occur in moist areas, especially along stream banks. Twenty species are found in the park and parkway.

Snowbrush ceanothus thrives in burned areas. Shiny, leathery green leaves are retained through winter. Clusters of aromatic white flowers bloom in June.



## Growing Zones

### ALPINE (above 10,000 feet)

Above treeline, plants adapt to wind, snow, and lack of soil by growing close to the ground. Alpine plants take advantage of a brief growing season by flowering soon after the snow melts. Some species grow only in the alpine area; others grow tall at lower elevations but are dwarfed in the alpine.

### CANYONS AND SUB-ALPINE (7,000 - 10,000 feet)

Between the crags of the Tetons, Ice Age glaciers have carved deep canyons. Today the canyons contain dense conifer forests and open meadows of wildflowers. As elevation increases, wildflowers abound while trees become stunted and eventually shrublike. "Krummholz" (German for "crooked wood") plants are dwarfed forms that are tree-like at lower elevations.

### VALLEY (6,400 - 7,000 feet)

Porous valley soils support plants able to tolerate hot and dry conditions. In addition to abundant sagebrush, numerous wildflowers and grasses grow. During June and July, a profusion of color enlivens the valley: the yellow of balsamroot, the blue of lupine, and the red of gilia. During August, sunflowers replace balsamroot.

## Common Trees

Most of the trees in the park are conifers because of the short growing season. Conifers retain their leaves (needles) throughout the year and can produce food (photosynthesize) on warm spring days. Deciduous trees shed their leaves in the fall and must grow new ones each spring before they can photosynthesize. Aspens and cottonwoods have chlorophyll in the bark and so can photosynthesize before producing leaves.

**Lodgepole pine**, the most obvious and abundant conifer in the park and parkway, grows on the lower slopes of the Tetons and on well-drained glacial soils throughout the valley. Needles are 2 - 3 inches long, clustered in bundles of two; cones are 1 - 2 inches long.

**Douglas fir** inhabits dry, south- and east-facing slopes, although dense stands of young trees grow on some north-facing slopes. Large diameter trees have coarse, furrowed bark.

**Subalpine fir** occurs on wetter north-facing valley sites and at higher elevations in the mountains. Smooth bark and spire-like growth form identify subalpine fir. Needles occur singly and feel soft. Cones grow upright on branches.

**Engelmann spruce** occurs with subalpine fir, especially along creeks in the canyons between Teton peaks. Rough bark and abundant cones hanging down from upper branches identify Engelmann spruce. Cones have papery scales and are 1 1/2 inches long.

**Blue spruce** lines rivers and creeks in the valley. Cones have papery scales and are twice as large as those found on Engelmann spruce. Spruce needles occur singly and are sharp to the touch.

**Individual limber pines** grow on open, dry valley sites. Needles grow in bundles of five. Cones are 4 - 8 inches long.

**Whitebark pine** grows above 8,000 feet in the mountains. Needles are in bundles of five. Cones are purple and shorter than those of limber pine.

**Aspen** grows in stands on level, moist sites and on dry slopes. Aspen bark is smooth and cream-colored. Reproduction is primarily from shoots sprouting from horizontal roots.

**Canyon.** Eventually snow leaves areas above treeline, allowing dwarf alpine plants their time to flower.

**Cottonwoods**, close relatives of aspens, grow along rivers and creeks in the valley and lower parts of mountain canyons. Bark on mature trees is heavily furrowed. The species that occur in the park—lanceleaf cottonwood, narrowleaf cottonwood and balsam poplar—hybridize freely, so identification of individual species may be difficult.

## Common Shrubs

**Big sagebrush** thrives in dry habitats and carpets most of the valley floor. Plants are one to five feet tall; leaves are grayish green. Tiny yellow flowers bloom in August. **Antelope bitterbrush** occurs with sagebrush in the southern half of Jackson Hole. Bitterbrush grows to three feet tall. Cream-colored flowers bloom in June.

**Huckleberry** grows two to four feet tall in lodgepole pine forests in the valley and mountain canyons. Purple berries are produced in August.

**Serviceberry** grows to ten feet tall. Showy white flowers bloom in spring, producing purple berries by late summer.

**Chokecherry** is a large shrub that grows to twenty feet tall. Cylindrical clusters of showy white flowers bloom in spring.

**Utah honeysuckle** grows in open lodgepole pine forests. Leaves are opposite. Paired cream-colored flowers bloom in early June, producing fused red unpalatable berries.

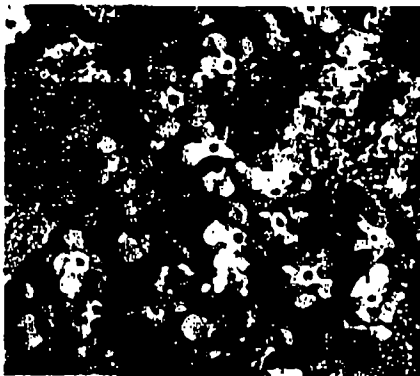
**Mountain ash** grows on the lower slopes of the Tetons. This tall shrub has compound leaves. Flat-topped clusters of white flowers bloom in June. In fall bright orange fruits complement vivid red leaves.

**Willows** occur in moist areas, especially along stream banks. Twenty species are found in the park and parkway.

**Snowbrush** (*ceanothus*) thrives in burned areas. Shiny, leathery green leaves are retained through winter. Clusters of aromatic white flowers bloom in June.

## Reminder

Enjoy the wildflowers but please leave them for others to appreciate also. Picking wildflowers is prohibited within Grand Teton National Park and the John D. Rockefeller, Jr., Memorial Parkway. Edible berries, plants and mushrooms may be gathered by hand for personal daily consumption. Please be certain of plant identification before eating parts of any wild plants.



Alpine Forget-me-not  
official park flower

## Books on Plants

For further information on wildflowers, consult *Plants of Yellowstone and Grand Teton National Parks* by Richard J. Shaw, *Vascular Plants of Grand Teton National Park and Teton County, An Annotated Checklist* by Richard J. Shaw and *A Field Guide to Rocky Mountain Wildflowers* by John J. Craighead, Frank C. Craighead, Jr., and Ray J. Davis.

# Flowering Times of Selected Flowers and Shrubs

	Valley	Canyons	Alpine
--	--------	---------	--------

## White Flowers

Huckleberry	Jun	Jul	
Mountain Ash		Jul	
Birchleaf Spirea	Jul	Jul	
Chokecherry	Jun		
Woodlandstar	Jun		
Richardson Geranium	Jun - Aug	Jun - Aug	
Thimbleberry		Jun - Jul	
Green Gentian	Jun - Jul	Jul - mid Aug	
Snowbrush Ceanothus	Jun - Jul		
Cowparsnip	late Jun - mid Aug	Jul - Aug	
Serviceberry	Jun		
American Bistort	Jun	Jul	Aug
Ladies-tresses	Aug - mid Sep	Aug - Sep	
White Bog-Orchid	late Jun - mid Aug	Jul - Aug	
Manyflowered Phlox	Jun - mid Jul	mid Jun - Jul	
Colorado Columbine		late Jun - Aug	
Marsh Marigold		Jun - mid Jul	Jun - Jul
Yampah	Jul - mid Aug	mid Jul - Aug	
Engelmann Aster		Jul - Aug	
Yarrow	Jul - early Aug	mid Jul - late Aug	Aug

## Yellow Flowers

Mules-ear Wyethia	mid Jun - Jul		
Hymenoxys			Jul - Aug
Sunflower	mid Jul - Aug		
Balsamroot	Jun - mid Jul		
Rabbitbrush	mid Aug - Sep		
Heartleaf Arnica	mid Jun - mid Jul	late Jun - late Jul	
Shrubby Cinquefoil	Jun - Sep		
Yellow Monkey-flower	Jun - mid Jul	mid Jun - mid Aug	
Lanceleaved Stonecrop	Jun - Aug		
Glacier Lily		Jun - Jul	Jul
Western Wallflower		Jun - Jul	
Subalpine Buttercup		Jul - Aug	
Deathcamas	Jun	mid Jun - early Aug	mid Jul - Aug
Oregongrape	May - Jun		
Sulfur Buckwheat	mid Jun - mid Aug		
Bracted Lousewort	late Jun - mid Jul	Jul	
Yellow Columbine	late Jun - Jul	Jul - late Aug	
Yellow Fritillary	mid May - mid Jun		
Butterweed Groundsel	late Jul - Sep		

## Pink - Red Flowers

Springbeauty	May	Jun - mid Jul	
Sticky Geranium	Jun - Aug		
Parry's Primrose		Jul - Aug	Aug
Prairiesmoke	Jun - early Jul		
Globemallow	Jul - mid Aug	mid Jul - Aug	
Steershead	late May - mid Jun	late Jun - mid Jul	
Subalpine Spirea		mid Jul - Aug	
Shooting Star	Jun	late Jun - late Aug	
Ladythumb Knotweed	Aug		
Lewis Monkeyflower		late Jun - Aug	
Mountain Snowberry	Jun - Jul	Jul	
Spreading Dogbane	Jul - Aug		
Mountainheather		Jul - Aug	Aug - Sep
Fireweed	mid Jul - Aug		
Moss Campion			Jul - mid Aug
Calypso Orchid	Jun		
Elephanthead	late Jun - Jul	mid Jul - Aug	
Indian Paintbrush	Jun - Jul	Jul - Aug	mid Jul - early Sep
Striped Coralroot	Jun - Jul		

American Bistort .....	Jun .....	Jul .....	Aug
Ladies-tresses .....	Aug - mid Sep .....	Aug - Sep	
White Bog-Orchid .....	late Jun - mid Aug .....	Jul - Aug	
Manyflowered Phlox .....	Jun - mid Jul .....	mid Jun - Jul	
Colorado Columbine .....		late Jun - Aug	
Marsh Marigold .....		Jun - mid Jul .....	Jun - Jul
Yampah .....	Jul - mid Aug .....	mid Jul - Aug	
Engelmann Aster .....		Jul - Aug	
Yarrow .....	Jul - early Aug .....	mid Jul - late Aug .....	Aug

### Yellow Flowers

Mules-ear Wyethia .....	mid Jun - Jul		
Hymenoxys .....		Jul - Aug	
Sunflower .....	mid Jul - Aug		
Balsamroot .....	Jun - mid Jul		
Rabbitbrush .....	mid Aug - Sep		
Heartleaf Arnica .....	mid Jun - mid Jul .....	late Jun - late Jul	
Shrubby Cinquefoil .....	Jun - Sep		
Yellow Monkey-flower .....	Jun - mid Jul .....	mid Jun - mid Aug	
Lanceleaved Stonecrop .....	Jun - Aug		
Glacier Lily .....		Jun - Jul .....	Jul
Western Wallflower .....		Jun - Jul	
Subalpine Buttercup .....		Jul - Aug	
Deathcamas .....	Jun .....	mid Jun - early Aug .....	mid Jul - Aug
Oregongrape .....	May - Jun		
Sulfur Buckwheat .....	mid Jun - mid Aug		
Bracted Lousewort .....	late Jun - mid Jul .....	Jul	
Yellow Columbine .....	late Jun - Jul .....	Jul - late Aug	
Yellow Fritillary .....	mid May - mid Jun		
Butterweed Groundsel .....	late Jul - Sep		

### Pink - Red Flowers

Springbeauty .....	May .....	Jun - mid Jul	
Sticky Geranium .....	Jun - Aug		
Parry's Primrose .....		Jul - Aug .....	Aug
Prairiesmoke .....	Jun - early Jul		
Globemallow .....	Jul - mid Aug .....	mid Jul - Aug	
Steershead .....	late May - mid Jun .....	late Jun - mid Jul	
Subalpine Spiraea .....		mid Jul - Aug	
Shooting Star .....	Jun .....	late Jun - late Aug	
Ladysthumb Knotweed .....	Aug		
Lewis Monkeyflower .....		late Jun - Aug	
Mountain Snowberry .....	Jun - Jul .....	Jul	
Spreading Dogbane .....	Jul - Aug		
Mountainheather .....		Jul - Aug .....	Aug - Sep
Fireweed .....	mid Jul - Aug		
Moss Campion .....		Jul - mid Aug	
Calypso Orchid .....	Jun		
Elephanthead .....	late Jun - Jul .....	mid Jul - Aug	
Indian Paintbrush .....	Jun - Jul .....	Jul - Aug .....	mid Jul - early Sep
Striped Coralroot .....	Jun - Jul		
Skyrocket Gilla .....	mid Jun - Jul		

### Blue - Purple Flowers

Wild Blue Flax .....	July - Aug		
Rock Clematis .....	Jun .....	Jul	
Sky Pilot .....			July - Aug
Monkshood .....	late Jun - mid Jul .....	mid Jul - mid Aug	
Low Larkspur .....	mid May - Jun		
Mountain Bluebell .....		mid Jul - early Sep	
Fringed Gentian .....	late Jul - mid Aug .....	Aug - early Sep	
Harebell .....	mid Jun - early Sep		
Lupine .....	Jun - Jul		
Mountain Bog Gentian .....		late Jul - early Sep	
Silky Phacelia .....	late Jun - Jul .....	mid Jul - late Aug .....	late Jul - early Sep
Blue Camas .....	Jun		
Alpine Forget-me-not .....		Jul - early Aug	

# Grand Teton

John D. Rockefeller, Jr., Memorial Parkway

P.O. Drawer 170  
Moose, Wyoming 83012  
307 739-3300

2 SHEETS

## A WALK THROUGH TIME



### The Earliest Visitors

Archeological studies established human occupation of Jackson Hole for at least 11,000 years. Knowledge of early people is extremely limited. Data suggests that they used the area from spring to fall, based on seasonal availability of resources. Prehistoric people crossed the passes into Jackson Hole en route to seasonal hunting grounds in the region. In historic times, Indian tribes such as the Shoshoni, Gros Ventre, Flathead and Blackfeet knew the Teton country.

### Days of Mountain Men

The splendor of the Teton Mountains first dazzled fur traders. Although evidence is inconclusive, John Colter probably explored the area in 1808. By the 1820s, mountain men followed wildlife and Indian trails through Jackson Hole and trapped beaver in the icy waters of the valley.

The term "hole" was coined by fur trappers of the 1820s to describe a high altitude plateau ringed by mountains. Thus, Jackson Hole is the entire valley, 8 to 15 miles wide and 40 miles long. The valley was named for David E. Jackson, a trapper who reputedly spent the winter of 1829 along the shore of Jackson Lake.

After the decline of the fur trade in the late 1830s, America forgot Jackson Hole until the military and civilian surveys of the 1860s and 1870s. Members of the Hayden Survey named many of the area's features.

### Settlers at the Turn of the Century

Because of its geographic location, Jackson Hole remained unsettled until late in the 19th century. The first permanent homesteaders, John Holland and John Carnes, settled north of the present town of Jackson. By 1890 Jackson Hole had a population of 64 people. The soils and climate made ranching and farming risky.

Mountain-valley ranching was the chief occupation; settlers grazed cattle on the public domain in the mountains while cultivating hay in the valley to provide winter feed. While a few prospered, most lived at a near-subsistence level.

As settlement progressed, small communities emerged to provide goods and services. By 1910 Jackson, Wilson, Kelly and Moran had become the dominant villages in Jackson Hole. Elk, Marysvale, Grovont, Zenith and Menor's Ferry had post offices. Incorporated in 1914, Jackson became the seat of Teton County and the commercial center of the valley.

## The First Tourists

The region acquired a national reputation for its splendid hunting and fishing in the 1880s and 1890s. Many settlers supplemented their incomes by serving as guides and packers for wealthy hunters. A few, such as Ben Sheffield, made it a full-time occupation. He acquired a ranch at the outlet of Jackson Lake in 1902 to use as a base for outfitting his expeditions. The ranch became the town of Moran.

Others recognized that dudes winter better than cows and began operating dude ranches. The JY and the Bar BC were established in 1908 and 1912, respectively. By the 1920s, dude ranching made significant contributions to the valley's economy. At this time some local residents realized that scenery and wildlife (especially elk) were valuable resources to be conserved rather than exploited.

## The Jackson Hole Story Continues

Much of the recorded history of Jackson Hole involves the story of Grand Teton National Park. The emergence of the conservation movement in the United States prevented the transfer of public lands to private ownership in the Tetons. Through the Forest Reserve Act of 1891, President Grover Cleveland established the Teton Forest Reserve in 1897. Teton National Forest was created in 1908. These reserves included much of the land of Jackson Hole.

Congress established Grand Teton National Park in 1929. The 96,000 acre Park included the main portion of the Teton Range and most of the glacial lakes at the base of the mountains.

After touring the area in 1926, John D. Rockefeller, Jr., decided to buy private lands in Jackson Hole for Park use. Rockefeller's agents formed the Snake River Land Company that purchased over 35,000 acres during the next 20 years. Political controversy defeated attempts to add the valley to the Park in the 1920s and 1930s.

In 1943 President Franklin Delano Roosevelt issued a proclamation establishing Jackson Hole National Monument by authority of the Antiquities Act of 1906. The 210,000 acre monument included most federal land in Jackson Hole. In 1949 the Rockefellers donated nearly 33,000 acres to the federal government and in 1950, Congress passed legislation merging the Park and National Monument.

Today tourism is the cornerstone of the local economy. Visitors come to enjoy breathtaking scenery, wildlife and other natural features of Grand Teton National Park and the John D. Rockefeller, Jr., Memorial Parkway.



# Grand Teton

John D. Rockefeller, Jr., Memorial Parkway

National Park  
P.O. Drawer 170  
Moose, Wyoming 83012  
307 739-3300

## Mammal-Finding Guide

4 SHEETS

"Why do we so delight in the wild creatures of the forest, some of us so passionately that it colors our whole life?" —Wildlife biologist Olaus Murie in Wapiti Wilderness.



### General Information

The diversity of wildlife communities in Grand Teton National Park and the John D. Rockefeller, Jr., Memorial Parkway complements the spectacular scenery. Part of the Greater Yellowstone Ecosystem, the two National Park Service areas offer wildlife a variety of habitats. Each habitat must supply the basic needs of wildlife: food, water, cover and living space. Familiarity with the habitats and habits of park and parkway wildlife results in increased viewing opportunities.

### Habitat Types

#### Alpine

Wind and snow limit life above treeline (about 10,000 feet). Some plants and animals have adapted to the seemingly harsh conditions. Plants are mat-like, animals are few. Look for yellow-bellied marmots, pikas and bighorn sheep.

#### Sagebrush

The most widespread habitat type in the park, sagebrush flats occur on dry, porous soils. More than 100 species of grasses and wildflowers grow along with abundant sagebrush. Lack of cover makes large animals conspicuous. Look for pronghorns, coyotes, bison, badgers, elk and Uinta ground squirrels.

#### Forests

From treeline to valley floor, forests provide cover and food for many mammal species. Lodgepole pines dominate, but forests also contain firs, aspens and spruces. Look for elk, mule deer, martens, red squirrels, black bears and snowshoe hares.

#### Rivers, Lakes and Ponds

Aquatic habitats and adjacent forests, marshes and meadows fulfill the needs of many forms of wildlife. Diverse and abundant vegetation offers excellent food and cover. Water is plentiful. Look for moose, river otters, beavers, muskrats, coyotes, bison and mule deer.

### List of Mammals

#### Insectivora (Insect-eaters)

- c Masked Shrew *Sorex cinereus*
- c Vagrant Shrew *Sorex vagrans*
- r Dwarf Shrew *Sorex nanus*
- u Northern Water Shrew *Sorex palustris*

#### Chiroptera (Bats)

- c Little Brown Bat *Myotis lucifugus*
- u Long-eared Myotis *Myotis evotis*
- u Long-legged Myotis *Myotis volans*
- u Silver-legged Myotis *Lasiorycteris noctivagans*
- r Hoary Bat *Lasiurus cinereus*
- u Big Brown Bat *Eptesicus fuscus*

#### Lagomorpha (Rabbits and Hares)

- c Pika *Ochotona princeps*
- c Snowshoe Hare *Lepus americanus*
- u White-tailed Jackrabbit *Lepus townsendii*

#### Rodentia (Gnawing Mammals)

- a Least Chipmunk *Tamias minimus*
- c Yellow Pine Chipmunk *Eutamias amoenus*

- c Southern Red-backed Vole *Clethrionomys gapperi*

- c Heather Vole *Phenacomys intermedius*

- a Meadow Vole *Microtus pennsylvanicus*

- a Montane Vole *Microtus montanus*

- u Long-tailed Vole *Microtus longicaudus*

- c Richardson Vole *Microtus richardsoni*

- r Sagebrush Vole *Lemmiscus curtatus*

- c Muskrat *Ondatra zibethicus*

- c Western Jumping Mouse *Zapus princeps*

- c Porcupine *Erethizon dorsatum*

#### Carnivora (Flesh-eaters)

##### Ursidae - Bear Family

- c Black Bear *Ursus americanus*
- u Grizzly Bear *Ursus arctos*

##### Canidae - Dog Family

- a Coyote *Canis latrans*
- x Gray Wolf *Canis lupus*
- r Red Fox *Vulpes vulpes*

##### Mustelidae - Weasel Family

##### Procyonidae - Raccoon Family

- r Raccoon *Procyon lotor*

##### Artiodactyla (Even-toed Hooves)

##### Cervidae - Deer Family

- a Elk (wapiti) *Cervus elaphus*
- c Mule Deer *Odocoileus hemionus*
- r White-tailed Deer *Odocoileus virginianus*
- a Moose *Alces alces*

##### Antilocapridae - Pronghorn Family

- c Pronghorn *Antilocapra americana*

##### Bovidae - Cattle Family

- c Bison *Bison bison*
- x Mountain Goat *Oreamnos americanus*
- u Bighorn Sheep *Ovis canadensis*

##### Key to Symbols

- a - Abundant - likely to be seen in appropriate habitat and season.
- c - Common - frequently seen in appropriate habitat and season.
- u - Uncommon - seen irregularly in appropriate habitat and season.

"Why do we so delight in the wild creatures of the forest, some of us so passionately that it colors our whole life?" —Wildlife biologist Olaus Murie in Wapiti Wilderness.



## General Information

The diversity of wildlife communities in Grand Teton National Park and the John D. Rockefeller, Jr., Memorial Parkway complements the spectacular scenery. Part of the Greater Yellowstone Ecosystem, the two National Park Service areas offer wildlife a variety of habitats. Each habitat must supply the basic needs of wildlife: food, water, cover and living space. Familiarity with the habitats and habits of park and parkway wildlife results in increased viewing opportunities.

## Habitat Types

### Alpine

Wind and snow limit life above treeline (about 10,000 feet). Some plants and animals have adapted to the seemingly harsh conditions. Plants are mat-like, animals are few. Look for yellow-bellied marmots, pikas and bighorn sheep.

### Sagebrush

The most widespread habitat type in the park, sagebrush flats occur on dry, porous soils. More than 100 species of grasses and wildflowers grow along with abundant sagebrush. Lack of cover makes large animals conspicuous. Look for pronghorns, coyotes, bison, badgers, elk and Uinta ground squirrels.

### Forests

From treeline to valley floor, forests provide cover and food for many mammal species. Lodgepole pines dominate, but forests also contain firs, aspens and spruces. Look for elk, mule deer, martens, red squirrels, black bears and snowshoe hares.

### Rivers, Lakes and Ponds

Aquatic habitats and adjacent forests, marshes and meadows fulfill the needs of many forms of wildlife. Diverse and abundant vegetation offers excellent food and cover. Water is plentiful. Look for moose, river otters, beavers, muskrats, coyotes, bison and mule deer.

## List of Mammals

### Insectivora (Insect-eaters)

- c Masked Shrew *Sorex cinereus*
- c Vagrant Shrew *Sorex vagrans*
- r Dwarf Shrew *Sorex nanus*
- u Northern Water Shrew *Sorex palustris*

### Chiroptera (Bats)

- c Little Brown Bat *Myotis lucifugus*
- u Long-eared Myotis *Myotis evotis*
- u Long-legged Myotis *Myotis volans*
- u Silver-legged Myotis *Lasionycteris noctivagans*
- r Hoary Bat *Lasiurus cinereus*
- u Big Brown Bat *Eptesicus fuscus*

### Lagomorpha (Rabbits and Hares)

- c Pika *Ochotona princeps*
- c Snowshoe Hare *Lepus americanus*
- u White-tailed Jackrabbit *Lepus townsendii*

### Rodentia (Gnawing Mammals)

- a Least Chipmunk *Tamias minimus*
- c Yellow Pine Chipmunk *Eutamias amoenus*
- u Uinta Chipmunk *Tamias umbrinus*
- c Yellow-bellied Marmot *Marmota flaviventris*
- a Uinta Ground Squirrel *Spermophilus armatus*
- c Golden-mantled Ground Squirrel *Spermophilus lateralis*
- a Red Squirrel *Tamasciurus hudsonicus*
- u Northern Flying Squirrel *Glaucomys sabrinus*
- u Northern Pocket Gopher *Thomomys talpoides*
- a Beaver *Castor canadensis*
- a Deer Mouse *Peromyscus maniculatus*
- u Bushy-tailed Woodrat *Neotoma cinerea*

- c Southern Red-backed Vole *Clethrionomys gapperi*

- c Heather Vole *Phenacomys intermedius*

- a Meadow Vole *Microtus pennsylvanicus*
- a Montane Vole *Microtus montanus*
- u Long-tailed Vole *Microtus longicaudus*
- c Richardson Vole *Microtus richardsoni*
- r Sagebrush Vole *Lemmiscus curtatus*
- c Muskrat *Ondatra zibethicus*
- c Western Jumping Mouse *Zapus princeps*
- c Porcupine *Erethizon dorsatum*

### Carnivora (Flesh-eaters)

#### Ursidae – Bear Family

- c Black Bear *Ursus americanus*
- u Grizzly Bear *Ursos arctos*

#### Canidae – Dog Family

- a Coyote *Canis latrans*
- x Grey Wolf *Canis lupus*
- r Red Fox *Vulpes vulpes*

#### Mustelidae – Weasel Family

- c Marten *Martes americana*
- u Short-tailed Weasel *Mustela erminea*
- r Least Weasel *Mustela nivalis*
- c Long-tailed Weasel *Mustela frenata*
- u Mink *Mustela vison*
- r Wolverine *Gulo gulo*
- c Badger *Taxidea taxus*
- u Striped Skunk *Mephitis mephitis*
- c River Otter *Lutra canadensis*

#### Felidae – Cat Family

- r Mountain Lion *Felis concolor*
- r Lynx *Felis lynx*
- r Bobcat *Felis rufus*

#### Procyonidae – Raccoon Family

- r Raccoon *Procyon lotor*

#### Artiodactyla (Even-toed Hooves)

##### Cervidae – Deer Family

- a Elk (wapiti) *Cervus elaphus*
- c Mule Deer *Odocoileus hemionus*
- r White-tailed Deer *Odocoileus virginianus*
- a Moose *Alces alces*

##### Antilocapridae – Pronghorn Family

- c Pronghorn *Antilocapra americana*

##### Bovidae – Cattle Family

- c Bison *Bison bison*
- x Mountain Goat *Oreamnos americanus*
- u Bighorn Sheep *Ovis canadensis*

### Key to Symbols

- a – Abundant – likely to be seen in appropriate habitat and season.
- c – Common – frequently seen in appropriate habitat and season.
- u – Uncommon – seen irregularly in appropriate habitat and season.
- r – Rare – unexpected even in appropriate habitat and season.
- x – Accidental – out of known range, or reported only once or twice.
- ? – Questionable – verification unavailable.

Abundance categories are based on the park and parkway wildlife database, research projects and observations by biologists and naturalists.

## Where to Look for Wildlife

### Northern Jackson Lake

From Lizard Creek Campground for four miles south, Highway 89-191 follows the eastern shore of Jackson Lake. Several turnouts and two picnic areas provide vantage points for enjoying the view of the Teton Range across the lake and for wildlife watching. Along the lakeshore, aspen groves and colorful wildflower meadows alternate with extensive conifer forests. Lush meadows attract mule deer and elk, while the lake attracts American white pelicans, Canada geese and other waterfowl.

### Colter Bay

The roads and trails in the Colter Bay area provide views of a wide array of mammals. Deer feed at the edge of conifer forests. Uinta ground squirrels flourish in dry sagebrush meadows, while red squirrels chatter incessantly from conifer forests. Alert observers catch occasional glimpses of snowshoe hares and martens in the conifer forests. Trails in the Colter Bay area lead to ponds inhabited by beavers, muskrats, waterfowl and sometimes river otters; hiking may also provide views of moose and elk.

### Willow Flats

The extensive freshwater marsh between Jackson Lake Dam and Colter Bay can be

viewed from the back deck of Jackson Lake Lodge and the Willow Flats Overlook, 1/4 mile south of the lodge. Shrubby willows provide browse for moose. In evening and early morning elk graze on grasses growing in large patches among willow stands. Beavers have created ponds by damming streams throughout Willow Flats; beaver ponds also harbor muskrats and waterfowl.

### Oxbow Bend

A cut-off meander of the Snake River is one mile east of Jackson Lake Junction. Slow-moving water provides habitat for fish such as suckers and trout, which become food for river otters, beavers (at dawn and dusk) and muskrats. Moose browse on abundant willows at the water's edge. Elk occasionally graze in the open aspen groves to the east.

### Teton Park Road from Signal Mountain to South Jenny Lake

Extensive sagebrush flats are interspersed with stands of lodgepole pines and aspens. Pronghorn gather in small groups in the flats where they browse on sagebrush. At dawn and dusk look for elk grazing on grasses and wildflowers growing among the sagebrush. Bison occasionally may be found between Signal Mountain and North Jenny Lake Junction.

tion. Please park in turnouts or pull vehicle onto the road shoulder while watching wildlife.

### Timbered Island

A forested ridge surrounded by sagebrush lies southeast of Jenny Lake. Small bands of pronghorns, fastest North American land animal, forage on sagebrush. Elk leave the shade of the forest at dusk to eat grasses growing among the sagebrush.

### Snake River

From Jackson Lake Dam south, the riparian area along the Snake River attracts a variety of wildlife. Elk and bison graze in grassy meadows along the river. Bison also eat grasses in the sagebrush flats on the benches above the river. Beavers and moose eat willows that line the waterway.

### Blacktail Ponds

This turnout is located 0.5 mile north of Moose on Highway 26-89-191. Old beaver ponds have filled in and now support grassy meadows where elk graze during cooler parts of the day. Moose browse on willows growing along the river.

## Hikes

### Hermitage Point Trail

Beavers thrive in numerous ponds, while moose forage on succulent pond vegetation and browse on willows. Deer and elk favor open forests.

### Two Ocean Lake and Emma Matilda Lake Trails

Numerous elk summer in this vicinity, feeding on meadow grasses during cooler parts of the day; open forests provide refuge for elk during hot summer days. Moose browse on willows growing along the lakeshore. Mule deer, coyotes, black and grizzly bears, martens and red squirrels also frequent this area.

### Cascade Canyon and Death Canyon Trails

Look and listen for pika and marmots in boulder fields along the trails. Moose browse on willows and other shrubs growing along creeks. Black bears frequent both canyons. Mule deer are occasionally seen at canyon mouths.

### Taggart Lake and Beaver Creek Trails

Willows growing along Beaver Creek provide food for moose. Elk graze on lush grasses and deer browse on shrubs that proliferated since the area burned in 1985.



*Bull moose (foreground), bull elk (center) and buck mule deer (background). Males have antlers; females do not. Antlers are shed each year—in December and January for moose, in late winter and early spring for elk and deer.*

## Bears

Black and grizzly bears live throughout the park and parkway and may be active any time of the day or night. To learn the differences between black and grizzly bears, consult the summer edition of the park newspaper, the *Taewinat*. The following guidelines are for your protection and for the preservation of bears, one of the true signs of wild country.

### A Fed Bear Is a Dead Bear

Feeding spells death for bears. Allowing a bear to obtain human food, even once, results in aggressive behavior. The bear is then a threat to human safety and must be removed or destroyed. Do not allow bears or other wildlife to obtain human food.

### Avoid Encounters

Make bears aware of your presence by making loud noises like shouting or singing. Be especially careful in dense brush or along streams where water makes noise. Bells are not recommended because the sound does not carry well. Look ahead when hiking.

### If You Encounter a Bear

Do not run. Running may elicit an attack. If the bear is unaware of you, detour quickly and quietly away. If the bear is aware but has not acted aggressively, back away slowly, talking in an even tone while waving your arms.

### Aggressive Bears

If a bear approaches or charges you, do not run. It will increase the chances of attack. Do not drop your pack; it may protect your body if attacked. Bears often "bluff charge," stopping before contact. Bear experts generally recommend standing still until the bear stops, then backing away slowly. Climbing trees is no protection from black bears and may not help with grizzlies either. If you are knocked down, curl into a ball protecting your stomach and back of your head and neck.

Deer feed at the edge of conifer forests. White ground squirrels flourish in dry sagebrush meadows, while red squirrels chatter incessantly from conifer forests. Alert observers catch occasional glimpses of snowshoe hares and martens in the conifer forests. Trails in the Colter Bay area lead to ponds inhabited by beavers, muskrats, waterfowl and sometimes river otters; hiking may also provide views of moose and elk.

#### Willow Flats

The extensive freshwater marsh between Jackson Lake Dam and Colter Bay can be

seen. Moose browse on succulent willows at the water's edge. Elk occasionally graze in the open aspen groves to the east.

#### Teton Park Road from Signal Mountain to South Jenny Lake

Extensive sagebrush flats are interspersed with stands of lodgepole pines and aspens. Pronghorn gather in small groups in the flats where they browse on sagebrush. At dawn and dusk look for elk grazing on grasses and wildflowers growing among the sagebrush. Bison occasionally may be found between Signal Mountain and North Jenny Lake Junc-

the sagebrush flats on the benches above the river. Beavers and moose eat willows that line the waterway.

#### Blacktail Ponds

This turnout is located 0.5 mile north of Moose on Highway 26-89-191. Old beaver ponds have filled in and now support grassy meadows where elk graze during cooler parts of the day. Moose browse on willows growing along the river.

### Hikes

#### Hermitage Point Trail

Beavers thrive in numerous ponds, while moose forage on succulent pond vegetation and browse on willows. Deer and elk favor open forests.

#### Two Ocean Lake and Emma Matilda Lake Trails

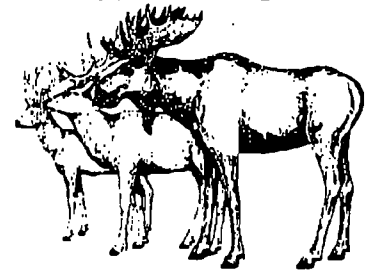
Numerous elk summer in this vicinity, feeding on meadow grasses during cooler parts of the day; open forests provide refuge for elk during hot summer days. Moose browse on willows growing along the lakeshore. Mule deer, coyotes, black and grizzly bears, martens and red squirrels also frequent this area.

#### Cascade Canyon and Death Canyon Trails

Look and listen for pika and marmots in boulder fields along the trails. Moose browse on willows and other shrubs growing along creeks. Black bears frequent both canyons. Mule deer are occasionally seen at canyon mouths.

#### Taggart Lake and Beaver Creek Trails

Willows growing along Beaver Creek provide food for moose. Elk graze on lush grasses and deer browse on shrubs that proliferated since the area burned in 1985.



*Bull moose (foreground), bull elk (center) and buck mule deer (background). Males have antlers; females do not. Antlers are shed each year—in December and January for moose, in late winter and early spring for elk and deer.*

### Bears

Black and grizzly bears live throughout the park and parkway and may be active any time of the day or night. To learn the differences between black and grizzly bears, consult the summer edition of the park newspaper, the *Teewinot*. The following guidelines are for your protection and for the preservation of bears, one of the true signs of wild country.

#### A Fed Bear is a Dead Bear

Feeding spells death for bears. Allowing a bear to obtain human food, even once, results in aggressive behavior. The bear is then a threat to human safety and must be removed or destroyed. Do not allow bears or other wildlife to obtain human food.

#### Avoid Encounters

Make bears aware of your presence by making loud noises like shouting or singing. Be especially careful in dense brush or along streams where water makes noise. Bells are not recommended because the sound does not carry well. Look ahead when hiking.

#### If You Encounter a Bear

Do not run. Running may elicit an attack. If the bear is unaware of you, detour quickly and quietly away. If the bear is aware but has not acted aggressively, back away slowly, talking in an even tone while waving your arms.

#### Aggressive Bears

If a bear approaches or charges you, do not run. It will increase the chances of attack. Do not drop your pack; it may protect your body if attacked. Bears often "bluff charge," stopping before contact. Bear experts generally recommend standing still until the bear stops, then backing away slowly. Climbing trees is no protection from black bears and may not help with grizzlies either. If you are knocked down, curl into a ball protecting your stomach and back of your head and neck.

### Etiquette for Wildlife Observers and Photographers

- Be a responsible wildlife observer; patience is often rewarded by witnessing interesting animal behavior not influenced by human presence.
- Use binoculars, spotting scopes or long lenses for close views and photographs. Maintain a safe distance of at least 300 feet from large animals such as bears, bison, moose and elk. Do not position yourself between an adult and its offspring. Females with young are especially defensive.
- Feeding wild animals makes them dependent on people. Animals often bite the

hand that feeds them. Do not feed wildlife, including ground squirrels and birds.

- Do not harass wildlife. Harassment is any human action that causes unusual behavior or change of behavior by an animal. Repeated encounters with people have cumulative results including stress and behavior changes, such as avoidance of an essential feeding area after frequent approach by people.
- For wildlife, raising young is a private affair. Nesting birds are easily disturbed. If an adult on a nest flies off at your approach, or circles you or screams in alarm,

you are too close to the nest. Unattended nestlings readily succumb to predation and exposure to heat, cold and wet weather.

- Allow other visitors a chance to enjoy wildlife. If your actions cause an animal to flee, you have deprived other visitors of a viewing opportunity.
- Use animals' behavior as a guide and limit the time you spend with wildlife, just as you would when visiting a friend's home.
- Follow park regulations and policies—see the *Teewinot*, the park newspaper for more information.

# Grand Teton

P.O. Drawer 170  
Moose, Wyoming 83012  
307 739-3300

John D. Rockefeller, Jr., Memorial Parkway

## Bird-Finding Guide

Grand Teton National Park and the John D. Rockefeller, Jr., Memorial Parkway encompass a range of habitats, from alpine meadows to sagebrush flats, from lodgepole pine forests to mountain streams. Birds use habitats that meet their needs for food, water, shelter and nest sites. Some birds frequent only one habitat type while others occupy a variety of habitats. This guide will acquaint you with some habitat types of the park and parkway as well as specific locations to look for birds. Use it in conjunction with a park map, *The Birds of Grand Teton National Park* by Bert Raynes, the checklist *Birds of Jackson Hole* and *Finding the Birds of Jackson Hole* by Bert Raynes and Darwin Wile, available at the Moose, Colter Bay and Jenny Lake Visitor Centers. Please report at a visitor center any sightings of birds listed as rare or accidental on the bird checklist.



Great blue heron

### Habitat Types

#### Lodgepole Pine Forests

Lodgepole pine grows in dense forests covering much of the valley and the lower slopes of the mountains. Expect olive-sided flycatchers, yellow-rumped warblers, ruby-crowned kinglets, mountain chickadees, white-crowned and chipping sparrows and dark-eyed juncos (especially in developed areas within lodgepole forests such as Colter Bay).

#### Aspens

Aspens occur chiefly in pure stands, often on hillsides. Many of the aspen stands in the park and parkway have rotting trunks that attract numerous woodpeckers. Saw-whet owls, house wrens, mountain and black-capped chickadees, tree swallows and violet-green swallows nest in old woodpecker cavities.

#### Sagebrush Flats

Sagebrush covers most of the valley called Jackson Hole. Despite the hot dry conditions existing where sagebrush grows, some

species flourish. Look for sage grouse, vesper sparrows, Brewer's sparrows and sage thrashers.

#### Alpine

Above 10,000 feet, severe conditions limit vegetation to low-growing forms. Birds that nest above treeline migrate south or to lower elevations for winter. Watch for golden eagles, Clark's nutcrackers, rosy finches, white-crowned sparrows and water pipits.

#### Aquatic and Riparian

Numerous rivers, creeks, lakes and ponds provide habitats where Canada geese and other waterfowl nest and osprey and bald eagles hunt for fish. Common snipe, white-crowned and Lincoln sparrows, yellow and MacGillivray's warblers and common yellowthroats nest and forage in adjacent wet meadows. American dipper search for insects in fast-moving streams.

### Bird-Watching Etiquette

Enjoy birds but be a responsible birder.

- Nesting birds of all species are easily disturbed. If an adult on a nest flies off at your approach or circles you or screams in alarm, you are too close to the nest. Unattended nestlings readily succumb to predation or exposure to heat, cold and wet weather.
- Good birding areas often attract other wildlife. Maintain a safe distance (300 feet) from large animals such as moose, bears and bison. Do not position yourself between a female and her offspring.

## Birding Hot Spots

### Grand View Point.

Old growth Douglas fir support Williamson's sapsuckers, red-naped sapsuckers and other woodpeckers. Common songbirds include mountain chickadees, red-breasted nuthatches, dark-eyed juncos, western tanagers and Townsend's solitaires. Blue grouse and ruffed grouse nest here. At the summit, look up for red-tailed hawks, white pelicans and other soaring birds.

### Christian Pond

Several species of waterfowl nest here. Look for ruddy ducks, ring-necked ducks, American wigeon and American coots. Trumpeter swans occasionally nest on the pond. Because human presence interferes with the swans' nesting effort, remain on the trail on the west side of the pond, at least 300 feet from the edge of the pond, and obey all posted closures.

### Willow Flats

Extensive willow thickets merge with wet grassy meadows. Small creeks and beaver ponds provide riparian and aquatic habitats. Look for cinnamon teal, green-winged teal and American wigeon in ponds and creeks. Sandhill cranes, northern harriers, American bitterns, common snipes and snags nest here. Calliope hummingbirds feed on scarlet gilia growing near Jackson Lake Lodge. Red-naped sapsuckers and other woodpeckers abound. Frequently seen songbirds include willow flycatchers, cliff swallows, yellow warblers, MacGillivray's warblers, common yellowthroats, Wilson's warblers, fox sparrows, white-crowned sparrows, pine siskins and yellow-headed blackbirds. Lazuli buntings and green-tailed towhees use the drier hillsides adjacent to Willow Flats.

### Oxbow Bend

A slow-moving, cut-off meander of the Snake River, Oxbow Bend supports lush underwater plant growth and abundant fish, food for aquatic birds. Great blue herons and osprey nest here. White pelicans, double-crested cormorants, common mergansers and bald eagles fish in the shallow water. Because of Oxbow Bend's proximity to Willow Flats, the birdlife is quite similar.

### Two Ocean Lake

Western grebes, trumpeter swans, common mergansers and occasional common loons summer on the lake. Western tanagers, pine grosbeaks, Cassin's finches and other songbirds abound in the open coniferous forests and aspen stands surrounding the lake.

### Cascade Canyon.

Glaciers gouged out Cascade Canyon thousands of years ago. Today Cascade Creek carries melted snow through conifer forests and meadows of wildflowers, while the Teton peaks tower above. American dippers frequent Cascade Creek near Hidden Falls. Western tanagers, ruby-crowned kinglets and yellow-rumped warblers nest near the trail. Also look for golden eagles, Steller's jays, gray jays, golden-crowned kinglets, dark-eyed juncos and occasional Townsend's warblers. Secretive harlequin ducks sometimes nest along the creek.

### Taggart Lake Trail

In 1985 a lightning-caused forest fire burned most of the trees on the glacial moraine surrounding Taggart Lake. Insects feeding on the decaying trees attract woodpeckers. Look for black-backed and three-toed woodpeckers. Abundant insects also attract mountain bluebirds, tree swallows, olive-sided and dusky flycatchers, western wood-pewees and yellow-rumped warblers. Calliope hummingbirds frequently perch in willows near the base of the moraine.

### Antelope Flats - Kelly Road.

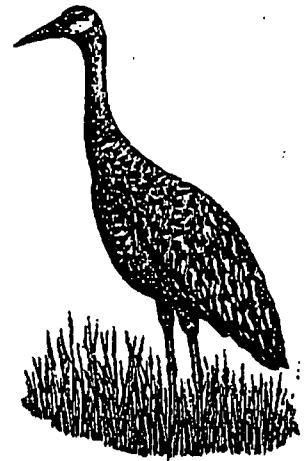
Large hayfields attract raptors that search the fields for abundant small rodents. Look for American kestrels, prairie falcons, red-tailed hawks, Swainson's hawks and northern harriers. Check fence posts for western meadowlarks, western and eastern kingbirds and mountain bluebirds. Scan irrigated pastures for long-billed curlews and savannah sparrows.

### Menor's Ferry at Moose

Follow the self-guiding trail to turn-of-the-century cabins along the Snake River. Bird life abounds due to riparian habitat. Violet-green, tree, cliff and barn swallows scoop insects out of the air as western wood-pewees, dusky flycatchers and mountain bluebirds hawk for flying insects. Yellow warblers glean insects from cottonwood trees and willow and silverberry shrubs lining the Snake River. Calliope, broad-tailed and rufous hummingbirds seek nectar from wildflowers. Kingfishers, common mergansers, ospreys and bald eagles catch fish in the river.

### Phelps Lake Overlook

The trail to the overlook traverses a lateral glacial moraine where mixed conifers and aspens grow. Because the trail follows a small creek, expect abundant birdlife. Look for western tanagers, MacGillivray's warblers, northern flickers, Lazuli buntings, ruby-crowned kinglets and green-tailed towhees. Listen for the sweet songs of hermit and Swainson's thrushes. Calliope and broad-tailed hummingbirds feed on scarlet gilia below the overlook.



Sandhill crane

## Partners in Flight

### Migratory Bird Conservation Program

Most of the birds found in the park and parkway are migratory, spending only 3-6 months here each year. Migratory birds are protected while they nest in national parks, but may lose safe nesting sites on other lands due to human activities. Migratory birds also face numerous perils on their long journeys to and from wintering grounds. Human-caused habitat changes fragment forests and remove safe feeding and roosting areas in migration corridors. Birds that migrate to the tropics may lose their winter range due to deforestation.

Birdwatchers and scientists alike have become concerned about the future of migratory birds. Show your concern by enjoying birds in your backyard and in your travels! Assist scientists to measure bird population changes by participating in bird counts and surveys, such as Christmas Bird Counts, the North American Migration Count, and Breeding Bird Surveys. Find out about the Partners in Flight program in your home state. You can use your interest and knowledge of birds to help assure their future!

# Grand Teton

John D. Rockefeller, Jr., Memorial Parkway

National Park  
P.O. Drawer 170  
Moose, Wyoming 83012  
307 739-3600

4 SHEETS

## Elk Ecology & Management



"Often from out of the forest, as I sit here writing, comes the long clear bugle note of a bull elk... These are the adventures of the wilderness, the scenes which make up Nature's great mosaic. Why do we so delight in the wild creatures of the forest, some of us so passionately that it colors our whole life." Elk biologist Olaus Murie, *Wapiti Wilderness*.

### Jackson Hole Elk

About 95,000 elk live in the Greater Yellowstone Ecosystem, a twelve-million acre area that includes Grand Teton and Yellowstone National Parks, the Rockefeller Parkway, seven national forests and two national wildlife refuges. Elk residing in Grand Teton and the Rockefeller Parkway are part of the large Jackson Hole elk herd. Management of this herd, including elk within the park and parkway, is intensive and involves an authorized hunt.

### Physical Characteristics

Elk are ungulates (hooved animals) that belong to the deer family. Elk have a dark head, neck and legs, with a lighter brown body and a cream-colored rump. Wapiti, the Shawnee name for elk, means white rump. Females have a darker body than males.

Mature males have branched antlers; yearling males, called spikes, usually have unbranched antlers. Antler size indicates dominance, nutritional state and genetic fitness. Females do not have antlers. Large males shed their antlers each year during March and April, while younger bulls shed their antlers later in the spring. New antler growth begins within a week after shedding and continues until late August when the antlers are full-sized. At peak rate of growth in summer, antlers may grow one inch per day. During the

growth period, antlers are covered with "velvet," a fuzzy substance composed of blood vessels that nourish developing antlers. Antlers are cartilage-like during formation, but later become bone. When antlers are fully developed, bulls rub the velvet off by scraping their antlers against saplings.

- Adult males weigh 550 - 800 pounds; adult females weigh 450 - 550 pounds.
- The breeding period, called the rut, occurs from late August to early November.
- The gestation period is 8-1/2 months; calving occurs in late May and June. Usually one calf is born; twins are very rare. New-born calves weigh 30 - 40 pounds at birth and 200 pounds at the end of their first summer.
- Most elk on the National Elk Refuge are 3 - 10 years old. The oldest elk was a 30 year old female; oldest male was 18 years old.

### National Elk Refuge

Settlement of Jackson Hole blocked traditional elk migration routes and winter range. Elk were attracted to hay that ranchers stored for livestock. Because of conflicts between wintering elk and livestock, the National Elk Refuge was established in 1912 to provide a secure winter range for elk. Today the refuge is comprised of 24,700 acres of land kept largely in native grasses and other plants elk will eat. When snow becomes crusty or too deep, elk are fed pelleted alfalfa hay. Elk are on the refuge for about six months and are usually fed for about two months. Winter mortality on the refuge is about 1.5%; under more natural wintering situations, up to 20% mortality can be expected depending on weather.

### Elk Annual Cycle

During autumn males gather harems of females that they mate and zealously guard. Bulls bugle, a high-pitched whistling sound, followed by grunts, as part of the mating ritual. Bugling is a male dominance display that attracts females and states the rank of the male. Rival males respond by bugling back. Bulls may actually spar with challengers, after first demonstrating threat postures, then thrashing the ground with their antlers.

Females enter estrus (breeding receptivity) for a twelve hour period. If they are not bred, estrus may recur up to four times at twenty day intervals. Eighty-five to ninety per cent of females become pregnant each year.

funnel to wintering grounds. Many elk winter on the National Elk Refuge at the southern, lower end of Jackson Hole. Migration begins in October and is usually completed by mid-December.

As snow melts in early spring, elk begin to stream off the refuge. They follow leafing-out of vegetation as they return to their traditional summer ranges in higher elevation meadows. Females give birth to calves on their summer range; some may calve during migration. Cows, calves and young males remain in small groups throughout the summer, while older males, their antlers in velvet, form bachelor herds.

Summer is a brief time of plenty for



we so delight in the wild creatures of the forest, some of us so passionately that it colors our whole life." Elk biologist Olaus Murie, *Wapiti Wilderness*.

## Jackson Hole Elk

About 95,000 elk live in the Greater Yellowstone Ecosystem, a twelve-million-acre area that includes Grand Teton and Yellowstone National Parks, the Rockefeller Parkway, seven national forests and two national wildlife refuges. Elk residing in Grand Teton and the Rockefeller Parkway are part of the large Jackson Hole elk herd. Management of this herd, including elk within the park and parkway, is intensive and involves an authorized hunt.

## Physical Characteristics

Elk are ungulates (hooved animals) that belong to the deer family. Elk have a dark head, neck and legs, with a lighter brown body and a cream-colored rump. Wapiti, the Shawnee name for elk, means white rump. Females have a darker body than males.

Mature males have branched antlers; yearling males, called spikes, usually have unbranched antlers. Antler size indicates dominance, nutritional state and genetic fitness. Females do not have antlers. Large males shed their antlers each year during March and April, while younger bulls shed their antlers later in the spring. New antler growth begins within a week after shedding and continues until late August when the antlers are full-sized. At peak rate of growth in summer, antlers may grow one inch per day. During the

growth period, antlers are covered with "velvet," a fuzzy substance composed of blood vessels that nourish developing antlers. Antlers are cartilage-like during formation, but later become bone. When antlers are fully developed, bulls rub the velvet off by scraping their antlers against saplings.

- Adult males weigh 550 – 800 pounds; adult females weigh 450 – 550 pounds.
- The breeding period, called the rut, occurs from late August to early November.
- The gestation period is 8-1/2 months; calving occurs in late May and June. Usually one calf is born; twins are very rare. New-born calves weigh 30 – 40 pounds at birth and 200 pounds at the end of their first summer.
- Most elk on the National Elk Refuge are 3 – 10 years old. The oldest elk was a 30 year old female; oldest male was 18 years old.

## National Elk Refuge

Settlement of Jackson Hole blocked traditional elk migration routes and winter range. Elk were attracted to hay that ranchers stored for livestock. Because of conflicts between wintering elk and livestock, the National Elk Refuge was established in 1912 to provide a secure winter range for elk. Today the refuge is comprised of 24,700 acres of land kept largely in native grasses and other plants elk will eat. When snow becomes crusty or too deep, elk are fed pelleted alfalfa hay. Elk are on the refuge for about six months and are usually fed for about two months. Winter mortality on the refuge is about 1.5%; under more natural wintering situations, up to 20% mortality can be expected depending on weather.

Elk on the refuge spend summers in Grand Teton National Park, the Bridger-Teton National Forest east of the park or in the southern part of Yellowstone National Park.



## Elk Annual Cycle

During autumn males gather harems of females that they mate and zealously guard. Bulls bugle, a high-pitched whistling sound, followed by grunts, as part of the mating ritual. Bugling is a male dominance display that attracts females and states the rank of the male. Rival males respond by bugling back. Bulls may actually spar with challengers, after first demonstrating threat postures, then thrashing the ground with their antlers.

Females enter estrus (breeding receptivity) for a twelve hour period. If they are not bred, estrus may recur up to four times at twenty day intervals. Eighty-five to ninety per cent of females become pregnant each year.

The rut is an intense time for bulls. Dominant males expend a considerable amount of energy and rarely eat. The price for passing on their genes consists of entering winter with their resources severely depleted.

Snowfall in the high country prompts elk to move from their summer ranges to lower elevations. To reach the grasses they eat, elk paw through snow, so their feeding is hampered by deep or crusty snow. Throughout the fall, elk in Grand Teton follow drainages and ridge lines as they

funnel to wintering grounds. Many elk winter on the National Elk Refuge at the southern, lower end of Jackson Hole. Migration begins in October and is usually completed by mid-December.

As snow melts in early spring, elk begin to stream off the refuge. They follow leafing-out of vegetation as they return to their traditional summer ranges in higher elevation meadows. Females give birth to calves on their summer range; some may calve during migration. Cows, calves and young males remain in small groups throughout the summer, while older males, their antlers in velvet, form bachelor herds.

Summer is a brief time of plenty. Elk are primarily grazers—they eat lush grasses and wildflowers, although when food is scarce, they will browse on woody shrubs and saplings. Elk eat at dawn and dusk, and spend warm days in the cool shade of forests as they ruminate (chew their cud). At first females leave their nearly scentless spotted calves curled up as they feed some distance away. Within a week or two, calves follow their mothers.

By late summer males' increased testosterone levels have resulted in completion of antler development and the start of the rut. As fall colors peak, the haunting sound of bugling elk fills the air...

**Population Regulation**

Female elk are able to begin breeding when they are 1-1/2 years old, but most start breeding at 2-1/2 years of age. Females usually breed every year and have one calf per year until they die, although about 70% of juveniles do not survive their first year. Life expectancy for female elk averages twelve years, but some may live into their twenties. Elk have a high reproduction potential: A ten-year old female may account for five additional living descendants, which is a five-fold increase in the population.

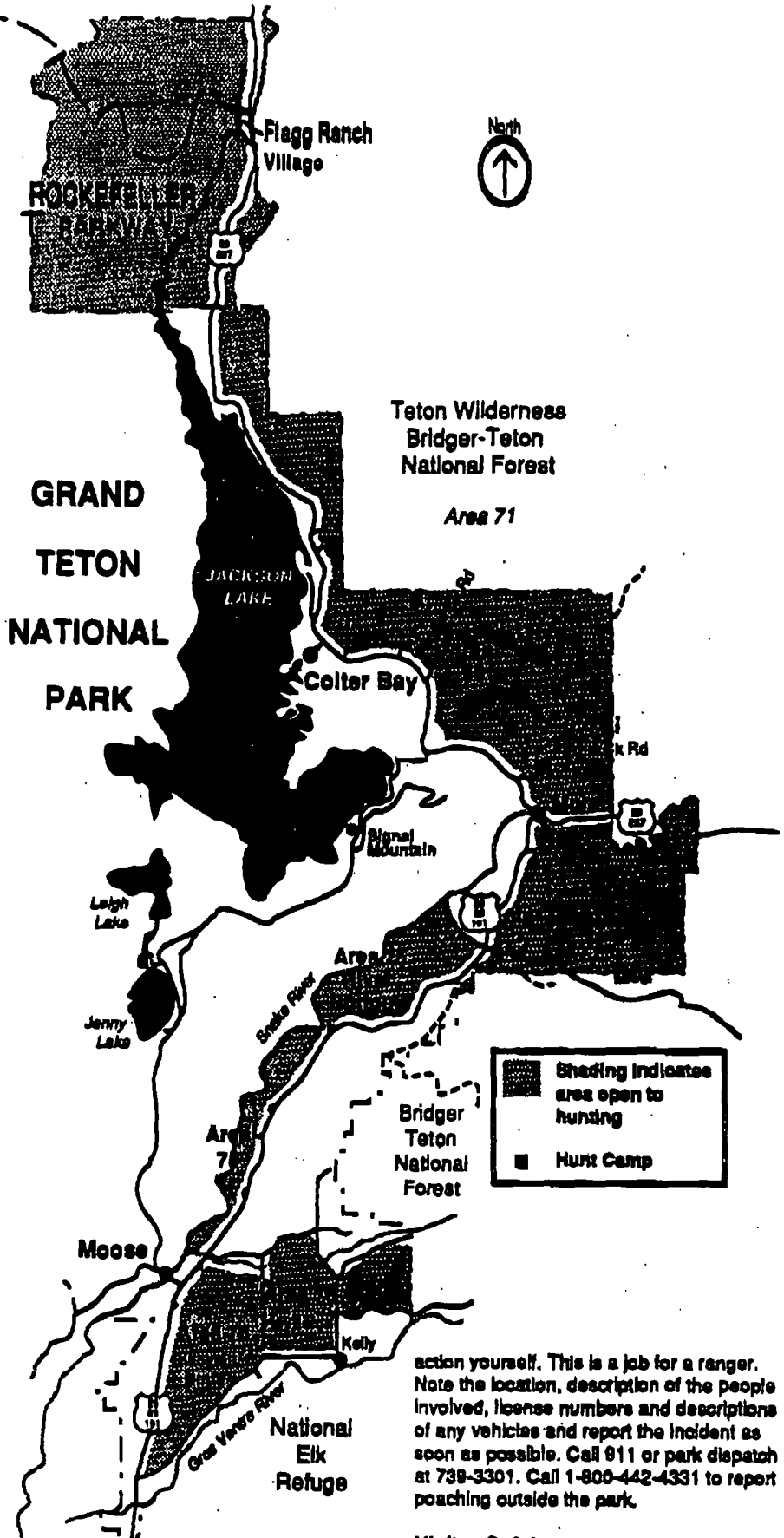
Winter mortality, disease and predation contribute to elk population reduction, as does hunting. Available natural winter range is limited due to human development. The National Elk Refuge is designed to support up to 7,500 elk each winter. In recent years about 10,000 elk have wintered on and near the refuge; about 90% of the Jackson Hole elk herd winters on the refuge and on three state-operated feed grounds in the Gros Ventre River drainage. Some elk winter singly or in small groups scattered throughout Jackson Hole. The Jackson Hole elk herd consists of about 18,000 elk, although the management objective is 11,000 elk.

**Elk Management Program**

The elk population within Grand Teton National Park is jointly managed by the Wyoming Game and Fish Department and the National Park Service. The present boundaries of Grand Teton National Park were established in 1950 by Public Law 81-787. Congress included a provision for managing elk numbers through a special annual elk management program. According to this law, hunters selected to participate in the hunt must have legal Wyoming hunting licenses for special areas 75/76 and 79 and are also deputized as park rangers.

**1994 Elk Management Program**  
Hunting occurs in Grand Teton National Park from October 15 through December 4, 1994. Between Moose and Moran, legal hunt areas are east of the Snake River. North of Moran Junction, legal hunting occurs east of Highway 89 and throughout the Rockefeller Parkway. See the map for specific areas that are open to hunting. Check at the Moose Visitor Center (open daily 8 a.m. - 5 p.m.) for more details.

Hunt camps are located within the park at Pacific Creek and at Pilgrim Creek; only hunters possessing valid permits for the park elk management program may camp at Pacific Creek, while Pilgrim Creek is also open to those hunters with general licenses. Hunters may not camp elsewhere in the park. Hunters that kill elk are required to hang the meat at least ten feet high from the racks provided in the hunt camps to prevent black and grizzly bears from obtaining the meat.



action yourself. This is a job for a ranger. Note the location, description of the people involved, license numbers and descriptions of any vehicles and report the incident as soon as possible. Call 911 or park dispatch at 739-3301. Call 1-800-442-4331 to report poaching outside the park.

**Visitor Safety**  
Hunting is prohibited within 1/4 mile of state highways 26 and 89 and within 1/2 mile of buildings. Some parts of Area 75/76 have a 1/4-mile closure. Closed parts of Area 75/76 are posted. Shooting is permitted adjacent to secondary roads within areas open to hunting. While visitors may hike in parts of

**Road closures**  
Certain park roads are closed or have nightly closures to allow elk to migrate freely and to prevent poaching. The RKO Road, the River Road and the Bar BC Road (unpaved roads from Signal Mountain south to Cottonwood Creek) are closed at all times effective October 1, 1994.

does hunting. Available natural winter range is limited due to human development. The National Elk Refuge is designed to support up to 7,500 elk each winter. In recent years about 10,000 elk have wintered on and near the refuge; about 90% of the Jackson Hole elk herd winters on the refuge and on three state-operated feed grounds in the Gros Ventre River drainage. Some elk winter singly or in small groups scattered throughout Jackson Hole. The Jackson Hole elk herd consists of about 18,000 elk, although the management objective is 11,000 elk.

### Elk Management Program

The elk population within Grand Teton National Park is jointly managed by the Wyoming Game and Fish Department and the National Park Service. The present boundaries of Grand Teton National Park were established in 1950 by Public Law 81-787. Congress included a provision for managing elk numbers through a special annual elk management program. According to this law, hunters elected to participate in the hunt must have legal Wyoming hunting licenses for special areas 75/78 and 79 and are also deputized as park rangers.

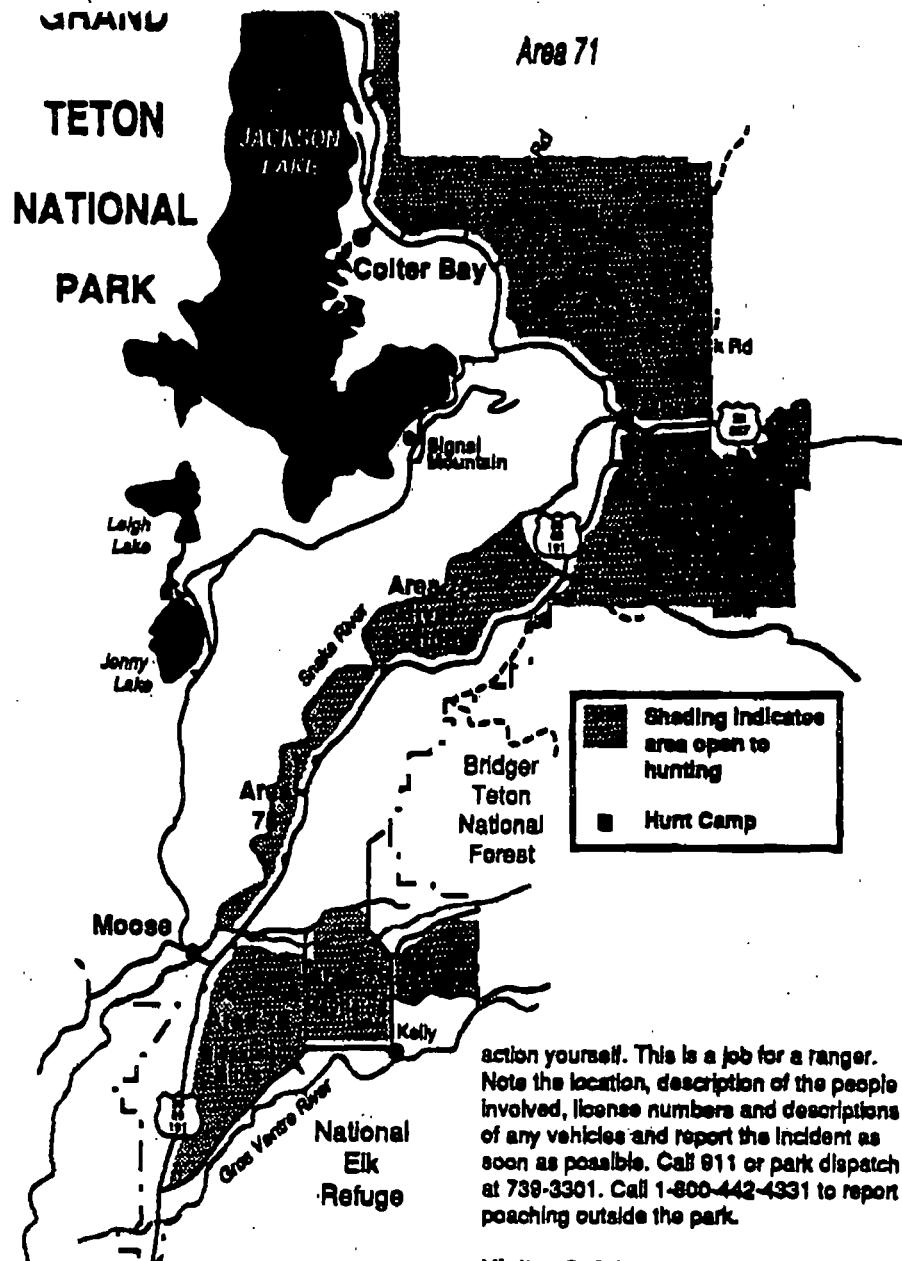
#### 1994 Elk Management Program

Hunting occurs in Grand Teton National Park from October 18 through December 4, 1994. Between Moose and Moran, legal hunt areas are east of the Snake River. North of Moran Junction, legal hunting occurs east of Highway 89 and throughout the Rockefeller Parkway. See the map for specific areas that are open to hunting. Check at the Moose Visitor Center (open daily 8 a.m. - 5 p.m.) for more details.

Hunt camps are located within the park at Pacific Creek and at Pilgrim Creek; only hunters possessing valid permits for the park elk management program may camp at Pacific Creek, while Pilgrim Creek is also open to those hunters with general licenses. Hunters may not camp elsewhere in the park. Hunters that kill elk are required to hang the meat at least ten feet high from the racks provided in the hunt camps to prevent black and grizzly bears from obtaining the meat.

#### Hunting in the Rockefeller Parkway

The John D. Rockefeller, Jr., Memorial Parkway unites Grand Teton and Yellowstone National Parks. This 24,000 acre unit is administered by Grand Teton, but hunting regulations are in accord with Wyoming State law. Elk hunting occurs throughout the Rockefeller Parkway. The Rockefeller Parkway is also open for legal hunting of several other game species from September 1 through December 31.



action yourself. This is a job for a ranger. Note the location, description of the people involved, license numbers and descriptions of any vehicles and report the incident as soon as possible. Call 911 or park dispatch at 739-3301. Call 1-800-442-4331 to report poaching outside the park.

#### Visitor Safety

Hunting is prohibited within 1/4 mile of state highways 26 and 89 and within 1/2 mile of buildings. Some parts of Area 75/78 have a 1/4-mile closure. Closed parts of Area 75/78 are posted. Shooting is permitted adjacent to secondary roads within areas open to hunting. While visitors may hike in parts of Grand Teton National Park and the Rockefeller Parkway that are open to legal hunting, it is not recommended. Most of the park's hiking trails are located in areas not open to hunting. Consult the map or check at the Moose Visitor Center for recommended hiking trails.

#### Safe Driving

Watch for large animals on the road. Drive slowly at night. Elk, bison and mule deer frequently migrate at night and may be difficult to see. Moose use roads as travel corridors. Hitting a large animal at highway speeds has resulted in fatal accidents. Careful driving protects you and wildlife.

#### Road closures

Certain park roads are closed or have nightly closures to allow elk to migrate freely and to prevent poaching. The RKO Road, the River Road and the Bar BC Road (unpaved roads from Signal Mountain south to Cottonwood Creek) are closed at all times effective October 1, 1994. The unpaved portion of the Moose-Wilson Road is closed nightly from 8 p.m. - 8 a.m. Mountain Daylight Time (7 p.m. - 7 a.m. when Mountain Standard Time starts) effective October 18, 1994. This portion of the Moose-Wilson Road closes for the season with the first significant snowfall and is not plowed after November 1. The Teton Park Road is closed for the winter from three miles north of Moose to Signal Mountain effective November 1, 1994.

#### Poaching

Abundant wildlife in national parks attracts poachers. If you witness any activity you believe to be illegal, do not attempt to take

**PRESIDENT WILLIAM JEFFERSON CLINTON  
RADIO ADDRESS TO THE NATION  
AUGUST 26, 1995**

Good morning. There is an old Native American saying that goes, "In all our deliberations we must take into account the well-being of the seventh generation to follow." The wisdom of those words has come alive to me during my family's Wyoming vacation.

During the past week, Chelsea, Hillary and I had the pleasure of visiting two of this nation's most spectacular national treasures -- Grand Teton and Yellowstone National Parks. Looking out at the grand vistas of mountains, rivers and sky, I have felt deeply grateful that those who came before us saw fit to preserve this land for the enjoyment of future generations.

That was the intent of Congress when it established the National Park Service 79 years ago yesterday. August 25, 1916 marked the beginning of America's bipartisan commitment to promote and preserve our natural, cultural and historic heritage.

I can think of few things as nourishing to mind, body and soul as a hike in the breathtakingly beautiful American wilderness that is so striking up here in Wyoming. And I can think of few things that mean more to the national life of our country than our national parks.

Last year, more than 270 million visitors made their way to places like Yellowstone, Grand Teton and Grand Canyon National Parks -- and to urban treasures like Golden Gate in California, Cuyahoga in Ohio, and Gateway in New York. Our 369 national parks are not only aesthetically pleasing, they are important to the economies of their communities. In 1994, visitors to Yellowstone pumped more than \$643 million into the local economy, creating more than 12,000 jobs. Visitors to Big Bend National Park along the Texas-Mexico border spent more than \$77 million while creating 1,544 local jobs.

But while our national parks have been good for local economies, many of them have fallen into disrepair. If we want them to be there for our children in the 21st century, we are going to have to turn this around. But there is a right way and a wrong way to do this. The wrong way is just to say this is an investment not worth making -- to close parks and sell them off to the highest bidder. That would not be keeping faith with the kind of common sense values that made this country great.

That's why my Administration joined with the American people this summer in refusing to allow budget cuts proposed by the Congressional majority that could have forced the closing of more than 200 national parks and recreation areas.

The right way to help our parks is through sensible reforms like the ones my Administration has proposed.

First, we want to put our parks on sound financial footing by keeping fees in the parks. Most visitors to our national parks believe the fees they pay are used for park improvements. They are not. But that will change under our reforms. Visitors tell us they want their money to stay in the parks and they would even pay a little more if they knew that was the case. That's what we propose to do.

The other thing that has to be changed is the archaic contract policies that have kept concession fees unreasonably low. We're going to change that. Those who make a profit from the private businesses they run in our parks should pay a fair amount for the privilege. And some of that money should also be returned to benefit the parks.

As we reform the way we manage our national parks, we must also make sure we continue to meet the larger challenge of keeping our environment safe and clean. Right now, we face a big threat from those who would depart from what has been a bipartisan commitment. Under pressure from polluting industries, the House recently voted to gut environmental and public health protections. If they get their way, the safety of our air, our food, our drinking water, the water we fish and swim in will be compromised. The budget bill they passed would cut environmental enforcement by 50 percent. It would virtually bring to a halt federal enforcement of the Clean Water Act and Clean Air Act, and it would stop toxic waste cleanups. This would be a terrible mistake, and I will not let it happen. The minute these anti-environment measures hit my desk, they will be dead.

The American people have stood together on common ground to preserve our environment. President Theodore Roosevelt, a Republican, began this century with a fervent call for conservation. In 1905 he said, "There can be nothing in the world more beautiful than the Yosemite, the groves of giant sequoias and redwoods, the Canyon of the Colorado, the Canyon of the Yellowstone, the Three Tetons -- and our people should see to it that they are preserved for their children and their children's children forever..." I second that emotion -- and after spending the past week in Wyoming, I have an even deeper appreciation for its meaning.

Let us end this century by meeting the challenge Teddy Roosevelt set for us at the beginning. We have made enormous progress in the protection of our environment the last two decades. The future can be even brighter. It's up to us.

Thanks for listening.