# Yellowstone Today Official Newspaper of Yellowstone National Park Today



Steamboat in its steam phase, 9 AM, May 2

NPS photo by Jim Peaco

#### Go, Steamboat, Go! World's Tallest Geyser Erupts

May 2 began as a quiet morning in Mammoth Hot Springs, the administrative headquarters of Yellowstone National Park. Then the word began going around the offices: Steamboat! Steamboat is erupting!

Steamboat is the world's tallest geyser, and it's in Norris Geyser Basin, which is about a 35 minute drive from Mammoth. People piled into cars and vans, and headed south. Many stopped at the overlook, where the photo at left was taken. Then they continued to the basin, where they heard and felt the power of Steamboat before they even got out of their cars.

Dozens of people—park employees, astonished visitors, delighted geyser fans—crowded the two platforms beside Steamboat, which by now was in its post-eruption steam phase. Steamboat erupts irregularly (the last eruption was October 1991) and its water phase lasts about twenty minutes. The only people who saw the water phase were visitors. They told a park employee about the eruption, which began around 5 AM, and then they disappeared. Although they had been illegally camped in the Norris parking lot, park officials wish the people had stayed around to be interviewed about their experience and to share their photos.

Even the steam phase, though, drenched the viewers and platforms. The clouds of vapor billowed high and condensed, falling as a fine mist that shifted with the breeze. Water dripped off hoods and hats; off the benches and signs. Comments from the crowd:

- "I can feel its power in my body," said one visitor.
- "It's humbling," said a visitor, "There's so much more we don't know."
- "It smells like fried rock around here," another offered.
- "Fierce," said one park interpreter. "Spectacular."
- "Alive," said another. "It is undulating so much."
- "I've seen it three times," said a former park employee, " and it's just as amazing this time."

You could look straight up and not see the top of the steam. We all wondered how high the eruption had been; in the past Steamboat has blown several hundred feet into the air. However, you can gauge the height of the steam phase by looking closely at the photo, which was taken at 9 AM, four hours after the eruption. If the trees at the base of the steam are 100–150 feet high, then how high was the steam?

Will Steamboat blow again this summer? In the 1980s, Steamboat erupted 23 times in one summer. That amount of activity rarely occurs, but you never know. . . . So be sure to stop by Norris. As Yellowstone's geyser observers like to say, "Go, Steamboat, Go!"

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\*Activities—Center Section, A-H

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The National Parks Pass is the new way to save on entrance fees!
See page 4.

### **International Visitors**

Le Parc national de Yellowstone présente des risques particuliers. Regardez la page 2. Des renseignements en français sont disponibles aux centres des visiteurs dans le parc at aux kiosques d'entreé. Der Yellowstone National Park hat gewisse Gefahren. Sehen Sie Seite 2. Sie können Information auf Deutschan den Besucherzentren und Parkeingangen bekommen.

Existen peligros únicos en el Parque Nacional Yellowstone. Vea página 2. Se puede conseguir información en español en los Centros de Visitantes y las entradas.

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Unique dangers exist in Yellowstone National park. See page 2. You can obtain more information at visitor centers and entrance stations.

#### Road Construction may delay your travel

See the back page for road construction locations.

Park Information: 307-344-7381 www.nps.gov/yell

Emergency—Dial 911



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# Some Things All Visitors Must Know...

#### Yellowstone Today\_

# **Unpredictable Wildlife— Keep Your Distance!**

You will see more of an animal's natural behavior and activity if you are sensitive to its need for space. Do not approach any wildlife, especially those with young. View them from the safety of your vehicle. If an animal reacts to your presence, you are too close.

Each year a number of park visitors are injured by wildlife when they approach animals too closely. You must stay at least 100 yards (91 m) away from bears and at least 25 yards (23 m) away from all other large animals—bison, elk, bighorn sheep, deer, moose, wolves, coyotes.

BISON may appear tame and slow but they are unpredictable and dangerous. They weigh up to 2,000 pounds (900 kg) and sprint at 30 miles per hour (48 kph)—three times faster than you can run! Every year visitors are gored, and some are killed.

**COYOTES** quickly learn bad habits like roadside begging. This may lead to aggressive behavior toward humans.

**BEARS**—be alert for tracks and sign. The best way to avoid being injured by a bear is to take all necessary precautions to avoid surprise encounters.

Page 7, "Hiking and Camping in Bear Country," provides important information on precautions and what to do if you encounter

If precautionary measures fail and you are charged by a bear, you can defuse the situation in most cases. Pepper spray is a good last line of defense, it has been effective in more than 90% of the reported cases where it has been used. Become familiar with your pepper spray, carefully read all instructions, and be aware of its limitations. Pepper spray must be immediately available, not in your pack. Remember, carrying pepper spray is not a substitute for vigilance and good safety precautions.

If you are involved in a conflict with a bear (regardless of how minor), or if you observe a bear or bear sign, report it to a park ranger as soon as possible. Someone's safety may depend on it

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# Emergency —dial 911

Park Information— (307) 344-7381

(long distance from some locations in the park)

### **Scalding Water Can Ruin Your Trip**

Yellowstone's thermal features, rare among the earth's wonders, are extremely fragile. Boardwalks and trails protect you and preserve delicate formations. You must stay on boardwalks and designated trails. Scalding water underlies most of the thin, breakable crust; pools may be near or above boiling temperatures.

Pets are prohibited in thermal areas

Swimming or bathing in thermal pools or streams where water flows entirely from a thermal spring or pool is prohibited. Where swimming is allowed, swim at your own risk. Thermal waters may contain organisms known to cause infections and/or amoebic meningitis, which can be quickly fatal. Obtain more information at any ranger station or visitor center.

### Attention Anglers & Boaters

Yellowstone National Park's fishing season opens the Saturday of Memorial Day weekend and closes the first Sunday in November. Boats and float tubes require permits; see page 6.

### **Backcountry Permits**

Permits are required for **overnight backcountry use** and may be obtained in person up to 48 hours in advance from any ranger station. Rangers will provide information on weather, trails and other conditions. See page 7 for more information.

#### **Bicycling**

Bicycling is permitted on established public roads, parking areas, and designated routes. There are no bicycle paths along roadways. Bicycles are prohibited on backcountry trails and boardwalks.

We strongly recommend that safety gear, including helmet and high visibility clothing, be worn by all bicyclists. Park roads are narrow and winding; most do not have a shoulder, or shoulders are covered with gravel. During April, May, and June, high snowbanks make travel more dangerous. Road elevations range from 5,300 to 8,860 feet (1,615–2,700 m); relatively long distances exist between services and facilities.

Motorists frequently do not see bicyclists or fail to give them sufficient space on the road. Drivers sometimes pass on hill crests, blind curves or in oncoming traffic. Vehicles, especially motor homes or those towing trailers, may have wide mirrors, posing an additional hazard. For more information about bicycling in Yellowstone, inquire at a visitor center.

#### **Falling Trees**

Following the fires of 1988, thousands of dead trees, known as snags, were left standing in Yellowstone. These snags may fall with very little warning.

Be cautious and alert for falling snags along trails and roadways, and in campsites and picnic areas. Avoid areas with large numbers of dead trees. Again, there is no guarantee of your safety.

#### Weapons

No firearms or weapons, including state-permitted concealed weapons, are allowed in Yellowstone.

However, unloaded firearms may be transported in a vehicle when the weapon is cased, broken down or rendered inoperable, and kept out of sight. Ammunition must be placed in a separate compartment of the vehicle.

#### **High Altitude**

Visitors with a cardiac or respiratory medical history should be aware that most park roads range between 5,300 to 8,860 feet (1,615–2,700 m) in elevation. We recommend contacting a physician prior to your visit.

Be aware of your physical limitations. Don't overexert and drink plenty of fluids to forestall the dehydrating effects of the park's dry climate. Stop and rest frequently.

#### Pets

Pets must be leashed. They are prohibited on any trails, in the back-country, and in thermal basins. Pets are not allowed more than 100 yards from a road or parking area. Leaving a pet unattended and/or tied to an object is prohibited.

#### Traffic

Yellowstone has more than 350 miles (564 km) of roads. Most are narrow, rough, and busy! Some sections are steep with sharp dropoffs. Drive cautiously and courteously; slow moving vehicles must use pullouts to observe wildlife or scenery and to allow safe passing by other vehicles. Watch for animals on the road, especially at night.

Bicycles and motorcycles present special hazards. Drive defensively and wear seat belts. Yellowstone has a mandatory seat belt requirement for all passengers. Be especially cautious of ice and road damage; cool temperatures may occur any time of the year. The maximum speed limit is 45 mph (73 km per hour) unless otherwise posted.

# Avoid These Situations

Your visit may be marred by tragedy if you violate park rules. Law enforcement rangers strictly enforce park regulations to protect you and the park. Please help keep our contacts with you pleasant by paying special attention to park regulations and avoiding these problems:

- speeding (radar enforced)
- driving while intoxicated (open container law is enforced)
- off-road travel by vehicle or bicycle

- improper food storage
- camping violationspets off leash
- littering
- swimming in thermal pools
- removal or possession of natural (flowers, antlers, etc.) or cultural (artifact) features
- feeding or approaching wildlife
- spotlighting (viewing animals with artificial light)
- boating and fishing violations
- failure to remove detachable side mirrors when not pulling trailers

Yellowstone is a wilderness filled with natural wonders that are also potential hazards. There is no guarantee of your safety. Regulations are strictly enforced to protect you and the park's wonders.

### Information and Activities

-Yellowstone Today -

### Visitor Centers, Museums, and Information Stations

#### Albright Visitor Center, Mammoth Hot Springs

Daily, 8 AM–7 PM. Information, bookstore, and exhibits on the wildlife, early history, exploration, and establishment of Yellowstone National Park are available. A 25-minute film on the national park idea and a 12-minute film on the artist Thomas Moran are shown throughout the day. Check at the visitor center for more information or call 307-344-2263.

### West Thumb Information Station

Daily, 9 AM-5 PM. Information and bookstore are available.

#### Norris Geyser Basin Museum

Daily, 8 AM-7 PM. Information, bookstore, and exhibits on the geothermal features of Yellowstone are available. Bookstore open 9 AM-5 PM. Call 307-344-2812 for information.

# Museum of the National Park Ranger, Norris

Daily, 9 AM-6 PM. Exhibit at historic soldier station traces development of the park ranger profession; video shown. Take a few minutes to chat with former National Park Service employees who volunteer at the museum.

### Madison Information Station

Daily, 9 AM-7 PM. Information and bookstore are available. Bookstore open 9 AM-5 PM. Call 307-344-2821 for information.

#### **Canyon Visitor Center**

Daily, 8 AM-7 PM. Information, bison exhibit, and bookstore are available. Call 307-242-2550 for information.

#### **Grant Visitor Center**

Daily, 8 AM-7 PM. Information, bookstore, exhibits, and a video on the role of fire in Yellowstone are available. Call 307-242-2650 for information.

### Fishing Bridge Visitor Center

Daily, 8 AM-7 PM. Information, bookstore, and exhibits on Yellowstone's birds and other wildlife are available. Call 307-242-2450 for information.

### Old Faithful Visitor Center

Daily, 8 AM–7 PM. Information window open 8 AM–8 PM. Information, bookstore, and geyser eruption predictions are available. A short movie on thermal life is shown throughout the day. Check at the visitor center for more information or call 307-545-2750.

The proposed Old Faithful Visitor Education Center.

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### **Self-Guiding Trails**

Solution lower the sights, smells, and sounds of this park. Some trails traverse areas of thin earth crust, unstable ground, and boiling water; others follow steep-sided, deep canyons and drop-offs. For your safety and the protection of fragile formations and resources, stay on boardwalks and trails. Trail guides are available at most locations.

#### Mammoth Hot Springs Terraces

Visitors marvel at the surreal appearance of these travertine terraces; they are found nowhere else in the park. As an early visitor described them: "The hot springs fall over a lofty hill of snowy whiteness, resembling cascades." A walking trail through the Lower Terraces and a one-way drive through the Upper Terraces offer views of these fascinating formations.

#### Fort Yellowstone Historic Trail

Most of the buildings constructed in Mammoth during the time that the U.S. Army managed the park (1886–1918) are still standing and are now used by the National Park Service as its headquarters. There is an established walking tour through the major areas of the Fort.

### Norris Geyser Basin

Explore the hottest, most active thermal basin in the park. Trails start at the Gevser Basin Museum. Porcelain Basin is open terrain with hundreds of densely packed geothermal features. The Back Basin trail winds through more forested terrain, and the features here are more scattered and isolated. The world's tallest geyser, Steamboat, is here, and it erupted in May 2000—its first eruption since October 1991.

# Grand Canyon of the Yellowstone

The Canyon and the Upper and Lower Falls can be seen from overlooks along the rim drives. The North Rim Drive takes you to Inspiration, Grandview, and Lookout Points. A spur road leads to an overlook at the brink of the Upper Falls. The South Rim Drive leads to

Uncle Tom's Trail and Artist Point. Trails also follow both rims.

#### West Thumb Geyser Basin

Situated on the shore of Yellowstone Lake, the boiling springs in this basin, including the famous Fishing Cone, discharge their waters into the icy lake. With the Absaroka Mountains as a backdrop to the east, this is truly one of the prettiest boardwalk trails you will find anywhere in the park.

### Upper Geyser Basin

The world's largest concentration of geysers is located here, including Old Faithful. After you view that famous feature, walk the several miles of trails that wind past hundreds of geysers and hot springs. Names such as Beehive, Grotto, Castle, Spasmodic, Grand, Giant, Riverside, and Morning Glory hint at the wonders you will see. Stop at the

visitor center more information.

### **Fountain Paint Pot**

Active, ever-changing mud pots; constant geysers; hissing fumaroles; and colorful, boiling hot springs make this area a worthwhile stop. Park in the large parking area 8 miles (12.9 km) north of Old Faithful on the road to Madison Junction.

#### **Mud Volcano**

Discover turbulent and explosive mud pots, including Mud Volcano and Dragon's Mouth. View—and smell—Sulphur Cauldron from the overlook just north of the Mud Volcano area; located on the road between Lake and Canyon, 6 miles (9.6 km) north of Fishing Bridge Junction.

### **Accessibility Guide Available**

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Afree Visitors Guide to Accessible Features in Yellowstone
National Park is available at all entrance stations and visitor
centers in the park. This guide describes which facilities
have been judged to be negotiable for wheelchair users.
Additional facilities are being made accessible as quickly as possible
within funding limitations.

For more information, write to:

Park Accessibility Coordinator P.O. Box 168, Yellowstone National Park, WY 82190; TDD only (Telecommunications Device for the Deaf) (307) 344-2386.

# Yellowstone Highlights

#### Yellowstone Today-

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The Lower Falls of the Yellowstone River

"Now that I'm here, where do I go?" It's not an unusual question, especially for first-time visitors. Consider the facts: Yellowstone encompasses approximately 2.2 million acres or 3,472 square miles. It is larger than the states of Delaware and Rhode Island combined and spreads across the borders of three states—Wyoming, Montana, and Idaho. Elevations range from approximately 5,300 feet (1,608 meters) at the North Entrance to almost 11,358 feet (3,640 m) at Eagle Peak on the east boundary; most roads lie at 7,500-8,000 feet (2,275-2,427 m).

Historically, visitors referred to Yellowstone as "Wonderland," and that is still appropriate today. An unparalleled array of geothermal phenomena—geysers, hot springs, steam vents, and mud pots-are

evidence of a volcanic past and the active earth beneath our feet.

The Grand Canyon of the Yellowstone is famous for its colors, shapes, and waterfalls such as the the Lower Falls, shown above. The park is home to a variety and abundance of wildlife found in few other places. Yellowstone Lake and numerous rivers, streams, and waterfalls are the headwaters for many national water systems.

With so much to see and do, you can easily become overwhelmed. The following tips and information, and the activity schedule (pages A-H) will help you plan your time to suit your interests and energy level. Rangers at visitor centers and information stations (see page 3) can fill in the details and help you make the most of your visit.

The park's major scenic attractions are located along the Grand Loop Road, the figure-eight shaped road in the center of the park. The total distance around the Loop is 142 miles (229 km). The distance around the Upper Loop is 70 miles (113 km); the Lower Loop, 96 miles (155 km). Driving time is difficult to estimate because the speed limit is 45 mph (73 kph) or lower where posted; roads are narrow, winding, and full of pot holes and frost heaves; and traffic may be heavy and slow. While you can drive the Grand Loop in a day, major attractions like Old Faithful Geyser and the Grand Canyon of the Yellowstone can only be seen by driving to a parking area and walking to the feature.

If you have limited time, consider spending it at just one area instead of trying to see the park from the road. Many people believe that to fully appreciate just the major attractions in Yellowstone, you must spend at least three days.

#### **Geysers & Hot Springs**

The world's greatest concentration of thermal features is located in Yellowstone: about 10,000 thermal features are known, including more than 300 geysers. Many of the most famous features can be found along the 50 mile (81 km) road between Mammoth Hot Springs and Old Faithful.

Areas of thermal activity include the Mammoth Hot Springs Terraces, Norris Geyser Basin, Fountain Paint Pot, Firehole Lake Drive, Midway Geyser Basin, Biscuit Basin, Black Sand Basin, and the Old Faithful area. West Thumb Geyser Basin is 17 miles east of Old Faithful: Mud Volcano is north of Yellowstone Lake.

#### **Grand Canyon**

The Grand Canyon of the Yellowstone extends from Canyon Village north to Tower Junction. The most famous and spectacular section, including the Upper and Lower Falls of the Yellowstone River, is seen from overlooks along the North and South Rim roads in the Canyon Village area. The northernmost extent of the canyon is visible from Tower Fall and Calcite Springs overlooks, 19 miles (31 km) north of Canyon Village.

The road between Tower Junction and Canyon Village goes over Dunraven Pass, the highest road in the park at 8,600 feet (2700 m). Along the way you will find spectacular views of the Absaroka Mountains, the Yellowstone caldera, and, on a clear day, the Teton Range to the south.

#### Lake Area

Yellowstone Lake, with about 110 miles (170 km) of shoreline and approximately 136 square miles (354 sq km) of surface area, is North America's largest highaltitude lake. The area is prime habitat for a variety of birds and

#### **Viewing Wildlife**

Yellowstone is home to a variety and abundance of wildlife unparalleled in the lower 48 states. The numbers and variety of animals you see are largely a matter of luck and coincidence, but the viewing tips on page 8 can help.

Please be safe when you stop: Always use pullouts, never stop in the middle of the road or block traffic. Also, remember that Yellowstone's animals are wild. Undisturbed space is among the greatest of their needs. Respect

this, and you will be rewarded by seeing more of their natural activities and discovering how they live in the wild. Use binoculars or telephoto lenses for your safety and to avoid disturbing them.

#### **History**

Mammoth Hot Springs is the site of park headquarters. It is also the site of Fort Yellowstone, built during the Army era (1886 to 1918) of park administration. The former Bachelor Officers' Quarters is now the Albright Visitor Center where the story of Yellowstone's colorful history is told. There is also a selfguided walking tour through the historic district. Other historic buildings in Yellowstone include the Old Faithful Inn, Lake Hotel, and the Museum of the Park

#### Services & Facilities

General park information is available by calling National Park Service headquarters at (307) 344-7381 (long distance from some park locations).

See page 15 for a directory of commercial services. All facilities. accommodations, and services are available from approximately mid-June to late August. However, limited services are available before and after that period. Please note opening and closing dates.

These highlights will help you plan your visit to Yellowstone, but much is left for you to discover. May your visit be safe, rewarding, and memorable.

### A New Way to Save On Yellowstone Entrance Fees

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> The National

provides a new way to save money when visiting your national parks. One annual fee of \$50 enables you to enter all National Park Service areas. You receive a great value by purchasing the pass, and you also provide support to your favorite national parks. A full 70% of the proceeds from

the sales of passes at Yellowstone will go directly to projects that help visitors experience the area. The remaining proceeds go to a national fund that supports projects at any of the 379 national parks in the system. To obtain your pass, stop by one of Yellowstone's entrance stations, or purchase the pass online at www.nationalparks.org or call toll-free: 1-888-GO-PARKS (1-888-467-2757). For an additional \$15, you can upgrade your National Park Pass to a Golden Eagle Pass, which provides admission to all national parks, national wildlife refuges, and other fee

Private, noncommercial automobile Individual snowmobile, motorcycle Single entry (foot, bike, ski, etc.) Annual Pass, both parks National Parks Pass

Golden Eagle Pass

Golden Age Pass

Golden Access Pass

\$20 (7 days, both Yellowstone and Grand Teton)

\$15 (7 days, both parks)

\$10 (7 days, both parks)

\$40 (valid one year from date of purchase) \$50 (valid one year from date of purchase for entrance fees at National Park Service areas) \$65 (valid one year from date of purchase at most federal fee collection areas)

\$10 (one-time fee for lifetime pass—available to those citizens or permanent residents of the U.S. 62 years of age and older)

Free (available to those citizens or permanent residents of the U.S. who have been determined to be blind or permanently disabled)

NOTE: Remember to keep your admission receipt in order to re-enter the park.

# **History & Discovery**

-Yellowstone Today-

### Did They See Steamboat First? Native People & the Park

Native Americans may not have witnessed Steamboat before Euro-Americans—this geyser came into existence in 1878. But they definitely had been visiting Yellowstone and its geysers for hundreds—if not thousands—of years.

"Eaters of the Bighorn Sheep" inhabited the interior of present-day Yellowstone National Park. Plains and Plateau peoples—including the Assiniboine, Bannock, Blackfeet, Eastern Shoshone, Kiowa, Nez Perce, Salish & Kootenai and Sioux—knew Yellowstone with varying degrees of intimacy, exploring and exploiting its diverse habitats. Geyser activity was regarded as awe inspiring by Indians as by Euro-Americans.

Occupants on the East. During the historical period, the Crow favored the doorway outside of present day Cody as their avenue into the Yellowstone Plateau. There, they hunted for bison, elk, and deer; and they went to the high ridges and geyser basins for vision quests. The Kiowa of Oklahoma, too, deep in their history, had a relationship with Yellowstone. Oral accounts describe their emergence in the land where "there was only dirt and rough stone formations, and here and there clouds of steam shot out of holes and fissures in the ground." For a long time, they regarded Yellowstone as their homeland.

Wayfarers from the North. Indian travelers such as the Blackfeet and Flathead reached the Yellowstone Plateau by two major trailsthe Yellowstone River or the Beartooth Pass near Red Lodge, Montana. Blackfeet (or Natsitapii, as some prefer) traveled from western Canada down along the Rockies, through or edging along Yellowstone, to Shoshone country and the central Wyoming tribes. In 1865, they guided a Jesuit priest directly to Yellowstone's Grand Canyon and Firehole Basin. Blackfeet accorded the area special respect by leaving tobacco and praying with their pipes. The ancestors of the Confederated Tribes of Salish & Kootenai (historically referred to as the Flathead) hunted and raided as far east as present-day Billings and into the Big Horns of Wyoming. They sought out the obsidian quarries in Yellowstone and visited the "mountain Snake" or Sheep Eaters. On their biannual

quest for buffalo, they followed a trail through the present day park. Scattered family groups foraged there in the fall and might stay all winter. Salish & Kootenai names for the area refer to the "Yellow Stone," and to the "Smoke from the Ground." For the Assiniboine, the thermals of Yellowstone marked the southwestern boundary of their traditional terrain.

At the Center: Residents of the Highlands. High altitude dwelling Shoshoneans, also called Sheep Eaters, inhabited the mountains of Wyoming, northern Idaho, and southern Montana. The mountains of Yellowstone National Park, the Absarokas, and the Wind River also were the home of their deities. Often described as the only permanent residents of Yellowstone, they followed the migration of the mountain sheep in much the same way year after year. Sheep Eaters also had an appetite for fish. Stone net sinkers were randomly found along the shores of Yellowstone Lake. In addition, they foraged for roots, seeds, nuts, and berries. Sheep Eaters lived in conical timbered lodges, or wickiups. Their contemporary descendants are the Eastern Shoshone of Wind River and the Shoshone Bannock of Fort Hall, Wyoming.

Visitors on the West. When the Bannock of Idaho acquired horses in the 1600s, they searched for bison in the Yellowstone area, referred to as "Buffalo Country." They made yearly fall trips to the Yellowstone Plateau when no adequate supply of bison was left on the Snake River plain. The Lemi Shoshone wintered with the Bannock on the Snake River and were partners on bison hunting expeditions. As they moved through

Standing on a platform close to Steamboat (right), viewers could feel the platform vibrate from the power of the geyser's steam, which continued to billow out for hours. The evening of the eruption, park photographer Jim Peaco tells visitors that Cistern Spring (far right) will continue to empty as Steamboat quiets. NPS photos by Jim Peaco (right) & Tom Cawley (far right and above) the landscape, they gathered seeds, roots, berries, and white pine nuts. When the Nez Perce acquired horses, they began to explore to the east as hunters, traders, and raiders. They entered the park on customary trails, and they used the geysers and hot springs ceremonially. Their flight to Canada in 1877 across the Yellowstone Plateau revealed their intimate knowledge of the park landscape. The Nez Perce now lived in western Idaho.

Sojourners from the South. Once the Eastern Shoshone obtained horses, they occupied the upper Yellowstone country, the northernmost reaches of their domain. Elders among contemporary Eastern Shoshone still retain some knowledge of religious and social practices that link them to the greater Yellowstone ecosystem. For many practical and spiritual reasons, they continue to value the hot springs of the area.

Yellowstone National Park and Contemporary American Indians. As many as 25 native bands and tribes retain an interest in their histories and customs related to Yellowstone. Park personnel routinely consult with them regarding the significance of the park. This information enhances planning, resource management, and visitor education programs.

Article by Rosemary Sucec, the cultural anthropologist currently stationed in Yellowstone. Cultural anthropologists Peter Nabokov and Larry Loendorf obtained information about specific tribes affiliated with Yellowstone National Park and the greater Yellowstone ecosystem. Together, they searched out written records and collaborated with tribal peoples to produce a report on the relationships of American Indians with the Park. This report will soon be available to the general public.

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The divers' boat, above, was joined by another boat full of scientists. Everyone cheered when the divers hauled up a small sample (left) of the underwater wonders. Scientists suspected these were thermal formations, and now they are certain. Research and analysis of the samples continues.

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### **Diving for Yellowstone's Underwater Wonders**

Although scientists have been mapping the lake's bottom for a dozen years, only a few people have seen its wonders. One of them, Rick Mossman, is a park ranger who is more likely to direct traffic at a bear jam than to dive for underwater wonders. But last summer, he and two other rangers had the chance of a lifetime. They were sent to collect samples of spires and other formations that make the lake's bottom profile look like a fairy land of towers and craters.

Rick and his buddies pulled on their dry suits, shouldered into their tanks and inflatable vests, triple checked all their gear, and dove into the lake. They descended into a land of spires 30–40 feet high, 4–5 feet around. "They reminded me of cypress knobs or stalagmites," Rick recalls. They had only twenty minutes to find what the scientists wanted: a small piece of broken spire. But the bottom's loose sediment probably had buried anything that had fallen off. Finally, though, Rick bagged a sample the size of a fist. When the divers returned to the surface, they were amazed at the scientists' reactions. "They were ecstatic," Rick said. Everyone jammed around the table to look at the sample while the divers rested.

On their second dive, Rick carried down a long net. His job this

time: collect a three-foot section of a spire. "I was pretty worried," he says, "that the big net would tangle on my gear or a spire." But the divers moved carefully, and when they finally found a good specimen, they gingerly rolled it into the net. Then the real problem came: how to rise to the surface with this big hunk of rock. Rick inflated his vest fully, and went nowhere. His diving buddy inflated his own vest, and finally they began slowly rising to the surface.

When they hauled in the sample, Rick remembers the scientists reactions: "They were going crazy! You would have thought it was the Titanic."

As he unsuited, Rick heard one of the scientists say to another colleague, "This is far more important than moon rocks."

Areport published in *Yellowstone Science* (v. 8, No. 1) explained that the spires are made of silica, which is the same mineral found in the geyser basins. Their formation occurred over the past 12,000 years as minerals flowed from fissures in the lake's bottom.

Research continues under the lake; watch for research vessels and divers as you enjoy the views.

# **Camping & Fishing**

–Yellowstone Today -

### **Camping in Yellowstone National Park**

### First-Come, First-Served Campsites

There are 12 campgrounds in Yellowstone National Park. Seven of these campgrounds are operated by the National Park Service: Indian Creek, Lewis Lake, Mammoth, Norris, Pebble Creek, Slough Creek, and Tower Fall. Sites at these campgrounds are available on a first-come, firstserved basis.

#### **Reserved Campsites**

Yellowstone National Park Lodges operates campgrounds at Bridge Bay, Canyon, Grant Village, Madison, and Fishing Bridge RV Park. Same-day reservations can be made by calling (307) 344-7901 or by asking at lodging activities desks. Future reservations can be made by calling (307) 344-7311 or by writing Yellowstone National Park Lodges, P.O. Box 165, YNP,

WY 82190; www.travelyellowstone.com. Fishing Bridge RV Park is the only campground offering water, sewer, and electrical hookups, and it is for hard-sided vehicles only (no tents or tent trailers are allowed).

Please make your reservations early and/or plan on securing your campsite as early in the day as possible; campgrounds may fill by early morning, especially during peak season (early July–late August).

#### **Camping Rules**

Camping or overnight vehicle parking in pullouts, parking areas, picnic grounds, or any place other than a designated campground are not permitted, and there are no overflow camping facilities. However, camping is often available in neighboring communities and forests outside the park.

Camping is limited to 14 days between June 15 and September 15 and to 30 days the rest of the year; there is no limit at Fishing Bridge RV Park. Check-out time for all campgrounds is 10:00 AM.

#### **Quiet Hours**

Camping in Yellowstone is a special experience. Each visitor deserves the opportunity to hear the birds, wildlife, and streams in this beautiful environment. Respect the rights of other campers and comply with the law by adhering to quiet hours, 8:00 PM to 8:00 AM (10:00 PM–7:00 AM at Fishing Bridge RV Park). No generators, loud audio devices, or other noise disturbances will be allowed during this time. Generators are only permitted in six

campgrounds and the Fishing Bridge RV Park (see table at left).

### Golden Age/Access Discount

Holders of Golden Age and Golden Access passes will be given approximately 50% discount on camping fees; this discount does not apply at Fishing Bridge RV Park.

#### **Group Camping**

Group camping areas are available at Madison, Grant, and Bridge Bay campgrounds from late May through closing date for large organized groups with a designated leader such as youth groups or educational groups. The fees range from \$40–\$70 per night, depending on the size of the group. Advance reservations are required and can be made by writing Yellowstone National Park Lodges, P.O. Box 165, YNP, WY 82190 or by phoning (307) 344-7311.

Campground	Sites	Dates	Fee	Elev (ft)	Toilet	Showers/ Laundry Nearby	Dump Station	Generators Permitted (8 AM-8 PM)
Bridge Bay*	430	5/26-9/17	\$15.00**	7,800	Flush		X	X
Canyon*	272	6/2-9/10	15.00**	8,000	Flush	X	X	X
Grant Village*	425	6/21-10/1	15.00**	7,800	Flush	X	X	X
Madison*	280	5/5-10/22	15.00**	6,800	Flush		X	X
Mammoth	85	All Year	12.00	6,200	Flush			X
Norris	116	5/19-9/25	12.00	7,500	Flush			X
Indian Creek	75	6/9-9/18	10.00	7,300	Vault			
Lewis Lake	85	6/23-11/5	10.00	7,800	Vault			
Pebble Creek	32	6/2-9/25	10.00	6,900	Vault			
Slough Creek	29	5/26-10/31	10.00	6,250	Vault			
Tower Fall	32	5/19-9/25	10.00	6,600	Vault			
Fishing Bridge RV*	340	5/12-9/24	27.00**†	7,800	Flush	X	Sewer	X
*Reserve through Vellowstone National Park Lodges: call (307) 344-7311 or TDD (307) 344-5305								

\*Reserve through Yellowstone National Park Lodges; call (307) 344-7311 or TDD (307) 344-5395.

Dates are approximate and may change because of weather or resource management concerns. Bridge Bay, Canyon, Grant Village, and Madison campgrounds all contain accessible sites.

### **Fishing Permits and Fees**

#### **Permits**

**Fishing** You must have a permit to fish in Yellowstone. Anglers 16 years of age and older are required to purchase either a \$10 ten-day or a \$20 season permit. Anglers 12–15 years of age are required to obtain a non-fee permit; those 11 years and younger may fish without a permit but should be supervised by an adult who knows the regulations. Permits are available at all ranger stations, visitor centers, and Hamilton General Stores. **No state fishing license is required in Yellowstone National Park.** 

Boats & Float Tubes You also must obtain a permit in person for boats and float tubes from the following locations: South Entrance, Lewis Lake Campground, Grant Village backcountry office, Bridge Bay Marina, and Lake Ranger Station. Non-motorized boating permits only are available at the Canyon, Mammoth, and Old Faithful backcountry offices, Bechler Ranger Station, and West and Northeast Entrances. You must have a Coast Guard approved "wearable" personal flotation device for each person boating.

#### **Fishing Season**

With some exceptions, Yellowstone's fishing season begins on the Saturday of Memorial Day weekend and continues through the first Sunday of November. Major exceptions are Yellowstone Lake, where the fishing season opens June 1, and Yellowstone Lake's tributary streams, which open July 15. The Yellowstone River and its tributaries between Canyon and Yellowstone Lake open for fishing on July 15. Please refer to park fishing regulations for additional special information or the park website: www.nps.gov/yell/planvisit/todo/fishing/index.htm

#### **Fishing Regulations**

In Yellowstone, bald eagles, osprey, pelicans, otters, grizzly bears, and other wildlife take precedence over humans as consumers of fish. All fish are wild (there is no stocking), so there must be sufficient adult fish to reproduce and maintain populations and to assure genetic diversity. These facts require both a philosophical and literal distinction between recreational angling and consuming fish. In Yellowstone, angling is based on fishing for native species of wild trout in a natural setting.

Fishing regulations in Yellowstone National Park have evolved as ongoing research reveals population trends and interrelationships with the rest of the Yellowstone ecosystem. Increasing numbers of anglers have also influenced the development of regulations by their impact on certain species and aquatic habitats.

Park fishing regulations are available at all ranger stations, visitor centers, or Hamilton General Stores.

#### **Non-Toxic Fishing**

Yellowstone National Park has implemented a non-toxic fishing program. Fishing tackle, such as leaded split-shot sinkers, weighted jigs (lead molded to a hook), and soft lead-weighted ribbons for nymph fishing, are no longer allowed. Only non-toxic alternatives are allowed to accompany these types of fishing tackle. For more information, contact the Chief Ranger's Office, P.O. Box 168, Yellowstone National Park, WY 82190.

See page 10 for more information on the fisheries and aquatic ecosystems of Yellowstone National Park.

### Native Grayling (Catch and Release Only)

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<sup>\*\*</sup>Plus sales tax

<sup>† 1–4</sup> people

# Off the Beaten Track

#### -Yellowstone Today

Yellowstone National Park, with about 2.2 million acres, is one of America's premier wilderness areas. Most of the park is backcountry and managed as wilderness. More than 800 miles (1,280 km) of trails are available for hiking. However, there are dangers inherent in wilderness—including unpredictable wildlife, changing weather conditions, remote thermal

areas, cold water lakes, turbulent streams, and rugged mountains with loose rock. Visiting wilderness means experiencing the land on its terms. If you choose to explore and enjoy the natural wonders of Yellowstone, there is no guarantee of your safety. Be prepared for any situation! Carefully read all backcountry guidelines and regulations.

#### **Backcountry rules**

To preserve
Yellowstone's backcountry and enhance your
wilderness experience, the
National Park Service has
established the following
regulations and guidelines.
Contact a park ranger
before you begin a day
hike or overnight trip.

#### **Permits**

Yellowstone National Park has a designated backcountry campsite system; permits are required for all overnight trips. Permits must be obtained at a ranger station no more than 48 hours before your camping date. Advance reservations for some backcountry campsites may be made in writing or in person for a \$15 fee. To obtain the necessary forms, write the Backcountry Office, P.O. Box 168, YNP, WY 82190 or check at a ranger station.

You must also have a permit for fishing, boats, and float tubes. See page 6 for information.

#### Limits

Each designated campsite has a maximum limit for the number of people and stock allowed per night. The maximum stay per campsite varies from 1 to 3 nights per trip. Due to bear activity, some hiking and camping restrictions may apply. Firearms, pets, motorized equipment, and any type of wheeled vehicle are prohibited in the back-country.

#### **Campfires**

Campfires are permitted only in established fire pits. Burn only dead-and-down wood. Wood and ground fires are not allowed in some campsites. Your fire must be attended at all times and be completely extinguished before you leave.

### Pack It In—Pack It Out

All refuse must be carried out of the backcountry. This includes items partly burned in fire pits (foil, tin, glass, etc).

#### Sanitation

Bury human waste 6 to 8 inches (15–20 cm) below the ground and a minimum of 100 feet (30 m) from water. Waste water should be disposed of at least 100 feet (30 m) from water or a campsite. Do not pollute lakes, ponds, rivers, or streams by washing yourself, clothing, or dishes in them.

# Should You Drink the Water?

Intestinal infections from drinking untreated water are increasingly common.
Waters may be polluted by animal and/or human wastes. When possible, carry a supply of water from a domestic source. If you drink water from lakes or streams, boil it a minimum of two minutes to reduce the chance of infection or disease.

#### **Storms**

Yellowstone's weather is unpredictable. A sunny warm day may become fiercely stormy with wind, rain, sleet, and, sometimes snow. Lightning storms are common; get off water or beaches and stay away from ridges, exposed places, and isolated trees.

Without adequate clothing and gear, an easy day hike or boat trip can turn into a battle for survival.

Exposure to wind, rain, or cold can result in hypothermia. This rapid loss of body heat can cause death if not treated. Early warning signs

include shivering, slurred speech, memory lapses, drowsiness, and exhaustion. Cold water is a special hazard to anglers and boaters. Get into dry clothes and drink warm fluids at the first signs of hypothermia.

#### **Stock Use**

Overnight stock (horses, mules, burros, and llamas) use is **not permitted prior to July 1**, due to range readiness and/or wet trail conditions. Horses are not allowed in frontcountry campgrounds.

### Stream Crossings

Fording a stream can be hazardous, especially during spring snowmelt or high water. Check at local ranger stations for current trail and stream conditions.

#### **Trails**

Yellowstone has more than 800 miles (1,280 km) of trails, allowing access to all major backcountry lakes, numerous waterfalls, mountain peaks, and thermal areas. Trails are minimally marked in keeping with the wilderness nature of the backcountry. Cross-country travel is difficult because of the terrain and the amount of downed trees. A good map and knowing how to use it are important to the backcountry hiker.

nion: Carefully lead all backcountry guidennes and regulations.

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Electric Peak dominates the northwest corner of the park, an area of challenging trails and abundant wildlife—including grizzlies. For a safe hike, your group should include four or more people, should inquire about conditions at the area backcountry office, and follow the precautions below. NPS photo.

### **Hiking and Camping in Bear Country**

A lthough the risk of an encounter with a bear is low, there are no guarantees of your safety. Minimize your risks by following the guidelines below.

### A Fed Bear Is a Dead Bear

Do not leave packs containing food unattended, even for a few minutes. Allowing a bear to obtain human food even once often results in the bear becoming aggressive about obtaining such food in the future. Aggressive bears present a threat to human safety and eventually may be destroyed or removed from the park.

#### While Hiking

Make bears aware of your presence on trails by making loud noises such as shouting or singing. This lessens the chance of sudden encounters, which are the cause of most bearcaused human injuries in the park. Hike in groups and use caution where vision is obstructed. Do not hike after dark. Avoid carcasses: bears often defend this source of food.

### If You Encounter a Bear

Do not run. Bears can run 30 mph (48 kph), or 44 feet/second (13 m/second), which is faster than Olympic sprinters. Running may elicit an attack from an otherwise non-aggressive bear. If the bear is unaware of you, keep out of sight and detour behind and downwind of the bear. If the bear is aware of you and nearby, but has not acted aggressively, slowly back away.

Tree climbing to avoid bears is popular advice, but not very practical in many circumstances. All black bears, all grizzly cubs, and

some adult grizzlies can climb trees. Plus, running to a tree may provoke an otherwise uncertain bear to chase you.

### If a Bear Approaches or Charges You

Do not run. Some bears will bluff their way out of a threatening situation by charging, then veering off or stopping abruptly at the last second. Bear experts generally recommend standing still until the bear stops and then slowly backing away. If you are attacked, lie on the ground completely flat. Spread your legs and clasp your hands over the back of your neck. Another alternative is to play dead: drop to the ground, lift your legs up to your chest, and clasp your hands over the back of your neck

#### When Camping

Never camp in an area that has obvious evidence of bear activity such as digging, tracks, scat, or where animal carcasses are present.

Odors attract bears. Avoid carrying or cooking odorous foods or other products. Keep a clean camp; do not cook or store food in your tent. All food, garbage, or other odorous items used for preparing or cooking food must be secured from bears. Hang all such items at least 10 feet (3 m) above the ground and at least 4 feet (1.2 m) out from tree trunks. Treat all odorous products such as soap, deodorant, or toiletries in the same manner as food.

Sleep a minimum of 100 yards (91m) from where you hang, cook, and eat your food. Keep your sleeping gear clean and free of food odor. Don't sleep in the same clothes worn while cooking and eating; hang clothing worn while cooking and eating in plastic bags.

### Yellowstone's Wildlife

Yellowstone Today

#### Where to Watch Wildlife

Yellowstone National Park is home to one of the greatest concentrations of free-roaming, large mammals in the lower 48 states. With the restoration of the gray wolf, the variety of species found here now includes all those large mammals present when Euro-Americans first arrived here.

Habitat preferences and seasonal cycles of movement determine, in a general sense, where a particular animal may be at a particular time. Generally, you are more likely to see mammals in the early morning and late evening hours when they tend to feed.

**Grizzly bears:** Look around sunrise or sunset in the open meadows of the Lamar and Hayden valleys, Lake and Fishing Bridge areas, and along the road from Tower to Canyon. Also look along the road to the East Entrance. Backcountry travelers should be alert for bears at all times.

Black bears: Look in small openings within or near forested areas, especially along the roads from Mammoth to Tower and the Northeast Entrance, and in the Old Faithful, Madison, and Canyon areas. Black bears may also be seen on any backcountry trail.

Wolves: Most active at the beginning and end of the day; most often seen in the open areas along the Lamar River and Soda Butte Creek.

**Elk:** Most likely to be seen during cooler parts of the day in meadows.

**Pronghorn:** Look in the grasslands between Mammoth and the Northeast Entrance.

Moose: Look for this elusive animal in willow thickets bordering streams, especially between Mammoth and Norris, near Lake, and along the road to the Northeast Entrance.

**Mule deer:** Most likely to be seen during cooler parts of the day near edges of forests.

**Mountain Lion:** Rare sightings occur at night, especially along the road to the Northeast Entrance.

**Bighorn Sheep:** Look on cliffs along the Gardner River and between Calcite Springs and Tower Fall, and on Mount Washburn.

**Mountain goat:** Afew individuals live in the northeastern corner of the park and near Gibbon Falls.

**Beaver:** May be seen early mornings and evenings in streams and ponds such as at Willow Park and Harlequin Lake.

### What's All that Bellowing?

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Two bull bison battle during the summer rut.

Photo courtesy of Tom Cawley

As you travel through Yellowstone, look for orange or brown bundles of energy prancing and kicking through the grass. Buffalo calves are born ready to move. Within a few hours of birth, they can run with their mothers, and away from predators. By mid July, they'll have to be running from the bull bison too.

Mating season brings all buffalo—male, female, young and old—together in big herds. The bulls never seem bigger than at this time. They bellow, kick at the dirt, charge, and smash into each other, head to head. Ashoving match often determines which bull will stay and mate, and which one must go

Mating season provides ample opportunity to observe buffalo behavior, if you can do so from a safe place, such as inside your car. What are the calves doing? Are they playing alone, in groups? Are they grazing? Which adults seem to be watching them? What are the females doing? And the bulls? If you see a male and female together, watch how they move. The female may seem almost oblivious to the male; he stays beside her, moving when she moves, turning when she turns, stopping when she stops. His sensitive scent organs have detected that she will be ready to mate soon; he will not leave her side.

Listen to buffalo, too. Can you hear the gentle grunts of the calves and females? Do you hear the deeper bellows of the bulls? If two bulls are challenging each other, listen for their roars, hoof beats, and head-bashing. It's battle time in Yellowstone, home of the last unfenced herd of buffalo in America.

### Be a Wise Wildlife Watcher

Remember that you are a guest in the home of wildlife.

- Stay at least 100 yards (91 m) away from bears and at least 25 yards (23 m) from all other animals.
- Stop in a pull-out instead the middle of the road.
- Turn off your engine.
- · Always talk quietly.
- To find out what people are observing, get out of your car, approach, and speak quietly. Never call or shout from your car.

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An elk calf

Photo courtesy of Tom Cawley

### Is the Northern Range Overgrazed?

Yellowstone's northern range—the broad sagebrush grassland that borders the Yellowstone and Lamar rivers in the northern quarter of the park—sustains one of the largest and most diverse populations of free-roaming large mammals anywhere on earth. Wolves, bears, and mountain lions find abundant food here from the 14,000 elk that browse on the grasses and shrubs. Several hundred bison also graze the northern range, along with small populations of pronghorn, bighorn sheep, moose, and mule deer.

Is it possible that the northern range has too much of a good thing? Some people say yes. They claim that too many ungulates (hoofed mammals) are consuming too much grass, shrubbery, and tree seedlings. Other people say no, the northern range is in fine shape. Who is right?

In part, the controversy is likely due to each person's personal or scientific background. Many urban dwellers live in intensively managed surroundings (community parks and personal gardens and lawns) and are not used to viewing wild, natural ecosystems. Livestock managers and range scientists tend to view the landscape in terms of maximizing the number of animals a unit of land can sustain. Range science has developed techniques that allow intensive human manipulation of the landscape for this goal, which is often economically based. Many ecologists and wilderness managers, on the other hand, have come to believe that the ecological carrying capacity of a landscape is quite different from the concept of range or economic carrying capacity. They believe that the only constants in a naturally functioning wilderness ecosystem are variability and change. What may look bad to some people may be normal for a wild landscape.

Today, some range scientists and others say that the northern range in Yellowstone is overgrazed. However, many intensive studies of the northern range have revealed no clear evidence of grassland overuse. In fact, ungulate grazing appears to benefit plant production in all but drought years. Ungulate grazing enhances the protein content of grasses, the yearly growth of big

sagebrush, and sagebrush seedling establishment. Neither a reduction in root biomass nor an increase in dead bunchgrass clumps has been observed during the studies. Studies on aspen and willows and their relationship to ungulates on the northern range are not so clear-cut, and more research is needed. ANational Academy of Sciences committee is reviewing all of the research in Yellowstone's northern range and will issue its findings later this year.

It appears that the major factor influencing the size of the northern range elk population is winter severity. Mild winters allow many more elk to survive until spring, but, periodically, severe winters result in significant levels of winter kill for many animals, not just elk. In severe winters, like the winters of 1988–89 or 1996–97, up to 25% of the herd can die. Many scientists believe that the northern Yellowstone elk herd demonstrates the ecological principle of density-dependence: mortality of calves, yearlings, and adult bulls all increase with higher elk population densities.

Elk are also continuously subjected to predation by other species in the ecosystem, including bears, wolves, coyotes, and mountain lions. The complex interdependence of these relationships results in fluctuations in the elk population. When there are lots of elk, predator numbers increase, which, in part, helps to reduce elk numbers. In the past decade, elk have continued to colonize new winter ranges north of the park as areas have been set aside for this purpose, and summers have been wet (resulting in better plant production) while winters have been generally mild. The fires of 1988 also opened many forest canopies, allowing more grasses to grow. All of these factors have increased elk survival.

National Park Service policies protect native species and also preserve the ecological processes that occur naturally across the land-scape. Wherever possible, human intervention is discouraged. While controversy continues about the northern range and Park Service management practices, so does the ecological research on the complex relationships between the land-scape and its native wildlife.

### Yellowstone's Wildlife

-Yellowstone Today

#### **Wolves Come Back Home**

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A wolf duet

NPS Photo

### **Welcome to a Wolf Pack**

Wolves are social animals that live in hierarchical groups called packs. Most packs number 2 to 8 animals. The pack is a highly evolved and complex social family, with leaders (the alpha male and female) and subordinates (this year's pups, some older siblings, and sometimes other unrelated wolves).

Subordinate wolves sometimes leave the pack at one year of age, but more often at two years. They will often wander alone for a time before finding a mate or joining another pack.

The thick, bushy tail of a wolf tells a lot about the place the animal occupies in the hierarchy of the pack; during confrontations, dominant animals hold their tail up or straight out while subordinate animals drop their tail. The famous howl of the wolf is an eerie and haunting sound, the essence of wilderness to many. Wolves howl to announce their presence, warn strange wolves away from their territory, help pack members locate each other, express the relationships of dominance and dependence in the pack, and (some believe) for the sheer joy of it.

Visitors are unlikely to observe wolf pups before late summer. By August, however, the pups are old enough to accompany the pack on hunts. Even in their adolescence, pups are allowed great deference in their interactions with adults. They lick faces, nuzzle, play excitedly, and huddle around the adults when they lie down.

Wolves establish territories that vary in size depending on the availability of prey. They scentmark these territories with urine and defend them vigorously.

Wolves prey on elk, deer, and moose, and, in Yellowstone wolves have also killed bison. Small mammals, such as beaver and hares, may be seasonally important to wolves or as practice prey for pups. Wolves typically hunt early in the morning and in the evening when their prey are feeding. Wolves risk injury or death in the effort to bring down a full-grown ungulate and may make many unsuccessful attempts before obtaining a meal. It is only through cooperation and skill that a wolf pack can bring down such large prey.

Prior to Europeans settling North America, wolves ranged widely throughout this continent, including the Yellowstone region. But where colonists settled, wolves were quickly eliminated. Much of the wolves' prey base was destroyed as agriculture flourished, so wolves began to feed on domestic livestock. As a result, wolves (and many other predators) were hunted and removed from most of their historic range. By the early 1900s, wolves were almost gone from the 48 contiguous states. The last gray wolves were killed in Yellowstone during the 1930s.

Now ecologists recognize that eliminating a species can upset a delicate natural balance that had evolved through centuries. For example, the nature of predator-prey relationships means that wolves will kill more of

the young, the very old, and the sick, than of healthy animals in their prime. Thus, wolves help to keep a prey population fit.

The long, complex, and difficult process of wolf restoration began in earnest in the 1980s. An extensive and lengthy research and public review process culminated in an environmental impact statement being approved in 1994 that established guidelines for wolf recovery in three areas of the Rocky Mountains, including the greater Yellowstone ecosystem. Special management rules were developed to aid the wolf recovery process while recognizing the importance of the livestock industry to the region's economy.

Recovery began when 14 wolves were captured in western Canada and

transported to Yellowstone in January 1995. After weeks of acclimation in one-acre holding pens, these wolves were released into the wild. The process was repeated in 1996 with 17 more wolves. Today more than 115 wild, free-ranging wolves live in the Yellowstone ecosystem.

By federal law, recovery of the gray wolf will be accomplished when it can be documented that 10 pairs of wolves breed for three successive years in each of the three recovery areas (the Yellowstone ecosystem, central Idaho, and northwestern Montana). Biologists had evidence of 11 wolf packs in Yellowstone as of spring 2000.

### The Grizzly Bear

The Yellowstone ecosystem provides vital habitat for grizzlies in its two national parks (Yellowstone and Grand Teton), six national forests, state lands, and private lands. Some bears live either totally inside or outside of Yellowstone National Park; others may use portions of various different agency holdings.

Because grizzly bears range widely and are usually solitary, they are difficult to count. Biologists estimate their population within the Yellowstone ecosystem to be 280–610 bears.

### Grizzly or Black?

#### GRIZZLY

Hump present

graphic removed to allow faster downloading Rump lower than shoulders

Rump

higher

shoulders

than

#### BLACK BEAR

Hump usually absent

graphic removed to allow faster downloading The Yellowstone ecosystem is unique among areas inhabited by grizzly bears in North America because of the foods it provides. graphic removed to allow faster downloading

NPS Photo

Here, grizzly bears depend more on animals, ranging from ants and moths to elk and bison. Bears here and elsewhere also eat large amounts of plants, but Yellowstone lacks the lush vegetation and berries found in northern Montana.

When Yellowstone grizzly bears emerge from hibernation in March and April, there is still a lot of snow and very little vegetation in most of the park. The bears move to the low country where elk and other ungulates (hoofed mammals) spent the winter. There, the bears feed on carcasses of ungulates that died during the winter. (Never approach a carcass—a bear may be nearby and it will often defend its food source.) Bears are not the only animal that depends on winter-killed ungulates for survival. Wolves, coyotes, wolverines, badgers, fox, eagles, ravens, magpies, and carrion beetles also feed on the carcasses.

Grizzly bears prey on elk calves in the spring, usually from mid-May through early July. After early July, most elk calves can outrun bears. Some bears will feed on spawning cutthroat trout in the Yellowstone Lake area during the early summer. Bears also dig for small rodents (primarily pocket gophers), ants, roots, and tubers. Later in the summer, grizzly bears feed on army cutworm moths and whitebark pine nuts at high elevations. Despite their small size, these foods are important, high-protein foods for grizzly bears, especially as autumn approaches.

The restoration of wolves to the park appears to be providing bears more opportunities to obtain meat. During the years since the 1995 release of wolves into the park, bears have been observed successfully taking wolf-killed ungulates away from wolf packs. Will this new opportunity increase the grizzly bear population in Yellowstone? No one knows.

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### **Unwelcome in Yellowstone**

#### -Yellowstone Today -

Increasingly, throughout the world, we are becoming aware of the threats that non-native plants, animals, and pathogens have on native species and ecosystems. Despite its protected status, Yellowstone is not immune to these threats. Many non-native invaders have gained a foothold in the world's first national park, and substantial levels of human intervention are required to minimize their adverse effects and maintain native species. Only time will tell how successful these efforts will be.

# **Exotic Invaders Threaten Yellowstone Fish and Aquatic Ecosystems**

In many ways, the 1990s were not good for Yellowstone's aquatic resources. Repeatedly, scientists and park staff discovered non-native species that could have long-term and devastating effects on the fisheries and aquatic ecosystems of Yellowstone National Park. Each threat challenges us and rearranges the priorities of park managers.

Yellowstone Lake is considered the core of the remaining undisturbed, natural habitat for Yellowstone cutthroat trout, which today survives in about 15% of its historic range. Because cutthroat trout live mainly in near-shore waters and spawn in tributary streams of the lake, as many as 42 species of birds and mammals have come to depend on the cutthroat trout as a food source. Grizzly bears, raccoons, otters, white pelicans, loons, mergansers, herons, gulls, bald eagles, and osprey are some of the animals closely linked to cutthroat trout in this naturally functioning

In 1994, this delicate web of life was threatened when a visitor caught a fish that was identified as a non-native **lake trout** (or **Mackinaw**) in Yellowstone Lake. Fisheries biologists investigated immediately and came to the frightening conclusion that this

was not a lone fish; targeted gillnetting revealed a multi-aged population of lake trout in the lake. It appears that some years ago someone illegally dumped lake trout into Yellowstone Lake.

Lake trout are native to the Great Lakes region and other northern areas of North America. They are a large, predacious fish that lives and spawns in deep water. Consequently, not only will cutthroat trout be eaten by the lake trout, but lake trout will rarely be available as prey for the birds and mammals that are dependent on the cutthroat. In all instances where lake trout have been introduced (legally and illegally) into Western waters, the population has rapidly multiplied and decimated the native fishery.

The New Zealand mud snail was discovered in park waters in 1995. At present, the tiny (less than 1/4 inch), black, conical-shaped snails occur in the Firehole, Gibbon, Madison, and Snake rivers, sometimes in extremely high numbers. Mud snails often form dense colonies on aquatic vegetation and rocks along streambeds, crowding out native aquatic insect communities, which are a primary food source for fish. Scientists are developing strategies for dealing with this invader.

Whirling disease is a parasitic infection of fish caused by a microscopic protozoan that destroys the cartilage of juvenile trout, causing them to swim in a whirling motion (as if chasing their tail) when startled. Seriously infected fish have a reduced ability to feed or escape from predators. and mortality is high. The whirling disease parasite is native to Europe and was first detected in the eastern United States in the 1950s. By the 1980s, whirling disease was found in many areas of the Rocky Mountains, and young rainbow trout and cutthroat trout appear to be particularly vulnerable to the disease. Older fish and other species of trout are less susceptible (or possibly immune) to the disease, but may carry it.

Whirling disease was discovered in the Madison River outside of Yellowstone in 1994 and appears to be the cause of a significant decline in rainbow trout there. Annual surveys for the parasite in Yellowstone were negative until late 1998 when several Yellowstone Lake cutthroat trout were found to be infected. Sadly, in 1999 the disease was found again. It remains to be seen whether the native trout are actually succumbing to the disease.

### Lake Trout Netting Helps Native Species

It is unlikely that lake trout can ever be totally eradicated from Yellowstone Lake. During the summers of 1996 and 1997, National Park Service biologists located lake trout spawning areas in the West Thumb region of Yellowstone Lake. Fish were radio-tagged and released so that they could be tracked to learn more about where lake trout go in the lake and to locate other spawning areas. These studies have helped biologists refine and focus their gill-netting operations. While targeted gill-netting operations conducted by park staff have resulted in successfully removing large lake trout (especially at lake trout spawning grounds), small lake trout are found throughout the lake and are quite numerous. Since 1994, control efforts have removed nearly 15,000 lake trout. Anglers have had a good deal of success catching lake trout that are between 15 and 20 inches long because these fish are found in shallow, near-shore waters in June and early July.

Cutthroat trout are not only an integral part of the Yellowstone Lake ecosystem and key to many species' survival, they are also a valuable economic component of the regional economy. In 1994, the value of the Yellowstone watershed fisheries above the Upper Falls was estimated at \$36 million. Nearly all of a mature lake trout's diet consists of cutthroat trout. The long-term goal for the lake trout control program is to limit lake trout numbers so that they eat fewer cutthroat trout each year than anglers take home. Continued monitoring of the cutthroat trout population will occur in order to be sure that the lake trout control program is accomplishing its objectives. It is possible that greater angler restrictions for cutthroat trout will be necessary in the future.

### Non-Native Plants Harm Ecosystem

Yellowstone National Park is home to nearly 1,100 species of native plants. The park's plant communities, and the wildlife populations they support, represent the core of the largest, nearly intact natural ecosystem in the earth's temperate zone.

However, at least 186 non-native plant species have invaded the park during the past one hundred years. Some of the more aggressive exotic species have become permanently established and are displacing native species at an alarming rate. If this invasion is permitted to continue, the park's native plant communities, wild-life populations, and even geothermal areas could be seriously affected.

Major potential sources for the spread of non-native plant seeds include:

- · muddy shoes and boots
- vehicles that have driven through "weedy" areas with seeds dropping off hundreds of miles from the weed source
- dirty construction equipment
- weed infested hay
- contaminated sand and gravel used in road projects

Park staff are trained in weed identification to aid in the early detection of new weed patches that are then manually or chemically treated to eradicate the infestation before it spreads. Some of the non-native species of particular concern include leafy spurge; dyers woad; purple loosestrife; sulfur cinquefoil; dalmation toadflax; musk thistle; ox-eye daisy; orange hawkweed; and spotted, diffuse, and Russian knapweeds.

#### What You Can Do

#### **About Whirling Disease and Mud Snails**

Both whirling disease and the New Zealand mud snail can be transported from one lake or stream to another by anglers and other water users. Please:

- Rinse the mud, plants, and debris from all angling gear, footwear, boats, and other items used in the water before you enter Yellowstone and after leaving each water body within the park. Thoroughly inspect your gear.
- Dispose of fish entrails and snails in a waste container near the area where the fish or snails were taken. Do not transport fish parts (except what you intend to consume) outside the watershed where you caught the fish.

#### **Lake Trout**

Fish for lake trout in Yellowstone Lake during June and early July and during late September and early October when the fish frequent the north and southeast shores of West Thumb. At these times, many lake trout are in waters that are 10 to 20 feet deep. Lake trout are attracted to medium-sized lures that imitate small fish. If you catch a lake trout, you must keep it intact and present it to a ranger!

#### No. No. 4° ... Discote

Mapping the locations of non-native plants is especially important. During your stay in Yellowstone, if you see any of the problem plants mentioned in the article on this page or others that you know are aggressive invaders, especially in the backcountry, please report it to a ranger at any visitor center or ranger station.

# What's Nearby?

.Yellowstone Today.

### **Grand Teton National Park—50 years!**

Make time for a visit to our neighbor to the south, Grand Teton National Park. This year is the park's 50th Anniversary, and you'll find many special events. To find out more, check out their special website, www.grandteton50th.com, or call the park, 307-739-3600.

Grand Teton National Park offers spectacular scenery and its own set of campgrounds, exhibits, and other activities. Pick up a copy of the park newspaper, the *Teewinot*, for complete information about services and facilities and a more detailed map. Newspapers are available at Grand Teton visitor centers and entrance stations.

Campgrounds—First come, first served; camping fee is \$12 per night. Advanced reservations are not accepted. Campgrounds fill to capacity during July and August. For current status of campgrounds, ask at entrance stations or visitor centers in Grand Teton National Park. Approximate filling times and closing dates are as follows:

Gros Ventre (360 sites)	Evening or may not fill	Oct. 12 (noon)
Jenny Lake (49 sites)	8 AM	Sept. 22 (noon)
Signal Mountain (86 sites)	10 am	Oct. 6 (noon)
Colter Bay (350 sites)	12 noon	Sept. 22 (noon)
Lizard Creek (60 sites)	2 PM	Sept. 5 (noon)

Jenny Lake Campground is open to tents only. Other campgrounds will accommodate tents, trailers, and recreational vehicles. All campgrounds have modern comfort stations, but none have utility hookups. The maximum length of stay is 7 days at Jenny Lake and 14 days at all other NPS campgrounds.

**Lodging**—Make your reservations directly, using the following phone numbers:

Jenny Lake Lodge (June 3–Oct. 8)	(307) 733-4647
Colter Bay Cabins (May 26-Sept. 24)	(307) 543-2828
	or (307) 543-2811
Flagg Ranch Village (May 22–Oct. 8)	(307) 543-2861
	or (800) 443-2311
Jackson Lake Lodge (May 21–Oct. 11)	(307) 543-3100
	or (307) 543-2811
Signal Mt Lodge (May 13–Oct. 15)	(307) 543-2831
Dornan's Cabins (all year)	(307) 733-2522

Lodging can also be found in Jackson and Dubois, Wyoming, and in other areas surrounding Grand Teton.

Moose Visitor Center—Open year-round. Daily hours: Through June 4, 8 AM-5 PM; June 5-Sept. 4, 8 AM-7 PM; starting Sept. 5, 8 AM-5 PM. Information, audiovisual programs, exhibits, permits, publication sales. Phone: (307) 739-3399. Telecommunications device for the deaf only (TDD): (307) 739-3400.

Colter Bay Visitor Center & Indian Arts Museum—Daily: May 13-May 21, 8 AM-5 PM; May 22-June 4, 8 AM-7 PM; June 5- Sept. 4, 8 AM-8 PM; Sept. 5-Oct. 1, 8 AM-5 PM. Information, audiovisual programs, permits, and publication sales. Phone: (307) 739-3594. TDD: (307) 739-3544

Jenny Lake Visitor Center—Daily: June 5-Sept. 4, 8 AM-7 PM; Sept. 5-Oct. 1,

Flagg Ranch Information Station—Daily: June 5-Sept. 4, 9 AM-6 PM.

Clinic—Grand Teton Clinic, located near Jackson Lake Lodge, open May 21-Oct. 11. Call (307) 543-2514 or after hours (307) 733-8002. Emergency: dial 911 or 739-3300.

Hiking, sightseeing, boating, floating the scenic Snake River, horseback riding, and fishing are available depending on seasonal conditions. Backcountry camping requires a free permit that can be obtained at the Moose Visitor Center year-round. Boating requires a Grand Teton boating permit, sold at visitor centers. AWyoming fishing license is required to fish in Grand Teton National Park.

### **Nearby Parks and Forests**

For more information on national parks and forests located in the Yellowstone region, please contact: to allow faster

Grand Teton National Park	(307) 739-3600
Glacier National Park	(406) 888-7800
Shoshone National Forest	(307) 527-6241
Gallatin National Forest	(406) 587-6701
Bridger-Teton National Forest	(307) 739-5500
Targhee National Forest	(208) 624-3151

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For Grand Teton information, call 307-739-3600.

#### **Area Chambers of Commerce**

Services are available in communities near Yellowstone. For information, contact these Chambers of Commerce:

Montana	
Billings	(406) 245-4111
Bozeman	(406) 586-5421
Gardiner	(406) 848-7971
Livingston	(406) 222-0850
West Yellowstone	(406) 646-7701
Lodging only	(406) 646-9488
Cooke City-Silver Gate	(406) 838-2495
Red Lodge	(406) 446-1718

Wyoming	
Cody	(307) 587-2297
Jackson	(307) 733-3316
Dubois	(307) 455-2556
East Yellowstone/Wapiti Valley	(307) 587-9595
Idaho	
Idaho Falls	(208) 523-1010
Eastern Idaho Visitor Info Center	(800) 634-3246

### Friends of Yellowstone

-Yellowstone Today -

### You Can Help Preserve and Protect Yellowstone

In our increasingly crowded and developed world, Yellowstone National Park provides a source of refuge and renewal for those who enter its quiet places. The park's magnificent wilderness areas offer a glimpse of what our continent was like when humans first gazed in wonder upon its steaming geysers, thundering waterfalls, and abundant wildlife. However, Yellowstone exists today only because generations who came before us understood its value and made its preservation a priority.

Because so many visitors who love Yellowstone want to help ensure that it stands wild and unimpaired for our future, two separate organizations have been established. The Yellowstone Park Foundation and the Yellowstone Association work in partnership with the National Park Service and each other to provide a means for visitors to contribute to Yellowstone's preservation. Please help us do the very best we can to protect and preserve this national treasure. Your contribution to either organization will designate you as a true friend of Yellowstone; contributors of \$1,000 or more will have their names displayed on the park's Honor Wall at Old Faithful, receiving special recognition as stewards and benefactors of Yellowstone National Park. Yellowstone will exist tomorrow as one of America's most treasured places only if our generation understands its value and makes its preservation our priority.

# Yellowstone Park Foundation

Yellowstone National Park is one of America's greatest treasures. Every year, millions of people like you come to visit and experience the beauty and mystery of the world's first national park. More than 50 million people have visited Yellowstone during the last 20 years. Unfortunately, shrinking federal budgets make it more and more difficult to protect and care for Yellowstone in perpetuity.

The Yellowstone Park Foundation is the only non-profit organization dedicated exclusively to raising money for projects that protect, preserve, and enhance Yellowstone National Park. The goal of the Foundation is to alleviate the environmental and financial pressures that Yellowstone faces by raising money for projects that would otherwise go unfunded. The Foundation supports many important projects, including:

- The Wolf Restoration Project, which tracks and monitors the habits, habitat needs, and ecological impacts of Yellowstone's new wolf packs.
- Alandmark effort to restore the park's native westslope cutthroat trout population.

- Areroute of the Pelican Valley trail out of prime grizzly habitat, which significantly reduces the possibility of potentially dangerous human/bear encounters.
- A new Visitor Education Center to replace the current visitor center at Old Faithful, which is too small to accommodate the more than three million people who visit Yellowstone each year.

The Yellowstone Park Foundation receives no government support. It relies solely on the generous contributions of private individuals, foundations, and corporations to help protect and preserve Yellowstone for our enjoyment and that of future generations. Yellowstone needs your support now more than ever. Please help to preserve the beauty and wonder of the park by becoming a Friend of Yellowstone. With a donation of \$100 or more, you will receive Yellowstone's limited edition 125th anniversary pin, while supplies last. If you make a donation of \$1,000 or more, you will receive special recognition for one year as a Yellowstone National Park Steward on the park's Honor Wall at Old Faithful.

### Yellowstone Association

Public appreciation and dedication have ensured Yellowstone's protection and preservation for the first 125 years of its history. The non-profit Yellowstone Association has dedicated itself to fostering this critical public support through education since its founding in 1933 and, with the help of visitors like you, has provided funding of more than \$6,500,000 to Yellowstone National Park in support of educational, historical, and scientific projects.

#### How can you help?

**First, visit a Yellowstone Association educational bookstore**, located in all park visitor centers. **One hundred percent** of the profit from your purchase is returned directly to Yellowstone to fund critical educational programs, scientific research, ranger-interpreter training, and program supplies

**Second, become a member of the Yellowstone Association** and provide substantial support to Yellowstone while receiving a year's subscription to the Association's informative Yellowstone **newsletter** and to *Yellowstone Today*, the official **park newspaper**, both published quarterly. You will also receive a **15% discount** on purchases in Association park bookstores and a discount on Yellowstone Association Institute **classes**. In appreciation for their contribution, members who join in the park will also receive their choice of a large, beautiful, and reusable fabric **book bag** depicting either a grizzly bear, gray wolf, or bison.

For more information on Association membership or activities, ask one of our helpful staff members at any park visitor center or write P.O. Box 117, Yellowstone National Park, WY 82190 or call (307) 344-2296. You can also visit our website at www.YellowstoneAssociation.org.

Yes, make me a Friend of Yellowstone National Park!	YES! I want to help preserve Yellowstone
Contributor Supporter Guardian Steward Other \$25 \$50 \$100 \$1,000 \$1,000 \$  Enclosed is a tax-deductible gift of  Name	through education.  To receive all the benefits of membership, visit any park visitor center or complete and mail this form with your dues to: The Yellowstone Association, P.O. Box 117, Yellowstone National Park, WY82190.
Address  City  State  Zip Code  Phone  Exp. Date  Make checks payable to The Yellowstone Park Foundation.	Name
The Yellowstone Park Foundation 37 East Main, Suite 4 Bozeman, MT 59715 (406) 586-6303 or visit our website @ www.ypf.org	Make checks payable to The Yellowstone Association.  Charge to: VISA Mastercard Discover Card # Expiration Date Signature PNP

### **Services in the Park**

#### -Yellowstone Today -

# Comprehensive Medical Care in a Wilderness Setting...

#### Lake Clinic, Pharmacy, & Hospital

May 22–September 15 Emergency Room: 24-hour service Clinic hours: 8:30 AM–8:30 PM, daily Phone: (307) 242-7241

#### **Mammoth Clinic**

Open year-round

Hours: 8:30 Am-1:00 PM; 2 PM-5 PM,

Monday–Friday Phone: (307) 344-7965

#### **Old Faithful Clinic**

May 12–October 15 Hours: 8:30 AM–5 PM Phone: (307) 545-7325

- Board Certified physicians
- Prompt personal, family, and emergency medical care
- For emergencies, dial 911

# Yellowstone Park Medical Services A division of West Park Hospital— Cody, Wyoming We're there when you need us!

#### Cellular One

CellularOne of Cody is now serving Yellowstone with cellular service. Share your Yellowstone experience with a friend! For assistance dial \*611 send.

#### **Yellowstone Park Medical Services**

Yellowstone Park Medical Services Division of West Park Hospital in Cody, Wyoming, has offered medical care to Yellowstone's visitors, employees, and residents since 1980.

A board-certified family practitioner provides year-round health care to the Yellowstone Park community at the Mammoth Clinic. Experienced registered nurses and office staff complete the team, offering courteous, professional family and emergency medical care.

In the summer, the operation grows to meet the needs of the park's increased number of visitors and the employees who serve them. Outpatient services are provided at Lake Hospital and Old Faithful Clinic as well as at Mammoth Clinic.

Lake Hospital is also an acute-care facility with ten inpatient beds, clinical laboratory, pharmacy, radiology, and 24-hour ambulance and emergency services. The staff is assembled from highly qualified, experienced professionals from across the country.

For information on employment for the 2001 season (both professional and nonprofessional positions are available), send a resume to: Yellowstone Park Medical Services, 707 Sheridan Avenue, Cody, WY 82414 or call 1 (800) 654-9447, ext. 462.

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### HAMILTON STORES INC.

EST. 1915 YELLOWSTONE NATIONAL PARK

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Hamilton Stores offers a wide variety of products and services. We have 5 Automated Teller Machines (ATMs) throughout the park. Our product lines range from fine gifts and souvenirs to camping goods, books, film, T-shirts, sweatshirts, grocery items and much, much more.

At Hamilton Stores, our friendly staff is sure to enhance your Yellowstone experience. Always ready with a smile, many of our employees spend their off hours exploring the park and watching wildlife. Stop in and visit our employees to find the latest spots for fishing, hiking, and wildlife.

If you are interested in the Yellowstone experience and want to learn more about joining the Hamilton family, please contact our Human Resource Department at (406) 646-7325 or (800) 385-4979. You can also pick up information at any of our 14 locations throughout the park. We hope you enjoy your stay here in Yellowstone National Park.

### Hamilton Stores—Oldest Park Concessioner

The 1872 Act that set the park aside "for the benefit and enjoyment of the people, and the protection of the natural and scenic treasures therein" also granted leases for the various concessioners who served the public. For the first decade of the park's official existence, no lease to sell general store merchandise was issued. Then, in 1882, Henry E. Klamer applied for and received permits to provide fresh meat to camps and hotels, to pasture and slaughter beef cattle, operate a dairy herd, and to open a general store in the Old Faithful area of the park.

In 1916, a year after the Klamer General Store was purchased by Charles Ashworth Hamilton, horse transportation in Yellowstone reached its zenith. Three thousand "hayburners" pulled Yellowstone wagons, coaches, surreys, freight wagons, and—grandest of all—double-decker 26-passenger Tallyhos or stage-coaches. However, autos were allowed into the park for the first time that year, and Charles Hamilton quickly spotted the tire

marks in the dirt. In the next five years he acquired store concessions at Lake and Fishing Bridge, and he built filling stations at each location. This was the start of what was to become the oldest, privately owned family concession in the National Park system, serving the traveling public for more than 85 years.

Hamilton Stores invites you to visit its locations during the summer season for a bit of that history—most especially, the original store at Old Faithful (the Lower Basin Store) and the General Store in the Lake area. The upper store at Old Faithful and the Fishing Bridge General Store also convey rustic charm. The newest store, Grant Village General Store, was built and decorated with the craft of many Montana artisans. The general store at Mammoth Hot Springs, open year-round, can also be seen in historic photos from around the turn of the century with horse-drawn stagecoaches and people in period dress in front of the store.

### **Services in the Park**

#### -Yellowstone Today -

# Amfac Parks and Resorts Protecting the Environment

Yellowstone is the world's first national park, and is cherished by visitors from around the globe. Yellowstone National Park Lodges, operated by Amfac Parks and Resorts, has made the commitment to help protect and preserve this very special place so that it can continue to be enjoyed throughout this new millennium.

Amfac is proud to be a member of Green Hotels Association, an organization that supports and promotes a wide range of environmental initiatives at hotels throughout the country. Membership in this association reflects our long-held belief that the privilege of operating in Yellowstone entails a responsibility to preserve and protect its natural resources. We would like to share with you some of our accomplishments so far:

In 1999, Yellowstone National Park Lodges recycled over 321 tons of various materials:

 Cardboard 159.9 Tons Aluminum 6.0 Tons Glass 89.1 Tons Newspaper 18.6 Tons Computer paper 10.8 Tons Office paper 22.8 Tons 13.3 Tons Magazines · Steel cans 0.7 Tons

In addition to our recycling effort, we use environmentally sensitive practices in our hotels, restaurants, gift shops, printing shop, and more. Here are just a few examples:

- Recycle automotive batteries, freon, antifreeze, and used paint solvents. Used fleet engine oil is used as heating oil in transportation center.
- Cleaner burning 4-stroke engines are replacing the older 2-stroke engines for rental boats on Yellowstone Lake.
- Switched to high-grade terry cloth, for longer use
  of the product; worn terry cloth is re-used as
  cleaning towels; worn bed fabrics are donated to
  charitable organizations, as are soap products
  collected from guest rooms.
- Gift shops re-use cardboard boxes and packaging materials when possible for shipping. Use shredded paper for packing material.
- Styrofoam has been eliminated from gift shops and restaurants.
- Recycled paper is used for over 90% of Yellowstone National Park Lodge's 4.1 million printed pieces. Soy based ink is used for all inhouse printed materials.

But there is always room to do more. What can you do to help? Look for the recycle containers located throughout the park in various guest facilities. Bed linens are changed every third day during a single stay unless requested more often. Please re-use towels during your stay in the hotels if possible. And if you have ideas to help us with our effort, please share them with us! Yellowstone National Park was created "for the benefit and enjoyment of the people," and by working together we can preserve this magical place for future generations.

### Yellowstone National Park Lodges

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Yellowstone Information: 307-344-7381

#### Yellowstone Today

is produced by the Division of Interpretation, National Park Service, Yellowstone National Park, in cooperation with the Yellowstone Association and park concessioners.

#### Montana Power Co.

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### **Yellowstone Park Service Stations**

Yellowstone Park Service Stations has been serving Yellowstone visitors since 1947. We offer quality petroleum products at seven service stations located throughout Yellowstone. See page 15 for dates of operation for YPSS stations.

Tires • Batteries • Automobile Accessories

LP Gas is available at Fishing Bridge and Grant Village.

Towing and repair services are available at Old Faithful, Grant Village,

Fishing Bridge, and Canyon.

Conoco, Master Card, Visa, Discover, and American Express credit cards are accepted.

# Yellowstone Park Service Stations Open for Summer Travelers

Each season large mammals are killed by vehicles in Yellowstone. These accidents cause damage to vehicles and personal injury to vehicle occupants. Vehicle speed is the most significant factor influencing the frequency of vehicle/wildlife encounters in the park.

On average, each year 2 antelope, 1 bear, 1 beaver, 1 bighorn sheep, 9 bison, 44 elk, 7 coyotes, 9 moose, 34 mule deer, and 1 wolf are killed by vehicles in Yellowstone.

Please drive defensively in the park, lower your speed, and anticipate animals appearing in the roadway. Hit your brakes, not the bison. Keep your eyes on the road and avoid eradicating an elk. Ease up on the accelerator and extend the days of a mule deer. Yellowstone will benefit;

Yellowstone Park Service Stations (YPSS) operates the service stations and automotive repair shops in Yellowstone. On page 15 you will find a list of services.

As you operate your vehicle in Yellowstone, please be mindful of your safety, the safety of those who share the park with you, and also consider your role in the stewardship of the resource in this the "grandest of the nation's parks."

We appreciate your patronage, the sense of shared adventure we both experience—you as you visit and us as we live and work here—and the chance you give us to be of service to you, our guests. May your Yellowstone memory and the love of wilderness abide with you forever.

# **Directory of Services**

#### -Yellowstone Today -

#### Old Faithful

#### Lodging

Old Faithful Inn—Rooms: May 12-October 15 Old Faithful Snow Lodge—Rooms and cabins: May 5-October 15

Old Faithful Lodge—Cabins: May 19-September 17

#### Food Services

\*Old Faithful Inn Dining Room: May 12-October 15 Old Faithful Inn, Pony Express Snack Shop: May 17-October 16

Old Faithful Snow Lodge Restaurant: May 5–October 15 Old Faithful Snow Lodge, Geyser Grill Fast Food: May 12–November 15

Old Faithful Lodge Cafeteria: May 19-September 17 Old Faithful Lodge Snack Shops: May 19-September 24

Old Faithful Inn Gift Shop: May 12-October 15 Old Faithful Snow Lodge Gift Shop: May 5-November 5 Old Faithful Lodge Gift Shop: May 19-October 1 \*\*Old Faithful Photo Shop (light meals, snacks, fast foods, photo shop, gifts, & souvenirs): April 21-October 22 Old Faithful Basin Lower Store (general store, light meals, snacks, & fast foods): May 5-October 15

Old Faithful Basin Upper Store (general store, light meals,

#### snacks, & fast foods): May 6-September 27 **Service Stations**

\*\*Old Faithful, Lower Service Station: April 21-November 5

Old Faithful, Upper Service Station: May 26-August 21 Old Faithful Repair Service: May 26-August 21 Wrecker service will be provided from the Old Faithful stations April 21–November 5

Old Faithful Lodge—Showers: May 19-September 17 **Old Faithful Clinic**: May 12–October 15; (307) 545-7325

#### **Mammoth Hot Springs**

Mammoth Hot Springs Hotel—Rooms and cabins: May 5-October 9

#### **Food Services**

\*Mammoth Hot Springs Hotel Dining Room: May 5-October 9

Mammoth Terrace Grill: May 5-October 15

Mammoth General Store (general store, light meals, snacks, & fast foods): Open year-round

Mammoth Hot Springs Hotel Gift Shop: May 5-October 9 Yellowstone Nature Store, Mammoth (photo shop, gifts, souvenirs): May 19-September 20

#### Service Stations

\*\*Mammoth Hot Springs Service Station: May 5-October 9

Mammoth Hot Springs—Trail rides: May 20-September 17 Mammoth Clinic—Open year-round; five days a week. Daily hours: 8:30 AM-5:00 PM, closed 1:00 PM-2:00 PM. (307) 344-7965

- \* Dinner reservations required. Inquire at any lodging front desk or dining room host stand.
- \*\* These locations offer one hour film processing.
- \*\*\*Diesel fuel is available at these stations.

Reservations are suggested for dining, lodging, and activities; inquire at any lodging front desk or activities desk, or call AmFac Parks and Resorts at (307) 344-7311 or TDD (307) 344-5395.

#### Lake Yellowstone

Lake Yellowstone Hotel—Rooms, cabins: May 19–October 9
Lake Lodge—Cabins: June 10–September 17

#### Food Services

\* Lake Yellowstone Hotel Dining Room: May 19-October 9 Lake Lodge Cafeteria: June 10-September 17 Lake Yellowstone Hotel Deli: May 19-October 8

Lake General Store (general store, light meals, snacks, & fast foods): May 20–October 9

Lake Yellowstone Hotel Gift Shop: May 19-October 9 Lake Lodge Gift Shop: June 10-September 17

#### **Other Services**

Lake Lodge—Laundry: June 10-September 17 Lake Hospital, Clinic, and Pharmacy: May 22-September 15; (307) 242-7241

#### **Grant Village**

Lodging
Grant Village—Rooms: May 26–October 1

#### **Food Services**

\*Grant Village Restaurant: May 26-October 1 Lake House at Grant: May 26-September 24

Grant Village Ministore (general store, light meals, snacks, & fast foods): May 12–October 1

Grant Village General Store (general store, light meals, snacks, & fast foods): May 27–September 21
Grant Village Gift Shop: May 26–October 1

#### **Service Stations**

\*\*\*Grant Village Service Station: May 19-September 25 Grant Village Repair Service: May 26–September 4 Wrecker service will be provided from the Grant Village station May 26-September 25.

Grant Village LP Gas Plant: May 26-September 25

#### Other Services

Grant Village Campground—Showers and laundry: June 21–October 1

#### Canyon

**Lodging**Canyon Lodge—Rooms, cabins: June 2–September 17

#### Food Services

Canyon Lodge Dining Room: June 2-September 17 Canyon Lodge Cafeteria: June 2-August 28 Canyon Picnic Shop—(light meals, snacks, & fast foods): June 2-September 17

\*\*Canyon Nature Store (light meals, snacks, fast foods, photo shop, gifts, & souvenirs): April 28–October 22
Canyon General Store (light meals, snacks, & fast foods): May 14-September 25

Canyon Lodge Gift Shop: June 2-September 17

#### **Service Stations**

\*Canyon Village: April 28-November 5 Canyon Repair Service: May 26-September 4 Wrecker service will be provided from Canyon station April 28-November 5

#### Other Services

Canyon Village Campground—Showers and laundry: June 2–September 10 Canyon Lodge—Trail rides: June 24–September 2

#### Tower Fall

Tower Fall Store (general store, light meals, snacks, & fast foods): May 26–September 24

Tower Junction Service Station: June 9-September 4

#### Roosevelt

**Lodging**Roosevelt Lodge—Cabins: June 9–September 4

Roosevelt Lodge Dining Room: June 9-September 4 Roosevelt Lodge Dinner Cookout: June 10-September 3

Roosevelt Store (general store, light meals, snacks, & fast foods): June 9-September 3 Roosevelt Lodge Gift Shop: June 9-September 4

#### Other Services

Trail rides: June 9–September 3 Stagecoach Rides: June 9–September 3

#### Fishing Bridge

#### Stores

Fishing Bridge RV Park Gift Shop: May 12-September 24 \*\*Fishing Bridge General Store (general store, light meals, snacks, & fast foods): May 13–September 17

#### **Service Stations**

\*\*\*Fishing Bridge Service Station: May 12–September 18 Fishing Bridge Repair Service: May 26–September 4 Wrecker service will be provided from Fishing Bridge station May 26–September 4. Fishing Bridge LPGas Plant: May 22–September 15

Fishing Bridge RV Park—Showers and laundry: May 12-September 24

#### **Bridge Bay**

Bridge Bay Marina Store (general store, light meals, snacks, & fast foods): June 2–September 18

Bridge Bay Marina—Dock rental: May 26-September 17 Scenicruiser excursions: June 3–September 17 Outboards, guide boats: June 15–September 10

#### Automatic Banking

24-hour cash available at the Fishing Bridge General Store, Grant Village General Store, Lake Yellowstone Hotel, Mammoth General Store, Mammoth Hotel, Old Faithful Inn, Old Faithful Snow Lodge, Old Faithful Upper Store, Canyon General Store, and Canyon Lodge. CIRRUS and PLUS automatic network machines will be in service for cash anytime during the lodging facilities'seasons.

#### **Backcountry Tours**

June–September: write to Yellowstone National Park, WY 82190 or call the National Park Service, (307) 344-7381, for a list of certified outfitters.

#### **Medical Services**

Mammoth Clinic—Open year-round; five days a week; Daily hours: 8:30 AM-5:00 PM, closed 1:00 PM-2:00 PM. (307) 344-7965.

Old Faithful Clinic—May 12-October 15; (307) 545-7325 Lake Hospital, Clinic, and Pharmacy—May 22–September 15; (307) 242-7241

#### Campgrounds

See page 6 for camping information; call for reservations or plan to select sites early.

#### **Motorcoach Tours**

The Circle of Fire—Departs from locations along the Lower Loop and Bridge Bay Campground

The Washburn Expedition—Departs from Lake Hotel, Fishing Bridge RV Park, Bridge Bay Campground, and

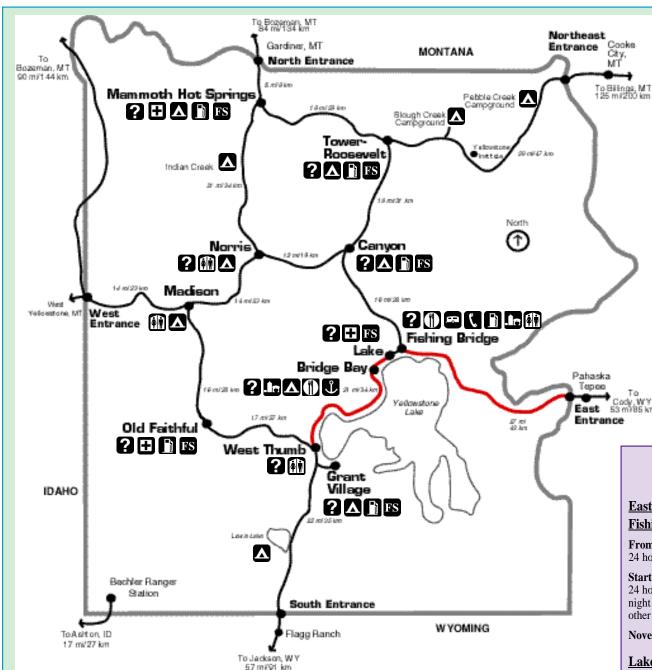
Canyon Lodge Yellowstone in a Day—Departs from Gardiner, MT and Mammoth Hot Springs Hotel

# Yellowstone Roads and Facilities

**Park Information (307) 344-7381** 

TDD: (307) 344-2386

**Emergency—dial 911** 



#### **Road Opening** and Closing **Schedule**

Weather permitting: Beartooth Pass, May 26

Tower to Canyon via Dunraven Pass, **June 16** (sooner if weather

#### **Fall Road Closures**

Tower to Canyon via Dunraven Pass and Beartooth Pass, October10, 2000

All other park roads close for the season at 8 AM November 6 except the North Entrance to Cooke City road, which is open all year.

#### **Road Construction Schedules**

#### East Entrance—

#### **Fishing Bridge Restoration**

From opening through June 15: Open 24 hours with up to 30 minute delays.

Starting June 16 through Nov. 5: Open 24 hours with up to 2 hour delays from midnight to 5 AM and up to 30 minute delays at all

November 6: Closed for the season.

#### **Lake Junction to West Thumb**

From opening through July 5: Open 24 hours with up to 30 minute delays.

Starting July 6 through Nov. 5: Open 24 hours with up to 2 hour delays from midnight to 5 AM and up to 30 minute delays at all

November 6: Closed for the season.

consult the Yellowstone color brochure.

For a more detailed map, and more wildlife and area information,

This map shows summer roads/facilities; see the previous page for dates of operation.

Visitor center, ranger station, or information station

Gasoline/ fuel



Lodging

General store



**Telephones** 

Food service

Clinic or hospital



Campground

**Full Services** (includes lodging, food service, store, rest rooms, phone)





Camping: hard-sided units only

This map is courtesy of Conoco—providing petroleum products since 1917...

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All service stations in Yellowstone offer environmentally sensitive fuels, specially formulated by Conoco to reduce hydrocarbon emissions and decrease other pollution-related problems.