

Canyon Area Trail Guide

*Featuring
the Grand
Canyon
of the
Yellowstone
River*

•

*Including
North Rim Drive
and
South Rim Drive*



**Yellowstone
National Park**

50¢ donation

DANGER STAY ON TRAILS

Hot Water • Thin Crust

Protect Yellowstone's Treasures

Yellowstone protects unique geological formations, including the Grand Canyon of the Yellowstone. You have an unparalleled opportunity to view this fragile area in a natural setting.

It is illegal to collect any natural or cultural objects or to remove, deface, or destroy any plant, animal, or mineral in Yellowstone National Park.

Enjoy the Canyon Safely

- At about 8,000 feet (2,400 meters) in elevation, even short walks on the canyon rims can be strenuous. Take your time and wear good shoes or boots. Weather can be changeable; carry rain gear. You may also want to carry water and a snack.
- Watch your footing and please stay on the trails. Climbing into the canyon off established trails is both dangerous and prohibited by law.
- Trails may be icy and slippery any time of year. Some trails may be closed during the winter season.
- Do not throw anything into the canyon. Rocks and other hard objects might injure someone below you. Please don't litter; it is expensive and dangerous to remove debris from the canyon.

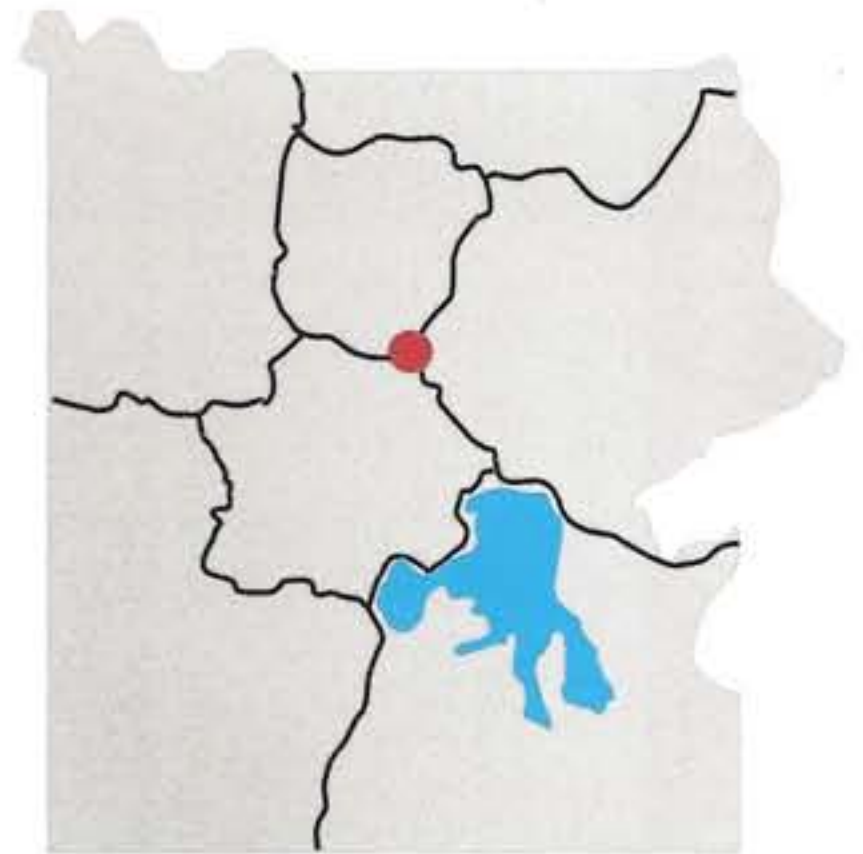
Toxic Gases exist in Yellowstone. Dangerous levels of hydrogen sulfide and carbon dioxide have been measured in some hydrothermal areas.

If you feel sick, leave the location immediately.

Help preserve Yellowstone for the future.

Grand Canyon of the Yellowstone River

Length	20 miles (32 km)
Depth	more than 1,000 feet (305 m)
Width	1,500–4,000 feet (450–1,200 m)
Height of Upper Falls	109 feet (33 m)
Height of Lower Falls	308 feet (93 m)
Primary rock type	rhyolite/altered rhyolite
Canyon age: started forming 484,000 years ago.	



The Grand Canyon of the Yellowstone River expresses the park's complex geologic history in dramatic colors and shapes. Puffs of steam mark hydrothermal features in the canyon's walls. The Upper and Lower Falls of the Yellowstone River add to the grandeur of this unique natural treasure. Experience the canyon from a variety of overlooks, at different times of day, and at different seasons. Enjoy the canyon's most obvious splendors, and look for the details that will make your experience memorable.

The Canyon Through Time

“... As I took in the scene, I realized my own littleness, my helplessness, my dread exposure to destruction, my inability to cope with or even comprehend the mighty architecture of nature. . . .” *Nathaniel P. Langford, 1870, one of the first explorers to record his impressions of the Grand Canyon of the Yellowstone.*

About 640,000 years ago, a huge volcanic eruption occurred in Yellowstone, emptying a large underground chamber of magma (partially molten rock). Volcanic debris spread for thousands of miles (kilometers) in a matter of minutes. The roof of this chamber collapsed, forming a giant caldera 30 miles (45 km)

across, 45 miles (75 km) long, and several thousand feet deep. Eventually the caldera was filled with lava.

Scientists believe the canyon formed after this eruption, and after the subsequent Canyon Rhyolite lava flow, which occurred approximately 484,000 years ago. Hydrothermal activity altered and weakened the rhyolite, making the rocks softer. The Yellowstone River began eroding these rocks downstream near Tower Fall; the erosion continued upstream to Lower Falls.

The 308-foot (93 m) Lower Falls may have formed because it flows over volcanic rock more resistant to erosion than the downstream rocks, which are hydrothermally altered. The 109-foot (33 m) Upper Falls flows over similar rocks. The large rocks upstream from the Upper Falls are remnants of a lava flow resistant to erosion.

The multi-hued rocks of the canyon result from the hydrothermally altered rhyolite and sediments. Look closely at dark orange, brown, and green areas near the river for still-active hydrothermal features. Their activity—and that of water, wind, and earthquakes—continue to sculpt the canyon.



Walking the Canyon Rims

A number of trails and walkways wind along the rims and into the canyon. Use this guide to plan your excursions; check at the visitor center for trail conditions, especially during cold or wet weather. Wear comfortable shoes, carry water, and take your time.

South Rim Walks & Overlooks

Trails are subject to seasonal closures. Check locally for available viewpoints and trails.

Uncle Tom's Trail

For an unparalleled canyon and waterfall experience, take a deep breath and descend this trail. A series of paved inclines and more than 300 steps lead you about 500 feet (150 m) down into the canyon. Your destination is a platform from which you can see, hear, and feel the power of the Lower Falls. **This strenuous trail is not recommended for people with heart, lung, or other health conditions.** Much of the walk is constructed of perforated steel sheeting, so you should wear comfortable, flat-heeled walking shoes. Also watch out for ice in the early morning or in the spring or fall. Closed in winter and subject to closures in the spring and fall due to snow, ice, or other conditions.

Upper Falls Viewpoint

This easy walk takes you to two viewpoints of the Upper Falls, which drops 109 ft (33 m) over a lip of volcanic rock. Upstream of the waterfall, you can see the old Canyon Bridge, which today is part of the North Rim Trail. From the left overlook, look downstream to glimpse Crystal Falls on the opposite side of the canyon.

South Rim Trail

Begin this trail at the Wapiti Lake Trailhead on South Rim Drive near Chittenden Bridge. This partially paved trail parallels the canyon and connects the Wapiti Lake Trailhead with Uncle Tom's Point and Artist Point (1¼ miles/2.8 km). You'll wind in and out of forests between striking viewpoints of both falls and the canyon. Beyond Artist Point, the trail continues into the backcountry to Lily Pad Lake and other destinations.

Artist Point

When you reach this set of overlooks, you'll see why this is one of the most photographed views in Yellowstone. Framed by the canyon walls with forests for a backdrop, the Yellowstone River thunders more than 308 ft (93 m) over Lower Falls. From the upper overlook, you can view the canyon in both directions. Look for osprey, bald eagles, ravens, and swallows. The lower overlook is accessible to wheelchairs.

Clear Lake Trail

From Uncle Tom's Point parking area, this trail takes you through large rolling meadows and forested areas to Clear Lake (2¼ miles/3.6 km), a hydrothermal area. Obtain current information on trail conditions and bear activity from rangers at visitor centers.

Other Hiking Options

Numerous trails suitable for short or extended hikes into Yellowstone's backcountry begin in the Canyon area. Consult the *Dayhike Sampler*, *Day Hikes in the Canyon Area*, and other publications for more information. Always obtain current trail condition and bear activity information at visitor centers.

Legend

- | | | |
|--|-----------------|--------------|
| Paved trail, meets federal guidelines for wheelchair accessibility | Parking | Information |
| Improved trail, may require assistance | Restrooms | Shower |
| Stairs, steep grade, or uneven ground | Food | Amphitheater |
| Backcountry trail | Store | Trail Rides |
| Road | Service Station | Picnic Area |
| | Lodging | Campground |
| | Telephone | Recycling |
| | Post Office | |

Walking the Rims

North Rim Walks & Overlooks

Accessible Walkways & Overlooks

Each overlook area has wheelchair-accessible views and walkways, so be sure to explore them. Some lead from the overlooks' walkways, others extend past the parking areas.

Brink of Lower Falls Trail

Every second, an average of 37,417 gallons (141,809 liters) of water plunges 308 ft (93 m) over Lower Falls. You can view this power from several paved overlooks adjacent to the parking lot. Or you can descend to the brink on a steep trail that drops 600 ft/180 m (**not recommended for those with heart, lung, or other health conditions**). View Upper Falls from a short spur at the trail's beginning. Trails closed in winter.

Lookout & Red Rock Points

View the canyon from several paved overlooks adjacent to the parking lot. For a full view of Lower Falls, follow the trail that begins at the Lookout Point signs, bearing left at the fork. Look in the canyon for osprey nests and signs of hot springs (wet, rust-colored rocks or steam). The trail below you, Red Rock Trail, takes the hardy visitor close enough to feel the spray. To reach this trail from the parking lot, bear right at the fork. The trail includes many steps and drops 500 feet (150 m) in about $\frac{3}{8}$ mile (0.6 km) **and is not recommended for visitors with heart, lung, or other health conditions**. Red Rock Trail is closed in winter.

Grand View

For a colorful and accessible view of the canyon, bear left at the fork in the walkway; the right fork is part of the North Rim Trail. You can see the river snaking through the rocks as it rushes downstream. Stop to rest on benches cut from stone and listen to the roar of Lower Falls.

Grand View to P Loop

This half-mile (0.8 km) paved trail begins at the Grand View parking area and ends at the P26 cabin in Canyon Village. This trail is especially pleasant in the early morning.

Inspiration Point

Turn right on a two-way road that takes you to this viewpoint. Enjoy the wheelchair-accessible view along the edge of the parking lot. The overlook is down more than 50 steps. Rest on the

benches and enjoy the views; halfway down you can glimpse the Lower Falls of the Yellowstone. From the overlook, view the canyon upstream and downstream, watch the acrobatic flights of birds, and smell the sulfur from hydrothermal features far below.

On the way back to North Rim Drive, stop at Glacial Boulder. This enormous boulder came from the Beartooth Plateau, which is beyond the northeast corner of the park. As a glacier scraped down from those mountains, it deposited this and other boulders.

Brink of Upper Falls

To reach this dramatic view, drive south from Canyon Junction on the Grand Loop Road and turn left onto the spur road. Shorter than Lower Falls, Upper Falls (109 ft/33 m) is impressive in its own way. As you walk toward the overlook, listen to the rush of water. Then proceed down the steps and around the corner to view the colliding currents rushing pellmell over the brink. Look for rainbows in the afternoon. For a wheelchair-accessible view, bear right before the stairs and continue a short distance on the paved surface (also part of the North Rim Trail). Trails can be icy or snow-covered in cold weather and may be closed in winter.

North Rim Trail

Portions of this trail are paved and wheelchair-accessible, especially near the major overlooks. The full-length walk is almost 3 miles (4.8 km). You can begin at either end; this description begins at the Wapiti Lake Trailhead on South Rim Drive near Chittenden Bridge. The first $\frac{1}{2}$ mile (0.8 km) takes you close to the river and the brink of the Upper Falls, described above. You'll cross Cascade Creek above Crystal Falls, then continue another $\frac{1}{2}$ mile (0.8 km) to the trail leading to Brink of Lower Falls Trail. Next you'll come to Lookout Point ($\frac{1}{2}$ mile/0.8 km), to Grand View ($\frac{1}{4}$ mile/0.4 km), and finally to Inspiration Point (slightly more than 1 mile/1.6 km). The trail between Lookout Point and Grand View is paved and wheelchair-accessible.

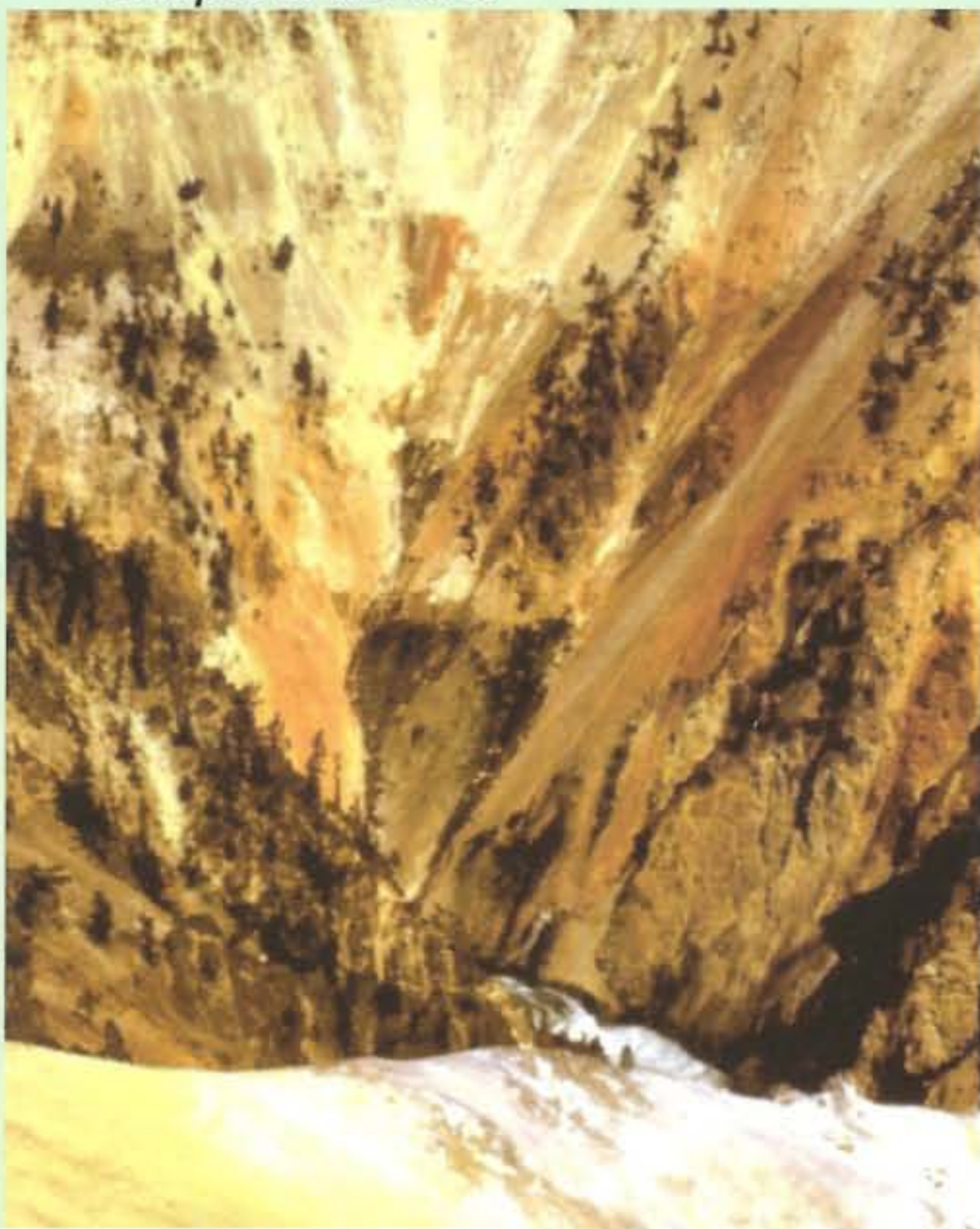
Canyon Wildlife

Driving the Rims

North and South rim drives take you along the most famous section of the canyon (*see map*) to a variety of overlooks and walks.

- North Rim Drive begins 1.2 miles (1.9 km) south of Canyon Junction. This one-way road takes you to four accessible views of the canyon, each featuring a different aspect of the canyon's power, color, and geology. At Brink of Lower Falls, glimpse the Lower Falls and Upper Falls from paved accessible trails at the top or descend the steep Brink Trail to witness the Lower Falls' power. View Lower Falls again from Lookout, and see it again from a distance at Inspiration Point. Grand View offers spectacular views of the canyon and river.
- The spur road to Brink of Upper Falls is 1.6 miles (2.6 km) south of Canyon Junction on the Grand Loop Road. Follow the paved path to a dramatic vantage point for viewing the Yellowstone River as it enters the canyon by plunging over Upper Falls.
- South Rim Drive, which begins 2.3 miles (3.7 km) south of Canyon Junction, leads you to views of Upper Falls at Uncle Tom's Point and of Lower Falls and the canyon at Artist Point.

Glimpse of the river



Among the Pinnacles

There is more to the canyon than first meets the eye. Look carefully among the rugged pinnacles—you may see a flash of wings or a thick pile of sticks. Soaring over the Yellowstone River or perched on their five-foot diameter nests, osprey intrigue and delight those who discover this seasonal canyon inhabitant. Since the mid 1980s, six to ten osprey nests have been occupied in the portion of the canyon near Canyon Village.

Adult osprey return here between mid-April and early May, depending on weather patterns. Male and female birds may arrive at different times. By mid May, the pair has mated, the female has laid a clutch of two to four tan-with-brown speckled eggs, and incubation has begun. The eggs hatch in about six to eight weeks.

Osprey chicks are born featherless, and need much care. They must be sheltered from heat and cold and fed small amounts of fish often. At about one week of age, the young are covered with downy feathers. They grow rapidly; after three weeks, their plumage resembles that of an adult but with speckles of white at the edge of each feather.

By mid- to late August, the young are nearly the size of their parents and become increasingly independent. Typically, the entire family abandons the canyon by September, probably roosting in trees nearer to the waters where they catch fish.

Sometime during autumn, the entire population of Yellowstone osprey heads south to their wintering areas along the coasts of Mexico and Central America.

Osprey are excellent fishers. Amazing eyesight enables them to spot fish in the water, adjust for distortion due to refraction, and dive from 100 feet (30 m) or more into the water for a fish.

Osprey



If you are lucky enough to see this feat, watch closely. If the osprey successfully regains the air, watch how the bird turns the fish forward, probably to reduce drag. Sometimes the osprey may drop the fish, or another bird—such as a bald eagle—may harass the osprey and cause it to drop the fish.

With binoculars, patience, and a little luck, you may be able to spot an osprey tending a nest or snagging a fish. You may also see ravens, bald eagles, and swallows flying throughout the canyon. Rangers at the Canyon Visitor Education Center can help you learn more about this area's winged inhabitants.

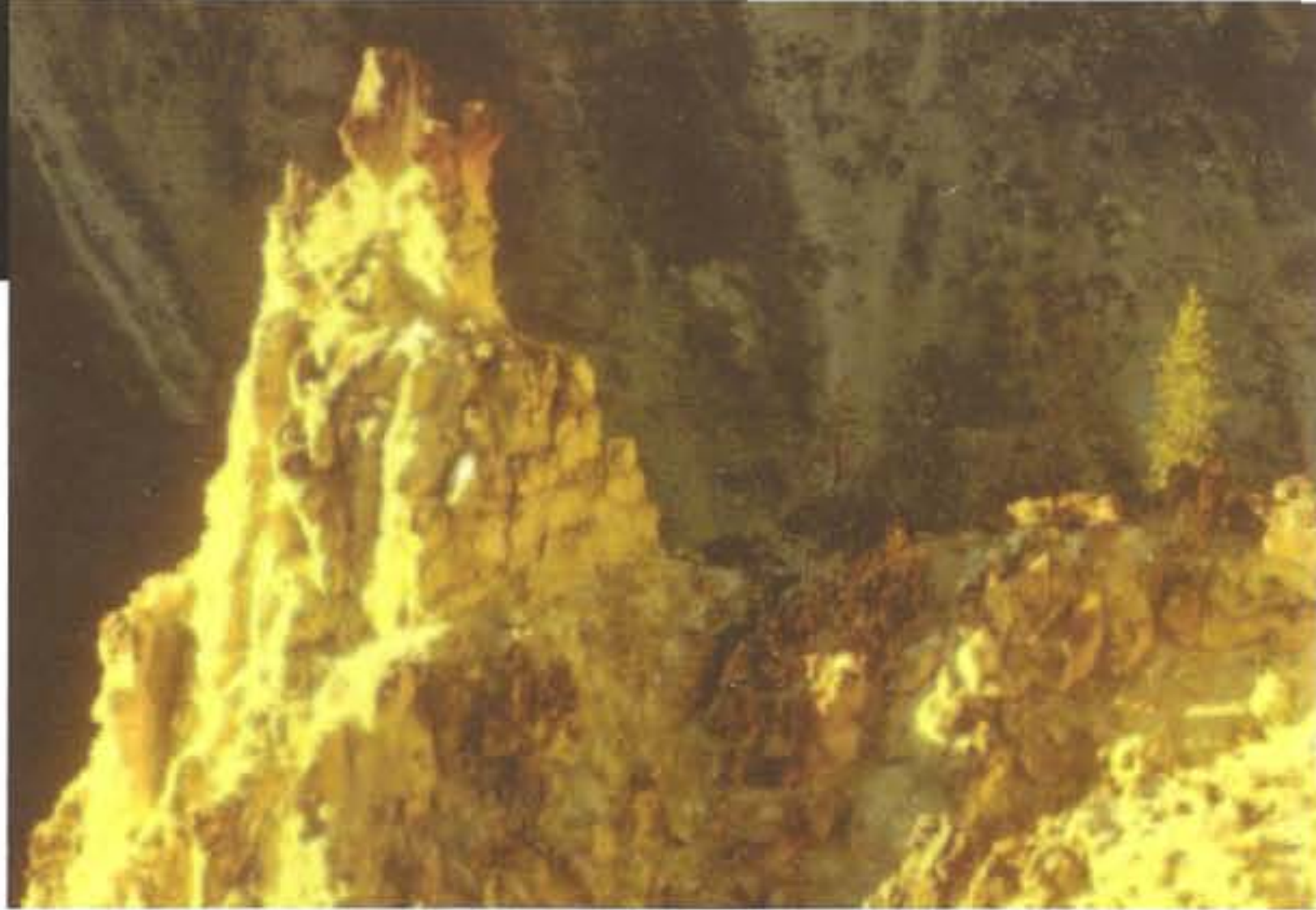
Forests and Meadows

Wander a few feet away from the canyon rims and the character of the land changes completely. Dense forests, lush meadows, numerous small lakes, and a network of creeks provide a variety of habitats that support a surprising number of birds and mammals. How they live and exactly where they may be seen are intricately linked to time of year and even time of day.

Perhaps the most easily seen animals—due to sheer size and numbers—are the bison and elk that roam the park, including the Canyon area. Each season highlights different phases of their life cycle. Spring is the time of calving. As the weather warms, elk and bison move to higher elevations, although smaller numbers usually remain in areas visible from park roads or developments. In mid-summer, bull bison begin to butt heads and bellow, signs of the pending rut (mating season). One of the best places to watch this action is Hayden Valley, south of the Canyon area. Elk enter their rut in autumn, which coincides with their return to lower country. Winter tests the animals' ability to survive extreme cold and deep snow.

You may also see mule deer, moose, red foxes, grizzly and black bears, coyotes, great gray owls, and bald eagles. During the peak wildflower season in July, you'll also see a variety of butterflies feasting on the abundant sticky geraniums, lupines, and sunflowers.

Please keep wildlife wild. It is a rare privilege to see wild animals in their natural habitats. Respect their needs for space and solitude. Observe from safe distances and never feed any bird, chipmunk, deer, or other animal.



Canyon rim view

For More Information

www.nps.gov/yell

If you would like to learn more about geology or hike other trails, these and other items are sold by the Yellowstone Association in visitor centers:

Interpreting the Landscape of Grand Teton and Yellowstone National Parks,
John N. Good and Kenneth L. Pierce

Windows into the Earth: The Geologic Story of Yellowstone and Grand Teton National Parks,
Robert B. Smith and Lee J. Siegel

Yellowstone Trails: A Hiking Guide, Mark C. Marschall

Yellowstone National Park Dayhike Sampler, National Park Service

DVDs: *Yellowstone: A Symphony of Fire and Water*
The Complete Yellowstone

Photos: Cover photo (of Lower Falls), NPS/Austin-Jones; River, NPS; Osprey, NPS/Williams; Rim, NPS/Schmidt



**YELLOWSTONE
ASSOCIATION**

For information about membership, educational programs for visitors, and to view our online store, visit our website at www.YellowstoneAssociation.org or call 406-848-2400.

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