



Teewinot

The official newspaper of Grand Teton National Park & John D. Rockefeller, Jr. Memorial Parkway



Panoramic created from photographs taken for 360 Degrees of Grand Teton National Park project.

Welcome to Grand Teton National Park

FEW LANDSCAPES IN THE WORLD are as striking and memorable as that of Grand Teton National Park. Rising abruptly from the valley floor, the Tetons offer a testament to the power and complexity of nature. The mountains, valleys, lakes, rivers and skies are home to diverse and abundant plants and animals.

People have been living in the shadow of the Teton Range for more than 11,000 years. The human history of this area is extensive, beginning with American Indian prehistoric life, to the early Euro-American explorers, to the more

recent frontier settlement, of which more than 300 historic structures remain in the park.

This spectacular mountain range and the desire to protect it resulted in the establishment of Grand Teton National Park in 1929. Through the vision and generous philanthropy of John D. Rockefeller, Jr., additional lands were added, creating the present day park in 1950.

Grand Teton National Park is truly a unique place. With thoughtful use and careful management, it can remain so for generations to come. As with other sites in the National

Park Service, Grand Teton preserves a piece of America's natural and cultural heritage for future generations.

While you are here, take a moment to put your cares aside: take a scenic drive, celebrate winter by skiing or snowshoeing, and lose yourself to the power of this place.

We hope you will be refreshed and restored during your visit, and stay connected to this magnificent landscape long after you have returned home.

Drive Safely!



Winter driving can be challenging; park roads may be covered with ice or hard-packed snow; winter storms can create white-out driving conditions. Make sure your vehicle is equipped with winter or all-season tires and carry tire chains when driving over mountain passes.

For updated road information in the park call: (307) 739-3682.

- Roads may be icy or snow-covered, drive below the speed limit when conditions warrant.
- Watch for wildlife on the roadway, especially in the evening and morning.
- Carry an emergency kit and a shovel in your vehicle. Snow storms may occur at any time. Roads may close for visitor safety.
- Always wear your seat belt.
- Be prepared for changing weather conditions.

As You Drive, Keep Them Alive!

Annual Impacts of Vehicle Collisions with Wildlife

\$155,000 Personal property damage

100 Large animals killed annually

Slow Down! Stay Alert!



International Visitors

Des renseignements en Français sont disponibles aux centres des visiteurs dans le parc.

Sie können Informationen auf Deutsch in den Besucherzentren bekommen.

Se puede conseguir información en Español en el Centro del Visitante.

Accessibility information available at visitor centers and on the Grand Teton Web site: <http://www.nps.gov/grte>.

Contact Information

Grand Teton National Park Web site	http://www.nps.gov/grte/
EMERGENCY	911
Park Dispatch	(307) 739-3301
Visitor Information	(307) 739-3300
Weather	(307) 739-3611
Road Conditions	(307) 739-3682
Backcountry & River Information	(307) 739-3602
Climbing Information	(307) 739-3604
Camping Information	(307) 739-3603
TDD (Telecommunication Device for Hearing Impaired)	(307) 739-3400

Index

Trip Planning	2-3
Safety	3
Wildlife	4-7
Visitor Centers	5
Concessioners.....	5
Geology	8
Suggested Activities	9
Partners	10
Yellowstone	11
Park Map	12



Teewinot

Published By

Grand Teton Association, a not-for-profit organization, dedicated to supporting the interpretive, scientific, and educational activities of the National Park Service.

Superintendent

Mary Gibson Scott

Editor

Kimberly Finch
Interpretive Specialist

Park Address

Grand Teton National Park
P.O. Drawer 170
Moose, WY 83012

Phone

(307) 739-3300

Email

grte_info@nps.gov

Website

www.nps.gov/grte

EXPERIENCE YOUR AMERICA™

The National Park Service cares for the special places saved by the American people so that all may experience our heritage.



GRAND TETON NATIONAL PARK PROVIDES spectacular recreational and sightseeing opportunities in any season. Use this guide to plan your visit to the park during the winter months of November through April.

Visit during the “off-season” (or those non-summer months when the park is less congested), and you will experience a park in transition. As leaves scatter to the ground, new snow sweeps into the range, building a foundation for winter recreation. Mountain weather during winter changes from day to day and may even change significantly during a single day, beginning with sunny skies and ending in a blustery snowstorm.

After the winter solstice, the days begin to lengthen, but winter weather persists with snows falling into June. In April, the days are longer and intermittently

warm and sunny, melting the snow and providing a glimpse into the growing season of summer, with leaves emerging in late May.

SNOW determines much of the recreation opportunities in the park. Hiking trails often do not melt out until early summer months, mountain passes retain snow until mid-summer most years. During the fall, new snows may conceal trails in the high country and provide challenges to route-finding. Use the *Teewinot* for ideas on how to make the most of your visit.



THE NAME TEEWINOT comes from the Shoshone word meaning “many pinnacles.” The name Teewinot probably once applied to the entire Teton Range, rather than just a single peak as it does today. Fritiof Fryxell and Phil Smith named Teewinot when they successfully completed the first ascent of the mountain in 1929. This jagged peak towers above Cascade Canyon and Jenny Lake.

The park, like the landscape itself, is **dynamic**, providing a unique experience every day of the year for its **diverse** visitors who come from across the world to **enjoy** this national park.

Make the Most of Your Park Visit



Wondering how to make the most of your time in Grand Teton National Park? Take a look at a few of the suggestions below to help plan your visit. Stop by the Craig Thomas Discovery and Visitor Center for trail maps, weather forecasts, and other trip planning assistance.

Safety in the Backcountry

Visitors are reminded that safety is your responsibility, and depends upon your good judgment, adequate preparation and constant awareness. Backcountry users should be in good physical condition and stick to routes that are within your ability

and comfort levels. Hypothermia and frostbite can set in quickly, and are difficult to treat while in the backcountry. Take preventative measures, such as layering warm clothing and staying well-hydrated, to avoid the dangers of cold weather; look

for signs of hypothermia and frostbite in members of your group. Traveling alone can be especially dangerous; always give friends or family a detailed itinerary and stick to that plan. Permits are required for all overnight backcountry trips and are free of charge and available at the visitor center in Moose.

Hiking

Beginning in November most park trails will be partially or completely snow-covered. As snow begins to accumulate in the mountains, route-finding may be difficult; ask at a visitor center for recreation suggestions.

Climbing & Backpacking

Permits are required for overnight backcountry trips and may be obtained at the visitor center in Moose. Only backcountry users with knowledge of avalanche safety and proper snow and ice equipment should venture onto steep mountain slopes. Check avalanche and weather forecasts before you leave.

Cross-country Skiing & Snowshoeing

Cross-country skiing and snowshoeing are two of the best ways to experience the exhilaration of winter. Watch for wildlife such as moose, coyote and snowshoe hares,

and look for signs of wildlife in the snow. From November 1 through April 30th, the Teton Park Road from the Taggart Lake trailhead all the way to Signal Mountain Lodge is open for non-motorized use only. You can ski or snowshoe on this road,

Please respect groomed ski tracks by walking or snowshoeing beside them rather than upon them.

which is intermittently groomed to provide a packed surface for snowshoeing and cross-country touring. Other places to enjoy cross-country skiing and snowshoeing include Colter Bay, Antelope Flats Road, Taggart Lake and Flagg Ranch.

Ranger-guided Snowshoe Walks

Are you curious about winter ecology or snow science? Have you ever wanted to experience the park in the winter? A snowshoe walk with a park naturalist is the perfect way to introduce yourself to winter in the Tetons and to experience travel on snowshoes. Naturalists provide guided snowshoe walks from the Craig Thomas Discovery and Visitor Center daily when snow conditions permit, usually

Average Temperatures (Fahrenheit)

January
High 25.7°
Low 1.2°

February
High 31.1°
Low 3.6°

March
High 39°
Low 11.9°

April
High 49°
Low 22.1°

May
High 60.9°
Low 30.9°

June
High 70.6°
Low 37.2°

Entrance Fees – 2009

Single Entry: \$25 - 7 Days

DETAILS: Good for both Grand Teton and Yellowstone national parks: \$25 per vehicle; \$12 per person for single hiker or bicyclist; \$20 per motorcycle.

Winter Day Use: \$5 - 1 Day

DETAILS: Available from mid-December through April 30. Valid for Grand Teton National Park only.

Interagency Annual Pass: \$80 - Annual

DETAILS: The new pass covers entrance and standard amenity recreation fees on public lands managed by four Department of the Interior agencies—the National Park Service, Fish and Wildlife Service, Bureau of Land Management, and the Bureau of Reclamation, and by the Department of Agriculture's U.S. Forest Service. The new interagency pass is good at vehicle-based entry sites for all occupants in a single, non-commercial vehicle.

Interagency Senior Pass: \$10 - Lifetime

DETAILS: A lifetime pass for U.S. citizens 62 or older that offers entrance to all areas covered under the Interagency Annual Pass, non-transferable.

Interagency Access Pass: Free

DETAILS: A lifetime pass for citizens with permanent disabilities, offering entrance to all areas covered under the Interagency Annual Pass, non-transferable.

Grand Teton - Yellowstone Pass: \$50.00 - Annual

DETAILS: Allows entrance to Grand Teton and Yellowstone national parks for 12 months from date of purchase; non-transferable.

Local Passport: Satellite - \$5.00 - Annual

DETAILS: Sold in conjunction with the Grand Teton - Yellowstone pass or Interagency Annual Pass. Good for the duration of the partner pass. Valid for Grand Teton National Park only. Proof of affiliation is required.

Commercial Tour Fee: \$ variable - 7 Days

DETAILS: Good for both Grand Teton and Yellowstone national parks; non-transferable. Fee is based on the carrying capacity of the vehicle (driver not included). 1-6 carrying capacity: \$25 plus \$12 per person; 7-15 carrying capacity: \$125; 16-25 carrying capacity: \$200; 26 or more carrying capacity: \$300.

Know Before You Go



WINTER SAFETY

■ Protect yourself. Know your equipment and your capabilities and limitations.

■ Avoid skiing or snowshoeing alone. Always let someone know your planned destination, route and expected time of return.

■ HYPOTHERMIA is a major cause of human fatality in mountain country. Carry extra clothing and dress to prevent hypothermia. Never leave a member of your party alone. If someone you are with begins to act or talk abnormally, make him or her put on more clothing and drink warm liquids. Learn about treating hypothermia before your trip.

■ Be prepared for sudden changes in the WEATHER. Snow and weather conditions may vary considerably throughout the day and by elevation. Check the weather forecast before you venture out, and above all use common sense.

■ Be alert for AVALANCHE hazards, especially in mountain canyons and along ridge tops. Inquire about current and forecasted avalanche hazard conditions at a visitor center. Call the Bridger-Teton National Forest Avalanche Center for daily forecasts at (307) 733-2664.

PETS

During the winter, pets are not allowed off plowed roadways or parking areas, except the unplowed portions of the Teton Park and Moose-Wilson roads. Restrain pets on a leash no longer than six feet at all times. Keep pets within 50 feet of roadways; pets are not allowed on trails or in the backcountry, in boats on the Snake River, in boats on lakes other than Jackson Lake or in visitor centers. Pet owners are required to clean up after their animals.

FIREARMS

All firearms, including state-permitted concealed weapons, are prohibited in the park and parkway—except when actively pursuing game during legal hunting seasons. Unloaded firearms may be transported in a vehicle when the weapon is cased, broken down or rendered inoperable.

CAMPFIRES

Prevent fires by following regulations. Backcountry campfires are not permitted except by permit on Jackson Lake. Always make sure your campfire is completely out.

late December to mid-March. Call the Discovery Center at (307) 739-3399 to make reservations. Reservations are accepted beginning December 1st of every year. A \$5 per adult, \$2 per child donation is suggested for the use of snowshoes. See page 9 for more information.

Winter Camping

National Park Service campgrounds are closed during the winter; however, primitive winter camping is permitted near the Colter Bay Visitor Center for \$5 per night. Pay at the self-pay station by the restroom. Camp on the snow that covers the parking lot.

Snowmobiling

Please inquire at a visitor center for the most up to date snowmobiling information.

Backcountry Skiing & Snowboarding

Jackson Hole is world-renowned for both its lift-accessed and backcountry skiing opportunities. Few places provide the scenery, variety of terrain, ease of access and challenging lines that can be found in the park's backcountry.

When skiing or snowboarding in the national park backcountry you are responsible for managing and assessing

avalanche risks. Many skiers and snowboarders access the park from the Jackson Hole Mountain Resort, but keep in mind that, unlike the ski resort, the park does not do control work for avalanches. Always carry an avalanche beacon, probe and shovel and know how to use them. Before heading out on your excursion, take a look at the park map on page 12 to locate wildlife closures. For current local avalanche forecasts, information and weather conditions stop by the Craig Thomas Discovery and Visitor Center. Call the Bridger-Teton National Forest Avalanche Center for daily forecasts at (307) 733-2664.

Fishing

Fishing in Grand Teton National Park is subject to Wyoming state regulations. A Wyoming fishing license is required for fishing in the park and parkway. Jackson Lake is open to fishing year-round except during the spawn from October 1–November 1. Jenny, Leigh, Phelps and Two Ocean lakes are open year-round.

The Snake River is open November 1–March 31 for catch and release only trout fishing; from April 1–October 31, trout creel limits apply. From December 15–March 31, the Snake River floodplain is closed to all entry (including fishing) from Moran

Junction to Menors Ferry near Moose to protect wildlife. Obtain fishing regulations at the Discovery Center. Use caution when wearing waders in or near swift water.

Floating the Snake River

The Snake River from Moran Junction to Menors Ferry is closed to floating from December 15–March 31. Only hand-propelled boats are permitted on the Snake River within the park and parkway. Register non-motorized vessels (fee charged) at the Craig Thomas Discovery and Visitor Center permits desk. On the surface, the Snake River may not seem powerful, but only experienced floaters should attempt this swift, cold river.

Boating

Motor boats are allowed only on Jackson and Jenny lakes. Human-powered vessels are permitted on Jackson, Jenny, Phelps, Emma Matilda, Two Ocean, Taggart, Bradley, Bearpaw, Leigh and String Lakes. A boat permit is required. Obtain permits and boat regulations at the Discovery Center.



July
High 79.8°
Low 41.2°

August
High 78.8°
Low 39.6°

September
High 68.9°
Low 32.2°

October
High 55.9°
Low 23.2°

November
High 38°
Low 13.7°

December
High 26°
Low 1.5°

John D. Rockefeller, Jr. Memorial Parkway

The effort to find that delicate balance between man's use and nature's needs that father led here in the Valley half a century ago must be continual and determined.

— Laurance. S. Rockefeller



LOCATED AT THE HEART OF THE GREATER YELLOWSTONE ECOSYSTEM, the memorial parkway connects Grand Teton and Yellowstone national parks. The late conservationist and philanthropist John D. Rockefeller, Jr. made significant contributions to several national parks including Grand Teton, Acadia, Great Smoky Mountains, and Virgin Islands. In 1972, Congress dedicated a 24,000-acre parcel of land as the John D. Rockefeller, Jr. Memorial Parkway to recognize his

generosity and foresight. Congress also named the highway from the south boundary of Grand Teton to West Thumb in Yellowstone in honor of Rockefeller. The Rockefeller parkway provides a natural link between the two national parks and contains features characteristic of both areas. In the parkway, the northern Teton Range tapers to a gentle slope, while rocks born of volcanic flows from the north line the Snake River and form outcroppings scattered atop hills and ridges.

Centennial Vision 2016



WHAT DOES THE FUTURE HOLD FOR NATIONAL PARKS? In eight years the National Park Service will celebrate 100 years of preservation and protection of America's icons, natural wonders and most special places. Places such as the Grand Canyon, the White House, Mount Rushmore, the Statue of Liberty, and of course the Teton Range remain protected for the enjoyment of visitors today and in the future.

What would this country be like without these unique sites? How would we connect to our history without experiencing these national treasures? To keep up with the Centennial Initiative and to experience the interactive version of The Future of America's National Parks and other special features please visit the centennial website at <http://www.nps.gov/2016>.

Bear Etiquette

A sow grizzly bear and her three cubs cross a park road. Drive with caution throughout the park and watch for wildlife along the roadways for your safety and theirs.



Be Bear Aware

Help us keep our bears wild and healthy. Don't leave backpacks, coolers, or bags containing food unattended for ANY amount of time. Take them with you or put them in a car or bear box.

Even food that is left out accidentally can mean removal or death for a bear. Report all bear sightings and incidents to a visitor center or ranger station.



A FED BEAR IS A DEAD BEAR

Bears become aggressive after even one encounter with human food. Unfortunately, people feed bears without realizing it. Bears often get food from backpacks and coolers that are left unattended in campgrounds or along trails.

Remember, bears can be anywhere in the park at any time, even if you can't see them. Help keep park bears wild. Keep your food items safe from all wildlife by locking them in your car or a bear box. The park strongly recommends storing food in bear-proof food canisters while backcountry camping. Failure to follow regulations is a violation of federal law and may result in citations and fines.

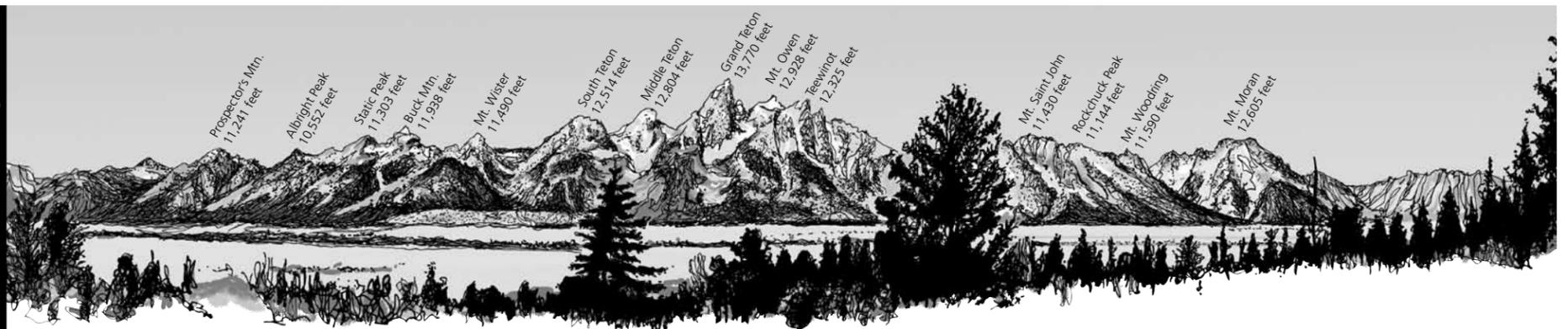
KEEP A CLEAN CAMP

- All food, containers and utensils must be stored in a bear box or hidden in a closed, locked vehicle with windows rolled up. The only exceptions are during the transport, preparation and consumption of food.
- Garbage must be stored in the same manner as food, or placed in bear-resistant trash cans or dumpsters.
- Treat odorous products such as soap, deodorant, toothpaste, suntan lotion and perfumes in the same manner as food.
- For your safety, absolutely no food, foodstuffs, garbage or odorous products may be stored in tents or sleeping bags.
- Ice chests, thermoses, water containers, barbecue grills, stoves, dishes and pans must be stored in the same way as food – hidden inside a locked auto or bear box.

BEAR SAFETY

- If you encounter a bear, do not run. If the bear is unaware of you, detour quickly and quietly. If the bear is aware but has not acted aggressively, back slowly away while talking in an even tone.
- Never approach a bear for any reason.
- Never allow a bear to get human food. If approached while eating, put food away and retreat to a safe distance (300 feet/91 meters).
- Never abandon food because of an approaching bear. Always take it with you.
- Never throw your pack or food at a bear in an attempt to distract it.
- Never bury food scraps, containers or fish entrails. Put them in garbage cans.
- Never leave food, containers or garbage unattended in camp.

The Teton Range





2008-2009

Craig Thomas Discovery & Visitor Center
 Located in Moose, 1/2 mile west of Moose Junction. Open Daily. (307) 739-3399.
 June 2-Sept. 14, 2008 8 a.m. to 7 p.m.
 Sept. 15-Oct. 31, 2008 8 a.m. to 5 p.m.
 Nov. 1-Mar. 31, 2009 9 a.m. to 5 p.m.
 April 1-early June, 2009 8 a.m. to 5 p.m.

Jenny Lake Visitor Center
 Located 8 miles north of Moose Junction on the Teton Park Road. Open Daily. (307) 739-3392.
 Closed Will re-open late-May 2009

Jenny Lake Ranger Station
 Located 8 miles north of Moose Junction on the Teton Park Road. Open Daily. (307) 739-3343.
 Closed Will re-open late-May 2009

Colter Bay Visitor Center & Indian Arts Museum
 Located 1/2 mile west of Colter Bay Junction on Highway 89/191/287. Open Daily. (307) 739-3594.
 Closed Will re-open mid-May 2009

Laurance S. Rockefeller Preserve Center
 Located 4 miles south of Moose Junction on the Moose-Wilson Road. Open Daily. (307) 739-3654.
 Closed Will re-open June 2009

For Wildlife Observers and Photographers



For many seeing a grizzly bear or a moose for the first time is an exciting experience, but always keep safety in mind. Parking in the roadway slows traffic and may cause accidents, please use designated turnouts when stopping to view wildlife.

BE A RESPONSIBLE WILDLIFE OBSERVER. Approaching wildlife stresses animals and can endanger you and your family. During the summer of 2005 a child was suddenly kicked by a moose and seriously injured. Use binoculars, spotting scopes or long lenses for close views and photographs.

Always maintain a safe distance of at least 300 feet from large animals such as bears, bison, moose and elk. Never position yourself between an adult and its offspring. Females with young are especially defensive. It is illegal to feed wildlife, including ground squirrels and birds. Feeding wild animals makes them dependent on people, and animals often bite the hand that feeds them.

Let wildlife thrive undisturbed. Harassment is any human action that causes unusual behavior, or a change of behavior, in an animal. Repeated encounters with people can have negative, long-term

Always use designated turnouts when stopping to view wildlife.

impacts on wildlife, including increased levels of stress and the avoidance of essential feeding areas. Please remember, nesting birds are easily disturbed. For wildlife, raising young is a private affair. If an adult bird on a nest flies off at your approach, circles you, or screams in alarm—you are too close to the nest. Unattended

nestlings readily succumb to predation and exposure to heat, cold and wet weather.

Allow other visitors a chance to enjoy wildlife. If your actions cause an animal to flee, you have deprived other visitors of a viewing opportunity. Use an animal's behavior as a guide to your actions, and limit the time you spend with wildlife. Follow all park regulations and policies, they are designated for the wildlife's and your safety.



Photograph by Dan Ng

Park Activities & Lodging

CLIMBING GUIDES
 Exum Mountain Guides
 (307) 733-2297
 Open year-round
www.exumguides.com

Jackson Hole Mountain Guides
 (307) 733-4979
 Open year-round
www.jhmg.com

CROSS COUNTRY SKI TOURS
 Jackson Hole Mountain Resort
 (307) 733-2292
www.jacksonhole.com

NOLS/RMB
 (800) 710-6657
www.nols.edu

Rendezvous Ski Tours
 (307) 353-2900
www.skithetons.com

The Hole Hiking Experience
 (866) 733-4453
www.holehike.com

WINTER LODGING FACILITIES
Triangle X Ranch
 Open: late December to late March
 (307) 733-2183
<http://www.trianglex.com>

Dornans Spur Ranch
 Open year-round
 (307) 733-2522
<http://nps.gov/cgi-bin/intercept?http://www.dornans.com>



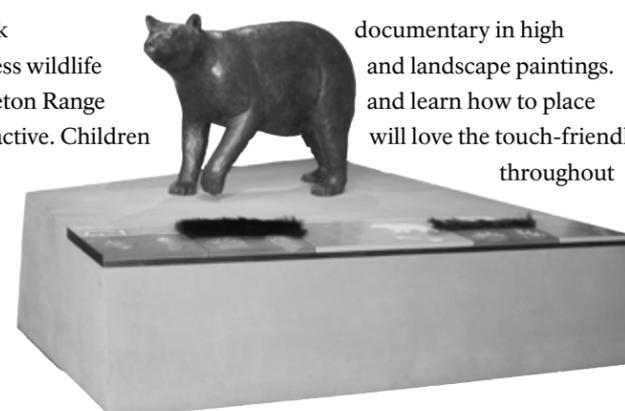
Craig Thomas Discovery & Visitor Center

The Craig Thomas Discovery and Visitor Center opened on August 11, 2007. Stop by the new visitor center, located in Moose, for your trip planning and information needs. Learn about the people, wild communities and preservation of this place through engaging exhibits. Enjoy a bird's eye view of the park by walking along the one-of-a-kind video river.



Watch the Discovery Communications, Inc. park definition and stroll through a gallery of priceless wildlife. See how mountaineering has evolved in the Teton Range climbing protection gear on a rock wall interactive. Children exhibits and can discover wildlife hidden throughout the visitor center.

Get inspired by one of the greatest views in the park from the lobby and terrace and follow the peak identifiers to learn the names of the Teton mountains. The visitor center is open daily year-round, closed on December 25th.



documentary in high and landscape paintings, and learn how to place will love the touch-friendly throughout

Seasons in the Range



Winter in the Tetons

“We cannot overlook the importance of wild country as a source of inspiration, to which we give expression in writing, in poetry, drawing and painting, in mountaineering, or in ‘just being there.’”

—Olaus Murie

AS WINTER DRAPES ITS SNOWY blanket across the Teton peaks, a peaceful quiet settles onto the landscape, offering a sharp contrast to the busy summer season. Winter recreation activities abound, with the park becoming a popular destination for cross-country skiers, snowshoers and photographers who wish to capture the beauty of the Teton winterscape. If you are planning a visit during the winter season, check current weather forecasts and road conditions to ensure a safe and enjoyable trip.



The park's main roadways, Highway 89/191 and Highway 26/287, are plowed and open for winter travel from the town of Jackson to Flagg Ranch near Yellowstone National Park's south boundary, and from Moran Junction to Dubois via Togwotee Pass. These travel routes offer outstanding mountain vistas and wildlife viewing opportunities. Park roads may be snow-covered and icy. Be

prepared for winter driving conditions and carry a winter safety kit in your vehicle for emergencies. In addition, wildlife may linger near park roads, so stay alert, and drive slowly for their safety and yours.

Much of the Teton Park Road closes to vehicles during the winter months. The unplowed section of the road from Taggart Lake parking area to Signal Mountain Lodge—a distance of 15 miles—is open to non-motorized use only. A variety of popular winter routes throughout the park offer visitors many ways to experience a snowy Teton wonderland.

As a safety precaution, outdoor enthusiasts should carry—at a minimum—water, high energy snacks and extra winter clothing during any backcountry excursion. Please stop by the Craig Thomas Discovery and Visitor Center to speak with a park ranger about suggested trails and safety tips, or to pick up a ski/snowshoe trail brochure.



Craig Thomas Discovery & Visitor Center

The visitor center is open from 9 a.m. - 5 p.m. daily (closed on December 25th) and is located in Moose. The visitor center features natural history exhibits, a relief map of the park, a bookstore, videos and interactive exhibits.

Facilities

Restrooms are located throughout the park. Please be sure to pack out your trash when garbage containers are not available.

The Elk Migration: A Struggle to Survive

Beneath the towering permanence of the Teton Range, the changing of seasons marks a time of struggle and survival for the elk of the Jackson Elk Herd.

Each year, as frost begins appearing on windows and aspen leaves begin to drop, the elk start their migration. They leave summering grounds in Grand Teton National Park, southern Yellowstone National Park, and the surrounding national forests and travel up to 100 miles before finally arriving on the National Elk Refuge, just north of Jackson, Wyoming. Because of its location and elevation, less snow accumulates in the 25,000 acres protected by the National Elk Refuge. A supplemental feeding program managed by the U.S. Fish and Wildlife Service also provides additional nutrition during harsh winters.

However, the passage to and from the National Elk Refuge is fraught with dangers.

Migration routes cross multiple roads and highways. Each year, approximately 100 large animals, including elk, are hit and

killed by cars. Icy winter conditions and poor visibility contribute to many of these collisions. While driving through Grand Teton National Park, slow down and watch carefully for animals near or crossing the road, especially when driving conditions are poor. Your safety, and the life of an animal, may depend on it!

An elk reduction program, a hunt written into the founding legislation of Grand Teton National Park, challenges the elk to find a safe route to their wintering grounds. Each year, areas east of the Snake River and Highway 89 are open to hunting from mid-October through mid-December. A

For your safety, contact a park ranger at a park visitor center to find out what areas are open to hunting.

Wyoming tradition of hunting continues through the reduction program and helps keep the local elk population in check. Elk are also hunted on the northern end of the National Elk Refuge and in surrounding

wilderness and forest areas.

Elk that avoid hunters face another challenge. Even with the protections offered on the National Elk Refuge, winter is a struggle. Many elk are injured or weakened during the fall mating season, the hunt, and the migration. Frigid temperatures and harsh storms sap what little energy the elk have left.

By April and May winter snows begin to melt and temperatures rise. The greening up of grasses and shrubs signals the return of the elk to their summering grounds in the national parks and forests.

Although no human hunters await the elk as they return north in the spring, predators such as bears, wolves and coyotes prey upon the winter-weakened elk. The female elk, or cows, will also begin giving birth

during the migration. Only the strong, healthy calves that keep up with the herd will survive the trip.

After negotiating the gauntlet of roads and highways again, the elk of the Jackson Elk Herd find their way back to their summering grounds. About half of the herd spends the summer beneath the majestic Teton peaks in Grand Teton National Park. Here, they find lush vegetation and a safe haven in which to raise their young.

Beneath the timeless silhouette of the Teton Range, however, the seasons continue to change. When the frosts return, the Jackson Elk Herd will begin the migration, and their struggle for survival, all over again.





Facilities continued from page 6

Taggart-Bradley Lakes Trailhead - Pit toilet, trail information.

Colter Bay - Flush toilets, information, bookstore, trailhead, access for Jackson Lake area.

Moran Entrance Station - Pay phone, fee entrance, information.

Dornans (in Moose) - Groceries, restaurant, cabins, pay phone, flush toilets (Closed during November).

SEE PAGE 5 for OPENING/CLOSING DATES OF FACILITIES.

Autumn & Spring

By early October, all visitor centers except for the Craig Thomas Discovery and Visitor Center are closed for the season. During the fall months, visitors can explore the park's scenic vistas and enjoy the range of color provided by the changing leaves of aspens, cottonwood trees and huckleberries, to name a few.

The first snows provide a taste of the coming winter season and begin to fall during the autumn months; periods of freezing temperatures and then warm, sunny days alternate to create an ever-changing backdrop of snow and ice in the mountains.

Fall colors often peak during late September and early October coinciding with the migration of many animals in the park. Autumn brings frequent sightings of bison, elk, moose, coyotes and occasionally black bears to the roadsides. Pull over, open your window and listen for the high pitched cry of an elk bugling in the sagebrush during sunset. Watch for harems of cow elk clustering on the roadsides, and be sure to drive cautiously, especially during dawn and dusk hours when animals are most active.

During the spring months, the snow begins to melt, bringing longer days, but often variable weather to the Range. Most trails will remain snow-covered during this time. Talk to a park ranger about trail conditions before venturing out into the backcountry.

“Thousands of tired, nerve-shaken, over-civilized people are beginning to find out that going to the mountains is going home; that wildness is a necessity; and that mountain parks and reservations are useful not only as fountains of timber and irrigating rivers, but as fountains of life.”

—John Muir, *Our National Parks*, 1901

Do Bears Really Hibernate?



A black bear feeds on berries to gain essential fat deposits or reserves before the long winter.

During fall, black and grizzly bears engage in a feeding frenzy as they fatten up in preparation for hibernation. Some bears may eat up to 20,000 calories worth of nuts, berries and other high calorie foods each day. Bears may remain active through early December and emerge from hibernation in late March. These guidelines are for your protection and for the preservation of bears, one of the true symbols of wild country.

Bears may remain active through early December. Once food becomes scarce, though, they will retire to their dens for the winter. Bears do not enter into a “true” hibernation like squirrels or bats. Instead, their body temperature will only drop a few degrees, and they may awaken and move about during periods of warm weather. Nevertheless, during this torpor, a bear may spend 200 days without eating, drinking, urinating or defecating. Bears will emerge from their dens starting in late March, groggy and lethargic, but ready to meet the coming spring.

Take special care to avoid encounters with bears and to keep them wild. Careless food storage or humans

feeding bears spells death for bears. Allowing a bear to obtain food, even once, often results in aggressive behavior. The bear then presents a threat to human safety and must be removed or destroyed. Do not allow bears or other wildlife to obtain human food. **Backpackers must use park-approved bear-proof food canisters when camping below 10,000 feet.**

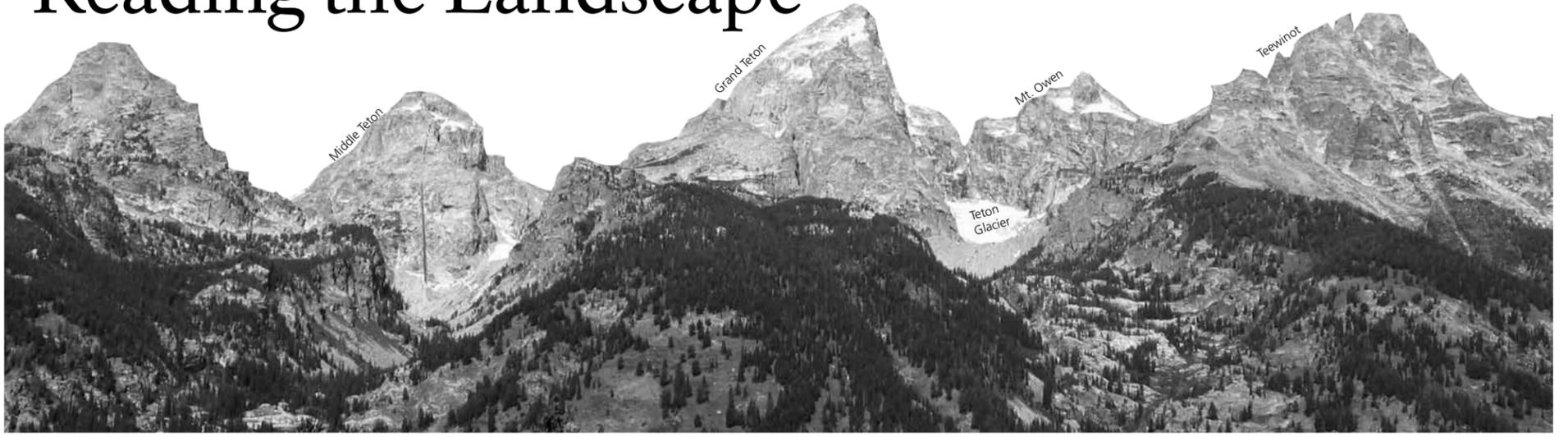
AVOID ENCOUNTERS

Make bears aware of your presence and avoid surprising them by making noise. Be alert and look for signs of bears in the snow when skiing or snowshoeing. If you encounter a bear, do not run. Running may elicit attacks from otherwise non-aggressive bears and they can travel over 35 miles per hour. If the bear is unaware of you, detour quickly and quietly away. If the bear is aware of you but has not acted aggressively, back away slowly, talking in an even tone.

AGGRESSIVE BEARS

If a bear approaches or charges you, do not run. Do not drop your pack; it may protect your body if attacked. Bears often bluff charge, stopping before contact. Bear experts generally recommend standing still until the bear stops, then backing away slowly. Climbing trees is no protection from black bears and may not help with grizzlies either.

Reading the Landscape



The Teton Range dominates the skyline of Grand Teton National Park, attracting the attention of all who pass through Jackson Hole. The geologic events that created the dramatic scenery of Jackson Hole influence the distribution and abundance of wildlife and plants found here. Herbivores—plant-eating animals such as moose, mule deer and elk—inhabit areas where their food sources exist. Carnivores—meat-eating animals such as bears, coyotes and weasels—follow the herbivores they prey upon.

The Tetons owe their existence to movement along a fault located on the eastern front of the range. Beginning about 13 million years ago, movement along this fault, caused by massive earthquakes, occurred every several thousand years or so. The mountain block uplifted along the west side of the fault, while the valley block dropped down on the east side of the fault.

Today, the mountains rise more than a mile above Jackson Hole, with a total mountain and valley displacement of 30,000 feet.

As recently as 12,000-14,000 years ago, small mountain glaciers flowed from high elevation cirques and gouged out U-shaped canyons. Mountain glaciers spilled from the canyons to the valley floor, forming basins now filled by Leigh, Jenny, Bradley, Taggart and Phelps lakes. Ridges of glacial debris, called moraines, surround these lakes and mark the edge of the glaciers' flow.

While small glaciers flowed within the Teton Range, an icefield covered much of what is now Yellowstone National Park. Beginning 25,000-50,000 years ago, lobes from this icefield flowed south, carving out the depression that Jackson Lake fills today, and carrying debris as far south as the Snake River Overlook (eight miles north of Moose

on Highway 26/89/191). Today, moraines support forests of lodgepole pine and other conifers. Elk seek refuge and shade in morainal forests and graze in nearby meadows during cooler parts of the day.

The southern part of Jackson Hole contains dry, poorly developed, rocky soils. As the climate warmed, glacial ice melted and broke through the moraines, flowing south through the valley and carrying away soil. Sagebrush, grasses and wildflowers adapted to thrive in this dry, rocky landscape. Some mammals and birds favor the sagebrush flats: bison graze on grasses and pronghorn eat the sagebrush. Sage grouse, large chicken-like birds, eat sagebrush leaves.

For the past 10,000 years or so, the Snake River has cut through glacial moraines to flow through the southern end of Jackson Hole. Old river terraces paralleling today's

Snake River indicate that the river once carried much more water. Cottonwood and spruce trees, home to bald eagles and osprey, grow along the Snake River. Beavers occasionally dam side channels of the Snake River, establishing ponds that Canada geese and ducks use for nesting and feeding. Moose and beavers eat willows that flourish in wetlands along the river. Willows and other wetland plants provide cover and nest sites for a multitude of songbirds.

As you explore Grand Teton National Park, read the landscape. Note the work of glaciers on the mountains and canyons, and the old river terraces carved by the Snake River. Watch for the wildlife that provides clues to the ancient processes that formed and shaped this area.



The Water Cycle in Grand Teton National Park

WHEN YOU THINK ABOUT WINTER in Grand Teton National Park, you think about snow—and with good reason! The Teton Range receives nearly 500 inches of snowfall each winter. As a result, incredible recreational opportunities abound, ranging from cross-country skiing and snowshoeing to snowmobiling, dog sledding, making snow angels, and much more!

The Teton Range, internationally renowned for its skiing and snowboarding opportunities, entices people from around the world to celebrate winter in Jackson Hole. Locals and visitors depend on snow for recreation, but did you know that snow plays an important role in a process essential to the survival of all life on earth?

Snow benefits humans, and this substance is an important part

of the Jackson Hole climate. December, January and November are the second, third and fourth wettest months of the year with almost all precipitation falling as snow. Teton snow tends to be light and dry—an inch of precipitation

To learn more about snow in Grand Teton, join a ranger for a snowshoe hike.

brings over a foot of snow. This legendary powder snow makes Jackson Hole famous.

The water cycle, also known as the hydrologic cycle, is the continuous movement of water within the earth's hydrosphere. In this process, water changes its state between liquid, solid and gas as it moves between the atmosphere, land, surface water, and ground water. The water cycle makes it

possible for people, plants and animals to live on the earth.

One fundamental rule of the water cycle is the conservation of mass. This means there is a fixed amount of water on the planet. Water moves constantly. It cycles from reservoirs such as the oceans and lakes (and even our bodies) into the atmosphere where it forms clouds, back onto land as rain and snow, and then returning to reservoirs as streams and snowmelt. Water circulates through this important cycle around the planet. No matter where you live on Earth, you will interact with water found in Grand Teton National Park today.

The sun's radiation, or heat, is the driving force behind the movement of water. As the temperature warms, water evaporates from the reservoirs into the atmosphere. When that

water cools in the atmosphere it condenses into clouds. The clouds move over the land, and when they contain enough water, precipitation occurs. Depending on the temperature, precipitation can take the form of rain or snow.

In a cold climate such as Grand Teton National Park, snow is an important form of water. With average temperatures below freezing for six months of the year, most of our precipitation falls as snow. During the winter months, the mountains store water in the form of snow and ice. At the end of the long winter, as the temperature finally warms, the reservoirs of snow melt and drain from the mountains as water.

While most of the snowmelt runs downstream into lakes where it can evaporate back into the atmosphere, an important fraction of snowmelt flows into the ground

and is crucial for plant life to grow in the spring. Wildlife feed on these plants and need water for survival. Grand Teton bursts into life during spring because of the water stored as snow during the long cold winter season.

Abundant snow creates a unique environment, where a normally arid landscape may spring to life and be sustained by water throughout the year. So when you are out skiing, snowshoeing or snowmobiling, remember that the snow you are enjoying has been on the earth since the planet formed. The snowflakes you recreate in during your visit to the park have been a part of every life form that has ever existed on Earth. The water cycle is just one of the fascinating natural processes that are preserved in Grand Teton National Park, which allow us to call this planet our home.

Craig Thomas Discovery & Visitor Center



30 Minutes



Stop by the visitor center in Moose for trip planning, weather and avalanche information. Watch a video or learn about the park through interactive natural and cultural history exhibits. Experience the video river and talk to a park naturalist about what to see and do in the park. Shop at the Grand Teton Association bookstore for gifts, educational books and postcards.

The visitor center is open daily, closed on December 25th, and is located 12 miles north of the town of Jackson, Wyoming. See page 5 for visitor center hours.

RECOMMENDED ACTIVITIES

Legend



Scenic Drive



Wildlife Viewing



Accessible Activity



Wildlife on Road



Ski or Snowshoe



Hike

Follow the Snake River to Jackson Lake – Scenic Drive



90 Minutes



Take a scenic drive on highway 26/89/191 from Moose to Jackson Lake Junction. This trip is 23-miles one-way and travels along the Snake River from Moose to the river's outlet at the Jackson Lake Dam.

Watch for moose in the sagebrush flats around Moose Junction. Drive north to the Teton Point Overlook for a panoramic view of the Teton Range. Stop at the Snake River Overlook (you may have to walk through deep snow to reach the overlook); the site of an iconic black and white photograph of the Teton Range by renowned photographer Ansel Adams.

Drive through Moran Entrance toward Jackson Lake and notice how the Snake River bends sharply near this junction. Continue a couple miles past the entrance station and stop at the Oxbow Bend turnout. Enjoy iconic views of Mt. Moran and the snow-covered Teton Range.

See page 1 for safe driving practices. Roads may be icy or snow-covered, adjust your speed with weather and road conditions in mind. Call (307) 739-3682 for park road information. For state highway road conditions call (888) WYO-ROAD (only available in Wyoming) or (307) 772-0824.

Explore the Taggart Lake Trail in Winter



60-120 Minutes



Experience the park in winter by skiing or snowshoeing the 3.2-mile roundtrip Taggart Lake Trail. Follow a winding loop trail to the lake on rolling terrain over a glacial moraine, and observe the regeneration of lodgepole pine trees from a fire in 1985. Look for wildlife tracks in the snow, such as snowshoe hares, moose and pine marten. Imagine how these animals survive harsh winter conditions.

The Taggart Lake Trail is a challenging cross-country ski or a moderate snowshoe hike with 277 feet of elevation gain, and may be congested in some areas. Be wary of skiing around blind corners and allow others to pass if you happen

to be moving slower. Avoid walking on ski tracks and use caution when walking or skiing near trees to avoid falling into a tree well. The Taggart Lake trailhead is located just three miles north of Moose. A pit toilet is available at the trailhead.

FOR BEGINNING SKIERS OR SNOWSHOERS Park at the Taggart Lake trailhead and walk or ski the Teton Park Road. The roadway is intermittently machine groomed for skiing and provides a wide, less rolling surface for learning to ski or snowshoe. Wear layers for aerobic activity to avoid hypothermia and consider wind chill when planning your trip. The temperature may be significantly colder facing into the wind.

Snowshoe with a Park Naturalist



120 Minutes



Learn about winter ecology and how to use snowshoes with a park naturalist. This is a great family activity and is recommended for kids eight and older. Suggested donation for repair and maintenance of park-provided snowshoes is \$5 for adults and \$2 for kids aged 8-12.

Guided walks are provided daily at 2 p.m. December 26th through mid-March, weather dependent. Reservations are required, call 307-739-3399. Walks are limited to 20 people and leave from Moose.

Become a Junior Ranger

20 Minutes



- Earn a patch or badge
- For kids of all ages
- \$1 donation

Pick up the Junior Ranger activity brochure at any visitor center.

Explore the Teton Backcountry



Full to Half Day



Exploring the backcountry is an exhilarating way to experience the park. The Tetons provide a wide range of backcountry opportunities for all skill levels, from trips along the rolling Valley Trail, to ski descents on the Grand Teton.

Backcountry users must take responsibility for their safety, and be prepared to be self-sufficient during a medical situation. All backcountry users should know how to travel in avalanche country safely and carry and know how to use an avalanche beacon, shovel and probe. Weather may change throughout the day, especially as one goes up in elevation; bring extra clothing and food to prevent hypothermia.

Skiing is prohibited in areas closed to protect wildlife, such as Static Peak, Prospectors Mountain and Mt. Hunt.

DEATH CANYON TRAILHEAD

Drive three miles south from Moose on the Moose-Wilson Road and park on the west side of the road only; do not park or ski on private property. Popular ski areas from this trailhead include: Maverick, Wimpeys, Albright Peak and Buck Mountain.

TAGGART LAKE TRAILHEAD

Drive three miles north from Moose and park in the designated parking area. Many peaks as well as canyons may be accessed from this trailhead including: 25-Short, Avalanche Canyon, Peak 10,696, Garnet Canyon, Glacier Gulch, Teewinot, South, Middle and Grand Tetons.

Park Partners

From the valley floor to the Teton summits, park partners support a variety of projects and programs that enrich Grand Teton National Park.



GRAND TETON ASSOCIATION

Grand Teton Association was established in 1937 as the park's primary partner to increase public understanding, appreciation, and enjoyment of Grand Teton National Park and the Greater Yellowstone area. Since that time, the Association has been aiding the interpretive, educational, and research programs of Grand Teton National Park.

When you make a purchase at an Association bookstore, profits are returned to the park in the form of donations to support park programs. Your purchase also supports the publication of this newspaper, books, and the free educational handouts available at visitor centers and entrance stations.

Be sure to check out the on-line bookstore at www.grandtetonpark.org for all your trip planning needs and complete the coupon below to become a member.

GRAND TETON NATIONAL PARK FOUNDATION

The Grand Teton National Park Foundation was established in 1997 as the only private, nonprofit organization dedicated exclusively to raising money for projects that protect,

preserve, and enhance Grand Teton National Park. The foundation receives no government support and relies solely on the generous contributions of private individuals, foundations, and corporations. Philanthropy in the cause of national parks is not new. The John D. Rockefeller, Jr.



Wildlife research and education are supported by park partners. Photograph by Gary Pollock.

Memorial Parkway reminds us that we have the Rockefeller family to thank for a generous 32,000-acre land donation that led to today's Grand Teton National Park.

If you would like to become a member of

the Grand Teton National Park Foundation, or join us in the fundraising effort for the new visitor center, please fill out the coupon below and return it with your donation.

TETON SCIENCE SCHOOLS

The Teton Science Schools, founded in 1967,

provide and encourage experiential education in natural sciences and ecology while fostering an appreciation for conservation ethics and practices. The secluded campus, operated in cooperation with Grand Teton National Park, is located on an historic dude ranch in the park.

The Greater Yellowstone region serves as the school's outdoor classroom and model for year-round

programs that offer academic, professional, and personal benefits to students of all ages. Summer programs include five week residential field ecology and field natural history courses for high school and junior

high students, and weeklong, nonresidential programs for third through eighth grades.

A one-year, masters-level graduate program in environmental education and natural science is also available. Workshops are also offered.

THE MURIE CENTER

The Murie Center is a non-profit organization. The Murie Center's seeks to develop new constituencies for wilderness, emphasizing the importance of human connections with nature. The center is funded entirely through the generosity of individuals and the commitment of foundations. Please call if you are interested attending a seminar.

UNIVERSITY OF WYOMING

The AMK Research Station is a field operation of the University of Wyoming based at the historic AMK Ranch in Grand Teton National Park. The research station facilitates research in the diverse aquatic and terrestrial environments of Grand Teton and Yellowstone national parks and the Bridger-Teton and Caribou-Targhee national forests.

Park Partners

Park partners help accomplish park goals by supporting important projects, programs and visitor services.

Grand Teton Association
P.O. Box 170
Moose, WY 83012
(307) 739-3403
www.grandtetonpark.org

Grand Teton National Park Foundation
P.O. Box 249
Moose, WY 83012
(307) 732-0629
www.gtnpf.org

Teton Science Schools
P.O. Box 68
Kelly, WY 83011
(307) 733-4765
www.tetonscience.org

The Murie Center
P.O. Box 399
Moose, WY 83012
(307) 739-2246
www.muriecenter.org

**University of Wyoming/
AMK Research Station**
P.O. Box 3166
Laramie, WY 82071-3166
www.uwyo.edu

We invite you to become an annual member-at-large entitled to a 15% discount on purchases at all GTA visitor center outlets, as well as on catalog and web site orders. Many cooperating association stores nationwide offer reciprocal discounts.



- \$35 Individual Annual Member with discount privileges**
 \$50 Associate Annual Member with discount privileges and commemorative Grand Teton canvas bookbag

Name: _____
Address: _____
City: _____ State/Zip Code: _____
Date of Application: _____ Phone: _____
Paid by Cash Check Credit Card
Card Number _____ Exp. Date _____

**Grand Teton Association • P.O. Box 170 • Moose, WY 83012
(307) 739-3403 • www.grandtetonpark.org**

Yes! I would like to be a part of the future of Grand Teton National Park.



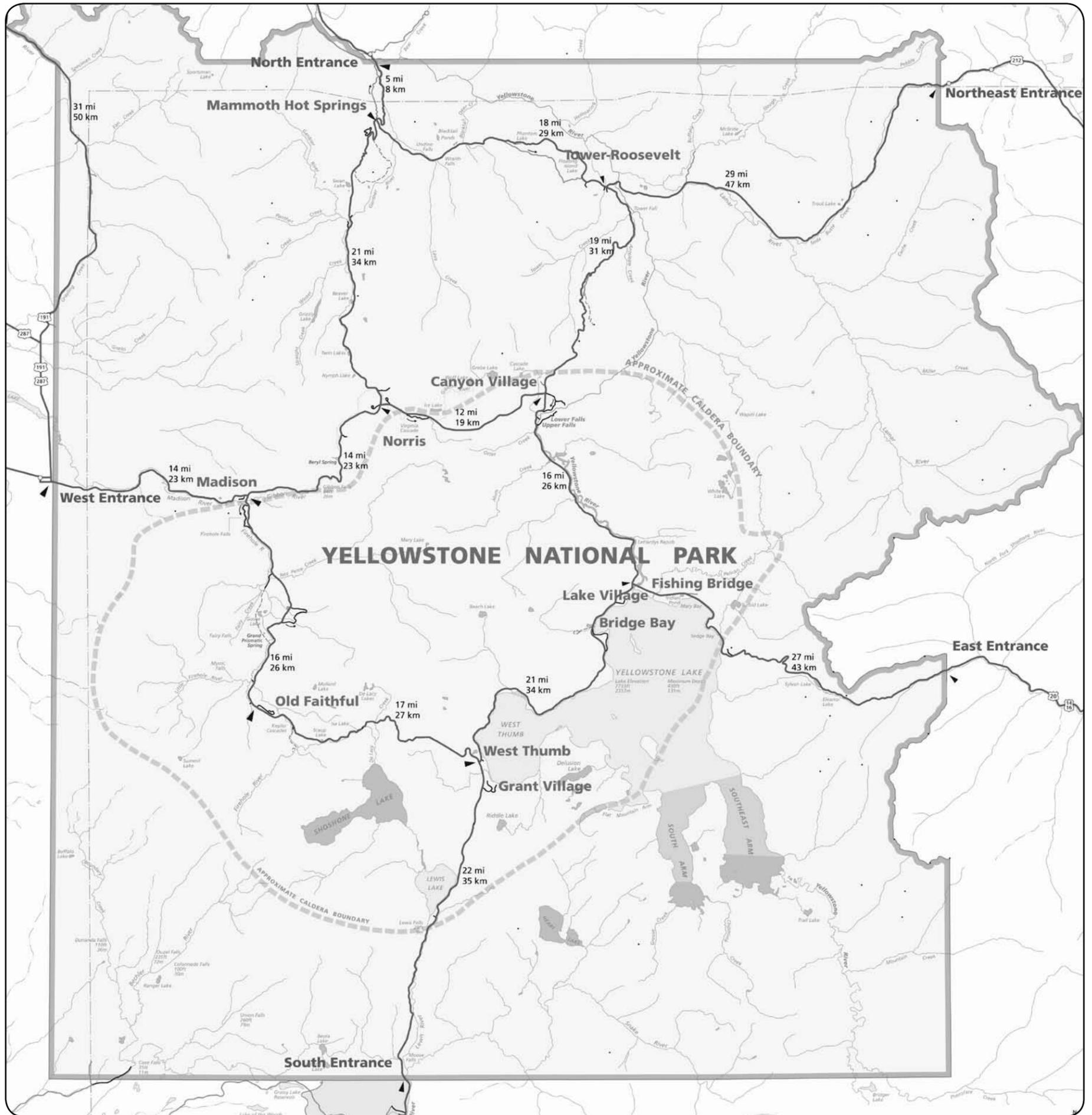
Name: _____
Address: _____
City: _____ State/Zip Code: _____
Email: _____ Phone: _____

Please include your check made out to the Grand Teton National Park Foundation, or supply the following credit card information.

Credit Card Number _____ Exp. Date _____
 Visa Mastercard Cardholder's Signature _____

**Grand Teton National Park Foundation • P.O. Box 249 • Moose, WY 83012
(307) 732-0629 • www.gtnpf.org**

Yellowstone National Park



Yellowstone Information

CONTACT INFORMATION	
Visitor Information	(307) 344-7381
Visitor Information (TDD Only)	(307) 344-2386
Xanterra Parks & Resorts	(307) 344-7311
Web site	www.nps.gov/yell

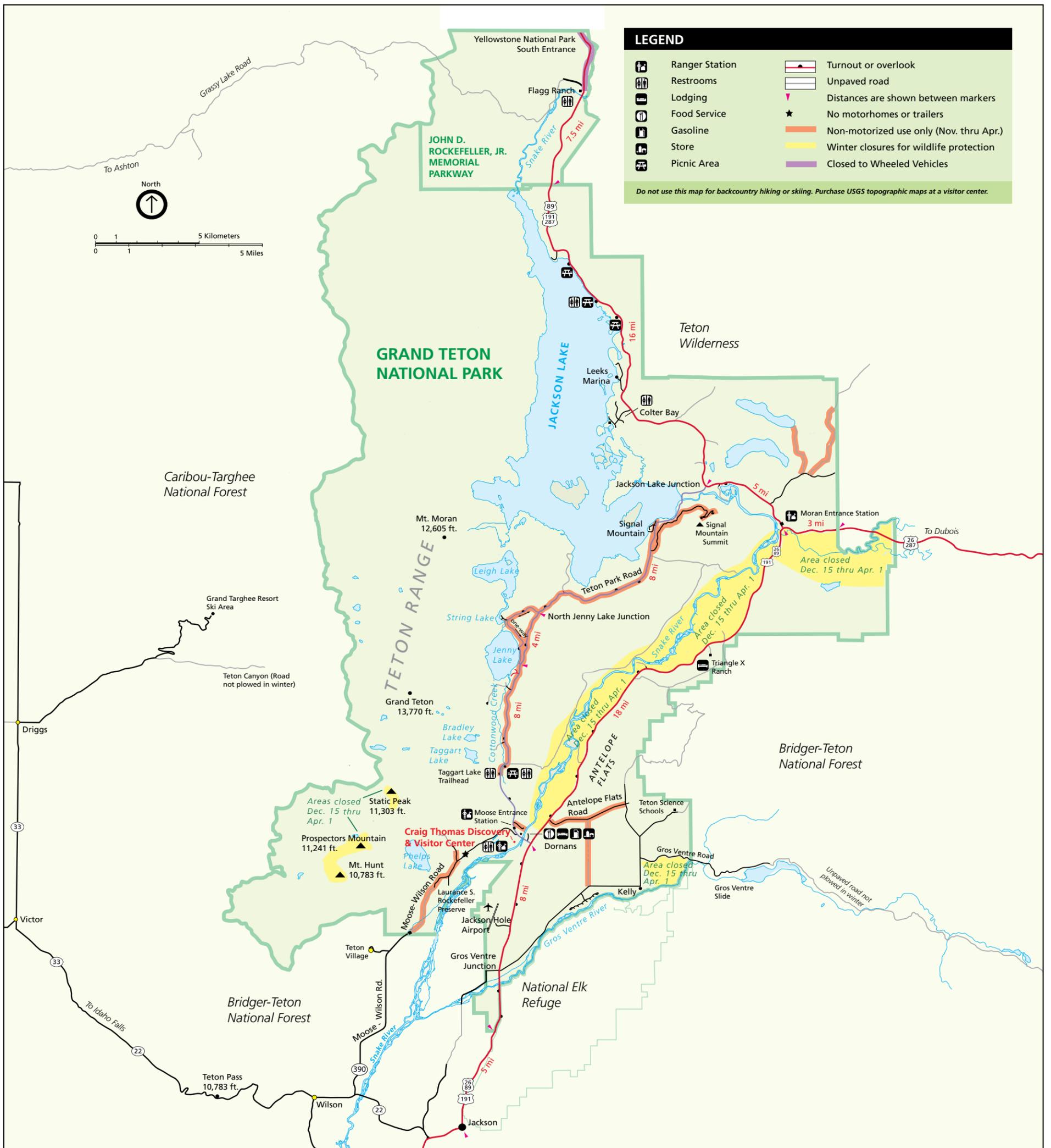
VISITOR CENTERS*	WINTER 2008-2009
Dates Subject to Change	
Albright Visitor Center, Mammoth Hot Springs	Open Year-round
Old Faithful Visitor Center	Dec. 15 – Mar. 15
Canyon Village	Closed
Fishing Bridge	Closed
Grant Visitor Center	Closed
West Thumb Information Station	Closed
Museum of the National Park Ranger	Closed
Norris Information Station	Closed
West Yellowstone Visitor Information Center (open year-round)	April 18 – Nov. 2 Dec. 15 – Mar. 15
Dates staffed by NPS Rangers	(8 a.m. – 5 p.m.)
Madison Information	Closed

NPS CAMPGROUNDS*	OPEN SEASON 2009
First-come, First-served	
Indian Creek	June 12 – Sept. 14
Lewis Lake	June 15 – Nov. 1
Mammoth	Year-round
Norris	May 15 – Sept. 28
Pebble Creek	June 12 – Sept. 28
Slough Creek	May 22 – Oct. 31
Tower Fall	May 15 – Sept. 28
XANTERRA CAMPGROUNDS*	OPEN SEASON 2009
Reservations – (307) 344-7311	
Bridge Bay	May 23 – Sept. 14
Canyon	June 20 – Sept. 9
Fishing Bridge RV	May 16 – Sept. 28
Grant Village	June 21 – Sept. 21
Madison	May 2 – Oct. 26

ROAD OPENING DATES* (SPRING)	
<i>Please check at an entrance station or visitor center for road construction and road closure information.</i>	
Mammoth to Old Faithful Madison Junction to West Entrance Norris Junction to Canyon	April 17
Canyon to Lake Lake to East Entrance	May 1
Lake to South Entrance, West Thumb to Old Faithful, Tower Junction to Tower Fall	May 8
Tower Fall to Canyon (Dunraven Pass) Beartooth Highway	May 22

*All dates subject to change.

Park Map



Road Information

As you Drive Keep Them Alive

Every year drivers kill more than 100 large animals, causing property damage and personal injury. Drive at or below all posted speed limits, and drive cautiously during dawn and dusk when animals are most active. Moose, deer, elk, bison, wolves and grizzly and black bears cross roadways and can be especially difficult to see at night.



Accessible Roads During Winter

The park's main roadways, Highway 89/191 and Highway 26/287, are plowed and open for winter travel from the town of Jackson to Flagg Ranch near Yellowstone National Park's south boundary. Park roads are often snow-covered and icy. Be prepared for winter driving conditions. In addition, wildlife can linger near park roads, so be alert, and drive slowly for their safety and yours.

Seasonal Road Closures

Much of the Teton Park Road (also called the inner park road) and the Moose-Wilson Road are closed to vehicles during the winter months. See the map for additional seasonal road closures. The unplowed section of the road from Taggart Lake parking area to Signal Mountain—a distance of 15 miles—is open to non-motorized use only (skiers and snowshoers).