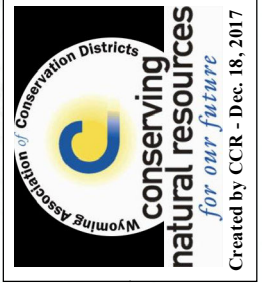
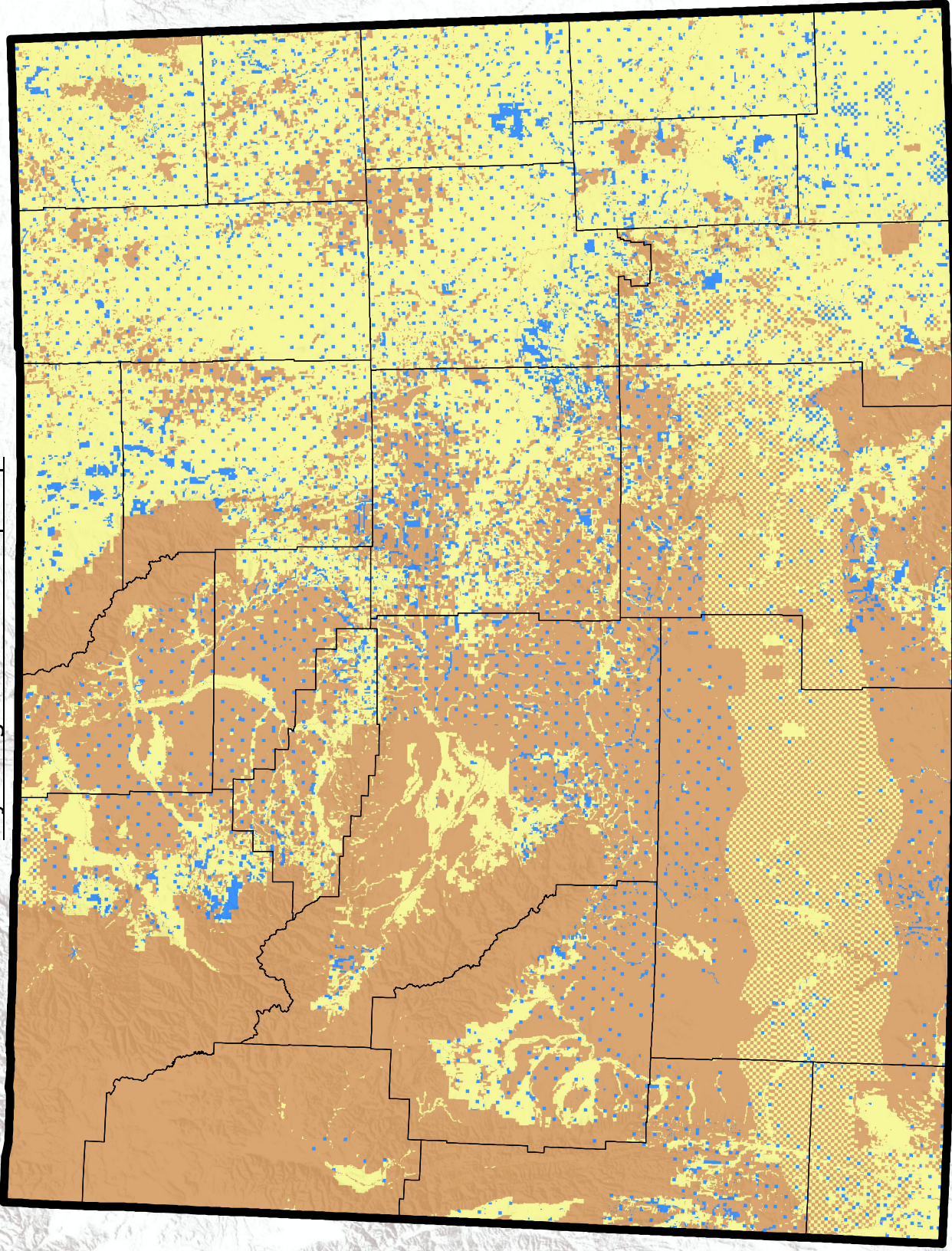


Wyoming Land Ownership Map



Source: Surface Ownership information obtained from 2014 Bureau of Land Management dataset.

Legend

- Counties
- Wyoming
- Federal, Other State, Local Government
- State Trust Land
- Private Ownership



97,818 SQUARE MILES OF TRAILS LESS TRAVELED

The memories are enough reason to make your way across Wyoming. But a few mementos are a nice perk. Explore Mother Nature's most breathtaking creations, like Yellowstone National Park, Devils Tower, and the Grand Tetons. Along the way, pick up collectible stickers that pay tribute to Wyoming's many areas of rugged majesty and possibility.

KEY

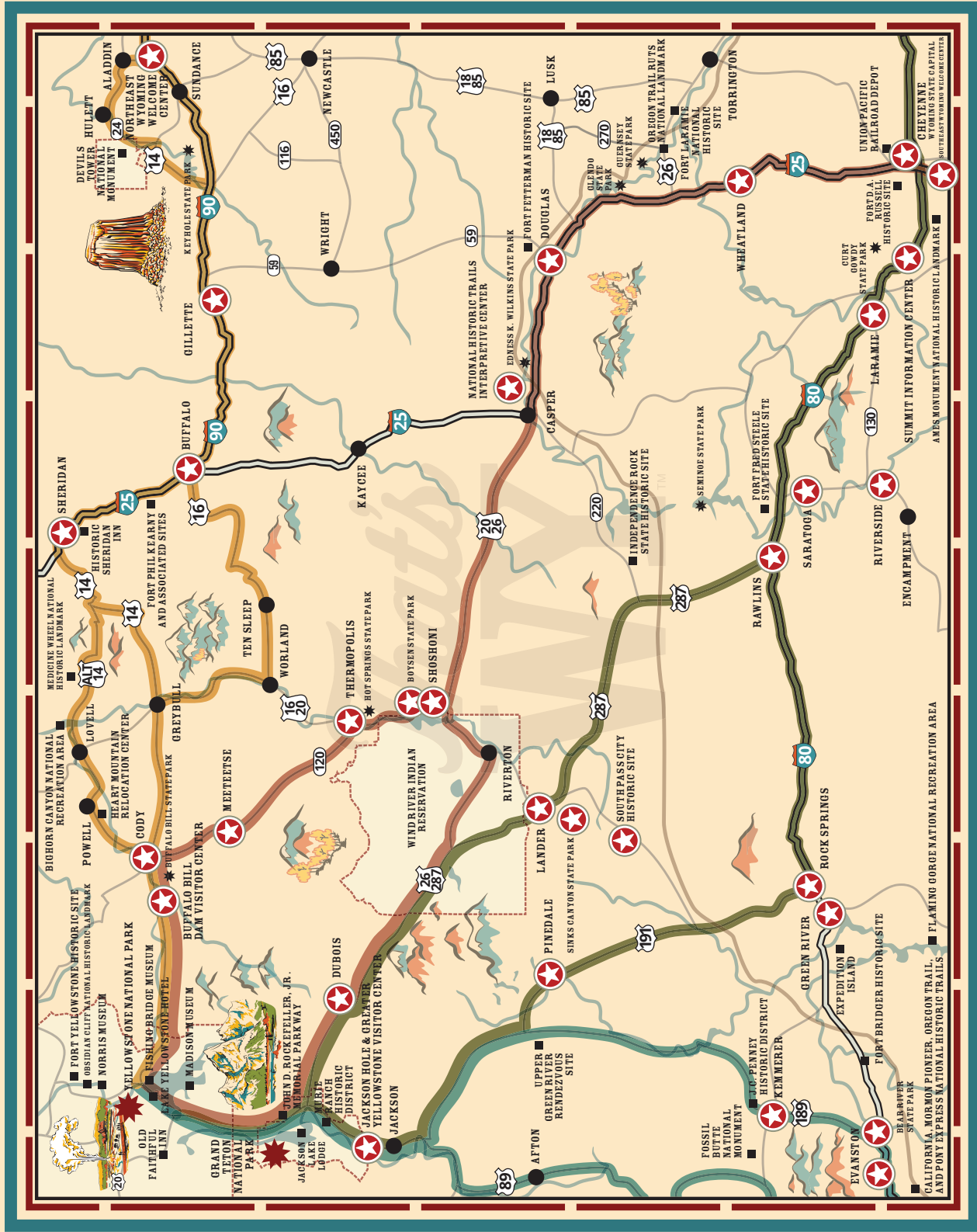
- SALT TO STONE ROUTE
- ROCKIES TO TETONS ROUTE
- PARK TO PARK ROUTE
- BLACK TO YELLOW ROUTE
- STICKERS LOCATED HERE
- NATIONAL PARK
- STATE PARK
- MONUMENT/LANDMARK
- CITY/TOWN
- CALIFORNIA, MORMON PIONEER, OREGON TRAIL, AND PONY EXPRESS
- PARK BOUNDARY



TRACK YOUR TRIP
#That'sWY

TravelWyoming.com/maps

Grade 3 - Outdoor Recreation & Tourism - Lesson 1



EVERY ROAD LEADS TO ADVENTURE. AND STICKERS.

Collect your set of Great American Roadtrip Stickers at Wyoming Visitor Centers throughout the state.

Visit TravelWyoming.com/maps for the sticker distribution center locations.



#SaltToStone

Outdoor aficionados, amateur paleontologists, wildlife lovers and history buffs flock to the Salt to Stone region. From the Great Salt Lake to Yellowstone National Park, those who explore these starkly beautiful landscapes will find natural treasures such as Fossil Butte National Monument, Killpecker Sand Dunes, Boar's Tusk and Jackson Lake. All around the region, towns immersed in history welcome you on your way to epic outdoor activities, including hiking, biking, kayaking, boating, skiing and snowmobiling.



#RockiesToTetons

Choose a route of epic scale along the eastern slope of the Continental Divide. The Rockies to Teton region brims with a wide array of only-in-Wyoming experiences. Home to the Western-rooted capital city of Cheyenne; the Wind River Indian Reservation; and the snowy, Medicine Bow, Seminoe and Wind River mountain ranges, the area attracts both culture vultures and adventure seekers.



#ParkToPark

Follow the path of those who came before us on your way to Yellowstone. Stretch your legs on the historic trails winding through the heart of Wyoming and learn about the dinosaurs that trekked them more than 100 million years ago in the Big Horn Basin. Scenery straight out of an adventure magazine and plenty of welcoming towns make the Park to Park region ideal for a variety of getaways. From rugged backcountry escapes, to relaxing hot springs retreats.



#BlackToYellow

Begin the adventure long before Yellowstone National Park's east entrance with detours through Wyoming's Black Hills National Forest, Devils Tower National Monument and Big Horn Canyon National Recreation Area. With little traffic, fewer people and wide-open skies, the Black to Yellow region will redefine your concept of fresh air. Dotted the spectacular landscape, you'll find charming towns where 19th-century hotels, shops and restaurants still welcome travelers and outdoor recreation abound. Acres of public land, sagebrush plains and rolling hills set the scene for trips ranging from family outings to solitary adventures.



TRACK YOUR TRIP #That'sWY

History of Public Lands in Wyoming

Wyoming has a variety of public lands for everyone to enjoy. In fact, over half of the land of our state is public land. Public land is land owned by a government. This land includes our national and state parks, monuments, national forests, wilderness areas, some waterways, and wildlife preserves.

It is important for stewards to keep these destinations cared for, so all people can enjoy the recreation opportunities that are available. Private land owners, along with state and federal agencies, such as the Wyoming Game and Fish Department, U.S. Forest Service, and Bureau of Land Management (BLM), work to provide balance in conserving resources on public lands for future generations.

Tourism and recreation create a variety of jobs and income for communities in our state. These fields employ more people in our state than you might realize. Outfitters, guides, hotel workers, and even fast food servers support this important industry.

Wyoming is unique for being the first of many events. The first national park, first national forest, and the first national monument. Wyoming's diversity draws scientists and tourists alike. Resources such as wildlife, forests, and waterways draw even more people to the state. They enjoy riding and hiking trails, fishing, hunting trophy game, and more! Because Wyoming is so unique, the citizens have been balancing the needs to conserve these resources and allow for public enjoyment and use.



Vedauwoo Recreation Area



Jackson Lake and Grand Teton National Park



Bison in Yellowstone National Park



PLANTS

Discussion Questions:

- 1) What do you notice about the plants in your group?
- 2) Are the plants all the same?
- 3) What are some characteristics of the plants in your group?

Wildlife

Discussion Questions:

- 1) What do you notice about the animals in your group?
- 2) Are the animals all the same?
- 3) What are some characteristics of the animals in your group?

Recreation

Discussion Questions:

- 1) What do you notice about the recreational activities in your group?
- 2) Are the activities all the same?
- 3) What are some characteristics of this activity?

Picture Cards



photo courtesy of Wyoming Game and Fish



photo courtesy of Wyoming Game and Fish



photo courtesy of Wyoming Game and Fish

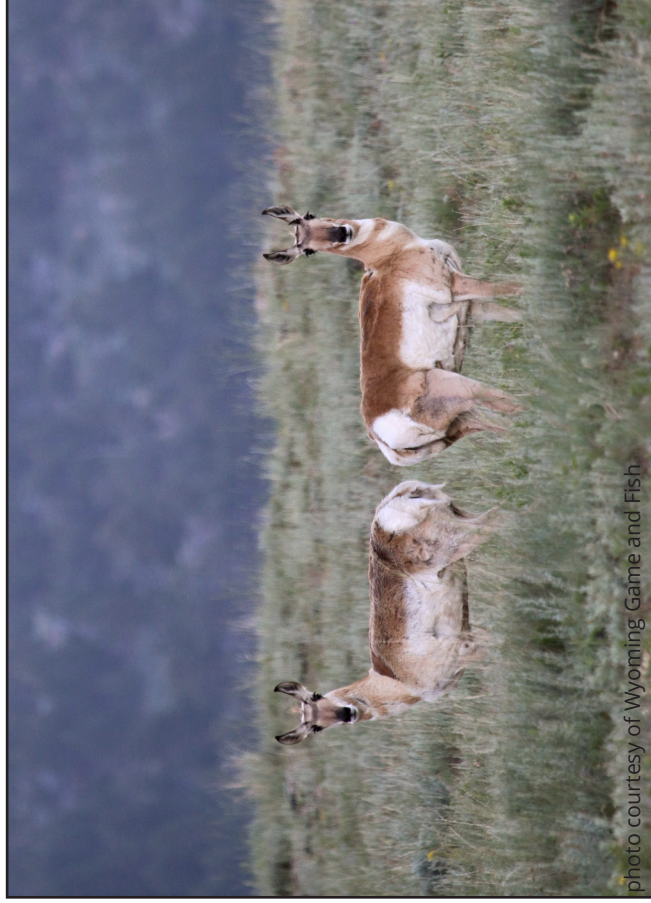


photo courtesy of Wyoming Game and Fish

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photo courtesy of Wyoming Game and Fish



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Picture Cards



photo courtesy of Wyoming Game and Fish



photo courtesy of Wyoming Game and Fish



Site: D. Lew, WYO State



photo by Stephanie Russell

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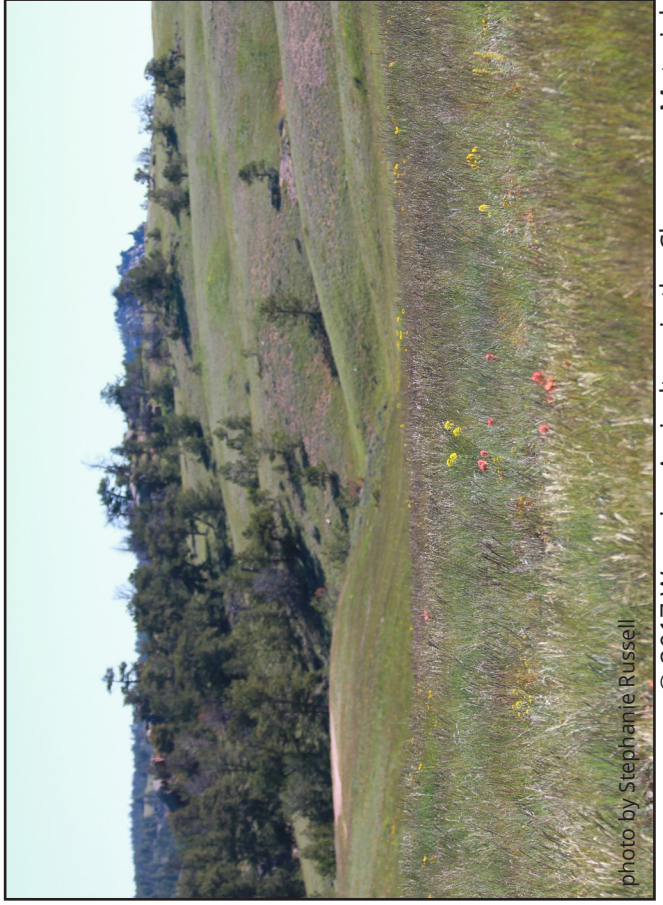
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Picture Cards



© 2017 Wyoming Agriculture in the Classroom Materials



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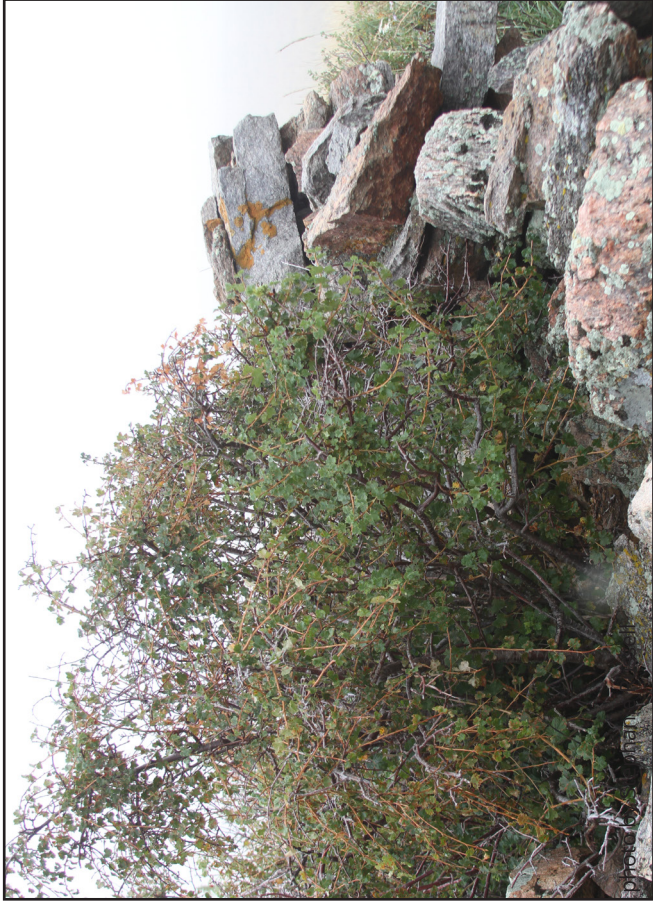
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Digging Deeper

Wildlife

What was the title of your article?

What wildlife did you read about?

What was something unique about this animal?

Why is Wyoming land important for this animal?

How can you as a steward use and care for Wyoming's land for wildlife?

Recreation

What was the title of your article?

What recreational activity did you read about?

What was something unique about this recreational activity?

Why is Wyoming land important for this recreational activity?

How can you as a steward use and care for Wyoming's land for recreation?



Bitterroot Ranch

2018 Landowner of the Year - Lander Region



The Bitterroot Ranch is a 2,150 acre ranch split between locations near Dubois and Riverton. Bayard Fox, his wife Mel, along with their son Richard and daughter-in-law Hadley operate this unique ranch that blends a working cattle ranch and dude ranch that provides important wildlife habitat and world class horse riding experiences for their guests. Their ranch provides excellent habitat for Yellowstone cutthroat trout, pronghorn, mule deer, elk, moose, waterfowl, and other wildlife. Grizzly bears and wolves also frequent the Dubois ranch.

Since 1971, Bayard and family have been operating the Bitterroot Ranch as a working guest ranch giving people from around the World a unique experience participating in cattle drives and the work involved in western ranching.

The East Fork that flows through their property and adjoining lands support a robust population of Yellowstone cutthroat trout along with other species such as mountain whitefish. Over the past 6 years, Bitterroot Ranch has been very engaged and active improving aquatic habitats to support this important fishery.

Once autumn's colors disappear and the Ranch's cattle and horse herds have been rounded-up from the Dubois country, they head to 1,522 acres near Pavillion that provides the forage needed during the cold winter months to sustain the herds. This low land ground also provides a smorgasbord for pronghorn, mule deer, and waterfowl throughout the calendar year with irrigated hay fields, wet meadows, and wetland areas.

Bitterroot Ranch's dedication to sustain quality wildlife and fisheries habitat, their cooperation with the Wyoming Game and Fish Department, and their overall love of wildlife and open spaces proves they are well deserving of this award.

Article reprinted from Wyoming Game & Fish Department:
<https://wgfd.wyo.gov/Get-Involved/Landowner-of-the-Year/2018/Bitterroot-Ranch>



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Winter Wildlife in Wyoming



photo credit: Bill Sincavage

WHERE TO SPOT WINTER WILDLIFE IN WYOMING

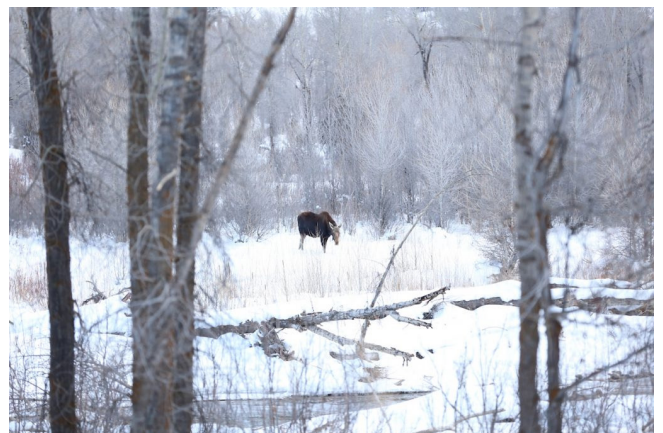
Not all of Wyoming's creatures hibernate in the winter. In fact, winter offers many opportunities to see Wyoming's wildlife through a whole new light. Bison, elk, birds and many more types of wildlife make the snow covered plains and mountains of Wyoming their winter home. Fewer crowds, deep snow and cooler temperatures make winter the best time to see wildlife in Yellowstone National Park and throughout Wyoming. Some animals you might see include pronghorn antelope, bull elk, bald eagles, bighorn sheep, bison and coyotes. Take a look at where you can spot these wild Wyoming residents this winter.

The National Elk Refuge

The National Elk Refuge is a winter sanctuary for Jackson's elk herds and other wild friends such as bison, coyotes, wolves, eagles, ravens and magpies. Bighorn sheep can frequently be seen at Miller Butte within the refuge.

Grand Teton National Park

Antelope Flats is another excellent place to catch a glimpse of wildlife in Grand Teton National Park. Look for bison, deer, elk, moose, antelope, coyotes, foxes and bald eagles. The Gros Ventre River area affords spectacular views of the Tetons and the chance to spot a moose.



Winter Wildlife in Wyoming

Seedskaadee National Wildlife Refuge

Located in Sweetwater County, Seedskaadee National Wildlife Refuge is a migration corridor for many types of birds, including hawks, finches and trumpeter swans. The refuge is also the winter hangout of rabbits, beavers, porcupines, deer and pronghorn. Because winter can be a rough time for the animals at Seedskaadee, a few of the refuge's roads are closed to vehicles in the winter to limit stress to inhabitants. Contact the refuge's headquarters before visiting for more information.

National Bighorn Sheep Interpretive Center

At the National Bighorn Sheep Interpretive Center in Dubois, life-sized dioramas and interactive exhibits tell the story of one of the region's most beloved residents: the Rocky Mountain bighorn sheep. The Whiskey Mountain area just east of Dubois is the stomping ground of the largest wintering sheep herd in North America. For a real treat, call the center to schedule a winter tour of nearby sheep herds. The areas where these majestic animals roam are also home to ancient petroglyph carved by native tribes; see if you can spot ones depicting bighorn sheep.

Casper Mountain

With about 26 miles of groomed trails, the Casper Mountain area attracts snowshoe enthusiasts and cross-country skiers in the winter. The tree-lined trails offer optimum spots to catch roaming mule deer, a variety of birds and pristine views of the valley. The Casper Mountain Trail Center is a great place to warm up and grab a bite to eat.

Will you have a 'Three Dog Day?'

If you're lucky enough to see a fox, wolf and coyote all in one day, that's considered a "Three Dog Day." Documentary filmmaker Ken Burns and his producer/writing partner Dayton Duncan had one during their first winter trip to Yellowstone. The duo toured America's first national park and saw a red fox dive into fresh snow, a pack of wolves make their presence known to a resting herd of bison and a team of coyotes on the side of the roadway. Will you be next?

Article reprinted from Travel Wyoming:

<https://www.travelwyoming.com/article/where-spot-winter-wildlife-wyoming>



Outdoor Adventure Haven



Lander: Wyoming's Outdoor Adventure Haven

The town of Lander offers the peace and tranquility of a remote mountain town with enough excitement and adventure to keep you entertained for days.

Epic rock climbing, hiking, backpacking, and fishing await you in and around this town's prized state park: Sinks Canyon. Here you'll (willingly) get lost in fields of endless wildflowers, hike to summits offering stunning views, and rock climb your way up towering crags that offer a rare thrill, only to be experienced in Wyoming's Wind River Range. Home to the annual International Rock Climbers Festival, it is no wonder that thousands of accomplished rock climbers flock to this area of the state on a regular basis.



Sure, you've got world-class rock climbing right at your finger tips, but what every visitor (self-proclaimed rock climber, family vacationer, or otherwise) will for sure experience is this town's inviting atmosphere and warm hospitality. "Lander is one of those special places people choose to visit because they feel welcome from the instant they step foot in our community," said Gary Michaud, City Resource Coordinator of Lander, Wyoming. "Our city is centrally located in an extremely scenic part of the state, offers quality local restaurants, a great shopping experience, and award-winning microbrews." Community, among Lander's glorious mountain views, is one of the key elements that makes this town all that it is.

Outdoor Adventure Haven

Run into Wild Iris Mountain Sports (or any other store for that matter!), and the employees will offer up need-to-know tips to get you up that challenging route, point out the best hiking and camping spots, and show you what you need to experience all this area has to offer. The same goes for any one of the town's delicious little foodie hot-spots. While Lander may be coined as a "climber's town", we argue that foodies from rivaling cities will be pleasantly surprised at what this town has to offer from a culinary standpoint. Gannett Grill is a must for anyone looking for a chill, laid-back atmosphere with a local, grass fed all-beef burger that will knock your socks off. You'll be hard pressed to leave this place without conversing with a local and subsequently making a new friend. Looking to start your day of adventure off right? Make your way to the Middle Fork for the best cup of French press coffee you've had in years and a decadent side of beignets (fried donuts). If you're traveling in the summertime, we recommend sitting out by the patio where you'll enjoy the fresh breeze and the peaceful sound of the creek right along the picket fence that encloses this delightful little area. After you've indulged, set out to do some exploring. After all, it is Lander, and all of this beauty is just waiting to be discovered.



Hike, bike, climb, run, walk, drive, ride, or wander. Whatever your fancy, just make sure you get outside. The Wind River Mountains are easily one of the most incredible sights in the entire state, but the vastness and remoteness of this range can be overwhelming. It's hard to decide where to go and what to do first! For some guidance, check out one of the area's local outfitters, or stop by Wind River Outdoor Company. Better yet, stay at a dude ranch nearby, like Allen's Diamond Four Ranch, where you'll get to go on a guided pack trip to drink in the area's majestic surroundings. Need an exciting excuse to get away and experience Lander

for real? The town has several annual events that bring out the charm and vibrancy of the Wind River Country. Climb with the pros at the International Climbers Festival, or drink in the city's local art at Lander Riverfest where original, handcrafted art is sold and entertainment, demonstrations, food, and live music are in plenty. What are you waiting for? Grab your backpack, hiking shoes, a tent, and your carefree spirit, and throw caution to the wind as you explore one of Wyoming's best kept secrets: Lander, Wyoming. We'll see you there!

Article adapted from Travel Wyoming:

<https://www.travelwyoming.com/article/lander-wyomings-outdoor-adventure-haven>



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Yellowstone in the Winter



A Winter Guide to Yellowstone

Something special happens to Yellowstone in the winter. The snowy forests take on a mystical silence, clouds of steam billow up gently around deserted hot springs, and an air of solitude permeates the pristine, snow-covered wonderland. Yellowstone, with its geothermal features, lakes, waterfalls and wildlife, is stunningly beautiful and peaceful when blanketed with crisp, white snow. To truly experience the serenity of the season, spend some time exploring Yellowstone's magnificent backcountry.

Getting There

The Yellowstone Regional Airport, two miles outside of Cody, is about 50 miles from the park's East Entrance. It offers service from Salt Lake City and Denver. Jackson Hole Airport, on the edge of Grand Teton National Park, is about 50 miles south of the park and offers service from Salt Lake City, Dallas/Fort Worth, Chicago, Atlanta and Denver. The Gallatin Field Airport in Bozeman, Montana, is about 90 miles from the park's north entrance, which is the only entrance open to car traffic in the winter. Car rentals and shuttle service to nearby towns and hotels are available at all of the airports.

Traveling in the Park

Cars are not allowed in the park after November 3, except on a limited stretch of road to Mammoth Hot Springs through the North Entrance. Roads begin to open again late April, weather permitting. Until then, visitors can enter the park through other entrances via scheduled snowcoaches or on foot, snowshoes or skis. There are several authorized snowmobile and snowcoach guides near Yellowstone.

Yellowstone in the Winter

Activities

Snowshoeing and cross-country skiing:

Both activities are great ways to experience Yellowstone's backcountry in the winter. There are miles of trails winding through the vast wilderness, and all are open for exploration on foot. There are several outfitters nearby who rent gear, and several companies specialize in guided trips if you'd rather not venture out alone.

Snowmobiling

An extension of the Continental Divide Snowmobile Trail, the trails of Yellowstone may be explored only with an authorized commercial guide or with a Non-Commercially Guided Snowmobile Access Program permit. Several hundred snowmobiles are allowed each day, but since it's such a popular spot, it's advisable to make advance reservations.

Lodging

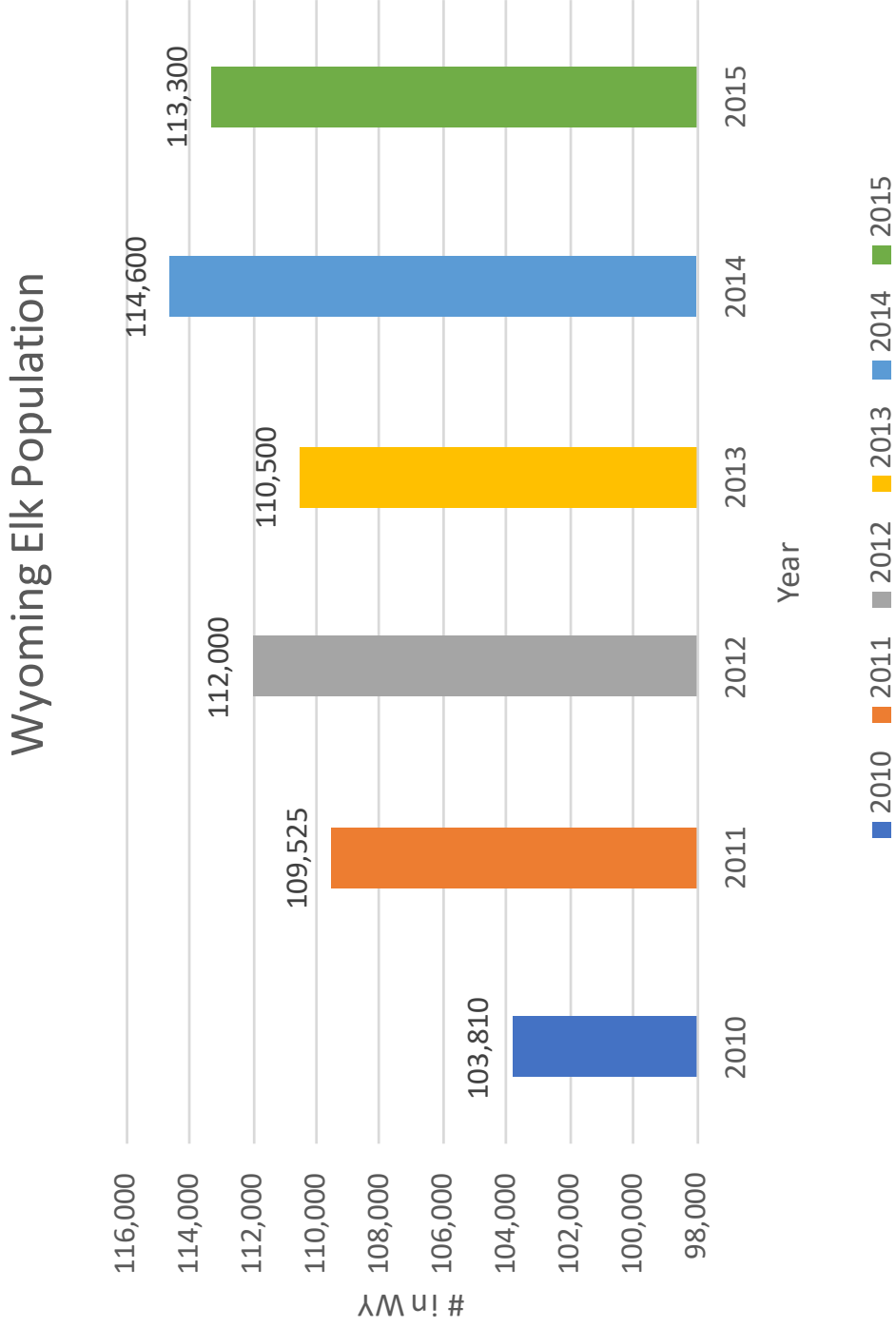
Two lodges in Yellowstone are open during the winter season. The cozy Old Faithful Snow Lodge & Cabins is open from December 16, 2016 to February 27, 2017. The hotel offers equipment rentals, guides and tours. It fills up fast, so make reservations as early as possible. There are plenty of places to stay in the towns surrounding the park too, from ranches and cabins to vacation rentals and B&Bs.

Article reprinted from Travel Wyoming:

<https://www.travelwyoming.com/article/winter-guide-yellowstone>



Elk Population of Wyoming



*Elk population numbers can be found in the Wyoming Game and Fish Annual Reports, years 2010-2016.



Wildlife Population Simulation Game

Round #	Adult Wildlife	+	Young Wildlife	-	Hunting Permits	=	Total Wildlife
1		+		-		=	
2		+		-		=	
3		+		-		=	
4		+		-		=	
5		+		-		=	
6		+		-		=	
7		+		-		=	
8		+		-		=	
9		+		-		=	
10		+		-		=	



Weeds Invade!

Scenario Chart

Scenario #	Helping or Harming	How do you know?



Weeds Invade! Scenarios

Scenario 1:

Park Ranger Steve notices that some hikers have strayed from the trail. He finds the hikers and explains to them that when they are not on the trail, they could be harming native plants or disturbing the homes of wildlife. The ranger explains that trails are marked so that the plant's and wildlife's homes can stay safe. The hikers apologize and make sure to stick to the trails for the remainder of their hike.

Scenario 2:

Abby is camping in the mountains of Wyoming. She loves to look at the variety of plants that she finds. Abby stumbles upon a plant that she has never seen before. It looks like a beautiful flower. The plant looks so interesting; Abby wants to pick the plant and take it home with her. Abby then remembers that sometimes noxious weeds can look like flowers. She knows how invasive and harmful noxious weeds can be. Abby does not know if this plant is a flower or a weed. She decides that she will leave the plant where it is, but she will take a picture so that she can remember what it looks like. She does not want risk spreading a noxious weed.

Scenario 3:

Bob overhears two people talking about how they want to hunt a moose this year. Bob knows that the hunting season is over for the year. Bob decides to call the game warden to warn that people may be hunting moose without permission.

Scenario 4:

Joe was hiking in the forest. He decided that he really liked a flower growing near one of the trees he walked by. He decided to pick the flower and take it back to his campsite. When he got back to his campsite, his wife asked him to go pick more flowers because she really liked the flowers, too.



Weeds Invade! Scenarios

Scenario 5:

Suzy went on a trip to Yellowstone National Park. She was very excited because she had never been to Yellowstone. Suzy thought she might see animals when she got to the park. She wasn't disappointed. Suzy saw several animals and decided to pet a baby bison.

Scenario 6:

Sam went hiking with friends. While they were hiking, they decided they were hungry. After eating their snacks, they forgot to pick up their trash and continued on their hike.



Wyoming Weed and Pest Overview

“Wyoming Weed and Pest Council has been working to eradicate invasive species since 1973. You can help keep our state natural and safe from destructive weeds and pests. The rich varieties of habitats found throughout the state are treasured by residents and visitors alike. Hunting, fishing, recreation, tourism, mining, and agriculture are integral to our livelihood. All of us depend on healthy livestock, soils and wildlife which require healthy native plant communities. These native communities are threatened by invasive noxious weeds and pests and if left unchecked could transform an entire ecosystem and everything that depends on it. Future generations are counting on us to protect and preserve our natural resources.”



Careers in Stewardship

Game Warden

The Life of a Wyoming Game Warden is...

- A 24-hour-a-day job
- A full-time responsibility
- “The greatest job in the world,” says North Pinedale Game Warden Bubba Haley.

Though wardens in many states spend the bulk of their time on law enforcement, Wyoming’s wardens have many responsibilities, as you’ll note below.

Part of the job’s attraction is never quite knowing what the day will hold-whether trapping bears, darting and transplanting moose, flying in a helicopter to count bighorn sheep, getting a deer out of a resident’s backyard, hazing 1,000 elk out of a rancher’s field, talking to hunters, or catching poachers. They are wildlife biologists, wildlife law enforcement officers, wildlife educators, problem solvers, and ambassadors to landowners, hunters, anglers and communities throughout Wyoming. Wardens are considered the local “expert” when constituents want to find out what’s going on with their wildlife and their department. Additional information is available on the Wyoming Game Wardens Association’s website.

Wildlife Management/Data Collection & Analysis

Collect/summarize wildlife data, from both ground and air, to determine distribution, abundance, recruitment, hunter harvest, and mortality causes of wildlife. Work with wildlife biologists and neighboring game wardens on hunting season strategies and recommendations. Sample wildlife for research and disease surveillance.



Enforcement of Game and Fish Laws and Regulations

Enforce/check compliance with hunting, fishing, trapping and watercraft statutes and regulations as well as littering and state land camping, open fires, and closed/off road travel restrictions. Write enforcement reports, attend court, work with other enforcement agencies, conduct investigations, and collect intelligence. Carry and maintain law enforcement weapons and gear.



Careers in Stewardship

Game Warden

Injured and Nuisance Wildlife

Respond to and appropriately handle injured and nuisance wildlife calls which may require euthanization of wildlife. Utilize immobilization or lethal techniques based upon evaluation of circumstances.

Watercraft Safety

Conduct watercraft safety and registration inspections along with HIN, VIN, and AIS inspections. Enforce/check compliance with watercraft statutes and regulations. Educate public regarding watercraft safety.

Wildlife Damage/Conflicts

Evaluate damage to crops and livestock by wildlife, including investigations, data collection, and delivering damage materials to mitigate conflict.



Public and Agency Contacts and Communication

Act as the local liaison between the WGFD and the public. On a daily basis, develop and maintain effective working relationships and communication/coordination with WGFD employees. Make regular public contacts, both in the field and office setting, with landowners, sportsmen, boaters, public-at-large, conservation groups, government agencies and non-government organizations. Provide information and education on various wildlife topics and boating safety as well as the wide variety of other WGFD issues. Develop and present structured educational and information programs related to watercraft safety and hunter education.



Careers in Stewardship

Game Warden

Training

Participate in law enforcement (including firearms and intermediate weapons), wildlife management, wildlife conflict resolution/damage, injured wildlife, immobilization of wildlife, equipment (motorized and non-motorized), working with the public and other training as assigned or deemed necessary. Required to attend and successfully complete/pass the Wyoming Law Enforcement Academy Peace Officer basic and annual training.



**Adapted from <https://wgfd.wyo.gov/law-enforcement/field-operations>*

Careers in Stewardship

Park Ranger

What is a Park Ranger?

For many, the term “park ranger” evokes the image of an officer working in nature amongst grizzly bears, elk, and other wildlife. While this characterization is accurate, it only paints part of the overall picture. Park rangers do much more than just observe, track and protect wildlife. A park ranger is responsible for a broad range of duties- similar to that of a fish and game warden, conservation officer, or wildlife resource manager, but within the defined area of a state or national park.

Park rangers are considered peace officers, which means they are authorized to carry a weapon and make arrests. A park ranger’s primary duty is to protect parks from those who would do damage to them, to enforce recreational, hunting, and environmental regulations, and to protect visitors in the park from wildlife and other dangers.

Park Ranger Job Description- Major Job Duties

A park ranger may perform a number of different duties. Some of these duties vary depending on where the park ranger works, while others vary from position to position. Those who work for the federal government are often more focused on the law enforcement side of being a park ranger, while those who work in state parks may focus more on wildlife and on public relations. Here are some common duties that many park rangers have:

- **Enforcing Park Regulations and Laws** – Park rangers have a duty to uphold and enforce all laws—even those that do not pertain to parks. However, they usually only enforce park regulations unless they come across an illegal activity in a park. They do carry firearms and are trained to defend themselves.
- **Write Citations, Issue fines, and Make Arrests** – Likewise, park rangers are empowered to write fines, confiscate hunting/fishing licenses, and make arrests whenever the situation calls for it.
- **Investigate Criminal Cases** – Federal park rangers may train to be special agents. These agents work for the U.S. National Park Service and conduct investigations into criminal activity that takes place in national or state parks.
- **Collect Evidence and Provide Testimony** – When a park ranger makes an arrest, they often have to appear in court to provide testimony. They are also in charge of collecting any evidence at the crime scene and are trained in how to do so without contaminating the evidence.
- **Assist Park Visitors** – Park rangers provide information, directions, and help to those who are visiting the park. This includes assisting them with camping activities (in parks where camping is allowed) and more. Park rangers are expected to be knowledgeable about the park they are assigned to.
- **Provide Education** – Park rangers may work in the visitor’s center and help educate guests on the environment, tell them about the park, and more. Rangers may also go to local schools or other organization meets and do presentations on local wildlife, conservation methods, and nature.

Careers in Stewardship

Park Ranger

- **Patrol the Park** – Rangers often spend time outdoors patrolling. These rangers are looking for litter, illegal hunting, wounded animals, lost children, and hurt visitors. They may need to provide emergency first aid when needed.
- **Search and Rescue** – If someone is lost in the park, park rangers are often the first to respond. They will work with other law enforcement as necessary to make certain the lost person is found.
- **Evacuating and Closing the Park** – Park rangers are charged with finding everyone in the park and getting them to safety in the event of a forest fire, tornado, flooding, or other natural disaster.
- **Administration** – Those who work in the visitor’s center may also handle daily administrative tasks, work as a dispatcher for other rangers, and perform other tasks as needed.

Park rangers often have tasks that change with the seasons. In the spring, for example, they may inspect trails and prepare campsites, while in the fall, they may cut back plants or prepare buildings and areas for the winter.

Typical Work Settings for Park Rangers

Park rangers, as one would guess, work primarily in a state or national park. However, they may also work in private parks. Those who do will find that their duties are very similar to park rangers who work for the state or federal government. Park rangers who have become special agents may travel across the country, while other federal park rangers may travel throughout a region. Others work in a single national park, much like how state park rangers work in a single park.

Working Conditions

Park rangers may often work outdoors and on their own. They may work in the freezing cold and in extreme heat, plus they may be asked to go out during snowstorms and thunderstorms to check on visitors or to bring them to a shelter. During a major natural disaster, park rangers are the last people out of the park after they have made certain that everyone is safely out of the area.

Some duties will take the park ranger indoors. Working in the visitor’s center, giving educational presentations, or testifying in court will all require park rangers to work indoors.

Education and Experience Requirements for Park Rangers

The educational requirements for working as a park ranger depend on what type of position you want. If you’re applying for a state position, you may find that all you need is an associate’s degree if you want to primarily work in the visitor’s center or give guides. However, if you want to serve as a full law enforcement park ranger, you may need a bachelor’s degree. If you want to work for the National Park Service, especially if you want to become a special agent, a bachelor’s degree is a necessity.

But what do you need to study? There are many different fields you can go into. Generally,

Careers in Stewardship

Park Ranger

you want to study something that is connected to the duties of a park ranger. Studying biology, wildlife conservation, botany, earth science, criminal justice, public administration, archaeology, and anthropology can all be good options. It all depends on what type of park ranger you want to be. Again, those who want to join the National Park Service may want to focus on criminal justice since national park rangers often do more law enforcement work.

State park positions are often arranged on tiers. The lower tiers may require only an associate's degree. These bottom level park rangers often perform only basic duties. Those who have experience in law enforcement may be able to substitute that experience for education. Those with a four-year degree can come in at a higher level. One advantage of this is that those with associate's degrees can begin gaining experience while they work on their bachelor's.

Supervisory positions often require a master's degree or years of experience.

Examination, Entrance and Training Requirements

In order to become a park ranger, you may have to pass a written and/or oral exam. The exam varies from state to state, but in most, it involves showing that you can communicate effectively, that you understand many of the basic duties of a park ranger, and that you can demonstrate basic problem-solving skills. You may also need to pass a physical exam that includes vision and hearing tests, plus a stamina requirement—some departments require their park rangers to be able to run a mile in a certain amount of time or to swim a certain distance.

Once a park ranger has been hired, they will go through training. This training course varies from state to state. The training a park ranger receives also depends on the job they will do. Those who will provide law enforcement will need to be trained on how to enforce laws and will have to go through a gun safety course. Those who will mostly serve as guides or work in the visitor's center may be trained in the areas of record keeping and public relations. Most park rangers will go through a basic first aid and CPR course.

In some areas, park rangers will also be trained in how to drive ATVs, boats, planes, or snowmobiles.

Those who get hired by the National Park Service will receive training at one of three different training courses. They may also need to complete the Seasonal Law Enforcement Training Program.



**Adapted from <https://www.gamewarden.org/career/park-ranger>*

Careers in Stewardship

Ecologist

What is an Ecologist?

The term “ecologist” is a fairly broad title that can be used by a number of people. Ecologists work in a number of different areas and may study a wide variety of different topics—anything connected to ecology falls under the purview of ecologists. People who consider this career may find themselves working in a lab, doing field research, working with engineers, and much more.

On the most basic level, ecologists study nature, wildlife, flora, any organism that lives within nature, and how they interact with each other and their environments. Most ecologists work behind the scenes in laboratories and other areas. They do a lot of research, gather data, perform analysis, and write environmental impact studies. Some work closely with companies to help them develop green technology and processes, while others study how the introduction of other species of plant or animal would impact an area. Some work for the government in advisory positions.

Ecologist Jobs & Job Description - Major Duties

The duties of an ecologist greatly vary depending on what the ecologist is assigned to do. Ecologists work in many different places, so what is a common duty of one ecologist may be something another ecologist never does. Here are some of the most common tasks an ecologist may be called upon to do:

- **Create Environmental Impact Studies** – Ecologists who work for companies, the government, and anyone who is going to build new buildings or alter existing ones will need to have an environmental impact study done. These studies look at how the proposed changes to the environment will impact the plants and animals that make it their home. These studies may also be done when the population suddenly increases or decreases or when a new plant or animal is introduced to a new environment.
- **Work to Create Green Practices** – Some ecologists do research into more environmentally friendly production methods. They may test how a new chemical affects plants, for example, or experiment with new types of plastics.
- **Provide Educational Programs** – Ecologists may teach workshops at universities or may lecture in schools, universities, and community programs. Those who have gone on to receive a doctorate may even teach full time.
- **Help Restore Natural Habitats** – Natural sites, for many reasons, may require human intervention before they can support wildlife. Ecologists will create and implement recovery plans for these areas.
- **Write Scientific Research Papers** – Those who do not want to work outdoors may instead focus on research and the study of wildlife and ecology. These ecologists will often seek grants to research particular species or areas of the earth with an eye towards learning more about that species or place. They may have this research published in various journals or present it at conferences.
- **Create Computer Models** – Ecologists with computer programming expertise may create models that predict how an area will be affected by different events.

Careers in Stewardship

Ecologist

- **Perform Surveys and Other Fieldwork** – Ecologists who do enjoy getting outdoors can do fieldwork. They will survey areas, record information about the wildlife, plants, and the environment, and more. This may involve capturing, tagging, and releasing animals or returning to check on certain plants on a regular basis. Following this research, the same ecologist may analyze the data, or it may be handed off to someone else.
- **Advise Groups on Environmental Issues and Law** – Ecologists may advise government officials, CEOs, and other leaders on environmental law.
- **Manage Wildlife Conservation Lands** – Ecologists who rise to supervisory positions may be placed in charge of wildlife conservation lands, meadows, woodlands, and other environments.
- **Create Project Budgets** – In many cases, the ecologist will need to create and submit budgets for various research studies, educational programs, and other activities.

Where Do Ecologists Work?

Because there are so many different duties ecologists can take on, there's no single work environment. Some do work outdoors collecting samples, tracking animals, and gathering data. Others may be outdoors while analyzing an area for an environmental impact study or while working to restore an area.

However, there are plenty of ecologists who spend their entire day indoors. These include those who do data analysis and research for scientific journals or for reports to various organizations. Some may work at the computer all day, while others may meet with business, community, state, and even national leaders to discuss ecology, answer questions about nature conservation, and lobby for new protective regulations.

Work Conditions

When working outdoors, ecologists may have to deal with the occasional unexpected storm. Unlike game wardens and other law enforcement officers, most ecologists do not work outdoors if it looks like there will be bad weather. Some may have to work in freezing temperatures or in very hot temperatures depending on what area or wildlife they are studying.

Some ecologists may also have to work up close with animals. While these animals may be tranquilized, some may not, and ecologists may get scratched or bitten. Even those who are only studying the environment may be unexpectedly attacked by an animal if it's disturbed.

Ecologists who work indoors may find themselves on the computer most of the day. Others may be in meetings with various people. In the case of ecologists who lobby, they may have to move from office to office while meeting with various high profile people.

Ecologists usually only work a standard 40-hour week. Most do not need to work evenings, weekends, holidays, or any overtime. Some jobs do include travel.

Careers in Stewardship

Ecologist

Education and Experience Requirements

To become an ecologist, you will need to hold a bachelor's degree in a job related to ecology. Degrees that provide a good basis for ecology include biology, zoology, marine biology, environmental science, wildlife conservation, botany, or another related field. Ecologists may need to study math, statistics, computer programming, chemistry, geology, meteorology, sociology, oceanography, and other related areas. It all depends on what area of ecology you want to focus on.

Some ecologists, especially those who do in-depth research or serve as consultants, may need to hold a master's degree in an area such as biology or environmental science. To teach at a university, a doctoral degree is usually required.

No previous experience is necessary to become an ecologist. Those who want to be ecologists often have a love of nature or of animals. They may enjoy working outdoors or solving puzzles through research and trial and error.



**Adapted from <https://www.gamewarden.org/career/ecologist>*

Careers in Stewardship

1. How does a _____ manage and care for the land?

2. How does a _____ impact Wyoming's culture? (help keep it unique)

5. How has the _____ job changed over time? How might it change in the future?

4. What are some problems a _____ faces in his/her career?

3. What would happen if _____ went away?



Careers in Stewardship

Facts and Extra Information:

Handwriting lines for notes.



Insert a second fact from Graphic Organizer below.

Fact One continued...
_____ helps keep Wyoming's culture unique by:

Insert or draw photo above.

Insert one fact from your graphic organizer below.

Managing and Caring for Public Lands

A _____ manages and cares for public lands by:

Insert Career name and visual aid.

Managing Public Lands

Insert information on how this career contributes to land management.

Impact on Culture

Insert information on how the career affects culture.

Changing Over Time

Explain how the career has changed in recent years.

Problems and Challenges

Insert information about challenges for the career.

Absence

Insert information about what could happen if this career no longer existed.

Challenge Options

Wyoming Game and Fish

The Game and Fish Department is in a constant battle with managing the populations of wildlife. They need to make sure the populations don't get too high and that they don't get too low.

Wyoming Weed and Pest

The Weed and Pest Council is in a constant battle with managing the noxious weeds and invasive species that are taking over the native plants. They need to get the invasive species out and make sure that the native species stay safe.



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Engineering Challenge/Solutions

Challenge

Solution 1

Solution 2

Solution 3

The best solution is _____ because:



Writing Template

Paragraph 1

Because Wyoming is so unique, we as stewards want to keep that uniqueness for current and future generations. I think Wyoming is unique because...

Paragraph 2

I know many careers in stewardship face challenges. One challenge I know about is... I know about this challenge because...

Paragraph 3

There are many great examples of stewards in Wyoming. Three ways I can be a steward are...



Writing Template

Paragraph 4

I can practice good stewardship by getting involved and helping to solve problems on Wyoming lands. Two solutions I have thought of are...

Paragraph 5

The solution I think is best is _____.

I think my solution shows stewardship because ...

