

# Yellowstone Tracker

SUMMER 2004

All About Wildlife in Yellowstone National Park

## The Return of the Wolf

For many years the only wolves in Yellowstone were a pair of mounted specimens on display at the Albright Visitor Center. The two wolves were killed by a park ranger in 1922, near the end of an era when predators such as wolves, coyotes and mountain lions were considered a menace to Yellowstone's other wildlife. In 1973, wolves in the northern Rockies were added to the federal endangered species list.

Today more than 300 wolves roam the Greater Yellowstone Ecosystem, products of an ambitious and successful recovery program undertaken after many years of public debate and careful planning. The program was initiated in 1995 with the release of 14 wolves from Canada into Yellowstone National Park. These wolves formed the first wolf packs

in the park in nearly 70 years.

Seventeen more wolves were released the following winter. These reintroduced wolves thrived and with their offspring established the strong foothold wolves now have in the region.

Under the Endangered Species Act, the National Park Service and other federal agencies must protect species federally categorized as endangered or threatened, and where possible, restore healthy populations of listed species such as the gray wolf.

The return of a viable population of gray wolves to Yellowstone has enhanced the value of the park as one of America's premier natural areas. With these important predators back in their rightful place, Yellowstone is one of the most intact temperate ecosystems remaining on Earth. ■



GARY KRAMER/USFWS

*After an absence of nearly 70 years, the gray wolf is back in Yellowstone National Park and the surrounding area. The best place in the park to see wolves is in the Lamar Valley between Tower/Roosevelt and Cooke City.*

### WELCOME TO YELLOWSTONE TRACKER

*Yellowstone Tracker* is distributed to inform you about wolves and other animals in and around the park and to encourage responsible and rewarding wildlife viewing. Defenders of Wildlife, a national conservation group known for its work on wolf restoration and recovery, produces this publication in cooperation with the National Park Service and the Yellowstone Park Foundation, an organization dedicated to projects furthering the preservation and protection of the park. *Yellowstone Tracker* is an example of public-private partnerships working to advance the conservation of our nation's wildlife.

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### Keeping Track of Wolves

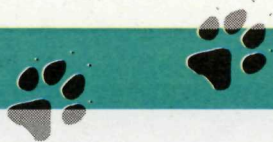
Yellowstone's wolves may be the most closely monitored wild animals ever. Since the first wild wolves were reintroduced in Yellowstone National Park in 1995, biologists have kept close tabs on them by fitting individual wolves with radio collars. You may notice these collars on some of the wolves you see in the park.

A transmitter on each collar emits radio signals that biologists can pick up on a special receiver to keep track of individual animals, each of which is assigned an identifying signal frequency and number. Biologists can then pinpoint each collared wolf's location and monitor its movements from a distance without disturbing it.

In the early days of the restoration program, every wolf was fitted with a radio collar, but as the population has grown and territories have expanded, the goal is to capture and collar pack leaders and half of the pups born each year.

Radio collars allow researchers to gather data on pack sizes and territories, den locations, reproductive success, prey selection and other information that adds to our knowledge of wolf biology, ecology and behavior. The collars also aid in identifying wolves that are preying on livestock outside the park and in locating dead wolves to determine how they died.

All of the original 31 wolves collared and released in the park in the mid-90s are now dead. The last two, sisters known as 41 and 42, died early in 2004, but their legacy lives on: The 2003 year-end wolf count — conducted with the assistance of radio tracking — tallied 306 wolves in 30 packs representing 21 breeding pairs within the Greater Yellowstone Ecosystem. ■



# Programs Help Ranchers Cope with Wolves, Grizzlies

**A**lthough data from Minnesota, Canada and the northern Rockies show that wolves generally prefer wild game over livestock, given the opportunity, some wolves will kill domestic animals.

To ease the concerns of the ranching community, Defenders of Wildlife, a national conservation organization, set up a program to reimburse ranchers for verified livestock losses to wolves. Since 1995, Defenders has paid ranchers in the Yellowstone area more than \$160,000 from private funds through its program, which is now known as The Bailey Wildlife Foundation Wolf Compensation Trust. Shifting the economic responsibility from ranchers to wolf supporters has broadened the acceptance of wolves.

In 1997, responding to requests from landowners, livestock organizations and conservation officials, Defenders added a second compensation program to pay ranchers for grizzly bear predation in the Montana and

Idaho portions of the Yellowstone ecosystem and on the Wind River Indian Reservation in Wyoming. To date, The Bailey Wildlife Foundation Grizzly Bear Compensation Trust administered by Defenders has paid ranchers nearly \$8,000 for grizzly predation in the Yellowstone area.

Restoration guidelines require that wolves and grizzly bears that prey on livestock be moved and repeat offenders killed. To reduce the need for such drastic measures, Defenders created a third program, The Bailey Wildlife Foundation Proactive Carnivore Conservation Fund. Through this fund, established in 1999, Defenders works with ranchers on efforts to prevent wolves and grizzlies from killing livestock and causing other problems. Proactive efforts undertaken through this program have included:

- Contributing to the purchase of electric fencing erected to provide a secure night pasture for sheep on a ranch about 20 miles north of

## Compensation Paid for Wolf and Grizzly Bear Depredation In the Yellowstone Ecosystem†

	SHEEP	COWS	OTHER	TOTAL
<b>WOLVES</b>	563	121	33*	<b>\$160,601</b>
<b>GRIZZLIES</b>	58	3	49**	<b>7,836</b>
				<b>\$168,437</b>

\*includes horses, goats and dogs used for livestock herding or guarding.

\*\*includes geese, chickens, turkeys and a guard dog.

†wolves: 1995 to 10/2003  
grizzlies: 1999 to 10/2003

Yellowstone National Park.

- Buying hay so a rancher could graze his livestock away from a denning site on private land south of the park.
- Assisting with the acquisition of livestock-guarding dogs for ranchers throughout the region.
- Purchasing bear-resistant dumpsters for communities throughout the Wyoming portion of the

Yellowstone ecosystem

Defenders believes prevention and compensation programs are the key to building support for the restoration of wolf and grizzly populations. Combined with swift action in dealing with animals that feed on livestock, these programs have significantly reduced conflict over carnivore recovery in the Yellowstone area. ■

## Roadside Wildlife Watching Tips

**I**n Yellowstone National Park and other areas where hunting is prohibited, wildlife learn that people are not a threat and can be tolerated at close distances. This behavioral response is referred to as habituation. Habituation is observed in a wide variety of animals, including wolves, bears, bison, elk and bighorn sheep, especially along park road corridors.

The traffic jams that result when tourists stop to view habituated wildlife along Yellowstone's roads have become a major problem in the park. Every

day rangers must be dispersed to direct traffic and control the crowds at wildlife-viewing-related jams.

To help prevent "bear jams" and ensure that you do not put yourself or habituated wildlife at risk, please observe the following guidelines when viewing or photographing roadside wildlife.

- Do not stop your vehicle in the middle of the road. Park on established turnouts or on the shoulder, and make sure your vehicle is completely off the paved roadway and in park with the parking brake engaged.
- For your safety, stay in your vehicle. If you do get out, stay nearby so you can get inside quickly if a bear or other animal approaches.
- Do not stand in the roadways. A driver distracted by the sights could easily hit you.
- Keep a safe distance away from wildlife — at least 100 yards from bears and 25 yards from other animals.
- Do not surround, crowd, approach or follow wildlife, or block an animal's line of travel.
- Do not run or make sudden movements. Such movements could provoke an attack.
- Watch other people in the area to make sure they are not putting you and others in danger by behaving irresponsibly.
- Do not feed wildlife or leave food where animals can get it. Feeding wild animals is against the law.
- Do not linger. Have a look, then move on to give someone else a chance and to help relieve traffic congestion.



NPS PHOTO



# Common Questions About Wolf Recovery

**T**he decision to restore wolves to the Rocky Mountains came more than 20 years after gray wolves were declared endangered in 1973 and involved intense public debate.

Biologists working on wolf recovery have made every effort to reduce the concerns of opponents. Here are some of the most commonly raised questions.

## ■ Does wolf recovery restrict the use of private lands?

There are no restrictions on private land use because of wolves. The only restrictions on land use apply to active den sites on public land in the spring.

## ■ How have wolves affected other plants and animals in Yellowstone?

With wolves back in the picture, scientists are finding new layers of ecological complexity and increased biodiversity in the Greater Yellowstone Ecosystem.

One study indicates that wolves may be indirectly responsible for recent growth of willows, cottonwoods and other woody plants along some of the park's rivers. The researchers think seedlings may be growing taller because the elk that browse on them move around more now that wolves are back. This re-emergence of stream-

side trees and shrubs creates more shade, keeping water at a cooler temperature preferred by trout, and provides more shelter for nesting birds.

Yellowstone's northern elk herd has declined in the years since the wolf was reintroduced, but wolf predation alone is not the cause. Wolf recovery has occurred simultaneously with increases in grizzly bear and mountain lion populations, increased harvest of elk by hunters north of the park, several hard winters and an extended drought. The elk populations of Yellowstone will no doubt continue to adjust to all the pressures and opportunities they face.

More subtle and ecologically tangled changes are also occurring. Researchers have identified at least 57 species of beetle associated with carcasses of elk and other ungulates (hoofed mammals) killed by wolves. Only one of these 57 species feeds on the meat; the rest prey on tiny fellow scavengers, such as maggots and the grubs of other beetles, or consume fungal spores and other microscopic byproducts of decomposition.

The ecological completeness the wolf brings to the dynamic community of wild Yellowstone will not be fully realized for decades. Meanwhile, we

will continue to study and learn more about the wolf and the Yellowstone ecosystem.

## ■ Have wolves affected hunting?

Hunting is illegal in Yellowstone National Park; however, there is a multi-million-dollar hunting industry in the surrounding area. Although many hunters prefer a wilderness that includes wolves, some view the wolf as a competitor for game. The fact is, when a wild animal has sufficient habitat, it generally takes much more than wolf predation alone to cause a long-term decline such as the one we are now seeing with elk in the park's northern range.

## ■ Who is paying for wolf recovery in Yellowstone?

The recovery program is funded through a combination of federal funds and donations from individuals, corporations, nonprofit organizations and foundations. With this generous private support, the cost to taxpayers has been less than originally estimated.

## ■ Do wolves attack people?

While no wild animal's behavior is entirely predictable, the risk to humans from wild wolves is very low.

Millions of people enjoy the outdoors in wolf territories in Canada, Alaska, Minnesota and Wisconsin, but fewer than five incidents of wolves injuring humans have been recorded in North America.

However, the likelihood of a wild animal behaving aggressively increases as it becomes used to the presence of people and loses its natural wariness of us.

Respect the wildness of wolves and all wild animals. Keep your distance and do not reinforce the fearless behavior that can lead to aggression and other problems by feeding them. ■



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## A PUP'S LIFE

**T**he alpha male and female — the leaders of the pack — are usually the only pack members that breed, but the entire wolf pack cares for the pups they produce.

The first few months after the pups are born are known as the "denning season," because packs stay near their dens to safeguard the young. Denning sites near areas frequented by humans are closed to park visitors to protect wolves during this sensitive phase. Denning season typically lasts into August when the pups are big enough to follow the pack away from the den to learn hunting and social skills. By age one, they can generally take larger prey on their own.

If you see wolves in the park this summer, please be mindful that they are at work caring for their pups and teaching them to survive on their own. Keep your distance and allow them to cross the road and keep moving. ■

### Age of pup

### Where found

### Diet

### Threats

**Birth to 5 weeks:**  
(mid April to late May)

In the den, typically an underground excavation, which provides shelter and warmth.

**Nursing phase:** All nutrition comes from mother's milk.

Competition among pups for suckling opportunities can leave some pups weak and malnourished.

**5 to 10 weeks:**  
(late May to late June)

In and around the den or exploring up to a mile away from the den area.

**Weaning phase:** Pups are beginning to eat regurgitated and solid foods brought to the den by adults.

Bears, eagles, mountain lions, coyotes and other predators can catch pups that wander too far from adult pack members.

**10 to 20 weeks:**  
(late June to early September)

At rendezvous sites, above-ground areas with good cover where pups stay while the adults are hunting.

**Solid food phase:** Pups depend on food brought by adults but are beginning to catch rodents and large insects on their own.

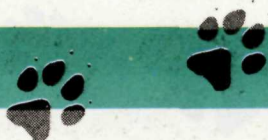
Large predators such as mountain lions and bears are still a threat, coyotes, eagles and other birds of prey much less so.

**20 to 52 weeks:**  
(September to April)

Running with the pack, sometimes traveling more than 10 miles a day. (Pups are now large enough to follow the adults.)

**Carcasses:** Still learning to hunt, pups follow adults to kills. At about age one, they are able to take on large prey.

Malnourishment, disease and parasites can harm growing pups as they adjust to less frequent feedings by adults.



## Wolves and Bears Co-Exist in Yellowstone

**Y**ellowstone National Park's grizzly and black bears now share the wilderness with wolves, and biologists and visitors alike are fascinated by the interactions of these large predators.

In Yellowstone and elsewhere, wolves and bears typically avoid one another, interacting only to defend their homesites, young or food. For example, a wolf pack in the park was observed holding a large grizzly at bay near a denning site. One wolf nipped at the bear from behind and two other wolves eventually escorted the bear out of the den area with two more pack members following close behind. In another incident, wolves were seen chasing a black bear away from

their spring den and up into a tree where it stayed until darkness fell.

Both black and grizzly bears scavenge carcasses left behind by wolves, and most wolf-bear interactions take place at these kill sites. Grizzlies have been seen taking over wolf kills and defending kills they have already usurped from wolves. In most of the cases documented, the bears have won, even when outnumbered by wolves. One grizzly fended off 15 wolves as it consumed a bison killed by the wolves the day before.

Scientists will continue to study wolf-bear interactions in the park to better understand the ecological and behavioral implications for bears and wolves. ■



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### WOLVES

#### Appearance:

The largest members of the canine family, adult gray wolves stand 26 to 32 inches at the shoulder

and weigh 85 to 135 pounds. Males are larger than females. Wolves can be gray, tan, brown, black or white with yellow or greenish-brown eyes.

**Food:** Wolves are carnivores — they eat only meat. In Yellowstone, their prey is almost entirely elk, with some bison, deer and small rodents.

**Social Structure:** Wolves are social creatures. Family groups range from two to 21 or more animals. Typically they live and hunt in packs of five to

eight animals, which includes the alpha male and female, their pups and other family members of varying age and status. All adult pack members work together to hunt and care for the young. On average, four to six pups are born in April or May.

**Communication:** Wolves communicate through facial expressions, body postures, scent markings and a wide range of vocalizations including barks, whimpers, growls and howls.

**Lifespan:** Wolves generally live eight or nine years in the wild, but many die prematurely. Collisions with vehicles, illegal shootings and livestock predator control account for about half of adult wolf deaths in the Yellowstone region. Most other wolf casualties are related to confrontations between packs or with prey. ■



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### GRIZZLY BEARS

#### Appearance:

Adult male grizzly bears weigh 300 to 700 pounds and on all fours measure

about 3.5 feet at the shoulder. Females are smaller and weigh 200 to 400 pounds. Grizzlies have a mass of muscle over their shoulders, a long dishd snout, long curved claws and fur ranging in color from blond to dark brown, sometimes tipped or "grizzled" with grayish silver.

**Food:** Bears are omnivores — they eat meat and vegetation. Yellowstone grizzlies eat plants, whitebark pine nuts, army cutworm moths, carrion, elk calves and spawning trout.

**Hibernation:** Bears hibernate during the winter, usually in dens they dig with their claws on the side of a slope where snow accumulates and provides insulation. They emerge from hibernation between early March and late May. The adult males are typically the first to appear, followed by younger bears and adult females and finally by females with new cubs.

**Social Structure:** Male bears are solitary except during the mating season. Females have a litter of one to four cubs approximately every three years during the hibernation period. Cubs stay with their fiercely protective mothers for two years.

**Lifespan:** Grizzlies can live as long as 30 years in the wild. ■

### Your Donations Make a Difference!

Help wolves by making a tax-deductible contribution to the Yellowstone Park Foundation's Wolf Fund. Your donation will be used to train and equip volunteers to assist with wolf research and monitoring. With your support and trained volunteer assistance, biologists are learning more about wolves every year.

**YES!** I want to help Yellowstone's wolves.

Enclosed is my check for:

☐ \$25 ☐ \$50 ☐ \$100 ☐ Other \$ \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

E-mail: \_\_\_\_\_

Make your check payable to "Yellowstone Wolf Fund" and mail it along with this coupon to the Yellowstone Park Foundation, 222 East Main Street, Suite 301, Bozeman, Montana 59715.

For more information, visit [www.ypf.org](http://www.ypf.org)

### Yellowstone Wolf Chronology

<b>1914:</b>	Wolf elimination campaign begins in Yellowstone National Park.
<b>1926:</b>	Last wolf pack killed in Yellowstone National Park.
<b>1945:</b>	Yellowstone National Park bans predator control.
<b>1973:</b>	Rocky Mountain gray wolf is listed as endangered. Congress passes the Endangered Species Act, mandating recovery planning for endangered and threatened species.
<b>1978:</b>	Wolf reintroduction recommended for Yellowstone National Park.
<b>1992:</b>	Defenders of Wildlife extends its Wolf Compensation Trust to the Yellowstone ecosystem to compensate ranchers for livestock lost to wolves.
<b>1993:</b>	U.S. Fish and Wildlife Service proposes starting Yellowstone and Idaho reintroduction in October 1994.
<b>1995:</b>	First wolves reintroduced in Yellowstone National Park.
<b>2004:</b>	More than 300 wolves in 30 packs roam the Greater Yellowstone Ecosystem.

To find out more about wolves and other Yellowstone wildlife, check these Web sites:  
[www.nps.gov](http://www.nps.gov); [www.fws.gov](http://www.fws.gov); [www.yellowstoneassociation.org](http://www.yellowstoneassociation.org); [www.defenders.org](http://www.defenders.org).