

# Wildlife

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**W**hen Yellowstone was created to protect its unique geothermal features, wildlife was still abundant throughout much of the West and valued primarily as a source of sport, meat, and hides. Few observers foresaw the critical role the park would play in providing a sanctuary for wildlife, nor did anyone anticipate that bison, elk, bears, wolves, and other species would one day become a primary visitor attraction. Since the 1995 reintroduction of the gray wolf, the only wild animal known to have been completely eliminated from the park by humans, Yellowstone once again has an intact complement of native animal species, including 60 mammals, 12 fish, 6 reptiles, 4 amphibians, and more than 100 butterfly and 300 bird species. Instead of focussing on the protection of individual species, the goal has become preservation of the whole suite of predators, grazers, and scavengers native to this ecosystem. Though visitors are not guaranteed to see a favorite animal, the park provides an unparalleled opportunity to watch free-ranging wildlife interact in their natural habitat, largely free of the human influences so prevalent in other settings.



## PRESERVING YELLOWSTONE'S WILDLIFE

**Human effects.** Compared to the effect of environmental influences such as a severe winter, human impacts on the park's wildlife are minimal, but they do occur. The possibility of sighting even elusive species such as wolves and bears means that roadside vegetation and soils at key viewing areas are damaged when vehicles try to jam into too small a space. If a parking area is enlarged and wildlife viewing is tacitly or overtly encouraged, the presence of people may affect both the animals being watched and other wildlife in the area. In the spring of 1997, the proximity of wolf watchers may have led to the failure of a trumpeter swan nest in the Lamar Valley and may have driven a wolf from her den prematurely, leaving the fate of her pups in doubt.



Other harassment and displacement of wildlife, even if inadvertent, probably occurs more often than we know. Boating, camping, hiking, fishing, and other popular activities, including simply driving along the park's roads, cause wildlife to modify their behavior and use of habitats. Only by careful monitoring of animal populations can we infer when human activities are causing too much stress to individual animals or to the health of their local populations. Outside the park, continued population growth and land development cause competition between humans and animals for living space.

During 1998, 88 large mammals are known to have been fatally struck by vehicles in the park; the annual average from 1989 to 1997 was 113. This tally does not include animals that may have been hit and died from their injuries later away from the road. Because of their large number, elk are the most frequent road fatalities, followed by mule deer. In 1998, no grizzly bears are known to have died from vehicle collisions in the park, but 2 wolf pups died after being struck on Highway 191, along the park's western boundary.



**Poaching.** Poachers are attracted to the Yellowstone area by the combination of trophy-class game animals, various rare or endangered species, and a relatively small chance of getting caught. Of particular concern are grizzly bears; although there has not been a known poaching of a bear inside Yellowstone National Park since the 1960s, grizzly populations are still threatened in the lower 48 states, and their pelts, claws, and organs can bring a high price. Fledgling raptors, including the prairie and peregrine falcons, also have a high market value, as do fur-bearing animals such as bobcats, marten, and coyotes.

From 1994 through 1998, Yellowstone's rangers documented 64 poaching cases—mainly elk and a few bison and deer—and approximately 150 additional cases involving destruction or possession of natural features, many of which involve removing wildlife pelts, horns, antlers, or claws for commercial purposes. Because of the large, remote area in which poachers can operate and the small number of rangers available to patrol it, rangers believe that much poaching goes undetected. Without increased law enforcement, little stands in the way of poachers and their prey.

## WILDLIFE RESEARCH

Most of the work done by the park's eight full-time biologists and dozens of visiting wildlife researchers has been focussed on the most conspicuous or problematic species, or those that have been officially identified as threatened or endangered under the Endangered Species Act—bears, birds, bison, elk, and wolves—animals that are also of the greatest interest to the public. More information about the status of these animal populations in the park is provided in the following sections of this chapter.

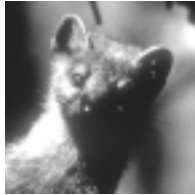
Research on coyotes, which are abundant throughout the park despite an apparent reduction since the return of the wolf, has focussed on the northern range and been dependent on the work of researchers from outside the park who have been collecting data since 1988. But relatively few studies have been done of many other animals that have important roles in the Yellowstone ecosystem, including reptiles, amphibians, invertebrates, and small mammals.





Also on the park's long list of seldom studied wildlife:

▣ Limited historical information is available on beaver throughout the park, and only since 1989 have systematic surveys been done to track long-term population trends for this largest North American rodent.



▣ Badgers, weasels, river otter, pine marten, and great horned owls are often seen in the park, but no quantitative population data has been recorded.



▣ Raccoons are only occasionally seen, but sightings and tracks suggest their presence may have increased in recent years.

▣ Mountain lions are present, and their effects on prey such as elk and deer have been documented since 1987, in the first study of Yellowstone felids.



▣ Bobcats and wolverines are seldom seen in the park, and red foxes only occasionally. The distribution of these animals and their effects on prey populations are unknown.



▣ Lynx are even more rarely seen; fewer than 60 observations have been reported in the park's entire history. Unfortunately, this very absence of information about lynx has meant that proposals for protection under the Endangered Species Act have lacked sufficient data on which to base a decision, but listing is expected by 2000.

### *Program Needs*

- **MONITORING.** To comply with the 1998 Omnibus Parks Act, the park needs a systematic program to inventory and monitor all of its wildlife populations, and make the resulting research data available to park staff and scientists. To help overcome the fiscal and logistical limitations that have curtailed progress in the past and address the backlog of information needs, park staff must make more use of researchers from other organizations and the many students who seek opportunities to work on wildlife projects in Yellowstone.

- **EDUCATION.** Efforts to educate park visitors about animal ecology and behavior, especially in relation to humans, must continue. The park needs a full spectrum of methods—ranger contacts, exhibits, publications, signs, and the park website—and needs to try newer, more creative approaches to managing wildlife in relation to human activities.



## WILDLIFE PROGRAMS

### STEWARDSHIP GOALS



A full complement of biologists inventory and monitor the spectrum of park wildlife and habitats, and oversee research into wildlife interactions with other animal and plant species.



The park identifies, protects, and if necessary restores populations, especially those of rare or endangered wildlife.



In cooperation with park partners, staff comprehensively monitor, manage, and interpret human-wildlife interactions, including conflicts and threats to human health and safety, and disturbance to animals and their habitats.



Comprehensive, proactive, interpretive efforts focus on educating the public about habitats and how to conserve long-term biodiversity.

### CURRENT STATE OF RESOURCES/PROGRAMS



While charismatic species receive much research and management attention, less appreciated species and communities are little studied due to limited staff expertise, time, and funds.



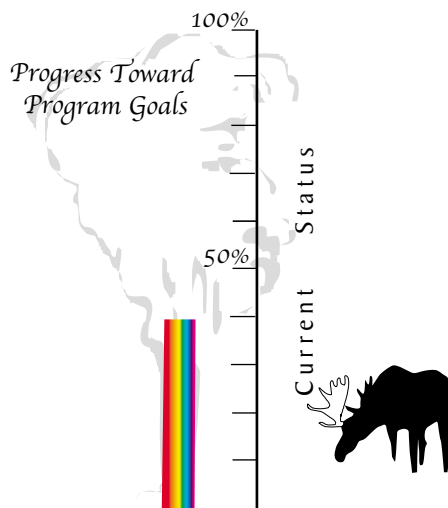
Two million acres of largely undisturbed habitat appears to support viable populations of most native species, and much time and money has been spent on those listed as endangered. The park lacks staff to address rare species that are candidates for special protection.



Staff manage human-wildlife interactions as problems arise, addressing specific human safety and property damage concerns, wildlife displacement and behavioral change. Few comprehensive monitoring programs are in place; interagency groups address some species.



Interpreters and resource specialists provide programs and printed information on wildlife and their habitats as time allows, and mostly to small audiences.



### 1998 FUNDING AND STAFF

Recurring Funds	
Yellowstone N.P. Base Budget	\$ 43,000
Cost Recovery/Special Use Fees	
Non-Recurring Funds	
One-time Projects	\$ 11,200
Staff	0.8 FTE

The human resources and funding necessary to professionally and effectively manage the park to stewardship levels will be identified in the park business plan.