

Cougars

RESOURCE BRIEF

Importance

The cougar (*Puma concolor*), also known as mountain lion, is the largest felid (80 to 165 pounds adult) in North America and a top predator native to Greater Yellowstone. As part of predator removal campaigns in the early 1900s, cougars and wolves were killed throughout the lower 48 states, including national parks. Wolves (*Canis lupus*) were eradicated and, although cougars were probably eliminated from Yellowstone, the species survived in the West because of its cryptic nature and preference for rocky, rugged territory where the cats are difficult to track. Eventually the survivors re-established themselves in Yellowstone, possibly making their way from wilderness areas in central Idaho.



Status

In the mid-1980s an increase in cougar sightings prompted the Hornocker Wildlife Institute, and later the Wildlife Conservation Society, to begin the first cougar research in Greater Yellowstone. From 1987 to 1996 (Phase I), this study documented population dynamics and dispersal, predation habits and kill rates, home range and habitat requirements, and resource competition between cougars and bears. Of the 88 cougars that were captured, 80 were radiocollared. From 1998 to 2006 (Phase II), a total of 83 radio-collared cougars were monitored, including 52 kittens in 24 litters. Elk comprised 74% of the known or probable cougar kills (fig. 1). Wolves interfered with or scavenged more than 22% of the cougar-killed ungulates.

The monitoring associated with this project has been completed and all of the radio-collars have been removed, but years of data are still being analyzed. Yellowstone's

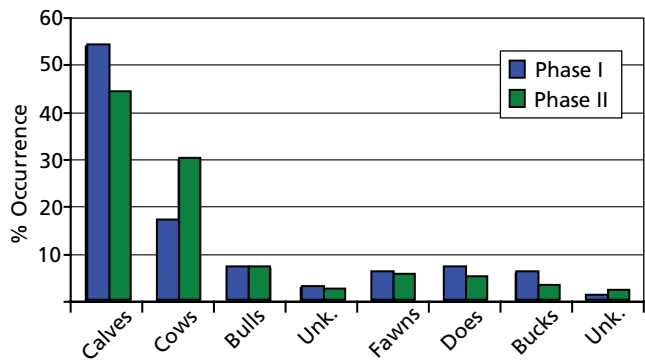


Figure 2. Categories of cougar-killed elk and mule deer.

northern range currently supports an estimated population of 14 to 23 adult cougars and numerous kittens. While disease and starvation are occasional causes of cougar deaths, inter-and intra-specific competition and human hunting (during legal seasons outside protected areas) are the main causes of cougar mortality. Habitat fragmentation and loss are the main long-term threats to cougar populations across the western United States.

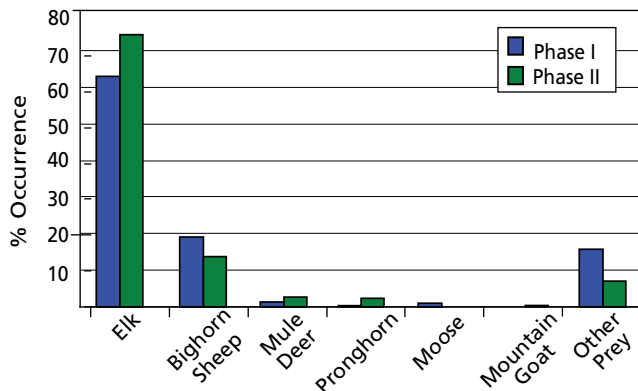


Figure 1. Prey caught by cougars during Phase I and Phase II.

Discussion

Although cougars and wolves once co-existed across much of their historical range, ecological research on each species has often had to be conducted in the absence of the other. By assessing pre- and post-wolf reintroduction data, biologists can learn about the ecological relationships between the two species. As social animals, wolves use different hunting techniques than the solitary cougar, but the two species prey on similar animals. While prey is abundant this competition is of little concern, but, a decrease in prey abundance could lead to an increase in competition between these carnivores.