

B. ENHANCING BIODIVERSITY

1. Gray Wolves enhance biodiversity and improve resilience of ecosystems to environmental catastrophes.

Dr. Gordon Haber, who studied Alaskan wolves in Denali National Park and Yukon-Charley Rivers National Preserve from 1966 until 2009 writes, “Many complex controls operate between predators and prey when they are left to themselves. The result is an animal community characterized by a high degree of vigor, genetic diversity, great variety, and the ability to withstand major natural disturbances such as severe winters. Claims that wolves destroy the very food source upon which they depend are absurd. Nothing of the sort has ever been witnessed in any study of a natural animal community where wolves are the major predators. In short, there is no reason for us to think we must control a natural wolf population. The optimum size is reached by leaving the control solely to the wolves, as research in many areas of North America has demonstrated”

Among Wolves. Gordon Haber's Insights into Alaska's Most Misunderstood Animal. Gordon Haber and Marybeth Holleman. 2013. University of Alaska Press. <https://www.marybethholleman.com/among-wolves>

2. Wolves feed other species.

Mark Hebblewhite and Doug Smith listed species they observed on 221 ungulate prey carcasses between 1995 and 2000 that were killed by wolves. In Banff National Park, they tallied 20 species: Most common were ravens (present at 96% of all kills), coyote (51%), black-billed magpie (19%), pine marten (14%), wolverine (8%), and bald eagles (8%); others, in descending order, were gray jay, golden eagle, long- and short-tailed weasel and least weasel, mink, lynx, cougar, grizzly bear, boreal and mountain chickadee, Clark’s nutcracker, masked shrew, and great grey owl. In Yellowstone, they noted twelve scavengers, of which five visit virtually every kill: coyotes, ravens, magpies, and golden and bald eagles.

Hebblewhite, M., Smith, D.W., 2010. Wolf community ecology: ecosystem effects of recovering wolves in Banff and Yellowstone National Park. In: Musiani, M., L. Boitani, L., Paquet, P.C. (Eds.), The world of wolves: new perspectives on ecology, behaviour.

3. Reintroductions of gray wolves enhance biodiversity by suppressing populations of mesopredators such as coyotes.

Research reveals that the extirpation of wolves throughout much of North America, contributed to the poor recruitment of pronghorn fawns in some ecosystems. Thus, wolf restoration holds promise for enhancing ungulates populations by reducing coyote predation rates on the young of species such as pronghorn, mule deer, and white-tailed deer.

Recolonizing wolves and mesopredator suppression of coyotes: impacts on pronghorn population dynamics. <https://sites.warnercnr.colostate.edu/wp-content/uploads/sites/30/2017/10/2008-Berger-KB-Ecol-Apps.pdf>

4. More species of beetles use wolf-killed carcasses than all vertebrates put together. Insects provide a vital connection between plants and vertebrates. Without insects, many food chains would collapse. Because wolf-killed carcasses support a galaxy of species including insects, at a time when biodiversity is plummeting worldwide, restoring wolves is a significant step in restoring natural processes like scavenging. Sikes found 23,365 beetles of 445 species in two field seasons at wolf- killed carcasses.

Influence of ungulate carcasses on coleopteran communities in Yellowstone National Park. Montana State University. Master of Science thesis. <https://scholarworks.montana.edu/xmlui/handle/1/7653>

Insects as a Vital Sign in the GYE. <https://www.nps.gov/articles/insects-as-a-vital-sign-in-the-gye.htm>

5. The release of coyotes from wolf suppression across much of the American West is negatively affecting a wide range of animals such as the endangered black-footed ferret, Whooping crane and pygmy rabbit. However, these ecological effects of wolf repatriation may not occur outside of large reserves where wolves are subjected to hunting or wolf control programs.

Widespread mesopredator effects after wolf extirpation. https://trophiccascades.forestry.oregonstate.edu/sites/trophic/files/Ripple_2013_BC.pdf

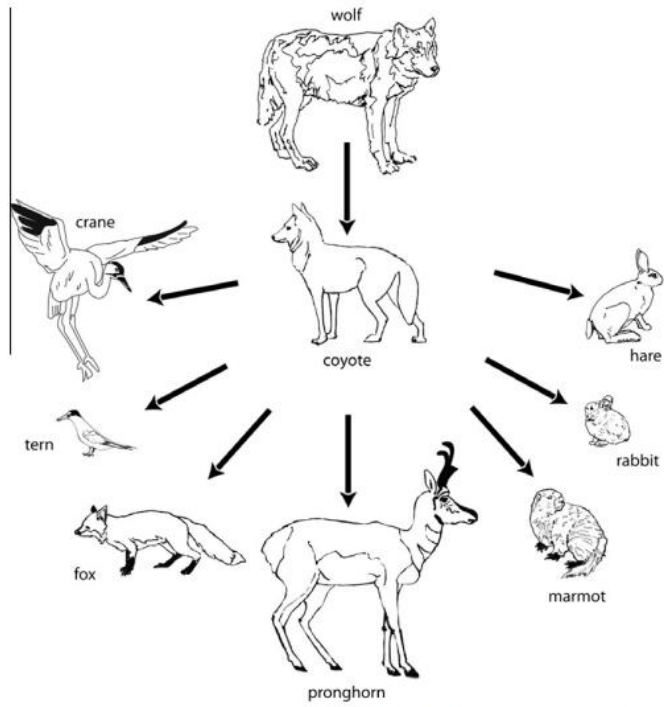


Fig. 2. Trophic linkages are shown among wolves, coyotes, and the prey of coyotes. Conceptually, the extirpation of wolves could cause increases in coyote populations and decreases in smaller predators and coyote prey numbers.