

Is it good policy to reduce wolf numbers to improve ungulate populations? That simple question, unfortunately, has no simple answer.

If wolves could live on a diet of mice, humans would tolerate them better than they do. But wolves have been shaped by evolution to hunt and eat ungulates—such hooved animals as caribou, elk, deer and moose. Those are exactly the game animal species so many humans are passionate about hunting.

Some humans are not happy to share that ungulate prey base with wolves. Game populations are rarely abundant enough to please hunters, even in regions with no wolves. Where wolves are present, hunters frequently blame them for what they perceive as inadequate ungulate populations.

Disappointed hunters sometimes demand wolf control, the practice of killing wolves to enhance ungulate populations. Many state game agencies and even such thoughtful game managers as Aldo Leopold once accepted the need for wolf control to increase populations of popular ungulate species.

Wolf control is much more controversial today. In recent years Alaska has suffered from exceptionally acrimonious wolf control wars. If wolf numbers continue to increase in the Rocky Mountain region, hunters there might request wolf control to boost ungulate populations in Idaho, Montana or Wyoming. Wolf advocates will vigorously oppose such proposals.

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Critics of wolves describe them as killing machines with the ability to decimate game populations. For example, a Web site currently on the Internet compares wolves to piranhas. The site's author claims wolves kill for "lust," asserting that wolves

Wolf Control Controversies

by STEVE GROOMS



will destroy “every available animal” before turning cannibalistic and devouring each other.

Wolf advocates reply that predator and prey species have evolved over the millennia to coexist. Indeed, the very nature of predator-prey relationships requires parity; if either side held a big advantage, the relationship would collapse. Vigorous ungulates can almost always escape or fight off wolves. To a remarkable degree, wolves target compromised animals—those that are sick, injured, old or very young. That leads to the comforting observation that by eliminating less fit ungulates, wolves enhance the gene pool and improve the survival chances for fit individuals.

And yet the impacts of wolf predation are not always so simple or benign.

The most-studied predator-prey relationship is on Isle Royale, where wolves and moose have coexisted without outside interference since 1949. Researchers there have learned

that weather events can affect the vulnerability of moose to wolves. Fluctuations in moose numbers affect the quality of the browse, which then affects the health of the moose herd. The Isle Royale experience suggests that weather, habitat quality and predation combine in complicated ways to change wolf and moose populations.

Predator-prey relationships are even more complex everywhere else. Isle Royale moose contend with only a single predator, whereas ungulates in Alaska are eaten by wolves, black bears, brown bears and humans. Multi-predator ecological systems are difficult to study and tricky to manage.

Research in Alaska suggests that combined wolf and bear predation can limit ungulate populations to levels significantly lower than the habitat should be able to sustain. Predators sometimes suppress ungulate populations by taking high numbers of juvenile ungulates, especially

moose and caribou calves. Alaska’s managers describe some imperiled ungulate populations as being caught in a “predator pit” that pins them at low levels for many years.

Wolves can even contribute to the extirpation of local ungulate populations, as was shown by a study in Minnesota’s Superior National Forest. Deer survived for many years in a region that had marginal habitat. Then a combination of wolf predation and several successive severe winters eliminated the deer. Deer have not returned to that area decades later, although it seems possible that deer would have disappeared from such poor habitat sooner or later even without wolf predation.

If predation can limit ungulate populations, is it possible to improve game numbers by eliminating predators? The answer is a qualified yes. Research in the Yukon and British Columbia shows that killing wolves can improve survival rates of juvenile caribou and moose, leading to higher overall populations. The increases are not automatic. In 11 tests of wolf control in Alaska, higher game populations occurred in only three cases.

Moreover, the effects of wolf control do not seem to last long. Research in Alaska and Canada shows that after wolf control is stopped, ungulate mortality rates return to pre-control levels. Alaska’s managers have talked optimistically about how temporary wolf control could result in a win-win situation,

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producing strong and stable populations of both ungulates and wolves. In the real world, however, that theoretical ideal has not been validated.

Advocates of wolf control have argued that it brings stability to predator-prey systems, minimizing the boom-bust cycle. Achieving that kind of stability is not easy. And it is open to question whether stability is a desirable goal, since the normal tendency of natural systems is for predator-prey relationships to oscillate.

A curious feature of Alaskan wolf control is the way predator control has targeted wolves although in some studies predation by brown bears had more impact on young ungulates. Bears benefit from a cultural resistance to the sort of lethal control often directed at wolves. Alaskan managers are currently contemplating moving bears from areas of special concern during the calving season, hoping the

bears will not return until young ungulates have grown large enough to escape most predation.

Perhaps the main difficulty with wolf control is that it is necessary to kill a great many wolves to have much effect. The fertility and adaptability of wolves allow them to replenish their numbers unless from 28 to 50 percent or more of the fall population is removed, year after year. That's a lot of dead wolves. Killing that many wolves is difficult and increasingly controversial.

As with many controversies, both sides might be right and wrong. Wolf predation is not as universally benign as wolf advocates often believe, and in specific situations it can suppress ungulate populations for many years.

Killing wolves can improve local ungulate populations of particular interest. But wolf control doesn't work as well or for as long as fans of wolf control have believed, and it comes at a high price, not the least of which is a great deal of bitter debate.

Wolf control might belong to that category of appealingly simple remedies that don't work as well as people hope they will but that seem to do enough temporary good to continue to be popular. The only thing for sure is that wolf control controversies are not going away any time soon. ■

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Ungulates in Alaska are eaten by black bears (pictured), wolves, brown bears and humans.

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