

(This was written in the early years of reintroduction - 1997)

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Reintroduction of the Gray Wolf to Yellowstone National Park: A Case Study

By: Natalie Carroll, John B. Dunning, Jr., Arthur Freeman, Constance A. Hallberg, and Janice Morgan, at the May 1997 Purdue Bioethics Workshop

The U.S. Fish and Wildlife Service began to reintroduce gray wolves to Yellowstone National Park in 1996. The following factors were taken into account in the decision to undertake the reintroduction of the gray wolves:

1. Yellowstone National Park (YNP) is the United States flagship park and, as such, deserves special consideration. Gray wolves constituted the only native vertebrate species that was not represented in the park before the reintroduction began.
2. The loss of gray wolves from the park (and the surrounding area) was caused by widespread elimination by humans that perceived the wolves as a threat to livestock and family. A serious eradication effort occurred primarily from 1900 to the 1930s. The last wolf in YNP was killed in 1926.
3. Gray wolves are a keystone predator (play a major role in keeping a natural balance between species).
4. Since the removal of gray wolves from the area, the number of elk has increased dramatically to the point that they are adversely affecting other species in the park (i.e. eating so many young lodgepole pine trees and other saplings that the forests are not being replaced).

After lengthy discussions the decision was made to release gray wolves into YNP. The releases occurred in 1995 and 1996. The cost of the reintroduction of gray wolves to Yellowstone National Park (YNP) in 1996 was \$267,000. Seventeen gray wolves were introduced that year. It should be noted that Congress cut appropriations to the Fish and Wildlife Service expressly to prohibit the reintroduction. Private conservation groups were able to raise \$100,000 which allowed the project to proceed.

Other factors to consider include:

Economic analysis by the U.S. Fish and Wildlife Service predicted that increased tourism (both in number of visitors and length of stay) will account for some \$23 million in additional income for the area (taking into account a decrease in income from hunting and promised livestock replacement costs). This study showed a 5% increase in residents from out of the area and a 10% increase in tourism by local residents.

Gray wolves that have been reintroduced to Yellowstone National Park were specifically chosen from wild populations living in mountainous areas where elk and deer were the primary prey, and livestock and potentially infectious diseases were rare. Wolves from Alberta and British Columbia, Canada met

these conditions. Note: gray wolves are not endangered in Canada - they are locally endangered in the contiguous 48 states where they used to thrive, but are not globally endangered.

Wolves have been observed to colonize new areas and to adapt well if proper habitat is available. Wolves are recolonizing their former range in the Northern Rockies, but are not expected to reach YNP naturally for at least 60 years.

Questions:

1. Do we have a moral obligation to protect locally endangered species? Why, or why not?
2. Should we restore YNP, as our flagship National Park, to include the natural predators (gray wolves) that are now missing?
3. Would you answer question #2 in the same manner (yes or no) if the species in question were a mouse or centipede? Why, or why not?
4. Should we be capturing wildlife that exists in abundant numbers in one area in order to relocate the species to an area where it is endangered, or extinct?

The Yellowstone National Park area (park and surrounds) has an annual income of \$ 4.2 billion. Income from farming/ranching accounts for \$269 million (6.4% of the total economy). Non-human animal populations and losses are as shown in Table 1 below (Bangs and Fritts, 1996).

Table 1.

	<u>hoofed animals</u>	<u>livestock (sheep & cattle)</u>
number of individuals	95,000	410,000
animal loss/cause	14,300/hunters	21,300/all causes (13,000 sheep & 8,300 cattle)
wolf kill*	1200	87 (68 sheep, 19 cattle)

* based on Environmental Impact Statement for a predicted 100 wolves

Reasons given for opposing the wolf relocation project include the following:

1. Some people do not like, or trust, wolves.
2. This money could/should be spent on human problems such as hunger, etc.
3. Some of the people in the area were alive when the government was encouraging the removal of the wolves. The change in policy does not make sense to these people.
4. In 1996 wolves released in YNP are known to have killed 12 sheep and one dog. The wolves responsible were captured and moved (when possible). One wolf returned to the area in which it had killed sheep and was killed by federal agents.
5. Some ranchers believe that the losses will be much greater than estimated, and will drive them out of business.

A conservation group, "Defenders of Wildlife", has agreed to compensate ranchers for documented livestock loss (but not pet loss) due to wolf kills. Defenders of Wildlife has run this compensation program in other areas where endangered wolves coexist with livestock. Few claims have been submitted to date, although some ranchers say they would not submit a claim on the grounds of not "buying in" to the reintroduction.

More Questions:

1. Based on the rancher's concerns should the gray wolf reintroduction be discontinued?
2. Would you hold a different opinion about the reintroduction of the gray wolf if the U.S. Fish and Wildlife service predicted that a human death could be expected as a result of the reintroduction? Why, or why not?

The wolf recovery program is ahead of schedule, under budget, and occurring with less conflict than was predicted. The planned reintroduction in 1997 was canceled because wolf populations are establishing themselves well and wolf losses have been less than predicted. The program continues to be controversial, expensive, challenging, and complex.

References:

E.E. Bangs & S.H. Fritts, 1996. Wildlife Society Bulletin, 24:402-413.

www.graywolf.com/rm/wpages/yell-o.html

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