ecovering wolves to the Greater Yellowstone Area (the Yellowstone National Park and surrounding National Forests) was a controversial and contentious issue. Many individuals opposed recovery, and among those that were supportive there was sharp disagreement over how best to proceed. Some felt that the U.S. Fish and Wildlife Service and the National Park Service should allow wolves to reclaim the Greater Yellowstone Area naturally, as they had reclaimed northwestern Montana. Others, including myself, felt that wolves should be translocated from Canada and reintroduced.

While many aspects of the two options are similar, the following three considerations prompted me to favor reintroduction.

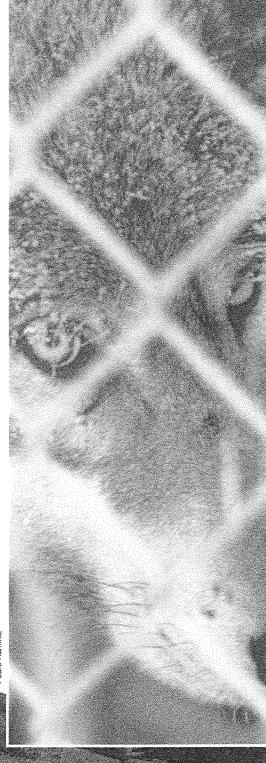
## 1. Reintroduction minimizes the time to recovery, thus reducing cost.

The objective of the gray wolf recovery program in the northern Rocky Mountains is to remove the animal from the list of endangered species. Delisting will occur when 10 breeding pairs of wolves have produced pups for three consecutive years in the Greater Yellowstone Area, northwestern Montana, *and* central Idaho.

Because of the size of the naturally occurring population in northwestern Montana, it was widely believed that dispersers would eventually settle the Greater Yellowstone Area (and central Idaho). However, it was recognized that such a process would require many years; delisting was predicted to occur around 2025. Because monitoring and management would be needed during all the years preceding delisting, the estimated cost of recovery via natural recolonization was \$10 million to \$15 million.

In addition to this substantial cost, it is important to recognize that recovery might not ever have occurred via natural recolonization. There are a host of factors that can prevent the growth and persistence of small populations, and these factors may have prevented a fully recovered wolf population from arising from wolves dispersing from Montana to the Greater Yellowstone Area.

In contrast, reintroduction ensured that the Greater



In Support of Reintroduction by Mike Phillips

Yellowstone Area would be settled by a relatively large number of wolves in a short period. This reduced the predicted time to recovery to around 2002, overall costs by \$3 million to \$8 million, and the likelihood of various factors hindering or preventing growth of the population. In the uncertain world of endangered species recovery, it is always wise to implement strategies that maximize the likelihood of success while minimizing costs.

2. Reintroduction allows released wolves to be considered members

of an experimental-nonessential population, thus maximizing management flexibility.

Individuals of an endangered species that are involved in a reintroduction program can be designated as members of an experimental-nonessential population as per section 10(j) of the Endangered Species Act (ESA). This designation was developed by Congress to promote cooperation among local residents and government agencies that would be affected by conservation efforts that used reintroductions to recover endangered species.

The designation facilitates cooperation by promoting local citizen involvement and minimizing disruption of local activities.

In short, the designation allows reintroduced animals to be managed in a manner that is respectful of the needs and concerns of local citizens. It is much more difficult to manage naturally occurring members of an endangered species in such a manner. For example, the wolves that recolonized northwestern Montana are managed exclusively by government authorities; local citizen involvement is nil.

I know from 11 years of intimate involvement in wolf recovery that local folks are not so much opposed to wolves but rather skeptical of the government's claims that wolf recovery will not dictate policy to local communities. Primarily because of the inability of the government to keep some past promises, local people believe that wolf recovery will negatively affect their lives. For wolf recovery to succeed, we must recognize their concerns, respect their apprehension and work hard to uphold the promises that were made. If we are able to do those things. with time local citizens will come to view wolf recovery differently. We may never completely win them over, but we can gain their respect. This will promote a tolerance for wolves,

## Actual Outcomes vs. Outcomes Predicted by the Environmental Impact Statement (EIS) for the First Two Years (1995-1996) of theYellowstone Wolf Restoration Program

	PREDICTED OUTCOME	ACTUAL OUTCOME
Number of Wolves Reintroduced	30	31
Number of Reintroduced Wolves That Do Not Contribute to Population Growth Because of Stochastic Events <sup>a</sup> . Conflicts with Livestock That Led to the Wolf's Death or Placement in Captivity <sup>b</sup> , Mortality Including Illegal Killing <sup>c</sup>	14	9
Number of Reintroduced Wolves Surviving at End of Second Year	16	22
Number of Pups Born During First Two Years	0	23
Number of Pups That Died	_	5 <sup>d</sup>
Number of Wolves at End of Second Year	16	39
Number of Reproductively Active Packs at End of Second Year	г 0	8
Number of Wild Ungulates Killed Annually by a Pack of Five Wolves <sup>e</sup>	60	120
Number of Cattle Killed by a Population of 21 Wolves During First Two Years	2 to 6	0
Number of Sheep Killed by a Population of 21 Wolves During First Two Years	18 to 22	10 to 12
Wolves Would Travel to Areas Where Circumstances Would Require That They Be Returned to Wilderness Areas or the Park	Some	Some
Visitor Use of Area Inhabited by Wolves	Increase	Increase

- c The EIS predicted that 10% of the wolves that are not subjected to stochastic events could possibly die from natural causes, accidents, or illegal killing.
- d This number includes pup #46M, which was permanently placed in captivity because of capture-related injuries.
- e We calculated "actual" number of ungulates killed annually by a pack of five wolves assuming a kill was made every second day.

a The EIS predicted that 33% of the wolves reintro-

duced in Yellowstone would not contribute to population growth because of stochastic (random)

events such as mortality, disappearance, dispersal, etc.

b The EIS predicted that 10% of the wolves that are not subjected to stochastic events could possibly be removed annually because of conflicts with livestock.

which will improve wolf survival. Use of the experimental-nonessential designation greatly aids the development of management protocols that are respectful of local people.

To illustrate the flexibility of the experimental-nonessential designation, I have listed important management protocols that we implemented that would not have been possible had wolves naturally recolonized the Greater Yellowstone Area.

- State and tribal wildlife agencies are encouraged to direct wolf recovery efforts outside national parks and national wildlife refuges.
- Landowners and livestock producers may chase away or harass wolves on private property or in the vicinity of livestock.
- Livestock producers may kill a wolf caught killing or wounding livestock on private land.
- Once six or more packs are present, livestock producers legally using public land may be permitted to kill a wolf in the act of killing livestock if authorized agencies have not been able to resolve the conflict.
- Wolves may be moved to reduce predation on local ungulate herds, if the action does not hinder wolf recovery.
- Land-use restrictions will only be enacted around acclimation pens and perhaps within one mile of active dens on public land during

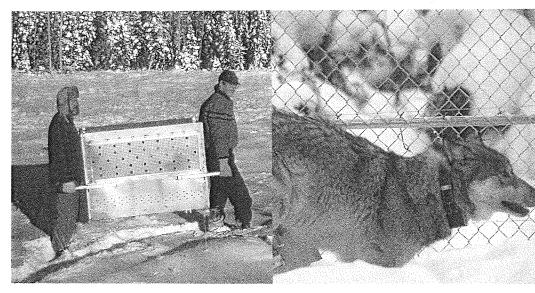
spring. When six or more packs are present, closures around dens can only be utilized on national parks and national wildlife refuges.

The experimental-nonessential designation allows us to develop rules that were a fitting end to the years of hard work spent devising an acceptable strategy for recovering wolves in the Greater Yellowstone Area. The rules are respectful of the concerns of local citizens, allow for and actually promote extensive state and tribal involvement, and ensure that recovery and subsequent delisting are achieved at relatively little cost.

3. Reintroduction allows for refinement of management techniques that can be used to recover other endangered species.

During the last century, thousands of species have gone extinct as a result of human activities. Unfortunately, the rate of human-induced extinctions continues to rise. During the time it takes you to read this article we will have destroyed at least one species, maybe more. For every species we destroy, countless others are pushed to the edge of oblivion. For many of these, recovery will only occur through reintroductions that allow individuals to reclaim original ranges. Reintroducing gray wolves to the Greater Yellowstone Area





provides opportunities to refine techniques that can be used to ensure the persistence of other imperiled species. Such opportunities would not have arisen if gray wolves had recolonized the Greater Yellowstone Area through dispersal.

The three considerations mentioned above contributed mightily to the decision to recover gray wolves in the Greater Yellowstone Area through reintroductions, and the first two years of the effort bear testimony to the wisdom of the decision. The recovery program is progressing much better than expected as wolves are thriving and producing more pups than predicted and livestock losses are considerably lower than predicted.

As of February 15, 1997, the Greater Yellowstone Area supported 39 wolves in eight packs that should produce pups during the spring of 1997. Clearly, if current trends continue, we may recover the gray wolf in the Greater Yellowstone Area ahead of schedule and under budget. Recovering the wolf quickly and responsibly will reduce cost to taxpayers and may foster support for the ESA. It is extremely unlikely that similar claims could be made if wolf recovery in the Greater Yellowstone Area was dependent upon natural recolonization.

Biologist Mike Phillips is project leader for the grey wolf restoration effort in Yellowstone National Park and co-author of The Wolves of Yellowstone (Voyageur Press, 1996), which can be purchased from the International Wolf Center at 1-800-ELY-WOLF. n April 1986, for the first time in more than 50 years, wolves denned in the northern Rockies. Eleven years later there are more than 100 wolves traveling in at least nine packs over wide areas of Montana.

When that first pack denned in the North Fork of the Flathead drainage, local residents expressed concern, wariness and sometimes even alarm at the animals' presence. Within two years there were three packs in the area. Now local residents view wolves as no more significant than the mountain lions, black bears, lynx, grizzly bears and coyotes that inhabit the North Fork.

More importantly, perhaps, this pack not only paved the way biologically, but its presence afforded an opportunity to learn more about wolves in the northern Rockies and to educate the public about their place in the ecosystem. The educational value of that early recovery has been tremendous. As wolves have expanded from the core population in the North Fork to other parts of Montana, local

communities have had the benefit of the knowledge gained from those pioneering wolves and the research conducted on them. Though wolves may not be welcomed by all, this natural recovery has gone relatively well. It is viewed by many locals as a natural phenomenon.

By contrast, when the proposal to reintroduce wolves to Yellowstone hit the media, it was no longer a natural phenomenon. It was an act of "those federal bureaucrats in Washington and a bunch of eastern elitists sticking it to us again." The battle lines were drawn. This was the West, where people don't like to be told what to do or how to do it. The battle became more and more polarized as it went on, culminating in a hearing in Helena with demon-

In Support of Recolonization