

When the Pack Comes Back.

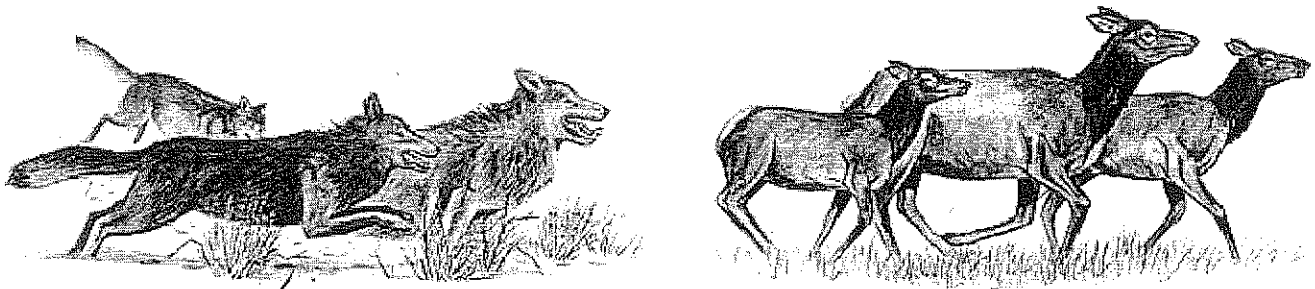
by Mary Taylor Young

Read this article and then write a short response. **EXPLAIN** three things that would happen if wolves are brought back to Colorado. These can be either positive or negative effects.

Imagine sitting around a campfire on a summer night somewhere in the Colorado mountains. From beyond the firelight comes the howl of a wild animal, rising in a mournful wail that prickles the hair on the back of your neck. It's not the yipping yowl of a coyote but the soul-touching howl of a wolf, a voice not heard in this state for 70 years.

Sound like a fairy tale? This scene may be a reality in the not-too-distant future. Wolves are well-established in Yellowstone National Park and surrounding areas, and will likely soon migrate naturally into Colorado. A wolf was spotted recently near Baggs, Wyoming, which is north of Craig, Colorado. There have been numerous unconfirmed wolf sightings in our state, so wolves may already be here. Whether it happens in one year or ten, Colorado needs to be prepared before the wolf is at the door.

Few animals carry the degree of controversy and the ability to trigger passionate responses, both pro and con, as does the wolf. For the wolf-lover sitting around that campfire, the wolf's howl might touch a spiritual chord connecting the listener to the natural world. For the rancher sitting at the campfire, the howl might trigger anger, trepidation, and a feeling of threat to his way of life. In past centuries, public reaction to wolves was overwhelmingly negative. This led to the eradication of wolves from Colorado and most of the U.S. by the early 20th century. The last authentic record of a wolf in the state dates back to 1935. But attitudes change, and in the 21st century, there is public support for returning wolves to Colorado. A 1994 poll that asked the question "If you were able to vote to reintroduce wolves to Colorado, how would you vote?" returned surprising results. The response was strongly positive—71 percent in favor statewide, with 74 percent in favor on the Front Range and 65 percent in favor on the Western Slope.

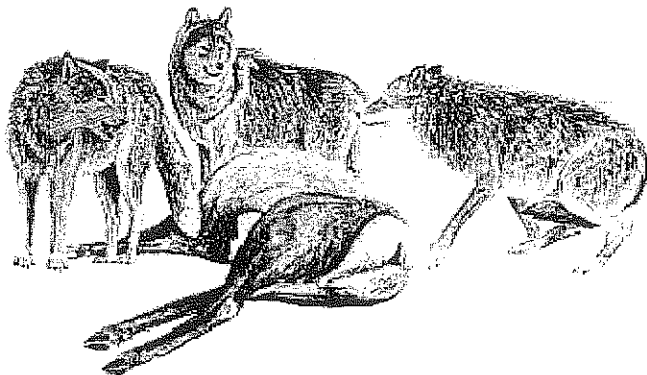


With the arrival of the wolf almost inevitable, and public support for it strong, the Colorado Division of Wildlife (DOW) is establishing a working group that will formulate a wolf management plan by the end of 2004. The group will bring together people with different opinions and perspectives on wolves, including livestock producers, environmental or wildlife advocates, local government officials, wildlife biologists and sportsmen. State and federal wildlife agency personnel will act as advisors. The plan this group devises must address a variety of questions. Will wolves be allowed to live in Colorado? If so, how many can the state realistically support, and where? The answer to the first question is unclear, but it may be that wolves will be allowed to establish here because a majority of Coloradans want them. But how many and where remains a big question. A recent study found that the state's big game herds could support 1,000 wolves. But while Colorado offers plenty of habitat, said DOW biologist Gary Skiba, the limiting factor to wolf numbers will be human tolerance for them.

"There's no question wolves can survive in Colorado biologically," he says. "They're such habitat generalists and there's plenty of prey for them to eat. But in many areas there would be too much human conflict. They could kill pets and some people feel attacks on livestock would be a real problem."

That leads to another major issue—how to deal with the inevitable killing of livestock by wolves. While not the cattle and sheep slaughterers they have been portrayed as in the past, wolves will prey on livestock, and ranchers need the ability to protect their animals.

"If we decide to allow wolves to establish a population in Colorado, we can't have open season on them, but we must have a way to allow wolves to be killed if there is depredation on livestock," explained Skiba. Current state statute only allows compensation for wildlife damage to property from big game animals. Presently, the Defenders of Wildlife has a program to compensate ranchers for losses to wolves that is being used throughout the wolf's range in the U.S. outside Alaska. They have already agreed to extend this program to Colorado. group agreed that 100 percent of the replacement value of livestock should be paid if it is proved a wolf did the killing, and 50 percent if a wolf was only suspected.



A question of particular concern to sportsmen is, how will wolves affect big game populations? No one is sure, because no definitive studies have been done. Wolves have definitely impacted elk in Yellowstone, not only by preying upon them, but by affecting their behavior. "Wolves will definitely change the behavior of elk," explained Skiba. "We won't see the huge collections of elk in meadows as often because they'll be hiding." Some sportsmen in Wyoming and Montana complain that wolves have killed off too many elk, but, said Skiba, it's probably the behavior changes that make the elk harder to find more than the effect of predation. The return of a major predator to Colorado's ecosystem will likely have a cascade of effects. Elk in Yellowstone began avoiding narrow stream corridors where they felt hemmed in and vulnerable, allowing the riparian habitat in these areas, which had been heavily browsed, to recover. While this recovery isn't complete, re-growth of willows would benefit birds that nest in streamside vegetation. The presence of wolves could be good for populations of birds and small mammals because wolves tend to reduce coyote populations, which prey on these smaller animals. When wolves were eradicated in the last century, coyotes expanded in numbers and range. Ironically, the return of wolves could be a positive for livestock producers by reducing coyote numbers.

Another major factor is cost. Skiba told commissioners that \$800,000 to \$1 million a year is spent in both Idaho and Montana to monitor and manage wolves. That doesn't include the cost of replacing livestock attacked by wolves, which is paid for by Defenders of Wildlife, an environmental organization.

What is the chance wolves will be intentionally reintroduced to the state? The working group could consider it, said Skiba, but it's not likely, since wolves will probably arrive on their own. In addition, the Colorado Wildlife Commission passed a resolution in 1989 opposing the reintroduction of wolves. There is a chance wolves could be released in southern Colorado by the USFWS sometime in the future, as part of the federal recovery plan for the Southwest DPS.

As Coloradans debate the wolf issue—some rejoicing, some bemoaning—the wolves are out there, slowly making their way toward our state. A single viewpoint on wolves no longer prevails, but by working together to reach consensus, Coloradans can come up with a plan for wolves in our state that we can all live with.

The large Wolves are verry numourous, they are of a light colr . . . these wolves resort [in] the woodlands and are also found in the plains . . . we scarcely see a gang of buffaloe without observing a parsel of those faithfull shepherds on their skirts in readiness to take care of the mamed [and] wounded. The large wolf never barks, but howls as those of the atlantic states do.

From the journals of the Lewis and Clark expedition

Name _____

Hour _____

Wolf and Elk Populations

Background Information:

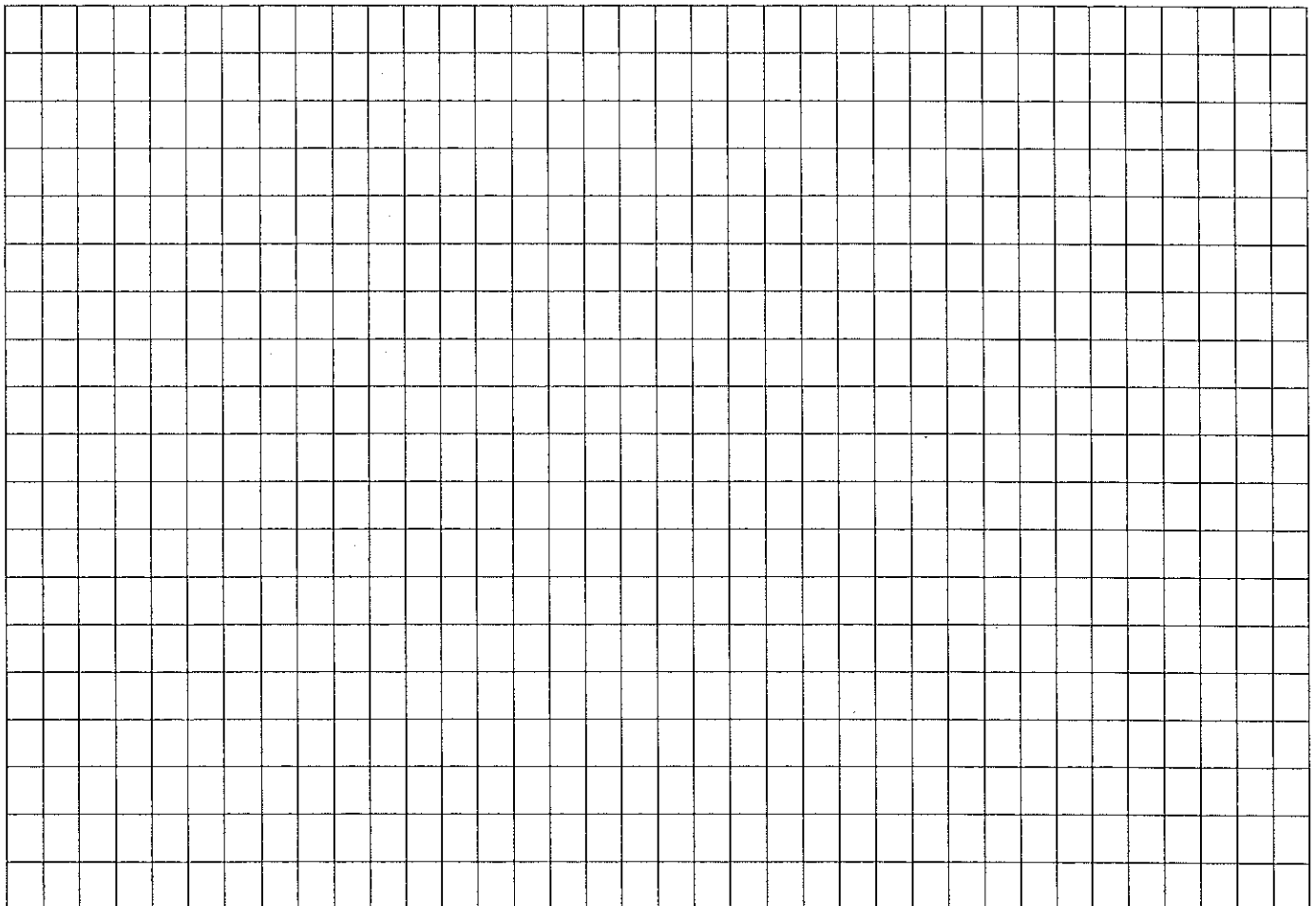
The gray wolf (*Canis lupus*) was exterminated from Yellowstone National Park by the 1940's. In 1994 gray wolves were reintroduced to the park. Elk are the primary prey for the wolves in the Yellowstone area. Below is data for wolf and elk populations.

Create a graph of Wolf and Elk Population in Yellowstone from 1994-2006. Put years on the x-axis and population on the y-axis

Population data:

Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Wolf Pop.	0	21	40	86	112	107	153	189	217	234	171	118	136

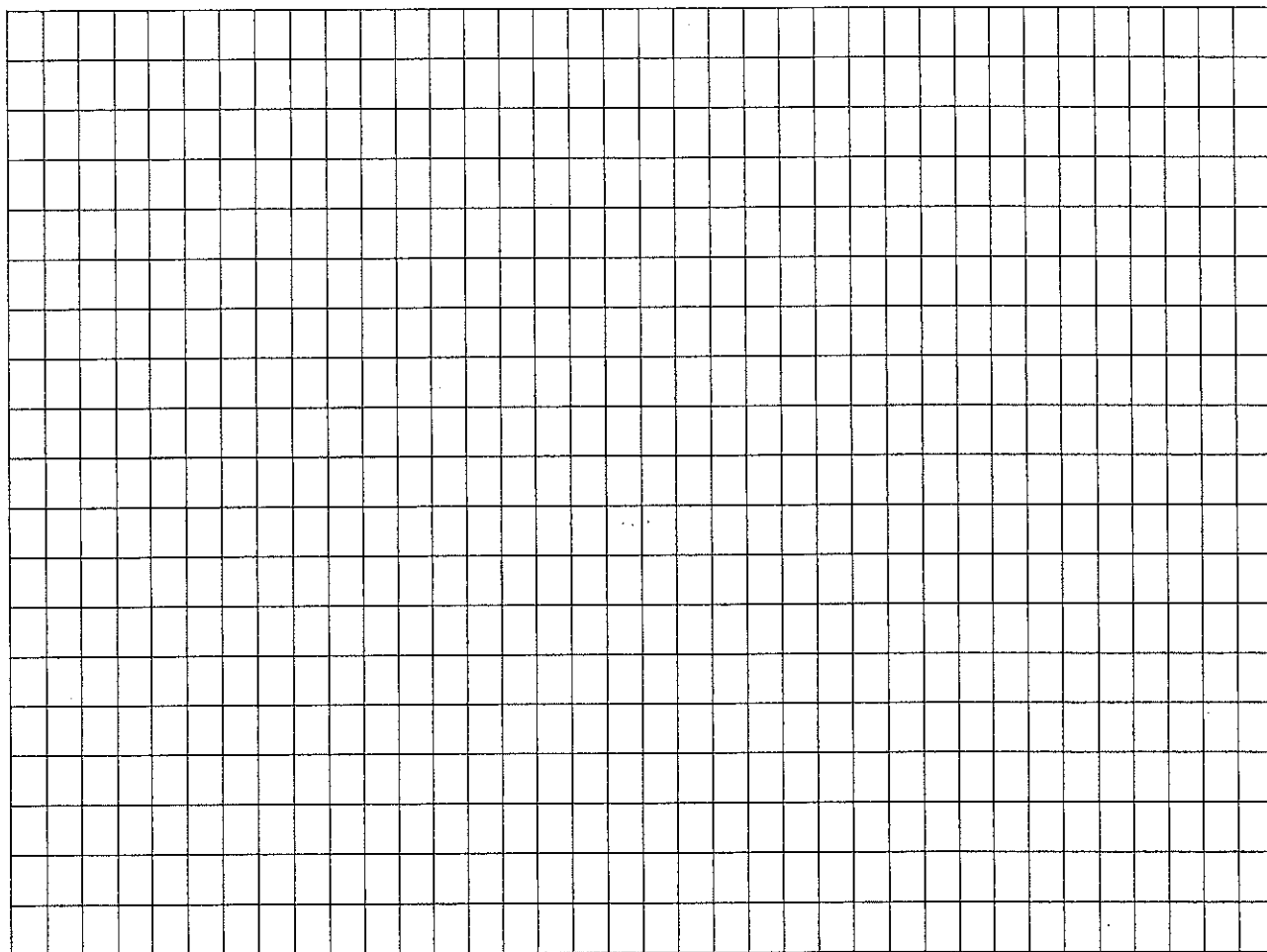
Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Elk Pop.	19,045	16,791	15,091	13,391	11,692	11,742	14,538	13,400	11,969	9,215	8,335	7,830	6,738



Create a graph of Elk Population in Yellowstone from 1994-2006. Put years on the x-axis and population on the y-axis

Population data:

Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Population	19,045	16,791	15,091	13,391	11,692	11,742	14,538	13,400	11,969	9,215	8,335	7,830	6,738



Name _____

Hour _____

Directions: Answer the following questions about your graphs on a separate sheet of paper. Use complete sentences.

Questions about the Wolf Population in Yellowstone graph:

1. What happened to the Wolf population?
2. What are some things that might limit the size of the wolf population?
3. What do you predict will happen to the wolf population between 2006–2016? Give reasons that support your prediction.

Questions about the Elk Population in Yellowstone graph:

4. What happened to the Elk population?
5. What do you predict will happen to the elk population between 2006–2016? Give reasons that support your prediction.

Comparing the graphs of wolf and elk populations:

6. Compare the two graphs to one another. Explain the relationship shown between the wolf and elk populations.
7. What could be a possible reason for the elk population to be on the decline?
8. Make a prediction of the population size for both the wolves and the elk in 2007 using your graphs.

Elk without wolves questions:

9. What happened to the elk population when wolves were not present from 1970–1994?
10. In 1980 and 1990 we saw a decline in elk populations. List 2 abiotic factors and 2 biotic factors that may have caused this.
11. If wolves were NOT reintroduced in Yellowstone what do you predict the elk population would be in 30 years (2024)? Explain your prediction.