

Stakeholder Activity

Stakeholder Group: Wilderness Advocates



For the stakeholder meeting, your group will represent Wilderness Advocates. Your job is to put yourself in the Wilderness Advocate's shoes and think about how wolf conservation affects them. To help you get started, we've put together some ARTICLES and other materials about Wilderness Advocates for you, which you will find in your **Wilderness Advocate Stakeholder Folder** available for free download on the Bear Trust website (<http://beartrust.org/gray-wolves-in-the-northern-rockies>). To ensure you have a solid understanding of the Wilderness Advocate perspective relative to wolf conservation, you may also need to do some additional research.

During the stakeholder meeting, there will be three goals:

- 1) Understand the different perspectives of each stakeholder**
- 2) Determine "common ground" among stakeholders**
- 3) Work together to identify issues and possible solutions, and provide input on how we can collaboratively move forward to ensure all stakeholder perspectives/goals are considered in our wolf conservation efforts**

To help with *Goal # 1*, each of the 6 stakeholder groups will give a 3-5 minute presentation about its stakeholder group at the beginning of the stakeholder meeting. You can use powerpoint, prezzi, or some other presentation format for your presentation. Feel free to use photos provided at the end of these instructions in your presentation.

For your 3-5 minute stakeholder group presentation, make sure to include AT LEAST the following information:

A. Describe the Wilderness Advocate perspective as it relates to wolf conservation. Remember that for many Wilderness Advocates, there is a belief that wilderness areas should be restored to their original state and protected. For many Wilderness Advocates, one objective is to "right the wrong" and put wolves back in the ecosystem because humans were the one who got rid of wolves in the first place. Some Wilderness Advocates just like knowing that wolves are alive in the wild.

Here's one ARTICLE and several website addresses that will help you get started. Read the following articles and go to the following websites:

- ARTICLE: "Ecological Benefits of Wolves"
How are wolves beneficial to ecosystems? Include in your presentation the fact that elk and wolves have evolved over time TOGETHER.
- Go to the "Howling for Justice" website:
<https://howlingforjustice.wordpress.com/tag/elk/>
In your presentation, summarize how this organization views the role of wolves in the ecosystem. This organization states that elk HAVE been affected by wolves. How?
- Go to the "Center for Biological Diversity" website:
http://www.biologicaldiversity.org/campaigns/gray_wolves/
In your presentation, include information about what this organization states regarding gray wolves in the US.
- Biology of gray wolves:
In your presentation, include the following information:
 - Wolves are the smallest large carnivore in relation to their prey. Wolves average 100 pounds and elk average 500-700 pounds.
 - Wolves are a coursing, or running predator. Unlike cougars, wolves succeed in killing animals they attempt to hunt only 15% of the time.
 - Unlike ungulates and many prey species, wolves are a self-regulating species. The US Fish and Wildlife Service writes on their website: "Wolves have lived with their prey for many thousands of years and the

health of wolf populations is dependent on the health of their prey base. Under certain conditions wolves can cause local decreases in prey numbers. But if deer and elk numbers were to decline over an extended period of time, due to severe winter conditions or habitat changes, wolves would have less food available and their health would decline. They would then produce fewer pups and fewer pups would survive to adulthood. Also, more adult wolves would die because of poor health or in conflicts with other wolves. Thus, wolf numbers would decline before their prey could be eliminated". In addition, at least one study in Yellowstone has shown that when wolves had more than enough food, they did not overpopulate because wolves started killing each other in territorial wars (Cubaynes et al. 2015).

B. Defenders of Wildlife is a wilderness organization (with a wolf in its logo!) that has participated in helping to address wolf-livestock conflict. For example, Defenders of Wildlife used their money to reimburse ranchers who lost livestock due to wolf kills. Defenders of Wildlife paid reimbursements to ranchers up until year 2009. At that time, each of the state wildlife agencies began their own reimbursement programs. Defenders of Wildlife also works to find non-lethal ways to reduce wolf-livestock conflict. Go to the Defenders of Wildlife website and read about some of their work:

<http://www.defenders.org/living-wildlife/gray-wolves>

C. In terms of reducing wolf-livestock conflict, many Wilderness Advocates point to the fact that livestock depredation by wolves is relatively low in the Rocky Mountain states. Look at Figure 4 from your "Student Pages Questions about Excel Data". In 2014 a total of 37 cattle were depredated. The number of cattle depredated has been higher, as in year 2009 when 97 cattle were depredated, but that's a small fraction of the estimated 2.5 million cows living in Montana (the estimate of the number of cattle comes from the Montana Stockgrowers Association). Even so, Wilderness Advocates recognize that even low depredations can be a hardship for a rancher who is hit hard or repeatedly.

Therefore, to help reduce wolf-livestock conflict, some Wilderness Advocates support the idea to make some public lands "off limits" to livestock grazing by ranchers. By doing so, this could create entire geographic areas where wolf-livestock conflict would no longer occur. This could reduce livestock depredation by wolves and save the lives of wolves. This may also provide more habitat for

elk and deer. People who support this strategy believe that wolves have a place in the environment; a place that should be protected from encroachment by livestock. Similarly, livestock has a place in the environment; a place that should be protected from encroachment by wolves.

Go to the "Center for Biological Diversity" website again, but this time visit the web page dedicated to domestic livestock allotments:

http://www.biologicaldiversity.org/programs/public_lands/grazing/index.html

In your presentation, show **Figure 3** from your "Student Pages_QUESTIONS about Excel Data" and let your class know that Defenders of Wildlife helped ranchers by reimbursing those who lost livestock to wolf predation. In 2009, the state wildlife agencies began their own reimbursement programs to reimburse ranchers for lost livestock.

In your presentation, describe some of the non-lethal strategies that can be used to help reduce wolf-livestock conflict.

HINT: look at Defenders of Wildlife website:

<http://www.defenders.org/living-wildlife/gray-wolves>

Make sure you also include the non-lethal strategy of making some public lands "off limits" to livestock and describe the low percentage of livestock depredation by wolves (HINT: to calculate the percentage of cattle depredated, calculate 37 cattle divided by 2.5 million cattle)

http://www.biologicaldiversity.org/programs/public_lands/grazing/index.html

D. In your presentation, include a copy of Figure 1 from your "Student Pages_QUESTIONS about Excel Data" and state whether Wilderness Advocates would like MORE wolves or FEWER wolves.

E. Go to Wilderness Society website: <http://wilderness.org/why>

In your presentation, tell your classmates who owns wilderness in the US. Also include the reasons why wilderness is important to this organization. Wolves and other top predators like grizzly bears often symbolize wilderness areas, why?

F. Go online and research how much of the Lower 48 states is still "wilderness". Include this information in your presentation.

G. Many Wilderness Advocates believe in a **Preservation Philosophy**. Many individuals of groups like hunters and ranchers believe in a **Conservation Philosophy**. Generally speaking, a concise definition of the two philosophies are:

Preservation = "no use" of natural resources

Conservation = "wise use" of natural resources

Most people who subscribe to a **Preservation** philosophy view the wolf from a co-existence perspective and do not use hunting. Most people who subscribe to a **Conservation** philosophy value hunting as an important conservation tool used by wildlife managers to help keep habitat and wildlife populations in balance.

There are more comprehensive definitions of **Preservation** and of **Conservation**, which can be found at the this website:

http://www.sustainable-environment.org.uk/Earth/Conservation_and_Preservation.php

In your presentation, present the two philosophies of Preservation and Conservation. Briefly describe the differences and the similarities between the two philosophies.

H. The "Hunter Stakeholder" group will tell the class that wolves compete with human hunters for elk and deer.

From a Wilderness Advocate perspective, you can tell the class that many human hunters target prey differently than do wolf hunters. Human hunters may take trophy elk with large antlers or large cow elk for good meat, while wolves generally select weakened, sick or compromised animals because wolves are smaller than their prey.

I. Bear Trust's executive director had a conversation with Dr. Doug Smith, Senior Wildlife Biologist and Yellowstone Wolf Project Leader. As a scientist who is also a Wilderness Advocate, Dr. Smith shared many insights about wolves in Yellowstone from a wilderness advocate's perspective, including:

- As the Wolf Project Leader in Yellowstone National Park, Dr. Smith's job is to PRESERVE natural systems.
- "Wolves are very social animals, social behavior is integral to their life history. Therefore, if an alpha wolf that lives 95% of the time inside Yellowstone happens to wander outside Yellowstone and is shot by a hunter, this loss can greatly upset the social functioning of the wolf pack".
- "The integrity of the wolf data can also be affected by losses due to wolf hunting. The success of Dr. Smith's research on wolves in Yellowstone

hinges on data collected from collared wolves. In 2012, 12 wolves that resided in Yellowstone 99.9% of the time were hunted at the boundary of Yellowstone National Park. Six of these wolves had research collars. The loss of these six wolves had negative impacts on the ability to conduct wolf research”.

- Dr. Smith believes that wolves need a place to live and it's important to restore and protect Northern Rocky Mountain systems.

Include information provided by Dr. Smith in your presentation.

J. The Hunter stakeholder will report that Hunters pay for wolf management and conservation through hunting fees, licenses, and tags. They also help pay for wolf management and conservation every time they buy a fire arm or ammunition because of the Pittman-Robertson Act, which is an 11% tax on firearms and ammunition. All of the Pittman-Robertson money is allocated to state wildlife agencies to help fund their wildlife management programs.

Do Wilderness Advocates fund wildlife conservation? Yes. Many Wilderness Advocates contribute funding to non-profit wildlife organizations. Some of these non-profit organizations use the funding to purchase wildlife habitat. For example, Vital Ground is a non-profit conservation organization that purchases grizzly bear habitat and facilitates conservation easements and protects these habitats from development. The habitat that is protected by Vital Ground is used by grizzly bears, and lots of other wildlife species including wolves. Go online and research how Wilderness Advocates contribute funding to wildlife preservation.

In your presentation, include information about how Wilderness Advocates help pay for wildlife preservation.

K. After you have put together your presentation, think about the issues that affect your stakeholder. After all groups have given their presentations, you will be working to identify common ground and then you will be discussing ISSUES. Be prepared to state one or more issues that affect your stakeholder during the Stakeholder Meeting.

References: Cubaynes, S., MacNulty, D.R., Stahler, D.R. Quimby, K. A., Smith, D. W., and Coulson, T. Density-dependent intraspecific aggression regulates survival in northern Yellowstone wolves (*Canis lupus*). 2014. *Journal of Animal Ecology*; 1344-1356.

PHOTO SECTION

Feel free to use these photos in your presentation
Photos provided courtesy of Shutterstock











ECOLOGICAL BENEFITS OF WOLVES



Wolves play a vital role in maintaining the health and sustainability of the landscape in the greater Yellowstone region and our western lands. They are a keystone species, one that has a disproportionate impact on its environment relative to its abundance. Since their return in 1995, wolves have benefitted this ecosystem by regulating prey numbers and movements—allowing streambank habitats to recover, reducing densities of coyotes, and providing food for scavengers.

The most recognized and well-documented ecological benefit of wolves is that they have resumed the important role of maintaining healthy wildlife herds in the northern Rockies by selecting young, old, physically impaired, or diseased animals.⁽⁵⁾ By reducing prey numbers, dispersing these animals on the landscape, and removing sick animals, wolves also may reduce the transmission and prevalence of wildlife diseases such as chronic wasting disease and brucellosis.⁽⁷⁾

In addition to improving the overall fitness of wildlife herds, wolves have also altered the behavior of their prey, leading to a cascade of beneficial effects on the landscape. In the absence of wolves, elk tended to browse heavily in the open flats along rivers and wetlands, since they did not need to evade predators by seeking thicker cover. Without fear of wolves, elk over-browsed the vegetation inhibiting the growth of new trees. Since the reintroduction of wolves in Yellowstone, elk spend more time in the safety of thick cover or on the move.⁽⁶⁾ As a result, riparian areas and aspen groves that had been suppressed by decades of over-browsing are regenerating, improving habitat for species like beavers and songbirds.⁽³⁾ Beavers, which create wetland habitats with their dams, have improved water quality in streams by trapping sediment, replenishing groundwater, and cooling water.

Species that rely on healthy riparian habitats and benefit from the presence of wolves in Yellowstone National Park include:

- Yellowstone cutthroat trout and other native fish
- Moose
- Waterfowl (ducks, geese, trumpeter swans)
- Songbirds (such as warblers, wrens, and thrushes)
- Small mammals (such as beavers, muskrats, and other rodents)
- Insects, amphibians, and countless other species^(3, 6)

WOLVES AND COYOTES

In the absence of wolves, coyotes became a top predator in the ecosystem, but they are not large enough to regulate elk, deer, and moose populations.⁽²⁾ The return of the wolf restored a natural complement of predators to northwest Wyoming and returned the coyote to its role as a mid-level predator. Wolves will kill coyotes and outcompete them at kill sites. Coyotes also prey heavily on pronghorn fawns.



Since wolves returned to the landscape, pronghorn populations have increased in northern Yellowstone as a result of declining coyote populations and densities.⁽¹⁾

WOLVES AND SCAVENGERS

Scavengers, such as ravens, eagles, and bears, also benefit heavily from the return of wolves. Wolf kills provide scavengers with an important source of protein, particularly in winter. Twelve species of scavengers are known to visit wolf kills in Yellowstone National Park.⁽¹⁰⁾ Ravens are especially attuned to wolves and may fly over wolf packs as they pursue prey, allowing them quick access to wolf kills. In turn, wolves may benefit from ravens by following them to carcasses that can feed both species.⁽⁸⁾

Prior to the reintroduction of wolves, scavengers were more dependent on animals that died due to harsh winters. Since snow is thawing earlier as a result of a warming climate, there are fewer winter kills available for scavengers. Wolf kills may help buffer the impacts of climate change for scavengers by providing them with a food source in the winter.⁽⁹⁾

CONCLUSIONS

The return of the wolf to Wyoming has had significant ecological benefits in a relatively short period of time. Ecological concerns contributed to the decision to return wolves and should play a role in how states manage this keystone species. Although it is easy to focus on the perceived negative impacts of wolves, it is important to recognize the actual benefits they provide to our ecosystem. By regulating wildlife herds and reducing the prevalence of diseases, revitalizing riparian areas, reducing coyote densities, providing food for scavengers, and indirectly improving conditions for a host of other species, wolves play an essential role in maintaining the ecological health and integrity of the landscape.



For more information visit www.westernwolves.org

- (1) Berger, K.M., E.M. Gese and J. Berger. 2008. Indirect effects and traditional trophic cascades: A test involving wolves, coyotes, and pronghorns. *Ecology* 89:818-828.
- (2) Berger, K.M. and E.M. Gese. 2007. Does interference competition with wolves limit the distribution and abundance of coyotes? *Journal of Animal Ecology* 76:1075-1085.
- (3) Cooke, H.A. and S. Zack. 2008. Influence of beaver dam density on riparian areas and riparian birds in shrub steppe of Wyoming. *Western North American Naturalist* 68: 350-364.
- (4) Halofsky, J.S., W.J. Ripple and R.L. Bestcha. 2008. Recoupling fire and aspen recruitment after wolf reintroduction in Yellowstone National Park, USA. *Forest ecology and management* 256(5):1004-1008.
- (5) Mech L.D., D.W. Smith, K. M. Murphy, and D. R. MacNulty. 2001. Winter severity and wolf predation on a formerly wolf-free elk herd. *Journal of Wildlife Management* 65:998-1003.
- (6) Ripple, W.J. and R.L. Bestcha. 2006. Linking wolves to willows via risk-sensitive foraging by ungulates in the northern Yellowstone ecosystem. *Forest ecology and management* 230(1-3):96-106.
- (7) Smith, B.L. 2005. Disease and Winter Feeding of Elk and Bison: A Review and Recommendations Pertinent to the Jackson Bison and Elk Management Plan and Environmental Impact Statement.
- (8) Stahler, D.R., B. Heinrich and D.W. Smith. 2002. Common ravens, *Corvus corax*, preferentially associate with grey wolves, *Canis lupus*, as a foraging strategy in winter. *Animal Behaviour* 64(2):283.
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- (10) Wilmers, C.C., D.R. Stahler, R.L. Crabtree, D.W. Smith and W.M. Getz. 2003. Resource dispersion and consumer dominance: scavenging at wolf- and hunter-killed carcasses in Greater Yellowstone, USA. *Ecology Letters* 6:996-1003