Managing Idaho’s Predators: The Goal is Reduction Not Elimination

Idaho Fish and Game recently published a brochure outlining and explaining its predator management policy. Managing wildlife is complex, with many factors to be considered. Predator control is only one of many tools Fish and Game wildlife managers use.

The law requires Fish and Game to manage all wildlife, including predators; the law also requires Fish and Game “to preserve, protect and perpetuate populations for hunting, fishing and trapping.”

Sometimes that means controlling predator numbers.

When game numbers drop below objectives and regulated harvest of predators is not adequate, biologists may take a more aggressive approach, guided by a predation management plan.

Fish and Game biologists study all the possible causes of declining game numbers. They look at the quality and quantity of habitat, weather, the health and reproductive rate of the game animals, harvest levels and the impacts of predators. They then undertake the actions most likely to increase game numbers.

Management options include:

• Habitat Improvement – In some cases, habitat improvement involves prescribed fire, noxious weed control and vegetative plantings to generate new growth and provide food and cover for game animals. Fish and Game also collaborates with federal and state agencies, counties and private landowners to promote similar habitat improvement.

• Changes in Hunting Seasons – If hunting pressure is the cause of a population not meeting management goals, wildlife managers may alter seasons or impose harvest quotas. This includes managing hunter use of off-highway vehicles during hunting season to improve habitat effectiveness and reduce harvest vulnerability.

• Liberalize Trapping, Hunting Regulations – Hunting and trapping are important tools to manage predation. Where excess pressure from predators push the decline of game populations, managers offer longer seasons, higher bag limits, reduced tag prices or more opportunities to hunt or trap predators.

When evidence shows predators are limiting game numbers, biologists develop and follow a predator management plan.

A single approach is unlikely to satisfy everyone. Fish and Game uses different strategies in different parts of the state to provide for different values, demands and circumstances. Fish and Game uses regulated hunting, fishing and trapping when feasible to resolve predator conflicts with people or reduce their impacts on game populations. Some situations, however, call for more direct control methods.

Managers resort to predator control actions when regulated hunting, fishing or trapping are not enough to reduce predator populations enough to resolve conflicts or reduce impacts on game populations.

Predator control actions may be used:

• In areas where game populations are fragmented or isolated, or where introductions or transplants of potentially vulnerable wildlife have occurred.

(Continued inside)
In areas where evidence shows predators are a significant factor in game numbers not meeting managers’ expectations.

In wildlife management areas, especially those managed primarily to provide for production of species, critical winter range and areas acquired and managed to help mitigate for wildlife losses elsewhere.

Nonlethal actions are not always feasible. Biologists use a variety of nonlethal predator controls, including capturing and relocating bears, mountain lions and wolves.

Despite some successes, removing live animals for release in habitats already occupied by the same species often creates additional problems. These techniques are difficult and generally ineffective when predators are limiting game populations. Fish and Game considers the costs and potential benefits before starting any control action.

Predator control often involves removal of animals, but the intent is not to eliminate predators. Fish and Game’s long-term intent is to reduce predator numbers enough to allow increased game numbers, increased harvest opportunities, and to maintain viable populations of all wildlife, including predators. Fish and Game does not support contests or bounties on predators, that portray hunting in an unethical light, devalue the predator and may be offensive to the public.

Controversy will always surround predation management. It is complex and involves balancing diverse interests using biological and social considerations. Left unmanaged, predators and prey are likely to cause private property damage and have significant economic impacts. Unmanaged wildlife populations can also result in increased disease transmission, declines in habitat, food sources, and reduction of hunting, fishing and trapping opportunities.

Fish and Game has a long history of managing predator and game species. Populations of bears, mountain lions, wolves, mule and white-tailed deer, elk, moose, turkeys, and many other species are higher today than 75 years ago. The agency will continue to manage Idaho’s wildlife, with healthy populations, sustainable harvests and conservation as our guiding principles.

Want to know more?

An example of a predation management plan is available at http://fishandgame.idaho.gov. Click on “Wildlife,” then “Wildlife Plans,” and scroll down to the link on “Predation Management Plan for the Lolo and Selway Elk Zones.”

Predation management actions will be based on the best available scientific information. Predators will be managed to minimize adverse impacts on other wildlife populations, minimize conflicts, and to ensure Idahoans continue to have healthy game populations for hunting, fishing, trapping and viewing.

Guidelines for determining whether predator management activities can be expected to increase mule deer numbers (adapted from Ballard et al. 2003).

<table>
<thead>
<tr>
<th>Increased deer numbers likely</th>
<th>Increased deer numbers unlikely</th>
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</thead>
<tbody>
<tr>
<td>Deer population below carrying capacity</td>
<td>Deer population near carrying capacity</td>
</tr>
<tr>
<td>Predation identified as a major cause of mortality</td>
<td>Predation not identified as a major cause of mortality</td>
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<tr>
<td>Predator management efforts can result in a significant decline in predator numbers (e.g., at least 70 percent of existing coyote population)</td>
<td>Predator management efforts unlikely to achieve a significant reduction in predator numbers</td>
</tr>
<tr>
<td>Predator management efforts timed just prior to predator or prey reproductive periods</td>
<td>Predator management efforts haphazardly scheduled throughout the year</td>
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<tr>
<td>Predator management efforts focused on a small area (generally less than 400 square miles)</td>
<td>Predator management efforts scattered over large areas</td>
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(Source: Idaho Mule Management Plan)
Managing predators to increase mule deer populations is a complex and sensitive issue.

Predator removal is often popular with hunters, but it may have little or no effect on mule deer populations if efforts are not well focused.

Mountain lion predation can affect sensitive and localized mule deer herds, but effects on the mule deer population may be negligible.

Biologists identify the effect predation has on the herd by whether or not the animal was likely to die of other causes.

For example, a mule deer fawn in poor physical condition killed by a coyote during winter would not add to the total mortality in the herd, because the fawn likely would have died from malnourishment anyway. In this example, death from predation replaced starvation, because the odds of survival were stacked against the fawn because of poor health.

When the habitat is near its capacity to feed the deer population, more animals are likely to be in poor health. Reducing one source of mortality will simply result in an increase in another source, such as starvation, with no net decrease in total mortality. Applying predator control under such conditions would result in few benefits to prey populations.

Conversely a healthy doe killed in a vehicle collision or by a predator would have a negative effect on the population. The doe would likely have survived, if healthy, instead the death of the doe increased the total mortality in the herd.

The further a population is below carrying capacity, the more likely predation is to increase total mortality.

Predator control under those conditions would generally increase prey survival and population numbers.

Idaho studies show that predators of mule deer include mountain lion, black bear, gray wolf, coyote and bobcat, with mountain lions and coyotes are considered the primary predators of mule deer in the state.

Coyote removal may have little effect on the mule deer population. To be effective, control measures must be well timed and focused in a specific area. For example, the first two months of a mule deer’s life is a critical time for survival.

To have the greatest effect on fawn survival, coyotes should be removed before and during the fawning period in the appropriate areas.

Over a five-year period beginning in 1997, Mark Hurley and other Fish and Game biologists studied the effects of increased harvest rates on coyotes and mountain lions in southeastern Idaho.

Mule deer are not the primary prey of coyotes, which prefer small mammals. The degree to which coyote predation added to total mortality was influenced by alternate prey and weather conditions. During periods of low rabbit and rodent populations and mild winter, coyote predation added to the total mortality.

Coyote predation on newborn fawns during summer was offset by increased malnourishment during winter, resulting in losses to coyotes largely having little added effect on total mortality in the mule deer population.

In southeastern Idaho, mountain lions’ primary prey species is mule deer, and their effect on mule deer numbers is less dependent on alternate prey abundance.

Mountain lion predation of mule deer in southeastern Idaho has a more negative effect on the population. Removing mountain lions resulted in slight population increases during the most intense mountain lion removal periods.

While applying predator control may appears simple, results are complicated by other dynamic factors, including forage and cover conditions, weather, alternate prey abundance, deer physical condition and vulnerability to predation.

Under some conditions, one source of mortality would simply replace another, while adding mortality under another.

The relative degree to which predation on mule deer affects population levels varies considerably. Though we may understand when predator management can be used to increase deer populations, predicting when those conditions occur is often like predicting the weather.
2011-2012 Wolf Hunting and Trapping Seasons Summary

Idaho has invested in studies to examine the effects wolves may have on elk, deer and moose populations. Wolves have affected these populations in some areas of the state (see Idaho Fish and Game News, August 2010).

The Idaho Fish and Game Commission is committed to reducing the effects of wolf predation with regulated hunting and trapping seasons, and many people have requested an update. The 2011-2012 wolf hunting and trapping seasons are now closed. Hunters and trappers harvested a total of 376 wolves during the season.

Wolf Hunting Seasons
Wolf hunting seasons opened on August 30, throughout the state. Hunters could buy two wolf hunting tags per calendar year. Harvest limits were established for five of the 13 wolf management zones (Salmon, Sawtooth, Southern Mountains, Beaverhead, Island Park).

The wolf harvest season closed December 31, 2011, in the Island Park and Beaverhead wolf management zones, and the season closed on February 19 in the Southern Mountain wolf management zone when the harvest limit was met. The hunting season closed in the Panhandle, Palouse-Hells Canyon, Dworshak-Elk City, Middle Fork, Salmon, McCall Weiser, Sawtooth, and Southern Idaho wolf zones on March 31, and closed June 30 in the Lolo and Selway wolf management zones.

Hunters could purchase two wolf hunting tags per calendar year. Hunters purchased 32,273 wolf tags for 2011 and more than 13,000 so far in 2012. Hunters killed 252 wolves during October, and hunters and trappers combined took 70 and 69 wolves in January and February, respectively. Game management units 1 and 10A were the most productive units for hunters and trappers.

Twenty-eight wolves were harvested in Unit 10A and 27 wolves were harvested in Unit 1.

Two individuals harvested five wolves, one harvested six wolves, and one particularly successful trapper took seven wolves.

2012-2013 Wolf Harvest Seasons
The 2012-2013 wolf hunting season opened July 1 on private land only in the Panhandle wolf management zone. The season opens throughout the state on August 30, and trapping season will open November 15 in some game management units in 6 wolf management zones.

Up to five wolf hunting tags and five wolf trapping tags may be used in some wolf management zones.

The new wolf hunting and trapping seasons and rules are posted on the Fish and Game website at: http://fishandgame.idaho.gov/public/docs/rules/bgWolf.pdf, and are available in the 2012-2013 Big Game Seasons and Rules brochure.

Wolf Trapping Seasons
Idaho opened its first wolf trapping season November 15, 2011 – March 31, 2012 in the Lolo, Selway, and Middle Fork wolf management zones and portions of the Panhandle (excluding game management units 2 and 3) and Dworshak-Elk City (excluding Unit 10A) wolf management zones. The trapping season in Unit 10A opened February 1 and ran through March 31.

Individuals interested in trapping wolves were required to first attend a wolf trapper education class before buying wolf trapping tags. Fish and Game conducted 41 wolf trapper education classes around the state.

Classes were about eight hours long and focused on ethics, regulations, avoiding nontarget captures, equipment selection and trapping and snaring techniques. About 967 individuals were certified to trap wolves.

Certified trappers could buy up to three wolf trapping tags per trapping season. Two-hundred fifty-four wolf trappers purchased 528 wolf trapping tags for the 2011-2012 trapping season. Trappers harvested 124 wolves during the season.

Other statistics
October, January and February were the most successful months for wolf harvest. Hunters took 68 wolves during October, and hunters and trappers combined took 70 and 69 wolves in January and February, respectively. Game management units 1 and 10A were the most productive units for hunters and trappers.

Twenty-eight wolves were harvested in Unit 10A and 27 wolves were harvested in Unit 1.

Two individuals harvested five wolves, one harvested six wolves, and one particularly successful trapper took seven wolves.