
HUNTING MONTANA'S WOLVES

BY JAY MALLONEE



THOSE WHO CAN MAKE YOU BELIEVE ABSURDITIES CAN MAKE YOU COMMIT ATROCITIES.

Voltaire

IN MONTANA, A CENTURIES-OLD tragedy has unfolded, based on bigotry and hatred toward wolves. It is fueled by spurious statistics tailored to provide a rationale for why these animals should die. In this case, by public wolf hunts. The 2011 hunt is currently underway with a quota of 220 wolves. It is overseen by Montana Fish, Wildlife and Parks (FWP), the state agency responsible for collecting data about wolves. Their findings are published in the U. S. Fish and Wildlife Service's annual reports. This is public information that anyone can access, so I did.

FWP has stated that wolf hunts are based on science and cited two justifications for eliminating wolves: increasing levels of wolf-livestock conflicts, and concerns about the status of some deer and elk populations where wolves and other predators exist. From a scientific perspective, I reviewed FWP's data and demonstrated that their claim of science-based hunts was not true. For the full analysis, a PDF (portable document file) of this scientific paper can be downloaded for free at www.wolfandwildlifestudies.com.

Is FWP Information Based on Science?

To understand what I found, a

quick lesson in population dynamics is necessary. Populations of living organisms change over time, involving four basic components: births (b), deaths (d), immigration (i), and emigration (e). The overall equation is represented as:

$$\text{growth rate} = (i - e) + (b - d)$$

During 2009, for example, a total of 804 wolves apparently existed in the state at various times, but not all at once. As some were born or joined the population from other places (immigration), others died or left the population, i.e., dispersed (emigration). The wolves remaining in December are viewed as a "working" number by FWP and represent the minimum number of wolves for that year. The problem is how wolves are counted. Data collection is crucial because analysis can only be as good as the quality of data collected. Therefore, a scientific approach is necessary.

When I contacted FWP about their data-collection methods, I was told, "Jay, there are no protocols. No protocol would be necessary—or even help, really."

In the scientific world, this statement would be unacceptable. Science, therefore, was never used to gather the most basic components of investigation: data. Instead, FWP has relied

heavily on opportunistic and anecdotal information from the public, i.e., hunters, and aerial monitoring of a few radio-collared wolves, or whatever information FWP can gather throughout the year. Using such techniques has produced inaccurate and questionable information for the annual reports.

In 2009, the year began with 497 wolves. For various reasons, however, wolf populations change throughout the year. Management and hunting removed 280 wolves. This dropped the population to 217 animals. FWP claims, however, that 307 wolves were added to the population to reach the 2009 December total of 524 wolves ($524 - 217 = 307$), through births and immigration. Although immigration data were not provided, the number of births reported was 166, so 141 wolves must have immigrated into the population from another state or Canada ($307 - 166 = 141$).

Because wolves are constantly on the move, immigration numbers are virtually impossible to collect and are missing from the annual reports. Even emigration numbers are based on only a few radio-collared wolves and undoubtedly are not representative of the entire population.

So where did 141 wolves come from? I do not mean that literally—as

in Canada or neighboring states—but rather it is the number itself, 141, that is in question. This is because all four components of population growth would need to be known for an accurate assessment of wolf population numbers. Emigration is a guess and immigration is completely unknown.

Together, they are half of the equation to determine the total number of wolves in the state. There is no justification at all for factoring in the extra 141 wolves. This number is just assumed in the annual report and never mentioned. FWP's immigration claim makes no sense because there are no verifiable data to demonstrate its validity.

The numbers for 2008 and 2010 show the same trend. The population numbers provided by FWP do not add up, and the number provided for the total wolves in Montana is blatantly wrong. By default, other management decisions based on this number are also flawed. This matches the way in which the majority of the data are collected: opportunistic and without scientific protocol.

The hunting quotas, therefore, are arbitrary, and to claim that wolf hunts are based in science is a falsehood.

FWP Justifications For Killing Wolves

Depredation is the term used by

biologists when predators kill domesticated livestock rather than their natural prey. In 2009, ninety-seven cattle were lost to wolves. Statistics from the U. S. Department of Agriculture show that 2.6 million cattle, including calves, live in Montana. Ninety-seven out of 2.6

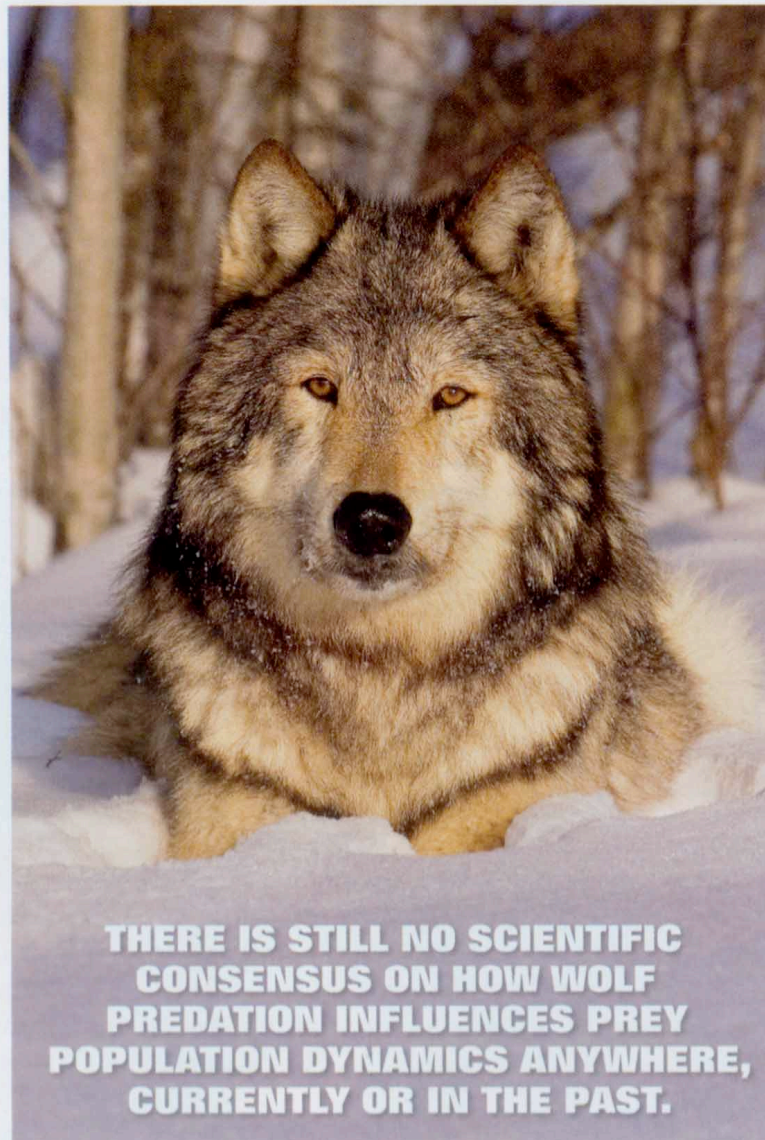
percent of the western cattle population, were killed by wolves.

Similar low percentages apply to sheep. Wolves were documented to have killed 0.6 percent of these animals. In 2009, therefore, wolves were responsible for about 0.06 percent of total livestock loss. Even if 1,000 cattle were reported for 2009, this would only be 0.2 percent or less of the cattle in western Montana killed by wolves.

The “potential” threat to prey populations, specifically elk, has been used as another reason to kill additional wolves each year. No data are available to support this contention. In Montana, prey population numbers are not measured annually. So from year to year, as population numbers vary, it remains unknown how many deer, elk, and moose are really in the environment. In northwest Montana, no relevant research has been conducted to determine the effects wolves have on wild prey populations. Some elk populations, however, have been studied in southwest Montana and Yellowstone

National Park. This research concluded that wolves at best had mixed impacts on these herds: some herds declined, some increased (southwestern Montana), and others showed little or no effect from wolves.

There is still no scientific



million is only 0.004 percent.

To be fair, these cattle are not evenly distributed across the landscape. Western Montana, where the wolves live, has fewer cattle than on the east side of the state. As of 2009, there were 494,100 cattle there. Yet only 97 of these animals, or 0.02

consensus on how wolf predation influences prey population dynamics anywhere, currently or in the past. This is because of unpredictable environmental conditions, such as colder than normal winters, heat spells, disease, predation effects of other predators, and the interactions among all species in the environment which science does not yet fully understand. Therefore, without research in specific areas, such as the elk studies, the influence of wolves remains unknown.

Double Talk

Even worse than flawed data are some of the statements made by FWP officials. In 2010, after a wolf hunt had been planned (and subsequently cancelled, after the wolves were returned to the Endangered Species List), a news release on FWP's website had Ken McDonald, FWP's chief of wildlife, stating that a harvest quota of 186 wolves would likely reduce the wolf population by about 13 percent to a predicted 439 wolves by the end of 2010.

Okay, let's work through the logic of that statement.

For the moment, ignore the 13 percent. If 186 wolves were killed, leaving 439 wolves, then there must have been a total of 625 wolves (439 + 186) to begin with. However, wolf population numbers change throughout the year, as explained

previously. In the annual report, the total number of wolves for Montana in 2010 was 754, and there were 566 by the end of the year. If 186 wolves had actually been removed, that would have been 25 percent of the total number of wolves. McDonald stated, however, that 186 wolves

476 wolves (566–90) by December, because the extra 90 wolves were fabricated. If there had been a wolf hunt in 2010, FWP would have killed 25 percent of the population (186) in addition to the usual factors that remove wolves (188 were listed in the annual report). Therefore, the

total number of wolves gone would have been 374 (188 + 186), or 50 percent of the reported total population of 754 wolves. But all is well because apparently there were really 1,430 wolves, right?

If your brain exploded that is because FWP's numbers do not make sense; nor does their rhetoric. Their own numbers disprove their justifications for hunting wolves. Had my college students come up with data like this at the end of a semester long project, they would have flunked the assignment. It is difficult not to arrive at one of two conclusions: either FWP is incompetent, or they are manipulating numbers.

Premeditated or not, hunting wolves caters to bigotry and hatred, because there is no real justification for killing these animals.

What You Can Do

After publication of my paper, I contacted FWP and asked them how they could make management decisions about wolves using such flawed data. Although my email exchanges ranged throughout the FWP hierarchy, no one answered my questions. I have posted these exchanges on my website to give you an idea of the evasive tactics used and disregard of science by FWP. I also explain who these people are and provide email addresses. You can help by contacting FWP directly and asking your own questions or demanding answers to the ones posted on my website. A good place to begin is to contact the following people:

Joe Maurier
FWP Director, jmaurier@mt.gov

Mike Volesky
Policy Advisor to the Governor
MVolesky@mt.gov

Jim Williams
FWP Wildlife Program Manager
jwilliams@mt.gov

Kent Laudon
Wolf Management Specialist, klaudon@mt.gov

represented 13 percent of the wolf population. That would mean there were 1,430 wolves, not 754.

Further, my published paper demonstrated that 90 unaccounted-for wolves immigrated into the population to reach the 566 year-end total. So really, there were only

From post-traumatic stress in a captive wolf to breaching whales in the Bering Sea, Jay Mallonee has studied the behavior of numerous animals. Through his business of Wolf and Wildlife Studies, he has researched the Fishtrap pack in northwest Montana for a decade and has written several scientific publications. Jay also wrote *Timber—A Perfect Life*, an account of his sixteen-year relationship with a profound canine companion.