

Montana 2016 Wolf Information Summary for the Commission June 7, 2017

In 2011 the FWP Commission adopted seven measurable wolf management objectives:

1. Maintain a viable and connected wolf population in Montana.
2. Gain and maintain authority for State of Montana to manage wolves.
3. Maintain positive and effective working relationships with livestock producers, hunters, and other stakeholders.
 - 4a. Reduce wolf impacts on livestock.
 - 4b. Reduce wolf impacts on big game populations.
 - 4c. Maintain sustainable hunter opportunity for wolves.
 - 4d. Maintain sustainable hunter opportunity for ungulates.
5. Increase broad public acceptance of sustainable harvest and hunter opportunity as part of wolf conservation.
6. Enhance open and effective communication to better inform decisions
7. Learn and improve as we go.

To meet these objectives FWP monitors the population, regulates harvest, addresses conflicts proactively and reactively, does research and other wolf-related activities. The following information relates to those efforts and is summarized from FWP's 2016 Wolf Conservation and Management Report and other sources.

Wolf Numbers, Packs and Breeding Pairs

The minimum number of Montana wolves reported in FWP's 2016 report will no doubt be the subject of discussion because it is lower than it has been for the last three years. We have been trying for the last several years to make people understand that the minimum number is not an accurate estimate of Montana's wolf population. Many years ago, when there were far fewer wolves, we could reasonably keep track of them. But because there are so many more wolves now we cannot possibly count them all, and we don't really try. During 2016, FWP's minimum count goal was to verify the presence of at least 150 wolves and 15 breeding pairs as required by the state management plan. *Our goal was not, as it had been in the past, to attempt to count every pack, wolf, and breeding pair.* Montana's wolf population is healthy, well distributed, genetically connected, well managed, and causing far fewer conflicts than previously. Montana's wolf management is a real success story.

Wolf population numbers are reported for the calendar year. The Montana minimum wolf count on December 31, 2016 was 477 wolves in 109 packs with at least 50 breeding pairs. This compares to the 2015 minimum count of 554 wolves in 126 packs with 32 breeding pairs.

A much better way to estimate wolf numbers is a method we have been working on and refining called *Patch Occupancy Modelling*, or POM. POM estimates of wolf population size have proven to be highly correlated with independent, historical minimum counts of wolves and are therefore the preferred monitoring method due to accuracy, confidence intervals, and cost efficiency (Figure 1).

The most recent POM estimate for wolf population size was 892 wolves in 2014, 61% higher than the minimum count for that year. Data have been gathered for 2015 and 2016 POM estimates, and analysis will take place during summer 2017. FWP is currently working with the University of Montana to refine POM by incorporating contemporary data on territory and pack sizes using improved collar technology. When this work is finished we will only be reporting POM estimates of Montana's wolf population. During the 2016 field season FWP field staff focused on radio-collaring wolves, and these hard-working men and women collared 40 animals.

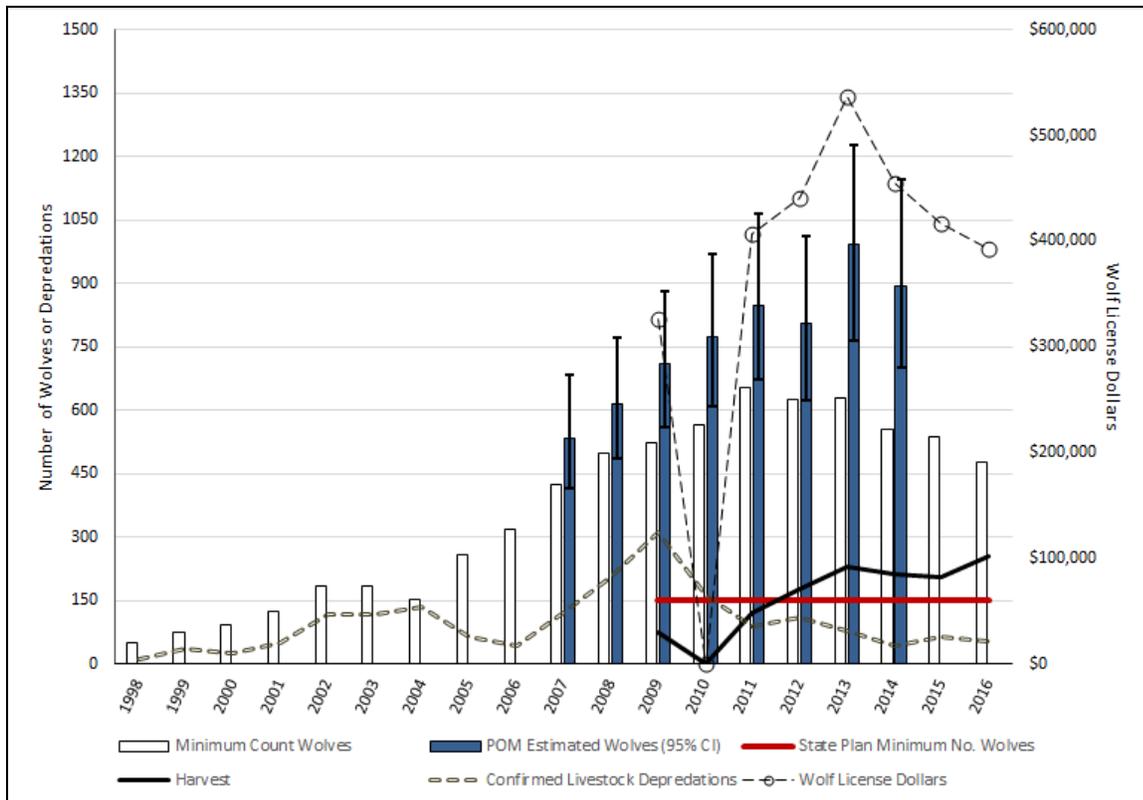


Figure 1. Minimum number of wolves in Montana and Patch Occupancy Modeling estimate (with 95% CI) in relation to state wolf plan requirements and trends in wolf harvest, livestock losses to wolves, and total dollars from wolf hunting licenses, 1998 – 2016.

2016 Wolf Harvest

It is important to note that the wolf harvest reported below is for the wolf season, which spans parts of two calendar years. Wolf population numbers reported above were for the calendar year. At the close of the 2016-17 wolf season on March 15, 2017, the harvest was 246, 163 taken by hunters and 83 by trappers (Table 1). This is the highest harvest to date, but only 16 higher than the 230 harvested in 2013-14 (Table 2). Since trapping was begun in 2012 it has averaged 38% of the harvest.

Table 1. Montana wolf harvest during the 2016-17 hunting/trapping season.

Time	Harvest	Wolves per day
Wolf archery season 9/1-9/14	1	0.1
Wolf rifle season but before deer/elk rifle season 9/15-10/21	43	1.2
During deer/elk rifle season 10/22-11/27	65	1.8
By hunters from end of deer/elk season, 11/28, to 2/28	42	0.5
By trappers 12/15-2/28	83	1.1
Hunters and trappers combined 11/28-2/28	125	1.3
By hunters from 3/1-3/15	12	0.8
Total	246	

Table 2. Montana wolf harvest, 2009-10 to 2016-17.

Season	Hunter	Trapper	Total
2009-10	72		72
2010-11	No Season		
2011-12	166		166
2012-13	128	97	225
2013-14	143	87	230
2014-15	130	76	206
2015-16	134	76	210
2016-17	163	83	246

Wolf Conflicts

Objectives 3 and 4a for Montana’s wolf management above speak to maintaining positive and effective working relationships with livestock producers and reducing wolf impacts on livestock. Montana’s wolf management in this regard has been successful as measured by the number of wolf-related complaints, which have declined considerably since the peak in 2009 when the first hunting season was initiated (Figure 2). Although the relevant figure is not reproduced here, livestock loses of cattle and sheep to wolves show a similar trend. In 2016 Wildlife Services confirmed 52 cattle and 5 sheep killed by wolves statewide, similar to 2014 and 2015 numbers. These do not account for “missing” livestock and suspected wolf predation.

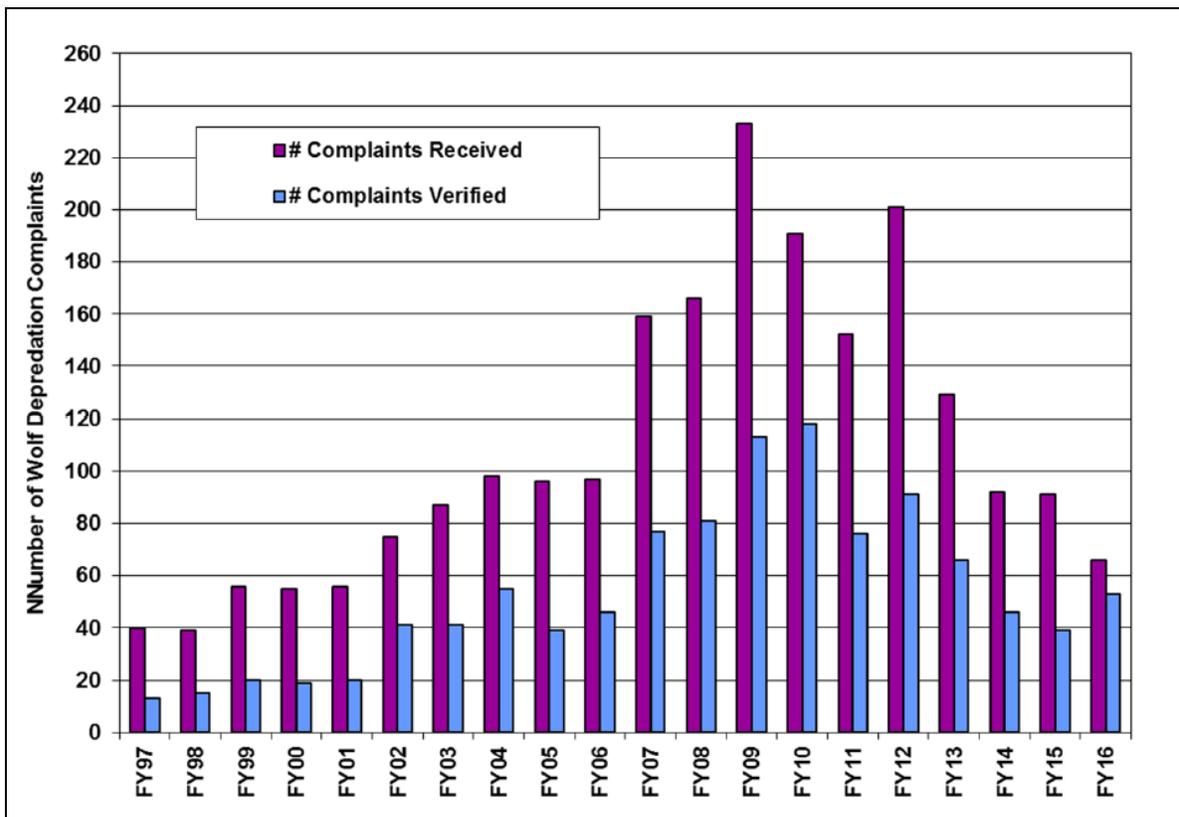


Figure 2. Number of suspected and verified wolf damage complaints received by USDA Wildlife Services, Federal Fiscal Year 1997-2016.