

Oregon Wolf Conservation and Management 2013 Annual Report



This report to the Oregon Fish and Wildlife Commission presents information on the status, distribution, and management of wolves in the State of Oregon from January 1, 2013 to December 31, 2013



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EXECUTIVE SUMMARY

Gray wolves (*Canis lupus*) in Oregon remained listed statewide as endangered under the Oregon Endangered Species Act (ESA). Wolves occurring west of Oregon Highways 395/78/95 continued to be federally protected as endangered under the federal ESA.

Oregon's wolf population increased in both distribution and abundance in 2013 and at year-end the minimum wolf population was 64 wolves in 8 packs. Four packs met the criteria as breeding pairs. All known wolf packs occurred in Baker, Union, Umatilla, and Wallowa, Counties. This marks the second year that the conservation population objective number (4 breeding pairs in eastern Oregon) as defined in the Oregon Wolf Conservation and Management Plan (OWP) was reached.

Eight wolves were captured and collared in 2013, including three incidental captures. At year-end approximately 19% (n=12) of the population was radio-collared in 5 (63%) of the known packs. One radio-collared wolf dispersed out of state. Three mortalities were documented in 2013. Two wolves within the Wenaha pack were found to have died from parvovirus, the first for Oregon. An un-collared male wolf was found dead on December 5 near Tollgate, OR. The latter incident is under investigation by the Oregon State Police

Depredation of livestock increased during the year and 13 incidents of wolf depredation by 3 packs were confirmed. Per the OWP, the Oregon Department of Fish and Wildlife (department) and area producers implemented non-lethal measures to minimize depredation. The department continued to operate the automated wolf notification system for livestock producers and more than 83,000 messages were sent to producers in 2013.

The Oregon Department of Agriculture's compensation program awarded \$62,820 in 7 counties in 2013. Most funds were used for preventative measures and secondarily for direct payment of confirmed depredations.

The lawsuit preventing lethal control of wolves in Oregon was settled in May 2013. The settlement ultimately resulted in the adoption of new Oregon Administrative Rules which guide the management of wolf-livestock conflicts during Phase I of the OWP by regulating the conditions under which lethal take of depredating wolves may be authorized by the department. The new rules place a higher emphasis on non-lethal measures and increased public transparency. The 2013 legislature also passed legislation (HB 3452) which authorized agency take of endangered wolves in specific circumstances, and increased flexibility of producers to take wolves caught attacking livestock. All new take rules only apply to federally delisted portions of Oregon.

Public interest in Oregon wolf management remained high in 2013. Members of the public can sign up to be automatically notified of new wolf information and in 2013 the number of subscribers increased by 75%. Currently, 3,433 people subscribe to the department's Wolf Update page.

In 2013 the department initiated, in conjunction with Oregon State University, a wolf research project in northeastern Oregon. The project will investigate; 1) wolf prey preferences across a variety of ungulate assemblages in NE Oregon; 2) wolf competition with cougars; and 3) shifts in ungulate habitat utilization.

2013 OREGON WOLF PROGRAM OVERVIEW

Regulatory Status

Federal Listing Status: In June, 2013 The United States Fish and Wildlife Service (USFWS) completed its status review for gray wolves in the Pacific Northwest and proposed to remove gray wolves from the List of Endangered and Threatened Wildlife, while maintaining endangered status for the Mexican wolf as a subspecies. Pending outcome of the proposed action, wolves occurring west of Oregon Highways 395/78/95 continued to be federally protected as endangered under the federal Endangered Species Act. In the federally listed portion of Oregon, the department implements the OWP under the guidance of the Federal/State Coordination Strategy (March 2011).

State Listing Status: Wolves in Oregon remain listed statewide as endangered under the Oregon Endangered Species Act. The OWP sets a population objective of 4 breeding pairs for 3 consecutive years in eastern Oregon before delisting can be considered. A breeding pair is defined as an adult male and adult female with at least 2 pups at the end of the year. 2013 is the second consecutive year this objective has been reached.

Population, Distribution, and Reproduction

Minimum Population and Distribution: The 2013 minimum Oregon wolf population is 64 wolves (Table 1), a 33% increase from the previous year. Eight known packs were documented, and all occurred in northeastern Oregon (Figure 1). This included 2 new packs (Mt. Emily and a new unnamed pack in Catherine Creek/Keating Units). For monitoring purposes, a pack is defined as 4 or more wolves traveling together in winter. This minimum population estimate is based solely on wolves that staff verified through direct evidence (data from radio collared wolves, visual observation, remote camera footage, etc.). The actual number of wolves in Oregon is likely greater than this minimum estimate.

Table 1. Minimum wolf population (total = 64) in Oregon on Dec. 31, 2013. Underlined packs are counted as breeding pairs.

Pack/Area	Total
Imnaha Pack	6
New Pack - Catherine Cr./Keating	5
<u>Minam Pack</u>	12
Mt Emily Pack	4
<u>Snake River Pack</u>	9
<u>Umatilla River Pack</u>	6
<u>Walla Walla Pack</u>	9
Wenaha Pack	9
Individual Wolves	4

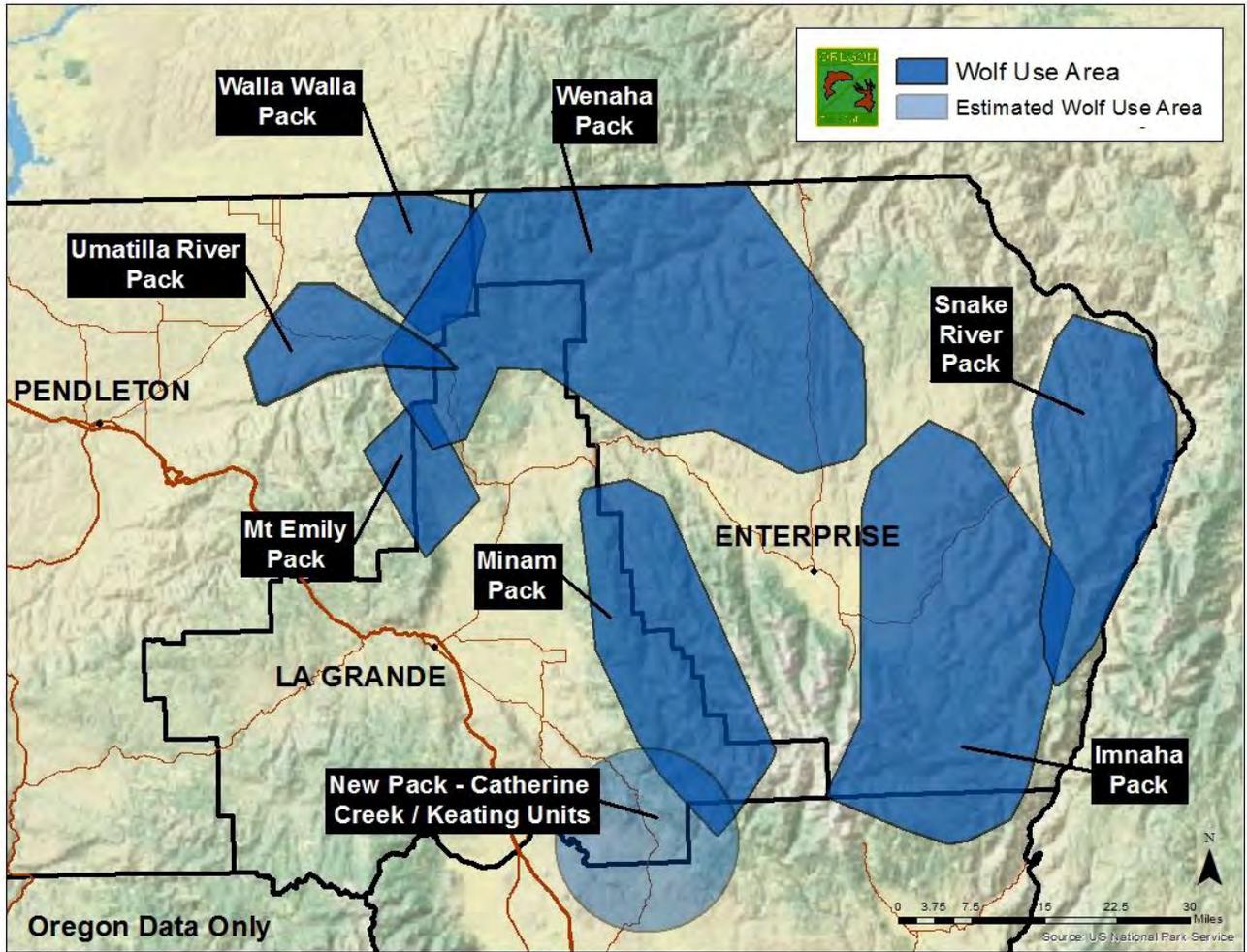


Figure 1: Oregon wolf pack distribution in 2013.

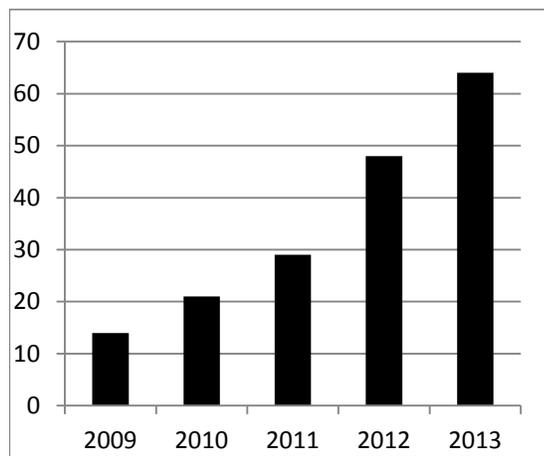


Figure 2. Estimated minimum wolf population in Oregon (2009-2013).

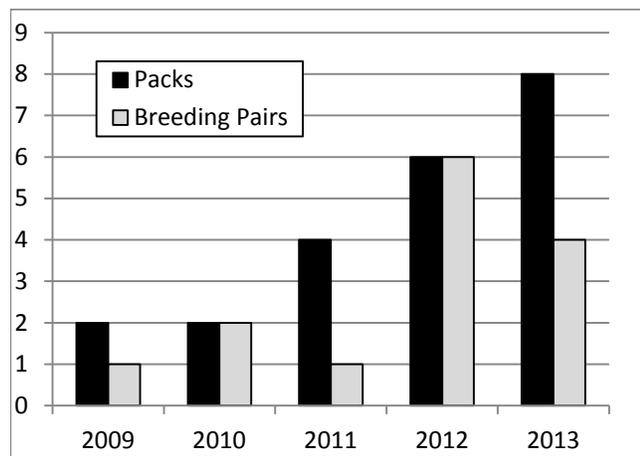


Figure 3. Number of packs and breeding pairs in Oregon (2009-2013).

Reproduction: Four breeding pairs were documented in 2013 (Figure 3) which produced at least 17 pups surviving through December 31.

Pack Summaries

Imnaha Pack: The Imnaha Pack was first documented in 2009. Confirmed depredation attributed to this pack in 2013 was 4 cows killed and four injured – the same as 2012. By mid-summer, the signal of the radio-collared breeding female (OR2) was not located, and she was not observed to be part of the pack at the end of the year. The pack produced 7 pups in 2013, but none were documented since late fall despite multiple observations of the pack. Therefore the pack was not counted as a breeding pair. Two GPS radio-collars remained in the pack, the breeding male and a subadult female. The pack showed a use area of 740 mi². During 2013, 32% of the pack's location data points occurred on private land, an increase from 15% in 2012 and 29% in 2011.

Minam Pack: The Minam Pack was discovered within the Eagle Cap Wilderness in the Minam Unit in June 2012. The 2012 annual report recorded a year-end number of 5 wolves in the Minam pack. This number was subsequently adjusted to 7 to account for data collected after the 2012 report was published. The pack produced at least 5 pups that survived to the end of the year and was counted as a breeding pair in 2013. The breeding female was GPS-collared in May and her data shows the pack using a 394 mi² area, primarily public lands (92%).

Mt Emily Pack: This new pack formed in 2013 in the Mt Emily Unit. The breeding male is a radio-collared disperser from the Walla Walla Pack, unfortunately his collar failed in January, so there is limited information of the pack's home range. The pair produced at least 3 pups, of which only 1 is known to have survived to the end of the year. This pack was not determined to be a breeding pair.

New wolves in Catherine Creek & Keating Units: Wolves were discovered in the southern portion of the Catherine Creek Unit in December. Tracks of 5 wolves were documented however the department has little data regarding the specifics of this group (e.g. reproductive status, home range).

Snake River Pack: The Snake River Pack was first discovered in the fall of 2011. Depredations were confirmed in 2013 and the pack was responsible for 1 dead and 2 injured cattle. The pack was counted as a breeding pair with at least 3 pups surviving. Two radio-collared subadult wolves were monitored during the year. The location data showed a pack area of 369 mi² and 99% use of public lands within the Hells Canyon National Recreation Area.

Umatilla River Pack: First discovered in 2011 in the northern part of the Mt Emily Unit. The pair was counted as a breeding pair for the second year with at least 2 pups. This pack was responsible for 3 confirmed depredations in 2013 with 1 injured sheep and losses of 6 sheep and 1 goat. The breeding male and 2 pups are GPS radio-collared. The collar data shows the pack using a 137 mi² area with 77% of locations on private lands, 5% public land and 18% tribal land.

Wenaha Pack: This pack was first discovered in 2008. Data shows that 2 females produced pups in 2013, but only 1 pup was known to survive to the end of the year. The pack does not count as a breeding pair. Two wolves (1 pup and 1 subadult) were confirmed to have died from parvovirus and

this disease likely affected the other pups as well. The breeding male, a breeding female and a subadult female in the pack are GPS collared. The Wenaha Pack used its traditional area in the Wenaha unit and also started using a large amount of the Sled Springs Unit in 2013. The Oregon portion of the pack area increased to 1016 mi² compared to 299 mi² in 2012. The pack was on public land 63% of the time, down from 97% in 2012. Though monitoring data showed a small amount of time (8%) spent in Washington, most of the packs locations, and the den, were in Oregon therefore this pack is counted in Oregon’s wolf population.

Walla Walla Pack: This pack was first discovered in 2011. The pack produced at least 5 pups that survived to the end of the year and was counted as a breeding pair. Three collared wolves dispersed during the 2012/2013 winter, leaving no radio-collared wolves in the pack. The pack has location data in Washington, but spent the majority of time and denned in Oregon; it counts in Oregon totals.

Other Confirmed Wolves: In addition to OR7 (see below under Dispersers), wolf activity was documented west of the federal delisting boundary in two locations in December. A single wolf was documented once in the White River Unit and on the same day a single wolf was documented in Heppner Unit. It is unknown if the activity is resident wolves or dispersers traveling through the area. In December, a single wolf was documented in the northern portion of the Starkey Unit.

In 2012, a pair of wolves was documented as resident in the Sled Springs Unit. No location information has been collected for either of these individuals since March 2013. The Wenaha pack started using this area in 2013. The status of the pair is unknown and is no longer considered resident in the area.

Capture and Monitoring

Capture: Five wolves were captured and radio-collared by the department in 2013. Three additional wolves were incidentally captured by coyote trappers, radio-collared by department staff, and released. All wolves captured were fitted with Global Positioning System (GPS) collars. (Table 2).

Table 2. Wolves captured in Oregon in 2013

Date	Wolf ID#	Age/Color/Sex	Pack	Collar Type	Method
2/26/2013	OR17	Subadult, black, female	Imnaha	GPS collar	Snare
3/14/2013	OR18	Subadult, gray, male	Snake River	GPS collar	Helicopter
3/14/2013	OR15	Subadult, black, male	Snake River	GPS collar	Helicopter
5/11/2013	OR19	Subadult, black, female	Wenaha	GPS collar	Trap
5/16/2013	OR20	Adult, black, female	Minam	GPS collar	Trap
6/3/2013	OR21	Subadult, black female	Wenaha	GPS collar	Trap
10/26/2013	OR22	Pup, gray, male	Umatilla River	GPS collar	Trap
10/26/2013	OR23	Pup, gray, female	Umatilla River	GPS collar	Trap

Monitoring: Sixteen radio-collared wolves (13 GPS and 3 VHF) were monitored in Oregon in 2013. At year-end approximately 19% (n=12) of the population was radio-collared in 5 (63%) of the known packs. During the year, the department collected a total of 15,267 (5,965 in 2012) wolf location data points in Oregon and 99% of these data points were collected using the GPS collars. The remaining

location data was collected using aerial and ground-based telemetry, remote cameras, tracks, scat DNA, and incidental sightings.

Wolf reports from the public played an important role in 2013 and 267 wolf reports were received by the department during the year. Subsequent follow-up of many of these reports by department personnel yielded valuable information, and in one case resulted in the documentation of a new pack (Catherine Creek/Keating).

The department has increased its effort to collect genetic information of Oregon's wolves by sending samples to the University of Idaho Laboratory for Ecological, Evolutionary and Conservation Genetics for analysis. The 118 samples (all years combined) consisted of tissue samples, blood, hair, scat, and saliva – depending on the circumstances of collection. At a minimum, the samples are analyzed to determine if they are wolf and to determine individual relatedness across the Oregon wolf population.

Forty-nine individual wolves have been genotyped in Oregon. This includes individuals from all known Oregon packs as follows: 2009 Keating pair (2), Imnaha (11), Minam (5), Snake River (5), Umatilla River (4), Walla Walla (4), Wenaha (14), Sled Springs pair (2), Catherine Creek/Keating wolves (2).

Dispersers and Mortalities

Dispersers: Two radio-collared dispersers were monitored during 2013. OR7 dispersed from the Imnaha pack in September 2011. The male wolf spent most of 2012 in California, but on March 13, 2013 he returned to Oregon. Most of his Oregon locations occurred within a 155 square-mile area of eastern Jackson County and western Klamath County from May – October. After March, he also made short visits to California and Douglas County. To date, all available evidence is that he remains alone.

OR10 was VHF radio-collared in 2011 as a pup in the Walla Walla pack. She was recaptured and collared with a GPS collar in 2012. On February 2, 2013 she dispersed from her Walla Walla Pack natal area and on February 17 she crossed into Idaho. She lived the rest of the year in Idaho with a brief visit to Montana.

Mortalities: Three mortalities were documented within Oregon in 2013. On May 17, OR19 from the Wenaha pack was found dead 6 days after being radio-collared. The necropsy showed that the female yearling had died of parvovirus. On June 30, a male pup from the Wenaha pack was found dead near the pack's rendezvous area. It was determined that this pup also died of parvovirus. These 2 wolves marked the first documented deaths by this disease in Oregon.

The third known mortality was confirmed on December 5, 2013 when an un-collared male wolf pup was found dead near Linton Mountain. in Umatilla County. An investigation into the death of the animal revealed that it had been shot. The incident is being investigated by the Oregon State Police and no arrests have been made to date. Genetic analysis of the carcass showed that the wolf had been born into the Umatilla River Pack.

Two wolves that previously dispersed from Oregon packs were legally harvested in Idaho in 2013. OR5, a disperser from the Imnaha pack in 2010 was trapped in northern Idaho, and OR16 a disperser from the Walla Walla pack in 2012 was shot in southern Idaho.

Incidental Take

Three incidental wolf captures occurred in 2013; all by licensed trappers intending to catch coyotes. In March, a single pup of the Imnaha Pack was caught by a coyote trapper, and in October 2 pups of the Umatilla River Pack were incidentally caught by a different trapper. Upon discovery, both trappers followed the regulations and immediately contacted the department for assistance. All 3 wolves were successfully radio-collared by department staff and released. Data from the GPS collars provided valuable information throughout the remainder of the year. Though OR17, OR22, and OR23 were released safely following capture, they were defined as “take” under OAR 635-100-1170.

LIVESTOCK DEPREDATION MANAGEMENT

Wolf Depredation Summary

Investigations and Determinations: The department conducted 41 wolf depredation investigations in 5 Oregon counties in 2013. Twenty (49%) of the investigations occurred in Wallowa County. In total, the department’s investigations resulted in 13 (32%) *confirmed* incidents, 2 (5%) *probable* incidents, 13 (32%) *possible/unknown* incidents, and 13 (32%) *other* incidents. Confirmed losses in 2013 were 5 cattle, 6 sheep, and 1 goat (Table 3).

Table 3. Summary of 2013 confirmed wolf depredation incidents in Oregon.

Date	Animal(s)	County	Pack Area
1/28/2013	Cows (dead cow, injured cow)	Wallowa	Imnaha
4/22/2013	Cow (dead calf)	Wallowa	Imnaha
5/10/2013	Cow (injured calf)	Wallowa	Imnaha
5/15/2013	Cow (dead cow)	Wallowa	Imnaha
5/21/2013	Sheep (dead ewe, 4 dead lambs, 1 injured ram)	Umatilla	Umatilla River
6/3/2013	Sheep (dead ewe)	Umatilla	Umatilla River
6/13/2013	Cow (injured calf)	Wallowa	Imnaha
8/21/2013	Cow (dead calf)	Wallowa	Imnaha
8/22/2013	Cow (injured cow)	Wallowa	Imnaha
8/23/2013	Goat (dead adult)	Umatilla	Umatilla River
10/15/2013	Cow (dead calf)	Wallowa	Snake River
11/4/2013	Cow (injured calf)	Wallowa	Snake River
11/21/2013	Cow (injured cow)	Wallowa	Snake River

Three of Oregon’s wolf packs (Imnaha, Snake River, and Umatilla River) depredated livestock in 2013 and the total number of depredation incidents in Oregon increased over the previous year (13 vs. 8). Combined depredation data (n=45) in Oregon shows that most depredation incidents occur during spring and fall months (Figure 4).

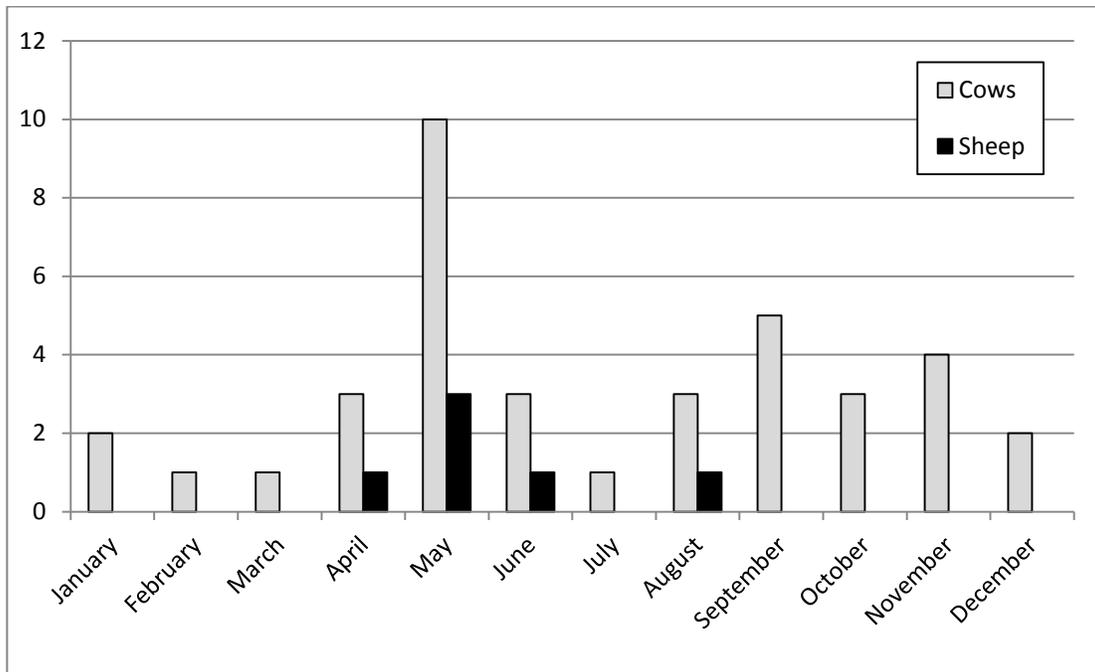


Figure 4. Number of cow and sheep depredation events by month (2009-2013).

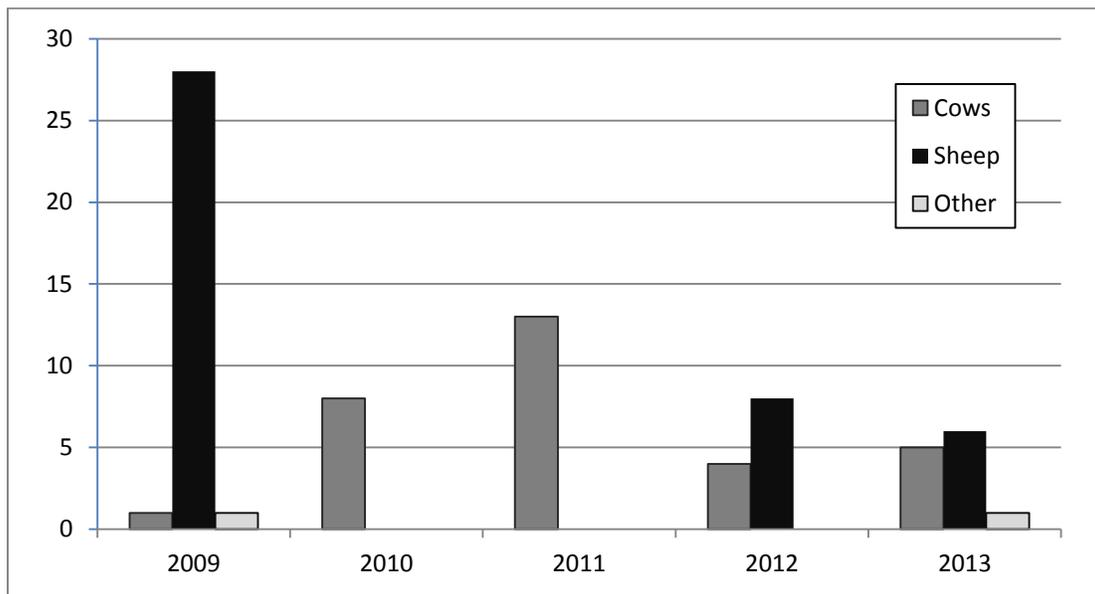


Figure 5. Number of confirmed livestock losses by year (2009-2013).

Other Conflicts

Department staff also responded to 2 additional wolf related incidents during the year. In March, department personnel investigated a reported wolf attack of a domestic dog in Baker County. Evidence at the scene indicated an attack had occurred but the attacking animal was undetermined at

the time. Scat and hair samples from the attacking animal were collected from the scene and subsequent DNA analysis showed that the attacking animal was a domestic dog.

In June 2013 a wolf in Wallowa County was reported to be observed running through a fenced domestic sheep pasture resulting in a large ram run through a smooth wire fence. Investigation by the department corroborated that a wolf-livestock conflict had occurred, though the only fresh injury observed was a minor scrape near one of the sheep’s hooves. Later in the summer it was reported that the ram subsequently died (date unknown), though no department follow-up was requested by the owner of the sheep.

Agency Actions

New Oregon Administrative Rules (OAR) regarding the management of wolf-livestock conflicts (see “Litigation and Settlement” below) require a number of department actions in response to depredation or potential depredation. In 2013, wolf program personnel designated, posted, and revised 9 Areas of Known Wolf Activity. In response to depredation, 3 Areas of Depredating Wolves and 3 Conflict Deterrence Plans were also developed and posted on the department’s wolf website. Under the new rules producers are required to implement non-lethal measures before lethal control actions can be considered. The department held coordination meetings specifically to inform and educate producers about the new rule. In addition, under the new OAR the department “qualified” six wolf depredations per OAR 635-110-0010(8).

The department and Oregon livestock producers continued to implement non-lethal and preventative control measures to minimize livestock depredation in 2013 (Table 4).

Table 4. Department livestock producer assistance measures in 2013.

Action Taken	Number
Radio-Activated Guard Devices	8
Radio Receivers Issued to Producers	7
Range Rider	4
Hazing/Harassment Permits	24
Text Messaging	108 producers
Fladry (5 livestock producers)	1 ½ mi
Feed for night-penned sheep	2 producers (2 tons)
Caught-in Act Lethal Control Permits	23

Non-lethal and preventative measures were also implemented by individual livestock producers and are not enumerated here. Specifically, the department is aware that actions such as additional checking of livestock, night penning of sheep, pasture management changes, and carcass removal were completed by numerous producers to help prevent wolf depredation.

Automated Wolf Notification System

The department continued to implement the automated wolf notification system in 2013. The system utilizes GPS locations from collared wolves and notifies livestock producers (via text, email, or both)

when wolves are in the area of their livestock. It does not give specific point location data but rather places the locations within predefined polygons which are known to the producers. Producers must have livestock in the area of collared wolves to be eligible to register to receive notification messages.

At year-end, 108 livestock producers in 3 counties had received text or email wolf location notifications. In 2013, more than 83,000 notification messages were sent to producers to inform them of wolf presence in the area of their livestock.

The notification system has been received favorably by most producers who receive it. However, the first year and a half of this system has led to some observations as follows.

First, GPS collars do not always collect or send GPS data. The satellite reception of data is limited by terrain or habitat features, and when adequate reception parameters are not met, producers receive no information. In addition, some messages when generated, do not always reach the intended recipient, and when this occurs it is difficult to know the cause. We have observed increasing frustration by some producers when regular information is not received – clearly a case of system limitations not meeting the expectations of the producer.

Second, GPS collar data for the notification system has been limited by dispersal, mortality, and collar failure. In one notification area (Imnaha), the breeding male has had 3 collar failures. Because of the historical depredation status of this pack, the failures of OR4's collar has created extreme frustration by many who have become accustomed to receiving knowledge of his whereabouts. At the time of this writing, the department has more location data on the Imnaha Pack than any other pack in Oregon. Even with this information, however, staff recently captured and re-collared OR4 a fourth time, primarily to assist producer notification needs.

Lastly, the notification system was initially developed to help prevent wolf depredation by informing producers when wolves are in the area of their livestock. Ideally, this information would allow producers to take proactive steps such as harassment, preventative range riding, and other non-lethal measures to help deter wolves from livestock areas. However, data shows that wolves often travel long distances between location points and some producers have complained that the notification system only tells them 'where wolves used to be'. It follows that producers regularly use the notification information to check to see if anything happened, rather than being proactive. The extent to which the notification system reduces depredation is undetermined.

Compensation for Wolf-Caused Losses

The Oregon Department of Agriculture's (ODA) Wolf Depredation Compensation and Financial Assistance County Block Grant Program was again implemented in 2013. The program provides 4 types of financial assistance options; 1) direct depredation payment, and 2) missing livestock payment, and 3) preventative measures, and 4) program implementation costs. The department's primary roles are determining if wolf depredation has occurred, and to delineate areas of known wolf activity. In 2013 the department was also asked by some counties to provide input on appropriate non-lethal and preventative measures.

Seven of the 8 counties that submitted requests for 2012, also submitted request for 2013, with Grant County opting out. Three new counties (Klamath, Morrow and Wheeler) also submitted grant requests for 2013, bringing the total number of counties applying for 2013 grant funds to 10. The total amount of requested grant funds for 2013 came to \$95,272. Grant awards were made to 7 counties with priority given to those counties with confirmed/probable wolf depredation cases, a sustained wolf presence and documented increases in missing livestock. The total awarded for the 2013 grant period was \$25,038 (Table 5).

Table 5. Initial funds awarded through the County Block Grant Program in 2013 (source; Oregon Department of Agriculture, County Wolf Block Grant Award Report, Received 1/15/14)

County	Death/Injury	Missing	Prevention	Implement	Total
Wallowa	\$5,396	\$5,292(75%)	\$3,000	\$350	\$14,038
Union	0	0	\$1,575	0	\$1,575
Baker	\$1,400	0	0	\$495	\$1,895
Umatilla	\$600	\$3,375(75%)	\$1,575	\$495	\$6,045
Crook	0	0	0	0	\$0
Jefferson	0	0	0	0	\$0
Malheur	0	0	0	\$495	\$495
Klamath	0	0	0	0	\$0
Morrow	0	0	0	\$495	\$495
Wheeler	0	0	0	\$495	\$495
Initial Award	\$7,396	\$8,667	\$6,150	\$2,825	\$25,038
Supplemental Award			\$37,782		\$37,782
					\$62,820

Death/Injury to Livestock Awards (\$7,396). Wallowa, Baker and Umatilla counties were the only three counties with confirmed or probable wolf depredation; those three counties have been awarded their full request amount in this category. No additional awards were made.

Missing Livestock Award (\$8,667). Wallowa and Umatilla County’s request for missing livestock were awarded at 75% of actual costs based on both claims being documented cases of ranchers grazing animals within known wolf pack areas and experiencing above normal losses for missing animals during the 2012 grant period. Both the Wallowa and Umatilla County Advisory Committees were provided extensive documentation by livestock producers supporting this award request.

Preventative/Management Techniques Award (\$43,932). With a limited amount of funding for the initial 2013 grant period, awards for preventative measures (\$6,150 total) were initially only made to Wallowa, Umatilla and Union counties, with priority given to Wallowa County. (Baker County did not request any preventative grant money). However, in late September 2013, as a result of receiving several calls for additional funds for preventative measures (esp., range riders) ODA was able to leverage \$37,782 in supplemental funding and made additional awards to five counties (Wallowa, Umatilla, Crook, Malheur and Morrow) for non-lethal prevention measures as follows.

Wallowa - \$15,532, range riders and fladry
 Umatilla - \$15,500, range riders and fladry

Malheur County - \$2,990, fladry
Crook County - \$3,000, bone pile removal (20 large piles)
Morrow County - \$760, bone pile removal

County Program Implementation Award (\$2,825). ODA used the same award amount for implementation costs (\$495) that was used in 2012. Those counties requesting a lesser amount received the lesser amount (Wallowa). Four counties did not request implementation costs (Union, Crook, Jefferson and Klamath).

Oregon Wolf Depredation Tax Credit

The State of Oregon's wolf depredation tax credit program was created in 2012 by the Oregon Legislature and allows qualified applicants to receive a state tax credit pursuant to Chapter 65, Oregon Laws 2012, for the market value of any livestock that belongs to a taxpayer and that is killed during the year by a wolf. To claim the credit a taxpayer must first receive a certification by the department. Before issuing a certification the department must possess a finding and supporting evidence from the department or by a peace officer that wolf depredation was the probable cause of loss.

To assist Oregon peace officers who may be asked to provide evidence of a wolf depredation, the Department's Wolf Program staff held a half-day training session in La Grande on August 21, 2013. Sixteen peace officers from 5 counties attended the session. Topics discussed included:

1. Tax Credit Act overview – procedures for the department and taxpayers
2. Relationship of this Act to other statutes, rules, and programs
3. Oregon wolf status, biology, and a brief overview of predation
4. Investigation process and the evidence used by the department to certify wolf-caused losses
5. Review of wolf depredation of sheep and cattle

At the time of this report, no applications for 2013 tax credits have been received. One credit application was processed by the department in 2012, but no taxpayer credits were issued by the Oregon Department of Revenue.

LITIGATION AND SETTLEMENT

In 2011, the department's authority to lethally remove depredating wolves under the State Endangered Species Act was challenged by a lawsuit filed by Cascadia Wildlands, Oregon Wild and the Center for Biological Diversity. The action was filed with the Oregon Court of Appeals and a stay was granted by the Court on October 5, 2011 stopping the active lethal control action.

On May 23, 2013, following negotiations between the three Plaintiff organizations, the Governor's office, the department, and the Oregon Cattlemen's Association, an agreement was reached which ultimately had the effect of ending the lawsuit. The Center for Biological Diversity withdrew from the talks and was not party to the settlement. To be fully implemented the agreement required the passage of new legislation by the Oregon Legislature (2013), and amendments to Oregon Administrative Rule (OAR) 635-110-0010 and 0020. By agreement the settlement provisions only apply to Phase I of the Plan.

One outcome of the Settlement was to address ongoing depredation by the Imnaha Pack in Wallowa County. This required a Temporary Rule (OAR 635-110-0009(T)) which was immediately adopted to guide potential lethal take of Imnaha Pack wolves through November 15, 2013.

On July 12, 2013 the Commission also adopted amendments to OAR 635-110-0010 to implement the Settlement Agreement during Phase I of the Plan. Key provisions of the rule include:

- Changes the definition of chronic depredation to require at least 4 confirmed and qualifying depredations within a 6 month time period.
- Establishes conditions under which a depredation can qualify towards a chronic designation
- Increases public disclosure requirements of department actions related to wolf management.
- Sets the duration and timing of lethal take to 45 days with specific conditions for reinstatement

New legislation related to the settlement was also contained in HB3452 (2013 Oregon Legislative Session) and was signed into law on July 19, 2013. The bill removed permit requirements for lethal take of wolves caught in the act of biting, wounding, killing, and chasing livestock or working dogs in certain circumstances. On 10/1/2013 a temporary rule to implement HB 3452 was filed which replaced the portion of rule (635-110-0010 (5) related to this caught in the act take.

On January 10, 2014 the Commission made permanent amendments to OAR 635-110-0010 and 0020 to fully implement HB 3452 and align both the Phase I and Phase II rules with the Settlement.

The new Oregon Administrative Rule referenced above may be accessed online at <http://www.dfw.state.or.us/OARs/110.pdf>

DISEASE TESTING

Blood serum samples collected from captured wolves (n=19) were analyzed for exposure to common canine diseases such as: leptospirosis, canine adenovirus, canine distemper virus, and canine parvovirus. The samples were collected between 2010 and 2013 within the Imnaha, Minam, Snake River, Umatilla River, Walla Walla and Wenaha packs. A positive titer shows that an animal has been exposed to the pathogen and does not indicate active clinical disease.

Positive parvovirus titers were found in all but 2 samples (both 4 month-old pups) and in all 6 of the packs tested. Though parvovirus was shown to cause pup mortality in 1 pack in 2013, it is not expected to significantly affect long-term population growth. It is noteworthy that distemper virus was not detected in the Oregon wolf population as it is present throughout the state in both domestic and wild canids and raccoons. Distemper outbreaks have been documented in other states and the disease appears to cause short-term population declines by limiting pup survival. Leptospirosis titers were found in 2 samples from different packs and canine adenovirus titers were detected in 68% of the samples and in 5 different packs.

WOLF RESEARCH

Recovery of wolf populations in Oregon raises questions regarding wolf impacts on elk and mule deer populations, livestock depredation, and interspecific competition between wolves and cougars. The OWP directs the department to conduct relevant research to understand the effects of wolf re-establishment and to inform conservation and management actions. The vested interest of 2 key constituents, hunters and conservationists, also compels the department to investigate the impact of wolves on elk and deer. Information gained from research in the Northern Rocky Mountains provides insight into potential effects of wolf re-establishment in Oregon. However, several factors set Oregon apart from other areas where wolves have been studied. For example, the nearly singular importance of cougar predation on northeastern Oregon elk populations has rarely been documented elsewhere. Furthermore, the role of alternative prey species, differing antlerless harvest levels, and relatively mild climate in northeast Oregon all may influence the relationship between wolves and ungulates.

In early 2013 the department identified research recommendations specific to wolf-ungulate and wolf-predator interactions which included; 1) wolf prey preferences across a variety of ungulate assemblages in northeast Oregon; 2) wolf competition with cougars; and 3) shifts in ungulate habitat utilization. Previous research on elk and cougar in northeastern Oregon will provide comparative data on elk and cougar in some areas. Wolf-cougar interactions may be important because cougar predation on juvenile elk has been identified as the primary limiting factor of recruitment in northeast Oregon. If wolf packs reduce cougar densities or cause cougars to shift distributions and habitat use, wolf predation may be compensatory with cougar predation on elk. Alternatively, if wolves do not affect cougar populations, then wolf predation will be an additive source of mortality for juvenile and adult elk.

In October, 2013 the department initiated a partnership with Oregon State University to provide a Ph. D. student to study wolf-cougar interactions, and wolf predation rates on northeastern Oregon ungulates. Specific objectives of this project are;

- Determine prey selection of wolves in multiple packs in Oregon where prey availability differs among packs.
- Determine effects of presence of wolf pack(s) on population dynamics and habitat use of cougar in the Mt. Emily Wildlife Management Unit.
- Evaluate factors which may influence elk and deer populations and their habitat utilization in a mixed carnivore system with wolves.

The project will be conducted over 4 years and will focus on capture/collaring wolves and cougars, estimating prey selection of wolves, and evaluating survival, prey selection, and distributions of cougars to presence of wolves. The project is expected to be completed in 2018.

INFORMATION AND OUTREACH

The Department continued to rely on its internet-based wolf webpage as the primary information distribution tool in 2013. Its subscribers increased by 1,472 (75%) during 2013. Currently, 3,433 people subscribe to ODFW's Wolf Update page.

In 2013, ODFW also added a Wolf-Livestock update page that focuses on the needs of livestock producers and the requirements of the new Oregon Administrative Rules. Since this page was launched, 1,815 people have subscribed to updates on confirmed depredations, qualifying incidents, maps of Areas of Known Wolf Activity and Areas of Depredating Wolves, Conflict Deterrence Plans and other information.

Over the year, ODFW's combined wolf pages received more than 172,000 views, nearly 30,000 more than last year. The Wolf Program home page alone received nearly 72,000 views.

In addition to web-based information, the department conducted numerous media interviews to print and radio reporters. Presentations were given to schools, universities, other agencies, agriculture meetings and organizations, sportsman organizations, and conservation groups.

WOLF PROGRAM FUNDING

Wolf program funding during the 2013-2015 biennium is from a variety of sources which includes federal funds from the State Wildlife Grant program, Pittman-Robertson funds and the US Fish and Wildlife Service grants. Some of these federal grants require state match which comes from a combination of Oregon Department of Fish and Wildlife license dollars and Lottery Funds. Two full time employees are associated with the program and the total budget allocation for the 2013-2015 biennium is \$641,004.