Oregon Wolf Conservation and Management

2019 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, 2019 to December 31, 2019.

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EXECUTIVE SUMMARY

Wolf program activities are guided by the Oregon Wolf Conservation and Management Plan (Wolf Plan) and the associated statutes and administrative rules. An updated Wolf Plan was approved by the Fish and Wildlife Commission (Commission) in June of this reporting period. Also in 2019, the Oregon Legislature and Governor approved the hiring of three additional full-time wolf biologists with funding from the General Fund.

The Oregon Department of Fish and Wildlife (Department) monitors the wolf population and implements the Wolf Plan based on the number of successfully reproducing pairs of wolves in each of two management zones. By the end of 2019, the Wolf Plan conservation objective of four breeding pairs for three years had not been reached in the West Wolf Management Zone (WMZ). Wolves in the WMZ continue to be managed under Phase I. The wolf population in the East WMZ continued to exceed the Wolf Plan minimum management objective of seven breeding pairs and wolves were managed under Phase III. Wolves are protected as a special status game mammal and were delisted statewide in 2015 under the Oregon Endangered Species Act (ESA). Wolves occurring west of Oregon Highways 395/78/95 continue to be federally listed as endangered under the federal ESA.

The minimum known count of wolves in Oregon at the end of 2019 was 158 wolves. That count increased by 15% from the 2018 minimum known number of 137. At the end of the year, 22 packs were documented and 19 of those packs met the criteria as breeding pairs. In addition, nine groups of two or three wolves were identified. Resident wolf activity was identified in 32 separate geographic areas and 12 counties including parts of Baker, Douglas, Grant, Jackson, Klamath, Lake, Lane, Morrow, Umatilla, Union, Wallowa, and Wasco.

The Department monitored 34 radio-collared wolves, including 14 that were captured and radio-collared during 2019. At year-end, 26 radio-collared wolves (16% of the minimum wolf count) were monitored in Oregon. Seven wolf mortalities were documented during the year, including six that were human caused. Five dispersing radio-collared wolves were monitored, and two of these dispersed out of state before the end of the year.

The Department received 50 requests from livestock producers for investigation of dead or injured livestock suspected to be wolf depredation. Of those investigations, 16 were confirmed as wolf depredation, compared to 28 in 2018. As stipulated in the Wolf Plan, livestock producers implemented non-lethal measures to minimize depredation. No wolves were lethally removed in response to chronic depredation in 2019.

The Oregon Department of Agriculture's compensation program awarded grants totaling $178,319 to eleven counties in 2019. Funds were used for non-lethal preventative measures to reduce depredation and for direct payment of confirmed depredations and missing livestock to livestock producers.

OREGON WOLF PROGRAM OVERVIEW

Regulatory Status

Federal Status: Wolves occurring west of Oregon Highways 395/78/95 continue to be listed as endangered under the federal ESA (Figure 1). In the federally listed portion of Oregon, the Department implements the Wolf Plan under the guidance of the Federal/State Coordination Strategy (updated April 2019). The United States Fish and Wildlife Service (USFWS) makes all management decisions regarding harassment and take of wolves and collaborates on monitoring and depredation response. In March, the USFWS published a proposed rule in the Federal Register to delist all gray wolves under the federal ESA (with an exemption for the Mexican Gray Wolf). A final decision is expected in 2020.

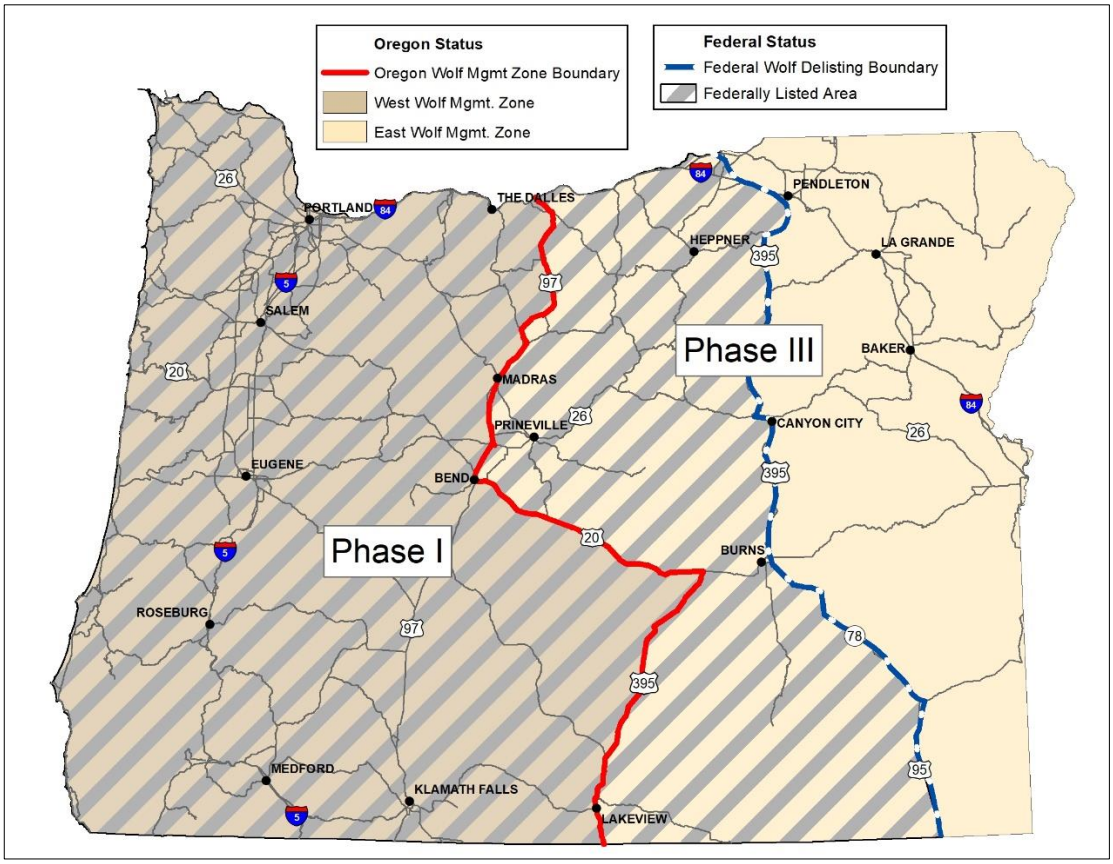

Figure 1. Wolf Management Zones and Federal ESA Status in Oregon.

State Status**:** The Commission decision on November 9, 2015 removed wolves from the Oregon List of Threatened and Endangered Species. A lawsuit challenging the Commission's delisting decision was filed in 2016 by three environmental groups. In November 2019, the Oregon Court of Appeals dismissed the challenge as moot as a result of HB 4040 in which the legislature "ratified as satisfying the elements of ORS 496.176 and approved" the Commission's delisting.

Wolves are protected statewide as a special status game mammal and managed by the Wolf Plan guidelines and associated rules based on where they are located. Wolves in the West WMZ are

managed under the more protective Phase I rules until their population reaches a minimum of four breeding pairs for three consecutive years. A **breeding pair** is defined as an adult male and adult female with at least two pups that survived to December 31 of the year of their birth.

Wolves in the East WMZ continue to be managed under Phase III rules as more than seven breeding pairs were documented. Phase III continues to focus on conservation of wolves while allowing more flexibility to address wolf conflict. This includes continuing to emphasize the use of non-lethal deterrents to reduce livestock depredation, the use of controlled take in certain situations, and permits additional agencies to investigate potential wolf depredations of livestock.

Department staff continued work on the Wolf Plan review in 2019, an effort that began in 2016. The Commission-directed facilitation with stakeholder groups finished in January with no consensus on several topics. The proposed draft Wolf Plan, released in May, was written by staff and incorporated ideas from extensive meetings with stakeholders and public comments at several prior Commission meetings. At the June Commission meeting, following lengthy discussions and revisions to topics such as chronic depredation and controlled take, the Commission adopted the revised Wolf Plan.

Minimum Numbers, Distribution, and Reproduction

Minimum Numbers and Distribution: Currently, the Department provides a minimum known number of wolves present in Oregon at the end of the year; it is a direct count of wolves, not an estimate. The minimum known wolf count in 2019 was 158, a 15% increase from 2018 (Figure 2). The actual number of wolves in Oregon is likely higher because not all wolves present in the state are located during the winter count. The Wolf Plan dictates using a minimum count of breeding pairs for a WMZ in Phase I and II, and a count of packs during Phase III. The Department has continued to count breeding pairs statewide, but this becomes more challenging to implement as the number of wolves increases.

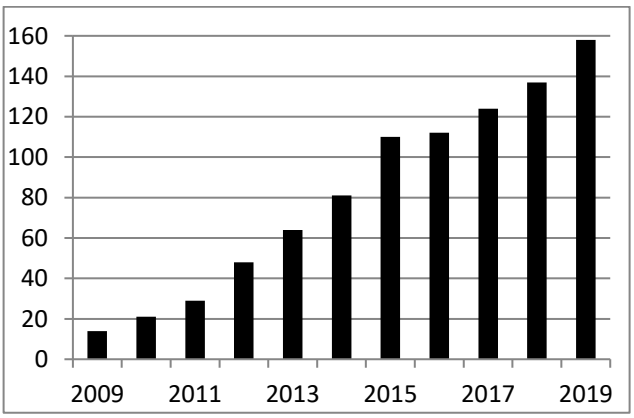

Figure 2. Minimum wolf count in Oregon (2009-2019).

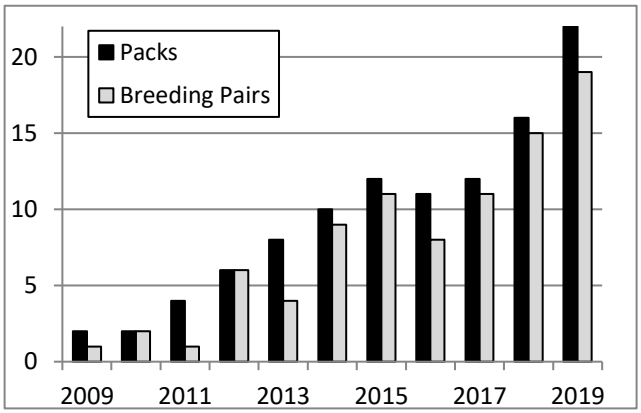

Figure 3. Number of packs and breeding pairs in Oregon (2009-2019).

For monitoring purposes, a **pack** is defined as four or more wolves traveling together in winter. Twenty-two packs were documented at the end of 2019 (Figure 3), with a mean pack size of 6.0 wolves and ranging between four and eleven individuals (Table 1). In addition, nine groups of two or three wolves were identified. Throughout this report, group is used to denote two or more wolves

traveling together. During the winter count, seven individual wolves were counted in the Catherine Creek, Chesnimnus, Indigo, Keating, Murderer's Creek, Northside and Snake River WMUs. Some of these wolves were resident and may be the start of new packs; others were located during the winter count and will continue to be monitored for residency. The pack and wolf numbers could increase if evidence is collected during 2020 of additional wolves present during 2019.

The 22 packs were distributed in four geographic areas of Oregon. In the East WMZ, there were 16 packs in the Blue and Wallowa Mountains north of Interstate 84 and three new packs in the Blue Mountains south of Interstate 84. In the West WMZ there were two packs in the southern Oregon Cascades and one in the northern Oregon Cascades. Ten percent of known wolves were in the West WMZ. Known resident wolves were located in 32 separate geographic areas, in parts of 12 counties: Baker, Douglas, Grant, Jackson, Klamath, Lake, Lane, Morrow, Umatilla, Union, Wallowa, and Wasco Counties (Figure 4). For groups that had considerable GPS radio-collar data (n=8), the pack territory sizes ranged from 100 to 663 mi^2 (259-1,717 km^2) with a mean of 268 mi^2 (694 km^2).

Table 1. Minimum wolf numbers (total = 158) in Oregon on Dec. 31, 2019 by Wolf Management Zone. Underlined packs were counted as breeding pairs.

East Wolf Management Zone

Pack/Group	Total	Pack/Group	Total	Pack/Group	Total
Bear Creek Pack	4	Keating Pack	6	Ruckel Ridge Pack	7
Catherine Pack	4	Lookout Wolves	2	Snake River Wolves	3
Chesnimnus Pack	4	Middle Fork Pack	6	South Snake Wolves	2
Clark Creek Pack	6	Minam Pack	8	Walla Walla Pack	7
Cornucopia Pack	5	Mt. Emily Pack	7	Wenaha Pack	5
Desolation Pack	5	Noregaard Pack	11	Wildcat Wolves	3
Fivemile Pack	5	Northside Wolves	2	OR60 Wolves	2
Five Points Pack	7	North Emily Pack	7	OR63 Wolves	2
Heppner Pack	5	Pine Creek Pack	8	Individual/Misc. Wolves	8

West Wolf Management Zone

Pack/Group	Total	Pack/Group	Total	Pack/Group	Total
Indigo Pack	5	Silver Lake Wolves	2	Individual Wolf	1
Rogue Pack	4	White River Pack	5		

Areas of Known Wolf Activity (AKWA) were designated during 2019 for eight new packs that qualified as breeding pairs: Bear Creek, Clark Creek, Cornucopia, Desolation, Fivemile, Heppner, Indigo and Keating. Four new AKWAs have two wolves: Northside, OR60, OR63 and the new Lookout Mt wolves. The OR30 group and wolf OR64 AKWAs were discontinued when the wolves left those areas during 2019. Three packs that previously qualified as packs, no longer have four individuals: Snake River, South Snake, and Wildcat. Approximately 11-year-old OR7, the breeding male of the Rogue Pack was photographed in the fall but was not documented during the winter count, though his mate is still present in the pack area with three wolves.

Wolves from the Grouse Flats, Touchet, and Butte Creek Packs from Washington had locations in Oregon during 2019. Wolves from these packs have traditionally denned in Washington and are not counted in Oregon's annual count. The Grouse Flats Pack's resident use area is partially in Oregon. More information about Washington packs is available at www.wdfw.wa.gov.

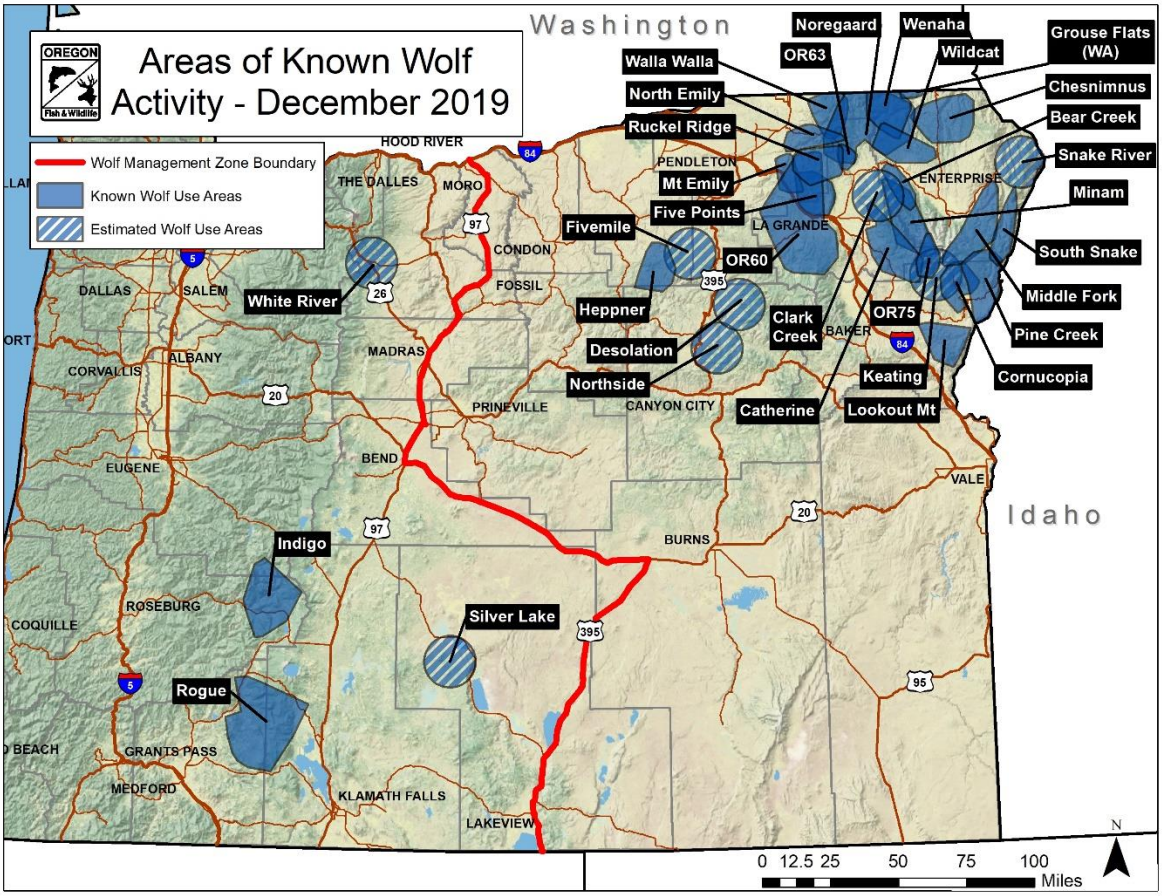

Figure 4. Distribution of known resident wolf activity areas in December 2019.

Reproduction: At the end of 2019, 19 packs were documented as successful breeding pairs, a 27% increase from 2018 (Figure 3). Reproduction was documented in 22 groups. Reproduction failed in one pack and pups were not located in two groups during the winter count.

Monitoring

Fourteen wolves were captured and radio-collared during 2019, one of which was a recapture. Ten wolves were radio-collared with GPS radio-collars and four with a VHF radio-collar. VHF radio-collars are more labor intensive to monitor in the field, but the collars have a lower failure rate and longer battery life, increasing the ability to track the pack long term. The Department captured three wolves using foothold traps, one by ground darting, and seven by helicopter darting. USFWS trapped and the Department radio-collared one wolf. Two wolves were incidentally trapped by licensed trappers, fitted with a new radio-collar by the Department, and safely released. One wolf was incidentally trapped by USDA Wildlife Services and released uncollared by the Department due to an injured foot.

Data was collected for 34 radio-collared wolves in sixteen groups during 2019. By year end, 26 of these wolves were still being actively monitored (16% of the minimum wolf count) and represented 13 packs, five groups of two wolves, and two lone individuals. Five radio-collared dispersing wolves were monitored in 2019. Three of the wolves dispersed within Oregon and two dispersed to Idaho.

One radio-collared wolf from the Grouse Flats Pack in Washington dispersed into Oregon and joined the Wenaha Pack. Contact with seven radio-collars was lost during the year when two wolves dispersed out of state, three radio-collared wolves died, and two GPS radio-collars failed.

In addition to monitoring information downloaded from GPS radio-collars, Department biologists visually monitored radio-collared and accompanying wolves from the air and ground; implemented track and howling surveys; and, conducted remote camera surveillance within areas of known or suspected wolf activity. Through collar data and surveys, the Department collected 15,716 wolf location data points in Oregon in 2019. Of those, 71% of locations for resident wolves were on public lands, 26% on private lands, and 3% on tribal lands.

Wolf reports from the public decreased from 2018, with 364 wolf reports received by Department biologists or the Department's online wolf reporting system (www.odfw.com/wolves) during the year. Subsequent follow-up of some of these public reports yielded valuable information about new wolf activity and existing groups without radio-collars.

Mortalities: Seven wolf mortalities were documented during 2019, the same as 2018. The breeding female of the Catherine Pack died of natural causes in late April and a necropsy completed by the Oregon State University Veterinary Diagnostic Laboratory (OSU Lab) revealed evidence of a severe bacterial mammary infection (suppurative mastitis) which could have resulted in death.

Six wolf deaths were human caused. Four wolves were killed by motor vehicle collisions on paved highways. Two wolves were hit, during two separate incidents, on Interstate-84 in Umatilla County. One wolf was killed crossing Hwy 26 in Wasco County. Another wolf was hit on Hwy 138 in Douglas County. A fifth wolf in Wallowa County was located after his radio-collar indicated that he had been almost stationary for several days. He was euthanized due to severe injuries and infection. The OSU Lab determined that the injuries were consistent with vehicular trauma. One wolf was killed legally under the Caught-in-the-Act regulations. See the Livestock Depredation Management section (below) for more information.

Following a USFWS Office of Law Enforcement and Oregon State Police (OSP) investigation into the shooting death of OR28 in Lake County in 2016, a man from Lane County pled guilty in United States District Court in August to unlawfully taking an endangered species. Under a deferred sentencing agreement with the federal government, the individual agreed to one-year of supervised release, pay restitution of $2,500 to the Department, no hunting for one year, and 100 hours of community service.

OSP and USFWS Law Enforcement are actively seeking information about other illegally killed wolves from previous years. Rewards ranging from $2,500 to $15,000 have been offered for information leading to a conviction. Public reports help protect Oregon wildlife from poaching.

Information and Outreach

The Department continued to rely on its internet-based wolf webpages (http://www.odfw.com/wolves) as the primary information distribution tool in 2019. The online wolf pages have information about wolf biology, the Wolf Plan, specific pack information, and reporting wolf sightings. Throughout the

year, the pages received 157,263 views. The wolf program home page alone received nearly 32,000 views. Currently, 9,115 people subscribe to the Department's wolf program email update page.

The Department also maintains a wolf-livestock update page that focuses on the information needs of livestock producers and the requirements under Phase I Oregon Administrative Rules. Since this page was launched, 7,147 people have subscribed to receive updates on confirmed depredations, maps of AKWAs, Areas of Depredating Wolves, Conflict Deterrence Plans, and other information.

The Department also shared wolf-related content on its social media channels, including two ODFW Conservation Facebook posts that reached 60,000 people. The topic of wolves continues to generate engagement but also require significant staff time to monitor and manage content.

To further educate Oregonians about wolves, the Department created a video about a Department student intern encountering a wolf (https://youtu.be/r76GJDP0uWQ). The video was posted in October and generated 5.4 million views by March 2020, after it was recommended by YouTube. The information was valuable to people who may have misunderstood wolf behavior if they ever interacted with wolves. The video was also popular with outdoor journalists who wrote articles about the video, furthering the message to readers that did not see the video on YouTube.

In addition to web-based information, the Department conducted numerous media interviews to print, radio, and television reporters, and responded to a number of queries. Presentations were given to schools, universities, agencies, agriculture meetings and organizations, civic organizations, and conservation groups.

The Department collaboratively organized and presented at two well-attended two-day "Strategies for Ranching on a Landscape with Wolves" workshops in Baker and Klamath Counties. The workshops focused on educating livestock producers about proactive implementation of livestock management practices to reduce livestock depredation in large pasture situations. An additional one-day workshop was held in Baker County for federal, state, and private land managers. The main workshop speaker was a livestock producer from Montana with many years of successfully ranching with wolves. The Department also collaboratively organized and presented at an all-day predator deterrence workshop in Jackson County. The Department presented a 4-hour workshop to wildlife professionals at the Oregon Chapter of The Wildlife Society and at an annual training for United States Forest Service range management staff from Oregon and Washington.

Wolf Program Funding

The majority of wolf program funding for the 2019-2021 biennium consists of federal funds from the Pittman-Robertson Grant Program and state funds from Oregon's General Fund. The federal grant budget allocation for the 2019-2021 biennium is $690,502. This grant requires 25% state match that comes from a combination of Oregon Department of Fish and Wildlife license dollars (9%) and Lottery Funds (16%). Two full-time biologists that coordinate statewide wolf program activities out of the East Region office in La Grande and one student intern are associated with the federal grant.
In 2019, the Oregon Legislature and the Governor approved the position authority to hire three additional full-time wolf biologists. For the biennium, they allocated $702,842 of General Fund to pay for the new positions and their supplies. The three wolf biologists work regionally out of the

Enterprise, Prineville and Central Point field offices. Oregon General Fund dollars come from income taxes paid by individuals and businesses.

LIVESTOCK DEPREDATION MANAGEMENT

Wolf Depredation Summary

In 2019, the Department received 50 requests from livestock producers for investigation of dead or injured livestock suspected to be wolf depredation, a 30% decrease from 2018 (71 requests). The investigations resulted in 16 (32%) *confirmed* determinations (Table 2), 1 (2%) *probable* determination, 12 (24%) *possible/unknown*, and 21 (42%) *other* (not wolf-related). Depredations were confirmed in five counties: Baker, Jackson, Klamath, Union, and Wallowa. During 2019, 88% of confirmed events occurred on private land.

Table 2. Summary of 2019 confirmed wolf depredation incidents in Oregon.

Date	Animals Affected	County	Pack or Wolf Area
1/1/2019	Cow (Dead: 1 calf)	Jackson	Rogue
1/18/2019	Cow (Dead: 1 calf)	Jackson	Rogue
1/18/2019	Cow (Dead: 1 calf)	Union	Catherine
3/15/2019	Working Dog (Dead: 1 juvenile)	Jackson	Rogue
3/23/2019	Cow (Dead: 1 calf)	Jackson	Rogue
4/16/2019	Cow (Dead: 1 adult)	Baker	Pine Creek
5/14/2019	Cow (Dead: 1 calf)	Baker	Pine Creek
5/28/2019	Cow (Dead: 1 calf)	Wallowa	Bear Creek
6/2/2019	Cow (Dead: 1 yearling)	Klamath	Rogue
8/9/2019	Cow (Injured: 1 calf)	Union	Five Points
8/16/2019	Cow (Dead: 1 calf)	Wallowa	Chesnimnus
9/3/2019	Sheep (Dead: 6 adult)	Union	Ruckel Ridge
10/18/2019	Cow (Dead: 1 calf)	Jackson	Rogue
10/19/2019	Cow (Dead: 1 calf)	Jackson	Rogue
11/13/2019	Cow (Dead: 1 calf)	Jackson	Rogue
11/14/2019	Cow (Dead: 1 calf)	Jackson	Rogue

Confirmed depredation events decreased 43% in 2019 from 2018 (16 vs. 28). Confirmed losses (livestock killed or euthanized) in 2019 were 1 adult cow, 1 steer, 11 calves, 6 sheep, and 1 livestock protection dog (Figure 5). In addition to the confirmed losses, one calf was confirmed injured by wolves and six lambs were probable wolf kills in Curry County. Five packs each depredated one time, and one pack depredated twice. The majority of the depredation was attributed to the Rogue Pack, which depredated nine times in 2019. A domestic dog was also injured during an interaction with Rogue Pack wolves in Jackson Co. The incident is not considered a depredation under the Wolf Plan, since it did not involve livestock or livestock working dogs.

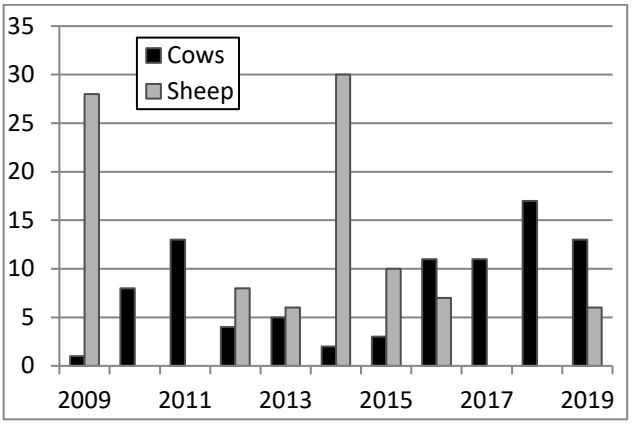

Figure 5. Number of confirmed cattle and sheep losses by year (2009-2019).

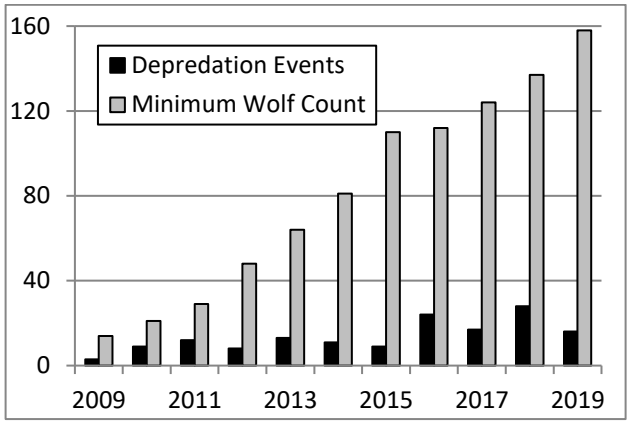

Figure 6. Number of confirmed depredation events and minimum wolf count (2009-2019).

Efforts to Minimize Depredation

The Wolf Plan emphasizes the importance and mandates the implementation of non-lethal efforts to reduce wolf-livestock conflict before lethal removal is considered in all phases of wolf management. Although minimum wolf numbers have increased considerably over the last ten years, depredation events and livestock losses have not increased at the same rate (Figure 6). Less than 30% of packs that were present in 2019 depredated on livestock.

Non-Lethal Options: Effective proactive non-lethal measures vary by the type of livestock being protected and the size and location of the pasture. Reducing attractants by removing carcasses and bone piles may be the single best action to prevent attracting wolves to areas of livestock. The Department, USFWS, and USDA Wildlife Services continued to support producers with technical advice, non-lethal supplies, and assistance with implementation. The Department assisted with attractant removal, hazing, electrified fladry, fencing maintenance, fence chargers, radio-activated guard (RAG) boxes, deterrent lighting, and other scare devices.

In 2019, 29 designated or revised Area of Known Wolf Activity maps were posted in order to inform livestock producers of resident wolf activity. District wildlife biologists informed producers when new areas of resident wolves overlapped with their livestock and advised them of non-lethal strategies to reduce livestock vulnerability. This information may help livestock managers know where and when to focus preventative actions.

Lethal Options: Within the federally listed portion of Oregon, all lethal take is regulated by the USFWS and no lethal removal is authorized in this area. In 2019, the Rogue Pack depredated nine times in the federally protected area.

Within the federally delisted portion of Oregon and under OAR 635-110-0030 (Phase III), the Department may lethally remove wolves or issue a limited duration permit for a livestock producer to kill wolves to minimize further depredation. Depredation in the state managed portion of Oregon did not meet a level where lethal removal was requested or authorized. No wolves were lethally removed in 2019 for chronic depredation.

A lethal option available to livestock producers east of Highways 395/78/95 is to lawfully shoot a wolf caught in the act of biting, wounding, killing or chasing livestock or working dogs in certain circumstances. In March, a livestock producer in Baker County lawfully shot an uncollared subadult wolf, it was one of four wolves that was chasing his herding dog close to his house.

Compensation for Wolf-Caused Losses

The Oregon Department of Agriculture's (ODA) Wolf Depredation Compensation and Financial Assistance County Block Grant Program provides four types of financial assistance options: direct compensation for confirmed and probable wolf depredations during the previous grant period; payment for livestock reported as missing during the previous year; costs to purchase supplies and implement preventative measures during the upcoming grant period; and, program implementation costs. The Department's primary roles are to delineate AKWAs and to investigate dead or injured livestock to determine if wolf depredation has occurred. Some counties requested the Department to provide input on wolf activity and appropriate preventative non-lethal measures. ODA awarded $178,319 to eleven counties, up from $160,890 awarded in 2018 (Table 3).

Table 3. Funds awarded through the County Block Grant Program in 2019 (source; Oregon Department of Agriculture).

County	Death/Injury	Missing	Prevention	Admin	Total
Baker	$10,634	$5,891	$19,000	$495	$36,020
Grant	$450	0	$4,000	$400	$4,850
Jackson	$6,200	0	$26,000	0	$32,200
Klamath	$4,190	0	$7,800	0	$11,990
Lake	0	0	$1,000	0	$1,000
Malheur	0	0	$500	$400	$900
Morrow	0	0	$2,000	$400	$2,400
Umatilla	$500	$4,107	$31,700	$600	$36,907
Union	$1,303	0	$5,000	0	$6,303
Wallowa	$5,760	$6,889	$30,000	0	$42,649
Wheeler	0	0	$3,000	$100	$3,100
Award Amount	**$29,037 (16%)**	**$16,887 (9%)**	**$130,000 (73%)**	**$2,395 (1%)**	**$178,319**