Washington Gray Wolf Conservation and Management 2024 Annual Report

A cooperative effort by the Washington Department of Fish and Wildlife, Confederated Tribes of the Colville Reservation, Spokane Tribe of Indians, Yakama Nation, Swinomish Indian Tribal Community, and U.S. Fish and Wildlife Service

Washington Department of FISH & WILDLIFE

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This report presents information on the status, distribution, and management of wolves in the State of Washington from Jan. 1, 2024 through Dec. 31, 2024.

Suggested citation

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Cover photo by Andrew Holm.

Executive Summary

Overview

Each year, the Washington Department of Fish and Wildlife (WDFW) submits a report to the federal government for Endangered Species Act (ESA) Section 6 activities. This document details the results of its annual gray wolf (*Canis lupus*) population survey and summarizes wolf recovery and management activities from the previous year.

Washington's wolf population was virtually eliminated in the 1930s but has rebounded following the enactment of federal and state protections and conservations efforts. A resident wolf pack was first documented in the state in 2008 in Okanogan County. Since then, the number of wolves has increased to a minimum of 230 wolves in 2024. Wolf pack territories overlap public and private lands throughout the Eastern Washington Recovery Region encompassing Ferry, Stevens, Spokane, Pend Oreille, and eastern Okanogan counties in the northeast corner of the state and Asotin, Garfield, Columbia, and Walla Walla counties in southeast Washington, while the population continues to expand in Okanogan, Chelan, and Kittitas counties in the Northern Cascades Recovery Region. Although multiple wolves have dispersed to the south of I-90 into the South Cascades and Northwest Coast Recovery Region, three out of the four wolves documented in this region were killed unlawfully and no wolves were observed in this recovery region by year-end of 2024.

Gray Wolves' Legal Status

Gray wolves in Washington received legal protection under the ESA in 1974. Wolves in the eastern third of the state were delisted as part of the Northern Rocky Mountain Distinct Population Segment (NRM - DPS) in 2011. In January 2020, the United States Fish and Wildlife Service (USFWS) published a final rule to delist gray wolves, where they are currently listed across the lower-48 United States due to recovery. Gray wolves in the entirety of Washington were managed under state authority until February 2022, when a court ruling vacated the 2020 final delisting rule, which reinstated ESA protections for wolves outside the NRM - DPS. The vacatur decision is currently being appealed. Gray wolves in the western two-thirds of Washington State remain classified as endangered under the ESA, where the USFWS has resumed the lead role for recovery actions in the corresponding federally listed area.

Under Washington state law, wolves were listed as endangered in 1980. Legal protections under state law currently apply to the entirety of the state. Washington's wolf recovery activities are guided by the Wolf Conservation and Management Plan, adopted in 2011 by the Washington Fish and Wildlife Commission (FWC). Under the plan, Washington state is divided into three recovery regions: Eastern Washington, the Northern Cascades, and the Southern Cascades and Northwest Coast. In addition, a WDFW-approved Wolf-Livestock Interaction Protocol sets forth criteria for WDFW to collaborate with livestock producers to minimize conflicts with wolves.

Wolves that inhabit tribal lands in the Eastern Washington recovery region are managed by those specific tribal entities.

Wolf Recovery and Management in 2024

Key developments in 2024 included:

- The state's minimum year-end wolf population decreased for the first time in 16 years. As of Dec. 31, 2024, WDFW and Tribes counted 230 wolves (9% decrease) in 43 packs in Washington. Eighteen of these packs were successful breeding pairs. These numbers are comparable with the previous year's count of 254 wolves in 42 packs and 24 breeding pairs. As in past years, survey results represent minimum counts of wolves plus 12.5% to account for lone wolves and dispersers in the state due to the difficulty of accounting for every animal – especially lone wolves unassociated with a pack.

- An error was made in the 2023 annual report, and the minimum count and breeding pair numbers have been corrected in the 2024 annual report. Specifically, in the Confederated Tribes of the Colville Reservation (CTCR) Strawberry pack in 2023, there were five wolves harvested out of that pack during the year that were not subtracted from the CTCR minimum count of eight. The year-end count for that pack should have been reported as three rather than eight. The pack had also been noted as a breeding pair, but did not meet the criteria to be considered as a breeding pair after these harvests were included. Correcting the error in pack size also meant decreasing the number of breeding pairs by one, resulting in a total of 24 successful breeding pairs in 2023. Incorporating the 12.5% correction for lone and dispersing wolves decreased the total minimum count for the 2023 annual report to 254 wolves from 260 (minus five wolves, minus one lone/ disperser).

- Pack sizes (number of individuals in a pack) ranged from two to thirteen wolves. Most packs contained three to six individuals.

- Since the first WDFW survey in 2008, the state's wolf population has grown by an average of 20% per year even with the decline seen this past year.

- State, federal, and tribal biologists captured 29 wolves from 22 different packs and monitored a total of 55 unique radio-collared wolves from 25 different packs in 2024.

- Three new packs formed or reestablished in 2024 including the Teanaway pack and Naneum pack in Kittitas County and the Reed pack in Okanogan County.

- Two cases of wolves being killed illegally were documented in Klickitat County. Investigation into the first case was opened in October 2024. A reward for information is currently offered, more information is available in this press release. Investigation into the second case was opened in December 2024. A reward for information is currently offered, more information is available in this press release.
    - USFWS is offering a $10,000 reward for information that leads to an arrest, a criminal conviction, or civil penalty assessment in this case. Non-profit organizations such as Conservation Northwest, Washington Wildlife First, and Center for Biological Diversity are offering an additional $ 30,000 ($ 10,000 from each of these three organizations) in reward money.

- One wolf was documented maintaining a territory in a new area that the CTCR called Hayden territory.

- Two packs dissolved to just one wolf maintaining a territory, including the former Vulcan pack territory and the former Salmo pack territory.

- Fifteen wolves were documented dispersing from their pack territories in 2024. This represents 28% of the collared wolves monitored during the calendar year. Seven collared wolves (13%) dispersed out of the Washington state to British Columbia, Canada, Oregon or Idaho.

- WDFW documented 37 wolf mortalities during 2024 (Table 1), including four removed by WDFW in response to wolf-livestock conflict, one killed while caught in the act of depredating on livestock, two of natural causes (one killed by a cougar, one killed by other wolves), two related to WDFW capture work, one died from ingesting a piece of plastic that perforated its small intestine, 18 legally harvested by CTCR tribal hunters and one by Spokane Tribal hunters, and seven mortalities from unlawful take still under investigation. One wolf was shot in a declared self-defense and likely died; however, the carcass was never located. This investigation was closed with no charges filed.

- Wolf populations are managed to ensure progress toward the recovery goals established in WDFW's 2011 Wolf Conservation and Management Plan. Guidance from the plan states that WDFW will minimize the loss of cattle and other livestock without undermining the long-term prospects for the recovery of a self-sustaining wolf population.

- WDFW investigators documented 40 depredation events in 2024. Investigation determined that 17 cattle (primarily calves) and one dog were confirmed killed by wolves, two calves were probably killed by wolves, 26 cattle were confirmed injured by wolves and two adult cows, and eight calves were probably injured by wolves.

- Up to ten of the 43 (23%) known packs that existed in Washington at some point during 2024 were involved in at least one confirmed or probable livestock injury or mortality. However, four of the ten packs associated with livestock depredations were involved in two or less events each. Seventy-seven percent of known packs were not involved in any known livestock depredation (including probable depredations) even though many of the pack territories overlap livestock operations.

- During calendar year 2024, WDFW spent a total of $1,652,802 on wolf management activities, including $81,631 for Damage Prevention Cooperative Agreements – Livestock (DPCA-L) non-lethal conflict prevention expenses (range riding, specialized lighting and fencing, etc.), $49,019 for WDFW contracted range riders, $139,543 for claims for livestock losses caused by wolves, $110,660 for lethal removal operations in response to depredations on livestock, and $1,271,950 for wolf management and research activities.

Acknowledgments

Wolf management in Washington is a cooperative effort by the Washington Department of Fish and Wildlife (WDFW), Confederated Tribes of the Colville Reservation (CTCR), the Spokane Tribe of Indians (STOI), Swinomish Indian Tribal Community, Yakama Nation, and the U.S. Fish and Wildlife Service (USFWS).

WDFW personnel who played a primary role during 2024 include WDFW Director Kelly Susewind, Wildlife Program Director Eric Gardner (retired), Wildlife Program Director Mick Cope, Deputy Director of Wildlife Cynthia Wilkerson, Game Division Manager Anis Aoude, Wolf and Grizzly Bear Policy Lead Subhadeep Bhattacharjee, Statewide Wolf Specialist Benjamin Maletzke, Wolf Biologist Trent Roussin, Wolf Biologist Gabriel Spence, Conflict Section Manager Jim Brown, Endangered Species Recovery Section Manager Julia Smith, and Chief Scientist Donny Martorello. Other WDFW personnel who assisted with wolf recovery and management efforts in Washington included Chris Anderson, Mike Atamian, Staci Lehman, Rich Beausoleil, Candace Bennett, Stefanie Bergh, Morgan Bucher, Callie Moore, Eric Boyd, Joe Bridges, Jeff Burnham, Colleen Chandler, Treg Christopher, Jason Day, Jason Earl, Chris Erhardt, Severin Erickson, Scott Fitkin, Ellen Heilhecker, Jeff Heinlen, Eric Holman, Justin Haug, Brock Hoenes, Andrew Kolb, Todd Jacobsen, Emily Jeffreys, Johnna Eilers, Sandra Jonker, Brant Johnson, Healani Johnson, Brian Kertson, Sarah Garrison, Doug King, Keith Kirsch, Mike Kuttel, Jr., Will Smith, Tyler Bahrenburg, Tony Leonetti, Mike Livingston, Brendan Oates, Megan Ogburn, Corey Peterson, Courtney Nasset, Brent Scherzinger, Katherine Haman, Carrie Lowe, Kristin Mansfield, Troy McCormick, William Moore, Paul Mosman, Bryan Murphie, Annemarie Prince, Grant Samsill, Mike Sprecher, Kevin Robinette, Tucker Seitz, Nicole Stephens, Seth Thompson, Michelle Tirhi, Maci Todd, Justin Trautman, Ben Turnock, Mark Vekasy, Robert Waddell, Jeff Wade, Reagan Harris, Matthew Brinkman, Kevin O'Conner, Erin Wampole, Steve Wetzel, Marcus Leuck, Kyla West, Paul Whelan, Carly Wickhem, Paul Wik, and Fenner Yarborough.

Other agencies also played a key role in wolf management efforts in Washington. In particular, we would like to thank personnel from the USFWS including Abby Sage, Tara Callaway, Stuart Fety, Travis Neal, Scott Becker, and Brad Thompson; CTCR personnel including Donovan Antoine, Marcus McClung, Elisabeth Odell, Ossian Laspa, Richard Whitney, Sam Rushing, Rose Piccinini, and Corey Peone; Spokane Tribe of Indians (STOI) personnel including Derek Abrahamson and Savanah Walker; Yakama Nation personnel including Mark Nuetzmann, Kristi Olney, Casey Heemsah, Leon Ganuelas; Swinomish Indian Tribal Community personnel including Brandon Nickerson and Leslie Parks, Washington State Department of Agriculture personnel including Laura Butler; the U.S. Forest Service including Melissa Hunt, Mike Borysewicz, John Chatel, Travis Fletcher, Ana Cerro, Don Youkey, Lance Koch, Sarah Riutzel, David Topolewski, and Aja Woodrow; the Washington Department of Natural Resources including Matt Fromherz, Andrew Hayes, Eric Krausz; the National Park Service including Roger Christophersen, Jason Ransom, Vicki Gempko, and Jack Oelfke; Rachael Mueller, Northwest Trek; Roblyn Brown from Oregon Department of Fish and Wildlife; Jay Shepherd from Northeast Washington Wolf-Cattle Collaborative; Scott Nielsen from Cattle Producers of Washington, Jeff Flood from the Stevens County Sheriff's Office; Dan Thornton from Washington State University; Beth Gardner, Aaron Wirsing, and Sarah Converse

from the University of Washington; and TJ Gooliaf and Luke Vander Vennen of British Columbia Ministry of Forests, Lands, and Natural Resource Operations.

We also sincerely appreciate the safe piloting and aerial telemetry skills of Dave Parker of Northern Air, Doug Uttecht of Northwest Helicopters, Jim Pope of Leading Edge Aviation, LLC, and Brandon Arago from Rotorhead Helicopters, LLC.

Finally, we could not list every person who contributed to wolf recovery and management efforts in Washington during 2024. We thank all who participated, particularly private landowners, for their access and cooperation and the many people who provided wolf observation reports.

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Introduction

Background

Historically, gray wolves (*Canis lupus*) were common throughout much of Washington, but their numbers began to decline as the human population increased after 1850. Due to high mortality from increased prices for hides, bounties, and government-sponsored predator control programs, wolves were believed to be extirpated from Washington by the 1930s. People reported seeing wolves sporadically over the next several decades, and reports increased in the 1990s and early 2000s, but no resident packs were documented.

Wolves that dispersed from growing populations in Idaho, Montana, and British Columbia, Canada were likely responsible for confirmed reports of wolves in northern Washington after 1990. However, the first resident pack in the state since the 1930s was not documented until 2008 in Okanogan County in north-central Washington. Since that time, wolves have continued to naturally recolonize the state by dispersing from resident Washington packs and neighboring states and provinces.

Definitions – "Pack" and "Breeding Pair"

Two terms often used when discussing gray wolves and wolf management are "pack" and "breeding pair."

A "pack" is defined as two or more wolves traveling together in winter and is primarily used to evaluate the number of wolves on the landscape. A "breeding pair" is defined as at least one adult male and one adult female wolf who raised at least two pups that survived until Dec. 31 (Wiles et al. 2011) and is used to reflect reproductive success and recruitment. In any given year, there could be at least as many packs as breeding pairs.

Federal Status

The status of gray wolves under federal law has been debated and litigated for many years, and the level of protection for the species has changed several times. Since 2011, wolves in the eastern third of Washington have not been listed under the federal ESA but are classified as endangered under state law (see discussion below). Gray wolves are federally listed as endangered in the western two-thirds of the state.

Subspecies of the gray wolf, including those that inhabited Washington, received federal protection under the ESA in 1974. The 1987 Northern Rocky Mountain Wolf Recovery Plan addressed gray wolf recovery in Idaho, Montana, and Wyoming, but did not include Washington. Federal wolf recovery criteria only applied to the three states addressed in the 1987 recovery plan.

In 2008, the USFWS published a final rule to delist the Northern Rocky Mountain (NRM) Distinct Population Segment (DPS), which included wolves from Idaho, Montana, Wyoming, the eastern third of Washington and Oregon, and a portion of north-central Utah. The eastern third of Washington was

included in the DPS to account for dispersing wolves from Idaho and Montana. Due to litigation and a resulting federal court decision, the 2008 rule was vacated and gray wolves in the NRM were placed back under federal protections.

In 2009, the USFWS published a final rule to remove the Northern Rocky Mountain DPS, excluding Wyoming, from protection under the ESA. However, the rule was vacated the following year by a federal judge whose action restored federal protections.

The situation changed again in 2011, when federal lawmakers directed the Secretary of the Interior to reissue the 2009 delisting rule. As a result, wolves in the Northern Rocky Mountain DPS, excluding Wyoming, were once again removed from ESA protection. Throughout this time, wolves in the western two-thirds of the state remained classified as 'endangered' under the ESA (Fig. 1).

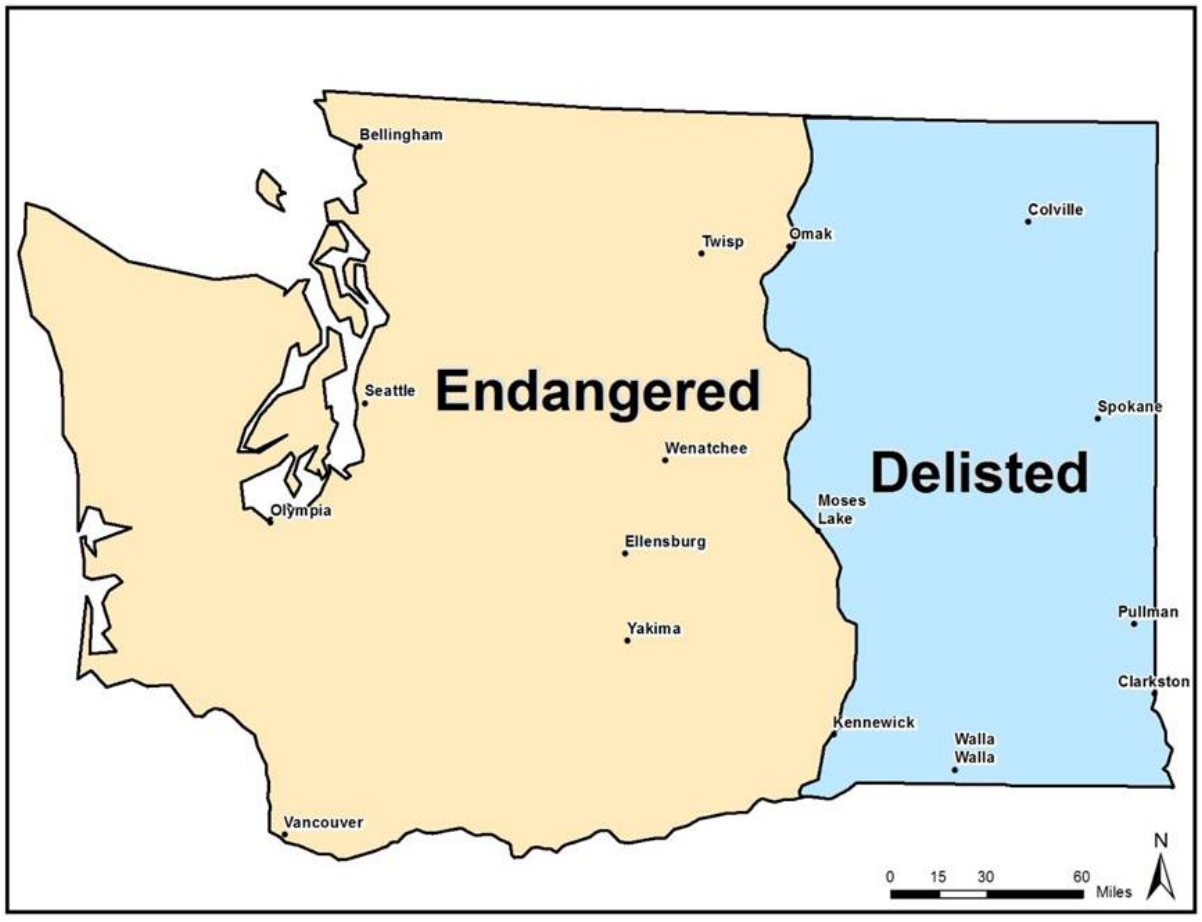

Figure 1. Federal status of wolves in Washington State, 2024. The gray wolf is federally listed as endangered in the western two-thirds of the state.

In 2013, the USFWS published a proposed rule to remove ESA protection for gray wolves where they were currently listed in the lower-48 states (outside of NRM DPS and Western Great Lakes (WGL) DPSs that were already delisted), including wolves in the western two-thirds of Washington. Further, the proposed rule would maintain endangered status for the Mexican wolf (*Canis lupus baileyi*) and would reclassify the Eastern wolf (*Canis lupus lycaon)* from a subspecies of the gray wolf to a separate species (*Canis lycaon*). Due to court decisions that relisted gray wolves in Wyoming and the WGL DPS and because the 2013 proposed rule relied in part on these two subsequently vacated final rules, in 2015 the USFWS only finalized the portion of the rule listing the Mexican wolf as an endangered subspecies.

On January 4, 2020, the USFWS published a final rule to delist gray wolves where they were currently listed across the lower-48 United States. As a result, gray wolves in the entirety of Washington were managed under state authority. On February 10, 2022, a court ruling vacated the 2020 final delisting rule which reinstated ESA protections for wolves outside the NRM DPS. The vacatur decision is currently being appealed.

In 2021, USFWS received petitions to relist gray wolves in the NRM DPS or to create and list a Western DPS. In response to these petitions, USFWS completed a species status assessment which informed a 12-month finding that was published on February 2, 2024. The analysis indicated that wolves were not at risk of extinction in the Western United States now or in the foreseeable future. Specifically, they found that the Northern Rocky Mountain DPS is not a listable entity because it is not markedly separate from other wolf populations and is therefore not warranted for listing. They found that the Western United States is a listable entity; however, the DPS does not meet the definition of threatened or endangered. This finding was not action-forcing thus the legal status of wolves did not change as a result of this finding.

State Status

In 2007, anticipating dispersal of wolves into Washington from surrounding states and provinces, and the likely formation of resident packs, the Washington Department of Fish and Wildlife (WDFW) initiated development of a state Wolf Conservation and Management Plan for Washington (Plan). Assisted by an 18-member working group comprised of stakeholders, the WDFW plan was adopted in December 2011 by the state Fish and Wildlife Commission (Commission).

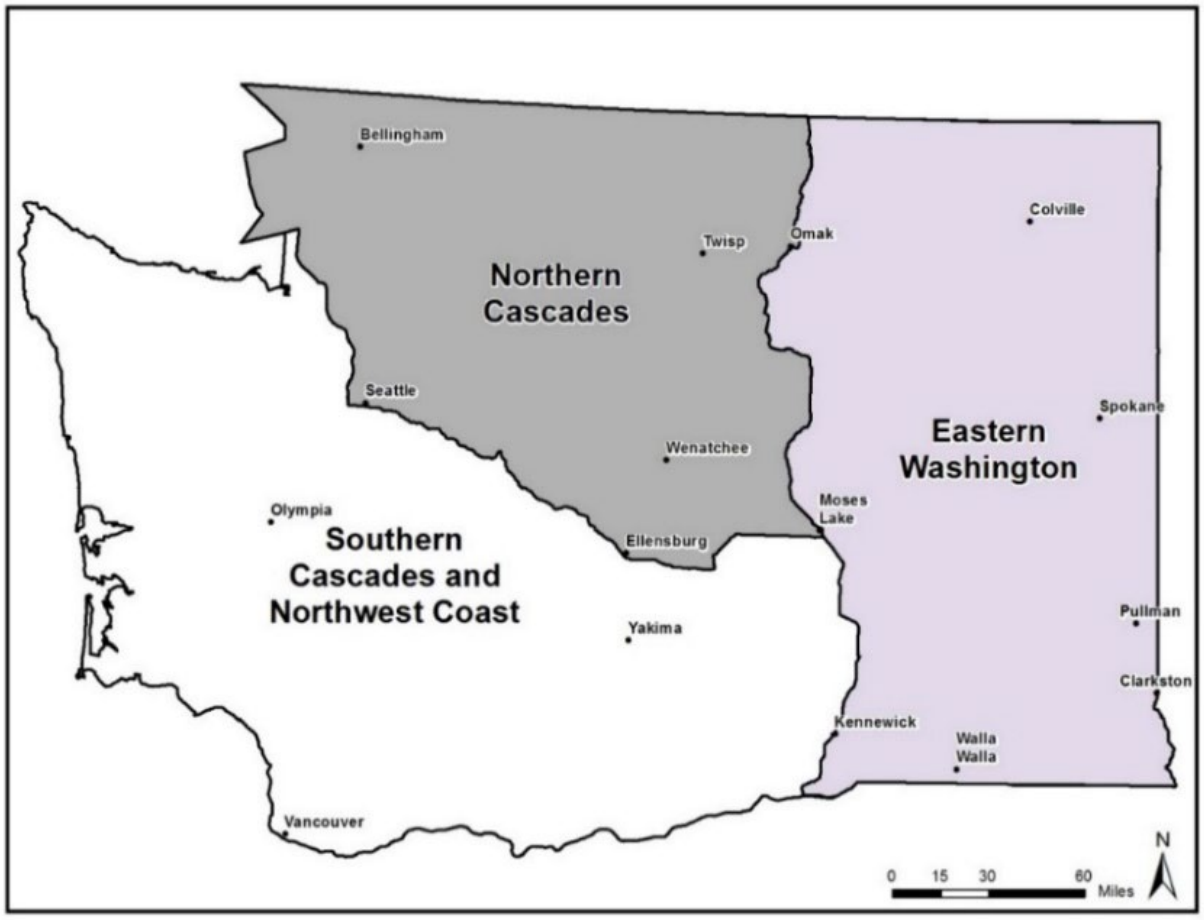

Figure 2. Washington wolf recovery regions as defined in the 2011 Wolf Conservation and Management Plan.

At present, wolves are classified as endangered under state law (WAC 220-610-010) throughout Washington, regardless of their federal ESA classification. State law RCW 77.15.120 protects endangered species from hunting, possession, malicious harassment, and killing; and penalties for illegally killing a state endangered species range up to $5,000 and/or one year in jail.

The Plan designates three recovery regions: Eastern Washington, the Northern Cascades, and the Southern Cascades and Northwest Coast (Fig. 2). Before Jan. 4, 2021, WDFW was the primary agency responsible for managing wolves in the Eastern Washington recovery region and worked as a designated agent of the USFWS under Section 6 of the federal ESA in the other two recovery regions. In 2021, WDFW was the primary agency responsible for managing wolves statewide except on tribal lands. Tribal governments manage wolves that inhabit their tribal lands in each of the recovery regions. As a result of a Feb. 10, 2022 federal court decision, the North Cascades and Southern Cascades and Northwest Coast recovery regions fell back under USFWS jurisdiction. The Eastern recovery region is currently under WDFW management jurisdiction.

WDFW periodically reviews classification of species under state law. In considering the appropriate classification for gray wolves under WAC 220-610-110, the Commission assessed whether the species met the definition of “endangered,” “threatened,” or “sensitive.”

- "Endangered" means any wildlife species native to Washington that is seriously threatened with extinction throughout all or a significant portion of its range within the state.
- "Threatened" means any wildlife species native to the state of Washington that is likely to become an endangered species within the foreseeable future throughout a significant portion of its range within the state without cooperative management or removal of threats.
- "Sensitive" means any wildlife species native to the state of Washington that is vulnerable or declining and is likely to become endangered or threatened in a significant portion of its range within the state without cooperative management or removal of threats.

The Commission’s consideration of possible down- or delisting evaluated whether gray wolves were in danger of failing, declining, are no longer vulnerable, and/or whether the recovery plan goals had been met.

The Plan contemplates down-listing of gray wolves under the following terms:

- They could be reclassified from endangered to threatened when six successful breeding pairs are present for three consecutive years, with two successful breeding pairs in each of the three recovery regions.
- They could be reclassified from threatened to sensitive status when 12 successful breeding pairs are present for three consecutive years, with four successful breeding pairs in each of the three recovery regions.

The Plan anticipates full delisting under two possible scenarios:

- When at least four successful breeding pairs are present in each recovery region and there are three additional breeding pairs anywhere in the state for three consecutive years; or
- When there are at least four successful breeding pairs in each recovery region and six additional breeding pairs anywhere in the state for a single year.

A periodic status review of wolves was drafted in February 2024 and based on population trends and biological status, WDFW staff recommended wolves be downlisted to Sensitive status. In July 2024, the Commission reviewed the staff recommendation and public testimony and decided that wolves would remain listed as endangered statewide based on guidelines in the Wolf Recovery and Management Plan.

Funding

During calendar year 2024, WDFW spent a total of $1,652,802 on wolf management activities, including $81,631 for Damage Prevention Cooperative Agreements – Livestock (DPCA-L) non-lethal conflict prevention expenses (range riding, specialized lighting and fencing, etc.), $49,019 for WDFW contracted range riders, $139,543 to claims for livestock losses caused by wolves, $110,660 for lethal removal

operations in response to depredations on livestock, and $1,271,950 for wolf management and research activities. Amounts provided are total payments during the 2024 calendar year.

Funds came from additional fees for personalized license plates (37%), general fund state appropriations (25%), federal contracts (<1%), unrestricted state wildlife funds (29%), and wolf livestock conflict funds (9%).

Washington state legislators created an account through Washington State Department of Agriculture to provide grants for a total of $1,262,250 for the 2023 – 2025 biennium to interested non-profit organizations or producers for non-lethal deterrents in Okanogan, Ferry, Stevens, and Pend Oreille counties. The Department of Agriculture oversaw grants provided to four organizations including Northeast Washington Wolf-Cattle Collaborative (NEWWCC), Cattle Producers of Washington (CPOW), Northeast Washington Predator Range Observation Association (NEWPROA), and Mountain Valley Wolf Challenge (MVWC) during the 2024 grazing season. Stevens and Ferry County also received $184,000 for the 2023 – 2025 biennium to support a wildlife specialist position to provide assistance with wolf conflict.

Population Monitoring

Monitoring Techniques

Biologists use a variety of monitoring techniques to evaluate pack size and reproductive success, identify pack territories, monitor movements and dispersal events, identify new areas of possible wolf activity, and mitigate conflicts with livestock. Wolf monitoring activities occur year-round and may include direct observational counts from either the ground or the air, track surveys, and remote camera surveys. However, it is always possible that some wolves were present in surveyed areas but evaded detection. WDFW and tribal partners use a combination of the techniques described above to derive a **minimum number** of wolves known to exist at the end of each calendar year. Thus, documentation of total wolf numbers and reproductive success (e.g., breeding pair status) is conservative and the total number of wolves in Washington is likely higher.

Numbers provided by CTCR in 2019 and 2020 reflected winter numbers gathered by biologists from usual methods, but also took into account totals from a select few reliable hunters, trappers, and public observations. In 2023, The CTCR counts for Frosty (11 total), Keller Ridge (10 total), and Dollar Mt. (10 total), biologists knew den locations which allowed them to set trail cams and get May and June pup counts for those packs. CTCR biologists knew that each pack had six, four, and five pups respectively, however, they were not able to successfully do end of the year flights or track surveys, therefore the year end minimum known number for those three packs was likely lower than reported, with known pup survival on average of 25%.

Prior to 2019, in 2021 and 2022, and continuing in 2024, the CTCR allocated focused efforts to count wolves using year-end track, aerial, and camera surveys similar to WDFW and other Tribal partners.

The annual survey includes lone wolves when reliable information is available. However, because lone or dispersing wolves are difficult to document and account for 10% to 15% of the known winter population (Mech and Boitani 2003[1]), WDFW began multiplying the minimum documented count by 12.5% to account for solitary wolves on the landscape after 2014 as the population expanded.

Population Status and Distribution

The number of wolves in Washington declined in 2024 from the previous year's count for the first time in 16 years with a resulting decrease of nine percent for the state's minimum year-end wolf population. As of Dec. 31, 2024, WDFW and Tribal partners counted 230 wolves and 43 packs. Eighteen of these packs were considered successful breeding pairs in 2024. These numbers compare with 254 wolves in 42

[1] Mech, L.D. and L. Boitani. 2003. Wolves: Behavior, Ecology, and Conservation. The University of Chicago Press. Chicago, Illinois, USA.

packs, and 24 breeding pairs one year earlier. Because these are minimum counts, the total number of wolves in Washington is likely higher.

Compared to 2023, the number of individual wolves (Fig. 3) decreased by 9%, although the number of packs (Table 1, Fig. 4) increased by one. Additionally, 18 packs were confirmed to be successful breeding pairs as of the end of 2024 and this was a decrease of 25% (Table 1, Fig. 5). Pack size ranged from two to 13 individuals and averaged 4.4 wolves per pack (*SD* ± 2.4, *n*=42).

The Eastern Washington and North Cascades Recovery Regions both exceeded regional recovery objectives (four successful breeding pairs for three consecutive years) identified in the Plan because they have both had greater than four breeding pairs for greater than three consecutive years. During 2024, the Eastern Washington Recovery Region had 31 packs, 13 of which were considered successful breeding pairs. The North Cascades Recovery Region had 12 packs, five of which were considered successful breeding pairs. This region has maintained a minimum of four successful breeding pairs for three consecutive years and continues to meet recovery objectives.

WDFW had documented the first resident pack in the Southern Cascades and Northwest Coast recovery region in 2022; however, one of those wolves went missing and the pack was down to only one wolf maintaining a territory in 2023 and 2024. A second wolf dispersed from the Teanaway in early summer of 2023 to the South Cascades and was unlawfully killed that fall. WDFW also monitored a third collared male wolf that dispersed into the Southern Cascades in 2024. Unfortunately, both collared wolves monitored in 2024 were unlawfully killed last fall and no wolves were detected in the year end counts in the Southern Cascades and Northwest Coast Recovery Region.

To reach statewide recovery objectives for wolves in Washington, the Southern Cascades and Northwest Coast Recovery Region would need a minimum of four successful breeding pairs while the other two regions maintain a minimum of four successful breeding pairs and at least six additional successful breeding pairs located anywhere in the state.

Additional findings from the 2024 population survey include the following:

- An error was made in the 2023 annual report, and the numbers have been corrected in the 2024 annual report. Specifically, in the CTCR Strawberry pack in 2023, five wolves harvested out of that pack during the year were not subtracted from the CTCR reported minimum count of eight. The year-end count for that pack should have been three rather than eight. The pack had also been noted as a breeding pair, but did not meet the criteria to be considered as a breeding pair after these harvests were included. Correcting this error also meant decreasing the number of success breeding pairs by one to 24 successful breeding pairs in 2023. Incorporating the 12.5% correction for lone and dispersing wolves decreased the total minimum count for 2023 annual report from 260 to 254 wolves (minus five wolves, minus one lone/ disperser).

- Although multiple wolves have dispersed to the south of I-90 into the South Cascades and Northwest Coast Recovery Region, three out of the four wolves documented in this region were killed unlawfully and no wolves were observed in this recovery region by year-end of 2024.

- CTCR Biologists confirmed a single wolf maintaining a territory, but without two wolves it did not meet the definition of a pack, so it was named the Hayden territory.

- No wolves were located in the former Diobsud Creek territory during survey efforts over winter.

- Since the first WDFW survey in 2008, the state's wolf population has grown by an average of 20% per year even with the decline seen this past year.

- Three new packs formed or reestablished in 2024 including the Teanaway pack and Naneum pack in Kittitas County and the Reed pack in Okanogan County.

- Fifteen collared wolves dispersed from their packs in 2024. Seven of those wolves dispersed out of Washington state.

Wolves continue to inhabit both public and private lands (Fig. 6), and 25 of the state's 43 packs (including CTCR packs) had at least one collared wolf during 2024. Data from these wolves were used to assist WDFW in defining pack territories. The average (mean) territory size (n=23 collared packs) was 257.7 square miles (667.5 square kilometers), ranging from an estimated 38.1 to 879.8 square miles (98.6 – 2,278.7 square kilometers).

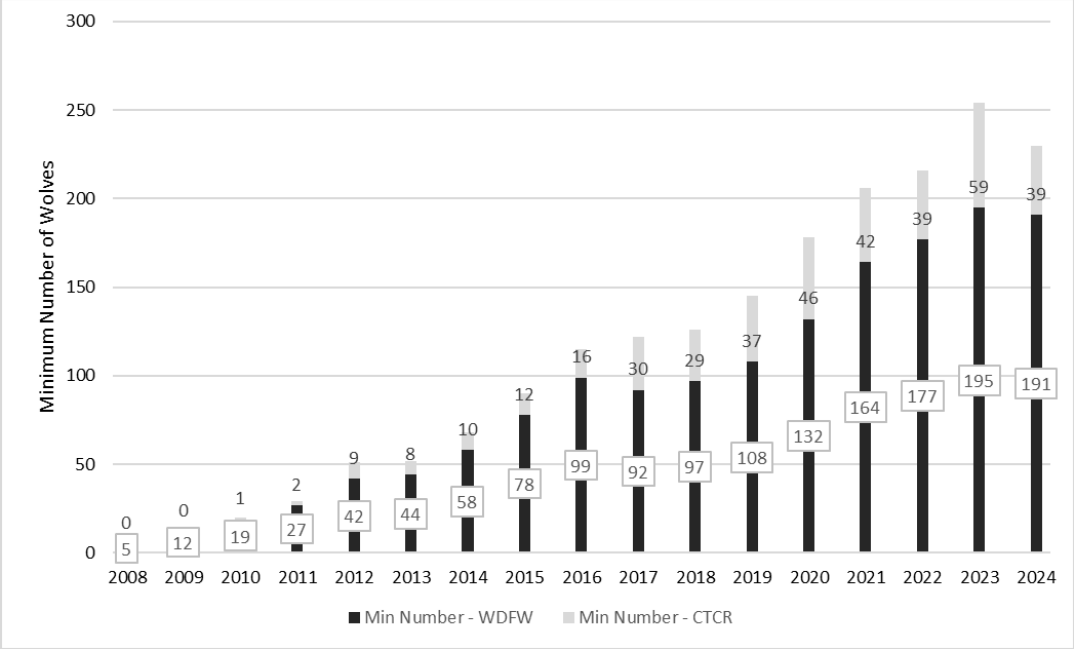

Figure 3. Minimum known number of wolves in Washington managed by Washington Department of Fish and Wildlife (WDFW), the Spokane Tribe, and the Confederated Tribes of the Colville Reservation (CTCR), 2008 – 2024. An additional 12.5% for lone wolves and dispersers was added to the minimum count from 2014 – 2024 as the population expanded.

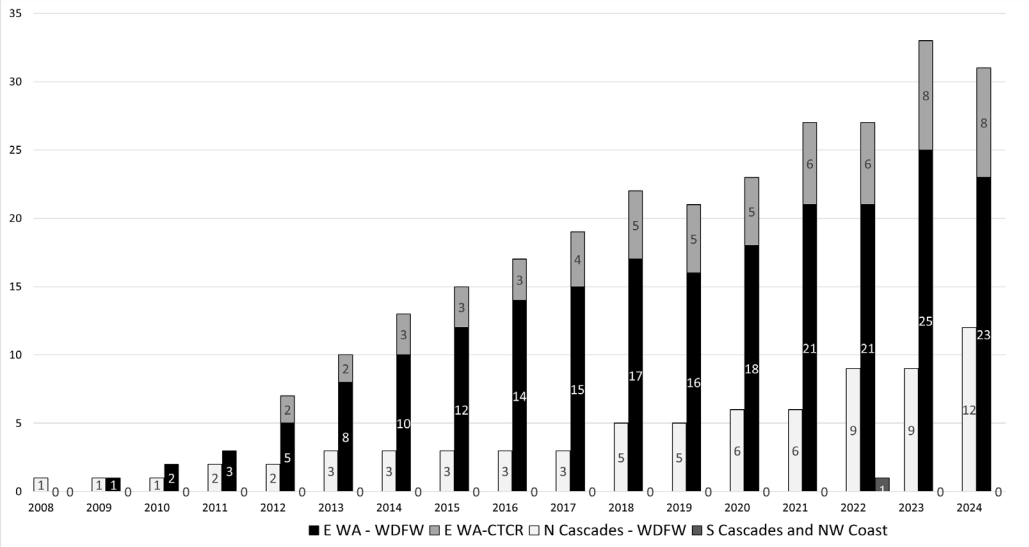

Figure 4. Minimum known number of packs by recovery region in Washington, 2008 – 2024. Wolf packs counted by Washington Department of Fish and Wildlife (WDFW), the Spokane Tribe of Indians (STOI), and Confederated Tribes of the Colville Reservation (CTCR).

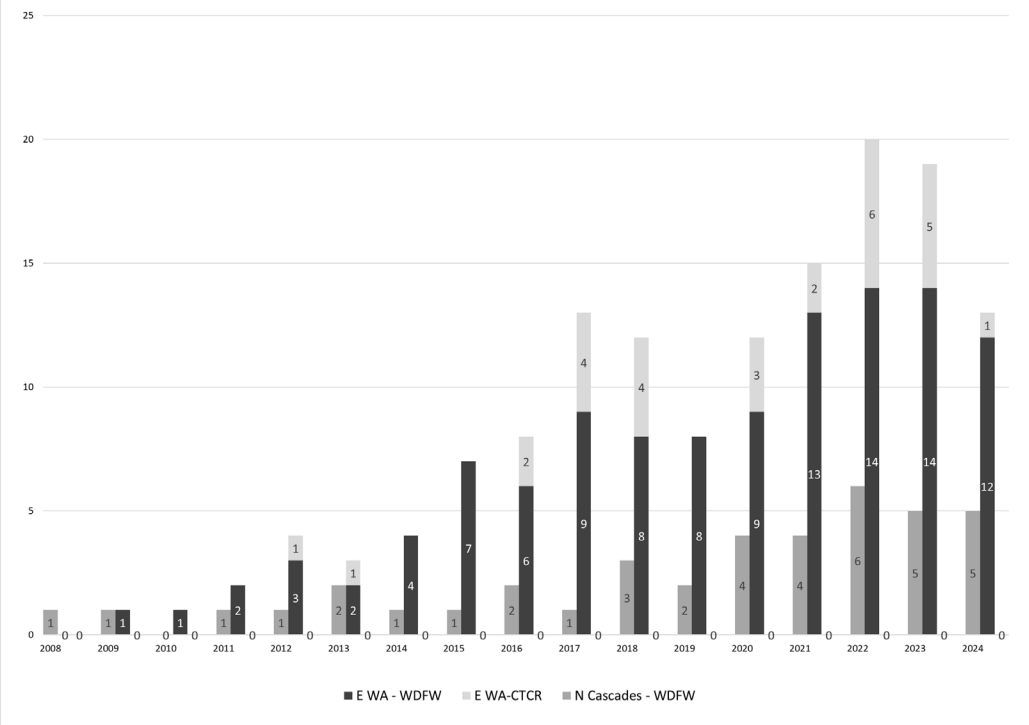

Figure 5. Minimum known number of successful breeding pairs by recovery region in Washington, 2008 – 2024. Confederated Tribes of the Colville Reservation (CTCR) did not count successful breeding pairs in 2019.

Table 1. Known wolf packs in Washington by recovery region, minimum pack size of known packs, documented mortalities, and the number of known wolves that dispersed in 2024. Underlined packs were counted as successful breeding pairs. Packs with a strike through are territories occupied by a single wolf or packs that disbanded by year end. CTCR = Confederated Tribes of the Colville Reservation. Harvest numbers were documented by CTCR and Spokane Tribe (STOI) biologists.

	Recovery	Minimum Known	Documented Mortalities					Known
Wolf Pack	**Area**	**Pack Size Dec 2024**	**Natural**	**Human**	**Unknown**	**Harvest**	**Control**	**Dispersed**
Beaver Creek	E. Wash	2						
Butte Creek	E. Wash	6						
Carpenter Ridge	E. Wash	9						2
Couse	E. Wash	4		2				
Columbia	E. Wash	8						
Dirty Shirt	E. Wash	5		1				1
Dollar Mountain (CTCR)	E. Wash	5						1
Dominion	E. Wash	4	1				1	
Five Sisters	E. Wash	2						
Frosty Meadows (CTCR)	E. Wash	4						
Grouse Flats	E. Wash	9		1				1
Goodman Meadows	E. Wash	6						
~~Hayden (CTCR)~~	E. Wash	1						
Huckleberry (STOI)	E. Wash	2				1		
Keller Ridge (CTCR)	E. Wash	4				1		
Leadpoint	E. Wash	6		1				1
Mt Spokane	E. Wash	4						
Nason Basin (CTCR)	E. Wash	4				3		
Nc'icn (CTCR)	E. Wash	4				2		
Onion Creek	E. Wash	3					3	1
Ruby Creek	E. Wash	5						
~~Salmo~~	E. Wash	1						
Scatter	E. Wash	5		1		3		
Sherman	E. Wash	5						1
Skookum	E. Wash	2						
Stranger	E. Wash	6		1				
Strawberry (CTCR)	E. Wash	3				7		
Togo	E. Wash	6						
Touchet	E. Wash	3						1
Tucannon	E. Wash	4						
~~Vulcan~~	E. Wash	1						
Wedge	E. Wash	3						
Whitestone (CTCR)	E. Wash	6				1		
Wilmont (CTCR)	E. Wash	4				1		

Table 1. Known wolf packs in Washington by recovery region, *continued*.

	Recovery	Minimum Known	Documented Mortalities					Known
Wolf Pack	**Area**	**Pack Size Dec 2024**	**Natural**	**Human**	**Unknown**	**Harvest**	**Control**	**Dispersed**
Chewuch	N Cascades	10						
Chopaka	N Cascades	5						
Lookout	N Cascades	13		1				
Loup Loup	N Cascades	3		1				1
Maverick	N Cascades	4						
Naneum	N Cascades	2						1
Napeequa	N Cascades	3						
Navarre	N Cascades	2						
Reed Mountain	N Cascades	2						
Shady Pass	N Cascades	4	1					3
Sullivan Creek	N Cascades	8						1
Teanaway	N Cascades	2						
~~Big Muddy~~	S Cascades	0		1				
Misc/Lone Wolves	Statewide	26		2				
WASHINGTON TOTALS		230	2	12	0	19	4	15

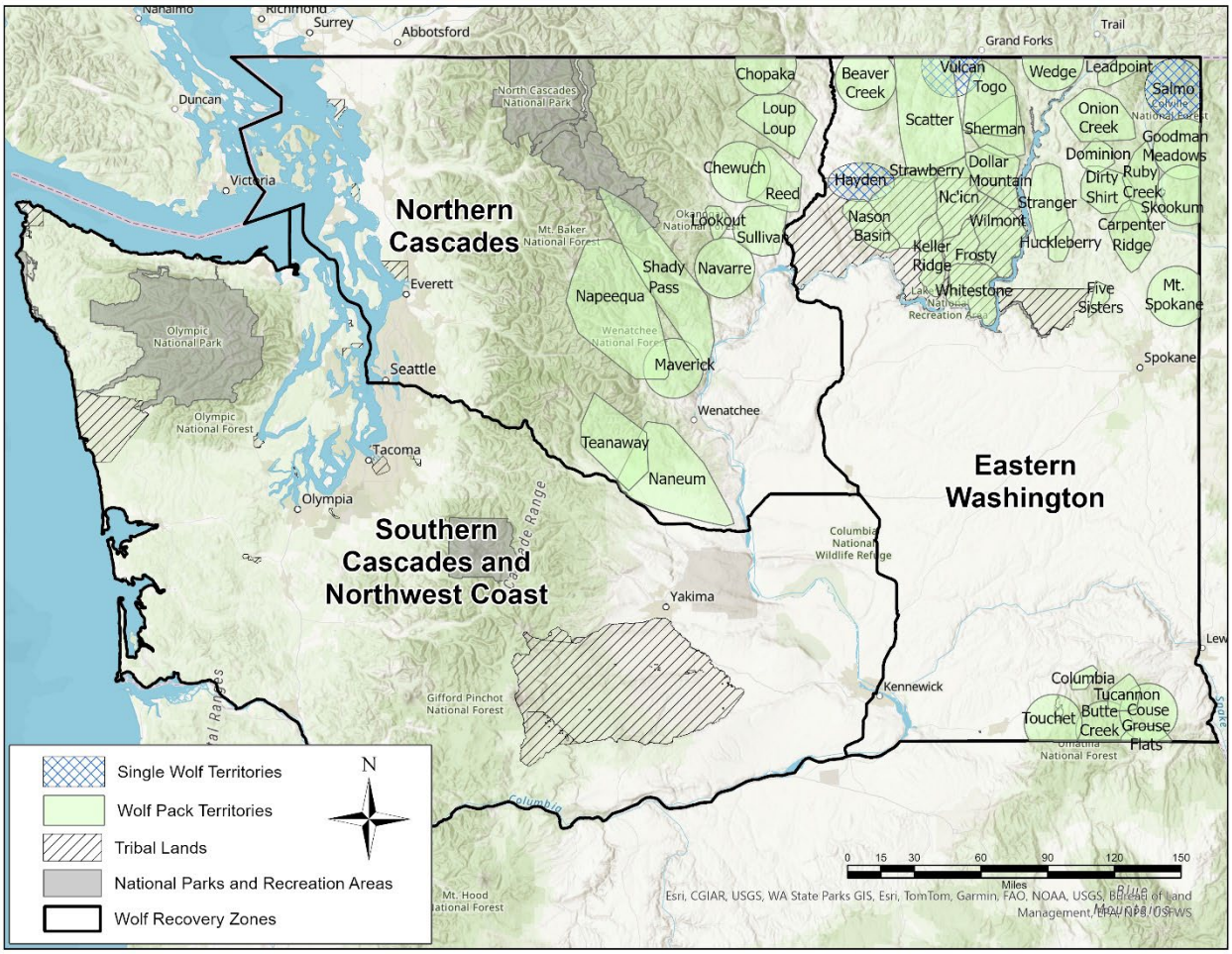

Figure 1. Known wolf packs and single wolf territories in Washington as of Dec. 31, 2024, not including unconfirmed or suspected packs or border packs from other states and provinces.

Wolf Captures and Monitoring

State, federal, and tribal biologists captured 29 wolves from 22 different packs in 2024. Of those, WDFW captured 11 males and 12 females including 12 adults, seven yearlings, and 4 pups. Four of the wolves had been captured and marked in previous years. All wolves captured were fitted with either global positioning system (GPS) collars or very high frequency (VHF) radio collars.

Fifty-five radio-collared wolves were monitored from 25 different packs, representing 58% of the known packs in Washington. Two wolves died shortly after capture and their data was censored from spatial analyses. Due to mortalities, dispersals, scheduled collar releases, and radio collar failures, only 29 radio-collared wolves (28 GPS, one VHF collar) from 22 packs were being monitored at the end of the year. This accounts for approximately 13% of the minimum known population from 51% of known packs in Washington.

Known Dispersals

A dispersal occurs when a wolf leaves the pack territory where it was born (or previously resided) in search of a new pack or territory. Fifteen (14 WDFW and one CTCR) collared wolves were documented dispersing from their pack territories in 2024 (Table 1, Fig. 7).

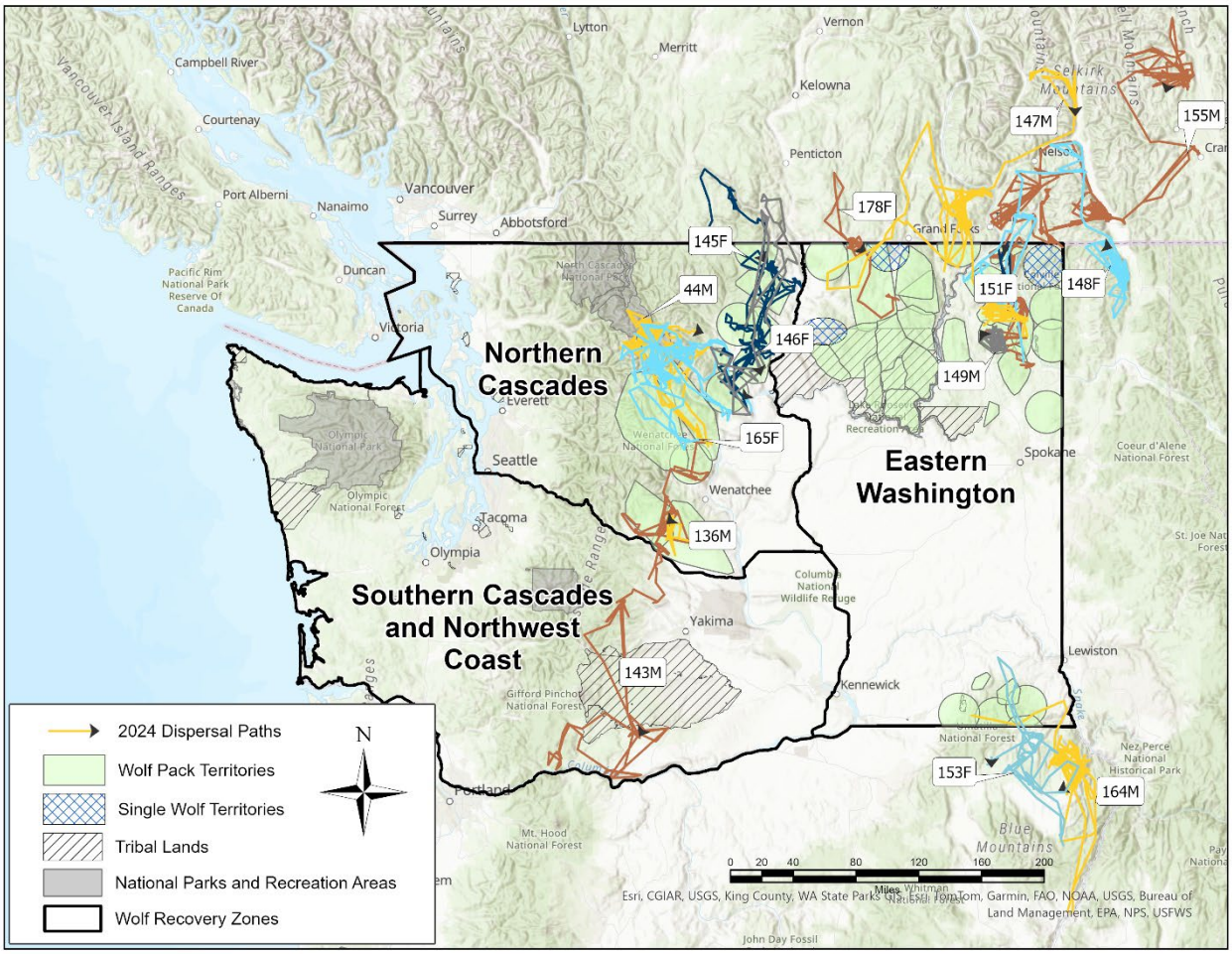

Figure 2. Generalized dispersal paths of collared wolves that dispersed from known wolf packs in Washington in 2024.

1. Wolf 147M dispersed from the Dirty Shirt territory at the end of August 2023, and traveled throughout northeastern Washington and southern British Columbia before contact was lost in April of 2024.

2. Wolf 145F began dispersing from the Loup Loup territory at the end of September of 2023 and traveled throughout the North Cascades recovery region and into southern British Columbia before localizing in the Reed territory in August of 2024.

3. Wolf 164M dispersed from the Touchet territory in November of 2023 and continued to disperse into northeastern Oregon until March of 2024.

4. Wolf 155M began dispersal from the Leadpoint territory in mid-December of 2023, and traveled throughout northeastern Washington and southern British Columbia before localizing in the Rocky Mountain Trench of British Columbia in September of 2024.

5. Wolf 143M Dispersed from the Shady Pass territory in February of 2024 and dispersed throughout the North Cascades and South Cascades recovery areas until May of 2024.

6. Wolf 148F dispersed from the Carpenter Ridge territory in March of 2024 before localizing near Creston, British Columbia in May of 2024.

7. Wolf 146F dispersed from the Sullivan territory in March 2024 and traveled as far north as Keremeos, British Columbia before returning the Sullivan territory in May of 2024.

8. Wolf 44M dispersed from the Shady Pass territory in May of 2024 and was killed by other wolves in the Lookout territory in October of 2024.

9. Wolf 165F dispersed from the Shady Pass territory in May of 2024 and dispersed throughout the remainder of the year. She dispersed around Lake Chelan and throughout the Glacier Peak Wilderness.

10. Wolf 145F dispersed from the Onion territory into the Leadpoint territory in September 2024.

11. Wolf 136M dispersed from the Naneum territory to the Teanaway territory in September of 2024.

12. Wolf 153F dispersed from the Grouse Flats pack to northeastern Oregon in October of 2024.

13. Wolf 178F dispersed from the Sherman territory in October 2024 and was legally harvested in southern British Columbia in November 2024.

14. Wolf 149M dispersed from the Carpenter Ridge territory to the Dirty Shirt territory between November and December of 2024.

15. A male wolf collared by CTCR biologists dispersed from the Dollar Mountain territory into British Columbia in December of 2024.

Regulated Harvest

Open to tribal members only, the CTCR regulates wolf harvest within the CTCR Reservation and an area formerly part of the reservation known as the "North Half". In 2012, the CTCR established a hunting season for wolves in three wolf management zones on the “South Half” Reservation with an annual harvest limit of nine wolves, three wolves for each wolf management zone. In 2015 an additional wolf management zone was included, allocating 12 wolves to be harvested within the four wolf management zones. After approving the Colville Confederated Tribes Gray Wolf Management Plan in 2017, harvest became regulated using acceptable harvest allocations of up to 10% for "Recolonizing" populations and up to 24% for "Recovered" populations.(CCTFWD 2017) This plan takes into account individual species goals under the Colville Tribes' Integrated Resource Management Plan and Colville Tribes' Fish and

Wildlife Management Plan, while also attempting to strike a balance between: 1) maintaining a subsistence culture dependent upon thriving ungulate populations capable of providing sustenance to the Tribal Membership, and 2) the recovery of gray wolf populations." (CCTFWD 2017). While setting the hunting regulations for the 2018 season, the CTCR determined that the North and South Half wolf populations were recovered under the CTCR Gray Wolf Management Plan, and according to the approved harvest allocation in the Management Plan, the population would support an expanded season and open annual harvest allocation. Annual reviews of the population are conducted by the Division Manager to determine if the harvests are achieving Tribal Goals. Since the 2018 season, the CTCR Wildlife Division has not seen any drastic reductions in the wolf population and the harvest allocation has remained the same.

In 2019 new CTCR Tribal hunting regulations were created, allowing for a year-round hunting season for wolves on both the North Half and South Half Reservation. The current CTCR hunting regulations allow for the use of any legal weapon, harvest of either sex, and no daily or season limits. Trapping and snaring seasons run Nov. 1 – Feb. 28 (in 2024 this season had been extended to Mar. 31) and include either sex harvest using any legal trap or snare and no daily or season limit. Harvested wolves are required to be sealed within 15 days of harvest or 15 days after the close of the trapping season, whichever comes first. Fifteen of the wolves were harvested on the "South Half" of the reservation and three wolves were harvested on the North Half.

Regulated wolf harvest is also allowed for tribal members on the Spokane Tribe of Indians (STOI) Reservation. Wolf seasons remain open year-round or until a maximum of 10 wolves are taken during the calendar year. Trapping and/or snaring is allowed by special permit only with a season from Oct. 1 – Feb. 28. All wolf harvest must be reported within 24 hours to the STOI Wildlife Program. The Spokane Tribe of Indians reported one wolf harvested on the reservation.

No regulated harvest occurred in Washington outside of the CTCR or the North Half or Spokane Indian tribal reservation.

Mortalities

WDFW documented 37 wolf mortalities during 2024 (Table 1), including four removed by WDFW in response to wolf-livestock conflict, one killed while caught in the act of depredating on livestock, two of natural causes (one killed by a cougar, one killed by wolves), two capture-related, one died from ingesting a piece of plastic that perforated its small intestine, 19 legally harvested with 18 legally harvested by CTCR tribal hunters and one by a STOI hunter, and seven mortalities from unlawful take, in which one case was referred to the Prosecutor's office for a charging decision and the remaining six are still under investigation. One wolf was shot in a declared self-defense and likely died; however, the carcass was never located. The investigation is closed with no charges filed.

The investigations into the unlawful take of one wolf each from the Vulcan Pack, Carpenter Ridge, and Leadpoint Pack in 2022, as well as the Navarre pack, and a Teanaway disperser in 2023 have reached the statute of limitations and the investigations are closed with no charges filed due to a lack of substantial

evidence towards a conviction. The remaining investigations into the unlawful take of a wolf/wolves remain open and are active investigations.

Management

Livestock Depredations

Reports of wolf-caused livestock depredations are classified as confirmed, probable, confirmed non-wolf (domestic dog, cougar, bear, etc.), unconfirmed depredation, non-depredation, or unconfirmed cause of death. Specific criteria for these classifications are outlined in the Plan.

Reports of wolf depredations on livestock are investigated by WDFW personnel with assistance, as needed, from USFWS staff and local county officials and sheriffs' department personnel. In 2024, investigators investigated 40 depredation events where they confirmed that wolves were responsible for killing 17 cattle (15 calves and two adult cows), and one dog. Wolves were also confirmed to have injured 26 cattle (two adult, 24 calves; Fig. 8, Table 2). Additionally, wolves probably killed two calves and probably injured two adult cows and eight calves. Most mortalities occurred during the summer-fall grazing season from April through August (Fig. 9).

Livestock depredation statistics in this report are based on livestock injuries and mortalities reported by producers and investigated by WDFW. They do not include lost or missing livestock.

Number of Packs Involved in Livestock Depredations

Up to ten (two were undetermined) of the 43 known packs (23%) that existed in Washington at some point during 2024 were involved in at least one confirmed or probable livestock mortality or injury (Fig. 10). Four of the 10 packs associated with livestock depredations were involved in two or less events each. Seventy-seven percent of Washington's wolf packs were not involved in any known livestock depredations.

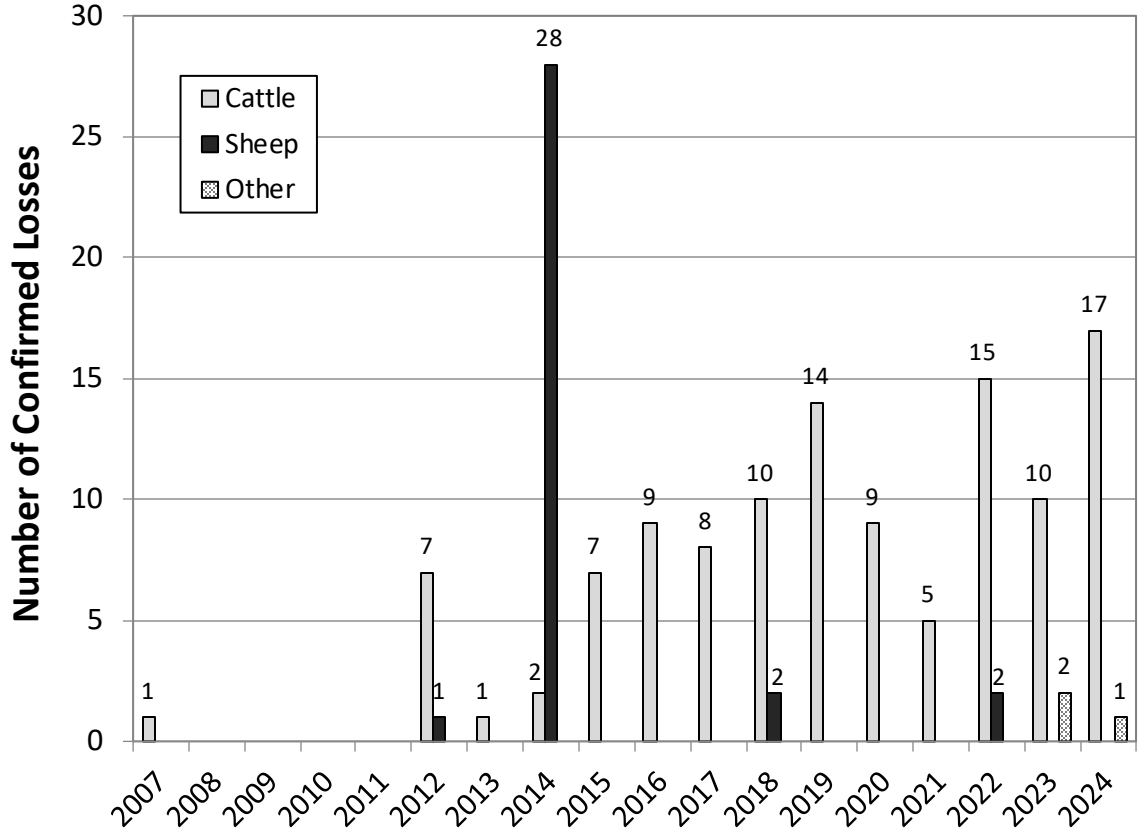

Figure 3. Total number of confirmed wolf-caused livestock mortalities in Washington, 2007-2024.

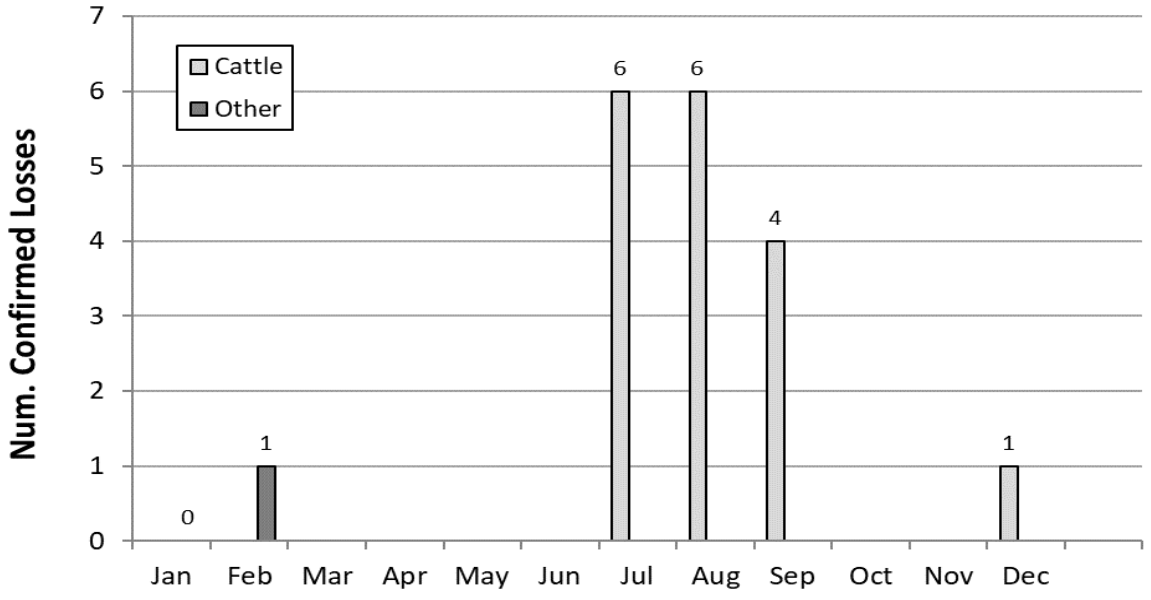

Figure 4. Number of confirmed wolf-caused livestock mortalities by month in Washington, 2024.

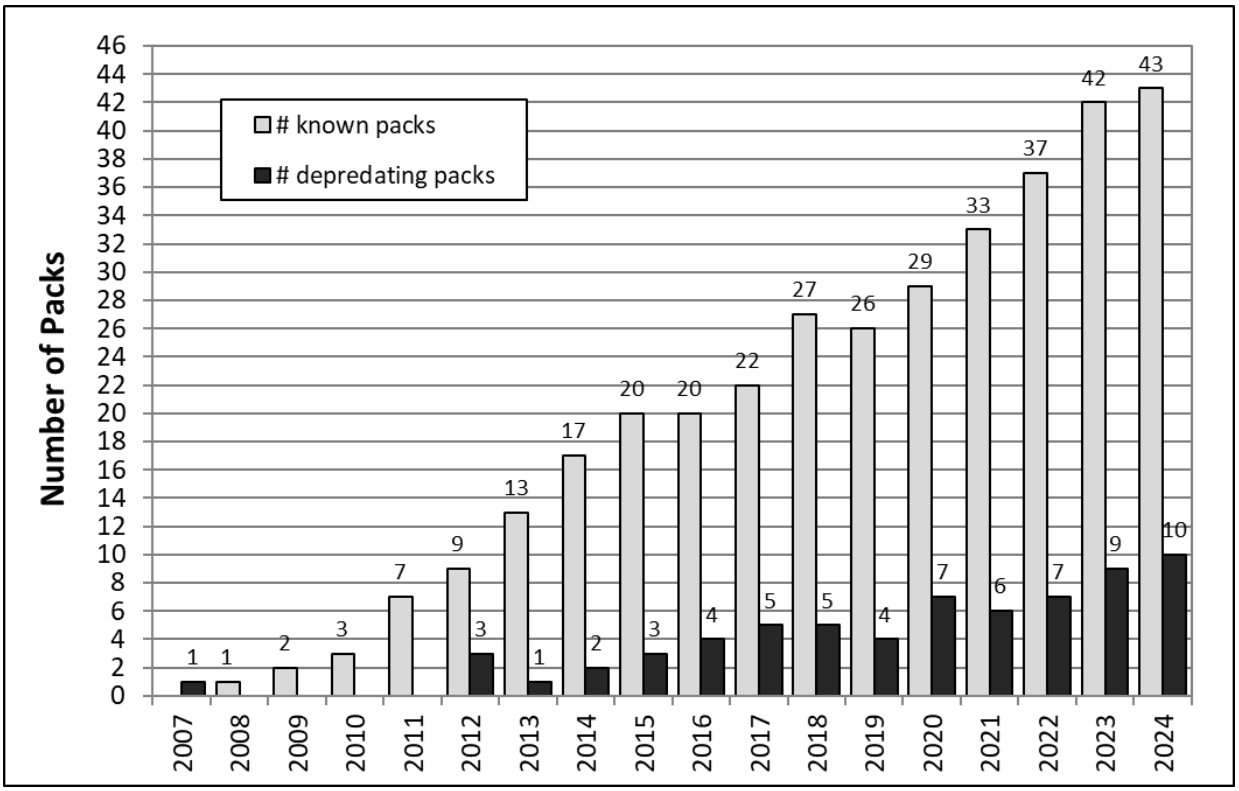

Figure 5. Minimum number of known packs that existed at the end of the calendar year and the number of confirmed depredating packs (on livestock) in Washington, 2007 – 2024.

Minimizing Wolf Conflicts with Livestock

One goal of the Wolf Conservation and Management Plan is to manage wolf-livestock conflicts without undermining the recovery and long-term perpetuation of a sustainable wolf population. In 2024, as in previous years, preventative measures were used in an attempt to minimize livestock depredations.

Measures included, but were not limited to:

- Non-electrified and electrified fladry (red flagging strung around a pasture),
- Temporary fencing, to create enclosures for livestock,
- Radio-activated guard (RAG) boxes,
- Fox lights (Foxlights International PTY LTD, Bexley North Australia),
- Livestock guard dogs,
- Providing education and assistance regarding removal of attractants, including proper carcass disposal,
- Range riding activities to monitor cattle, including those contracted directly by WDFW and in cooperation with non-government organizations (NGOs) providing services under grant contracts through the Washington Department of Agriculture.

WDFW also provided livestock producers with wolf location data to help identify high wolf-activity areas. The information enables producers to move livestock away from high wolf-activity areas or monitor livestock more closely. Some producers protected livestock by penning animals, especially at night, and by removing injured and/or dead livestock from grazing sites. In the Eastern Washington recovery region only, WDFW used incremental lethal removal of wolves in an attempt to change pack behavior after repeated depredations.

WDFW has management authority of wolves in the Eastern Washington recovery region (Fig. 2). Under state law (RCW 77.12.240), WDFW can implement lethal removal in the Eastern Washington recovery region, and the Plan contemplates the use of lethal removal as a tool to change pack behavior after repeated livestock depredations. In 2024, lethal removal was authorized in four packs, which resulted in four wolves being killed during agency lethal removal actions (See Appendix A for a summary).

Table 2. Confirmed wolf-caused livestock and dog injuries and mortalities in Washington, 2013-2024.

	2013		2014		2015		2016	
	Injuries	Mortalities	Injuries	Mortalities	Injuries	Mortalities	Injuries	Mortalities
Cattle	0	1	2	2	0	7	6	9
Sheep	0	0	6	28	0	0	0	0
Other	0	0	0	0	0	0	0	0
Dogs	3	0	1	0	1	0	0	0
Total	**3**	**1**	**9**	**30**	**1**	**7**	**6**	**9**

	2017		2018		2019		2020	
	Injuries	Mortalities	Injuries	Mortalities	Injuries	Mortalities	Injuries	Mortalities
Cattle	5	8	19	10	11	14	30	9
Sheep	0	0	1	2	0	0	0	0
Other	0	0	0	0	0	0	0	0
Dogs	0	0	0	0	0	0	1	0
Total	**5**	**8**	**20**	**12**	**11**	**14**	**31**	**9**

	2021		2022		2023		2024	
	Injuries	Mortalities	Injuries	Mortalities	Injuries	Mortalities	Injuries	Mortalities
Cattle	8	5	9	15	7	10	26	17
Sheep	0	0	0	2	0	0	0	0
Other	0	0	0	0	1	2	0	0
Dogs	0	0	0	0	0	0	0	1
Total	**8**	**5**	**9**	**17**	**8**	**12**	**26**	**18**

Under state laws RCW 77.36.030 and RCW 77.12.240, administrative rule (WAC 220-440-080), and the provisions of the Plan, WDFW may permit livestock producers and their authorized employees to lethally remove wolves caught in the act of attacking livestock on private land and public grazing allotments they own or lease after a documented depredation. WDFW did not issue any permits to lethally remove wolves to livestock producers in 2024.

Also, state law and related regulations (WAC 220-440-080) permit owners of domestic animals (defined as any animal that is lawfully possessed and controlled by a person) and their immediate family members or authorized agents to kill one gray wolf without a permit if the wolf is attacking their domestic animals. This rule applied only in the Eastern Washington recovery region where wolves were federally delisted and did not apply in areas where wolves remain classified as endangered under the Federal ESA. In January 2021, wolves were federally delisted from the ESA and were under WDFW management statewide following the guidance of the Plan. However, federal jurisdiction has since been resumed as of Feb. 10, 2022, in the Western 2/3 of Washington. Any wolf removed under this rule must be reported to WDFW within 24 hours. The owner of the domestic animals must turn in the wolf carcass and cooperate with WDFW during an investigation. One wolf from the Couse pack was killed by landowners protecting livestock under the WAC 220-440-080 [caught-in-the-act (CIA) rule] in 2024.

Damage Prevention Cooperative Agreements

Ranching and farming are essential components of Washington's economy, and the lands devoted to these activities provide critical habitat for many wildlife species.

To minimize conflicts between wolves and livestock on public and private lands, WDFW personnel work with livestock producers to identify and implement non-lethal conflict prevention measures suitable for each producer's operation. Interested producers may also participate in a Damage Prevention Cooperative Agreement for livestock (DPCA-L) with WDFW, which provides a cost-share for implementing various conflict prevention measures.

During the calendar year 2024, WDFW had cooperative agreements with 27 livestock producers across the state. Operators with an active DPCA-L received reimbursement from WDFW for a percentage of each conflict prevention measure's cost, up to a maximum of $10,000 depending on budget allocations to different areas of the State. The most common non-lethal conflict prevention measures used were range riders, improved sanitation practices (such as treatment or removal of injured or dead livestock), daily livestock checks, and fencing (e.g., fladry). DPCA-L contracts issued only in 2024 had a combined total amount of $142,500, but WDFW paid producers $80,194.50 for DPCA-L reimbursements. DPCA-L contracts end in June each year and WDFW is expecting more invoices forthcoming.

During calendar year 2024, WDFW awarded seven range rider contracts and paid $53,842.66. In addition, the Department of Agriculture funded nonlethal tools including range riding and oversaw grants provided to four organizations in northeastern Washington including NEWWCC, CPOW, NEWPROA, and MVWC during the 2024 grazing season.

Range riders monitored livestock on open-range grazing allotments to minimize encounters with wolves. All WDFW-funded (either through cost-share agreements or contracts with WDFW) range riders were required to keep daily logs of activities and coordinate regularly with WDFW Wildlife Conflict Specialists and the producers they assisted. Examples of information collected and provided to both WDFW and the producer by range riders included livestock behavior, carnivore activity and sign in the grazing areas, reports of sick or injured livestock, and suspected depredations. WDFW contracted range riders were

also required to collect daily GPS tracks of their work with Garmin InReach units that were allocated to them.

WDFW Direct Livestock Loss Claims

The Plan explains what compensation is available for wolf depredations under state law (RCW 77.36) and administrative rules (WAC 220-440), as detailed in Appendix F of the Plan.

When funding is available, producers may be eligible for compensation for deaths or injuries to cattle, sheep, horses, swine, mules, llamas, goats, including indirect losses for missing livestock, and for actively working guarding/herding dogs. To receive compensation, WDFW personnel or an authorized agent of WDFW must have classified the deaths or injuries as confirmed or probably caused by wolves. Operators must show that they have used methods to minimize wolf damage. Compensation is not provided for injuries or the deaths of domestic pets or hunting dogs that are not guarding or herding livestock.

The state's compensation program is multi-tiered, based on the size of the grazing site, whether the wolf depredations were classified as confirmed or probable, and whether the animals were killed or injured. Compensation is limited to $10,000 per claim, although higher amounts may be awarded based on appeal in a non-judicial administrative hearing, up to a statutory limit of $30,000 per claim.

- On grazing sites of at least 100 acres:
    - **For each confirmed depredation,** WDFW will compensate producers for the full value of the animal if it had gone to market, plus the full market value of one additional animal. Payments will be reduced by half if all the remaining livestock are accounted for.
    - **For each probable depredation,** WDFW compensates producers for the full market value of only the affected animal(s). Payments will be reduced by half if all the remaining livestock are accounted for.
    - **For livestock and guarding/herding dogs injured by wolves,** WDFW compensates producers for veterinary costs associated with their treatment.
- On grazing sites of less than 100 acres:
    - **For each confirmed depredation,** WDFW will compensate producers for the full market value of the affected animal. In these cases, WDFW compensation covers only the affected animal.
    - **For each probable depredation,** WDFW will compensate producers for half of the full market value (if it had gone to market) of the livestock.
    - **For livestock and guarding/herding dogs injured by wolves,** WDFW compensates producers for veterinary costs associated with their treatment.

The WDFW program is designed to avoid reimbursement from multiple sources for the same incident. Therefore, compensation to producers is reduced by the amount of other financial support, including

payments from insurers or proceeds from the sale of partially salvaged carcasses or other products. Additional payments do not apply if all livestock are accounted for at the end of the grazing season.

Administrative rules (WAC 220-440-180) revised in 2015 by the Washington Fish and Wildlife Commission require producers to notify WDFW within 30 days of a depredation if they intend to seek compensation, and to submit the completed claim within 90 days.

To receive compensation, operators must have (a) complied with a WDFW checklist of non-lethal conflict prevention measures, (b) have a current Damage Prevention Cooperative Agreement with WDFW, or (c) received a waiver of these requirements from the WDFW director.

WDFW also compensates producers for veterinary costs associated with treatment of livestock and guarding/herding dogs injured by wolves (WAC 220-440-040, WAC 220-440-010). Livestock producers would be able to recoup veterinary treatment costs for injured animals, not exceeding their current market value. If injured livestock need to be euthanized, owners will receive compensation for the current market value of the animal. If livestock are injured to the extent that they must be sold prematurely, the operator will receive the difference between the selling price and current market value. Under RCW 77.36, compensation to individual producers who experience damage shall not exceed $10,000 per claim without an administrative hearing appeals review and up to $30,000 in a successful appeal decision.

In 2024, WDFW has paid $39,648.16 in compensation to direct livestock losses or injuries caused by wolves for claims in 2024 for the 2024 and 2023 grazing season. WDFW received 10 direct claims from livestock producers who experienced livestock losses or injuries for the 2024 grazing season. Three of the 10 claims were not paid because two claims did not include required information, and one was denied. Six of the direct claims were paid a total of $19,339.66, and one is still in progress of being paid and will be included in 2025.

WDFW Indirect Livestock Loss Claims

WAC 220-440-170 provides for potential compensation of indirect losses experienced by commercial livestock owners subject to the restrictions in the WAC. Indirect losses considered for compensation are higher than normal livestock loss, reduced weight gain, or reduced pregnancy rates likely due to the harassment of livestock caused by wolves. These claims are calculated by determining the loss in excess of the immediately preceding three-year running average loss for each category.

In 2024, WDFW has paid $99,894.49 in compensation to indirect livestock losses for claims in 2024 for the 2024 and 2023 grazing season. WDFW received five indirect claims from livestock producers for the 2024 grazing season. One of the five claims were not paid because one claim did not include required information and was denied, while two other claims are still in the claims process and will be included in 2025 if paid. Two of the indirect claims were paid a total of $19,218.44.

State Grants for Non-lethal Conflict Prevention Activities

Washington state legislators created an account through Washington State Department of Agriculture to provide grants for a total of $1,262,250 for the 2023 – 2025 biennium to interested non-profit organizations or producers for non-lethal deterrents in Okanogan, Ferry, Stevens, and Pend Oreille counties. Four groups including NEWWCC, CPOW, NEWPROA, and MVWC were awarded grants.

NEWWCC was awarded $506,000 for the 2023-2025 biennium and spent $201,163 to fund 23 range riders. CPOW was awarded $506,000 for the 2023 – 2025 biennium and they spent $222,925 on range riding for the 2024 grazing season. For CPOW this equated to roughly 900 days paid coverage. CPOW also documented an additional 300 days of volunteer contributions from the Ranchers. Range riding was successfully completed on 22 different pastures or allotments for 13 different ranching families. CPOW did have 8 additional ranching operations inquire as to the availability of their services. These operations were all in active wolf areas and all had some form of interaction with wolves, however CPOW's budget did not allow them to accommodate these requests. NEWPROA was awarded $125,250 and MVWC was awarded 125,000 for the 2023 -2025 biennium.

Stevens and Ferry County also received $184,000 for the 2023 – 2025 biennium to support a wildlife specialist position to provide assistance with wolf-livestock conflict.

Wolf Interactions with Ungulates

Ungulate populations naturally fluctuate over time and area in response to various changes on the landscape. With the exception of the Columbia Basin, large carnivores are common throughout Washington's diverse landscapes and managed alongside the state's many ungulate species to ensure stable populations and healthy, functional ecosystems. WDFW uses harvest data and annual population surveys of deer and elk herds throughout the state to monitor long-term status and inform management decisions. The results of these surveys and other monitoring and research efforts are published each year in WDFW's annual Game Status and Trend Reports.

Research Updates

Ongoing Projects

Title: Monitoring Impacts of Wolf Recovery on Medium to Large Carnivores and Their Prey in Washington State

Principle Investigator: Samuel Wasser, University of Washington Project

Project Summary: In anticipation of eventual wolf recolonization south of interstate 90 (I-90), this project has been collecting baseline data to answer the question: How will wolf recolonization impact the predator-prey community and the extent of human-wildlife conflict in Central Washington south of I-90? This seven-year study has focused on collecting signs of wolf presence as well as baseline measures of the distribution and diets of the medium to large carnivores in the Cascade Mountain Range, from I-90 south to the Columbia River. The intention is to use those findings to assess how the distributions and diets of medium to large carnivores change as wolf recolonization of the area progresses.

Main findings: For the third year in a row, a small number of wolves was detected south of I-90. Thirteen wolf scat were located from 2 individuals (one male and one female) in 2022, 4 wolf scat from 3 individuals in 2023 (the male and female from 2022 and one additional male). Of the 587 samples genetically identified to species in 2024, only 10 were wolf samples. Six matched the genotype of the male wolf identified during the previous two field seasons. WDFW confirmed that this genotype matches the wolf named Big Muddy Male (WA 109M). Two of 2024 samples were identified to be from a new male with no matching genotype in the WDFW database. However, the location of where the scat was found matches the collar location data of a disperser that settled in the Simcoe Mountains (WA 143M). Two scat samples could not be identified beyond the species level. There were no signs of the female wolf detected in the 2022 and 2023 field seasons, nor samples from the second male wolf (presumably WA 106M) detected last year. The wolf scat collected in 2024 was found in the same region as in 2022 and 2023: south-east of Mount Adams, between Mount Adams and the Conboy Lake National Wildlife Refuge. Virtually all wolves detected between 2022 and 2024 have since been killed or left the area.

Study Area: The 2024 season marked the seventh year of scat collections in the south cascades. Sampling in 2018, 2019, and 2020 covered an area of 11,000 km2 across the Eastern Cascade Region of Central Washington, including 3,000 km2 of Yakama Nation land and areas within Mount Rainier National Park. In 2021, teams reduced coverage to prioritize areas based on wolf sighting information, concentrating surveys in the northern half of the study area. The 2018 and 2021 sampling also included the Teanaway wolf pack home range, just north of I-90, as a control site to confirm that the detection dogs were successfully locating wolf samples. This assured that the absence of wolf sample detections south of I-90 was not due to dog failure; dogs were able to locate wolf scat in the control area in both the 2018 and 2021 field seasons but did not locate any wolf scat south of I-90 in 2018-2021. Dog teams

continued to focus survey efforts in areas with the highest likelihood of finding wolf scat in 2022 - 2024, which included more southern US Forest Service forest land, including the Yakama Reservation, and state and private lands in the South Cascades (between Highway 12 and the Columbia River).

Survey Method: Wilderness areas were surveyed by detection dogs trained to locate scats from wolf, cougar, coyote, bobcat, bear, wolverine, fisher, marten, and fox. Scat was logged and collected for DNA analysis at the Center for Environmental Forensic Science (CEFS) at the University of Washington. Dog teams were able to survey large geographic areas quickly, with minimal impact on the wildlife and/or timber operations taking place in the area. They collected 747 scats between Sept. 17 and Nov. 12, 2024. Since 2018, teams have collected over 7,500 georeferenced carnivore scats in the South-Central Cascades.

Lab Protocol: Scat samples from all seven years were identified to predator species using the ATP6 and Canid SNP mitochondrial DNA markers to distinguish cougar, bobcat, coyote, wolverine, fisher, marten, fox, wolf, and dog. Individual wolves were identified and their sex confirmed using the 11 microsatellite DNA markers including one sex microsatellite marker developed by Stansbury et al (2014). This is the standard method for individual wolf identification used in the state of Washington. The 2024 wolf scat samples are currently being processed for consumed prey applying the same metabarcoding methods used in 2018-2023 samples. These data will be presented along with detailed predator distributions in a forthcoming report to the State.

Results: DNA from 584 of the 747 scat samples collected in 2024 was successfully amplified. Ten of those samples were typed as wolf, 408 as coyote, 122 as bobcat, 17 as dog, 14 as cougar, 7 as black bear, 2 as fisher, 2 as striped skunk, 1 as marten, and 1 as cat. The ten-wolf scat were from two individual wolves. Six of those scats were from a male whose genotype matched the male we detected in both the 2022 and 2023 field seasons; this is the wolf known as WA 109M, or the Big Muddy Male. Two of the samples genotyped as a previously unknown male are likely from the wolf known as WA 143M, or the Simcoe male. Two samples were too degraded and could not be identified beyond the species level. There were no signs of the female wolf detected in the 2022 and 2023 field seasons, nor from the second male wolf (presumably 106M) found last year. Funding: This research is funded by a grant from the Washington State Legislature.

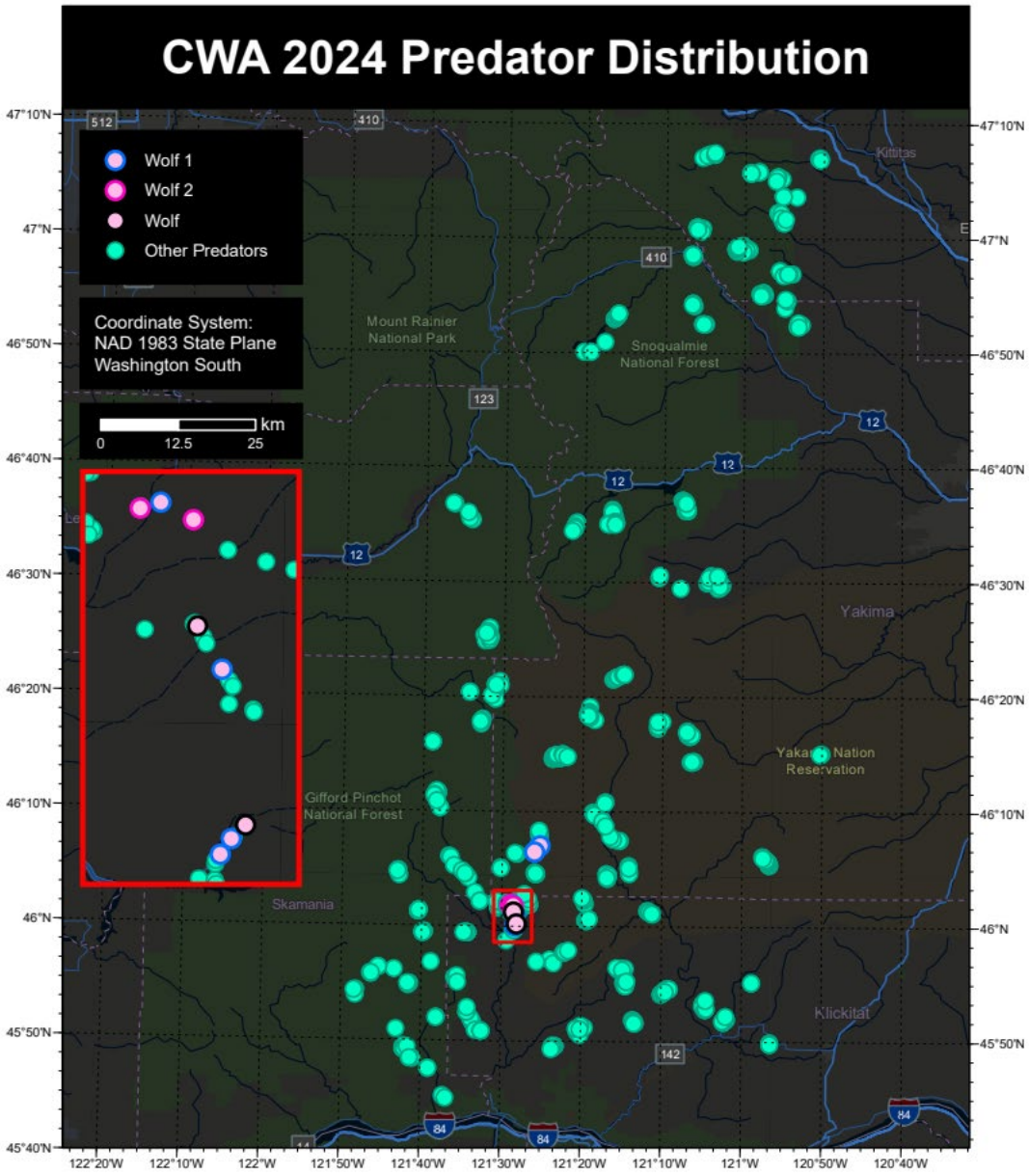

Figure 11. Location of carnivore scats identified in the region surveyed during the 2024 field season. Samples colored in teal represent non-wolf predators. The ten wolf samples are indicated by circles with light pink centers, with each individual wolf represented by a unique colored ring around the pink circle. The Big Muddy Male, also detected in 2022 and 2023, has a dark blue outer ring. The new male, likely the Simcoe Male, has a pink outer ring. And the pink circles with the black outline were identified as wolves but the samples were too degraded to identify beyond the species level.

Title: Researching the Effectiveness of Range Riding to Prevent Depredations on Livestock

Graduate Student (PhD): Rae Nickerson, Utah State University

Project Summary: The Conservation on Working Lands Conservation Innovation Grant (CoW-CIG) is a collaborative team consisting of livestock producers, Western Landowners Alliance, Heart of the Rockies, Defenders of Wildlife, Wildlife Services and other state and federal wildlife agencies, and Utah, Colorado, and Montana state universities. The team is tasked with evaluating the effectiveness of several nonlethal tools at reducing conflict between livestock, wolves, and grizzly bears. Last year across five western states, PhD candidate Rae Nickerson and her field team deployed 375 game cameras, collected over 1500 hair samples from cattle, conducted interviews with producers, and helped riders with daily logs to evaluate range riding's effectiveness. The hope is that the findings will inform how to make range riding most effective both in cost and conflict reduction. The team had several sites in northeast Washington, and last season was the third and final year of field work. Data coding and analysis has begun with a goal of having results to share by next spring. Last summer, the group hosted two range rider workshops in Montana and Arizona to bring producers, riders, and other stakeholders together for collaborative discussion around range riding's challenges. In collaboration with producer and rider partners, a Range Riding Producer Toolkit was also completed that can be found here: westernlandowners.org/publication/range-riding-toolkit/. This May, the group will host two free wildlife track and sign certification opportunities for range riders and producers in northeast Washington. Earlier last year, collaboration efforts resulted in an additional $22 million becoming available for range riding financial support in a diversity of states through the Natural Resources Conservation Service (NRCS). For more information, please contact Rae Nickerson at rae.nickerson@usu.edu.

Title: Wildlife and Humans in Shared Landscapes (WHISL)

Principal Investigator: Chloe Wardropper (University of Illinois); **Co-Principal Investigators:** Luke Sheneman (University of Idaho), Jeremy Bruskotter (Ohio State University), Neil Carter (University of Michigan), Taal Levi (Oregon State University); **Collaborators:** Casey Brown (Oregon Department of Fish and Wildlife), Leandra Merz (University of Florida), Jeff Martin (USFS), Tavis Forrester (USFS); Joel Ruprecht (Oregon State University); Nick Bergmann (University of Idaho; Washington State University), Jennifer Hinds (University of Idaho); **Graduate Student:** Lara Mengak (Oregon State University)

Project Summary: The WHISL project seeks to improve understanding related to the socioecological effects of climate change and predator recolonization on ranching-wildlife systems in the Pacific Northwest. Although not all components of the project focus on wolf related research, there are four areas of current research. 1) Luke Sheneman (University of Idaho) is developing and field testing a novel camera trap and data processing technology to help improve wildlife population estimates (including wolf abundance); 2) Leandra Merz (University of Florida) along with Neil Carter (University of Montana) and Jeremy Bruskotter (Oregon State University) are developing socioecological models to help explain

state-level variation in wolf management and the relationship among recreational hunting and trapping, livestock depredation, and lethal removal of wolves; 3) Nick Bergmann (University of Idaho/Washington State University) along with Chloe Wardropper (University of Idaho) are leading a qualitative social science analysis related to the emotional dimensions of wolf management; 4) Lara Mengak (Oregon State University) and Chloe Wardropper (University of Idaho) are leading a quantitative social science analysis focused on 1) risk perception associated with elk competition, wolf depredation, and drought; 2) the relevance of trust in wildlife management agencies for managing wolf-livestock conflict.

Project Duration: Sept. 1, 2021-Aug. 31, 2026 (estimated); NSF Grant #2109005

Website: whisl.org

Title: Life on the Edge: Large Mammal Populations on a Wolf Recolonization Frontier

Principle Investigators: Brandon Nickerson, Leslie Parks, Erika Faubion, Brennan Watson
Organization: Wildlife Program – Swinomish Indian Tribal Community

Funding: U.S. Fish and Wildlife Service; Seattle City Light; Network for Landscape Conservation

Project Summary: In 2021, the Swinomish Indian Tribal Community began an ongoing research effort to assess the status of wolf (*Canis lupus*) recovery in the western Greater North Cascades Ecosystem (GNCE), which has proceeded slowly since the species first reappeared in the region in 2017. Specific goals of the project include estimating the minimum number of wolves in the western GNCE, establishing the geographic extant of wolf presence (i.e. locating the "recolonization frontier"), and documenting any breeding pairs of wolves that may be using the area. Simultaneously, participants began collecting baseline data for other large mammal populations in the western GNCE, including elk (*Cervus canadensis*), black-tailed deer (*Odocoileus hemionus columbianus*), cougars (*Puma concolor*), and black bears (*Ursus americanus*). These data were used to generate relative abundance indices (RAIs), and occupancy estimates to assess the current status and trend of these species before wolves return to the landscape in an ecologically meaningful way, so that management strategies may adapt to the shifting predation regime wolves effect on the western GNCE.

Since summer 2021, a network of 20-30 scent-baited camera traps have been maintained across the study area (Figure 1 and Figure 2), deployed exclusively for wolf detection. Deployment was focused on areas where wolves have previously been detected (collar data, camera trap photos, visual observations) or near topographic features likely to attract wolf activity or guide wolf movement across the landscape (mountain passes, river drainages, lakeshores, etc.). From 2021-2023 a total of six wolf detections were made at four different camera trap locations, including detections in each season (fall, winter, spring, summer). From these detections, a minimum of two individual adult wolves of unknown sex based on coat color were identified. The study is not able to differentiate wolves of similar appearance (unless relatively simultaneous photos are captured of each animal at different cameras separated by substantial geographic distance), so it is possible that more than two wolves were present

in the area. The camera traps did not detect multiple wolves traveling together or other evidence (e.g. lactating adult female) of pack formation or breeding activity. Additionally, the location of the recolonization frontier does not appear to have advanced westward beyond the previous known extent of wolf recolonization. The study has not detected any wolves on scent-baited camera traps since early 2023, but participants continue to maintain a smaller network of scent-baited cameras in the areas where wolves were previously detected.

For large mammal population assessments, a camera trapping grid was established northeast of Sedro-Woolley, Washington (Figure 3) to assess the effect of recolonizing wolves on other species, as well as to detect wolf activity in the area. Each 2.5km x 2.5km grid cell contains one un-baited camera trap deployed in a location within the cell to maximize the possibility of detecting all study species (e.g. on a dirt forestry road or wildlife trail). This portion of the western GNCE is the focus because 1) it is an important hunting area for the Swinomish Community, 2) it contains the highest density of elk in the western GNCE (a potentially important food source for recolonizing wolves), and 3) the area is adjacent to the western extent of wolf recolonization in the GNCE. The large mammal cameras were deployed from the summer of 2021 to the summer of 2024. Participants are currently analyzing these data to produce annual and cumulative RAIs and estimate detection and occupancy rates for elk, black-tailed deer, cougars, and black bears. There have not been any wolves detected on these large mammal cameras.

Figure 12. Approximate area of interest for wolf-focused, targeted camera trap deployments from 2021-2023.

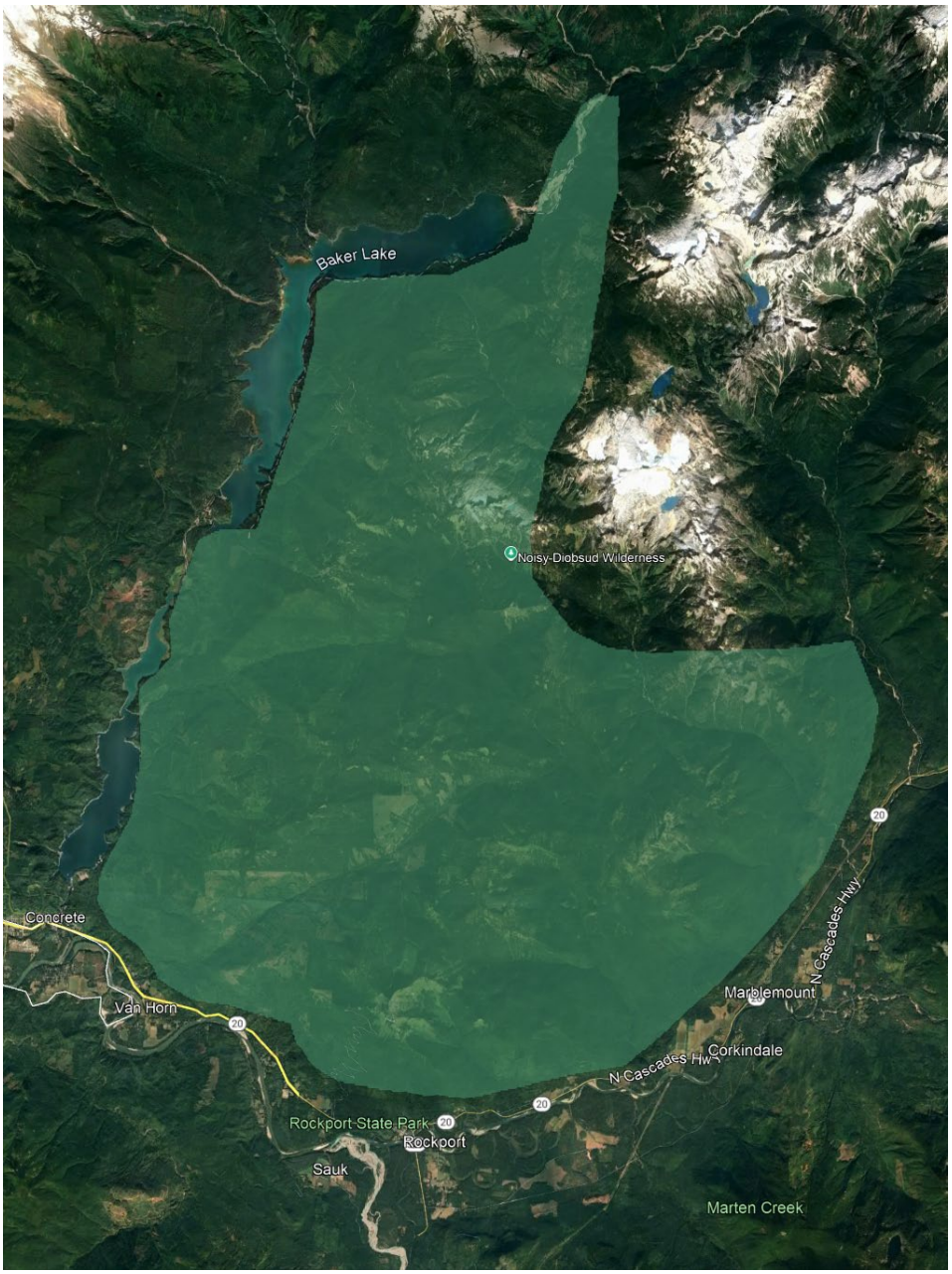

Figure 13. Approximate area of interest for wolf-focused, targeted camera trap deployments from 2023-2024.

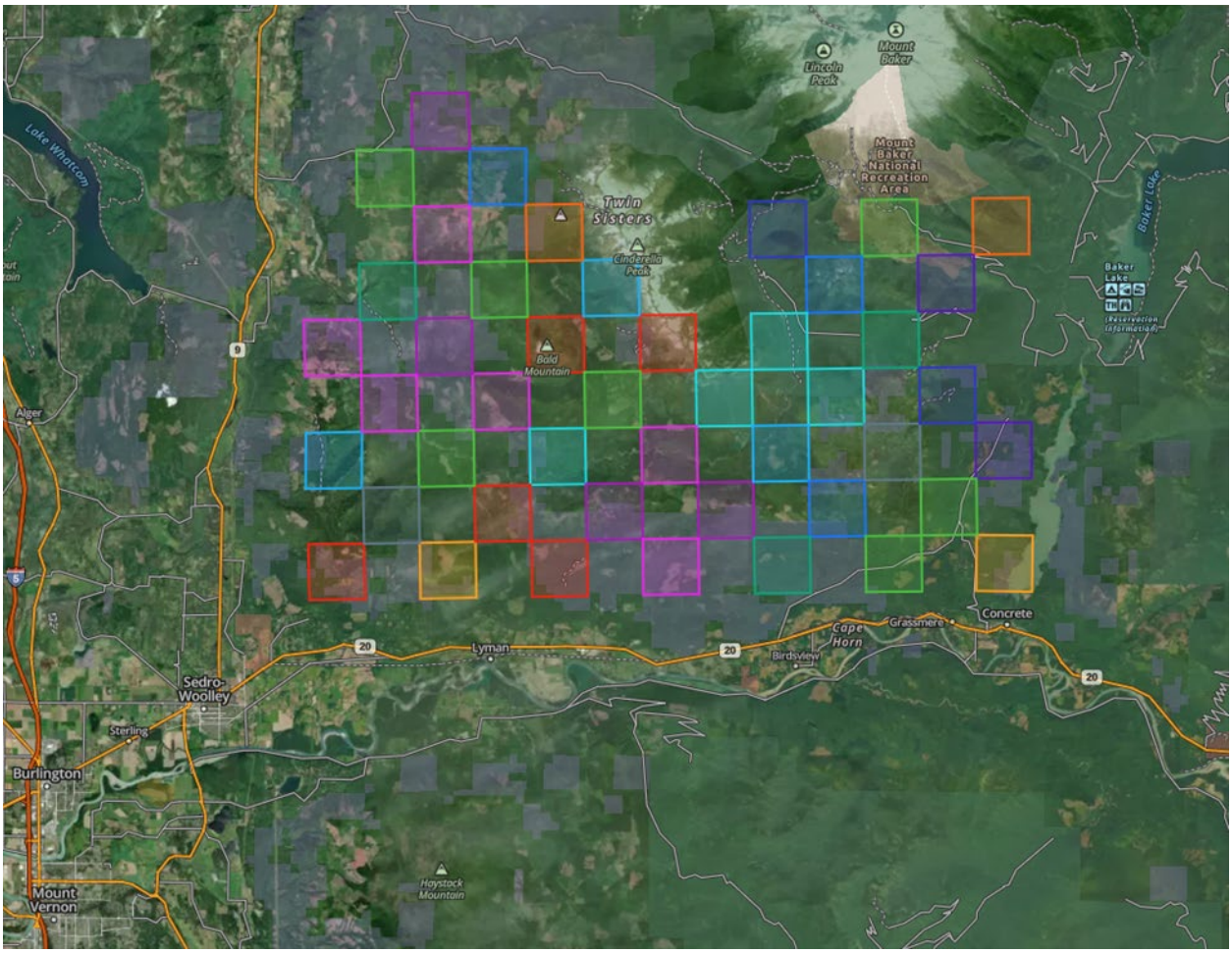

Figure 14. Camera trap grid from summer 2021 to summer 2024 (colored squares) for large mammal relative abundance indices and occupancy modeling work.

Title: The Social and Ecological Drivers of Human-Wolf Interactions

Graduate Students (PhD): Lara Volski and Vivian Hawkinson, People and Wildlife Lab, University of Washington, PI: Dr. Alex McInturff

Project Summary: Lara Volski, Vivian Hawkinson, and Alex McInturff have continued to expand their community-engaged research exploring the interactions between wolves, people, and cattle. Lara has built on the interviews she conducted with community members in Klickitat County about the Big Muddy Pack. She has shared her findings through a speaker series across the Gorge, and a manuscript is currently in progress. The partnerships formed through these interviews have enabled Lara and Vivian to design a camera trap grid southwest of Mount Adams, which they plan to fully install this spring. Additionally, these interviews will contribute to the development of a longitudinal survey that will track how public perceptions of the risks and benefits of wolves evolve over time across Washington State.

The survey will be distributed this summer. For more information, please contact Lara Volski at lavolski@uw.edu, Vivian Hawkinson at vhawkin@uw.edu, or Alex McInturff at amcintur@uw.edu.

Recent Publications

Anderson, R. M., Charnley, S., Martin, J. V., & Epstein, K. 2024. Large, rugged and remote: The challenge of wolf–livestock coexistence on federal lands in the American West. *People and Nature*, 00, 1–13. doi.org/10.1002/pan3.10713

Malesis, A.N., R.M. Windell, C.M Vanbianchi, L.R. Prugh. 2024. Coyotes take advantage of ungulate carrion subsidies as wolves recolonize Washington. Canadian Journal of Zoology. Vol. 102, No. 10. doi.org/10.1139/cjz-2024-0019

Merz, L., N.T. Bergmann, C.L. Brown, J.V. Martin, C.B. Wardropper, J.T. Bruskotter, and N.H. Carter. 2025. State-level variation drives wolf management in the northwestern United States. Environmental Research Ecology, Vol. 4, No. 1.

Petracca, L.P., Gardner, B., Maletzke, B.T., and S.J. Converse. 2024. Merging integrated population models and individual-based models to project population dynamics of recolonizing species. *Biological Conservation*. doi.org/10.1016/j.biocon.2023.110340

Petracca, L.P., Gardner, B., Maletzke, B.T., and S.J. Converse. In review. Forecasting dynamics of a recolonizing wolf population under different management strategies. Animal Conservation.

Outreach

Wolf conservation and management continues to attract extensive public interest, and WDFW has increased its outreach and communication activities accordingly over the past several years.

In 2024, in addition to numerous day-to-day interactions with the public (i.e. phone calls, emails, and personal communications), department personnel were interviewed by local radio, newspaper, and television outlets on many occasions. WDFW staff also made formal presentations to school groups, universities, wildlife symposiums, state and federal management agencies, livestock associations, conservation groups, state legislative committees, the Washington Fish and Wildlife Commission, and local interest groups.

WDFW maintains numerous pages on its website related to wolves and wolf management in Washington. In addition to general wolf information and links to other wolf-related sites, the website provides interested parties with access to the archives of the Plan, agency news releases, and weekly and monthly updates of wolf management activities. The website includes a wolf observation reporting system, through which the public can report sightings or evidence of wolves to help WDFW personnel monitor existing packs and document possible wolf activity in new areas. The website also provides telephone numbers for reporting suspected livestock depredations.

Wolf Advisory Group

Since 2013, WDFW has relied on the Wolf Advisory Group (WAG) to provide guidance to the agency on wolf conservation and management under the terms of the Plan. The WAG is comprised of Washington citizen members appointed by WDFW's director. Members serve two-year terms and represent a broad spectrum of stakeholder interests – livestock producers, environmentalists or conservation groups, hunters, outdoor recreationists, and at large members.

The WAG met four times in 2024 in hybrid meeting format to allow both in-person and virtual attendance. The connections and relationship building that unfold during in-person meetings are irreplaceable, but the hybrid format allowed members of the group to save travel times, while the public could virtually attend both formats of WAG meetings. Core goals of the WAG are to reconcile divergent views and build resilient relationships among stakeholder groups, including WDFW. As such, the WAG spent time developing relationships that foster respect, honest dialogue, and mutual learning.

In 2024, WAG continued their discussion of Periodic Status Review (PSR) of wolves and how to improve the current compensation model for livestock loss due to wolf depredations. WAG also developed two draft proposals on future compensation rules and payment strategies sharing ideas of paths forward for WDFW regarding wolf-livestock interactions. Two sub-task groups including some of the WAG members and a few WDFW staff members worked on developing two proposals on "recommendations for revisions to the Washington Administrative Code (WACs), related to livestock loss compensation claims process" and a "pilot proposal for tiered pay-for-presence (P4P) program towards compensating indirect

losses of livestock". Many of these ideas shared were formed by discussing the topics presented by task-group members and other WAG members including community audience and participants.

The WAG discussed potential collaboration between livestock producers and WDFW in regard to how depredations are considered in recommendations for lethal removal in order to change the depredating behavior of the packs involved in repeated conflict incidences. WAG members provided various reflections on their discussion of identifying some issues, gaps in mutual understanding, and limitations in implementing Wolf Livestock Interaction Protocol consistently and transparently across the delisted areas and identified further steps to recommend necessary changes needed in terms of improved collaboration with WDFW. In 2024, a community panel discussion was also organized with six panel members (residents of northeast Washington) who represented different stakeholder groups such as producers, hunters, livelihood and economic development sectors, and local governing agencies. WAG members interacted with the panel to find ways to improve trust building, through third-party neutral mediation between WDFW and producer communities. Some WAG members also expressed concern regarding the declining ungulate population, as ungulates are important for a healthy ecosystem. At the end of the year, some WAG members identified issues of chronic depredation in some areas of northeast and southeast Washington and wanted further deliberation on this during the meetings of 2025.

WAG and WDFW continued work with third-party neutral facilitator team (Ross Strategic) to effectively facilitating WAG meetings and chart the future course for WAG discussions. All WAG meetings are open to the public. Agendas, notes, handouts, draft proposals, and meeting minutes are posted on WDFW's website under the "meeting calendar" option.

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Stuart Fety
U.S. Fish and Wildlife Service – Wenatchee
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To report a suspected livestock depredation, a dead wolf in the Eastern Washington Recovery Region, or any type of illegal activity, please call: 1-877-933-9847, your local WDFW conflict specialist, or your local WDFW enforcement officer.

To report on a dead wolf in western Washington, please contact your local WDFW enforcement officer.

For information about wolf management in Washington and to report a wolf sighting.

For information about wolf management on lands owned by the Colville Confederated Tribes and to report a wolf sighting on tribal lands.

For information about wolf recovery in the Northern Rocky Mountains.

Appendix A. 2024 – Wolf Removal Operation Summary

Introduction

This appendix describes the context and details of lethal management actions taken by the Washington Department of Fish and Wildlife (WDFW) to address repeated depredations by four wolf packs during the 2024 grazing season. Much of this information is available on WDFW's website, but this appendix consolidates that material and identifies expenditures related to each lethal removal action. This appendix also fulfills a provision of the WDFW Wolf-Livestock Interaction Protocol, which calls for WDFW to provide a final report to the public after lethal removal operations have concluded.

As in previous years, WDFW's actions were guided by the state's Wolf Conservation and Management Plan, adopted in 2011 by the Washington Fish and Wildlife Commission, and the Wolf-Livestock Interaction Protocol developed by WDFW in collaboration with its 18-member Wolf Advisory Group. The wolf plan and protocol describe strategies for minimizing wolf-livestock conflict that starts with the use of non-lethal deterrents to prevent repeated depredations on livestock. If preventive measures fail, WDFW may remove one or more wolves in an attempt to reduce the potential for depredations on livestock.

Due to reoccurring depredations, WDFW considered lethal removal eight times in four packs and the Director authorized incremental removal of wolves in the Couse, Dominion, Leadpoint, and Onion packs in 2024. The lethal removal operations resulted in four wolves being removed including one from the Dominion pack and three from the Onion pack in two separate authorizations. Lethal removal operations were attempted in the Leadpoint and Couse packs, however no wolves were removed in either of those operations despite a concerted effort to do so.

Couse Pack – 2024 Lethal Removal Operation Summary

This pack has had a history of depredating on livestock. In August 2023, WDFW lethally removed an adult male wolf and a yearling female wolf from the Couse Pack territory in response to a pattern of depredations. After removing these two wolves no depredations were confirmed until the depredations in June 2024.
On June 27, WDFW staff investigated an injured steer in the Couse pack territory in Asotin County. The investigation revealed evidence consistent with a confirmed wolf depredation (injury).

On July 6, WDFW staff investigated a dead steer in the Couse Pack territory in Asotin County. The investigation revealed evidence on the carcass consistent with a confirmed wolf depredation. Canid tracks were also found at the scene.

On July 8, WDFW staff investigated two injured cows in the Couse Pack territory in Asotin County. The investigation revealed evidence of a confirmed wolf depredation (injury) on one cow and a probable wolf depredation (injury) on the second cow. This investigation determined the cows were injured at separate locations and are classified as separate events.

Also on July 8, an adult male wolf was killed that was reported to be chasing livestock. This wolf mortality was determined to be a caught in the act.

WDFW staff discussed the depredations and use of non-lethal measures in this pack territory. Staff assessed how to most effectively address this situation moving forward and provided a recommendation to the Director.

WDFW had documented four depredation events in the pack territory resulting in one dead and three injured livestock since June 27, 2024, all attributed to the Couse pack. All events except one were considered confirmed wolf depredation incidents; the other incident was considered a probable wolf depredation.

At least two (in this case, more than two) proactive deterrence measures and responsive deterrence measures (if applicable) were implemented by the affected livestock producer in early June, prior to depredations events. They included range riding, removing injured cattle from the range, carcass sanitation, and delaying the turnout of calves until they grow to 200 or more pounds.

WDFW documented these deterrents in the agency's "wolf-livestock mitigation measures" checklist, with date entries for deterrent tools and coordination with the producer. The proactive and reactive non-lethal deterrence measures implemented by the livestock producer were those best suited for their operations in the professional judgment of WDFW staff.

WDFW staff discussed the depredations by the Couse wolf pack and associated effectiveness of the nonlethal deterrence tools implemented by the affected livestock producers. Staff determined that range riding occurred on a daily/near daily basis, along with regular human presence.

An adult male wolf from this pack was killed after reportedly chasing livestock on July 8. A prosecutorial review of the incident determined it to be a lawful act in the defense of property. Prior to that incident, staff believed the Couse pack to be made up of two-to-three adult wolves and an unknown number of pups. The death of the male wolf could disrupt depredation patterns of the pack. Because of this, WDFW staff recommended to Director Susewind to enter an evaluation period to assess if the pack's behavior changes and Susewind agreed.

On July 15, 2024, WDFW Director Kelly Susewind rejected the option of lethal removal of a wolf or wolves from the Couse wolf pack. Director Susewind's decision was consistent with the guidance of the state's Wolf Conservation and Management Plan and the lethal removal provisions of WDFW's 2017 wolf-livestock interaction protocol (PDF).

On Sept. 19, WDFW staff investigated another injured calf in this pack territory in Asotin County and that investigation revealed evidence consistent with a confirmed wolf depredation (injury).
On Sept. 20, 2024, Washington Department of Fish and Wildlife (WDFW) staff again considered lethal removal of a wolf or wolves from the Couse wolf pack in southeast Washington.

As of Sept. 20, WDFW staff had investigated five wolf depredation events in this pack territory in Asotin County, resulting in one dead calf, confirmed injuries on a cow and two calves along with probable injuries on another cow within a 10-month rolling window of time as mentioned in wolf-livestock

interaction protocol (PDF), prompting WDFW to consider options to change pack behavior from depredating on livestock.

WDFW staff discussed the depredations and use of non-lethal measures in this pack territory. Non-lethal deterrents in this case include:

- Daily to near-daily range riding,
- Human presence,
- Removing sick and injured livestock
- Livestock carcass sanitation

Staff assessed how to most effectively address this situation moving forward and provided a recommendation to WDFW's Director.

The rationale for authorizing lethal removal of Couse pack wolves was as follows:

WDFW had documented five depredation events including one dead calf, confirmed injuries on a cow and two calves, along with probable injuries on another cow within a 10-month rolling window of time. At least two (in this case, more than two) proactive deterrence measures and responsive deterrence measures were implemented by the affected livestock producer, prior to these depredation events. They included daily to near-daily range riding, human presence, removing sick and injured livestock from the range, and livestock carcass sanitation.

WDFW documented these deterrents in the agency's "wolf-livestock mitigation measures" checklist, with date entries for deterrent tools and coordination with the producer.
WDFW staff discussed the recent depredations by the Couse wolf pack and associated effectiveness of the nonlethal deterrence tools. Staff determined that range riding occurred on a daily/near-daily basis, along with regular human presence. Despite this, staff believed depredations would likely continue given recent pack behavior.

On Sept. 24, 2024, WDFW Director Kelly Susewind agreed and authorized the lethal removal operation through midnight of Oct. 8, 2024, before entering into an evaluation period. The lethal removal operation could be extended if additional wolf depredations were documented. Director Susewind's decision was consistent with the guidance of the state's Wolf Conservation and Management Plan and the lethal removal provisions of WDFW's 2017 wolf-livestock interaction protocol (PDF).

On Oct. 2, WDFW staff captured a female wolf pup in the Couse pack territory. Pups at that age typically do not contribute to hunting for the pack and the removal of that pup would not likely effect the packs depredation behavior, so the pup was collared and released.

As of Oct. 8, WDFW had not removed a wolf from this pack territory despite concerted effort. The lethal removal authorization expired on Oct. 8 and WDFW entered an evaluation period for monitoring this pack's behavior. There had been no documented depredations in this pack territory since Sept. 19, 2024 (19 days).

On Oct. 13, WDFW staff investigated an injured calf that had been gathered and removed by the producer from an area of the pasture where the Couse pack and Tucannon pack territories overlap. Both packs were in the vicinity of the injured calf during the time frame when the injury likely occurred.

WDFW staff discussed these depredations and the use of non-lethal measures in the Couse and Tucannon pack territories. Non-lethal deterrents in this case include:

- Daily to near-daily range riding
- Human presence
- Delayed turnout of calves until they were at least 200 pounds
- Removing sick and injured livestock
- Livestock carcass sanitation

Staff assessed how to address this situation most effectively and provided a recommendation to WDFW's Director. Over a 10-month rolling window of time, the Couse pack had been involved in depredations resulting in one dead calf, confirmed injuries on a cow and two calves, and probable injuries on another cow. WDFW's Director had previously authorized a lethal removal operation from the Couse pack on Sept. 24, 2024. That authorization expired on Oct. 8, without a wolf being lethally removed despite concerted efforts.

On Oct. 19, Washington Department of Fish and Wildlife (WDFW) Director Kelly Susewind decided against lethal removal of a wolf or wolves from southeast Washington, in response to the latest investigation on an injured calf and as a part of repeated depredations of cattle. Director Susewind's decision is consistent with the guidance of the state's Wolf Conservation and Management Plan and the lethal removal provisions of WDFW's 2020 wolf livestock interaction protocol (PDF).
The rationale for not authorizing lethal removal of Couse pack wolves was as follows:

On Oct. 13, WDFW staff investigated an injured calf. The investigation determined the injuries were caused by a probable wolf depredation. The injuries were estimated to be two weeks or older at the time of investigation. Lethal removal is intended to change wolf pack's depredating behavior, where available literature indicated that lethal removal could be most effective within two weeks of a depredation event. Due to the age of the injuries, the effective period for lethal removal had already passed.

Additionally, the area where the injured calf was found is used by both the Couse and Tucannon packs, and GPS data showed both packs in the vicinity of the injured calf, so it was not clear which pack was responsible for the Oct. 13 injuries. As a result of this information and circumstances, Susewind authorized an evaluation period to monitor these packs' behavior.

On Nov. 12, WDFW staff investigated an injured calf that was determined as a probable depredation. The injuries had scarred over and were completely healed at the time of investigation.

On Nov. 17, WDFW staff received a mortality signal from the recently collared wolf pup. After multiple attempts to investigate the mortality failed due to heavy snow and bad weather, WDFW staff retrieved the carcass on Nov. 25 and dropped it off at the WSU Diagnostics Lab for necropsy. It was determined that the wolf had died from swallowing a livestock ear tag that perforated her small intestine.

There have been no documented interactions between livestock and members of the Couse pack since November 2024.

Cost

Total expenditure for the Couse pack lethal removal operation in 2024 (staff time, contractor time and aerial support) was $13,728 allocated from unrestricted Wildlife State Funds from licensing.

Details of WA Couse Pack Depredations:

Depredation Date	Depredation Type	Proactive Non-lethals	10-Month Window
6/27/24	Confirmed injury of 1 calf	No	4/27/25
7/06/24	Confirmed mortality of 1 calf	Yes	5/06/25
7/08/24	Confirmed injury of 1 cow	Yes	5/08/25
7/08/24	Probable injury of 1 cow	Yes	5/08/25
9/19/24	Confirmed injury of 1 calf	Yes	7/19/25
11/12/24	Probable injury of 1 calf	Yes	9/12/25

Details of the Couse Pack Lethal Removal Operation:

Date	Wolf	Sex	Age
October 2, 2024	1 (captured)	Female	Pup

Dominion Pack – 2024 Lethal Removal Operation Summary

On July 19, WDFW staff investigated a dead calf. The investigation revealed evidence consistent with a confirmed wolf depredation.

On July 27, WDFW staff investigated five calves; one dead and four injured. The investigation revealed evidence consistent with a confirmed wolf depredation.

On July 28, WDFW staff investigated a dead calf. The investigation revealed evidence consistent with a confirmed wolf depredation.

As of July 29, 2024 staff had investigated multiple confirmed depredation events in the pack territory in Stevens County, resulting in four injured and three dead calves since July 19, 2024. The investigations confirmed injuries were consistent with wolf attacks.

On July 30, WDFW staff was considering lethal removal of a wolf or wolves in the Dominion pack in northeast Washington.

WDFW staff discussed the depredations and use of non-lethal measures in this pack territory. Non-lethal deterrents used include:

- Range riding took place on a near daily basis,
- The producer moved injured livestock from the area, and

- All carcasses were removed from the area.

Staff assessed how to most effectively address this situation moving forward and provided a recommendation to the Director within a few days. On July 31, WDFW Director Kelly Susewind approved lethal removal of one adult wolf from the Dominion wolf pack in northeast Washington, in response to repeated depredations of cattle in Stevens County.

Director Susewind's decision was consistent with the guidance of the state's Wolf Conservation and Management Plan and the lethal removal provisions of WDFW's 2017 wolf-livestock interaction protocol (PDF).

The rationale for authorizing lethal removal of Dominion pack wolves was as follows:
WDFW had documented multiple depredation events in the pack territory resulting in three dead and six injured calves since July 19, 2024, all attributed to the Dominion pack. Since the update was put out on the Dominion pack the morning of July 30, 2024, two more injured calves had been found. An investigation into the injuries showed them to be consistent with a depredation by a wolf or wolves. This information was added to staff's recommendation to the Director for consideration.

At least two (in this case, more than two) proactive deterrence measures were implemented by the affected livestock producer prior to depredation events. They included range riding, human presence, removing injured cattle from the range, and carcass sanitation. Responsive deterrence measures include increased range riding and continuing to remove injured cattle from the range and carcass sanitation.

WDFW documented these deterrents in the agency's "wolf-livestock mitigation measures" checklist, with date entries for deterrent tools and coordination with the producer. The proactive and reactive non-lethal deterrence measures implemented by the livestock producer were those best suited for their operations in the professional judgment of WDFW staff.

The pack had shown an acute pattern of depredations that occurred during a relatively short period of time. WDFW staff discussed the recent depredations by the Dominion wolf pack and associated effectiveness of the nonlethal deterrence tools implemented by the affected producer. Staff believed the only reactive deterrent that would be effective, due to the size of the grazing area, would be increased range riding. Staff worked with Cattle Producers of Washington (CPoW) range riders in this area to increase coverage when possible, including potential overnight stays with the cattle. Depredations would likely continue given recent pack behavior and the limited effectiveness of reactive measures that could be implemented to protect livestock. Director Susewind agreed that removing one adult wolf from the Dominion pack could potentially change pack behavior and reduce the chance of future depredations.

As of Aug. 8, efforts to lethally remove a wolf from the Dominion territory were ongoing and WDFW had not removed a wolf despite daily and continued efforts. Since the lethal authorization, WDFW had documented additional livestock depredation events in the Dominion pack territory. Since July 19, WDFW had documented a total of 18 depredations, including five mortalities and 13 injuries in this pack territory.

On Aug. 13, WDFW staff lethally removed an adult male wolf from the Dominion pack territory. With the removal of this wolf, the lethal removal authorization expired.

There have been no documented interactions between livestock and members of the Dominion pack since August 2024.

Cost

Total expenditure for the Dominion pack lethal removal operation in 2024 (staff time, contractor time and aerial support) was $35,700 allocated from unrestricted Wildlife State Funds from licensing.

Details of WA Dominion Pack Depredations:

Depredation Date	Depredation Type	Proactive Non-lethals	10-Month Window
7/19/24	Confirmed mortality of 1 cow	Yes	5/19/25
7/27/24	Confirmed mortality of 1 calf and injury of 4 calves	Yes	5/27/25
7/28/24	Confirmed mortality of 1 calf	Yes	5/28/25
7/30/24	Confirmed injury of 2 calves	Yes	5/30/25
8/01/24	Confirmed mortality of 1 calf and injury of 2 calves	Yes	6/1/25
8/02/24	Confirmed injury of 2 calves	Yes	6/2/25
8/04/24	Confirmed mortality of 1 calf	Yes	6/4/25
8/06/24	Confirmed injury of 3 calves	Yes	6/6/25

Details of the Dominion Pack Lethal Removal operation:

Date	Wolf	Sex	Age
August 13, 2024	1 (Agency Removal)	Male	Adult

Leadpoint Pack – 2024 Lethal Removal Operation Summary

On June 28, WDFW staff investigated an injured calf. The investigation revealed evidence consistent with a confirmed wolf depredation (injury). That calf later died from its injuries.

On July 25, WDFW staff investigated a dead calf. The investigation revealed evidence consistent with a confirmed wolf depredation.

On July 26, a yearling female wolf was killed that was reported to be chasing livestock. This incident remains under investigation.

On July 28, WDFW staff investigated two injured calves in the same pasture as the last two investigations. One calf's injuries were confirmed to have been caused by a wolf or wolves while the second was determined to be a non-depredation.

As of July 29, 2024 staff have investigated three confirmed depredation events in the pack territory in Stevens County resulting in two dead and one injured livestock since June 28, 2024.

On July 30, WDFW staff was considering lethal removal of a wolf or wolves from the Leadpoint wolf pack in northeast Washington.
WDFW staff discussed the depredations and use of non-lethal measures in this pack territory. Non-lethal deterrents in this case include:

- Range riding,
- Human presence
- Thinning trees that have provided cover for wolves, and
- Removing sick, injured, orphaned calves and carcasses.

Staff assessed how to most effectively address this situation moving forward and provided a recommendation to the Director within a few days. On Aug. 1, WDFW Director Kelly Susewind rejected the option of lethal removal of a wolf or wolves from the Leadpoint wolf pack in northeast Washington, in response to repeated depredations of cattle in Stevens County. Director Susewind's decision was consistent with the guidance of the state's Wolf Conservation and Management Plan and the lethal removal provisions of WDFW's 2017 wolf-livestock interaction protocol (PDF). The rationale for not authorizing lethal removal of Leadpoint pack wolves was as follows:

WDFW had documented three confirmed wolf depredation events in the pack territory resulting in two dead (the first injured calf eventually died) and one injured livestock since June 28, 2024, all attributed to the Leadpoint pack.

At least two (in this case, more than two) proactive deterrence measures and responsive deterrence measures (if applicable) were implemented by the affected livestock producer, prior to these depredations events. They included range riding, removing injured cattle from the range, carcass sanitation, thinning trees that have provided cover for wolves, and human presence.

WDFW documented these deterrents in the agency's "wolf-livestock mitigation measures" checklist, with date entries for deterrent tools and coordination with the producer. The proactive and reactive non-lethal deterrence measures implemented by the livestock producer were those best suited for their operations in the professional judgment of WDFW staff.

WDFW staff discussed the recent depredations by the Leadpoint wolf pack and associated effectiveness of the nonlethal deterrence tools implemented by the affected livestock producers. Staff determined that range riding occurred on a daily/near daily basis, along with regular human presence.

A yearling female wolf from this pack was killed after reportedly chasing livestock on July 26. Prior to that incident, staff believed the Leadpoint pack to be made up of seven adult wolves and an unknown number of pups. The death of the female wolf could disrupt depredation patterns of the pack. Because of this, WDFW staff recommended Director Susewind to enter an evaluation period to assess if the pack's behavior changes and Susewind agreed.

On Aug. 2, WDFW staff investigated an injured cow and an injured calf. The cow's injuries were confirmed to have been caused by a wolf or wolves while the calf's injuries were determined to be a non-depredation.

WDFW staff discussed the depredations and use of non-lethal measures in this pack territory, and whether they believed depredations would continue despite the use of non-lethal deterrents. At least two (in this case, more than two) proactive deterrence measures and responsive deterrence measures (if applicable) were implemented by the affected livestock producer prior to these depredation events. Non-lethal deterrents in this case included:

- Range riding
- Human presence
- Thinning trees within the pasture that have provided cover for wolves
- Removing sick, injured, orphaned calves and carcasses

WDFW documented these deterrents in the agency's "wolf-livestock mitigation measures" checklist, with date entries for deterrent tools and coordination with the producer.

WDFW staff discussed the recent depredations by the Leadpoint wolf pack and associated effectiveness of the nonlethal deterrence tools implemented by the affected livestock producers. Staff determined that range riding occurred on a daily/near daily basis, along with regular human presence. Because this pack was in an evaluation period, staff assessed how to address this situation most effectively and whether to recommend considering lethal removal.

On Aug. 12, WDFW Director Kelly Susewind approved incremental lethal removal of up to two adult wolves from the Leadpoint wolf pack in northeast Washington, in response to repeated depredations of cattle in Stevens County.

Director Susewind's decision was consistent with the guidance of the state's Wolf Conservation and Management Plan and the lethal removal provisions of the WDFW's 2017 wolf-livestock interaction protocol (PDF) (PDF). The rationale for authorizing lethal removal of Leadpoint pack wolves was as follows:

- WDFW had documented three confirmed and one probable wolf depredation events in the pack territory resulting in two dead (the first injured calf eventually died) and two injured livestock since June 28, all attributed to the Leadpoint pack.

- At least two (in this case, more than two) proactive deterrence measures and responsive deterrence measures (if applicable) were implemented by the affected livestock producer, prior to these depredation events. They included range riding, removing injured cattle from the range, carcass sanitation, thinning trees that have provided cover for wolves, and human presence.

- WDFW documented these deterrents in the agency's "wolf-livestock mitigation measures" checklist, with date entries for deterrent tools and coordination with the producer.
  The proactive and reactive non-lethal deterrence measures implemented by the livestock producer were those best suited for their operations in the professional judgment of WDFW staff.

Despite these proactive and reactive non-lethal deterrence measures, staff believed depredations would likely continue given recent pack behavior. Director Susewind agreed and authorized the lethal removal operation that would expire on Aug. 19 before entering an evaluation period.

On Aug. 19, WDFW had not removed a wolf despite daily and continued efforts utilizing multiple different methods. The lethal removal authorization for this pack expired on Aug.19. There had not been a depredation in this pack territory since Aug. 2. WDFW entered an evaluation period and staff continued to monitor the situation.

There have been no documented interactions between livestock and members of the Leadpoint pack since August 2024.

Cost

Total expenditure for the Leadpoint pack lethal removal operation in 2024 (staff time, contractor time and aerial support) was $17,863 allocated from unrestricted Wildlife State Funds from licensing.

Details of WA Leadpoint Pack Depredations:

Depredation Date	Depredation Type	Proactive Non-lethals	10-Month Window
6/28/24	Confirmed injury of 1 calf – died later	Yes	4/28/25
7/25/24	Confirmed mortality of 1 calf	Yes	5/25/25
7/28/24	Confirmed injury of 1 calf	Yes	5/28/25
8/02/24	Probable injury of 1 cow	Yes	6/2/25

Details of the Leadpoint Pack Lethal Removal operation:

Date	Wolf	Sex	Age
July 26, 2024	1 (Caught in the Act)	Female	Yearling

Onion Pack – 2024 Lethal Removal Operation Summary

On Aug. 10, WDFW staff investigated a dead calf. The investigation revealed evidence consistent with a confirmed wolf depredation.

On Aug. 15, WDFW staff investigated another dead calf. This investigation also revealed evidence consistent with a confirmed wolf depredation.

On Sept. 9, WDFW staff investigated the third dead calf. The investigation revealed evidence consistent with a confirmed wolf depredation.

As of Sept. 10, WDFW staff investigated three confirmed depredation events in the pack territory across Stevens and Pend Oreille counties, resulted in three dead livestock within a period of 30 days.

On Sept. 11, Washington Department of Fish and Wildlife (WDFW) staff considered lethal removal of a wolf or wolves from the Onion Creek wolf pack in northeast Washington. WDFW staff discussed the depredations and use of non-lethal measures in this pack territory. Non-lethal deterrents in this case included:

- Daily to near-daily range riding,
- Human presence,
- Removing sick and injured livestock
- Livestock carcass sanitation

Staff assessed how to most effectively address this situation moving forward and provided a recommendation to WDFW's Director within a few days.

On Sept. 12, WDFW Director Kelly Susewind approved incremental lethal removal of up to two wolves from the Onion Creek wolf pack in northeast Washington, in response to repeated depredations of cattle in Stevens and Pend Oreille Counties.

Director Susewind's decision was consistent with the guidance of the state's Wolf Conservation and Management Plan and the lethal removal provisions of WDFW's 2017 wolf-livestock interaction protocol (PDF). The rationale for authorizing lethal removal of Onion Creek pack wolves was as follows:

WDFW had documented three confirmed wolf depredation events in the pack territory resulting in three dead livestock since Aug. 10, 2024, all attributed to the Onion Creek pack.

At least two (in this case, more than two) proactive deterrence measures and responsive deterrence measures (if applicable) were implemented by the affected livestock producers, prior to these depredation events. They included daily to near-daily range riding, human presence, removing sick and injured cattle from the range, and livestock carcass sanitation.

WDFW documented these deterrents in the agency's "wolf-livestock mitigation measures" checklist, with date entries for deterrent tools and coordination with the two producers. The proactive and reactive non-lethal deterrence measures implemented by both the livestock producers were those best suited for their operations in the professional judgment of WDFW staff.

WDFW staff discussed the recent depredations by the Onion Creek wolf pack and associated effectiveness of the nonlethal deterrence tools implemented by the affected livestock producers. Staff determined that range riding occurred on a daily/near-daily basis, along with regular human presence. Despite this, staff believes depredations will likely continue given recent pack behavior. Director Susewind agreed and authorized the lethal removal operation through midnight of Sept. 23, 2024, before entering an evaluation period. The lethal removal operation could have been extended if additional wolf depredations were documented.

On Sept. 19, WDFW staff lethally removed two wolves (a yearling female and an adult male) from the Onion Creek pack territory. With the removal of these two wolves, the lethal removal authorization expired, and an evaluation period had been started.

On Sept. 30, 2024, staff investigated a dead calf within this pack territory. The investigation revealed evidence consistent with a confirmed wolf depredation.

Following the guidelines of the Wolf Plan (PDF) and wolf-livestock interaction protocol, another lethal removal action may be initiated following removal of a wolf or wolves if WDFW documents additional livestock depredations indicating a renewed pattern of depredation.

Following this depredation event on livestock in the Onion Creek wolf pack territory, the Washington Department of Fish and Wildlife (WDFW) was again considering lethal removal of a wolf or wolves from this pack territory in northeast Washington.

WDFW staff discussed the depredations and use of non-lethal measures in this pack territory from August to the current time. Non-lethal deterrents in this case included:

- Daily to near-daily range riding,
- Human presence,
- Removing sick and injured livestock
- Livestock carcass sanitation

Staff assessed how to most effectively address this situation moving forward and provided a recommendation to WDFW's Director within a few days.

As a result of this latest depredation, staff recommended renewing the lethal removal authorization and WDFW Director Susewind agreed. His decision is consistent with the guidance of the State's Wolf Conservation and Management Plan and the lethal removal provisions of WDFW's 2017 wolf-livestock interaction protocol (PDF). The rationale for authorizing lethal removal of Onion Creek pack wolves is as follows:

WDFW had documented four confirmed wolf depredation events resulting in four dead livestock since Aug. 10, 2024, all attributed to the Onion Creek pack.

At least two (in this case, more than two) proactive deterrence measures and responsive deterrence measures were implemented by the affected livestock producers, prior to depredation events. They included daily to near-daily range riding, human presence, removing sick and injured cattle from the range, and livestock carcass sanitation.

WDFW documented these deterrents in the agency's "wolf-livestock mitigation measures" checklist, with date entries for deterrent tools and coordination with the two producers. The proactive and reactive non-lethal deterrence measures implemented by the livestock producers were best suited for their operations in the professional judgment of WDFW staff.

WDFW staff discussed the recent depredation by the Onion Creek wolf pack and associated effectiveness of the nonlethal deterrence tools implemented by the affected livestock producers. Staff determined that range riding occurred on a daily/near daily basis, along with regular human presence. Despite this, staff believed depredations would likely continue given recent pack behavior. Director Susewind agreed and authorized the renewed lethal removal operation.

On Oct. 2, in response to repeated depredations of livestock in Stevens and Pend Oreille counties, WDFW Director Kelly Susewind approved lethal removal of one adult wolf from the Onion Creek wolf pack territory in northeast Washington.

On Oct. 2, shortly after receiving the Directors authorization, staff lethally removed an adult female wolf. With this removal, the lethal removal authorization expired, and an evaluation period started. There have been no documented interactions between livestock and members of the Onion pack since September 2024.

Cost

Total expenditure for the Onion pack lethal removal operation in 2024 (staff time, contractor time and aerial support) was $43,369 allocated from unrestricted Wildlife State Funds from licensing.

Details of WA Onion Pack Depredations:

Depredation Date	Depredation Type	Proactive Non-lethals	10-Month Window
8/10/24	Confirmed mortality of 1 calf	Yes	6/10/25
8/15/24	Confirmed mortality of 1 calf	Yes	6/15/25
9/09/24	Confirmed mortality of 1 calf	Yes	7/9/25
9/30/24	Confirmed mortality of 1 calf	Yes	7/30/25

Details of the Onion Pack Lethal Removal operation:

Date	Wolf	Sex	Age
September 19, 2024	1 (Agency Removal)	Male	Adult
September 19, 2024	1 (Agency Removal)	Female	Yearling
October 2, 2024	1 (Agency Removal)	Female	Adult