

Wolf Advisory Group

Meeting Summary¹, April 12-13, 2023

WAG members present: Tyler Allen, Alex Baier, Bill Kemp, Caitlin Scarano, Dan Paul, Jessica Kelley, Lisa Stone, Lynn Okita, Nick Martinez, Paula Swedeen, Samee Charriere, Rick Perleberg, Sierra Smith, Todd Holmdahl, Scott Nielsen, and Marie Neumiller.

Washington Department of Fish & Wildlife (WDFW, Department) staff members present: Annemarie Prince, Ben Maletzke, Jim Brown, Julia Smith, Kevin Robinette, Joey McCanna, Seth Thompson, Trent Roussin, Steve Pozzanghera, Jenna Becar, Brian Kertson (Day 2), Kyle Garrison (Day 2) and Brock Hoenes

Washington Fish and Wildlife Commissioners: Lorna Smith (Day 1)

Presenters for the Washington Predator-Prey Project (Day 2): Taylor Ganz, Aaron Wirsing, Beth Gardner

Facilitation team: Susan Hayman, Casey Hart, and Tristan Marquez

Meeting Action Items

Responsible Party	Action Item	Target Date
Facilitation Team	Schedule 2-hour follow up call with WAG members and WDFW staff to discuss responses and next steps to Predator-Prey Study presentations	Scheduling completed by April 28, for a call sometime the week of May 1
Julia Smith & Facilitation Team	Check on potential virtual Periodic Status Review modeling presentation for interested WAG members	June 1
WDFW & Facilitation Team	Develop “Concurrent Processes” diagram that shows how processes underway do or do not connect in substance and/or timing (i.e., conservation policy, PSR, wolf plan)	June 1
Sierra Smith	Check to find examples of carcass sanitation grant opportunities in other states (Julia’s request)	June 1
WAG Members & Kyle Garrison	Explore whether there are areas where WAG/stakeholder groups could add to “joint ventures” conversation (e.g., Shrub Steppe Habitat Initiative)	June 1
Facilitation Team & WDFW	Follow up with Aaron Wirsing re: locations of the dump sites that showed up as scavenger sources in the cluster study	As soon as the information is available

¹ This summary is a synthesis of the meeting discussion April 12-13, 2023. The meeting summary will be publicly available following finalization of the meeting documentation package.

WDFW & Facilitation Team	Identify if there is a correlation between areas where range riding is underway and predator-prey study areas	As soon as the information is available
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April 12, 2023

Opening

Susan Hayman, Ross Strategic facilitator, opened the Wolf Advisory Group (WAG) meeting by welcoming members, WDFW staff, and meeting observers, and providing an overview of the meeting objectives and agenda. The purpose of the meeting was to:

1. Encourage a dialogue between WAG and WDFW on the following topics to provide a deeper understanding that enables WAG members to better network this information:
 - 2022 Annual Wolf Report
 - Coordination with livestock producers in anticipation of the 2023 livestock grazing season
 - Overview of the Periodic Status Review
2. Share and discuss the progress of current task groups and affirm the next steps for task group members.
3. Conclude the current exploratory phase to better understand interactions between wolves and ungulates in Washington, and identify concepts for future WAG advice, recommendations, and/or a sounding board.
 - How predators are impacting ungulate populations in Washington—what we do know and won't know from the Predator-Prey Project.
 - How WDFW will use this information to inform its decision-making regarding wolf management.
 - Is there interest and opportunity for WAG to support ungulate habitat restoration in areas where habitat is a limiting factor for ungulates?
4. Provide opportunities for WAG members and WDFW staff to build collaborative capacity and strengthen their relationships with one another.

Introductions

WAG Member and WDFW Staff Introductions

Hayman invited WAG members and WDFW staff in attendance to introduce themselves.

WDFW Updates

2022 Annual Wolf Report

Ben Maletzke, WDFW Statewide Wolf Specialist, provided an overview of the [2022 Annual Wolf Report](#). He explained the methodologies and reasoning used in assessing the wolf population every December. The Department completes a census of the total population to understand the trend of wolf recovery

and activity across the state. They compile info from collar data, trail cameras, livestock depredations, Tribal harvests, and wolf mortalities as part of their assessment. Highlights from the report include:

- 216 wolves were counted across 37 packs, a five percent increase from the previous year.
 - 26 packs included successful breeding pairs.
 - The 2021 report counted 206 wolves in 33 packs and 19 breeding pairs.
- Pack sizes ranged from two to ten with most having between four and six wolves.
- State, federal, and Tribal biologists captured 38 wolves from 17 different packs and monitored a total of 53 unique radio-collared wolves from 27 different packs in 2022.
- Eight new packs formed in 2022, including the Big Muddy pack in Klickitat County, the Napeequa and Maverick packs in Chelan County, the Chopaka and Chewuch packs in Okanogan County, the Wilmont pack on the Confederated Tribes of the Colville Reservation (CTCR) in Ferry County, the Five Sisters pack in Stevens County, and the Mt. Spokane pack in Spokane County.
- WDFW documented 37 wolf mortalities during 2022, including six removed by the Department in response to wolf-livestock conflict, three killed in caught-in-the-act depredations on livestock, seven of natural causes (two killed by cougars, one killed by a moose, one killed by other wolves, two of old age, and one pup that died from malnutrition), one unknown, 11 legally harvested by Tribal hunters (one by the Spokane Tribe and ten by CTCR hunters), and nine mortalities from unlawful take still under investigation.
- WDFW investigators determined fifteen cattle (primarily calves) and two sheep were confirmed killed by wolves, and one additional sheep was probably killed by wolves. Also, nine cattle were confirmed as injured and two were probably injured by wolves from seven different packs. Nineteen percent of known packs were involved in at least one confirmed livestock depredation. Only three packs (eight percent of the packs) were involved in two or more depredations. Eighty-one 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.

WDFW Wolf Biologist, Trent Roussin, explained that monitored wolves were collared by both the Department and Tribes, but not all wolves are monitored at the same time. He reported the Department lost its only collar in the Leadpoint pack in November and the pack was currently being monitored through tracking. The Department detected one pair of wolves in the Leadpoint pack in the winter, and verified that the Onion Creek pack had been creeping into Leadpoint territory. The Department will prioritize additional collars in this territory this Spring.

Maletzke said a five percent growth in the total wolf population does not necessarily indicate that wolf population growth is slowing down. There is currently not a lot of room for wolf expansion in Northeast Washington and the population has plateaued in the last few years. He said wolves will naturally disperse out of areas they cannot grow in, and new pups will be born into the new packs that have recently established themselves in the Cascades. Population growth is not totally linear, and the population is still recovering if successful breeding pairs are being detected in the right areas. There likely will not be much if any growth in the Northeast, but some packs in the Cascades are expected to be breeding pairs next year.

Roussin and Maletzke explained that the Department designates wolves as resident singles if they find repeated evidence of one wolf in a specific area but never another. The Department only counts wolves evident as of December 31, as winter is the lowest point in the wolf population and most pups have essentially reached adult status by then. This provides a consistent benchmark for assessing the state's wolf population.

Julia Smith, Wolf Policy Lead, informed the WAG that Wildlife Conflict Specialists in Yakama and Klickitat Counties have been working with producers to remove livestock carcasses from operations in the area as a proactive measure to prevent scavenging and potential wolf-livestock conflicts. She also explained that wolves are managed differently in Eastern and Western Washington because of their different federal listing status—gray wolves are federally listed as endangered in the western two-thirds of the state and listed by the State of Washington as endangered throughout the state. She clarified that the State is not allowed to have different listing statuses by region.

Maletzke and Roussin explained that the investigations for the nine unlawful mortalities are a high priority for the enforcement department, but the details of the cases are kept confidential due to their sensitive nature. Solving wildlife crimes are very difficult and often rely on luck and circumstances to be successful.

Maletzke said territory boundaries are based on where wolves spend 95% percent of their time and exclude extraterritorial movements. That makes it possible for wolves to be sighted outside its territory. Reports of 16 wolves instead of the Department's count of nine in the Tucannon pack territory may be due to wolves from Oregon that occasionally spend time in Washington. WDFW staff work with their Oregon counterparts to ensure that all wolves are accounted for and that none of them are counted twice. Maletzke said pack territories are not static and different packs occasionally push each other out. Ultimately, counting the wolf population and packs is a complicated task.

Preparation for 2023 Program Activities

Wildlife Conflict Section Manager, Jim Brown, updated the WAG on planned program activities. The Department has 11 range riding contracts and four sub-contractors for the 2023 fiscal year, including a rider in the Southern Blue Mountains that is working through the winter. The [Request for Quotes \(RFQ\)](#) for new contracted range riders is now public. Brown reported there have been no significant changes to the process since the previous year. Brown explained that the Department is still unsure of what the funding for the Range Riding program will be, but that there is funding secured for Range Riding in the spring regardless of the outcomes of Washington's 2023 Legislative session. The Department is exploring whether it has enough capacity to respond to the needs of areas with high conflict and is strategizing on ways to address it. This may include hiring part time range riders to plug in gaps, such as in southeast Washington, where the Department is still struggling to attract range rider interest.

Region 1 Wildlife Conflict Supervisor, Joey McCanna, added that WDFW is using a grant from the Department of Agriculture to work with NEWCC (Northeast Washington Wolf Cattle Collaborative) and Cattle Producers of Washington (CPoW) on additional range rider coverage in Northeast Washington. Wildlife conflict specialists are also coordinating with private producers on private allotments and the Forest Service to plan for the upcoming grazing season.

Brown explained there is currently little data on the efficacy of range riding, but Utah State University is currently conducting a multi-state study into the efficacy of all lethal deterrents. Range riding appears to help where it has been applied, but there are areas with no range riders and no conflict as well as areas with continued conflict despite their presence.

The Department has also been expanding its capacity for non-lethal deterrents and response to conflicts through the purchase and distribution of additional Radio activated guard (RAG) boxes, fladry, and fox lights; working on internal and external communications to respond to emerging issues; addressing carcass management; and hosting training sessions. Wildlife conflict specialists attended a two-day carnivore conflict training in March where they were trained on depredation using necropsy data. The Department invited producers in Anatone, WA to attend a meeting to discuss local wolf activity specifically relating to the Tucannon pack and has been working with producers in the Blue Mountains on the deployment of non-lethal deterrents. Most producers and landowners in the Blue Mountains have been very receptive to coordinating with the Department on conflict mitigation.

Smith clarified for WAG members that producers are not obligated to remove livestock carcasses for mitigation. However, the Wolf Plan states that lethal removal and the compensation model can only be applied if there is no evidence of unnatural attractants such as carcasses and bone piles. Anecdotal and observational evidence shows that carcasses can attract wolves and increase conflict with local livestock.

McCanna clarified that the Department sends a team into the field to investigate depredations. The field team may refer its findings to a panel of wildlife conflict specialists if they are unsure about the cause of mortality. Veterinarians have been invited to assist in assessing depredations in the past but are typically not trained in identifying depredation activity. A WAG member noted that there have been instances of depredation investigations overturned after being reevaluated by veterinarians. McCanna acknowledged that the Department does not always reach the correct conclusion, but always treats depredation events as serious crime scenes and seeks to find out what really happened. Depredation events are not always easy to investigate, and the right expertise is needed to make the correct determination, especially with still-live animals. The WAG member acknowledged the Department's efforts in improving its depredation assessments and added that producers take comfort in having a second opinion.

Periodic Status Review

Smith informed the WAG that according to [Washington Administrative Codes \(WAC\) 220-610](#), all species that are considered endangered, threatened, or sensitive must undergo a status review every five years. Wolves have been listed as a State endangered species since 1980 and the Department announced that it would conducting a status review in 2018. University of Washington researchers were hired to do population modeling using collar data and evaluate different population scenarios over the next 50 years. The researchers released their final report in the form of two manuscripts ([Manuscript 1](#), [Manuscript 2](#)) in April 2023. The information from the report will inform the Department's [Periodic Status Review of the Gray Wolf](#) (PSR) which is tentatively scheduled to be released as a draft on May 12th followed by a 90-day public comment period. The Department has also tentatively scheduled a

briefing and public hearing date for September 29th or 30th and the Commission decision is tentatively scheduled for October 27th or 28th.

Smith clarified that the population model is meant to predict what the Washington wolf population is expected to look like based on several Department requested scenarios to see if recovery objectives will be met. All scenarios take current mortality rates of wolves into consideration. Smith added that the Wolf Plan's delisting criteria will be considered by the Commission as it makes its final decision. Hayman noted that the WAG could choose to take a deeper look into the modeling and scenarios during the June WAG meeting by inviting a presentation on this topic. There was additional discussion about the public review and comment process, and how this aligns with other concurrent planning processes (e.g., the draft conservation policy) potentially involving wolves. WAG members asked the facilitation team to work with WDFW and create a diagram showing these different processes, including the PSR process, and how they do or don't connect in subjects and/or timing.

Legislative Updates

Paula Swedeen, WAG member, provided an update on range riding funding discussions from the 2023 legislative session. WDFW is phasing out its administration of the contract range riding program in Northeast Washington, and the Department of Agriculture is willing to fund but not administer the program. Swedeen worked with legislators to design budget proviso language that transfers the \$100,000 that WDFW would have allocated to contract range riding in Northeast Washington to the Department of Agriculture's grant program for range riding. She further reported that overall funding for the grant program is to be increased from \$1 million to \$1.6 million, with \$200,000 going to the Stevens and Ferry County sheriff's departments and the rest going to the Northeast Washington Wolf Cattle Grant Program. Non-profit entities can apply for funding provided their applications meet program guidelines. The increase in funding should enable organizations to hire more range riders.

The legislature is also providing \$100,000 to WDFW for range rider coverage outside of Northeast Washington through Damage Prevention Cooperative Agreement for Livestock (DPCAL) contracts. To improve accountability, the legislature will provide \$200,00-300,00 to Washington State University Extension to hire a contractor with range rider administration experience to do an examination of the Agriculture Grant Program by evaluating information from reports, GIS data, and interviews. Swedeen noted that the WAG will play an important role in discussing advice and options for the funding and administration of range riding outside of Northeast Washington, and this may be an important discussion for WAG members to begin in June.

WAG Task Group Updates

Hayman invited designated WAG members to provide updates from their respective task groups.

Monitoring and Data Sharing Task Group

Dan Paul, WAG member provided the following update:

- The task group was really informed by the 6/29/2021 Draft Alternatives Matrix (Post-recovery Wolf Conservation and Management Plan) and want to connect to important post-recovery planning topics:

- Why wolves are monitored (purpose).
- How wolf monitoring data is used.
- How wolf monitoring data is shared, and with whom.
- How wolves are monitored (collars, other);
 - How do we keep up with the latest tools? (Invasive and non-invasive options)
 - What are the existing alternatives to collars?
- The necessity for continued monitoring of wolves as they approach delisting.
- Should wolf management be consistent with how the Department manages other wildlife?
- The group is interested in conducting research on the monitoring methods and reasoning of other states with comparable wolf situations.
 - States with recovered wolf populations develop methods for population estimates, but the process can be fraught with challenges. Washington will need to find a solution that avoids those pitfalls.
- The group is planning on holding a panel discussion during November to discuss monitoring and data sharing and will use the June WAG meeting to discuss proposed panel topics and who the WAG would like to present.

Carcass Management Task Group

Marie Neumiller, WAG member, provided the following update:

- The task group is framing three areas of conversation:
 - Status of State/WSDOT roadkill pits
 - Natural decomposition—issues and potential solutions/alternatives
 - Carcass Management and expanding the pilot program in Yakima and Klickitat counties
- The initial focus is for the field situation involving carcasses and attraction of carnivores.
- Potential June discussion topics:
 - Use and management of DOT roadkill pits: Trout Lake--check into land ownership—is it WDFWs? Powerline right of way?
 - Other options for carcass management (for accessible carcasses vs. inaccessible carcasses)
 - Economics: Effects of any future changes to use of natural decomposition on producers; Potential for funding for carcass management activities that aren't working to be transferred to activities that could work better.
 - WDFW is composing a list of what to discuss with the state interagency carcass management group (e.g. what to tackle, where DOT may be brought into the conversation). Considerations include decomposition methods, pits, and potential for increasing composting facilities around the state. WDFW suggestions will be brought to the WAG in June for discussion before being brought to the state interagency group.

Region 1 Director, Steve Pozzanghera, added that the interagency carcass management group had already met twice and is planning on scheduling a third meeting with the Department of Transportation's involvement. He noted that there will be no changes to rules in carcass management without a stakeholder process and that the WAG will likely have an opportunity for engaging with the

interagency group in the future. A WAG member offered to help identify a representative from the meat industry to be involved in the discussions, and to research carcass disposal grants from other states.

Range Riding Task Group

Lisa Stone, WAG member, provided the following update:

The Range Riding Task Group helped organize a range riding information session for newer WAG members. The group also discussed talking points for the June WAG meeting and proposed a two-part panel discussion, with the first part focused on “current conditions,” and the second part focused on future opportunities.

The panel discussions will use the following framing:

Day 1: Planning panel discussion: Range-riding program: Current conditions, challenges, and opportunities within Washington, including:

1. Perspectives from those who currently manage the range riding programs –WDFW [contract and DPCA-L], CPOW, NEWWCC
2. Perspectives from those who receive the services (producers)
3. Perspectives from those who deliver the services (range riders)

WAG Discussion:

- What challenges within the existing protocol are we trying to solve?
- Standards for training? Other standardization?
- Difference in the landscapes where range-riding is occurring?

Day 2: Future Opportunities: Share online-research information on how other places are managing range riding programs, lessons learned, etc., with discussion of the following points:

1. Who is the best entity to manage range-riding programs (funnel the funding, deployment/oversight)?
2. Who should deliver these services?
3. What is the ability and willingness of the state/others to fund expectations for the range riding program?
4. How should range-riding outcomes be evaluated? By whom?

Due to time constraints, Hayman suggested decisions about the work of these task groups and others that have yet to be convened be held until Day 2’s discussion of next steps. The group concurred, and Hayman turned to public comment.

Public Comment

Six persons provided public comment this day, as documented in Appendix A.

Closing

Hayman invited WAG members and WDFW staff to provide final reflections. Hayman thanked members and WDFW staff for their participation, and members of the public for attending and commenting, and closed the day's session. She reminded the public of the opportunity to join an informal discussion session with WDFW staff and WAG members following the closure of Wednesday's WAG meeting.

April 13, 2023

Opening

Hayman opened the second day of the meeting by reviewing the meeting agenda and objectives. She then invited WAG members and WDFW staff to check in with each other via round robin.

Wolf-Ungulate Interactions

Key takeaways from the three studies that are part of the Washington Predator-Prey Project

Hayman introduced presenters Beth Gardner PhD, Taylor Renee Ganz PhD, and Aaron Wirsing PhD who were invited to speak on the state of knowledge about the findings of the Washington Predator-Prey Project. The presentations were recorded and are posted on the WDFW WAG online calendar. Presentation slides may also be viewed from the calendar link. The following captures key points raised during the question and response portion of the presentations.

Anthropogenic impacts on the occurrence patterns of predators & prey in eastern Washington—Beth Gardner, PhD (for Sarah B. Bassing, PhD)

In response to a question regarding deer avoiding camera traps for a time after predators were recorded, Gardner explained that it was unclear exactly how deer can detect and avoid areas with predators. She suggested they may use their sense of smell to detect stalking predators and sight to detect cursorial ones. She clarified for another WAG member that some ungulates, such as the white tail deer, do not move much during the winter, which accounts for their relatively low exploratory movements despite minimal wolf exposure. Gardner added that several other factors also affect the movement of ungulates, and the data presented showed that ungulates move less around predators when the factors are held constant.

White-tailed deer and elk population dynamics (2017–2021) in NE WA—Taylor Renee Ganz, PhD

In response to questions on historic population counts and survival rates of white tail deer and elk, Ganz explained that there is little data on ungulate survival rates before the beginning of the study in 2017 and that overall abundance numbers for deer are hard to assess. She added that neither harvest data nor collar tracking data provide accurate abundance numbers. Based on the vital rates observed in 10,000 data simulations, 74% showed the white tail population was in decline, while 26% showed an increase in population. Ganz interpreted that the white tail population is slightly less than a stable population—that is, slightly in decline.

Ganz explained that mortality investigations of deer found that there were few cases with wolf involvement, although some unknown mortalities may have been due to wolves. The deer population is very large compared to wolves, which is one of the reasons few instances of predation were identified.

Furthermore, wolves can consume a carcass quickly making it difficult to confirm mortalities with remains. Researchers created maps and looked at GPS locations of deer overlaid over predator levels to see predation levels and the likelihood of survival for ungulates based on predators and other factors. The model demonstrated that effect on ungulate populations would be the same in areas regardless of the number of wolves.

In response to a question regarding predator hunting, Ganz stated that the effect of predator hunting on the ungulate population was not measured in the study, but other studies have shown that the reduction of predator populations have short-lived impacts on prey. Brian Kertson, WDFW Wildlife Research Scientist, added that a large quantity of predators needs to be killed over both a large area and long amount of time to have lasting effects on prey populations.

Prey diversity and season mediate trophic overlap between cougars and wolves in anthropogenic ecosystems—Aaron Wirsing, PhD (for Lauren Satterfield, PhD candidate)

Wirsing informed the group that the data showed that cougars were sensitive to wolf presence and would significantly modify their behavior when in proximity to wolves. He explained that it is unclear as to why cougars do not attack livestock but suggested that they are more specialized in the species they attack and typically will not attack unfamiliar prey. Kertson added that cougars will usually only attack smaller livestock such as sheep or goats and that they are almost always lethally removed after a depredation. Kertson further clarified that while cougars and wolves prey on the same species, they do so on different landscapes, suggesting that predators do not have an additive affect on ungulate populations. However, further research is needed to determine if predators contribute to additive mortality. Wirsing confirmed for a WAG member that cougars typically position themselves at lower elevations when they overlapped with wolves on the landscape.

In response to a question, Wirsing explained that scat analysis could determine what type of prey was eaten but not how it was procured. Cluster events were identified to clarify whether animals had been eaten alive or scavenged. Most instances of livestock DNA being identified in scat found that wolves had been scavenging dump sites based on corroborating data from cluster events. More data is needed from wolf collars to assess the levels of wolf kills because of the difficulty of inferring information from wolf clusters. Kertson added that as much information as possible needs to be leveraged from different sources to infer which predator made the kill.

General Discussion

In response to further questions about the effects of cougar-wolf separation, Wirsing said the limited data on prey availability made it difficult to measure the effect on the spatial separation between wolves and cougars. Both predators and prey can be responding to each other and the landscape, but data on prey availability is needed to understand the extent of the effect. Kertson added that prey availability is highly desired but a very difficult metric to discern. Ecological metrics are challenging because of how complicated, dynamic, and open the systems are. They are not static in time and place, and the variables are hard to control.

In response to a question about the timing of initiating predator-prey studies several years after wolves re-emerged in Washington, Kertson clarified that the effects of wolf reestablishment to the landscape

on ungulate populations cannot be fully measured because of the lack of historical data. However, analysis is being conducted to identify the effect of wolves when they have a limited presence compared to greater presence. The researchers noted there are still areas on the landscape with no wolves yet, which can be compared in future studies after wolves appear. Wirsing added that the equilibrium phase of wolf recolonization better informs future management than the reintegration phase.

Kertson told WAG members researchers were still in the process of pulling all their data together to answer questions around the overall impacts of predators on ungulate populations on a managed landscape with wolves. There will be more inferences and revelations in the future, but the analysis takes time.

Ungulate Habitat Presentation and Discussion

Kyle Garrison, WDFW Ungulate Section Manager, presented on the effects of habitats on ungulate populations. Both presentation and slides are posted on the WDFW WAG online calendar.

Garrison informed the WAG that there are opportunities for advocacy for ungulate species through joint ventures and shared stewardship such as the Washington Shrub Steppe Habitat Initiative. Hayman noted the WAG's interest in exploring potential opportunities for coordination with such ventures. Alex Baier, WAG member and representative from the Rocky Mountain Elk Foundation, affirmed his organization's interest and history in supporting habitat restoration. In response to a question, Garrison clarified that while farm fields/alfalfa is a source of food for ungulates, artificially maintaining these for the purpose of supporting ungulate populations may be counterproductive. Researchers and managers lead more towards keeping landscapes representative of natural flora and face the consequences of potentially unnaturally supporting ungulate populations.

Due to a shortage of time, WAG members did not have adequate opportunity to ask further questions of Garrison, nor to assimilate their overall takeaways from the

Next Steps

WAG members and WDFW identified the following next steps for June WAG meeting discussions and activities and identified others for post-June efforts.

For June:

- **Wolf-Ungulate Interactions:** Schedule a two-hour virtual meeting prior to the June WAG meeting and discuss the potential to bring forward advice at the June meeting.
- **Carcass Management:** Gather WAG feedback/input on potential topics for Interagency Group deliberation.
- **Range Riding:** Defer the panel presentation and discussion on current conditions; Plan for a discussion of future models to manage range riding programs in areas of the state other than NE Washington, i.e., which entities should manage the program and what level of budget would be required?)
- **Field tour** of Southeast Washington livestock operation (Samee's): Need to identify purposes, areas of interest in advance.

- **Compensation:** Begin discussions (framed by the task group) for assess what is/isn't working with the WACs, and potential areas for change. Review materials from previous WAG efforts to address compensation issues.
- **Spend less time on WDFW routine updates**—this information can be gathered from agency updates and information distributed ahead of WAG meeting.

For future planning discussions:

- **Monitoring and Data Sharing:** Framing the online search for how this is being done in other places, and expressions of interest from any WAG members to help with this research (handle via email)
- **Depredation reporting:** This task group hasn't met yet. Explore future opportunities for advice development.
- **Gray Wolf Conservation and Management Plan:** Connect the topics already underway with task groups to "need for change" in the Plan. There probably isn't a reason to have a separate task group for this topic.
- **Periodic Status Review Modeling:** Potential Q&A session on modeling would be a better fit as a virtual conversation for those specifically interested in modeling, rather than having this topic at the June WAG meeting.

Public Comment

Three persons provided public comment this day, as documented in Appendix A.

Closing

Hayman reviewed the meeting's action items and invited WAG members and WDFW staff to provide final reflections. Members and WDFW staff generally agreed that meetings need to have fewer topics and more time to discuss each of them. The facilitation team agreed and will work with members and staff to make that happen. Hayman thanked members and WDFW staff for their participation, and members of the public for attending, and closed the meeting.

Appendix A: Reference Material for Wolf-Ungulate Interactions Topic

Public comment received at the end of each meeting day is paraphrased below:

April 12, 2023

- Amaroq Weiss:
 - Regarding carcass removal, Oregon has lots of experience using non-lethal deterrents when dealing with carcasses. Bone pile removal is the single best action for deterring wolves and is required when the Oregon Department of Fish and Wildlife considers lethal removal. Secondly, regarding implementation of a rule, rather than a protocol to address wolf-livestock conflict, the Oregon Wolf Plan was adopted in 2005. However, stakeholders advised the agency on the adoption of companion rules and the department agreed. Oregon has successfully implemented its rules on wolf-livestock conflict for the past 17 years using a phased approach with benchmarks that provides the Department with flexibility to address lethal removal decisions on a case-by-case basis. Because Washington lacks these kinds of rules and accountability, WDFW has been sued four times between 2017 and 2020 over wolf-livestock conflict management practices. In Oregon, the Department of Fish and Wildlife has been sued only once in 2011. Parties know what to expect in Oregon and there are no surprises. This has really turned down the temperature with stakeholders.
- Alyne Fortgang:
 - All the state's wildlife belongs to the public. Stakeholders want to keep rules thriving. We need transparency on the non-lethal methods for deterring wolves with goal being to make it the only method instead of killing. This includes knowing how many livestock were on grazing allotments when calves were killed by wolves, terrain size and description, the number of animals range riders have found killed, and what range riders do to make effective deterrents. Scientific research in the Great Lakes and the Rockies shows that fladry is a great tool to protect livestock from wolves. Can this be implemented? We need to use non-lethal deterrents.
- Lloyd Elliot Lyle:
 - I am a wildlife advocate, fascinated by snow leopards in the Himalayas. Early on, goat herders didn't have issues with snow leopards, and they found a way to work together. Herders paid an insurance premium to offset losses to snow leopards. They also set up ecotourism for snow leopards has now become a method that has brought in a lot of money, more than the cost of the insurance premiums. I understand there is a bit of a culture clash in Washington but there is opportunity for collaboration. I would like to see WAG sit down with producers to collaborate on how to protect livestock as well as the wolves. We need to create a connection with wolves as other beings. Wolves are basically dogs, and dogs are man's best friend. I would like to see a respect-based relationship with wolves, rather than a fear-based relationship. Wolves are soulful creatures.
- Rachel Bjork:
 - I appreciate the opportunity to attend this meeting in Seattle and to meet WAG members and Department staff. I look forward to the range riding report. When I attend these meetings, it is amazing how many resources are invested for wolf monitoring and management. It is challenging to collar wolves, and it is disappointing to hear some aren't satisfied with the work. Trail cameras are less invasive and less dangerous. It seems reasonable and realistic right now to use them. Lots more livestock die from accidents and illness yet there is so much focus losses to wolves. There is a big outcry if the Department kills wolves without considering if attractants are in the area. It is

Appendix A: Reference Material for Wolf-Ungulate Interactions Topic

disappointing to not consider wolves as a part of the ecosystem. They are important to the ecosystem and keeping healthy ungulate populations. Wolves need to be here.

- Hannah Thompson:
 - I am part of the Northwest Animal Rights Network. Regarding a point in the DFW presentation last week. I want to speak on the conversation on wolf depredation and compensation for livestock producers. Revisiting the compensation process needs to occur. Why do people feel this process is uncomfortable to use? This is a public issue. The public is a stakeholder when WDFW kills wolves and money is spent on deterrents for depredations. We need to understand the rationale behind the process to be able to address concerns, including what ranchers need to do to be compensated, and hear from people dealing with these issues. The other issues is using range riders as a deterrent. We need clear answers how effective range riders are and clarity on the program as a whole. Some say it is not effective. Some say it is only effective to find animals after they are killed. How many animals are range riders able to spot daily out of the total population? How are they able to spot animals before depredation? We need to address these issues for transparency's sake.
- Adrienne:
 - I am part of the wildlife committee of the Sierra Club. After listening to researchers on the predator prey study, I got a different take today than from the recent WDFW commission meeting. Dr. Ganz's study didn't indicate declines in deer/elk populations in study areas. The scat study had few indications of livestock in scat areas. Scat was found from carcasses not live animals. In Washington State, how does status designation impact management? Regarding changes in management when the listing status is changed from threatened to endangered, the response from the department is that it doesn't change management. What is the purpose of these designations if it doesn't impact how to manage animals?

April 13, 2022

- Zoey Hanley:
 - I am a wildlife ecologist with Defenders of Wildlife. Regarding impacts of wolves on ungulates: maybe there is an opportunity for reframing. As a reminder, wolves are native species that have been absent from Washington for around 100 years. They have interacted with prey and humans for millennia. Additionally, the wolves' return to Washington needs to be reframed as recovering, returned, or being restored rather than "recolonization," as this word is triggering for indigenous peoples.
 - The periodic status review is referencing two papers modeling recovery that have not made it through peer review. Results may change over the coming months after they have now been made public by WDFW.
 - Regarding science and efficacy of non-lethal practices, we can't "throw out the baby with the bathwater." These practices may not have conclusive studies yet, but there is a lot of experience on the ground that suggests the practices are effective. There is a grant being study the efficacy of non-lethal deterrents being conducted by Utah State. There is also a paper looking at range riding in Alberta that suggested that one experienced range rider was more effective than 2-3 untrained range riders. It also showed that there were no depredations in the five-predator system study area. As these studies come out, I encourage you to understand that there are few depredations

Appendix A: Reference Material for Wolf-Ungulate Interactions Topic

in most areas that scientists are using decrease in predator presence as a proxy for depredations. Most non-lethal deterrents are not designed to reduce predator presence on the landscape, so the results from the emerging studies should be taken with a grain of salt.

- Rachel Bjork:
 - This was an interesting conversation. I second Zoey and appreciated her comments. I also appreciate the predator prey presentations. I hope these can be available online for the public to review. It is interesting to note how little livestock were part of the diet of the predators in the study. It was also nice to meet people yesterday.
- Ilene Le Vee:
 - I am a rancher and farmland owner in Klickitat and Clark Counties. I was raised on a ranch in that area. It was an interesting meeting. I was sad the last presenter didn't get much time to speak and hope he has more time to present more in depth. I am a rancher with the land and resources to allow my animals to go out in the spring and summer for grazing. I could access public lands but choose not to. I am not always able to be outside with my animals. So, I hire herders in the instances I cannot be, and have done so for years. I am opposed to a range riding operation funded by the public. Ranchers who want to participate in the process can go for it, but for the rest of us, we are taking care of our own animals. I am not interested in paying for the supervision of animals for other ranchers.