



**Meeting Report
Wolf-Ungulate Stakeholder Subgroup
May 20, 2014**

California Fish and Game Commission Conference Room
1416 9th Street,
Sacramento, CA 95814



California Department of Fish and Wildlife

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1.0 Introduction

On May 20, 2014 the Wolf-Ungulate Interactions Subgroup (WUIS) of the California Wolf Stakeholder Working Group (SWG) reconvened in Sacramento. This was the third meeting for the WUIS, having been formed during the August 29, 2013 general SWG meeting to assist the Department with developing a consensus-driven framework of management strategies for addressing potential wolf impacts on California's native ungulate populations. The purpose of the May WUIS meeting was to continue striving toward consensus on such strategies through discussion of a draft Wolf-Ungulate Interactions chapter in the wolf plan.

2.0 Meeting Objectives and Mechanics

The meeting was conducted in the conference room at the California Fish and Game Commission office in Sacramento.

Objectives of the meeting as initially planned were:

1. Introductions
2. Update
3. Review of Ungulate-Wolf Chapter
4. Presentation of elk/deer and wolf biomass spreadsheet scenarios
5. Wolf-Ungulate Strategies Adopted in Washington's and Oregon's Wolf Management Plans

The meeting was attended in person by six stakeholders, and six CDFW staff, with one stakeholder attending via conference line. Appendix A provides a list of participants, their affiliations, and their contact information.

3.0 Meeting Outputs

Updates

- Ms. Kovacs reminded the group of the Department's timeline for completion of the wolf plan. June 30 is the anticipated completion date for the first draft. This will allow one additional review by the SWG, with receipt of their comments expected by August 1.
- OR7's collar is still functioning, and Oregon Dept. of Fish and Wildlife captured a second wolf on a trail camera in the same area as OR7. They plan to attempt to get a DNA sample from the animal, and to look for evidence of denning behavior when it's appropriate to do so based on the age of possible pups.

Review of Wolf-Ungulate Chapter

After updates Dr. Loft explained that the current version of the wolf-ungulate chapter, which was sent to WUIS members the previous day, incorporates their comments from the previous version, but has not yet been updated to incorporate some internal review comments, so should still be considered a rough draft. Ms. Sommer and Ms. Converse then provided overviews of the changes that have been incorporated in the introductory sections on deer and elk, after which WUIS members provided comments and questions. Major items discussed/suggested included the amount of information provided on causes of elk and deer mortality; the accuracy of the deer population estimates; increasing the period for which deer population estimates are provided; how increased effort for obtaining ungulate data and monitoring will be funded for the long term; how to work with federal land management agencies to improve habitat for ungulates; the Western Klamath Restoration Partnership which is planning a million acre project for prescribed fire; gathering additional information on wolf prey selection relative to prey availability; and how wolf impacts on ungulate populations may impact tag quotas for deer and elk.

Presentation of Elk/Deer and Wolf Biomass Spreadsheet Scenarios

The next topic of conversation revolved around three graphs which display the number of deer and elk that could potentially be killed by a given number of wolves based on wolf energetic requirements. At three different elk to deer kill ratios (90/10, 50/50, and 10/90), the graphs show the kill rate for four different wolf population sizes (5, 10, 25, and 50). Major items discussed/suggested included how to accommodate for “other” prey items consumed by wolves, estimating additional levels of elk to deer kill ratios such as 70/30 or 60/40, and break deer down into age classes as was done for elk in the estimates.

Wolf-Ungulate Objectives and Strategies Adopted in Washington’s and Oregon’s Wolf Management Plans

Finally, a document summarizing the wolf-ungulate objectives and strategies from the Oregon and Washington wolf management plans was discussed briefly (Appendix B). Dr. Loft stated that Washington’s objectives were very similar to those for California, and that the Department would work to restructure them for California and present them to the WUIS at the next meeting.

Summary and Wrap-up

The meeting concluded with discussion about when the next meeting of this subgroup should be. The group agreed on the afternoon of Wednesday, June 18th in Sacramento. Dr. Loft will inform the group of the location once he has confirmed it.

Action Items

- Incorporate additional information on predation and human-caused mortality on elk and deer
- Present deer population data in graph form for a longer time period
- Discuss deer and elk management in greater detail, including sex ratios, and elk cow/calf and doe/fawn ratios
- Discuss non-ungulate wolf prey items
- Re-word language about impacts to deer tag quotas to reflect possible impacts due to localized deer herd reductions by wolves
- Provide different elk/deer kill ratios in Figures 5 through 7, and reduce the total consumption of ungulates by 20% to account for other prey items

APPENDIX A. WORKSHOP PARTICIPANTS

Name	Affiliation	Email
Stakeholders		
Mike Ford	Rocky Mountain Elk Foundation	mford@rmef.org
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APPENDIX B

**WOLF-UNGULATE OBJECTIVES AND STRATEGIES ADOPTED IN
WASHINGTON'S AND OREGON'S WOLF MANAGEMENT PLANS**

Wolf-Ungulate Strategies Adopted in Washington's and Oregon's Management Plans

WASHINGTON

The Washington Wolf Conservation Plan includes specific goals, objectives, strategies, and tasks for managing wolf-ungulate interactions (listed below), contained in Chapter 12 of the plan.

5. Manage ungulate populations and habitats in Washington to provide an adequate prey base for wolves and to maintain harvest opportunities for hunters.

5.1. Monitor ungulate populations in areas occupied by wolves.

WDFW and its cooperators already conduct surveys of annual production, recruitment, and harvest of ungulate populations in the state. These data are used to monitor population abundance or trends, and to make recommendations for hunting seasons and other management actions. Nevertheless, management of many populations would benefit from increased survey intensity to improve the precision and accuracy of information. Improvements in survey protocols may enhance efforts to assess the impacts of wolves on prey and to determine if changes in ungulate management strategies are needed.

5.2. Enhance ungulate populations wherever possible, subject to habitat limitations and landowner tolerance.

Maintaining robust prey populations will result in three key benefits for wolf conservation in Washington: (1) providing wolves with an adequate prey base, (2) supplying hunters and recreational viewers of wildlife with continued opportunities to hunt and observe game, and (3) reducing the potential for livestock depredation by providing an alternative to domestic animals. Ungulate populations in areas occupied or likely to be occupied by wolves should be managed consistent with game management plans devised for those populations.

5.2.1. Improve habitat for ungulate populations.

Healthy ungulate populations require adequate summer and winter habitat. Deer and elk are generally most abundant in early successional forests, but this habitat has declined in many parts of Washington in recent decades due to reduced timber harvest, fire exclusion, intensification of reforestation methods, development, and other causes. WDFW will continue to work with other public land agencies, private landowners, non-governmental organizations (e.g., Rocky Mountain Elk Foundation, Mule Deer Foundation), and tribal governments to

cooperatively manage forestlands and winter and summer habitat for the benefit of ungulate populations. This will include the use of appropriate management practices to improve forage quality in various habitats; management of some habitats preferentially for ungulates; reduction of road densities and off-road vehicle use in critical habitat; maintaining open habitats (e.g., meadows), winter habitats, and productive early successional habitat; improving control of noxious weeds; and protection of valuable lands through acquisitions, leases, landowner agreements, and other methods.

5.2.2. Manage recreational hunting to ensure sufficient prey for viable wolf populations while maintaining hunting opportunities for hunters.

Recreational hunting comprises the largest mortality source for elk and deer populations in Washington (Smith et al. 1994, Myers et al. 1999a, McCorquodale et al. 2003, 2010). Hunter take of antlerless animals is one of the primary tools used to manage ungulate population levels in the state. Recreational harvest levels are adjusted annually to maintain ungulate populations at desired management objectives. Harvest levels are reduced if localized ungulate populations decline due to any of a variety of factors such as severe weather, disease, overharvest, predation, or habitat loss. In order to provide adequate prey for wolves, greater restrictions on antlerless hunting, increased road closures (e.g., McCorquodale et al. 2003) or increased ungulate population objectives may be necessary.

5.2.3. Reduce illegal killing of ungulate populations in wolf-occupied areas.

Illegal killing can be an important source of mortality among elk and deer populations in Washington (Table 12). Elk herds where illegal killing has been identified as a concern includes the South Rainier elk herd and the Olympic elk herd. Smith et al. (1994) recommended increased patrolling during October, November, and December, when most elk poaching occurs. They also recommended concentrating patrols within 30 miles of human population centers and in locations with high hunter and road densities because most poaching occurs in these areas.

5.3. Manage wolf-ungulate conflicts

5.3.1. Manage conflicts at winter-feeding stations and sites with game fencing.

Wolves could eventually be attracted to WDFW-operated winter-feeding stations for elk and bighorn sheep and to other locations where fences have been built to keep ungulates off croplands and highways. If wolf disturbance at these sites proves serious, it could cause some elk to disperse into agricultural lands and highway rights-of-way. These situations will be evaluated on a case-specific basis to determine if management responses are needed and, if so, what the responses should be. In some cases, it may be desirable to develop a response plan in advance to address an anticipated conflict.

5.3.2. Manage conflicts with ungulate populations.

Wolf predation is not expected to harm ungulate populations across broad geographic areas of the state. While it is possible for wolf predation to have an effect on ungulate abundance in localized areas, this most often occurs where ungulate populations are already compromised by other factors such as declining habitat quality, severe weather conditions, and predation by other carnivores. Nevertheless, in situations where WDFW determines that wolf predation is a limiting factor for an at-risk ungulate population, and the wolf population in that wolf recovery region is healthy (i.e., it exceeds the delisting objectives for that recovery region), WDFW could consider using site-specific strategies to reduce wolf abundance in the localized area occupied by the ungulate population. These strategies could include moving wolves, lethal control, or other non-lethal control techniques.

5.4. Integrate management of multiple species.

Management of ungulate and carnivore populations should be integrated on an ecological basis. The statewide Game Management Plan includes chapters for each of Washington's major ungulate and carnivore species (WDFW 2008) and management plans exist for eight of the state's 10 elk herds and white-tailed deer (WDFW 2001b, 2002a, b, c, d, 2005, 2006a, b, 2010a). Achieving management goals for all of these species will be enhanced if the plans are considered collectively. The ecological roles of predators and prey should be integrated in these management plans. Coordination among public agencies, landowners, tribes, and non-governmental organizations is also necessary to meet management goals.

In addition, within the Wolf-Ungulate Interactions chapter, WDFW lays out a strategy for managing potential negative wolf impacts on "at-risk" ungulate populations. These are defined as listed ungulate populations, as well as any ungulate population which falls

25% below its population objective for two consecutive years and/or if the harvest decreases by 25% below the 10 year average harvest rate for two consecutive years. In these cases, WDFW could consider reducing wolf abundance in the localized area, either by moving wolves to other wolf recovery regions, or through lethal measures, even before wolf delisting occurs.

OREGON

The Oregon Wolf Conservation and Management Plan contains strategies to address wolf-ungulate interactions within the Wolf-Ungulate chapter.

Objective

Develop and implement adaptive management strategies to achieve conservation goals for wolves while meeting management objectives for ungulate species.

Strategies

- Provide wolf population and monitoring information to ungulate managers annually to assess potential impacts of wolves on all ungulates.
- When predation is determined to be the primary cause of ungulate population or recruitment decline locally or in a WMU, ensure carnivore-focused management actions.
 - If the primary predator species is unknown and wolves are:
 - state-listed species, initiate management actions that manage other carnivore populations to achieve ungulate population goals before considering actions involving wolves.
 - not a state-listed species, initiate actions to manage appropriate carnivore populations to achieve ungulate goals.
 - If wolves are determined to be the cause of ungulate population or recruitment decline and are:
 - a state-listed species, consider capturing and relocating wolves to other suitable habitat.
 - not a state-listed species, use translocation, relocation or controlled take to reduce wolf numbers.
- Active management (e.g., non-lethal or lethal removal) of wolves will be initiated in areas where ungulate species have been transplanted to supplement or expand their historic range, if wolves are determined to be affecting the success of the transplant goals and the Commission determines that such take of wolves would be consistent with conservation of wolves in Oregon. Lethal removal of wolves will be an option only following delisting.

- Active management of wolves may be initiated in important ungulate winter ranges or winter feeding sites that serve to draw ungulates away from agricultural lands. These sites may attract wolves and could cause ungulates to abandon them in some circumstances.