

Executive Summary

Cougar populations across North America have fluctuated dramatically during historic times. From the early period of European settlement through the mid 1960s, cougars were persecuted to near extirpation. Hunting and hunters played a major role in this history. Initially, unregulated hunting, extensive use of poisons, and bounties were the mechanisms of persecution. It was also hunters that secured protection for cougars and transferred cougar management to state wildlife management agencies. After transfer of management authority to respective wildlife management agencies, application of science-based wildlife management practices led to successful recovery of most cougar populations.

Most wildlife managers believe cougar populations are more robust now than at any time in recent history. Hunting is a primary cougar management tool and hunters carry the bulk of the financial burden for cougar management via the purchase of hunting licenses and tags. However, cougars can cause direct conflict through predation on livestock and pets. Although rare, cougars have attacked humans, and cougar predation can impact other wildlife populations. Further, stakeholders tend to have strong and often conflicting opinions, values, desires, and objectives relative to cougars. Consequently, cougar management is often very high profile, and opposing public desires can lead to highly emotional, politically charged decision processes.

In Oregon, cougar management is guided by Oregon's Wildlife Policy which directs the Oregon Fish and Wildlife Commission (Commission) to maintain all species of wildlife at optimum levels, to provide optimum recreational benefits, and to regulate wildlife populations in a manner compatible with the primary uses of the land. In furtherance of this policy, ODFW developed and the Commission adopted the 2006 Oregon Cougar Management Plan (CMP) to guide management. The purpose of the CMP is to maintain cougar populations while managing cougar conflicts with humans, livestock, and other game mammals. Five specific objectives were adopted in the CMP. Objective 1 establishes as ODFW policy the maintenance of a statewide population of cougars that is self-sustaining and assures the widespread existence of cougars in Oregon. Objective 2 establishes maximum threshold levels for non-hunting cougar mortality associated with human safety, pet safety, and livestock depredation. Objectives 3 and 4 establish maximum threshold levels for reported conflicts associated with human safety/pet concerns, and livestock depredation, respectively. Objective 5 establishes criteria whereby action may be taken to improve populations of other game mammals.

A new component of the CMP was to utilize adaptive strategies to actively manage cougars in areas with chronic conflict between cougars and human safety, livestock depredation, or ungulate population dynamics. In November 2006, the ODFW selected three areas to evaluate the efficacy of administratively removing cougars for human safety/pet concerns (Jackson County Target Area), livestock depredation (Beulah Target Area), and elk population recruitment (Heppner Target Area).

Depending on area and year, from zero to 22 cougars were lethally removed primarily during November – April of each year. All known cougar mortality and all reported cougar conflicts were monitored within the target area and for the entire management zone. Criteria to measure

success reducing conflict associated with human safety/pet concerns or livestock depredation was primarily non-hunting mortality resulting from those types of conflicts and secondarily the number of reported complaints received. Criteria to measure elk recruitment was based on spring calf: cow ratios estimated during annual trend. Data from each target area were compared with respectively similar areas to evaluate whether administrative cougar removal resulted in the desired affect.

In Jackson County, non-hunting cougar mortality related to livestock and human safety/pet conflict did not decline as a result of administrative cougar removals. Further, reported conflicts related to human safety, pets/livestock/other concerns ultimately did not decline. However, annual cougar removal objectives were never met due to land ownership patterns in the target area. Thus activity in the Jackson County Target area did not appear to address conflict related to human safety/pet concerns.

In the Beulah Wildlife Management Unit (WMU), non-hunting cougar mortality related to livestock and human safety/pet conflict declined from 13 prior to cougar removals to six during the removal period. Similarly, the number of reported conflicts in the Beulah WMU related to livestock and human safety pet concerns declined from 16 prior to cougar removals to three during the removal period. In the comparison area (Malheur River WMU), both the number of cougars taken for livestock/human safety conflict and number of reported conflicts related to livestock/human safety concerns remained high. With two years of successful cougar removals in the Beulah Target Area, administrative cougar removal appears to be reducing cougar conflict associated with livestock.

In the Heppner WMU, the number of elk calves observed per 100 cows increased from 17–21 in the three years prior to administrative cougar removal to 15–30 during the cougar removal period. Comparatively, calf ratios in the Ukiah WMU remained low (13–19:100 cows) during the same period. After three years of implementation, administrative cougar removal appears to have had the desired affect on the elk calf ratio. In the first year of the treatment in the Heppner WMU, most of the calf mortality had occurred prior to initiation of treatment.

Data indicate that cougar populations in respective cougar management zones for the target areas were not adversely affected by administrative cougar removals. Population models indicate that the cougar population remained stable in Zone B, declined slightly in Zones E and F. Further, the proportion of adult females in the total mortality both within the target areas and throughout respective Zones was well below the 40 to 45 percent that would be indicative of heavy exploitation rates.

The total cost of implementing administrative cougar removal for three years in three target areas was \$310,501. Initially salary accounted for 78 percent of implementation costs. However, as activities progressed and staff became more efficient, salary costs declined. Because existing employee salaries were not additional costs to ODFW, the increased costs for implementing target area cougar removal was \$201,522. No state general funds, tax dollars or federal funds were used for implementing cougar removal in target areas. All funds used for target area implementation were ODFW license fee dollars.

Based on evaluation of initial target area implementation, ODFW recommends one more year of cougar removal in the Beulah Target Area and four new target areas, two for elk and two for mule deer. The department is evaluating potential sites for a new target area to address human safety/pet concerns. A decision on approving one of these new target areas will be made this fall.

The Ukiah and Wenaha WMUs were selected as new target areas for improving elk populations. The number of calves counted per 100 cows has been below 23:100 for three or more years in both units and elk populations are well below Management Objective (MO). Personnel hired to implement the Heppner Target area will conduct cougar removal activities in the Ukiah Target Area and volunteer agents will implement activities in the Wenaha Target Area. Success of target area activities will be evaluated by comparing elk population data from the Ukiah WMU with comparable data from the Heppner WMU, and the Wenaha WMU will be evaluated by comparing elk data to with that in the Mt Emily WMU. Based on published research, data collected during routine cougar management activities, estimates of cougar density based on zone specific cougar population models, and habitat characteristics of each area, the initial proposed cougar removal objective is 35/year for Ukiah and 20/year in the Wenaha. Cougar removal objectives will be evaluated annually dependant on trends in trends in elk calf ratios and elk populations.

For mule deer, the Steens Mountain and Warner WMUs were selected for target areas. Both units have been identified as Mule Deer Initiative units in 2008. One of the goals in Mule Deer Initiative Units is to increase mule deer populations to MO levels. Wildlife Services personnel will be used to implement the Steens Mountain Target Area and volunteer agents will be used in the Warner Target Area. Initial removal objectives are 20/year and 14/year for Steens Mountain and Warner WMUs respectively, with annual evaluation based on mule deer population response. Deer population data from Steens Mountain will be compared to Beatys Butte WMU, and the Trout Creek Mountains. Warner WMU mule deer population data will be compared with data from the Interstate and Beatys Butte WMUs.