

Fact Sheet



MEDIA QUICK GUIDE

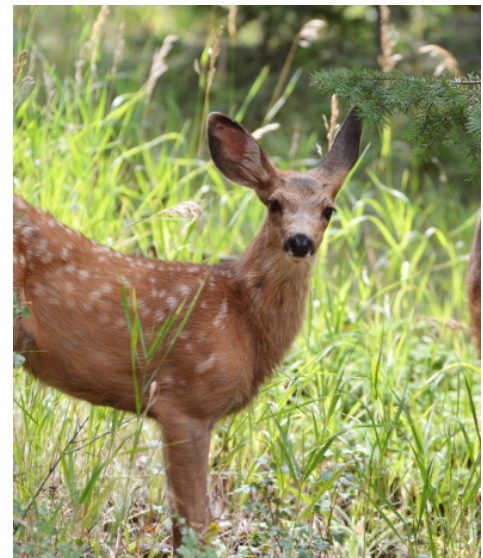
Colorado's Declining Mule Deer Population and CPW's Proposed Predator Management Strategy

December 14th Commission Meeting in Ft. Collins

The purpose of this Commission meeting is to act on CPW's staff request to approve two predator management research proposals, per the Commission's 2007 policy on mammalian predator management.

Purpose and Background

The Commission has approved three other predator control plans since revising its predator management policy in 2007. Approval was granted in 2011 to remove individual mountain lions preying on translocated desert bighorn sheep in the Middle Delores River, due west of Montrose near the Utah border. The Commission also approved in 2011 a two-year proposal to remove mammalian predators in the Miramonte Basin, about half way between Telluride and Utah to increase the recruitment of juvenile Gunnison sage-grouse. Finally, approval was granted in 2013 to remove mountain lions preying on Rocky Mountain bighorn sheep translocated to the area of the Hayman burn near Cheesman Reservoir, southwest of Castle Rock.



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Mule deer fawn

Mule Deer in Colorado

Mule deer are an important wildlife species to the state of Colorado and a large number of communities across the state for a variety of reasons including hunting, wildlife viewing and associated economic benefits.

Although mule deer populations are doing well in some areas of the state, their numbers are well below the population objective established for the Piceance Basin, (adjacent to the Roan Plateau – an area with the largest mule deer herds in the state) and also below objective in the upper Arkansas River valley.



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Mule deer doe with three young fawns

CPW's population objective for mule deer is approximately 560,000 statewide; the latest estimate puts the statewide population at under 450,000. CPW is not suggesting that the removal of predators is the solution to increasing statewide deer numbers to 560,000. These two research projects are designed to evaluate the extent to which predation is limiting deer population size in the two specific study areas.

In 2013, in response to a continued decline in mule deer numbers, CPW developed the West Slope Mule Deer Strategy. The CPW Commission approved the strategy in December 2014. CPW sought public input to develop the strategy, holding several public meetings across the state facilitated by an independent contractor to ensure objectivity and fairness.



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Mountain lion

hensive, detailed and subject to scientific peer review.

The science on the impacts of predators on other wildlife populations is not clear cut or conclusive, contrary to recent claims – CPW would like to make a significant contribution to that body of scientific wildlife knowledge.

Science

A paper published in 2012 in Mammal Review by Forrester and Wittmer reviewed 48 studies on mule deer survival and predation from the past 30 years and quantified age-specific vital rates, population growth rates and causes of mortality. The authors wrote that:

- “The relative contributions of predation, forage availability and weather to observed [deer] population changes remains unclear and controversial”
- “Results of predator control studies remain variable”
- “Predation was the largest proximate cause of mortality in both adults and fawns in all studies, including in fawns during winter”
- “the true effect of summer fawn predation in mule deer dynamics is currently hard to identify”
- “Increasing wolf populations in Vancouver Island also caused a decline in high-density black-tailed deer population, and the predator removal study that was conducted was successful in increasing deer populations”
- “suppression of both fawn and adult survival simultaneously from predation and other mortality sources can lead to marked and sustained population declines”
- “the role of predation in multi-prey, multi-predator systems at varying deer population densities needs further investigation”



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Black bear

The West Slope Mule Deer Strategy contains seven components that address a variety of impacts to mule deer:

- Landscape-scale habitat management to improve habitat
- Predator management where predation may be limiting deer survival
- Protect habitat and mitigate development impacts
- Reduce the impacts of highways on mule deer survival, movement and migration
- Reduce the impacts of human recreation on mule deer
- Regulate doe harvest and provide youth opportunity
- Maintain a strong ungulate population and disease monitoring program and conduct applied research to improve management of deer populations

CPW will implement each component of the West Slope Mule Deer Strategy when and where appropriate as funding allows.

CPW’s Research-based Predator Management Strategy

Colorado Parks and Wildlife is a science-based wildlife management agency, employing some of the top researchers and wildlife managers in the world. Research projects are compre-

Other Theories

Ongoing CPW scientific research in the Piceance Basin has revealed that lack of quality deer habitat is not limiting this mule deer population, contrary to recent claims.

The Piceance Basin in northwest Colorado represents winter range supporting the largest migratory mule deer population in the state. This area has been the focus of research and monitoring efforts since the late 1940's and represents one of the best documented mule deer populations in North America. Due to historic mule deer population declines, the Commission reduced total mule deer licenses in the area by 85 percent since 2007 and female licenses specifically have been reduced by about 99 percent; current license allocation in GMU 22 consists of only 590 antlered deer and 20 antlerless deer licenses. Hunting is not the cause of the mule deer population decline.

Rationale

Based on CPW scientific data, researchers theorize that predation of young fawns in the spring in the Piceance Basin is the limiting factor and CPW proposes to determine if reducing predator numbers in that specific area can result in increased numbers of deer.

With regard to the upper Arkansas, managers and researchers theorize that predation of adult does and fawns over the winter months have limited this mule deer population in the past.

Since 1999, the leading cause of known mortality on mule deer in the Arkansas Valley has been mountain lions. From 2008 to 2012, higher than normal rates of mountain lion predation were consistent with lower adult survival rates. The exact cause of these elevated predation rates is unknown, but they could be associated with lion harvest quotas not being achieved during this time period. Like the Piceance proposed study area, insufficient habitat is not considered to be a significant factor in fawn survival rates because biologists have only documented minimal numbers of mule deer in these management units dying of starvation or suffering malnutrition.

Predation on deer by lions and bears is natural, but today's ecological systems do not function completely naturally, therefore management intervention is sometimes required to compensate for natural and manmade landscape changes – CPW is not proposing to completely eradicate predators.

CPW is regularly called upon to help resolve human-bear conflicts in Colorado and these conflicts occur to a large degree because of an ever-increasing number of people which further alters the natural system.

Impact

Overall numbers of bears and mountain lions in the population units that include the Piceance study area should be minimally impacted (anticipate removing about one percent of the lion population and two percent of the bear population). The predator treatment area represents 6 percent of mountain lion population management unit and 16 percent of black bear population unit. Furthermore, the proposed reductions are consistent with the current mountain lion management objective in this rural area - to maintain relatively low predator densities to reduce livestock conflicts. This area is currently one of four mountain lion population management units (out of 19 lion units statewide) managed to minimize livestock conflicts.



Two does

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Black bear

2016 meeting in Pueblo, the Commission approved a reduction in mountain lion hunting quotas necessary to implement the Arkansas River research project, pending final Commission approval of the research plan at the December 2016 Commission meeting. At its August 2016 meeting in Montrose, the Commission received an update on the timeline for considering the two proposed research projects. CPW also held three public meetings specifically about the proposed research projects in addition to the three public Commission meetings. A meeting was held in Salida on August 15, in Rifle on August 16 and in Denver on September 19.

In 2005, the Colorado Division of Wildlife funded a statewide survey of public opinions and perceptions of mountain lions by Corona Research, Inc. Some of the relevant findings were:

88.1 percent supported research to learn more about mountain lion populations

Fifty-seven percent of respondents generally believed mountain lions to be common in Colorado

A majority (61 percent) of respondents believed mountain lion populations were stable or increasing in size as opposed to declining (22 percent).

The total number of mountain lions removed during the proposed nine-year upper Arkansas River research project is not expected to differ significantly from the number of lions that hunters would remove from the study area during the same nine-year period if the research proposal was not implemented. If anything, the overall number of lions removed during the study is likely to be lower than what would have occurred by hunting alone.

Lion and bear populations remain robust in the state - the overall number of lions and bears removed as part of this study is very small when compared to both (Piceance and upper Arkansas) local populations and when compared to populations across the state (statewide lion population estimate is 4,500 - 5,500 and bear population estimate is 17,000 to 20,000).

Public Outreach

CPW initially proposed the Arkansas River predator management project to the Parks and Wildlife Commission at its meeting in Craig in September 2015. Based on public comment, CPW postponed seeking Commission approval (initially scheduled for the November 2015 meeting in Wray) to revise the proposal based on public input and to include a second research project in the Piceance Basin. At its June



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Mule deer