Brush Creek Deer Herd Management Plan, DAU D-14

EXECUTIVE SUMMARY

Game Management Unit(s):

44

Current (1995 DAU plan) population objective: 7,000 deer Current (post-hunt 2018) population estimate: 2,068 deer

Proposed Population Objective

Alternative 1 (preferred): 1,500-3,500 (midpoint 2,500)

Current (1995 DAU plan) Sex Ratio Objective: 35 bucks per 100 does

Average of most recent 3-years' (2014, 2015, 2018)

observed sex ratio:

47 bucks per 100 does

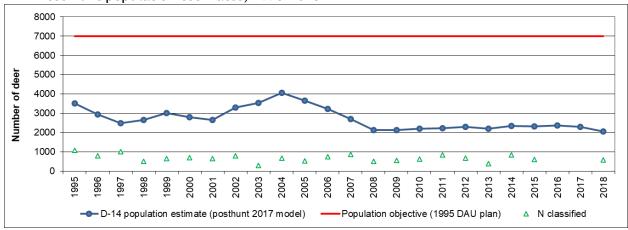
Proposed Sex Ratio Objective

Alternative 1: 30-40 (midpoint 35)

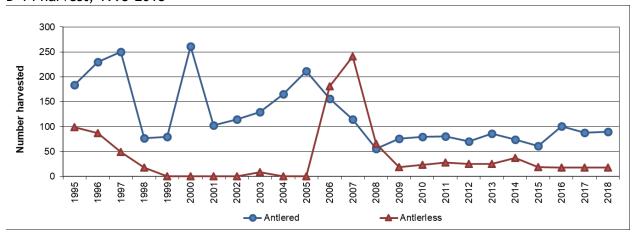
Alternative 2 (preferred): 35-45 (midpoint 40)

Alternative 3: 40-50 (midpoint 45)

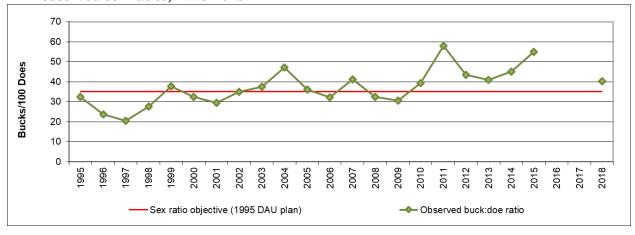
D-14 Post-hunt population estimates, 1995-2018



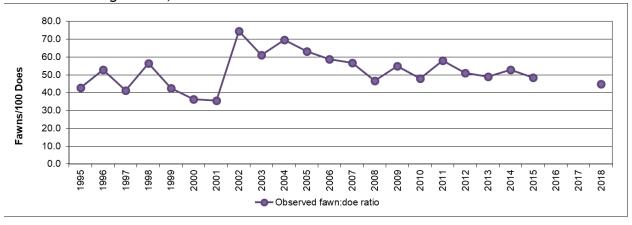
D-14 harvest, 1995-2018



D-14 observed sex ratios, 1995-2018



D-14 observed age ratios, 1995-2018



Background

The Brush Creek mule deer Data Analysis Unit (DAU) D-14 is located in Eagle County in northwest Colorado and consists of Game Management Unit (GMU) 44. D-14 covers an area of 976 km² (377 mi²), over 3/4 of which is public land. It is bounded on the north by the Colorado and Eagle Rivers; on the east by East Lake Creek; on the south by Red Table Mountain ridgeline; and on the west by Red Table Mountain Road, Cottonwood Pass Road, and Cottonwood Creek¹. Major towns within D-14 include Gypsum and Eagle. The town of Edwards is just outside of, but immediately adjacent to, the northeast part of the DAU. Interstate-70 follows the north edge of the unit. D-14 contains parts of the Colorado River, Eagle River, Lake Creek, and Cottonwood Creek and all of Gypsum Creek, Brush Creek, and Squaw Creek drainages.

This DAU has been managed to provide the highest quality buck hunting experience, defined as accessibility to public land with very low hunting pressure and a higher opportunity to harvest a mature animal. Drawing a 3rd or 4th season buck license in this unit is often perceived as a "once-in-a-lifetime" hunt opportunity.

When the current boundary of DAU D-14 was established in 1995, the population objective was set at 7,000 deer and the sex ratio objective was set at 35 bucks per 100 does. Since that time, the estimated population size has always been below objective, ranging from approximately 2,070 to 4,070

¹ For a complete description of the boundaries of GMU 44, see page 4 of the main text of this document or any big game brochure.

deer, or about -42% to -70% below the population objective. The population grew slightly in the early 2000s but then declined again from 2004-2008. Since 2008, the population has averaged 2,240 deer, or -68% below objective. The current (2018) post-hunt population estimate is 2,070 deer.

The sex ratio reached its objective by 2004 and was stable around the objective through 2010. A few years after buck licenses were reduced in 2008, the sex ratio began increasing above objective. The average of the 3 most recent years (2014, 2015, 2018) of observed sex ratios is 47 bucks per 100 does, which is 34% over objective.

Although the herd's objectives were established in 1995, D-14 has never had a formal written management plan. Given the significant changes in land use and the deer herd's current and potential performance, an update of D-14's management objectives is overdue.

Significant Issues

The major issues for this deer herd involve the cumulative effects of decades of human population growth and impacts of human activities on deer habitat in the Eagle River Valley. The result has been a loss of habitat quantity and quality and less solitude from human disturbance. The unit's carrying capacity for mule deer has declined compared to conditions in past decades when the current objectives were set over 2 decades ago. Significant issues include habitat loss and fragmentation from land development, declining habitat condition, and impacts of human recreation on deer. Other management concerns include the need to balance competing herd management objectives, potential for chronic wasting disease, and preference point "creep" over time.

Management Objective Recommendation

The current (2018) D-14 population estimate is approximately 2,070 deer and the current population objective is 7,000 deer. In the 24 years since the current objective was set, D-14 has never come close to achieving that population size and the past 10+ years of extremely conservative deer licenses have not resulted in any increase in population. CPW is proposing a new population objective range of 1,500-3,500 deer. This population objective is believed to be reasonably achievable under current habitat and land use conditions. CPW is recommending a sex ratio objective of 35-45 bucks per 100 does. This objective will continue to provide high quality buck hunting in the unit, but not be too high to pose problems with the health of the herd and its ability to recover from weather events or be resilient against disease outbreaks and other stressors.

Strategies to Address Issues and Management Concerns and to Achieve Herd Management Objectives

CPW will continue to work collaboratively with our partners in the federal land management agencies, private landowners, county governments, local municipalities and NGOs to protect and enhance the remaining mule deer habitat. Important habitat conservation methods include habitat treatments, conservation easements or land acquisitions, maintaining landscape connectivity and movement corridors, and adhering to seasonal recreation closures on winter range areas. To achieve the revised population and sex ratio objectives over the next 10 years, CPW will continue to set licenses annually, keeping in mind such issues as Chronic Wasting Disease and achieving a balance between maintaining high quality bucks and providing some additional opportunity for hunters to draw buck licenses in the high-demand seasons.