

ARKANSAS RIVER BIGHORN SHEEP HERD MANAGEMENT PLAN

DATA ANALYSIS UNIT RBS-9

GAME MANAGEMENT UNITS
S7, S47, S49, and S79



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Approved XXXXX by the Colorado Parks and Wildlife Commission



**LIVE LIFE
OUTSIDE**

EXECUTIVE SUMMARY

Arkansas River Bighorn Sheep Herd (DAU RBS-9)
GMUs: S-7 (Arkansas River), S-47 (Brown’s Canyon), S-49 (Grape Creek), S-79 (Pueblo West)
Tier 2 Status: Medium to large (i.e., ≥ 75 animals for $\geq 80\%$ of the years since 1986 or since becoming fully established) populations comprised of one or more interconnected herds that are native or have resulted from translocations (George et al. 2009).
Post-hunt 2021 Sex and Age Ratio Estimate: 40 rams:100 ewes, 25-30 lambs:100 ewes
Post-hunt 2021 Population Estimate: 360; Recommended Objective 350-400
3-yr Average Age of Harvested Rams: 2019-2021 Estimate 4.9 years; Recommended Objective 4-6

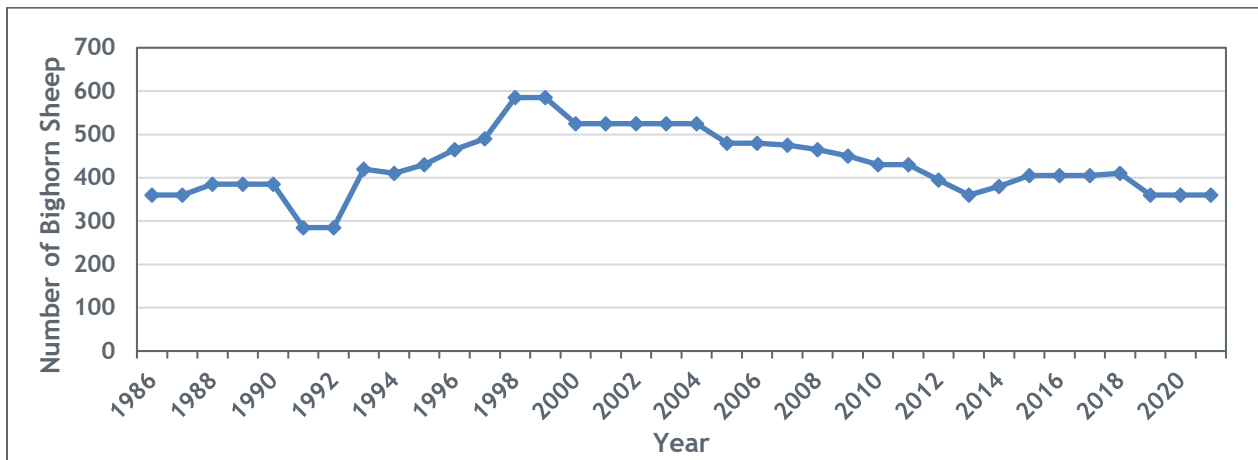


Figure 1. RBS-9 post-hunt population estimates from 1986-2021.

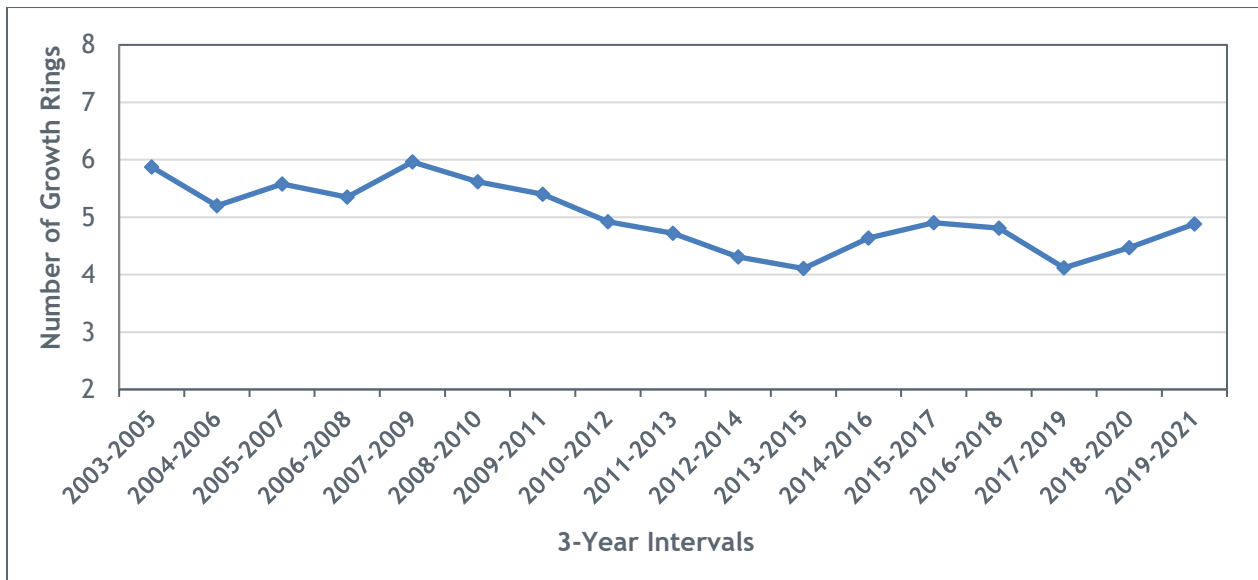


Figure 2. Three-year rolling average age of rams harvested in RBS-9 from 2003-2021. Age based on number of growth rings counted during mandatory harvest checks.

BACKGROUND & ISSUE SUMMARY

Rocky Mountain bighorn sheep Data Analysis Unit (DAU) RBS-9 consists of Game Management Units (GMUs) S-7 (Arkansas River), S-47 (Browns Canyon), S-49 (Grape Creek), and S-79 (Pueblo West). The DAU is 1,488 mi² and includes portions of Chaffee, Custer, Fremont, Park, and Pueblo counties. Habitat in RBS-9, including both summer and winter range, is in marginal condition due to habitat fragmentation, drought, and an increase in invasive plant species, including cheatgrass (*Bromus tectorum*). The 2021 post-hunt population estimate for RBS-9 is approximately 360 animals (Figure 1). The first official hunting season for bighorn rams in RBS-9 occurred in 1953, when 10 licenses were issued and eight sheep were harvested (Bear and Jones 1973). Current hunting license allocations include two rifle ram licenses each for S-07, S-47, and S-49, and three archery ram licenses for S-49. There currently are no licenses allocated for S-79, and no ewe licenses DAU wide. The 3-year average age of ram harvest in the DAU has been 4-6 since 2003 (Figure 2).

MANAGEMENT OBJECTIVES

Population size: The current population estimate in RBS-9 is stable at approximately 350-400 animals. Key limiting factors for this population include winter range carrying capacity and the potential for disease outbreaks. Considering bighorn distribution, winter range capability, population density/density dependence, and the potential risk of contact with domestic livestock, our recommended management objective is: ***Population target 375 bighorns (range 350-400).***

Ram and Ewe Harvest Objective: ***Maintain a 3-yr average age of harvested rams of 4-6 years old.*** CPW will maintain the current harvest regime in the DAU with this alternative. Moderate ram license increases may be possible based on population performance. This objective should provide a quality experience, average levels of crowding, and diverse age-classes of rams. ***Ewe harvest: If warranted based on population performance, provide ewe harvest for hunter opportunity. Currently, there are no ewe licenses available for this DAU.***

Strategies for obtaining objectives and addressing issues: Both preferred alternatives are consistent with CPW's current management in RBS-9. Therefore, CPW does not expect a change in harvest management with this plan. The most significant issues for RBS-9 are limited winter range and the potential for disease transmission from domestic livestock, particularly from domestic sheep and goats (George et al. 2009). There are currently no active domestic sheep summer grazing allotments in this DAU, however there are hobby livestock operations that provide a continual threat of disease transmission. CPW will continue to work with stakeholders and land management agencies to mitigate and address these issues.