

COLLEGIATE RANGE BIGHORN SHEEP HERD MANAGEMENT PLAN

DATA ANALYSIS UNIT RBS-12

GAME MANAGEMENT UNITS
S11, S17, S66, and S76



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Approved Date, Year by the Colorado Parks and Wildlife Commission



EXECUTIVE SUMMARY

GMUs: S-11 (Collegiate North), S-17 (Collegiate South), S-66 (Mt Elbert), S-76 (Holy Cross)
Tier Status: 1 (≥ 100 animals for $\geq 90\%$ of the years since 1986; native population comprised of one or more interconnected herds that have received few (≤ 50 animals total) if any supplemental releases of Rocky Mountain bighorn sheep in the past (George et al. 2009))
Land Ownership: USFS 84%, Private 12%, BLM 2%, Other 2%
Post-hunt 2018 Age and Sex Ratio Estimate: 50 rams:100 ewes, 25 lambs:100 ewes
Post-hunt 2018 Population Estimate: 375; Recommended Objective 350-400
3-yr Average Age of Harvested Rams: 2016-2018 Estimate 6.8 years; Recommended Objective 6-8

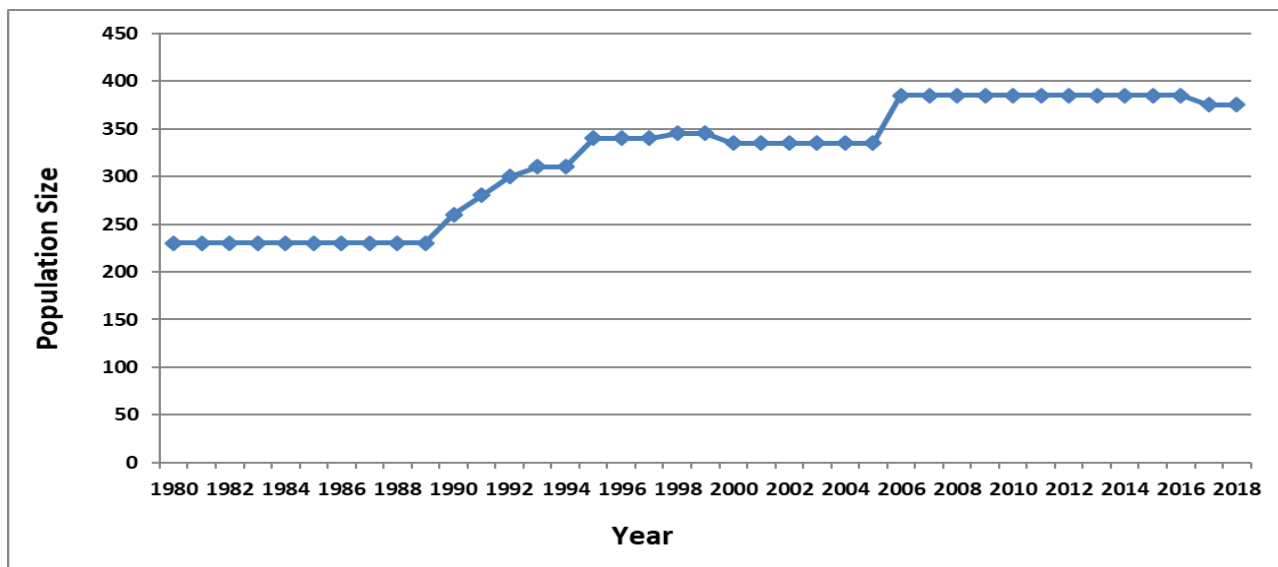


Figure 1. RBS-12 post-hunt population estimates from 1980-2018.

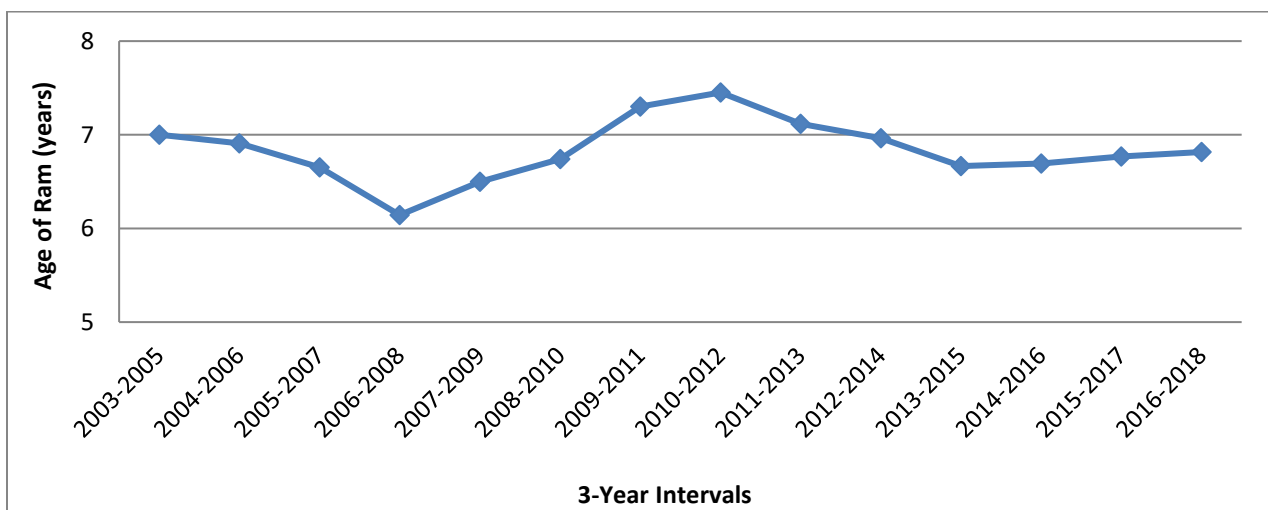


Figure 2. Three-year average age of rams harvested in RBS-12 from 2003-2018.

BACKGROUND & ISSUE SUMMARY

Rocky Mountain bighorn sheep Data Analysis Unit (DAU) RBS-12 consists of Game Management Units (GMUs) S-11 (Collegiate North), S-17 (Collegiate South), S-66 (Mt Elbert), and S-76 (Holy Cross). The DAU is 1,317 mi² and includes portions of Chaffee, Eagle, Gunnison, Lake, and Pitkin counties. The RBS-12 sheep herd is indigenous, meeting the criteria for Tier 1 designation (George et al. 2009). The 2018 post-hunt population estimate for RBS-12 is approximately 375 animals. Habitat in this DAU is abundant and anecdotally in good condition, although due to high elevations and heavy annual snowfall available winter forage is likely a limiting factor for this population. Bighorns generally summer on the alpine reaches of the high elevation peaks in this DAU, and while some animals descend to lower elevations in winter, others spend the entire year on alpine range.

The first official hunting season for bighorn rams in RBS-12 occurred in 1953, when 10 licenses were issued, and increasing to 30 licenses issued by 1955 (Bear and Jones 1973). Current hunting license allocations include 6 rifle ram tags and 2 rifle ewe tags for each of S-11, S-17, and S-66. Beginning in 2020, 2 archery ram licenses have been added for S-66. There currently are no licenses allocated for S-76. The 3-year average age of ram harvested in the DAU has been at or above 6 years of age for the last 10+ years (Figure 2).

MANAGEMENT OBJECTIVES

To solicit input for this herd management plan, we sent the plan to federal partners and interest groups for review, as well as the wild sheep/domestic sheep working group. We also posted the plan on the CPW website for a 30-day comment period. The following represent our preferred alternatives:

Population size: The current population estimate in RBS-12 is stable at approximately 375 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 risks of contact with domestic livestock, we selected the following management objective: *Population target 400 bighorns (range 350-400)*

Ram and Ewe Harvest Objective: *Maintain a 3-yr average age of rams harvested of 6-8 years old.* This alternative maintains the current harvest regime in the DAU. Moderate ram license increases may be possible based on population performance. This alternative should provide a quality experience, moderate levels of crowding, and diverse age-classes of rams. *Ewe harvest: Maintain ewe harvest as a population management tool and for hunter opportunity.* This is currently how we manage ewe harvest within the DAU.

Strategies for obtaining objectives and addressing issues: Both of the preferred alternatives are consistent with our current management in RBS-12. Therefore, a change in harvest management is not expected with this plan. The most significant issue for RBS-12 is the potential for new respiratory pathogens or strains to be introduced from other wild sheep herds or from domestic livestock, particularly sheep and goats (George et al. 2009). There are currently two active domestic sheep summer grazing allotments along the northern boundary of this DAU, along with numerous hobby livestock operations, and the potential for interaction is a continual threat.