

BIGHORN SHEEP HARVEST REGULATIONS IN OREGON: MANAGEMENT CONSIDERATIONS

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Abstract: Limited hunting of rams has occurred in Oregon since 1965. The primary harvest regulation through this period has been 3/4-curl or larger. A recent (1990) attempt to change to an "any ram" regulation failed due to opposition from bighorn sheep hunters. Within current management strategies, the 3/4-curl regulation is not based on biological considerations but rather on social attitudes of the bighorn hunting public.

BACKGROUND

Bighorn sheep were extirpated from Oregon by the late 1940's. Current populations are the result of reintroduction efforts. The original source of California bighorn sheep (Ovis canadensis californiana) was acquired from Williams Lake, British Columbia in 1954. All transplants within Oregon are from this stock. Rocky Mountain Bighorn (Ovis canadensis canadensis) stock has been acquired from Alberta (1971), Idaho (1979, 1982, 1985), and Colorado (1990). All hunts are by permit only with limited numbers of permits allocated to those herds large enough to provide surplus rams.

Most populations have not yet expanded into all available habitat so there is no need to use hunting as a population control method. Trapping and transplanting are currently used for necessary population control with surplus animals used to reestablish new populations on historic ranges.

CURRENT REGULATIONS

The current legal animal definition as published in hunting regulations, is a "ram with 3/4-curl or larger horn, or an old ram with heavily broomed horns with blunt ends less than 3/4-curl". Hunters are allowed only one opportunity in a lifetime.

This regulation has been used since the first hunt was authorized in 1965; however, we had a 1/2-curl regulation for 2 years in one hunt area (total of 20 permits) and an "any ram" regulation in 2 hunt areas for 1 year (total of 3 permits). Both deviations from the 3/4-curl rule occurred with California bighorn ram hunts. Ten of 12 rams taken during these hunts were 3/4-curl or larger indicating the hunter tends to select for larger rams. The 3/4-curl rule is interpreted to mean that the horns of a ram extend through 270 degrees of a circle when viewed from the side.

In most cases, 4-year-old rams have horns large enough to make them legal using this definition.

Because significant brooming occurs with the California subspecies, the regulation was modified in 1976 to allow taking old rams with broomed horns when in actuality the horn is less than 3/4-curl. A "blunt end" is interpreted as the broomed horn tip being at least one inch wide at the end, measured from the dorsal to the ventral side of the horn tip. At the same time, the 1/2-curl regulation in effect for 1974 and 1975 was dropped. The intent of this regulation modification was to allow taking of older rams which had horns less than 3/4-curl and may never attain 3/4-curl size before being lost to old age.

There has not yet been a need to apply this modification to Rocky Mountain bighorn rams.

BIOLOGICAL/GEOMETRIC RATIONALE

Aside from ensuring protection to adult ewes from being mistakenly shot, there is no biological basis for the 3/4-curl rule in Oregon under current management strategies.

The 3/4-curl regulation was originally adopted in Oregon in 1965 because that was the regulation employed by most other states and provinces that were then hunting bighorns. The 1/2-curl regulation used in 1974 and 1975 was adopted in an attempt to allow taking of older rams with heavily broomed horns. Subsequently, the heavily broomed regulation replaced the 1/2-curl regulation. The experimental "any ram" regulation was successfully employed in 2 hunts in 1989. All hunters (3) took rams at least 3/4-curl in size. In 1990, we recommended to the Fish and Wildlife Commission that all California bighorn hunts employ an "any ram" bag limit. However, public opposition influenced the Commission to retain the 3/4-curl regulation.

Current permit allocations are quite conservative and in the past have ranged from one to 18 permits per herd range. In all cases, even if all permit holders were successful in taking a ram, the result would be that less than 20% of the total ram population would be removed by hunting in a single season. If this should occur, adjustments in permit allocations would be made the following year.

Post season (pre-rut) ram ewe ratios are seldom below 40 rams/100 ewes. Consequently, we do not believe our hunting season harvest is having an adverse impact on bighorn breeding performance. The bighorn hunting season is a "trophy" hunt and quality of the hunting experience is of importance to the hunter as well as the Department. Most of Oregon's bighorn herds occupy a relatively small geographic area (10-50 mi²).

In order to minimize hunter crowding and maintain a quality hunt, permits are allocated with this in mind. Consequently, for a given hunt area, total permit numbers maybe split into 2 or more separate hunt periods. Currently, most hunts range from 9-12 days in length. During the harvest seasons all hunting of other big game species is not allowed

in an effort to prohibit party hunting. When hunting of other big game species is considered, there is not time for more than 2 or 3 bighorn hunt periods in a given year. To summarize, current bighorn hunting strategies do not approach taking the maximum biological surplus, so horn-curl regulations are not needed to maintain a minimum ram:ewe ratio. Additionally, horn-curl regulations put hunting emphasis on older-aged, larger-horned animals which may be detrimental to the overall social structure or horn quality of bighorn sheep herds.

ENFORCEMENT/PROSECUTION

All hunters must check out when they have completed their hunt, whether successful or not. At the time of checkout, successful hunters must have the head permanently marked (pin in one horn) as proof that it was legally taken.

Since 1965, 482 bighorn rams have been harvested in Oregon. Of these, only 8 have been sublegal. Prosecution of the individuals taking these sublegal rams has been quite variable over the years:

- 1). Five individuals were not cited because the biologist checking out the animal determined the curl length, although short, was close enough to 3/4-curl and did not warrant a citation. Additionally, in these situations, the biologist preferred to see the ram brought in by the individual rather than see it be left to spoil in the field and have another legal ram harvested by the same individual.
- 2). Two individuals were cited into local courts, fined a minimal amount, and allowed to retain their harvested rams.
- 3). One individual was fined, had his hunting rights revoked for 2 years, and had the entire bighorn ram carcass confiscated.

The problem with enforcement of the regulation has been with inconsistency throughout the history of the regulation which indicates that, even within the Department, there are mixed views of the validity of the regulation.

INTERPRETATION TO HUNTERS IN THE FIELD

Any person successful in drawing a bighorn sheep permit is required to attend an orientation session prior to the hunt. The hunter is briefed on such things as the history of bighorn sheep management in Oregon, bighorn behavior, biology/ecology, hunter ethics, and legal requirements.

At that time, the hunter is shown photographs and examples of legal vs. sublegal rams, and the geometric descriptions of the curl regulation are described in detail. The entire process takes about 2 hours.

PRAGMATIC CONSIDERATIONS

Our assessment of the 3/4-curl regulation is that it is primarily a social regulation. There is a perception by Oregon's bighorn sheep hunters that an "any ram" regulation will overharvest rams in the younger age classes, which in time would result in a reduced supply of older rams in specific populations. This perceived reduced ram supply would result in a reduction of permits and hunting opportunity in the future. There also is the feeling that the "any ram" regulation makes bighorn sheep hunting a "non-trophy" hunt. Consequently, sheep hunting enthusiasts oppose a change in the regulations.

Based on our experience with the "any ram" regulation of 1989, we believe ardent bighorn hunters select for the largest possible ram regardless of the minimum requirement. Additionally, permit numbers are tightly controlled, and we believe that even within a specific hunt in a specific year, if all tagholders took young (less than 3-year-old) rams, there would not be any significant effect on the total ram population either biologically, or with future hunting opportunity. Likewise, in theory, taking of a younger ram would allow an older ram to survive and may result in larger trophies being available.

The problem with an any curl regulation is basically twofold. First, if a hunter does shoot a sublegal ram, there is a risk that he will leave the animal in the field and possibly go on to kill an additional ram without being apprehended by enforcement personnel. This can be perceived as a loss of future hunting opportunity as well as a potential loss of an additional ram.

The second problem involves our 1-permit-in-a-lifetime requirement. We publicize the fact that bighorn sheep occupy rugged habitats, and encourage the hunter to be in good physical condition. However, all individuals may not be able to attain adequate physical condition to allow them to hunt until they kill a 3/4-curl or larger ram. If the hunter has had to pass up the opportunity to take a smaller ram because of the regulation, he may not harvest a sheep.