

## MOUNTAIN GOAT MANAGEMENT IN WASHINGTON

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### ABSTRACT

Mountain goat hunting seasons have become much more conservative in the last few years in Washington. Hunting permit levels have been reduced and some permits allocated to primitive weapons hunters. The Washington Department of Game enlisted the help of volunteers in 1985 to conduct field surveys in major goat areas. Goat unit boundaries have been adjusted to manage each herd by goat unit. Over 50 goat herds have been identified. Access restrictions and age structure are considered in development of hunting permit levels.

### MOUNTAIN GOAT HUNTING

Mountain goat sport hunting in Washington began in 1897, when the hunter was limited to two goats during a three-month season. In 1913, the hunter was restricted to one goat per hunting season. Hunting areas were restricted in 1917 and the hunting season closed completely in 1925. Mountain goat hunting resumed in 1948 after biologists found that the goats had reached carrying capacity. Since then, mountain goat hunting has been sanctioned every year on a controlled permit basis.

Permit levels have varied over the years from an initial level of 150 in 1948 to over 1,000 in 1968. In 1957, a unit system was developed in which goat areas were divided into 10 goat units and a quota of permits authorized in each unit. The trend over the years has been to decrease the size of goat units, along with number of hunters, to prevent overcropping of local areas.

The season length is currently about 5 weeks with seasons starting the last week in September and concluding the end of October. There are no mandatory checks for goats similar to those for bighorn sheep but a questionnaire is sent to each permit holder. Approximately 40 percent of the hunters return their questionnaire at the close of the season. (It is mandatory to return questionnaires within 10 days of the kill or 10 days after the season ends.) A follow-up questionnaire is sent to nonrespondents 2 weeks after the season ends. The follow-up questionnaire stimulates a 48 percent return so the total return is 88 percent.

### HUNTING REGULATIONS

Aside from designated goat unit areas and dates the only restriction placed on mountain goat hunters is that they harvest goats with horns 4 inches long or longer. This protects kids of the year. Although goats of either sex may be legally taken, hunters are urged to refrain from shooting nannies with kids. Since this statement was included in

the goat hunting pamphlet in 1977, the take has shifted to over 50 percent billies each year.

Prior to 1981 harvest levels were probably higher than recruitment. Research in Washington (Johnson, 1983), Idaho (Kuck, 1980), and British Columbia (Hebert and Turnbull, 1977) pointed out the need for much more conservative harvest programs. During the 1960's and 1970's the mountain goat harvest declined from 340 to 260. Last year, the goat harvest was 113 when 289 permits were authorized. We anticipate a slight increase in permits over the next few years and an annual harvest of 120 to 150.

In 1985, there were 36 units with 289 permits. Over half of these (nearly 62%) were available to hunters using any legal weapon. Several units, however, are reserved for primitive weapons hunters. Nearly 31 percent of the permits were reserved for archery hunters and 7 percent for muzzleloader hunters. The harvest by user group can be summarized in the following table.

TABLE 1. Mountain Goat Hunting Permits, Harvest, and Success Rate by User Group

<u>Hunting Method</u>	<u>Permits</u>	<u>Harvest</u>	<u>Success Rate</u>
Any Legal Weapon	179	84	55%
Archery Only	90	20	27%
Muzzleloader Only	20	9	56%

#### YEAR OF THE MOUNTAIN GOAT

This past year was the Year of the Mountain Goat in Washington. Wildlife enthusiasts from throughout the state joined the Department of Game field personnel in extensive goat surveys. These surveys enabled us to obtain better information on population numbers and distribution. Last year 121 surveys were conducted and 1,103 goats were observed. Approximately half of these goats were classified according to sex and age. Classification counts revealed 115 billies, 216 nannies, 209 kids, and 123 yearlings.

Research studies in Washington (Johnson, 1983) indicate normal survival of kids during the first winter is about 50 percent. These surveys produced a similar estimate of kid survival. Regional Wildlife Biologists estimate herd size based on sightings by volunteers, hunter reports, and Department of Game air and ground surveys. This past year's surveys have been instrumental in adjusting goat unit boundaries and establishing permit levels. Management

guidelines sent to field personnel call for a harvest at the 4 percent level. Since hunter success averages close to 50 percent, permit levels are set at nearly 8 percent of the estimated herd size.

#### MANAGEMENT PROGRAMS

Age structure information is also used to formulate management recommendations. Each year for the past 3 or 4 years hunters have been asked to submit a tooth from their harvested animal for age determination according to techniques described by Matson (1981). Last year 84 teeth were processed and the statistics used to determine age structure by sex. The average age of billies taken was 5.2 years with a maximum of 11.5, median of 4.5, and mode of 3.5.

Nannies on the other hand, had a mean age of 5.8, maximum of 12.5, median 5.5, and mode of 2.5. These age categories are up slightly from the previous year.

We are also working with landowners to protect goats on critical ranges by preventing disturbances and conflicting uses. Road management programs are helping avoid unintentional harassment that has become all too familiar on winter ranges. Winter recreationists, such as skiers and climbers are directed away from prime winter ranges. Mountain goats are also being considered in timber management programs. Road closures also help reduce poaching loss.

Overall, we are encouraged by the recent surveys as well as population and age structure information gathered over the last few years. A few changes in hunting unit boundaries and permit levels will be made but no major changes are anticipated.

#### LITERATURE CITED

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