

**MOUNTAIN LION MANAGEMENT GUIDELINES
FOR
LION DAU L-10
GAME MANAGEMENT UNITS
43, 44, 444, 45, 47, & 471**

Prepared for:
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West Region

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DESCRIPTION OF MANAGEMENT AREA, HABITAT AND PAST MANAGEMENT

This lion unit is located in the Roaring Fork River and Crystal River drainages of west central Colorado. It is composed of six Game Management Units (GMU) that include GMUs 43,44, 444, 45, 47, & 471. The CDOW designation of this lion area is L-10.

The unit is considered to be fair mountain lion habitat. Some of the topography is excellent terrain for mountain lions. The best areas are bisected by numerous canyons and rugged terrain, holding adequate prey meet yearlong lion requirements for food and cover. These areas include the canyons on the lower Roaring Fork and Crystal River drainages, lower Frying Pan River, and the lower Eagle River area (south of the Eagle River from Dotsero to the town of Eagle).

Mountain lions are primarily associated with the lower elevation habitats with rocky, steep canyons. The vegetation in these areas varies in relation to elevation and aspect, but is typical of high desert vegetative communities. Pinyon-juniper woodlands dominate the landscape. At higher elevations, the vegetation becomes more diverse as annual precipitation increases. Mountain shrubland and aspen woodlands are intermixed with sagebrush communities, which are found in the higher elevations in the DAU. Gambel's oak, serviceberry, mountain mahogany interspersed with aspen and Douglas fir pockets are common in the unit.

Historically, this area supported a large mule deer population. Elk populations have steadily increased since the turn of the century and now exceed mule deer populations. Since the mid-1960's deer numbers have been in a steady decline but have had a somewhat cyclic behavior.

The area has experienced a tremendous growth in land development and some of the highest human densities in the mountains occur in this area along the 1-70 corridor and in the Roaring Fork Valley. Major towns in the DAU include - Vail, Avon, Eagle, Gypsum, Glenwood Springs, Carbondale, Basalt, Snowmass Village, and Aspen. Human conflicts with mountain lions in this DAU have been rare but random observations of mountain lions are on the increase along with road kills, game damage harvest, and animal damage control harvest.

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Also, GMUs such as 44,444, and 45 have not had many lions in the past and now it appears the lion populations are increasing. Domestic sheep graze some of the National Forest land in GMU 43, 444, 45, and 36 and lion depredation can be a problem. Each year several lions are killed by woolgrowers to protect their domestic sheep.

ISSUES: There are three main issues regarding this lion population, these include; 1) livestock damage (predator losses) to domestic sheep populations, 2) impacts or perceived impacts to mule deer populations, and 3) the maintenance of a secure population of mountain lions.

1. Domestic sheep losses by lions have averaged about \$699 over the last three years. Since 1987, there have been claims submitted to CDOW for reimbursement that total \$10,648. The average for these 11 years is \$968. The highest losses were in 1988-89 when claims totaled \$6,305. No claims were submitted in 1991-92, 1992-93, and 1993-94.
2. Mule deer populations have shown a general decline in this lion DAU but the magnitude of the impact to the deer herd by lions is unknown. Lions could be a factor in this decline. Elk can be negatively impacted by lion depredation but are currently at or above the population objective.
3. The CDOW is concerned about maintaining a viable lion population that is generally in balance with habitat, prey base and societal values. Over harvest of adult males may influence territorial relationships and may cause an increase in lion populations above levels that would be found in naturally regulated and unharvested lion populations.

MANAGEMENT RECOMMENDATIONS: Lion license quotas will be regulated in an effort to achieve the unit objective. The average harvest for mountain lions in the DAU for the last three years has been 3 animals. The harvest has increased in the last 10 years; in 1989 the harvest was 1 lion. The license quota has been maintained at 7 from 1992-97. In 1998 the quota was increased to 9, and to 10 in 1999. Hunter success rates have also increased. In 1989 the success rate was 16%; in 1997 the success rate was 28%. The sex ratio of the harvest has varied somewhat but has not changed greatly over the years.

The preferred management recommendation is to maintain license quotas at the present levels (10 licenses in 1999) for 5 years.