

NEW MEXICO

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Introduction

Early accounts of the cougar in New Mexico place this animal in all mountain ranges and along most major watercourses. Indiscriminate killing and relentless persecution by early settlers and stockmen confined the cougar to the rougher mountainous sections west of the Rio Grande by 1940 (Young and Goldman 1946). Public concern over the status of the cougar resulted in the cougar being classified as a protected species in 1971. The law that protected cougars also allowed a livestock operator to "hunt, take, capture, or kill any cougar which has killed domestic livestock." Since the protection of the cougar, evidence indicates a largely contiguous distribution for the cougar in New Mexico, with regions of relatively high concentrations associated with remote, broken or mountainous terrain (Evans 1983). In 1982 an effort was made by a legislator to remove the mountain lion from the protected species list. The New Mexico Department of Game and Fish opposed this bill and was successful in bringing about its defeat, with help from the Sierra Club, the New Mexico Wildlife Federation, the Audubon Society, and Defenders of Wildlife. The House of Representatives did pass a Memorial directing the "State Game Commission and the Department of Game and Fish to study the population of cougars and depredations caused by cougars." This Memorial caused us to take a much needed look at our cougar management and its effects on overall populations. The results of our initial analysis of cougar data was not well accepted by the ranching interests in the state. Basically, the statistical analysis of harvest data caused a hypothesis to be developed that stated that cougars are declining by 10% annually and that this decline is caused by sport hunting. This theory again caused an outcry from both sides of the issue. The protectionist groups called for an immediate ban on all hunting, and the livestock interests called the theory a lot of bunk. Because of this controversy, the cougar season in

New Mexico was reduced from 11 months to 3 months in length, and the bag limit was changed from 2 cougars to 1 cougar. An additional two months was added to the cougar season in Game Management Units where a livestock depredation problem occurs. An upper limit was placed on the number of cougars that could be harvested in each Game Management Unit open during the extended season. The State Legislature asked us to reconsider our report and resubmit it during the upcoming 1985 session. We are currently reevaluating our data but have not come up with anything that will alter our initial report drastically.

Harvest Information

The number of cougar hunters and the number of cougars harvested in New Mexico has increased, while actual hunter success has decreased. Data for the last five years are presented in Table 1. The season during these five years was August 1 to the following June 30 and the legal bag was 2 cougars of either sex, except a female accompanied by a kitten or kittens and except any kitten less than 1 year old. Hunting has been allowed using muzzleloaders, bows, and rifles. The use of dogs

Table 1. New Mexico cougar harvest data.

Year	Number Licenses Sold	Number Cougar Harvested	% Success
1979-80	309	67	21.7
1980-81	406	92	22.7
1981-82	477	110	23.1
1982-83	481	100	20.8
1983-84	661	132	19.9
Total	2,334	501	21.5

is allowed while cougar hunting; however, the use of bait and/or traps is illegal. All hunters who harvest cougar have five days to contact the Game Department and have a hide tag placed on the pelt of the animal. At the time of hide tagging, we collect information as to number of days hunted, location of kill, use of guides, and use of dogs. We have very little information on the illegal kill situation, but we do feel that we lose a few cougars that are not reported.

Management Programs

The management of cougar in the past has consisted of setting season dates and bag limits. We also employ two full-time hunters who attempt to remove specific livestock-killing cougars. After the controversy is settled and more basic facts about the status of the cougar are known, the management of this species will be more refined. The two most-needed data sets are a total cougar population estimate and the effects of sporting hunting on that population.

Research Programs

The only cougar research projected by the Department was in the southwest quarter of the state between 1972 and 1977. The objectives of this study were: 1) to determine home range size of adult cougars, 2) to determine home range overlap, 3) to determine numbers of cougars per home range, 4) to monitor daily activities and movement within home ranges, 5) to monitor dispersal of subadult cougars, and 6) to determine frequency and species composition of lion prey kills. Because of logistical problems, personnel turnover, and equipment failure, this study did not meet its objectives and was subsequently cancelled. Results of this project can be found in the Federal Aid Final Report (Johnson 1982).

The National Park Service is funding a cougar project in southeastern New Mexico which will be reported on later in this workshop.

The Department of Game and Fish is funding a cougar study to be conducted by Dr. Maurice Hornocker of Idaho. The first five years will collect baseline data on all aspects of the ecology of the species. Once a data base has been established, a second five-year period will determine the effects of selective removal of cougars on population parameters.

Recent Literature

Very little has been written concerning the cougar in New Mexico. Federal Aid reports on harvest are available from 1977-1984, and performance reports on our research effort are available from 1972-1977.

The final report for our lion study (Johnson 1982) is also available. The Department's Report to the New Mexico Legislature concerning the cougar may be obtained by contacting Dr. Wain Evans of our staff.

Literature Cited

- Evans, W. 1983. The cougar in New Mexico: biology, status, depredation of livestock, and management recommendations. Report to New Mexico House of Representatives. Santa Fe. 34 pp.
- Johnson, J.F. 1982. Mountain lion research. Job Final Rpt., P.R. Proj. W-124-R-4. New Mexico Dept. of Game and Fish. Santa Fe. 16 pp.
- Young, S.P. and E.A. Goldman. 1946. The puma, mysterious American cat. Wildl. Manage. Institute, Washington, D.C. 358 pp.