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ANNUAL PERFORMANCE REPORT

Statewide Wildlife Research

State: Florida

Study No. 7507
Federal No. E-1 II-E-7

Project Title: Florida Panther Research

Project Subtitle: Florida Panther Recovery Plan Implementation

Study Title: Florida Panther Captive Breeding/Reintroduction Feasibility

Period Covered: 1 July 1991 - 30 June 1992

Prepared by: Robert C. Belden, Biological Scientist III/Coordinator

Abstract--Captive breeding efforts continued this year with 2 male and 1 female mountain lions (*Felis concolor stanlyana*), as did conditioning of kittens born last year. Two adult, 6 subadult, and 1 kitten Florida panthers (*F. c. coryi*) were maintained at White Oak Plantation, and 1 kitten Florida panther was maintained at the Lowery Park Zoo. The recommendation is made that field studies on reintroduction feasibility move forward quickly.

The only documented breeding population of Florida panthers (*Felis concolor coryi*) occurs in south Florida from Lake Okeechobee southward. This population is found primarily in the Big Cypress Swamp and Everglades physiographic regions. It is estimated that 30 to 50 adult animals remain. In addition to efforts to manage this population, the Florida Game and Fresh Water Fish Commission (FGFWFC) is committed to reintroducing Florida panthers into other suitable areas within the state. Successfully introducing panthers into such areas would help reduce the risk of extinction for the subspecies. The objective of this study is to determine the feasibility and techniques for using captive-raised offspring in the re-establishment of Florida panther subpopulations in Florida.

METHODS

Captive breeding efforts continued this year with the 2 male (TX#28 and TX#29) and 1 female (TX#01) mountain lions (*F. c. stanlyana*) from Texas. Two female mountain lions that had kittens last year (TX#02 and TX#08) were held in a 15-acre conditioning pen with their offspring. Live rabbits and quail were made available to these animals as part of the process to condition them for release into the wild. In addition, 1 adult male (#200), 1 adult female (#21), 3 subadult male (#201, #202, #203), and 3 subadult female (#204, #205, #206) Florida panthers were maintained at White Oak Plantation this year. Artificial insemination and *in vitro* fertilization studies were continued, and 2 additional Florida panther kittens were brought into captivity. One of the new kittens, male #207, was maintained at White Oak Plantation, and 1, female #208, was maintained at Lowery Park Zoo.

RESULTS AND DISCUSSION

This study is behind schedule. A triggering transmitter and at least 2 recapture collars could not be purchased this year due to a shortage of funds. This new data-acquisition and recapture system was to be evaluated on captive panthers in a 15-acre pen at White Oak Plantation. Such a system potentially would solve many problems associated with recapture of reintroduced panthers, should the need arise.

The matings of TX#29 continued to be unsuccessful in producing kittens this year. However, his mate, TX#01, also did not produce offspring when mated with TX#28, a proven sire. TX#29 was removed as part of the captive breeding/reintroduction feasibility study and taken to the Wildlife Research

Laboratory where he is presently being maintained. If a decision is made to resume field studies on the feasibility of reintroducing panthers into northern Florida, live deer will be made available to the 3 offspring of TX#02 and TX#08 to further prepare them for release into the wild. The health and reproductive status of the Florida panthers, as well as results of the artificial insemination and *in vitro* fertilization studies are given by Roelke and Glass (1992).

RECOMMENDATIONS

The primary objective of the Florida panther recovery plan (U.S. Fish and Wildlife Service 1987) is to achieve 3 viable, self-sustaining populations within the historic range of the subspecies. This objective is quantified in the Florida panther species survival plan (Seal and Lacy 1989) with the suggestion that 130 breeding animals in a combination of wild and captive populations be established by the year 2000. It is further suggested that this figure be increased to 500 breeding age panthers by 2010. The accomplishment of these objectives hinges on our ability to establish additional wild populations of Florida panthers.

The primary considerations for panther reintroduction are area size, prey density, human population density, type and extent of human activity, road density, public attitudes toward re-establishment, and the number of animals initially released (Belden et al. 1990). Other than selection of the candidate reintroduction site and determining the number of animals initially released, we have very little control over most of these factors. The one factor that we could influence is public attitudes toward panther re-establishment. Human persecution of the panther was the initial cause of its present endangered

status, and the recent reintroduction feasibility study (Belden et al. 1990) suggests that this limiting factor may still be present.

The general public was supportive of the initial study and of reintroducing native panthers into northern Florida. However, many people view the results of this study as indicating that further reintroduction attempts would also be unsuccessful, and many believe that too much money has already been spent on attempts to prevent the extinction of the Florida panther. This decay in public support along with the daily loss of potential panther habitat makes it imperative that, if panther reintroduction is to remain a viable management alternative, we quickly move forward with the reintroduction feasibility study. I recommend that a large commitment be made toward a public education campaign in the candidate reintroduction area in northern Florida. Once we feel that the public is again supportive of panther reintroduction we should transfer the captive raised and conditioned kittens from White Oak Plantation to the release site along with a sufficient number of translocated wild-caught mountain lions so that a minimum of 10 animals are released.

It is extremely important that this reintroduction attempt be given every opportunity to be successful. It will probably be the last opportunity to test the feasibility of reintroducing panthers. It is not very likely that other states within the historic range of the Florida panther will attempt reintroduction if we are not successful in Florida.

LITERATURE CITED

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