

Big Cypress National Preserve
2004 Florida Panther Capture Season Report

Submitted to Florida Fish and Wildlife Conservation Commission

Under Special Purpose Permit #WX02384

and to

U S Fish and Wildlife Service

Under Endangered Species Permit #TE051015-0

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Introduction

This project, conducted by the National Park Service (NPS) in Big Cypress National Preserve south of Interstate-75 (SBICY) in Collier, Dade, and Monroe Counties was authorized under USFWS Endangered Species Permit #TE051015-0 and the Florida Fish and Wildlife Conservation Commission (FWC) Special Purpose Permit #WX02384. This report covers the capture and survey work conducted between June 30, 2003 and July 1, 2004. All biomedical and capture data have been submitted to Darrell Land, FWC Project Section Leader. Details on other aspects of panther activities in the study area will be covered in the annual report submitted under the USFWS permit.

Project Goals

As stated in the February 19, 2002 NPS proposal "*Florida Panther Research and Monitoring in Big Cypress National Preserve*", the goals of this project are to obtain an adequate sample of panthers:

- 1) to make sound management decisions and evaluate management actions taken;
- 2) to assess the potential of this area to support panthers;
- 3) to assess the potential of panthers in this area to augment the sub-population in Everglades National Park; and
- 4) to evaluate the impacts of the genetic restoration efforts.

Capture Season Goals

The NPS 2004 Capture Season Plan (attached), presented at the 30 September 2003 meeting in Naples, identified three panthers, #79, 102, and 103 in need of recollaring. It also slated five survey blocks, #1, 9, 10, 11, and 12, i.e., the Deep Lake, Loop, and Stairsteps Management Units as priorities for capture work. The Deep Lake Unit has had occasional use by collared males, but has not had a resident female monitored there since panther collaring began 24 years ago. No resident panthers with working collars were being monitored in the Loop and Stairsteps Units since the collar of panther #88 failed prematurely in August of 2002. Last year's survey efforts indicated that at least two females and one male still resided in that area.

Time permitting, the team planned to hunt within the home ranges of two other females, #71 and #93, (Survey Blocks 2 and 4) whose collars had also failed prematurely. GPS collars would be

placed on adult males in order to determine movements and habitat use other than daytime resting sites. The priorities for the capture season changed in January when apparently habituated panthers were repeatedly seen in the small community of Pinecrest in the Loop and Stairsteps Units. They were targeted for capture as soon as the team assembled in February.

Methods

A hunt day is defined as one having suitable environmental conditions and the availability of all team members to conduct a capture. The study area was divided into 12 blocks based on roads and recognizable geographic features. The size of the blocks ranged from 14,184 ha to 28,698 ha and averaged 20,747 ha. Although a random sampling scheme was desirable to ensure equal representation of panthers throughout the area, the overriding goals addressed above took precedent. Capture work was conducted following the protocol as outlined in our FWS and FWC capture permits with the exception of handling and collaring the kittens of the Pinecrest family group at only ten months of age.

Results

We hunted for 36 days between February 10 and April 2, 2004 for uncollared panthers. Two additional days were spent in recollaring attempts and one in giving the booster for feline leukemia (feLV)... Our highest priority, i.e., to collar the panthers at Pinecrest was achieved in four hunt days when, on February 13th, we collared an adult female and her two male offspring, #s 124, 125, and 126.

We collared an additional two new panthers, #127 and 129, and two whose collars had failed, #79 and 103. We recollared one panther, #102, in three attempts. On one attempt, storms came in and on the second, the water levels were too high for a safe capture. We treed one panther, #60, which we did not handle because he was not slated for recollaring (Table 1).

We failed to locate and recollar #88 or the resident adult male south of Highway 41 in spite of expending an additional 13 hunt days (38%) toward that goal. We spent seven days (19%) in the Deep Lake block and documented sign of an uncollared adult female but failed to capture her. We hunted in Block 2 of the Turner River Unit for four days (11%) and caught #79 and 127

there but failed to locate #93. We spent six hunt days (17%) in Raccoon Point (Block 8) and caught #103 whose collar had failed and a new panther, #129. We only hunted one day (3%) in Block 7 north of Oasis Visitor Center and we did not hunt at all in five blocks due to time constraints and water levels. Table 1 compares the distribution of our hunting efforts with the previous year.

Although time and water levels precluded us from hunting for #71 in her original home range in Block 4, the FWC team caught her north of Interstate 75 (I-75) in the northwest portion of Big Cypress. To date, she has not returned to her original home range south of I-75

Capture Season Summary:

- 39 total hunt days
- 5 newly collared panthers (#s 124, 125, 126, 127, 129)
- 2 failed collar replacement (#s 79, 103)
- 2 attempted but failed recollars (#s 102)
- 1 successful recollars (#s 102)
- 2 treed but not collared (#60, #125 and 126 FeLV booster)

Uncollared panthers

We documented sign of uncollared panthers in seven blocks (Table 2). Based on track size and the locations of collared panthers, we confirmed the following uncollared panthers:

- 1) South of Hwy. 41 (Blocks 9, 10, 11, 12) - one adult male, two adult females, one with two kittens
- 2) Deep Lake Unit (Block 1) – one adult female and one small male
- 3) Concho Billie Trail (Block 2) – one adult female with at least one kitten

Reproduction

Three collared panthers denned during the past reporting year. On August 5, 2003, we handled three kittens, two males and one female, at the den of #93 in Block 2. On February 7, 2004, we handled two kittens, one of each sex, at the den of #120 in Block 9. On June 6, 2004, we handled three kittens, one male and two females, at the den of #70 in Block 5. Transponder chips were implanted and biomedical samples were obtained and submitted to FWC.

Mortality

Four panthers either died or were removed from the study area during the reporting period. On November 6, 2003, female #86 was removed due to injuries from natural causes that prevented her from obtaining food. She was euthanized once it was determined that her neurological injuries could not be remedied. On December 12, 2003, female #91 was found in mortality. Field and physical signs indicated that she had been killed by another panther. On January 12, 2004, an unmarked female kitten was struck and killed by a vehicle on Highway 41. On June 29, 2004, male #60 was live-trapped and removed from the wild. He had been killing domestic livestock and, when caught and examined, it was found to be in poor condition. He had sustained serious injuries, likely by recently being struck by a vehicle on Highway 41. To date, he is still in captivity.

Capture Season Plan for Big Cypress National Preserve—2003 - 2004

Prepared by Deborah Jansen, Wildlife Biologist, NPS
September 30, 2003

Goals

Achieve and maintain a sample of 20 radio-collared panthers distributed throughout the 295,142-ha area of Big Cypress south of I-75.

Recollars

Three panthers, #79, 102, and 103 are due for recollaring (see attached table). They will be handled when aerial monitoring indicates that they are in an area conducive for an efficient and safe capture.

Sampling

Capture efforts will target 5 of the 12 survey blocks, #1, 9, 10, 11, and 12, where no panthers are currently monitored (see attached figure). Three female panthers with established home ranges, #71, 88, and 93 have failed collars; they will also be targeted for recollaring. Survey work for the presence of panthers will be done in the 12 survey blocks when soil conditions provide good tracking medium.

Timeframe

The Big Cypress capture season is slated for an 8-week period between February and April of 2004. However, any malfunctioning collars will be replaced as soon as possible.

Team Members

The team will consist of the same personnel as in 2003 with the exception of NPS employee Guy Almerico who has replaced Bob Thomas as biological technician.

Collar Specifications

Three GPS collars will be deployed in order to determine movements and habitat use other than daytime resting sites. The specifications and configurations of the units have not yet been determined. Two males, #79 and the uncollared male south of Hwy 41, are potential candidates for GPS collar attachment.

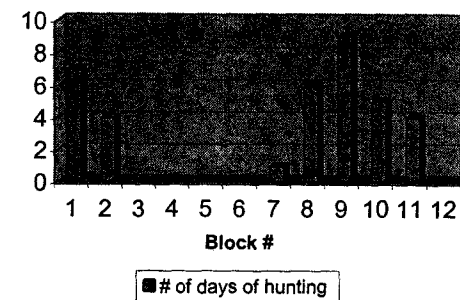
Table 2 . Sign of Uncollared Panthers Documented during the 2004 Panther Capture Season in Big Cypress.

Date	Block #	Locus	Sign of unknown panthers	Comments
11-Feb	10	Pinecrest	female	
16-Feb	1	Deep Lake	female	
17-Feb	8	Raccoon Point	2 females	
18-Feb	8	Raccoon Point	male; female	
19-Feb	8	Raccoon Point	female	
1-Mar	7	W of Raccoon Point	male	
2-Mar	9	Gator Hook	male & female together	
4-Mar	2	Concho Billie Trail	female w kittens; lone female; male	likely not #70
11-Mar	9	Gator Hook	male; lone female; female w 2 kittens	
15-Mar	9	Gator Hook	male	
21-Mar	10	Gum Slough	male	sighting by C. Little on 20 Mar
23-Mar	11	Gum Slough	male	possibly #79
25-Mar	11	Gum Slough	male	possibly #79
26-Mar	1	Deep Lake	female; male	possibly #60
30-Mar	1	Deep Lake	female	
31-Mar	9	Gator Hook	male	
3-Apr	2	Airplane Prairie	female	

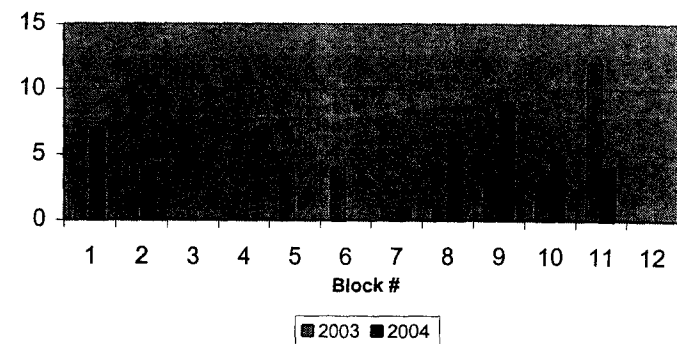
Table 1. 2004 Panther Hunt Days and Hunt Effort per Survey Block in Big Cypress.

Date	Block	Results/Comments	Block #	2003	2004	2004 Ef/BI
10-Feb	10		1	1	7	19%
11-Feb	10		2	0	4	11%
12-Feb	10		3	0	0	0%
13-Feb	10	collared #124, 125, 126	4	0	0	0%
16-Feb	2	collared #127	5	4	0	0%
17-Feb	8		6	4	0	0%
18-Feb	8		7	1	1	3%
19-Feb	8		8	1	6	17%
20-Feb	8	collared #129	9	4	9	25%
23-Feb	7		10	2	5	14%
24-Feb	9		11	12	4	11%
25-Feb	0	attempt to recollar #102 but storms came in	12	0	0	0%
26-Feb	0	no hunt but McBride treed #60				
27-Feb	8	recollared #103 (failed collar)				
1-Mar	8			29	36	100%
2-Mar	9					
3-Mar	9					
4-Mar	2					
5-Mar	0	attempt to recollar #102 but water level at site too high				
8-Mar	1					
9-Mar	1					
10-Mar	1					
11-Mar	9					
12-Mar	1	treed and gave FeLV booster to #127				
15-Mar	9					
16-Mar	2					
17-Mar	2	recollared #79 (failed collar)				
18-Mar	1					
19-Mar	9					
21-Mar	10					
22-Mar	0	gave FeLV booster and aversive conditioning to #125 and 126				
23-Mar	11					
24-Mar	11	recollared #102				
25-Mar	9					
26-Mar	1					
29-Mar	11					
30-Mar	1	attempt to recollar #60 but had he had left Big Cypress				
31-Mar	9					
1-Apr	9					
2-Apr	11					

2004 Hunting Effort per Block



2003 and 2004 Panther Hunt Efforts Per Survey Block



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Talking Points: Panther Situation at the
Loop Road Environmental Education Center (LREEC),
Everglades National Park
11-1-2004

1. Advise Miami-Dade School System and parents re: the panther situation at the LREEC;
2. Implement and reinforce Standard Operating Procedures (SOP's) at the LREEC re: procedures w/ students and teachers to minimize/reduce the threat of panthers (e.g., only going to the restroom at night w/ a teacher and what to do if a panther is seen);
3. Recognizing that only 30% of the panthers are collared, implement a telemetry system at the LREEC that will serve two purposes – education and an alert as to whether collared panthers are in the area;
4. Fully participate and support the Response Team's Plan for aversive conditioning of panthers in the LREEC;
5. Support an areawide education program re: proper interactions w/ panthers and reducing the feeding of deer in the area;
6. Engage in discussions w/ the State-FWCC, USFWS, and the Miccosukee Tribe to evaluate options for deer herd management in the larger Loop Road/Pinecrest/Big Cypress area;
7. Continue to monitor the situation and practice adaptive management, as appropriate and after consultation w/ all stakeholders; and
8. Consult w/ the Miccosukee Tribe before a plan of action is adopted.