

FLORIDA PANTHER PROJECT
BIG CYPRESS NATIONAL PRESERVE
ANNUAL REPORT FY89

After planning and preparing for the Big Cypress National Preserve (BICY or Preserve) panther capture season (see attached "Plan of Action"), field work began on January 23, 1989 with the arrival of the houndsman to south Florida. A total of 53 days between January 23 and March 25 were spent using dogs to detect fresh scent. On March 5 a young male panther was captured and collared in the Stairsteps Unit of BICY. Sign of another male in the Corn Dance Unit was found, but the animal was not caught before the season ended. The areas covered and assessment of suitability for panthers is summarized in the attached reports written by the houndsman, Rocky McBride and the project leader, Deborah Jansen.

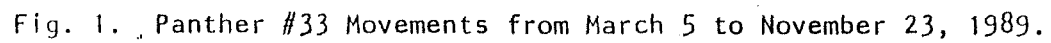
Since collaring, panther #33 has been located 255 times between March 5 and November 23, 1989, using fixed-wing aircraft. Time of location varied during daylight hours because flights were done in conjunction with deer survey flights that were done in a circadian stratification. On July 27, #33 took up residence in private lands north of the Preserve in an area where Florida Game and Fresh water Fish Commission (GFC) personnel conducted their panther monitoring program (Fig. 1). To avoid unnecessary flight costs and duplication of effort, an agreement was reached between the two agencies to share monitoring duties and subsequent data on #33. From September 18 to November 23, the GFC located #33 on Mondays, Wednesdays, and Fridays; BICY on the remaining 4 days.

The following information on movements and habitat use has been compiled manually without the aid of a more precise computer analysis, but the results are close estimates. A final report on panther #33 will be forthcoming.

Panther #33 Use of the Stairsteps Unit

Panther #33 was located for 136 days in the Stairsteps Unit of BICY (Fig. 2). If he ever crossed the Loop Road or Highway 41, he did not remain there during the day. His movements averaged 3.5 km per night and ranged from 0.2 to 11.5 km, excluding those days when he remained at one site (Table 1).

Between March 8 and July 21, #33 was located 134 times at 108 individual locations. In 93 of the 108 (86%) locations, he remained at a site only one day. A movement of less than 0.25 kilometer is called one site or location. He spent 6% of his days at a 2-day site, 5% at a 3-day site, and 3% at a 4-day site. He never remained more than 4 days in a row at any one site (Table 2).



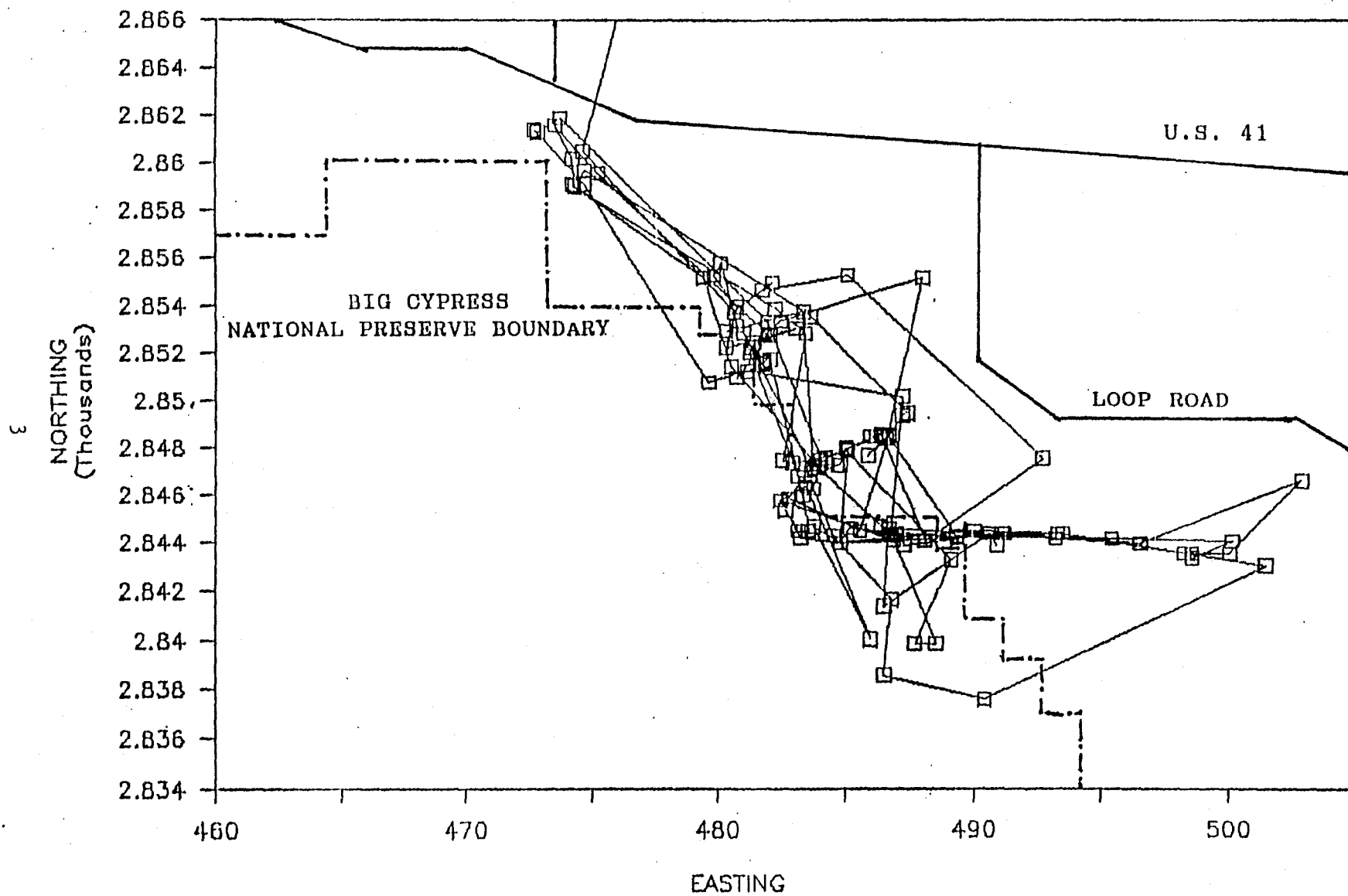


Fig. 2. Panther #33 Movements from March 5 to July 21, 1989.

Table 1. Movements and Prey Items of Panther #33
in the Stairsteps Unit of Big Cypress

MONTH	AVER. DAILY MOVEMENT (km)	RANGE (km)	# DAYS AT SAME LOCATION	PREY FOUND
March	4.8	0.7 to 11.5	2	hog
			3	0
			4	deer
April	3.5	0.2 to 9.4	3	deer
			3	deer
			3	0
			4	0
May	3.3	0.2 to 10.5	2	0
			2	0
			2	NC*
			4	deer
June	3.0	0.2 to 6.9	2	0
			2	NC
			3	NC
July	2.9	0.3 to 10.7	2	NC

*Site not checked for prey

Table 2. Comparison between Stairsteps and Private Land Sites
of Use by Panther #33

AREA	# INDIVIDUAL LOCATIONS	1-DAY	2-DAY	3-DAY	4-DAY
STAIRSTEPS	108	93 (86%)	7 (6%)	5 (5%)	3 (3%)
PRIVATE	93	84 (90%)	8 (9%)	0 (0%)	1 (1%)

Of the 15 sites used by #33 for more than 1 day, 11 (73%) were checked for prey items. At those 11 sites, 5 prey items, 4 deer and 1 hog, were found. Two days were spent feeding on the hog and either 3 or 4 days on the deer. Documented kills were too few to determine the time between kills. The number of days between those times #33 remained at the same site for more than 1 day averaged 6.7, but the range is very wide (1 to 13 days).

The territory used by #33 in the Stairsteps Unit approximated 200 square kilometers. Most of the time (65%) he was located in 3 cypress/mixed swamp areas, namely Gum Slough, Sig Walker Strand, and Gator Hook Swamp. Since it was the dry season, these areas contained some of the remaining small ponds of fresh water that were heavily used by wildlife, including the panthers' main prey, deer and hogs. Panther #33 used hardwood hammocks within or adjacent to the strands 22% of the time, the transitional mangrove area 11% of the time and a pine/palmetto mix 3% of the time.

During the night of July 21, #33 crossed Highway 41, probably in the designated panther crossing zone just east of Turner River Road. Over the next 3 nights he travelled a straight-line distance of 17 miles to the north through the Turner River Unit. During the night of July 25 he crossed Alligator Alley, probably in another designated panther crossing zone. On July 27 he was located in the private lands about 2.5 miles north of the northern Preserve boundary (Fig. 1).

Water levels were recorded at 2 stations in the portion of the Stairsteps Unit used by #33. The Roberts Lake station, although in the Loop Unit, is an indication of levels further southwest in the Sig Walker and Gator Hook Strands. In the month prior to #33's departure to the north, the water levels at that station rose 2 feet (Table 3).

The Gum Slough station is located on the eastern side of that slough which was used by #33. During the month prior to #33's departure, the water levels at that station rose 4 feet (Table 3). These rises may have influenced #33's departure in 2 ways. They may have affected his ability to travel and find secure areas on high ground. They may also have caused an increase in disturbance in the form of recreational use such as frogging or sightseeing by airboat.

Panther #33 Use of the Private Lands North of the Preserve

Between July 27 and November 23, #33 used an area of approximately 32 square kilometers north of the Preserve and east of State Road 858 except for 4 excursions into the Bear Island Unit or Addition lands to the east (Fig. 3). To our knowledge, he never crossed S R 858 or Alligator Alley again. His movements averaged 2.7 km per night and ranged from 0.2 to 11.9 km excluding those days when he remained at one site (Table 4).

Table 3. Water Levels at Two Monitoring Stations
in Areas used by Panther #33

DATE (1989)	STATIONS	
	Roberts Lake	Gum Slough
May 25	1.12	
May 31		0
June 20		0
June 26	3.24	
July 17		4.01
July 27	5.20	
August 21		4.32
August 22	5.46	

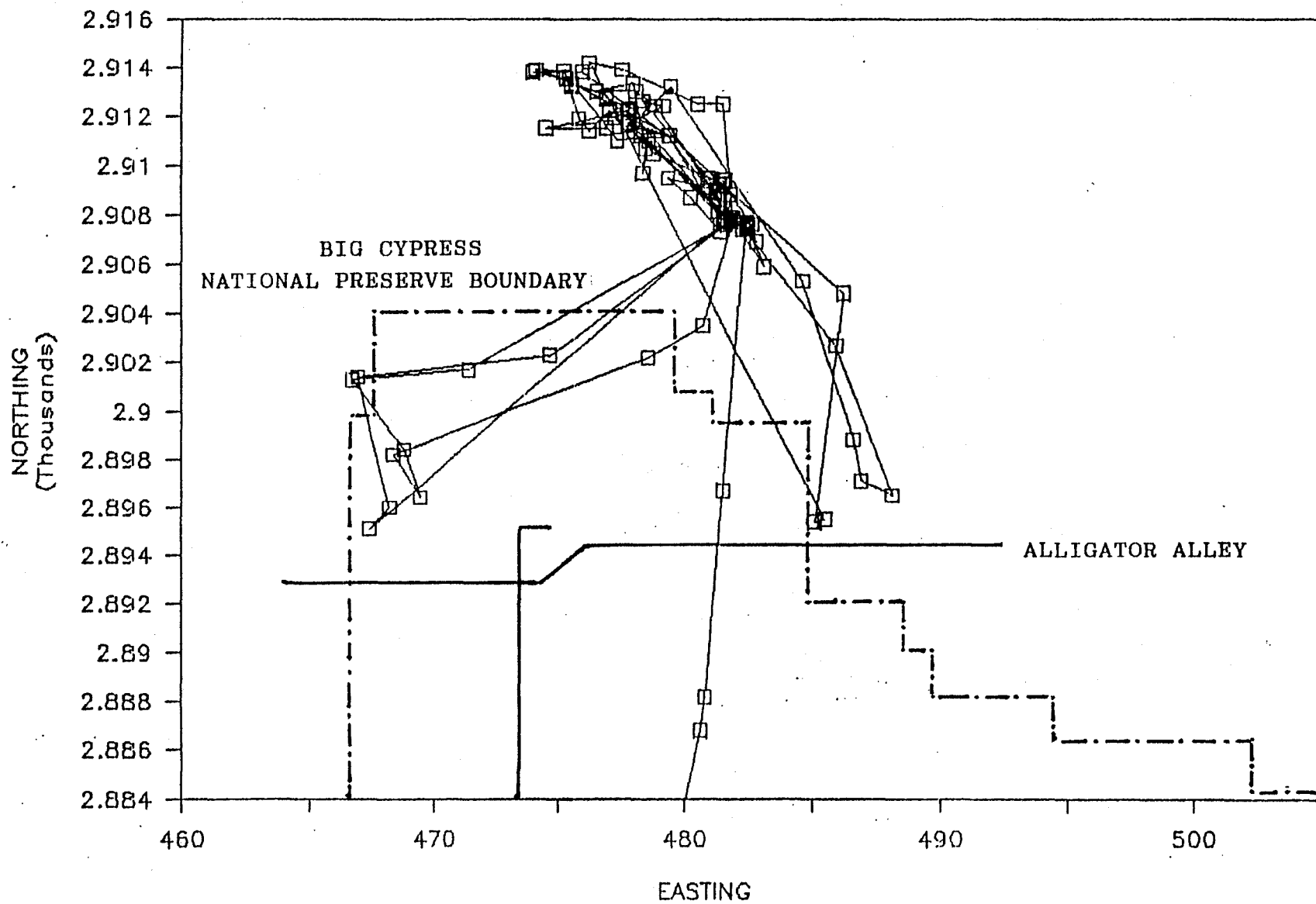


Table 4. Movements and Prey Items of Panther #33
in Private Lands North of Big Cypress

MONTH	AVER. DAILY MOVEMENT (km)	RANGE (km)	# DAYS AT SAME LOCATION	PREY FOUND
August	1.4	0.2 to 5.2	2	NC*
			2	NC
			2	NC
September	3.4	0.7 to 11.9	2	NC
			2	NC
October	3.3	0.4 to 7.9	2	NC
			2	NC
November	2.7	0.4 to 9.3	2	NC
			4**	hog

*Site not checked for prey

**This 4-day use occurred just prior to #33's death by rabies so this lack of movement may be due to morbidity.

Between July 27 and November 23, #33 was located 113 times at 93 individual locations. In 84 of the 93 (90%) locations, he remained at a site only 1 day. He spent 9% of his days at a 2-day site. The only time he remained at a site for more than two days was just prior to his death at which time he was probably morbid (Table 2).

One section of land (T48S, R31E, Sect. 24) was used by #33 for 27 of the 113 days (24%) he was located north of Alligator Alley. This section of land belongs to an individual from Miami who has it managed for limited cattle grazing. It is possible that the combination of high prey density and lack of disturbance made it a preferred refuge for the panther. This section consisted of an interspersion of fallow fields, saw palmetto circles, small oak hammocks, and pop ash or willow wet areas. The understory of the oaks was sparse due to cattle use. Only one search effort was made and no prey items were found. They were probably in the saw palmetto circles or other habitats denser than the more open hardwood understory.

During his use of the private lands north of the Preserve, #33 was located all but 2 times in or near small hardwood hammocks that were interspersed with fields, both fallow and active, saw palmetto circles, and small wet areas. Again, he probably wasn't actually in the more open understory of the oaks but more likely in adjacent palmetto, sawgrass or shrubs. Only 5% of his time north of Alligator Alley did he spend in cypress or mixed swamp vegetation and this was when he was either in the Bear Island Unit or on the adjacent BICY addition lands. Only 3% of his daytime resting sites were in a pine/palmetto mix.

On November 23, Thanksgiving Day, the transmitter in #33's collar emitted the mortality signal. As soon as the panther was observed laying dead in an open area, arrangements were made to collect the carcass for necropsy (see attached report on events that day written by Dennis Teague). The cause of death was determined to be rabies. The official veterinary report is forthcoming.

The site occupied by #33 for 4 days just prior to his death was inspected on November 29. Two panther scat and the remains of a very small hog were collected. The hog was killed and eaten by a predator, but it is not known for sure that it was done by #33. No other prey items were found north of Alligator Alley (Table 4). Only 8 times did he remain in one location for more than a day. Access to this private land is limited and strictly controlled by the owners. There is a reported abundance of hogs and deer in the area, making it easy for a panther to catch prey and not necessary for him to feed on a kill for more than a day or two.

Use of Big Cypress by Other Panthers

Panther #16, a 3 to 4-year-old male that was radio-collared in Everglades National Park (EVER) in March of 1987 crossed Shark Slough several times in the past year and inhabited Big Cypress. He lived in the Stairsteps and Loop Units the majority of the time. He used the eastern portion of the Stairsteps Unit at the same time #33 was in the western side of the unit. At no time was it documented that the 2 panthers were in close proximity although some range overlap occurred.

Searches for additional panther sign were conducted from April through June in conjunction with other field activities such as ranger patrol and other wildlife survey work. Once the rainy season began in late June, conditions were not suitable for tracking. Tracking was again resumed in early December when conditions improved in some areas. During the first week in December, tracks of an uncollared panther were found in the Turner River Unit and, 10 miles away, in the Corn Dance Unit. The tracks are probably those of a young male and may be the same individual

White-tailed Deer Project in Big Cypress

A deer telemetry project was initiated in Big Cypress in the spring of 1989 in conjunction with the panther work. Its main objective is to determine patterns of spatial distribution and habitat use, causes and rates of mortality, and factors impacting recruitment since the deer is the main prey item of the panther. Although initially planned to be done in the Corn Dance Unit, focus was shifted to the Stairsteps Unit where not only did #33 range, but also #16 and potentially a second EVER panther as well.

To date, a total of 64 deer have been collared; 16 adult bucks, 27 adult does, 3 yearling bucks, 4 yearling does, 10 buck fawns and 4 doe fawns. As of the end of December, 20 deer have died and equipment has failed on 6. Predation by bobcats has been documented for 4 and is suspected for another 4. All but one of these were fawns. Natural causes other than predation have killed 4 adults. During the hunting season, 4 bucks were legally harvested; 3 deer were illegally taken. One deer died during the capture operation. No deer were taken by panthers.

PLAN OF ACTION FOR NPS 1989 PANTHER CAPTURE SEASON

Capture Team Members

Deborah Jansen	NPS wildlife biologist
Rocky McBride	houndsman
Melody Roelke	GFC veterinarian
Dennis Teague	NPS biological technician
Steve Parker	veterinarian assistant
Greg Greco	NPS ranger (other NPS personnel may also fill this position)
Dave Maehr	GFC wildlife biologist

Itinerary

1) Veterinarian and assistant will be housed in BICY and will be on call for both GFC and NPS captures.

2) Houndsman, NPS biologist, technician, and ranger will live at an interior base camp for several days in order to cover an area thoroughly and expeditiously. Written permission will be obtained from the owner of every camp used by the capture team.

3) Tentative agenda:

Jan. 23 - Feb. 3	eastern Corn Dance Unit*
Feb. 4 - 11	western Corn Dance Unit/eastern Turner River Unit
Feb. 12 - 18	western Turner River Unit
Feb. 19 - 25	Deep Lake Unit
Feb. 26 - Mar. 4	western Stairsteps Unit
Mar. 5 - 11	Loop Unit
Mar. 12 - 18	central Stairsteps Unit (begin EVER work)
Mar. 19 - 25	eastern Stairsteps Unit

These dates are tentative and do include days off. An area will be surveyed until the team agrees that it has been thoroughly covered. Work will generally run Monday through Friday to coincide with the GFC hunting days. Searches for sign may occur on weekends, but the veterinarian and her assistant will not be expected to be on call those days unless prior arrangements have been made with them.

*During the week of January 23 the electroejaculation of a male panther monitored by the GFC team is scheduled. The GFC and NPS team leaders will be in daily contact to assure that no conflicts occur.

Equipment

The necessary field capture equipment consists of:

backpack #1	capture net
	climbing gear
backpack #2	crash bag with garbage bags
	tranquilizer gun
backpack #3	recovery tent
	radio collars with nut driver
	receiver and paddle antenna
backpacks #4/#5	medical supplies

All of the above equipment with the exception of the recovery tent, tranquilizer gun and medical supplies will be at the field camp. The recovery tent will be in the veterinarian's possession since it will be shared by NPS and GFC capture teams until the second tent is completed. Both GFC and NPS tranquilizer guns will be on site as backups during a capture. The NPS gun will be in the possession of the veterinarian to assure that it will be available as soon as she arrives at the capture site.

NPS personnel will be responsible for transporting the equipment of the first 3 backpacks. The veterinarian and her assistant will be responsible for the medical supplies.

Communications

- 1) All capture team members must carry a mobile unit and spare battery.
- 2) GFC will supply radios to their capture team members including the veterinarian and her assistant.
- 3) NPS will supply a radio to their personnel including the houndsman.
- 4) Individual NPS team members are responsible for keeping their radios in working condition. Problems should be reported to the biological technician.
- 5) Two NPS radios will have GFC channels 4 (dispatch) and 8 (wildlife) for communication with GFC personnel. GFC panther buggies will be monitoring Channel 4.

Helicopter

Flexibility in conducting capture work will be required due to the changeover in NPS helicopter pilots. As it stands now, a pilot will be on duty at Oasis Ranger Station on Friday through Monday to coincide with the higher incidence of visitor use and fires on weekends. The NPS capture team will survey an area for fresh sign on any day of the week, but will of necessity plan on captures to occur only when the veterinarian and helicopter are available. Should a panther be located on a day in which the pilot is not on duty and is needed to reach a site,, it will be possible to call him in to work. Should a panther be treed and either the veterinarian or pilot are not available or cannot reach the site in time for a safe handling operation, the animal will be left with hopes of capture the following day.

The following is the plan of action when a panther is treed:

- 1) When the houndsman determines the possibility of a capture, he will notify the capture team, i.e., NPS field personnel, veterinarian, GFC panther biologist and houndsman to be on standby.
- 2) Once a panther is treed,
 - 1st) the field team will assist the houndsman,
 - 2nd) the NPS copter will fly the veterinarian, her assistant, and her medical supplies from the NPS heliport at the Ochopee headquarters to the site,
 - 3rd) the copter will next fly the GFC panther biologist from the heliport at the Ochopee headquarters to the site. If the GFC houndsman is not detained by GFC work, he will accompany the GFC panther biologist to the NPS capture site to add his expertise to the capture, handling, and aging of the panther. If the GFC biologist and houndsmen are in an area where the time needed to travel to Ochopee may jeopardize the safety of the panther, they may be picked up at another location.

The team members involved in the decisions at the site regarding the handling and safety of the panther are the veterinarian, the houndsmen, the NPS wildlife biologist, and the GFC panther biologist.

- 3) All passengers in the copter will wear the required protective clothing and helmet. The copter pilot will be responsible for providing this gear.
- 4) The pilot will be responsible for determining safe weight limits in transporting personnel and equipment.

Miscellaneous

- 1) All capture team members must notify the NPS wildlife biologist prior to the onset of the capture season (January 23 - March 31) of planned absences.
- 2) Personnel other than those authorized as part of the capture team will not participate unless prior approval has been given by the NPS wildlife biologist after consultation with the resource management specialist and chief ranger. Photographers and journalists will not participate this first year of NPS work in order to assure that operations run smoothly without extraneous interference.

written/revised: January 17, 1989

cc: T. Logan, GFC
J. Brady, GFC
D. Maehr, GFC
M. Roelke, GFC
F. Fagergren, NPS
B. Thackeray, NPS
K. Kacer, NPS
J. Snyder, NPS
B. Robertson, NPS
S. Bass, NPS
NPS helicopter pilot
R. McBride, Rancher's Supply

ATTACHMENT 2
NPS 1989 PANTHER CAPTURE SEASON
IN BIG CYPRESS NATIONAL PRESERVE

Deborah Jansen

20 May 1989

JANUARY 23 - 27, 1989

The houndsman arrived in south Florida on January 22 and during that first week hunted in the Deep Lake and western Turner River Units. The rest of the team remained on standby at their workplace. It was decided not to hunt in a more potentially productive area that week because the Florida Game and Fresh Water Fish Commission (GFC) had scheduled 2 recapture operations, making the veterinarian unavailable for our capture work on those days. Unfortunately also that week an uncollared male panther was struck by a vehicle and killed northwest of Immokalee. No panther sign was found by the houndsman that week.

JANUARY 30 - FEBRUARY 3, 1989

On Monday, January 30, the NPS capture team located their base at a camp in the Raccoon Point area of the Corn Dance Unit. The hunting/surveying routine consisted of the houndsman leaving camp with his dogs prior to daybreak and hunting with them until the air temperature was too high for detecting scent. This usually occurred between 1100 and 1300 hours because the weather had been unseasonably warm. Daytime temperatures reached into the low 80s with usually clear skies and no precipitation. The rest of the capture team remained at camp until approximately 1000 hours in order to be in the vicinity with the capture gear should a panther be treed. After that, the team would survey new areas until dark. After "putting up" his dogs, the houndsman would also survey a new route.

The areas surveyed that week included T 51 S, R 34 E, Sections 13 through 36. The habitat consisted of cypress prairies, interspersed with cypress domes and hardwood hammocks. Unlogged pine flatwoods were numerous through some sections. Some areas had myrtle coming in under cypress, probably indicating a lack of needed fire and/or a shortened hydroperiod.

Although all trails were not covered, sign of such a wide-ranging species as a panther would have been observed had one traversed the area. Tracking conditions, that is, the suitability of the substrate for seeing tracks, was fair to good overall. The Mullet Slough, however, had standing water throughout its area. When leaving the camp on Friday, the area along Rock Road west of 11-mile Road (third ORV crossing) to the Florida Trail then south to Oasis Ranger Station was surveyed.

No panther sign was found that week. However, sign of turkey, deer, and hogs was common. Sign of at least 1 bear was also common. One Big Cypress fox squirrel was seen and photographed. One previously unknown active red-cockaded woodpecker colony was found and an inactive cavity tree in a second area was observed and will be surveyed for more trees in the future.

FEBRUARY 6 - 9, 1989

On February 7, the team located their base at a camp east of 11-mile Road and north of the Jetport. The areas surveyed were in T 52 S, R 34 E in sections 1 - 3, 10 - 16, 21 - 25, 29 - 32, and 36. The habitat consisted of an interspersed of cypress strands, hardwood hammocks, wet cypress prairies and several willow heads. Pine flatwoods were limited. Once again, myrtles were encroaching under cypress except in a few areas where recent burns had set them back.

The weather resembled that of the previous week with the exception of a cool front that came through the area on Thursday morning, keeping temperatures that day in the low 70s.

Tracking conditions were good to excellent. No panther sign was found that week. Hog, deer, and turkey sign was low to moderate. The tracks of 1 adult bear were observed. No red-cockaded woodpecker cavity trees were found.

February 13 - 17, 1989

On February 13, the team surveyed from Oasis Ranger Station to Popenhager's camp in the eastern Turner River Unit. The next day they proceeded to Calusa Ranch (Cal Stone's camp) and set up their base there. The areas surveyed that week were:

T50S R32E Sect. 23,24,25,26,27,33
T50S R33E Sect. 28,33
T51S R32E Sect. 2,3,4,12,24,26,35
T51S R33E Sect. 1,4,6,7,8,9,12,17,18,19,20,29,31,32
T52S R32E Sect. 2,11,15
T52S R33E Sect. 4,9,16,21,28,33
T53S R32E Sect. 10
T53S R33E Sect. 8

The habitat consisted of large pine islands, cypress strands and domes, some hardwood hammocks, and several large prairie expanses. The weather was clear and moderate. Tracking conditions throughout this entire eastern portion of the Turner River Unit were excellent.

No panther sign was found that week. Hog, deer, turkey, and bobcat sign was common. The tracks of 1 adult bear were found. Five known active red-cockaded woodpecker colonies were checked.

Since 3 weeks with little results had been spent in the most productive areas of past panther sign, it was decided to survey other areas of the Preserve.

February 21 - March 3, 1989

During the next 2 weeks, February 21 - March 3, the team split up and checked new areas. These areas included the Lostman's Pines area of the Stairsteps Unit, the western side of the Turner River Unit, Robert's Lakes Strand in the Loop Unit, and the hammocks northeast of Pinecrest. They also made several return trips to the Jetport and Raccoon Point areas of the Corn Dance Unit.

On February 26, a panther scat containing hog hair was found in Robert's Lakes Strand in the Loop Unit. That following week, tracks of a male panther were found in several areas along Loop Road which divides the Loop and Stairsteps Units. On March 4, the team confirmed a report of panther tracks in the western Gum Slough area. On March 5, a 92-lb. male panther, #33, was treed and radio-collared in Gum Slough.

March 6 - 24, 1989

The collared male panther, #33, was monitored daily since his capture. The team members continued to search for sign of another panther in their study area. On March 21 and 22, the tracks of a small male panther were found in several areas of the northern Jetport/Raccoon Point area. Due to conflicts with the ongoing turkey hunting season in the Preserve, however, the capture season was terminated before this panther could be treed.

Survey Time

The number of daily survey hours were recorded by the team members. Survey hours were defined as time spent covering a new area that day. Thus, if there was backtracking on a route, it was not counted. Likewise, if several team members examined trails adjacent to each other in an hour, it was counted as only 1 man-hour. Thus, these are probably conservative estimates of survey hours:

UNIT	# MAN-HOURS
Deep Lake	40
Turner River	136
Corn Dance	114
Loop	53
Stairsteps	29

Report on the 1989 Panther Capture Season
in Big Cypress National Preserve

Rocky McBride
25 March 1989

In the fifty plus days of hunting in Big Cypress I found sign of 2 male panthers. One was radio collared by the National Park Service panther capture team in the Gum Slough area on March 5, 1989. Tracks of another small male were found in Raccoon Point. This cat at Raccoon Point was discovered late in the capture season and was not using the area in January or February. He may have been passing through or he more probably uses the area on a limited basis. I found sign which indicates he was in the area on 2 different occasions.

There are large areas of Big Cypress that we were unable to cover and others that were not covered thoroughly due to tracking conditions, lack of roads, time, etc. These areas include the acquisition lands, the north part of Deep Lake Unit, and south of Alligator Alley (Mullet Slough).

Deep Lake Unit - As the area has only recently been closed to off road vehicle traffic, there remain a number of good buggy trails. I spent 6 - 8 days hunting in the area and found nothing to indicate a resident lion or lions. However, adjacent to this unit on 2 sides, the Fakahatchee Strand and Bear Island Unit, a known lion population exists. It is feasible and probable that occasionally a lion from one of these units ventures into the area. The possibility of lions using the area more in the future is likely due to limited people use which will result in an increase of game and solitude. The area seems to have everything favorable to lion use as far as habitat.

Turner River Unit - I spent approximately 8 - 12 days hunting off Turner River Road. I found no indication of panther use. The area just off the Alley to the south is better habitat than further south in that unit. This area has very heavy human impact and, as a result, very little game. Because of accessibility, buggy trails are frequent and tracking conditions are good.

North of Oasis - I spent 4 - 5 days hunting north of Oasis up to Cal Stone's camp. This is a very large area, therefore, we were able to only cover it lightly. However tracking conditions were favorable. I am convinced no lion population exists even though occasionally a lion may wander through the area. It has a heavy human use with an excess of buggy trails. There are some hogs in the area but overall limited game.

Acquisition lands - I was only able to go to the area twice due to problems with access and turkey season. The area has potential because it has a history of panther use and due north across the Alley a population of lions currently exists. Game in the area is not abundant but better than most of Big Cypress.

Loop Unit - Although a small area in terms of number of acres, it has the highest concentration of game of any area I surveyed. I believe this is directly related to access, that is, no off road vehicles are allowed in this unit. I spent 4 - 5 days in the area and found no panther sign. However, just south of Loop Road I discovered tracks of the panther that was caught in Gum Slough. Tracks in several places indicate that the panther has used Loop Unit. Inside the Loop, tracking conditions were poor due to lack of roads. The area seems to have good habitat and enough game to support several cats.

Mullet Slough (south of Alley) - I spent 4 - 5 days surveying roads south from the Alley. In some cases roads just went in one half mile or less. I found no panther sign but habitat seemed good and game numbers were sparse. This area looked good because there seemed to be very little human use. However, tracking conditions were such that it would be difficult to determine if there were or were not panthers there without spending a lot of time hunting it.

Raccoon Point / Jetport - I spent 15 - 17 days hunting in Raccoon Point and the Jetport. In the months of January and February I found no sign of any cats. Tuesday, March 21, I discovered tracks of a small male panther. On March 22, I found his tracks in 2 different places. These tracks were made on different occasions.

The Raccoon Point area has a history of panther use but, at the present time, I believe the population of cats that once existed there is gone. The male track that I found is probably from a cat that has an adjacent home range where there may be other cats or, it is from a cat that was just wandering through. Raccoon Point has a number of camps and fairly heavy human use. Tracking conditions were excellent with a moderate number of deer and hogs.

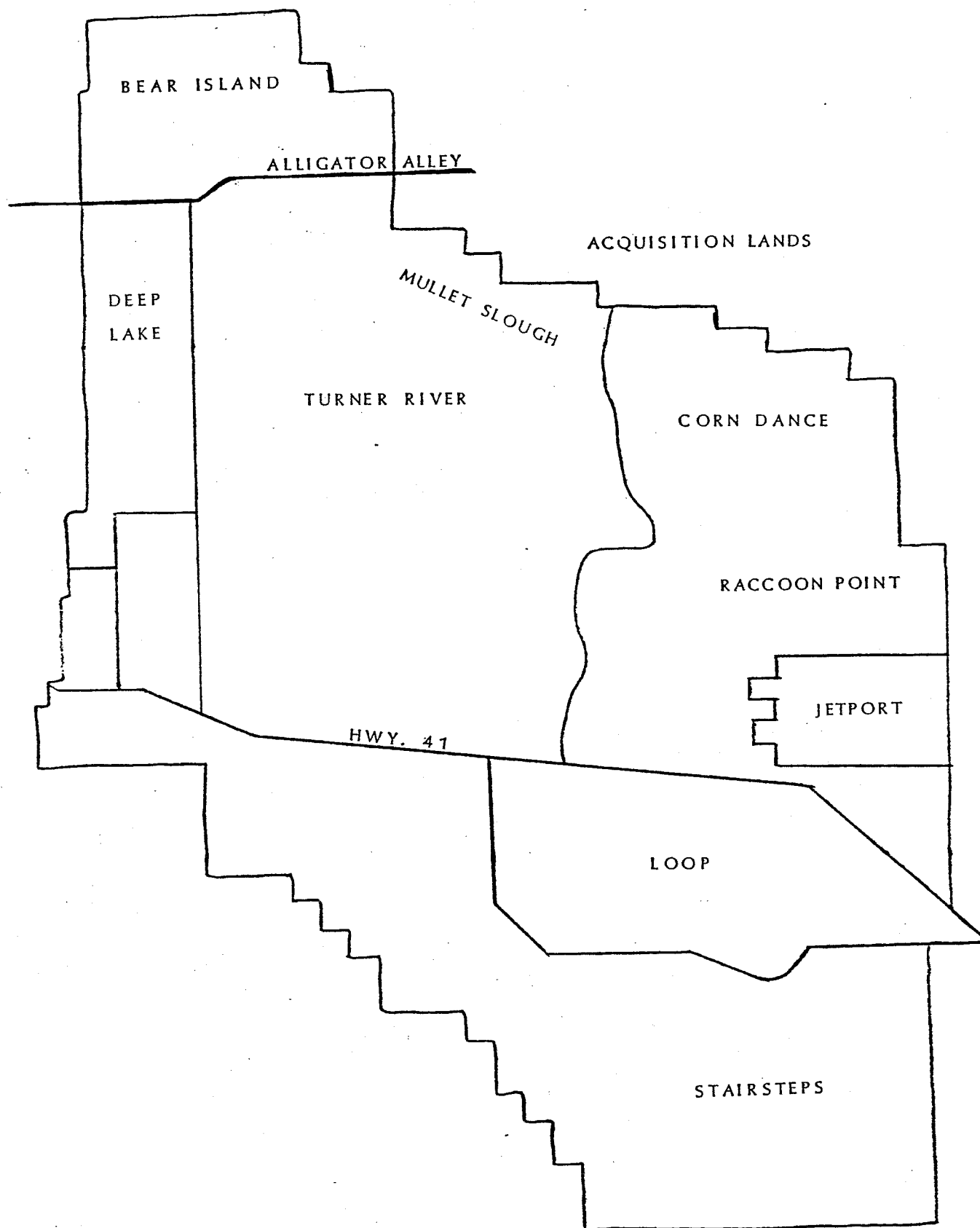


Fig. 1. Panther survey areas during the 1989 NPS capture season.

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
BIG CYPRESS NATIONAL PRESERVE

DATE: NOVEMBER 27, 1989

TO: Deborah Jansen, Wildlife Biologist

FROM: Dennis Teague, Biological Technician

SUBJECT: Information on events that occurred November 23, 1989
during location and recovery process of Panther #33

On November 23, 1989 the scheduled panther surveillance flight left Oasis Ranger Station at 0919 hours. The plane was a cessna 172 named 92E and on board were Aircraft Pilot Todd Authur and myself. We proceeded in a NNW direction in route to the area north of the Preserve where Panther #33 was last located.

After crossing Highway (Hwy) 84, I began scanning for signals from panthers that sometimes utilize this area. Panther #33 had been located daily for approximately the last week in the area north of the Hendry County Correctional Institution and east of Hwy 858. At 0944 hours when approaching this area, I received a mortality signal from panther #33's radio frequency. We began boxing in this area and immediately observed the panther lying in a grassy dry seasonal pond (0946 hrs.). Low level passes in the fixed wing confirmed the animal was panther #33. The panther had moved approximately 1/4 mile south from its November 22 location. There were no vultures near the death site. We then began circling the area to map the exact location of the death site and to determine ground access points and trails from Hwy 858. During this time we requested Oasis dispatch for a helicopter and the notification of proper authorities.

We returned to Oasis Ranger Station at 1026 hours. Arrangements had been made for Tommy Bowling to fly the Everglades National Park Helicopter to retrieve panther #33. Proper authorities including Deborah Jansen, Jim Synder, Sonny Bass, Dave Maehr, and Melody Roelke, were being notified. Ambassador Airways was notified that there was a possibility they would be needed to fly the panther to Gainesville. Dave Maehr of Florida Game and Fish Commission was notified and arrangements were made to pick him up by helicopter on Hwy 858 near the death site.

Preserve Ranger Greg Greco had prepared coolers, ice, a body bag, and additional flight gear for possible use in the recovery effort. Ranger Greco then trailered a Preserve swamp buggy and hauled it to Hwy 858 where he met Ranger Chip Davis and Dave Maehr.

The helicopter pilot called and requested that we have the Preserve helicopter fuel truck ready to refuel his air craft. I failed to start the fuel truck because of a dead battery and there was no measuring stick to check the amount of fuel in the tank. The truck took approximately 10 minutes to start after being connected to a running vehicle by jumper cables. Helicopter 909 landed at Oasis Ranger Station at 1130 hours. The fuel truck battery was so weak, that with the truck running, it would not operate the motor of the fuel pump. It required reconnecting an additional vehicle to the system to give enough power to operate the fuel pump. I was assisted by Peter Carlson in loading the helicopter with recovery equipment while the refueling operation was taking place.

At 1200 hours helicopter 909 left Oasis Ranger Station in route for the death site. On board were helicopter pilot Tommy Bowling and myself. We proceeded in a NNW direction towards hwy 858 where we met Dave Maehr and Darrell Land of Florida Game and Fish Commission and Preserve Rangers Greco and Davis. At 1229 hours the helicopter took Dave Maehr, Darrell Land and myself to the site. The second trip brought Rangers Greco and Davis.

From the air the death site looked much like a kill site. There was a 8-10' circular plot of matted down grass with the animal somewhat centered in the middle. By this time vultures had found the carcass and were beginning to feed on it.

The helicopter landed to the south of the site and we went to investigate the site. The grassy pond had no standing water but soils were wet. There was some hog sign in the area. The cat was lying on its right side with its head pointing SSW. Its front paws were together with grass pulled between them. The body showed no external signs of injury other than some damage done by vultures to the left eye, mouth, and rectum. The animal's condition seemed to have been healthy and the body size was much larger than when captured March 5, 1989. Bloat was not noticeable and the smell was not strong. Rigor mortis had begun but limbs could be repositioned. The body seemed to have more ticks than would be normal. The collar tightness was not great enough to have adversely effected the animal.

The first ferry to leave took the animal back to Hwy 858 where it was iced down in a body bag. The second ferry brought the remaining personnel back to their vehicles. From here we returned the animal by helicopter to Oasis Ranger Station where we arrived at 1332 hours.

The decision had been made by Veterinarian Roelke to fly the animal to Gainesville where she would pick it up and take it to the research lab for necropsy. The panther was placed in the large research cooler and iced down properly for transportation. The back seat was removed from the cockpit of Ambassadors plane to make room for the cooler. The drain plug cap of the cooler was missing and Ambassador pilot Todd Authur refused to allow the cooler in the aircraft until the plug was sealed. This was difficult to accomplish and finally the cooler was lined with heavy duty plastic which prevented leakage. The cooler was then positioned in the plane and we departed Oasis at 1446 hours.

We arrived in Gainesville at approximately 1730. Veterinarian Roelke arrived at approximately 1745. We left Gainesville at approximately 1800 and landed in Naples at approximately 2045.