

Annual Report on the Research and Management of Florida Panthers: 2010-2011



Florida Fish and Wildlife Conservation Commission

Revised 15 November 2011

FWC Contributors and Contact Information:

The compilation of this report was the result of the combined efforts of multiple FWC staff members currently working on the Florida Panther Project in order to meet the reporting requirements of the U.S. Fish and Wildlife Service pursuant to Endangered Species Collection Permit TE051553-4. Further analyses of these data will be conducted and results published in the scientific literature by the FWC and collaborators. Persons interested in obtaining the most current data should contact the FWC at:

Florida Fish and Wildlife Conservation Commission
298 Sabal Palm Road
Naples, Florida 34114 USA
(239) 417-6352

This report and previous annual reports can be downloaded as a pdf file at the following web address:

<http://www.floridapanthernet.org/index.php/reports/>

Citation:

Florida Fish and Wildlife Conservation Commission. 2011. Annual report on the research and management of Florida panthers: 2010-2011. Fish and Wildlife Research Institute & Division of Habitat and Species Conservation, Naples, Florida, USA.

Table of Contents

	<u>Page</u>
EXECUTIVE SUMMARY	1
INTRODUCTION	3
ACKNOWLEDGEMENTS	5
STUDY AREA	6
METHODS.....	6
MONITORING	6
CAPTURE	7
PHYSICAL EXAMINATION	7
LIVE-CAPTURE SAMPLE COLLECTION.....	8
VACCINATION AND TREATMENT	8
NEONATAL KITTENS.....	9
RADIOCOLLARING	9
NECROPSY	9
DIAGNOSTICS	10
RESULTS AND DISCUSSION	11
2010-2011 PANTHER CAPTURE SEASON.....	11
<i>Radiocollared Panthers</i>	11
<i>Capture Results</i>	11
<i>Biomedical Summaries of Florida Panthers Handled in 2010-2011</i>	12
CAPTIVE FLORIDA PANTHERS.....	13
REPRODUCTION	13
FLORIDA PANTHER MORTALITY	13
MANAGEMENT ACTIVITIES.....	14
<i>Human-panther conflicts</i>	14
<i>Land use, habitat impacts, and environmental commenting</i>	16
CURRENT RESEARCH.....	16
LITERATURE CITED	17
FWC PANTHER STAFF PUBLICATIONS AND PRESENTATIONS 2010-2011	19
FPRMTF: FUNDING INFORMATION AS OF 30 JUNE 2011	69
TABLES	
Table 1. Florida panther captures during the 2010-2011 Florida Fish and Wildlife Conservation Commission capture season (1 November 2010 – 25 February 2011).	20
Table 2. Neonate kittens handled at Florida panther dens by the Florida Fish and Wildlife Conservation Commission and the National Park Service from 1 July 2010 to 30 June 2011.	21
Table 3. Verified free-ranging Florida panther mortalities recorded between 1 July 2010 and 30 June 2011. Data collected by FWC and BCNP staff. Causes of death include hit-by-car (HBC), intraspecific aggression (ISA), natural (NAT), and unknown (UNK). The presence of atrial septal defects (ASD) and other biomedical and morphometric data are also noted. Ages are in years or months (mo). Some characteristics were not determined (nd) or not applicable (NA) to specific panthers.....	23
FIGURES	
Figure 1. Locations of all radiocollared Florida panthers in southern Florida from 1 July 2010 to 30 June 2011. Data collected by FWC and NPS.....	26
Figure 2. Depiction of the 100% minimum convex polygon home ranges for adult female Florida panthers monitored by FWC from 1 July 2010 to 30 June 2011.	27
Figure 3. Depiction of the 100% minimum convex polygon home ranges for adult male Florida panthers monitored by FWC from 1 July 2010 to 30 June 2011.....	28

Figure 4. Percentage of 46 field days devoted to specific study areas during the 2010-2011 Florida Fish and Wildlife Conservation Commission Florida panther capture season. Study area acronyms are defined in the text. 29

Figure 5. Confirmed human-panther interactions from Fiscal Year 2003-04 through 2010-11. Definitions of conflict categories can be found in the Appendix C of the USFWS Environmental Assessment for the “Interagency Florida Panther Response Plan”. 29

APPENDICES

Appendix I. List of radiocollared Florida panthers and Texas pumas in southern Florida from 10 February 1981 to 30 June 2011. Data includes panthers captured by FWC and BCNP staff. 30

Appendix II. List of Florida panther kittens handled at natal dens in southern Florida by FWC and BCNP staff from 7 April 1992 through 30 June 2011. Litters are sorted chronologically. 40

Appendix III. List of all known dens of radiocollared female Florida panthers and Texas pumas in southern Florida from June 1985 to June 2011. Kitten numbers preceded with “K” indicate natal den was visited. Samples are ordered by female ID and secondarily by year. Data collected by FWC and BCNP. 53

Appendix IV. Florida panther and Texas puma mortalities and injuries sorted by year through 30 June 2011. Data collected by FWC and BCNP. Ages are estimated unless panthers were handled as kittens at natal dens. Age values are in years unless noted otherwise. 59

Executive Summary

This report, prepared by the Florida Fish and Wildlife Conservation Commission (FWC), highlights information collected on the Florida panther (*Puma concolor coryi*) during the last fiscal year (1 July 2010 through 30 June 2011). In some cases, data (e.g., diagnostic or genetic test results) are presented from samples collected in prior fiscal years due to lag times involved with processing samples. Historic data are included as appendices. Panther research and management is a cooperative effort, and we acknowledge the involvement of other agencies, particularly Big Cypress National Preserve (BCNP) and Everglades National Park (EVER) of the National Park Service (NPS). BCNP and EVER have located radiocollared panthers by plane within their respective park boundaries and resulting data have been incorporated into a telemetry database and are used with permission in this report. No panthers were equipped with functioning radiocollars during the reporting period in EVER. However, population status within the Park was monitored by trail cameras during the fiscal year. Beginning in 2003, BCNP was permitted by the U. S. Fish and Wildlife Service (USFWS) and FWC to conduct panther capture activities. These activities have been occurring within BCNP boundaries south of I-75. BCNP assembled their own capture team and have captured previously uncollared panthers, replaced radiocollars due to expected battery failure, marked neonatal kittens at den sites, and recovered carcasses. While some data (e.g., biomedical, demographic) of panthers handled by BCNP are contained herein for completeness of datasets, more specific information may be found in the BCNP annual report compiled by BCNP staff.

During 46 field days, FWC staff captured 9 Florida panthers. These included 7 previously uncollared and 2 previously radiocollared panthers.

Telemetry data were collected on 36 radiocollared Florida panthers in southern Florida during the reporting period by FWC and BCNP staff. Thirteen panther dens were sampled by FWC and BCNP staff during the study period resulting in the documentation of 35 (21♂, 14♀) neonate kittens. Kittens from one den were not handled but two kittens of unknown sex, approximately 4-months-old, were later observed traveling with their mother during a routine telemetry flight. Kittens handled at their natal dens

were permanently marked with subcutaneous transponder chips and tissue samples were collected for genetic analyses. A total of 193 panthers have been radiocollared since 1981 and 341 neonate kittens have been handled at dens since 1992. Twenty-seven free-ranging panther deaths were documented during the reporting period including: 8 (4♂, 4♀) radiocollared panthers, 12 (8♂, 4♀) uncollared panthers, 3 additional uncollared panthers whose deaths are under investigation by FWC and USFWS Law Enforcement, and 4 neonate kittens that were killed during a wildfire. Causes of mortality included vehicular trauma (8♂, 4♀), intraspecific aggression (2♂, 4♀), undetermined (2♂) and wildfire (3♂, 1♀ neonates). One panther that died from a vehicular collision tested positive for feline leukemia virus. The skeletal remains of a female were recovered in March 2011 by BCNP staff but a definitive year of death could not be determined. Human-panther conflicts included 28 confirmed depredation events, 2 encounters, and 2 incidents.

Introduction

Florida panthers are endangered by a combination of small population size, isolation, and loss of habitat (Kautz et al. 2006; USFWS 2008a). Loss and fragmentation of wilderness and unregulated killing in the southeastern United States over the past two centuries have reduced panthers to the point where only 1 population exists on approximately 10,000 km² (2.5 million acres) of habitat in south Florida (Kautz et al. 2006). Small population size and geographic isolation increase the chance for extinction of Florida panthers due to demographic instability inherent in small numbers and erosion of genetic diversity from restricted gene flow and inbreeding. Genetic diversity is the basis for production of fit individuals as well as providing population plasticity in order to respond to changing environmental and habitat conditions (Frankham et al. 2002). The role of social and genetic factors has only recently been examined as modern techniques from field biology and molecular genetics have become available. A unique opportunity exists to implement conservation and management strategies for Florida panthers and evaluate results that will benefit panthers as well as other imperiled species.

Natural exchange of genetic material occurred historically among the Florida panther population in the southeastern United States and contiguous populations of *P. c. cougar* to the north, *P. c. hipplestes* to the northwest, and *P. c. stanleyana* to the west (Young and Goldman 1946). Genetic exchange between populations ceased as the Southeast was settled. Florida panthers steadily declined in abundance and distribution (Alvarez 1993), likely a result of persecution and reduced prey populations (but see Alvarez 1993, pp. 35-61, for competing theories on the decline of panthers). Gene flow is reliant upon individuals that immigrate and breed, but habitat fragmentation generally disrupts dispersal. Dispersal and immigration serve as a natural mechanism for mixing the gene pool and help minimize inbreeding within populations. Elevated levels of inbreeding can result in inbreeding depression, which can have varied implications on populations including: loss of genetic variation, declining health, reduced survivability, decreased fecundity, and an increased risk of extinction (Frankham et al. 2002, Crnokrak and Roff 1999, Laikre et al. 1996). The additive effects of these interrelated factors, perceived

as an inward spiral or vortex (Gilpin and Soule 1986), have become a cornerstone of conservation biology.

Various threats to populations are known to result from the loss of genetic variation (Lacy 1997, Lande 1988). The loss of genetic diversity, especially in small and isolated populations with low fecundity (e.g., panthers), is theorized to have the ability to result in extinctions via several intertwined pathways (e.g., the loss of evolutionary potential, epidemiological correlates with diversity in the major histocompatibility complex; Frankham et al. 2002). The complex interplay of social, demographic, genetic, and health factors dictated that a timely and aggressive program be implemented to address the multitude of problems faced by the remaining 20-30 Florida panthers that persisted into the early 1990s (McBride et al. 2008; Onorato et al. 2010). A plan for genetic introgression and management of the Florida panther was developed in September 1994 (Seal 1994; Johnson et al. 2010) and implemented in 1995 with the release of 8 female Texas puma initially captured by Roy McBride. Five of the 8 Texas pumas produced litters with resident male panthers and a minimum of 20 F₁ kittens were born in Florida (Land et al. 2004; Johnson et al. 2010). None of the original Texas females remain in the wild today.

Assessment of the genetic introgression project has shown that this management program had a positive impact on the Florida panther population. Genetic variation has doubled, survival and fitness measures have improved, and correlates of inbreeding have declined significantly (Johnson et al. 2010; Hostetler et al. 2010). Subsequent to genetic introgression, the panther population has increased in size from the 20-30 individuals that remained in the early 1990s (McBride et al. 2008). Using a combination of density estimates and available habitat in south Florida, the FWC has quantified the current adult panther population size to be within the range of 100-160 individuals ([FWC Statement on Estimating Panther Population Size](#)). Knowledge gained from the genetic introgression project will undoubtedly have ramifications on the implementation of future management strategies for panthers and potentially far reaching implications to varied conservation projects worldwide.

FWC's current panther research and management priorities include, but are not limited to: an assessment of panther predation rates using GPS locations; delineating statistically robust methods to

estimate the panther population size; collection of movement data via GPS technology; travel patterns of panthers along the urban-wildland interface; evaluating the utility of new GPS collar technology; a collaborative project with the University of Florida to develop a population viability model for panthers; minimizing loss of existing panther habitat; addressing human-caused mortality factors; securing additional habitat in the panther dispersal zone; and reducing human-panther conflicts.

Our overall research goal is to complement historical data sets with ongoing, objective driven research to provide the information necessary to manage and conserve panthers. The melding of information on demographics, genetics, biomedical, and land management challenges should ultimately assist in the development of effective management plans to promote the long-term survival and recovery of the panther in Florida.

Acknowledgements



FWC's panther research and management activities are funded almost entirely by the Florida Panther Research and Management Trust Fund (FPRMTF). This trust fund is supported principally by the sale of [Florida panther license plates](#). The FWC panther research and management group would like to thank the citizens of Florida that continue to support our efforts to conserve and manage panthers via contributions to this fund. Specifics concerning the current financial status of the FPRMTF can be found at the end of this annual report.

We would like to acknowledge the following individuals and agencies for their assistance provided to this project: Roy McBride, Cougar McBride (Livestock Protection Company); Drs. Ray Ball, Emmett Blankenship, and Erin Myers for veterinary assistance; our collaborators at the National Cancer Institute in Frederick Maryland; Caitlin Curtis and Dominique Rossetti. We would also like to extend our

appreciation to the staffs at BCNP, Big Cypress Seminole Indian Reservation (BCSIR), Collier Seminole State Park (CSSP), Corkscrew Regional Ecosystem Watershed (CREW), Corkscrew Swamp Sanctuary (CSS), EVER, Florida Panther National Wildlife Refuge (FPNWR), Fakahatchee Strand Preserve State Park (FSPSP), Lee County Port Authority (LCPA), Picayune Strand State Forest (PSSF), and Okaloacoochee Slough State Forest (OSSF) for their continued cooperation and support of our research and management efforts. Finally, we thank Drs. Scott Terrell and Ken Conley (Disney's Animal Kingdom) for assistance with panther necropsies, Dr. Michael Warren (CA Pound Laboratory) for the forensic examination of UCFP157, and Dr. Phillip Kaufman (University of Florida) for identification of ticks removed from Florida panthers.

Study Area

The study area encompassed most of interior southern Florida south of Orlando and extending to southern EVER. The area includes large blocks of low-lying public lands such as CREW, EVER, BCNP, FSPSP, PSSF, and the FPNWR. Significant private lands, primarily used for cattle and crop production, lie on higher terrain to the north of public lands and constitute some of the most important habitat for Florida panthers. The overall study area was divided into 3 agency monitoring areas (AMA) for purposes of conducting aerial relocations and capture/recovery efforts. The FWC AMA was statewide excluding BCNP south of I-75 and EVER. The BCNP AMA encompassed the area within the BCNP boundary south of I-75. The EVER AMA encompassed the area within the EVER boundary.

Methods

Monitoring

FWC staff was responsible for capturing and fitting panthers with radiocollars, handling neonates at dens, recovering carcasses from the field and roadside within the FWC and EVER AMA, and obtaining aerial relocations (i.e., pinpointing panthers fitted with radio-transmitters from aircraft) three times per week within the FWC AMA. BCNP staff was responsible for these same activities within the BCNP

AMA. The EVER AMA is currently being monitored for the presence of panthers via trail cameras deployed by Roy McBride (Livestock Protection Company, Alpine, Texas) at varied locations throughout the Park. Responsibility of conducting aerial relocations was coordinated between agencies for those panthers whose home ranges overlap AMAs.

Capture

Free-ranging Florida panthers were captured using trained hounds and houndsmen provided by Livestock Protection Company. Panthers were either treed or bayed on the ground and were then darted with a 3 ml compressed-air dart fired from a CO₂-powered rifle. Panthers were immobilized with a combination of ketamine HCl (10 mg/kg; Congaree Veterinary Pharmacy, Cayce, South Carolina) and xylazine HCl (1 mg/kg; Congaree Veterinary Pharmacy). Following immobilization, treed panthers were lowered to the ground by a rope or caught with a net; in some cases, a portable cushion (McCown, 1990) was used to further mitigate the impact of a fall. Propofol (PropoFlo™, Abbott Laboratories, Abbott Park, Illinois) was administered intravenously (IV) either as a bolus or continuous drip to maintain anesthesia. Midazolam HCl (0.03 mg/kg) was administered intramuscularly (IM) or IV to supplement anesthesia in some panthers. Panthers were left to recover in a shaded area away from water. In some cases, xylazine HCl was reversed with yohimbine HCl (Yobine®, Lloyd Inc., Shenandoah, Iowa) at ¼ its recommended dose.

Physical Examination

Vital signs (temperature, heart rate, respiration rate, and capillary refill time) and depth of anesthesia were monitored and recorded. A sterile petrolatum ophthalmic ointment (Puralube®, Pharmaderm, Melville, New York) was applied to the eyes for lubrication. All animals underwent a physical examination to assess general health and physical condition. For each panther handled, the skin over the medial saphenous vein was shaved, prepped, and an IV catheter (AbboCath®-T, Abbott Ireland, Sligo, Republic of Ireland) aseptically placed. Sterile isotonic fluids were administered either subcutaneously (SQ) or IV.

Live-capture Sample Collection

Approximately 70-140 ml of blood (depending on body weight) were collected from the medial saphenous or cephalic veins using a butterfly catheter (19 or 21 ga), luer adapter/hub, and Vacutainer® tubes (approximately 50 ml in serum separator, 40 ml in EDTA, 9 ml in Na Heparin, and 9 ml in ACD tubes; Becton Dickinson, Franklin Lakes, New Jersey). From uncollared panthers, a 4 mm skin biopsy was aseptically collected from the external pinnae and saved in 95% ETOH. A triple antibiotic ointment was applied to each biopsy site. Defects were closed with surgical glue (Vetbond™, 3M Animal Care Products, St. Paul, Minnesota). Hair clipped from blood collection sites and ventral abdomen was saved in plastic whirl-pacs; plucked hair for DNA analyses was stored in paper coin envelopes. Other samples, such as bacterial cultures, skin scrapings, and diagnostic biopsies were taken if indicated. Blood smears were made in the field from fresh whole blood. Panthers were implanted with a SQ transponder identification chip (Trovan®, Douglas, United Kingdom), ear-tattooed, measured, and weighed.

Vaccination and Treatment

Depending on vaccine history and titers at previous capture, panthers >6 months old were vaccinated SQ against feline viral rhinotracheitis (FVR), feline calicivirus (FCV), feline panleukopenia (FPV) (Fel-O-Vax® PCT [FDAH], 1 ml, lower left leg), and rabies (Rabvac™ 3 [FDAH], 1 ml, lower right leg). Free-ranging panthers were also vaccinated against feline leukemia virus (FeLV, Fel-O-Vax® Lv-K [FDAH], 1ml SQ or Feline Leukemia Vaccine – Live Canarypox Vector (Merial [Athens, Georgia], 0.25 ml intradermal) in the lower left leg. Depending on body condition, captured panthers were dewormed with ivermectin (0.1 mg/kg, Ivomec®, Merial Limited, Iselin, New Jersey) and praziquantel (3.75 mg/kg, CestaJect™, Phoenix Pharmaceutical, Inc., St. Joseph, Missouri) administered SQ in the lateral aspect of right thigh. Penicillin G procaine/benzathine (USVet®, Hanford Pharmaceuticals, Syracuse, New York) was administered IM at 22,000 to 44,000 U/kg.

Neonatal Kittens

Neonatal kittens <6 weeks-of-age were handled according to Land et al. (1998) and marked with a SQ transponder identification chip. Pyrantel pamoate (0.1 mg/lb, Anthelban V; Phoenix Pharmaceutical, Inc., St. Joseph, Missouri) was administered orally and blood was collected from the jugular vein for CBC and serum chemistry if indicated. A 2 mm biopsy sample was collected from the distal end of each ear. A triple antibiotic ointment was applied to each biopsy collection site. Ear biopsy tissue samples were stored in 95% ETOH.

Radiocollaring

Captured adult and subadult panthers were fitted with a very-high-frequency (VHF, Advanced Telemetry Systems [ATS], Inc., Isanti, Minnesota) or VHF/GPS (Televilt [Followit], Lindesberg, Sweden; Lotek Wireless, New Market, Ontario, Canada; Telemetry Solutions, Concord, California) radiocollar and monitored three times weekly (M, W, F) from a Cessna 172 fixed-wing aircraft (aerial relocations). Locations collected by FWC were recorded in Universal Transverse Mercator coordinate system using customized software that incorporates positional information from digital orthophotographic quarterquads (geodetic referenced to North American Datum 83) loaded onto a Tablet PC linked to a hand-held GPS unit. Mating and denning behavior, aggressive encounters among panthers, movements and home range shifts, dispersal, survival, recruitment, displacements and replacements of individuals, and other social and ecological interactions were interpreted from radiotelemetry data, field investigations, genetics analyses, or a combination of these data sets.

Necropsy

All Florida panthers found dead due to infectious disease or unknown causes were completely necropsied by board-certified pathologists at the Veterinary Medical Teaching Hospital ([VMTH] University of Florida, College of Veterinary Medicine, Gainesville, Florida) or Disney's Animal Kingdom (Celebration, Florida). Three panthers were necropsied at the U.S. Fish and Wildlife Service

National Forensic Laboratory (Ashland, Oregon). Panthers dying of known traumatic events were necropsied by the FWC veterinarian at the Wildlife Research Laboratory (FWC, Gainesville, Florida).

When carcass condition allowed, tissues samples were collected at necropsy from all major organs. Fluids collected included heart blood, venous blood, thoracic blood, aqueous humor, and urine. Blood samples were centrifuged at 2000 rpm for 10 minutes and the supernatant decanted. Representative tissues from fresh (unfrozen) and some previously frozen panthers were placed in 10% neutral buffered formalin. Fixed tissues were embedded in paraffin, sectioned at 5 to 6 μm , and stained with hematoxylin and eosin. All tissues from live-captured and necropsied panthers not immediately analyzed were archived at -20° to -70°C .

Diagnostics

Whole blood in EDTA, serum, and diagnostic samples were shipped overnight to Antech Diagnostics (Farmingdale, New York) for a complete blood count (CBC), serum chemistry profile, and appropriate diagnostic procedures (culture, histopathology). Tissue biopsies for DNA analyses were stored at the FWC-Naples Field Office and eventually sent to the FWC Fish and Wildlife Research Institute Genetics Lab in St. Petersburg, Florida.

Reciprocal antibody titers and/or presence of antigen in serum were determined for feline leukemia virus (FeLV, ELISA antigen), feline immunodeficiency virus/puma lentivirus (FIV/PLV; Western Blot, Kinetics ELISA, and peptide ELISA), feline rhinotracheitis virus (FVR, serum neutralization [SN]), feline calicivirus (FCV, SN), canine distemper virus (CDV, SN), and feline panleukopenia virus (FPL, SN) at the New York State Diagnostic Laboratory (Cornell University, Ithaca, New York). FeLV antibody optical densities were determined by ELISA (Hansen Veterinary Immunology, Dixon, California). EDTA whole blood from panthers was tested for FeLV and FIV in the field using a rapid immunoassay (SNAP Combo, IDEXX Laboratories, Westbrook, Maine). Panthers were also tested for FeLV at necropsy using thoracic, venous, or heart blood. Necropsied panthers were tested for rabies by direct fluorescent antibody test at the Jacksonville Central Laboratory (Jacksonville,

Florida). Viral isolation and real-time and conventional PCR for canine distemper virus, pseudorabies virus, Flaviviruses, and Alphaviruses was performed at the Southeastern Cooperative Wildlife Disease Study (Athens, Georgia) on brain, heart, and other tissues collected from panthers dying of unknown causes.

Results and Discussion

2010-2011 Panther Capture Season

Radiocollared Panthers

Telemetry data were collected on 36 radiocollared Florida panthers in southern Florida during the reporting period by FWC and BCNP staff (Figure 1). FWC staff radiocollared four panthers (FP163, FP177, FP184, and FP186) with ATS brand VHF collars. Two additional panthers (FP188, FP193) were radiocollared with ATS VHF radiocollars equipped with GPS “pods” from Telemetry Solutions, which are self contained GPS units that mount directly to the VHF collar, to continue to test their functionality and durability. GPS radiocollars were deployed on three panthers including two Televilt GPS-GSM (FP185, FP189) and one Lotek GSM (FP183). The ATS VHF radiocollars of FP65 and FP119 failed after normal battery life expectancy. Both collars performed beyond the manufacturer’s life expectancy. Minimum convex polygon home ranges for panthers monitored by FWC during the current FY are depicted in Figures 2-3. A complete historical compilation of data associated with the 193 panthers radiocollared since 1981 can be found in Appendix I.

Capture Results

Efforts to capture and radiocollar panthers were targeted in three study areas: 1) JB Ranch and adjoining properties; 2) Corkscrew Regional Ecosystem Watershed (CREW), which for our purposes included Corkscrew Swamp Sanctuary (CSS), Lee County Port Authority mitigation property (LCPA), and Panther Island Mitigation Bank (PIMB) because of proximity and how the area is surveyed for capture work; and 3) Big Cypress National Preserve (BCNP) Addition Lands Unit (north of I-75). Florida panthers were targeted in these areas to continue demographic and epidemiological monitoring, to

assess movement patterns, delineate potential corridor use and road crossing zones, and to monitor panthers that utilize private ranchlands as part of their home range.

Capture efforts commenced on 1 November 2010 and continued through 25 February 2011. There were no capture efforts in December. Forty-six days were divided between the 3 study areas (Fig. 4). Nine Florida panthers were captured by FWC staff (Table 1). Seven previously uncollared panthers (FP183, FP184, FP185, FP186, FP188, FP189 and FP193) were added to the monitored population (“out-of sequence” panthers were captured by the BCNP panther capture team). Two panthers were recollared; FP177 for scheduled replacement and FP163 was recaptured after his previous collar had fallen off. Additionally, FP193 was radiocollared after the end of the scheduled capture season after becoming trapped within the wildlife fence along the Alligator Alley portion of I-75. This panther was released in the adjacent PSSF.

Because of the importance of long-term monitoring, an emphasis was placed on deploying VHF radiocollars during the 2010-2011 capture season. VHF collars were placed on 6 of 9 panthers captured. GPS pods from Telemetry Solutions, which are self contained GPS units that mount directly to the VHF collars, were attached to two panthers’ VHF collars (FP188 and FP193). An advantage of GPS pods is that contact with the collared panther will not be lost when the pod GPS battery is exhausted, allowing for future recovery of the unit and continued monitoring of the individual panther. Two different brands (Televilt, Lotek) of GPS-GSM (global system for mobile communications) radiocollars were deployed on three panthers in order to continue testing functionality and durability of these collars that transmit location data using cellular phone towers. These GPS collars are capable of providing timely data that will allow FWC to locate predation sites as part of research projects set to commence in the 2011-12 FY.

Biomedical Summaries of Florida Panthers Handled in 2010-2011

No significant capture-related injuries occurred this capture season. All panthers captured by FWC for radiocollaring were in fair to excellent condition. One road-killed panther tested positive for FeLV at necropsy and further assessment of the virus is pending. Atrial septal

defects were observed in 3 panthers, and heart examinations are pending for 4 panthers necropsied during the 2010-2011 fiscal year (FY).

Captive Florida Panthers

One neonatal kitten (K304) was taken into captivity this FY after his mother (FP102) was killed as a result of intraspecific aggression. K304 is at White Oak Conservation Center (Yulee, Florida) and is scheduled for release in the fall of 2011. Other panthers currently in captivity include: FP79 (15 year old male) at Homosassa Springs State Wildlife Park, K255 (4 year-old female) at the Lowry Park Zoo (Tampa, FL), and K180 and K181 (6.5 year-old female siblings) at the Jacksonville Zoo (Jacksonville, FL).

Reproduction

FWC and NPS staff handled 35 kittens (21 males and 14 females) from 11 females at 13 dens from 1 July 2010 to 30 June 2011 (Table 2). Mean litter size for these dens was 2.7 (SE = 0.26, $n = 13$, range = 1- 4). Kittens were not handled at the den of FP180. This den was never located, but a litter was confirmed via the sighting of two approximately 4 month old kittens during a routine aerial telemetry flight on 8 July 2011. A historical compilation of data collected by FWC and NPS on Florida panther kittens handled at dens (1992-2011) and known dens of radiocollared females (1985-2011) can be found in Appendix II and III, respectively.

Florida Panther Mortality

A total of 27 free-ranging panthers died during the reporting period including: 8 (4♂, 4♀) radiocollared panthers, 12 (8♂, 4♀) uncollared panthers, 3 additional uncollared panthers (UCFP155, UCFP158, UCFP159) whose deaths are under investigation by FWC and USFWS Law Enforcement, and 4 neonate kittens (K322, K323, K324, K325) that were killed during a wildfire (Table 3). Causes of mortality included vehicular trauma (8♂, 4♀), intraspecific aggression (2♂, 4♀), undetermined (2♂), wildfire (3♂, 1♀ neonates), and pending (3; results not yet available from the USFWS). The skeletal remains of female UCFP157 were recovered in March 2011 by BCNP staff but a definitive year of death

could not be determined. A historical compilation of all recorded panther mortalities can be found in Appendix IV.

Management Activities

The increase in the human and panther populations over the past 15 years has contributed to a rise in human-panther interactions in south Florida. Depending upon the individual's perspective and the nature of the event, these interactions can be perceived as either positive or negative. Some people are excited that we have a healthier, more resilient panther population because it means the panther's future is more secure than it was 15 years ago. Other people are concerned about potential panther encounters. Some ranchers and hobby livestock owners are experiencing livestock losses due to panther predation. The public's perception of panthers and support for its conservation varies widely and can be greatly influenced if they personally have experienced some type of interaction. Education and outreach remains a critical recovery action because conservation efforts will not be achieved without public support.

Human-panther conflicts

Human-panther interactions are handled following protocols established in the Interagency Florida Panther Response Plan (USFWS 2008b). Confirmed interactions, particularly depredation, are expected to increase as humans and associated development continue to encroach upon areas occupied by a stable or increasing population of panthers unless efforts are made to mitigate these interactions. Interactions documented during the past FY included depredations, encounters, and incidents (Figure 5). A **depredation** is classified as an event where domestic livestock or pets are preyed upon by a panther (USFWS 2008b). Twenty-eight of 38 depredation events reported between 1 July 2010 and 30 June 2011 were verified to have involved panthers. One depredation was determined to be caused by a bobcat (*Lynx rufus*), one involved a black bear (*Ursus americanus*), and the remaining eight events were unverified because they were not reported in a timely manner or there was a lack of evidence to make a definitive determination. An **encounter** is classified as an unexpected direct meeting between a human and a panther where the panther displays nonthreatening behavior (USFWS 2008b). Two interactions

qualified as encounters this FY. One encounter occurred when a panther approached within 20 feet of a guardhouse in a portion of PSSF where everglades restoration activities are in progress. The second encounter occurred when a panther that was chasing after a duck ran past an individual as he was outside feeding his chickens. An **incident** is similar to an encounter except in this case, the panther displays potentially threatening behavior (USFWS 2008b). Two incidents occurred in association with two separate livestock depredation events as landowners walked through their backyards to check on livestock. In each case, the panthers involved growled in defense of the livestock they had killed.

FWC has expanded efforts to provide technical assistance in response to the increasing number of human-panther interactions, particularly depredations. All of the verified depredation losses this past year occurred in Collier County and the majority occurred in Golden Gate Estates east of Naples. Golden Gate Estates encompasses approximately 150 square miles and borders the FPNWR, PSSF, and CREW, all public lands occupied by panthers. Lot sizes range typically from 1-5 acres and most lots still contain natural vegetation. Keeping livestock is permitted there under local zoning codes. During depredation investigations, FWC staff provides technical assistance and advice to affected residents on ways they can reduce the risk to pets and hobby livestock. We recommend that hobby animals and pets be either secured in barns or pens with roofs or kept indoors. FWC produced a brochure outlining these simple steps and also provides this information on-line at www.floridapanther.net.org.

In late 2010, FWC received reports of panthers killing calves on several commercial cattle ranches in Collier and Hendry counties. Three calf depredations were verified by FWC staff. Ranchers have reported that many more calves may have actually been killed by panthers. Husbandry techniques that are effective for backyard hobby livestock, such as securing livestock at night in a barn, are not practical for large scale ranches. Cattle ranches often encompass thousands of acres and can provide abundant prey and ample cover for panthers. Keeping these privately owned lands as active cattle ranches and managing those lands in ways that benefits wildlife (including panthers) is vital to the long term survival of the panther. In order to address landowner concerns, a small working group was created. This group consisted of ranch owners, the President of the Florida Cattlemen's Association, the

Department of Agriculture and Consumer Services, Defenders of Wildlife, the USFWS, and FWC. FWC has worked closely with these partners on this issue. The group explored the idea of creating a fund that would compensate cattle ranchers for losses of calves from panthers. In the spring of 2011, two research projects were developed and necessary funding was secured. The University of Florida's Institute of Food and Agriculture Sciences will direct a study to investigate survival of calves on two ranches on which panther use has been documented. The FWC will initiate a study of panther prey selection patterns on and adjacent to private ranch lands. Both studies will be initiated in FY 2011-12.

Land use, habitat impacts, and environmental commenting

Land use changes and development in or adjacent to panther habitat can have long term impacts on Florida panther recovery. FWC staff works cooperatively with state and federal partners to evaluate proposed developments, major road projects, and management plans for local, state, and federal public lands. These evaluations may include measures to avoid, minimize, or mitigate the effects of these projects on panthers.

Current Research

Assessment of the genetic introgression experiment was completed in September 2010 with the publication of results in the journal *Science* (see Johnson et al. 2010). The findings described in this article encompassed 15 years of data collected since the release of the female Texas pumas in 1995. Benefits accrued by the panther population associated with genetic introgression included increases in both the population size and levels of genetic variation. Furthermore, correlates of inbreeding that were prevalent in Florida panthers prior to 1995 — including kinked tails, cowlicks, cryptorchidism, and poor sperm quality— all decreased. An additional publication by Hostetler et al. (2010) provided insight into the beneficial impacts of genetic introgression on Florida panther kitten survival rates. In the fall of 2010, FWC began to process DNA from panther tissue samples in the FWC genetics laboratory located in St. Petersburg, Florida. FWC will continue to collaborate with colleagues at the National Cancer Institute in

Frederick, Maryland on various analytical questions related to panther genetics and epidemiological issues.

The FWC is currently involved in several collaborative projects focusing on issues related to Florida panther conservation and management. Among these are population viability analyses that include both matrix and individually based models, testing novel methods of estimating home ranges using GPS data, and a scientific review to establish trail camera survey designs to monitor panthers. As previously noted, the FWC is initiating a study in 2011 that will attempt to assess predation by Florida panthers on domestic livestock and wild prey associated with South Florida ranchlands. The FWC also plans to organize a small working group to help develop techniques to obtain statistically robust estimates of the panther population size, a task which is notoriously difficult for cryptic and endangered large carnivores. The FWC continues its protocol of monitoring for infection and vaccination of all panthers handled (the finding of FeLV in a juvenile male roadkilled panther during the reporting period is believed to be an inconsequential finding at this time). Lastly, we continue to assess movement rates, road crossing patterns, and distances traveled by panthers using data collected at rapid fix rates with GPS collars.

Literature Cited

- Alvarez, K. 1993. *Twilight of the panther*. Myakka River Publishing, Sarasota, Florida, USA.
- Crnokrak, P., and D. A. Roff. 1999. Inbreeding depression in the wild. *Heredity* 83:260-270.
- Frankham, R., J. D. Ballou, and D. A. Briscoe. 2002. *Introduction to conservation genetics*. Cambridge University Press, Cambridge, United Kingdom.
- Gilpin, M. E., and M. E. Soule. 1986. Minimum viable populations: processes of species extinction. Pages 19-34 *In Conservation biology: the science of scarcity and diversity*. Sinauer Associates, Sunderland, Massachusetts, USA.
- Hostetler, J. A., D. P. Onorato, J. D. Nichols, W. E. Johnson, M. E. Roelke, S. J. O'Brien, D. Jansen, and M. K. Oli. 2010. Genetic introgression and the survival of Florida panther kittens. *Biological Conservation* 143:2789-2796.
- Johnson, W. E., D. P. Onorato, M. E. Roelke, E. D. Land, M. Cunningham, R. C. Belden, R. McBride, D. Jansen, M. Lotz, D. Shindle, J. Howard, D. E. Wildt, L. M. Penfold, J. A. Hostetler, M. K. Oli, and S. J. O'Brien. 2010. Genetic Restoration of the Florida Panther. *Science* 329:1641-1645.
- Kautz, R., R. Kawula, T. Hctor, J. Comiskey, D. Jansen, D. Jennings, J. Kasbohm, F. Mazzotti, R. McBride, L. Richardson, and K. Root. 2006. How much is enough? Landscape-scale conservation for the Florida panther. *Biological Conservation* 130:118-133.

- Lacy, R. C. 1997. Importance of genetic variation to the viability of mammalian populations. *Journal of Mammalogy* 78:320-335.
- Laikre, L., R. Andrén, H. O. Larsson, and N. Ryman. 1996. Inbreeding depression in brown bears. *Biological Conservation* 76:69-72.
- Land, E. D., D. R. Garman, and G. A. Holt. 1998. Monitoring female Florida panthers via cellular telephone. *Wildlife Society Bulletin* 26:29-31.
- Land, E. D., D. Shindle, M. Cunningham, M. Lotz, and B. Ferree. 2004. Florida panther genetic restoration and management. Annual report 2003-2004. Florida Fish and Wildlife Conservation Commission.
- Lande, R. 1988. Genetics and demography in biological conservation. *Science* 241:1455-1460.
- McCown, J. W., D. S. Maehr, and J. Roboski. 1990. A portable cushion as a wildlife capture aid. *Wildlife Society Bulletin* 18:34-36.
- McBride R. T., R. T. McBride, R. M. McBride, and C. E. McBride. 2008. Counting pumas by categorizing physical evidence. *Southeastern Naturalist* 7:381-400.
- Onorato, D., C. Belden, M. Cunningham, D. Land, R. McBride, and M. Roelke. 2010. Long-term research on the Florida panther (*Puma concolor coryi*): historical findings and future obstacles to population persistence. Pages pp. 453-469 in D. Macdonald and A. Loveridge, editors. *Biology and conservation of wild felids*. Oxford University Press, Oxford, UK.
- Seal, U. S., ed. 1994. A plan for genetic restoration and management of the Florida panther (*Felis concolor coryi*). Report to the Florida Game and Freshwater Fish Commission. Conservation Breeding Specialist Group, Apple Valley, Minnesota, USA.
- USFWS. 2008a. Florida panther recovery plan (*Puma concolor coryi*), third revision. United States Fish and Wildlife Service. Atlanta, Georgia, USA.
- USFWS. 2008b. Environmental assessment for the "Interagency Florida Panther Response Plan". United States Fish and Wildlife Service, Naples, Florida, USA.
- Young, S. P., and E. A. Goldman. 1946. The puma: mysterious American cat. Part I. History, life habits, economic status, and control. The American Wildlife Institute, Washington D.C., USA.

FWC Panther Staff Publications and Presentations 2010-2011

- Hostetler, J. A., **D. P. Onorato**, J. D. Nichols, W. E. Johnson, M. E. Roelke, S. J. O'Brien, D. Jansen, and M. K. Oli. 2010. Genetic introgression and the survival of Florida panther kittens. *Biological Conservation* 143:2789-2796.
- Hostetler, J. A., **D. P. Onorato**, and M. K. Oli. 6 August 2010. Reproductive parameters of the endangered Florida panther: effects of genetic introgression. *Presented at the 95th Annual Meeting of the Ecological Society of America*, Pittsburgh, Pennsylvania, USA.
- Johnson, W. E., **D. P. Onorato**, M. E. Roelke, **E. D. Land**, **M. Cunningham**, R. C. Belden, **R. McBride**, D. Jansen, **M. Lotz**, D. Shindle, J. Howard, D. E. Wildt, L. M. Penfold, J. A. Hostetler, M. K. Oli, and S. J. O'Brien. 2010. Genetic restoration of the Florida panther. *Science* 329:1641-1645.
- Johnson, W. E., **D. P. Onorato**, M. E. Roelke, **E. D. Land**, and S. J. O'Brien. 2010. Genetic future of Florida panthers- response. *Science* 330:1744.
- Land, E. D.** 4 May 2011. Collateral impacts of increasing Florida panther numbers: dealing with unintended consequences. *Presented at the 10th Mountain Lion Workshop, Western Association of Fish and Wildlife Agencies*, Bozeman, Montana, USA.
- Leone, E. H. and **D. P. Onorato**. 4 October 2010. A modified Euclidean distance analysis for quantifying non-random habitat selection. *Presented at the 17th Annual Meeting of the Wildlife Society*, Snowbird, Utah, USA.
- Lotz, M.A.** 4 May 2011. Managing Florida panther depredations: implications for continued recovery. *Presented at the 10th Mountain Lion Workshop, Western Association of Fish and Wildlife Agencies*, Bozeman, Montana, USA.
- McBride, R. and C. McBride.** 2010. Florida panther flehmen response recorded at baited trail camera site. *Southeastern Naturalist* 9:629-631.
- McBride, R. and C. McBride.** 2010. Predation of a large alligator by a Florida panther. *Southeastern Naturalist* 9:854-856.
- McBride, R. and C. McBride.** 2011. Photographic evidence of Florida panthers claw-marking logs. *Southeastern Naturalist* 10:384-386.
- Oli, M. K., J. A. Hostetler, and **D. P. Onorato**. 27 June 2011. Reproductive parameters of the endangered Florida panther. *Presented at the 91st Annual Meeting of the American Society of Mammalogists*, Portland, Oregon, USA.
- Onorato, D. P.**, R. Desimone, C. White, and L. P. Waits. 2011. Genetic assessment of paternity and relatedness in a managed population of cougars. *Journal of Wildlife Management* 75:378-384.
- Onorato, D. P.**, **M. Criffield**, **M. Lotz**, **M. Cunningham**, **R. McBride**, E. H. Leone, O. L. Bass, and E. C. Hellgren. 2011. Habitat selection by critically endangered Florida panthers across the diel period: implications for land management and conservation. *Animal Conservation* 14:196-205.
- Onorato, D. P.** 10 November 2010. Florida panther conservation. *Presented at the 4th International Conference on the Conservation of the Iberian Lynx*, Cordoba, Spain.

* Authors in bold represent current FWC panther staff.

Table 1. Florida panther captures during the 2010-2011 Florida Fish and Wildlife Conservation Commission capture season (1 November 2010 – 25 February 2011).

Panther ID	Sex	Capture Date	Capture Location^a	Age (yrs)	Wt (lbs)	Collar type - brand, model	Comments
FP183	M	11/3/2010	FPNWR	4.5	130	GPS-Lotek GSM	Initial collaring.
FP184	F	11/8/2010	NBCNP (Add Lands)	4-5	76	VHF - ATS	Initial collaring.
FP163	M	11/10/2010	NBCNP (Add Lands)	3yr 8 mo	137	VHF - ATS	Recollar. Previous collar came off 2/23/08.
FP185	F	11/15/2010	JB Ranch	1.5-2	62	GPS – Televilt GSM	Initial collaring.
FP186	M	1/10/2011	CREW (Flint Pen Strand)	7 mo	48	VHF - ATS	Initial collaring. Died ISA 6/1/11 Bird Rookery Swamp.
FP188	F	2/8/2011	LCPA	3	70	VHF – ATS w/pod	Initial collaring. Dennded 5/26/11.
FP189	M	2/14/2011	JB Ranch	3	100	GPS – Televilt GSM	Initial collaring.
FP177	M	2/21/2011	NBCNP (Bear Island)	3-4	131	VHF - ATS	Recollar. Scheduled replacement.
FP193	M	3/7/2011	I-75 (Alligator Alley), MM 91	2-2.5	101	VHF – ATS w/pod	Initial collaring. Opportunistic capture, trapped within wildlife fencing on Alligator Alley portion of I-75.

^a CREW=Corkscrew Regional Ecosystem Watershed; FPNWR=Florida Panther National Wildlife Refuge; LCPA=Lee County Port Authority; NBCNP =Big Cypress National Preserve north of I-75;

Table 2. Neonate kittens handled at Florida panther dens by the Florida Fish and Wildlife Conservation Commission and the National Park Service from 1 July 2010 to 30 June 2011.

FP Dam	Kitten ID	Sex	Den location^a	Date handled	Estimated age in days	Actual weight (grams)
FP113	K307	F	Private- N of FPNWR	7/15/2010	5-7	850
FP113	K308	M	Private- N of FPNWR	7/15/2010	5-7	830
FP113	K309	F	Private- N of FPNWR	7/15/2010	5-7	990
FP175	K310	F	NBCNP-Bear Island	8/2/2010	18	1162
FP175	K311	F	NBCNP-Bear Island	8/2/2010	18	1361
FP110	K312	F	OSSF	8/4/2010	10-12	920
FP110	K313	F	OSSF	8/4/2010	10-12	840
FP110	K314	M	OSSF	8/4/2010	10-12	1280
FP148	K315	M	PSSF-Belle Meade	1/17/2011	12	740
FP148	K316	M	PSSF-Belle Meade	1/17/2011	12	740
FP178	K317	M	NBCNP-Bear Island	1/27/2011	12-14	1400
FP178	K318	M	NBCNP-Bear Island	1/27/2011	12-14	1400
FP175	K319	M	NBCNP-Bear Island	1/27/2011	21	1986
FP175	K320	F	NBCNP-Bear Island	1/27/2011	21	1703
FP113	K321	M	Private- N of FPNWR	3/9/2011	21	1550
FP180 ^b						
FP162	K322	F	SBCNP	4/15/2011	19	1390
FP162	K323	M	SBCNP	4/15/2011	19	1249
FP162	K324	M	SBCNP	4/15/2011	19	1476
FP162	K325	M	SBCNP	4/15/2011	19	1362
FP184	K326	M	NBCNP- Addlands	4/26/2011	12	1200
FP184	K327	M	NBCNP- Addlands	4/26/2011	12	1100
FP184	K328	F	NBCNP- Addlands	4/26/2011	12	1100
FP184	K329	M	NBCNP- Addlands	4/26/2011	12	1290
FP182	K330	M	SBCNP	4/29/2011	14	880
FP182	K331	M	SBCNP	4/29/2011	14	993
FP182	K332	F	SBCNP	4/29/2011	14	795
FP182	K333	M	SBCNP	4/29/2011	14	1173
FP188	K334	F	Private, Lee County	5/26/2011	18	1500
FP188	K335	M	Private, Lee County	5/26/2011	18	1600
FP188	K336	M	Private, Lee County	5/26/2011	18	1450
FP145	K337	M	SBCNP- Deep Lake	6/9/2011	12	821
FP145	K338	F	SBCNP- Deep Lake	6/9/2011	12	908
FP145	K339	F	SBCNP- Deep Lake	6/9/2011	12	936
FP151	K340	F	SBCNP- Turner River	6/10/2011	21	1617
FP151	K341	M	SBCNP- Turner River	6/10/2011	21	1731

^a FPNWR = Florida Panther National Wildlife Refuge; NBCNP = Big Cypress National Preserve north of Interstate 75; OSSF = Okaloacoochee Slough State Forest; PSSF = Picayune Strand State Forest/Wildlife Management Area; SBCNP = Big Cypress National Preserve South of Interstate 75.

^b Den of FP180 was not sampled. A visual was obtained of FP180 with two 4 month old kittens on 8 July 2011 during routine aerial telemetry monitoring. Telemetry data revealed that the kittens were estimated to have been born on 14 March 2011.

Table 3. Verified free-ranging Florida panther mortalities recorded between 1 July 2010 and 30 June 2011. Data collected by FWC and BCNP staff. Causes of death include hit-by-car (HBC), intraspecific aggression (ISA), natural (NAT), and unknown (UNK). The presence of atrial septal defects (ASD) and other biomedical and morphometric data are also noted. Ages are in years or months (mo). Some characteristics were not determined (nd) or not applicable (NA) to specific panthers.

Panther ID	Sex	Date deceased	Cause	Location ^a	Age ^b (yr)	Weight (lbs.)	Kinked tail	Cowlick	ASD	Splenic cleft	Testes	Rabies FA ^c	Significant necropsy results ^d
UCFP146	F	8/4/2010	HBC	SR 29, Collier Co.	3-4	80	No	No	No	Yes	NA	N	HBC 8/3/10, died from injuries 8/4/10. Necropsied at DAK. Pregnant - 3 fetuses.
UCFP147	F	10/1/2010	HBC	US41, Collier Co.	3	80	No	No	No	No	NA	N	Nematodes in stomach, submitted for identification.
FP168	F	10/12/2010	ISA	CREW-Flint Pen Strand, Lee Co.	8	68.5	Yes	No	Yes	Yes	NA	nt	6x8mm ASD. Multiple cranial fractures.
FP102	F	10/23/2010	ISA	SBCNP, Collier Co.	12.5*	80 (est)	Yes	No	No	Unk	NA	nt	Partially scavenged, decomposed. Punctures into cranium with multiple bone fragments present.
FP176	M	11/17/2010	HBC	Keri Road, Hendry Co.	4-5	136.7	Yes	No	Yes	Yes	2	nt	4x7mm ASD. Small lingual papillomas present.
UCFP148	M	12/12/2010	HBC	US 27, Hendry Co.	2	111.6	No	No	No	Yes	2	N	No significant findings at necropsy.
UCFP149	M	12/13/2010	HBC	GG Blvd, Collier Co.	1.5	91.1	Yes	No	No	Yes	2	nt	FeLV positive on SNAP test. No evidence of clinical disease present.
UCFP150	M	12/19/2010	HBC	CR846, Hendry Co.	8-9 mo	61.5	Yes	No	No	Yes	2	nt	Adult teeth erupting.
FP173	M	12/22/2010	UNK	LCPA Mitigation Land, Lee Co.	5	127	No	No	No	Yes	2	nt	Cause of death due to aspiration of stomach contents. Necropsy findings included hemorrhage in stomach wall, mild erosions in esophagus, cortical hemorrhage in both adrenals; however, definitive cause for panther's condition could not be determined. Incidental findings included pronounced lingual papillomas.
UCFP151	F	12/22/2010	ISA	Private property, Collier Co.	10-18 mo	45	No	No	No	Yes	NA	nt	Cervical vertebrae dislocated, extensive SQ and muscular hemorrhage around neck.

Panther ID	Sex	Date deceased	Cause	Location ^a	Age ^b (yr)	Weight (lbs.)	Kinked tail	Cowlick	ASD	Splenic cleft	Testes	Rabies FA ^c	Significant necropsy results ^d
FP141	M	1/3/2011	UNK	BCSIR, Hendry Co.	8.5	145	No	No	No	Yes	2	N	No visible external injuries. Red discharge from oral cavity. Stomach empty. Feral hog hair and small bones found in colon. Pseudorabies virus suspected but PCR and culture were unsuccessful.
K284	M	1/6/2011	HBC	SR29, Hendry Co.	1.5*	99.2	Yes	Yes	No	Yes	2	nt	No significant findings at necropsy.
UCFP152	F	1/13/2011	HBC	MM98 on I75, Collier Co.	3	75 (est)	No	No	No	No	NA	nt	Severely mutilated, eviscerated.
UCFP153	M	1/21/2011	HBC	MM98 on I75, Collier Co.	8-10 mo	45.7	Yes	No	No	Yes	1	u	Right testicle retained in inguinal canal
UCFP154	M	1/20/2011	ISA	Orange grove North of Sears Rd, Hendry Co.	8 mo	59.2 (est)	No	No	No	Yes	nd	nt	Cervical vertebrae fractured with extensive hemorrhage and SQ bruising in soft tissue of neck. Testes scavenged.
UCFP155	†	2/22/2011	Under Investigation	Golden Gate Estates, Collier Co.	†	†	†	†	†	†	†	†	Necropsied at DAK. Remains shipped to USFWS for evidence.
UCFP156	M	2/26/2011	HBC	I-75 near MM114, Collier Co.	3-4	106	Yes	No	No	Yes	2	nt	May have injuries from recent ISA. Further evaluation pending
FP170	F	2/28/2011	ISA	PSSF, Swan Lake Prairie, Collier Co.	4.5	Unk	No	Yes	Unk	Unk	NA	nt	C2 and C3 dorsal process broken, left transverse process broken. Multiple lacerations and punctures on head, neck, and chest. Organs completely scavenged.
UCFP157	Unk	Unk	UNK	SBCNP, Collier Co.	>3	Unk	Unk	Unk	Unk	Unk	Unk	nt	Skeletal remains only. Submitted to University of Florida, C.A. Pound Laboratory for investigation
UCFP158	†	3/12/2011	Under Investigation	Seminole Co.	†	†	†	†	†	†	†	†	Necropsied by USFWS, Ashland, OR.
UCFP159	†	†	Under Investigation	†	†	†	†	†	†	†	†	†	Necropsied by USFWS, Ashland, OR.
FP83	F	3/25/2011	HBC	US41, Collier Co.	11.8*	86.6	No	No	No	Yes	NA	u	Appeared to have ruptured follicles on ovaries.
UCFP160	M	4/30/2011	HBC	US41, Collier Co.	1.5-2	86	No	Yes	No	Yes	1	N	Sublingual papillomas present. Left testicle retained in inguinal canal.

Panther ID	Sex	Date deceased	Cause	Location ^a	Age ^b (yr)	Weight (lbs.)	Kinked tail	Cowlick	ASD	Splenic cleft	Testes	Rabies FA ^c	Significant necropsy results ^d
K322	F	5/2/2011	Wildfire	SBCNP, Collier Co.	5 wk*	3.8	No	No	Pending	Yes	NA	nt	Severely burned in wildfire.
K323	M	5/2/2011	Wildfire	SBCNP, Collier Co.	5 wk*	3.4	No	No	Pending	Yes	NA	nt	Severely burned in wildfire.
K324	M	5/2/2011	Wildfire	SBCNP, Collier Co.	5 wk*	3.1	No	No	Pending	Yes	NA	nt	Severely burned in wildfire.
K325	M	5/2/2011	Wildfire	SBCNP, Collier Co.	5 wk*	3.3	No	No	Pending	Yes	NA	nt	Severely burned in wildfire.
FP186	M	5/30/2011	ISA	Bird Rookery Swamp, Collier Co.	11.5 mo	Unk	Yes	Yes	Yes	Unk	2	u	6.5 x 7.5 mm ASD. Double kink in tail. Punctured cranium and fractured orbital rim. Abdominal organs missing/scavenged.

^a BCSIR = Big Cypress Seminole Indian Reservation; CREW=Corkscrew Regional Ecosystem Watershed; LCPA=Lee County Port Authority; PSSF = Picayune Strand State Forest/Wildlife Management Area; SBCNP = Big Cypress National Preserve South of Interstate 75.

^b Ages of panthers followed by * were of known age due to initial handling and marking at the natal den.

^c FA= Direct Fluorescent antibody test; u = tested but tissue condition was unsatisfactory for definitive diagnosis, nt = not tested, N = negative.

^d DAK=Disney's Animal Kingdom; USFWS=United States Fish and Wildlife Service

† = Information withheld, under investigation.

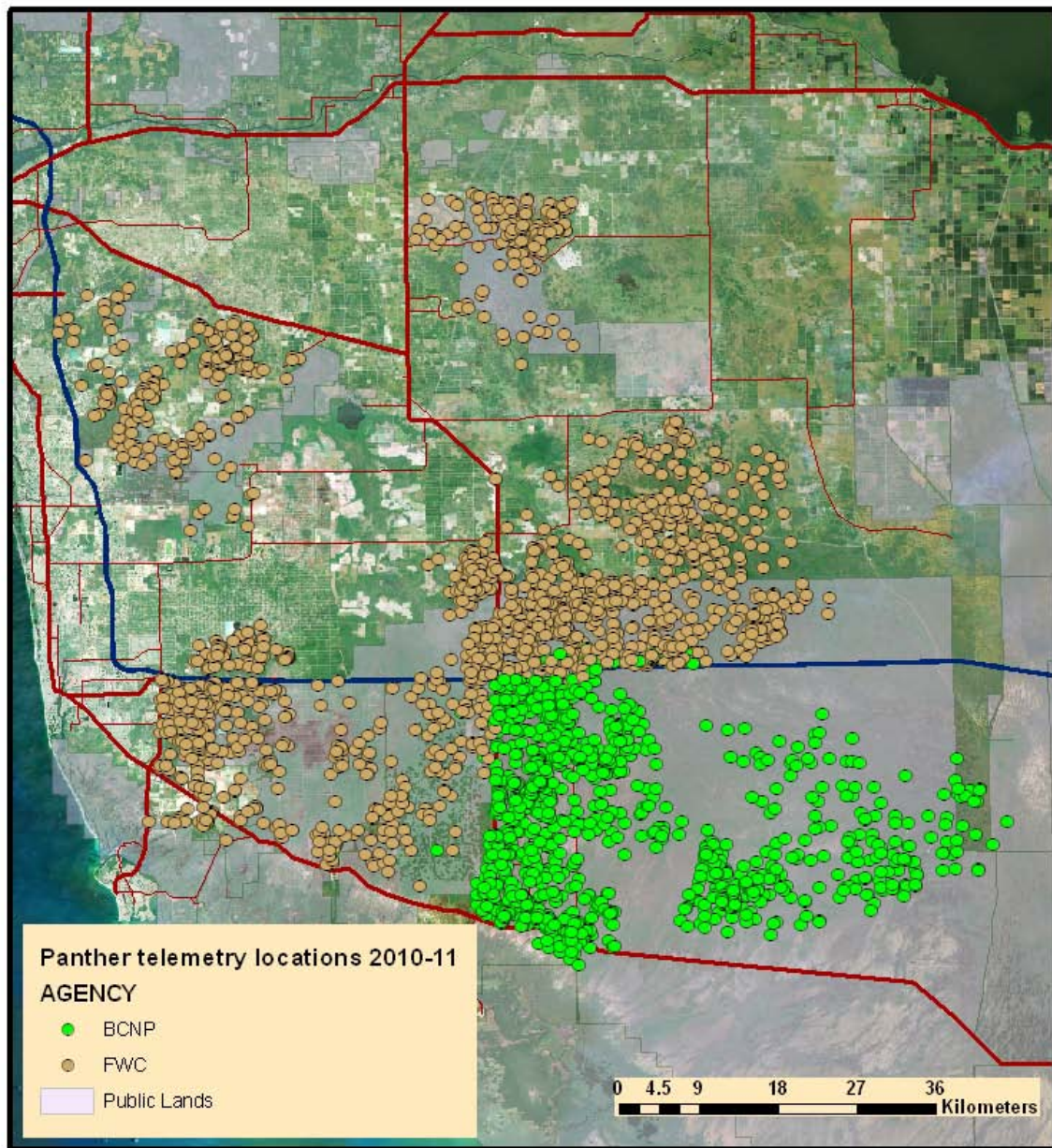


Figure 1. Locations of all radiocollared Florida panthers in southern Florida from 1 July 2010 to 30 June 2011. Data collected by FWC and NPS.

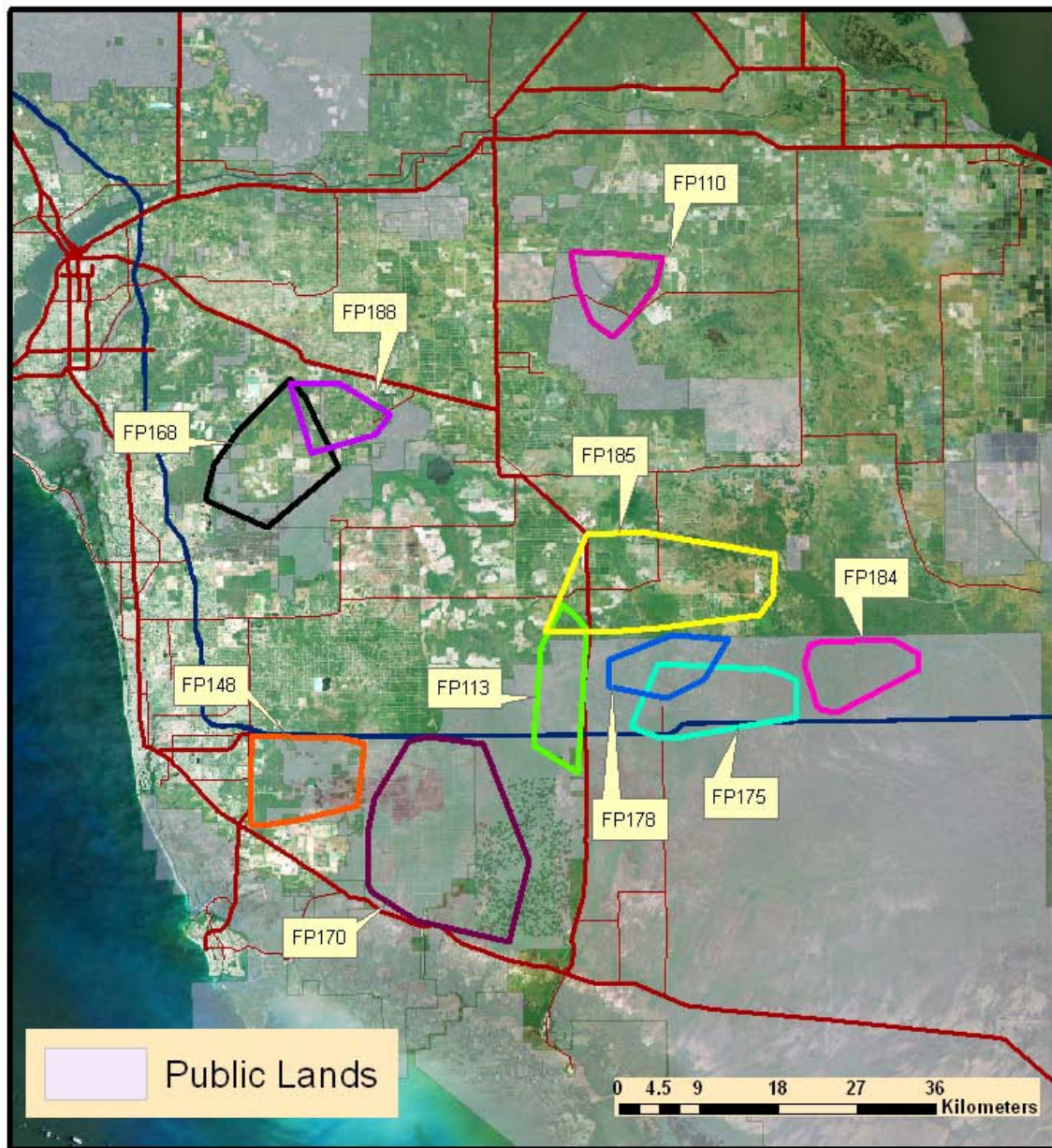


Figure 2. Depiction of the 100% minimum convex polygon home ranges for adult female Florida panthers monitored by FWC from 1 July 2010 to 30 June 2011.

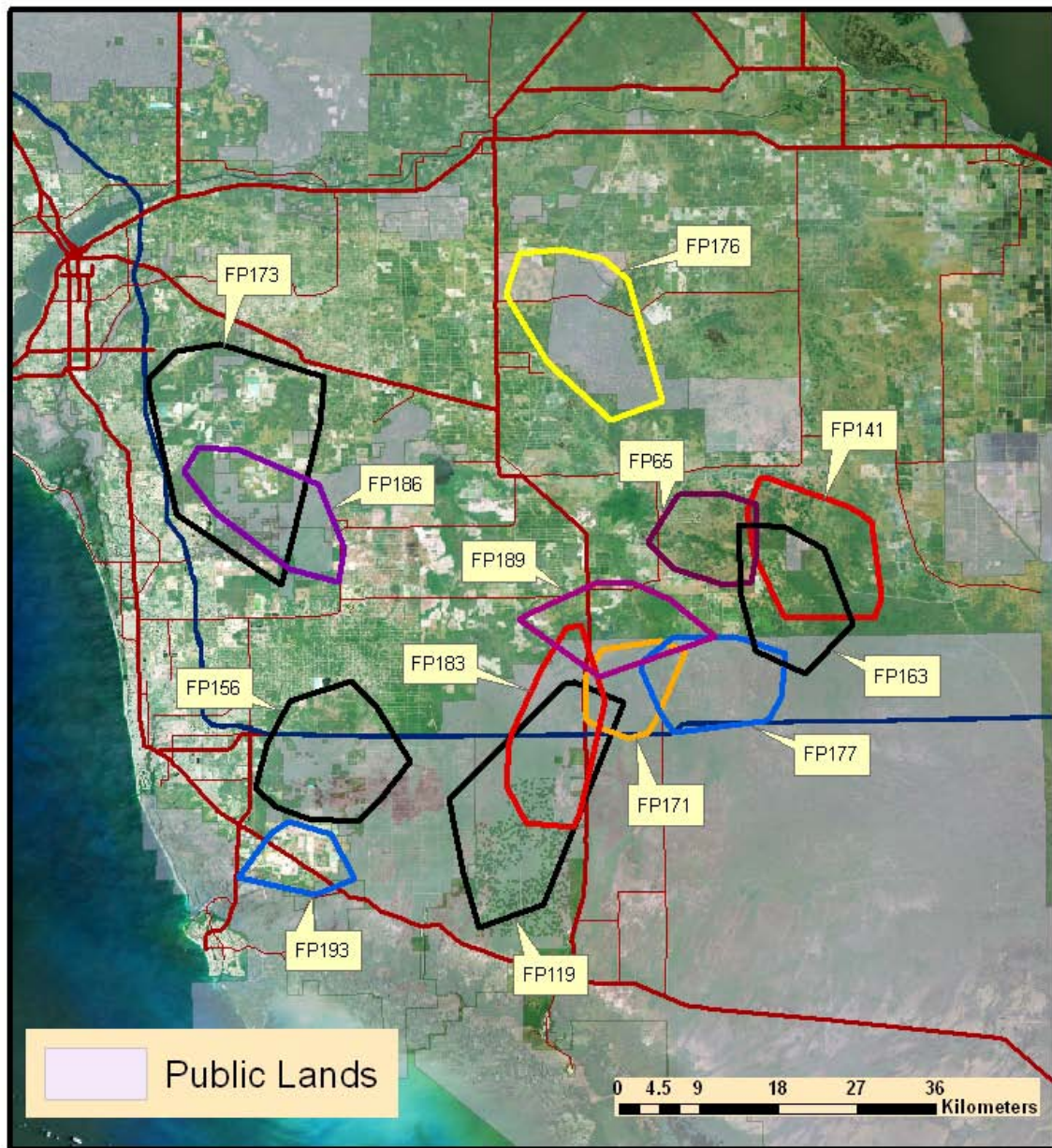


Figure 3. Depiction of the 100% minimum convex polygon home ranges for adult male Florida panthers monitored by FWC from 1 July 2010 to 30 June 2011.

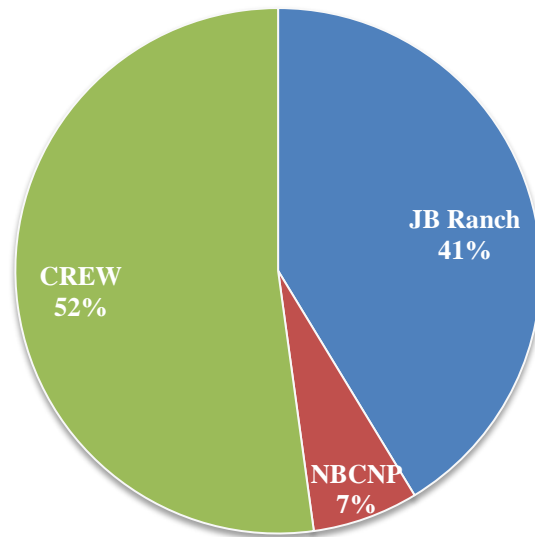


Figure 4. Percentage of 46 field days devoted to specific study areas during the 2010-2011 Florida Fish and Wildlife Conservation Commission Florida panther capture season. Study area acronyms are defined in the text.

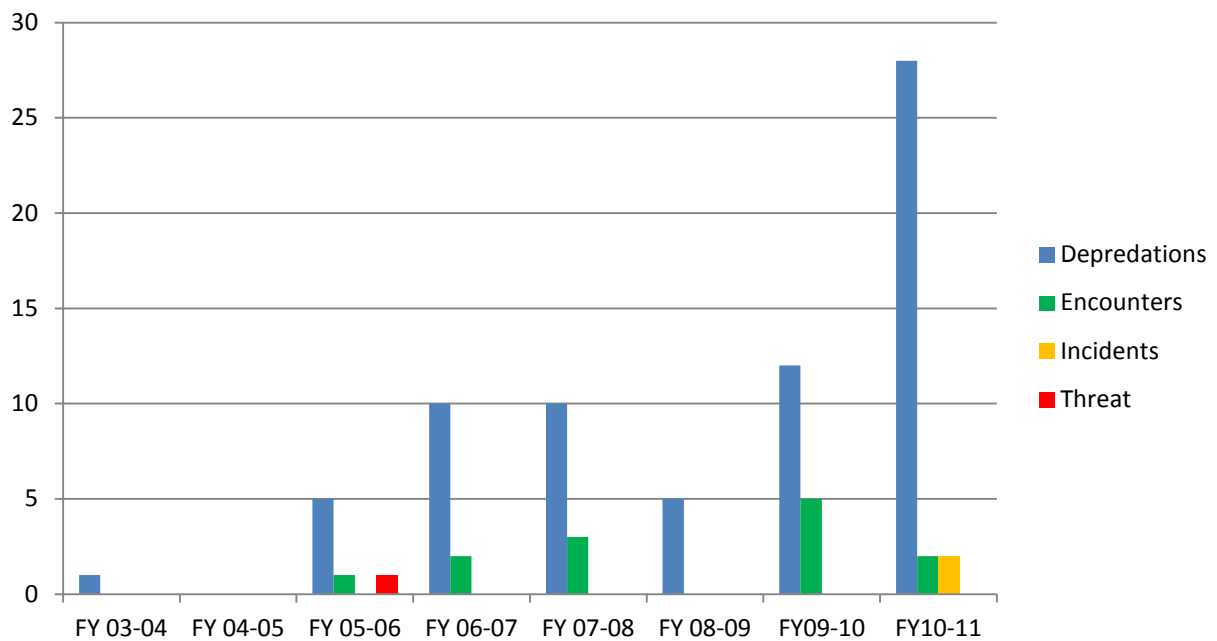


Figure 5. Confirmed human-panther interactions from Fiscal Year 2003-04 through 2010-11. Definitions of conflict categories can be found in the Appendix C of the USFWS Environmental Assessment for the [“Interagency Florida Panther Response Plan”](#).

Appendix I. List of radiocollared Florida panthers and Texas pumas in southern Florida from 10 February 1981 to 30 June 2011. Data includes panthers captured by FWC and BCNP staff.

Panther ID ^a	Sex	Capture date	Estimated age at first capture	Birth date	Dam	Purported sire	Use area ^b	Death date	Cause of death ^c
FP01	M	10 Feb 1981	10	-	-	-	FSPSP	14 Dec 1983	Vehicle (SR 84 mm 18)
FP02	M	20 Feb 1981	10	-	-	-	FSPSP	27 Nov 1984	Intraspecific aggression
FP03	F	23 Jan 1982	9	-	-	-	FSPSP	17 Jan 1983	Capture
FP04	M	27 Jan 1982	7-8	-	-	-	FSPSP	18 Apr 1985	Vehicle (SR 84 mm17)
FP05	F	23 Feb 1982	7-8	-	-	-	FPNWR	23 Nov 1982	Unknown
FP06	M	27 Feb 1982	6-8	-	-	-	SBCNP	16 Apr 1982	Unknown
FP07	M	02 Mar 1982	6-7	-	-	-	SBCNP, FSPSP	26 Oct 1985	Vehicle (SR 29 C. prison)
FP08	F	25 Mar 1984	9-10	-	-	-	FSPSP	20 Aug 1988	Liver failure, old age
FP09	F	26 Jan 1985	3-4	-	-	-	FSPSP	♦	-
FP10	M	15 Jan 1986	5 mo.	Aug 1985	FP09	-	GG Estates, FSPSP	27 Jan 1987	Intraspecific aggression
FP11	F	21 Jan 1986	4-5	-	-	-	NBCNP, Private (Price's)	25 Feb 2001	Intraspecific aggression
FP12	M	28 Jan 1986	5	-	-	-	NBCNP, FPNWR, FSPSP	8 Nov 1994	Intraspecific aggression
FP13	M	27 Feb 1986	4-5	-	-	-	NBCNP, Private (Alico)	14 Dec 1987	Vehicle (SR 29 Sunniland)
FP14	F	07 Dec 1986	5-6	-	-	-	EVER	21 Jun 1991	Unknown
FP15	F	13 Dec 1986	5-6	-	-	-	EVER	10 Jun 1988	Intraspecific aggression
FP16	M	12 Jan 1987	12-14 mo.	-	FP14	-	EVER, SBCNP	3 Jan 2000	Unknown
FP17	M	20 Jan 1987	6-7	-	-	-	SBCNP, NBCNP	20 Jul 1990	Unknown
FP18	F	22 Jan 1987	7-8	-	-	-	Private (Gum Swamp, Scofields), BCSIR	1 Oct 1990	Intraspecific aggression
FP19	F	09 Feb 1987	9 mo.	May 1986	FP11	FP12	NBCNP, Private (Prices), FPNWR	2 Dec 1997	Aortic aneurysm
FP20	M	10 Mar 1987	3-4	-	-	-	Private (Alico), NBCNP	24 Aug 1988	Heart defect

Panther ID^a	Sex	Capture date	Estimated age at first capture	Birth date	Dam	Purported sire	Use area^b	Death date	Cause of death^c
FP21	F	16 Mar 1987	12-14 mo.	-	FP14	-	EVER, White Oak	26 Dec 1997	Vehicle/Captivity/Old age
FP22	F	18 Mar 1987	5-6 mo.	-	FP15	-	EVER	20 Jul 1991	Infection
FP23	F	18 Mar 1987	5-6 mo.	-	FP15	-	EVER, SBCNP	25-26 Nov 2000	Unknown
FP24	M	30 Jan 1988	3-4	-	-	-	Highlands Co.	22 Aug 1988	Unknown
FP25	M	16 Feb 1988	4-5	-	-	-	FPNWR	26 Aug 1988	Intraspecific aggression
FP26	M	01 Mar 1988	5-6	-	-	-	BCSIR, NBCNP	8 Jul 1994	Intraspecific aggression
FP27	F	11 Apr 1988	2-3	-	-	-	EVER	23 Jul 1989	Unknown
FP28	M	29 Nov 1988	1.5	-	-	-	Private (Ft. Myers, Lake Hicpochee, Gum Swamp), NBCNP	25 Sep 1992	Intraspecific aggression
FP29	M	03 Jan 1989	6.5 mo.	May 1988	FP11	FP20	NBCNP, Private (Gum Swamp)	27 May 1992	Pseudorabies
FP30	M	06 Jan 1989	9 mo.	Mar 1988	FP19	FP13	NBCNP, Private (Prices), FPNWR, FSPSP	29 Jan 1990	Intraspecific aggression
FP31	F	12 Jan 1989	7-9	-	-	-	FPNWR	3 Mar 1994	Vehicle (SR 29 Sunniland)
FP32	F	03 Feb 1989	2-2.5	-	-	-	FPNWR	12 Sep 2002	Unknown
FP33	M	05 Mar 1989	1.5-2	-	-	-	SBCNP (Loop Rd.), Private (Gum Swamp)	23 Nov 1989	Rabies
FP34	M	08 Jan 1990	10 mo.	Mar 1989	FP31	FP12	FPNWR, BCSIR, Private (Gum Swamp)	15 Nov 1993	Esophageal puncture
FP35	M	15 Jan 1990	10 mo.	Mar 1989	FP31	FP12	Private (Regency Farms)	24 Jan 1990	Bacterial infection from capture
FP36	F	27 Jan 1990	4-5	-	-	-	NBCNP	10 Oct 1998	Unknown natural causes
FP37	M	30 Jan 1990	3-4	-	-	-	FSPSP, FPNWR, NBCNP	26 Nov 1990	Vehicle (SR 29 Miles City)
FP38	F	08 Feb 1990	4.5	-	-	-	SBCNP, EWMA	4 Aug 1994	Pleuritis in chest
FP39	M	19 Feb 1990	3-4	-	-	-	EVER	18 May 1990	Pyothorax
FP40	F	26 Feb 1990	1.5-2	-	-	-	NBCNP	1 Feb 1998	Intraspecific aggression
FP41	F	28 Feb 1990	1.5-2	-	-	-	NBCNP, BCSIR	22 Sep 1990	Intraspecific aggression
FP42	M	06 Mar 1990	11 mo.	May 1989	FP14	FP16	EVER, SBCNP	22 Jun 1995	Unknown
FP43	M	01 May 1990	9.5 mo.	Jul 1989	FP19	FP12	FPNWR, NBCNP	31 Oct 1991	Intraspecific aggression

Panther ID^a	Sex	Capture date	Estimated age at first capture	Birth date	Dam	Purported sire	Use area^b	Death date	Cause of death^c
FP44	M	30 Apr 1991	6 mo.	Nov 1990	FP40	FP26	NBCNP, Naples, EVER, SBCNP	6 Jul 1993	Intraspecific aggression
FP45	M	08 May 1991	6 mo.	Nov 1990	FP19	FP12	FPNWR, NBCNP, BCSIR	2 Aug 1998	Intraspecific aggression
FP46	M	30 Jan 1992	2-2.5	-	-	-	NBCNP, Private (Gum Swamp), OSSF	3 Feb 1999	Intraspecific aggression
FP47	M	21 Feb 1992	6 mo.	Jul 1991	FP11	FP12	NBCNP, Belle Meade, FSPSP	19 Feb 1993	Intraspecific aggression
FP48	F	24 Feb 1992	4 mo.	Oct 1991	FP31	FP12	NBCNP	23 Oct 2006	Unknown
FP49	F	25 Feb 1992	2	-	-	-	NBCNP	3 Jan 2002	Intraspecific aggression
FP50	M	04 Mar 1992	8 mo.	May 1991	FP36	FP26	NBCNP, Private (Alico, Devils Garden)	6 Dec 1993	Vehicle (CR 846 5 mi E of Immokalee)
FP51	M	26 Mar 1992	3	-	-	-	FSPSP, FPNWR	17 Jul 1998	Vehicle (SR 29)
FP52	F	05 May 1992	6 mo.	Oct 1991	FP31	FP12	FPNWR, Private (Sadie Cypress)	14 Jan 1995	Vehicle (CR 846 & Dupree Rd)
FP53	M	10 Feb 1993	10 mo.	Apr 1992	FP19	FP12	FPNWR	26 Feb 1993	Intraspecific aggression
FP54	M	10 Feb 1993	10 mo.	Mar 1992	FP40	-	FSPSP, FPNWR	♦	-
FP55	F	25 Jan 1994	1.1 yrs.	Dec 1992	FP23	FP42	SBCNP	12 July 2004	Intraspecific aggression
FP56	F	03 Feb 1994	2-3	-	-	-	NBCNP	♦	-
FP57	F	31 Jan 1995	3	-	-	-	FPNWR, FSPSP	♦	-
FP58	M	08 Feb 1995	8 mo.	Apr 1994	FP56	-	NBCNP, FPNWR, FSPSP	30 Mar 1997	Intraspecific aggression
FP59	M	04 Jan 1996	6 mo.	Jun 1995	FP48	-	NBCNP, FPNWR, FSPSP	22 Nov 2004	Intraspecific aggression
FP60	M	06 Mar 1996	5 mo.	Oct 1995	FP40	-	NBCNP, FSPSP, FPNWR, SBCNP	14 Dec 2008	Euthanasia (Removed from wild 6/29/2004)
TX101	F	05 Apr 1995	-	-	-	-	BCSIR	29 Mar 2000	Unknown
TX102	F	05 Apr 1995	-	-	-	-	E. Hendry County	22 Sep 1995	Vehicle (CR833 5 mi. N BCSIR)
TX103	F	04 May 1995	-	-	-	-	SBCNP	19 Aug 1999	Metabolic complications from pregnancy
TX104	F	24 Mar 1995	-	-	-	-	FSPSP, Belle Meade	18 Apr 1998	Gunshot
TX105	F	05 Jul 1995	-	-	-	-	EVER	-	Removed from wild 1/27/2003
TX106	F	09 Apr 1995	-	-	-	-	PSSF, FPNWR, FSPSP	-	Removed from wild 1/8/2003

Panther ID^a	Sex	Capture date	Estimated age at first capture	Birth date	Dam	Purported sire	Use area^b	Death date	Cause of death^c
TX107	F	04 May 1995	-	-	-	-	SBCNP	18 Jan 2001	Pneumonia
TX108	F	26 Jul 1995	-	-	-	-	EVER	-	Removed from wild 11/18/2002
FP61	F	04 Mar 1997	8 mo.	Jul 1996	TX108	FP16	EVER	♦	-
FP62	M	18 Mar 1997	6.5 mo.	Sep 1996	FP48	-	Catfish Creek, Polk Co.	♦	-
FP63	M	13 Apr 1997	2	-	-	-	BCSIR, NBCNP, Private Lands	15 Jan 2000	Vehicle / Drowning
FP64	M	24 May 1997	8 mo.	Sep 1996	FP48	-	CREW (Corkscrew Marsh)	26 Mar 1999	Intraspecific aggression
FP65	M	19 Nov 1997	11 mo.	Dec 1996	TX101	FP45	OSSF, Private (Collier Enterprise)	♦	-
FP66	F	09 Dec 1997	1	Dec 1996	TX101	FP45	Belle Meade, FPNWR, Private Lands	♦	-
FP67	F	19 Jan 1998	8 mo.	Jun 1997	FP56	FP45	BCSIR, Private Lands	15 Jan 2003	Intraspecific aggression (FP65)
FP68	M	23 Jan 1998	4.5	-	-	-	NBCNP	1 Mar 2000	Unknown (possible ISA)
FP69	F	05 Feb 1998	9 mo.	May 1997	FP40	FP45	NBCNP	12 Sep 2005	Unknown
FP70	F	25 Feb 1998	10 mo.	May 1997	TX107	-	SBCNP	14 Jan 2006	Vehicle
FP71	F	05 Mar 1998	10 mo.	May 1997	TX107	-	SBCNP	♦	-
FP72	M	24 Apr 1998	2.5	-	-	-	BCSIR	23 Dec 1998	Intraspecific aggression
FP73	F	12 Nov 1998	3	Sep 1995	TX101	-	BCSIR	27 June 2003	Unknown
FP74	M	12 Nov 1998	1.5	-	FP73	-	Fisheating Creek, Glades and Highlands Co.	8 Sep 1999	Vehicle (SR 27 north of Palmdale)
FP75	F	11 Jan 1999	7 mo.	Jun 1998	FP48	FP68	NBCNP	♦	-
FP76	M	13 Jan 1999	22 mo.	-	-	-	FPNWR, SBCNP	13 Nov 1999	Intraspecific aggression (FP54)
FP77	F	22 Jan 1999	1.5-2	-	-	-	NBCNP, BCSIR	12 July 2003	Unknown
FP78	F	16 Feb 1999	2.0	-	-	-	FPNWR	17 Oct 2002	Intraspecific aggression
FP79	M	03 Mar 1999	3.5	Sep 1995	TX101	-	SBCNP	-	Removed from wild 2/21/2006
FP80	F	14 Jan 2000	4.0	-	-	-	BCSIR	10 Feb 2000	Vehicle (BCSIR)
FP81	M	14 Jan 2000	4.0	-	-	-	BCSIR, Hendry Co. Private Lands	♦	-

Panther ID^a	Sex	Capture date	Estimated age at first capture	Birth date	Dam	Purported sire	Use area^b	Death date	Cause of death^c
FP82	F	25 Jan 2000	3.0	-	-	-	OSSF	9 May 2003	Unknown (possible ISA)
FP83	F	08 Feb 2000	8 mo.	Jun 1999	TX106	FP54	FSPSP	3/25/2011	Vehicle (US41)
FP84	M	11 Feb 2000	1.0	-	FP73	-	Dispersed from BCSIR to Fisheating Creek	20 Apr 2000	Unknown
FP85	M	17 Feb 2000	10-11 mo.	Mar 1999	FP61	FP16	EVER	1 Mar 2004	Unknown
FP86	F	21 Feb 2000	8 mo.	Jun 1999	FP71	FP79	SBCNP	7 Nov 2003	Spinal trauma
FP87	F	28 Feb 2000	10 mo.	Apr 1999	FP55	FP79	SBCNP	19 Jun 2003	Intraspecific aggression
FP88	F	02 Mar 2000	9 mo.	Jun 1999	FP70	FP79	SBCNP	♦	-
FP89	M	02 Mar 2000	2.5	-	-	-	SBCNP	9 Nov 2000	Intraspecific aggression
FP90	M	08 Mar 2000	9 mo.	Jun 1999	FP71	FP79	SBCNP	26 April 2001	Vehicle (US27 Terrytown)
FP91	F	17 Mar 2000	9 mo.	Jun 1999	FP70	FP79	SBCNP	12 Dec 2003	Intraspecific aggression
FP92	M	06 Apr 2000	10 mo.	Jun 1999	FP70	FP79	SBCNP, Belle Meade, CREW	Sep 2001	Unknown
FP93	F	10 Apr 2000	14 mo.	Feb 1999	TX107	FP79	SBCNP	♦	-
FP94	F	01 May 2000	10 mo.	Jul 1999	TX105	FP16	EVER	♦	-
FP95	F	07 Nov 2000	2.8 yrs.	Jan 1998	TX108	FP16	EVER	♦	-
FP96	M	07 Jan 2001	9 mo.	Apr 2000	FP78	FP59	FPNWR	17 Jan 2002	Intraspecific aggression
FP97	M	19 Jan 2001	11 mo.	-	FP105	-	FPNWR	2 Dec 2001	Intraspecific aggression
FP98	M	25 Jan 2001	3	-	-	-	NBCNP, Hendry Co. Private Lands	1 July 2002	Vehicle (SR29 N of Pistol Pond)
FP99	M	26 Jan 2001	11 mo.	-	FP105	-	FPNWR	28 Nov 2002	Vehicle (CR846 Collier fairgrounds)
FP100	M	31 Jan 2001	4	-	-	-	NBCNP, BCSIR	25 Jan 2007	Unknown
FP101	F	5 Feb 2001	2	-	-	-	NBCNP, BCSIR	♦	-
FP102	F	20 Feb 2001	3	Feb 1998	FP55	-	SBCNP	23 Oct 2010	Intraspecific aggression
FP103	F	13 Mar 2001	8 mo.	Aug 2000	FP102	-	SBCNP	8 Aug 2007	Intraspecific aggression
FP104	M	2 Apr 2001	6-7 mo.	-	FP70	FP79	SBCNP	9 Mar 2006	Unknown

Panther ID^a	Sex	Capture date	Estimated age at first capture	Birth date	Dam	Purported sire	Use area^b	Death date	Cause of death^c
FP105	F	12 Apr 2001	6	-	-	-	FPNWR	15 Jan 2002	Unknown
FP106	F	12 Apr 2001	13 mo.	-	FP105	-	FPNWR	20 Feb 2003	Vehicle (SR29 Sunniland)
FP107	F	01 Nov 2001	19 mo.	Apr 2000	FP78	FP59	FPNWR	4 Aug 2008	Unknown
FP108	M	03 Nov 2001	11 mo.	Jan 2001	FP87	FP79	SBCNP	16 Nov 2002	Intraspecific aggression
FP109	M	10 Feb 2002	10+	-	-	-	OSSF	~23 Feb 2003	Intraspecific aggression
FP110	F	13 Feb 2002	13 mo.	Dec 2000	FP82	FP65	OSSF	-	-
FP111	M	14 Feb 2002	10	-	-	-	OSSF	4 Sep 2002	Intraspecific aggression
FP112	F	25 Feb 2002	3-4	-	-	-	NBCNP	11 Sep 2002	Intraspecific aggression
FP113	F	23 Oct 2002	6 mo.	Apr 2002	FP78	FP59	FPNWR	-	-
FP114	M	23 Oct 2002	6 mo.	Apr 2002	FP78	FP59	FPNWR	17 Oct 2003	Intraspecific aggression
FP115	F	26 Nov 2002	4-5	-	-	-	OSSF	17 May 2003	Pneumonia (FeLV)
FP116	F	20 Jan 2003	7 mo.	Jun 2002	FP67	-	Hendry Co. Private Lands	10 Jan 2007	Intraspecific aggression
FP117	M	25 Feb 2003	11 mo.	-	-	-	BCSIR	28 Jul 2004	Pseudorabies
FP118	F	5 Mar 2003	11 mo.	-	-	-	BCSIR	3 Apr 2003	Unknown
FP119	M	2 Apr 2003	1	Apr 2002	FP93	FP79	FPNWR, FSPSP	♦	-
FP120	F	8 Apr 2003	3	-	-	-	SBCNP	7 May 2005	Vehicle (US 41 Turner River)
FP121	F	2 Dec 2003	2.5	-	-	-	BCSIR	♦	-
FP122	F	30 Jan 2004	2-2.5	-	-	-	OSSF	13 Feb 2004	Pneumonia (FeLV)
FP123	M	2 Feb 2004	3.5	-	-	-	OSSF	15 Mar 2004	Intraspecific aggression
FP124	F	13 Feb 2004	3-4	-	-	-	SBCNP	♦	-
FP125	M	13 Feb 2004	8 mo.	-	FP124	-	SBCNP, EVER	♦	Collar found, final fate unknown
FP126	M	13 Feb 2004	8 mo.	-	FP124	-	SBCNP, OSSF	1 Jan 2005	Intraspecific aggression
FP127	M	16 Feb 2004	2	-	-	-	SBCNP	14 Mar 2008	Intraspecific aggression

Panther ID^a	Sex	Capture date	Estimated age at first capture	Birth date	Dam	Purported sire	Use area^b	Death date	Cause of death^c
FP128	F	18 Feb 2004	3.7	Jun 2000	FP77	-	BCSIR, NBCNP	27 Sept 2007	Unknown
FP129	F	20 Feb 2004	3	Jan 2001	FP87	FP79	SBCNP	22 Mar 2006	Intraspecific aggression
FP130	M	4 Mar 2004	9.5 mo.	May 2003	FP110	-	OSSF, FEC, BWWMA	21 Mar 2007	Vehicle (I-4 Reedy Creek)
FP131	M	10 Mar 2004	5	-	-	-	FPNWR	16 Apr 2008	Pneumonia
FP132	M	17 Mar 2004	3	-	-	-	OSSF, DIRWMA	22 Jul 2004	Feline leukemia
FP133	M	18 Nov 2004	4.5	-	-	-	NBCNP, SBCNP	-	-
FP134	M	14 Dec 2004	2.5	-	-	-	NBCNP	29 Jan 2007	Intraspecific aggression
FP135	M	17 Dec 2004	1.7	Apr 2003	FP101	FP65	FPNWR, Private Lands	27 Oct 2006	Intraspecific aggression/Euthanized
FP136	F	13 Jan 2005	3.5	-	-	-	SBCNP	13 Jun 2005	Spinal fracture
FP137	M	25 Jan 2005	2.5	-	-	-	OSSF, Private Lands, DIRWMA, SWWMA	♦	-
FP138	M	31 Jan 2005	4	-	-	-	SBCNP, BCSIR, NBCNP	12 May 2008	Unknown
FP139	M	31 Mar 2005	2.9	May 2002	FP75	FP100	OSSF, Private Lands	♦	-
FP140	F	14 Nov 2005	3.5	-	-	-	FPNWR	7 Jun 2009	Intraspecific aggression
FP141	M	30 Nov 2005	3.5	-	-	-	BCSIR, NBCNP	3 Jan 2011	Unknown
FP142	F	14 Dec 2005	2.5	-	-	-	EVER	♦	-
FP143	M	9 Jan 2006	1.5	-	-	-	BCSIR, Private Lands	♦	-
FP144	M	8 Feb 2006	2	-	-	-	NBCNP	21 Jun 2010	Intraspecific aggression
FP145	F	16 Feb 2006	1.7	-	-	-	SBCNP	-	-
FP146	M	27 Feb 2006	3	-	-	-	PSSF	♦	-
FP147	M	3 Mar 2006	11 mos.	Mar 2005	FP129	-	SBCNP, FSPSP, PSSF, RBNER	♦	-
FP148	F	24 Mar 2006	2.5	-	-	-	PSSF	-	-
FP149	F	17 Jan 2007	2	-	-	-	PSSF	♦	-
FP150	F	8 Feb 2007	3.6	Jul 2003	FP93	FP60	SBCNP	♦	-

Panther ID^a	Sex	Capture date	Estimated age at first capture	Birth date	Dam	Purported sire	Use area^b	Death date	Cause of death^c
FP151	F	10 Feb 2007	4.9	Apr 2002	FP93	FP79	SBCNP	-	-
FP152	M	16 Feb 2007	4-5	-	-	-	SBCNP	22 Oct 2008	Intraspecific aggression
FP153	F	19 Feb 2007	6	-	-	-	SBCNP	♦	-
FP154	M	21 Feb 2007	3	-	-	-	FPNWR	♦	-
FP155	M	29 Nov 2007	2.5	-	-	-	OSSF, Private Lands	8 Sept 2008	Unknown
FP156	M	7 Dec 2007	2.5	-	-	-	PSSF, North Belle Meade	-	-
FP157	M	19 Dec 2007	3	-	-	-	LCPA, CREW (Flint Pen)	9 Apr 2008	Intraspecific aggression
FP158	F	21 Jan 2008	2.5	-	-	-	PSSF, CSSP, RBNERR	22 May 2010	Vehicle
FP159	M	29 Jan 2008	5-6	-	-	-	CREW (Flint Pen, Bird Rookery), CSS	♦	-
FP160	F	5 Feb 2008	5	-	-	-	CREW (Corkscrew Marsh), CSS	♦	-
FP161	F	10 Feb 2008	3 yr 8 mo.	May 2004	FP70	-	SBCNP	-	-
FP162	F	18 Feb 2008	3	-	-	-	SBCNP	-	-
FP163	M	21 Feb 2008	1	Feb 2007	FP93	-	SBCNP, NBCNP, Private Lands	-	-
FP164	M	24 Feb 2008	2	-	-	-	SBCNP	30 Jun 2008	Unknown
FP165	M	24 Nov 2008	1	-	-	-	OSSF, DIRWMA, Private Lands	♦	-
FP166	M	30 Jan 2009	4-5	-	-	-	BCSIR, Private Lands	5 Oct 2009	Intraspecific aggression
FP167	M	6 Feb 2009	2.5	-	-	-	BCSIR, Private Lands	♦	-
FP168	F	9 Feb 2009	7	-	-	-	CREW (Flint Pen), LCPA	12 Oct 2010	Intraspecific aggression
FP169	M	25 Feb 2009	4-5	-	-	-	SBCNP	21 May 2010	Vehicle
FP170	F	26 Feb 2009	2.5	-	-	-	PSSF, FSPSP	28 Feb 2011	Intraspecific aggression
FP171	M	27 Feb 2009	2-3	-	-	-	SBCNP, NBCNP	♦	-
FP172	F	19 Nov 2009	5	-	-	-	NBCNP	22 Mar 2010	Intraspecific aggression
FP173	M	20 Jan 2010	4	-	-	-	CREW, PIMB, LCPA	22 Dec 2010	Gastric aspiration

Panther ID ^a	Sex	Capture date	Estimated age at first capture	Birth date	Dam	Purported sire	Use area ^b	Death date	Cause of death ^c
FP174	M	26 Jan 2010	4	-	-	-	PSSF	16 Mar 2010	Vehicle
FP175	F	7 Feb 2010	2.5	2 Jul 2007	FP150	-	NBCNP, SBCNP	-	-
FP176	M	8 Feb 2010	3-4	-	-	-	OSSF, SWWMA	17 Nov 2010	Vehicle
FP177	M	9 Feb 2010	3	18 Mar 2007	FP113	FP119	NBCNP	-	-
FP178	F	10 Feb 2010	2	-	-	-	NBCNP	-	-
FP179	M	14 Feb 2010	5	-	-	-	SBCNP	♦	-
FP180	F	21 Feb 2010	2	13 Feb 2008	FP151	-	SBCNP	-	-
FP181	M	28 Feb 2010	9	3 Mar 2001	TX106	FP60	SBCNP, FSPSP, PSSF	♦	-
FP182	F	1 Mar 2010	1	10 Feb 2009	FP161	-	SBCNP	-	-
FP183	M	3 Nov 2010	4.5	-	-	-	FPNWR, FSPSP	-	-
FP184	F	8 Nov 2010	4-5	-	-	-	NBCNP, Private Lands	-	-
FP185	F	15 Nov 2010	1.5-2	-	-	-	Private Lands east of County Line Rd	-	-
FP186	M	10 Jan 2011	7 mo	-	-	-	CREW-Flint Pen, Bird Rookery Swamp	30 May 2011	Intraspecific aggression
FP187	M	5 Feb 2011	7	-	-	-	SBCNP	-	-
FP188	F	8 Feb 2011	3	-	-	-	LCPA, Private Lands	-	-
FP189	M	14 Feb 2011	3	-	-	-	NBCNP, FPNWR, Private Lands	-	-
FP190	F	14 Feb 2011	12	-	-	-	SBCNP	-	-
FP191	F	26 Feb 2011	12	2/21/1999	TX107	FP79	SBCNP	-	-
FP192	F	2/28/2011	1 yr-8 mo	7/6/2009	FP170	-	SBCNP	-	-
FP193	M	7 Mar 2011	2-2.5	-	-	-	PSSF, CSSP, Private Lands	-	-

^a FP denotes panthers captured for radiocollaring. TX denotes female Texas pumas released in 1995 as part of the genetic introgression project.

^b BCSIR = Big Cypress Seminole Indian Reservation; BWWMA=Babcock Webb Wildlife Management Area; CREW = Corkscrew Regional Ecosystem Watershed; CSS = Corkscrew Swamp Sanctuary; CSSP = Collier Seminole State Park; DIRWMA = Dinner Island Ranch Wildlife Management Area; EVER = Everglades National Park; EWMA; Everglades Wildlife Management Area; FEC=Fisheating Creek; FPNWR = Florida Panther National Wildlife Refuge; FSPSP = Fakahatchee Strand Preserve State Park; LCPA = Lee County Port Authority Mitigation Area; NBCNP = Big Cypress National Preserve north of Interstate 75; OSSF = Okaloacoochee Slough State Forest; PIMB=Panther Island Mitigation Bank; PSSF = Picayune Strand State Forest/Wildlife Management Area; RBNER = Rookery Bay National Estuarine Research Reserve; SBCNP = Big Cypress National Preserve south of Interstate 75; SWWMA = Spirit of the Wild Wildlife Management Area.

^c ISA = Intraspecific aggression

- ◆ Telemetry collar either failed or was released (via timed or remote release mechanisms) prior to the death of the animal.

Appendix II. List of Florida panther kittens handled at natal dens in southern Florida by FWC and BCNP staff from 7 April 1992 through 30 June 2011. Litters are sorted chronologically.

Kitten ID	Dam ID	Date marked	Sex	Transponder ID	Estimated age in days	Purported field sire	Date collared	Eventual panther ID
K1	FP40	4/7/1992	M	None	14-21	FP28	2/10/1993	FP54
K2	FP40	4/7/1992	M	None	14-21	FP28		
K3	FP40	6/18/1993	M	None	21	FP26		
K4	FP40	6/18/1993	F	None	21	FP26		
K5	FP40	6/18/1993	F	None	21	FP26		
K6	FP48	10/30/1993	M	None	8	FP12		
K7	FP48	10/30/1993	F	None	8	FP12		
K8	FP48	10/30/1993	F	None	8	FP12		
K9	FP56	4/21/1994	M	None	14	Unknown		
K10	FP56	4/21/1994	F	None	14	Unknown		
K11	FP56	4/21/1994	M	None	14	Unknown		
K12	FP19	5/17/1994	F	None	14-17	FP51		
K13	FP19	5/17/1994	F	None	14-17	FP51		
K14	FP55	4/8/1995	F	None	12	FP42		
K15	FP55	4/8/1995	F	None	12	FP42		
K16	FP48	6/20/1995	M	12A4640	12	Unknown	1/7/1996	FP59
K17	FP48	6/20/1995	F	129FE45	12	Unknown		
K18	TX101	10/10/1995	F	F82665	21	Unknown	11/12/1998	FP73
K19	TX101	10/10/1995	M	F79CB9	21	Unknown	3/3/1999	FP79
K20	FP56	10/31/1995	M	762141	14	FP45		
K21	FP56	10/31/1995	M	632448	14	FP45		
K22	FP56	10/31/1995	M	F6642F	14	FP45		
K23	TX106	12/1/1995	F	11DFD74	21	FP51		
K24	FP36	2/6/1996	F	12AB55F	14	FP45		
K25	FP36	2/6/1996	M	1147C9B	14	FP45		

Kitten ID	Dam ID	Date marked	Sex	Transponder ID	Estimated age in days	Purported field sire	Date collared	Eventual panther ID
K26	FP36	2/6/1996	M	11DF0DA	14	FP45		
UCFP44 ^a	FP36	2/6/1996	U	none	Unknown	Unknown		
UCFP24	FP32	3/18/1996	F	dead not marked	10-14	Unknown		
K27	FP19	4/17/1996	F	114DAFE (11363DC)	24	FP54/FP51		
K28	FP19	4/17/1996	F	11EOD50	24	FP54/FP51		
K29	FP56	8/14/1996	U	11EAB72T	14	FP45		
K30	FP56	8/14/1996	U	1142876	14	FP45		
K31	FP48	9/18/1996	M	7037C2	14-17	Unknown	3/18/1997	FP62
K32	FP48	9/18/1996	M	11EA2EC	14-17	Unknown	5/24/1997	FP64
K33	FP48	9/18/1996	M	6FFD52	14-17	Unknown		UCFP50
K34	TX105	10/4/1996	F	11EAO30T	30-35	FP16		
K35	TX101	12/21/1996	M	12AFFBF	4	FP45	11/19/1997	FP65
K36	TX101	12/21/1996	F	142581A	4	FP45	12/9/1997	FP66
K37	FP40	5/14/1997	M	1146911	21	FP45		
unmarked1 ^b	FP40	2/5/1998	F	none	270	Unknown	2/5/1998	FP69
K38	TX107	6/4/1997	F	1311B3B	30+	Unknown	3/5/1998	FP71
K39	TX107	6/4/1997	F	771B4D	30+	Unknown	2/25/1998	FP70
K40	FP56	6/17/1997	M	1412E16	25-28	FP45		
K41	FP56	6/17/1997	F	14259BF	25-28	FP45		
K42	FP56	6/17/1997	F	1425A07	25-28	FP45	1/19/1998	FP67
K43	FP56	6/17/1997	M	12C2B93	25-28	FP45		
K44	FP55	10/2/1997	M	12A9E4AT	25-30	Unknown		
K45	TX108	2/11/1998	F	1D1DFDOT	21	FP16	11/7/2000	FP95
K46	TX108	2/11/1998	M	143E96ET	21	FP16		
K47	TX106	2/17/1998	M	1D3E32OT	7-10	FP54		
K48	FP55	2/25/1998	F	121134F	14	Unknown	2/20/2001	FP102
K49	FP55	2/25/1998	F	1D2B3AET	14	Unknown		
K50	FP55	2/25/1998	M	12A94A6T	14	Unknown		
K51	FP48	6/27/1998	M	1D2A504T	28	Unknown		

Kitten ID	Dam ID	Date marked	Sex	Transponder ID	Estimated age in days	Purported field sire	Date collared	Eventual panther ID
unmarked3 ^c	FP48	1/11/1999	F	00013C2DC7T	7 months	Unknown	1/11/1999	FP75
K52	FP66	10/2/1998	M	1D21638T	12	FP72		
K53	FP66	10/2/1998	F	1C49E48T	12	FP72		
K54	FP66	10/2/1998	M	1D2CBC3T	12	FP72		
K55	FP49	2/23/1999	M	1211046	25	Unknown		
K56	TX107	3/11/1999	F	1327679T	21+	FP79	2/26/2011	FP191
K57	TX107	3/11/1999	M	14245FOT	21+	FP79		
K58	TX107	3/11/1999	F	12A9FE5T	21+	FP79	4/10/2000	FP93
K59	FP61	4/6/1999	M	1EFF6EFT	14	FP16	2/17/2000	FP85
K60	FP55	5/10/1999	F	1EFFA75T	24-26	FP79	2/28/2000	FP87
K61	FP55	5/10/1999	M	1EFF978T	24-26	FP79		
K62	TX106	6/18/1999	F	114C9D7T	14	FP54/FP60		
K63	TX106	6/18/1999	F	12AFC11T	14	FP54/FP60	2/8/2000	FP83
K64	FP70	6/23/1999	F	1E2EB33T	10-12	FP79	3/2/2000	FP88
K65	FP70	6/23/1999	M	703A4AT	10-12	FP79	4/6/2000	FP92
K66	FP70	6/23/1999	F	1EFFF55T	10-12	FP79	3/17/2000	FP91
K67	FP71	7/4/1999	M	1E2EBFET	17	FP79	3/8/2000	FP90
K68	FP71	7/4/1999	F	20509A9T	17	FP79	2/21/2000	FP86
K69	FP71	7/4/1999	M	1E2F6B7T	17	FP79		
K70	FP71	7/4/1999	F	1E2DF2BT	17	FP79		
K71	FP69	8/1/1999	M	1E2F276T	7	Unknown		
K72	FP69	8/1/1999	F	1F07255T	7	Unknown		
K73	FP69	8/1/1999	F	1FO14C2T	7	Unknown		
K74	FP48	10/25/1999	F	1EFFF38T	14-17	FP63,FP68		
K75	FP48	10/25/1999	F	1FO1BEDT	14-17	FP63,FP68		
K76	FP66	12/24/1999	M	1D2C5F6T	14	FP60		
K77	FP66	12/24/1999	F	1F00067T	14	FP60		
K78	FP66	12/24/1999	F	1E2F2D6T	14	FP60		
K79	FP78	4/26/2000	F	1D1CDD8T	10-14	FP59	11/1/2001	FP107

Kitten ID	Dam ID	Date marked	Sex	Transponder ID	Estimated age in days	Purported field sire	Date collared	Eventual panther ID
K80	FP78	4/26/2000	M	1F07DD7T	10-14	FP59	1/7/2001	FP96
K81	FP77	6/27/2000	M	1D3B75CT	28	Unknown		
K82	FP77	6/27/2000	F	1433F77T	28	Unknown	2/18/2004	FP128
K83	FP77	6/27/2000	M	1D3A078T	28	Unknown		
K84	FP67	8/19/2000	M	143F34DT	12	Unknown		
K85	FP67	8/19/2000	F	1E2E834T	12	Unknown		
K86	FP82	1/3/2001	F	1E2F17ET	14	FP65	2/13/2002	FP110
K87	FP82	1/3/2001	F	1E2EFB7T	14	FP65		
K88	FP82	1/3/2001	M	1F00D57T	14	FP65		
K89	FP87	2/7/2001	F	20501C5T	14-21	FP79	2/20/2004	FP129
K90	FP87	2/7/2001	M	1E2F06B	14-21	FP79	11/3/2001	FP108
K91	FP87	2/7/2001	M	1F071F4T	14-21	FP79		
K92	TX106	3/17/2001	F	600DBE9	14-16	FP60		
K93	TX106	3/17/2001	M	600CCC4	14-16	FP60	2/28/2010	FP181
K94	FP88	5/25/2001	M	1E2EB3DT	21	Unknown		
K95	FP88	5/25/2001	F	1EFF463T	21	Unknown		
K96	FP88	5/25/2001	M	1F00576T	21	Unknown		
K97	FP88	5/25/2001	F	204F878T	21	Unknown		
K98	FP67	5/26/2001	F	11D5AFD	21	Unknown		UCFP49
K99	FP67	5/26/2001	M	1248B13T	21	Unknown		
K100	FP67	5/26/2001	M	600EFAF	21	Unknown		
K101	FP67	5/26/2001	M	600E363	21	Unknown		
K102	FP75	6/15/2001	M	600E58A	10-12	FP59		
K103	FP75	6/15/2001	M	6000FA1	10-12	FP59		
K104	FP55	6/28/2001	M	1EFFFC5T	17	Unknown		
K105	FP102	7/12/2001	M	1E2DFA4T	21	FP79		
K106	FP102	7/12/2001	M	600E036	21	FP79		
K107	FP49	8/27/2001	M	000600F828	21	Unknown		
K108	FP77	8/30/2001	M	000600F0EA	30	Unknown		

Kitten ID	Dam ID	Date marked	Sex	Transponder ID	Estimated age in days	Purported field sire	Date collared	Eventual panther ID
K109	FP73	3/3/2002	M	000600FD77	7	Unknown		
K110	FP73	3/3/2002	M	0001E2D9E2T	7	Unknown		
K111	FP73	3/3/2002	F	000600A2C9	7	Unknown		
K112	FP95	4/21/2002	F	0001E2E9D3T	25	FP85		
unmarked2 ^d	FP95	not marked	U	none	Unknown	FP85		
K113	FP93	4/23/2002	F	0001EFF813T	18	FP79	2/10/2007	FP151
K114	FP93	4/23/2002	F	000600CC53	18	FP79		
K115	FP93	4/23/2002	M	0001F071E4T	18	FP79	4/2/2003	FP119
K116	FP93	4/23/2002	F	0001F01C76T	18	FP79		
K117	FP78	4/30/2002	F	000600CDB3	21	FP59		
K118	FP78	4/30/2002	F	000600DB01	21	FP59		
K119	FP78	4/30/2002	F	000600E3E3	21	FP59	10/23/2002	FP113
K120	FP78	4/30/2002	M	0001F01D1CT	21	FP59	10/23/2002	FP114
K121	FP101	5/9/2002	M	000204F9EAT	10	Unknown		
K122	FP101	5/9/2002	F	0001E2D6FDT	10	Unknown		
K123	FP83	5/12/2002	M	000631AED6	28	Unknown		
K124	FP106	5/27/2002	F	0001F003A0T	10	Unknown		
K125	FP106	5/27/2002	M	0001D2CBC4T	10	Unknown		
K126	FP106	5/27/2002	M	0001E2E8F6T	10	Unknown		
K127	FP55	5/30/2002	F	000600EAD2	10	FP79		
K128	FP75	6/6/2002	M	000600E84B	10	FP100/FP98		
K129	FP75	6/6/2002	M	00060101BC	10	FP100/FP98	3/31/2005	FP139
K130	FP112	6/15/2002	M	0001EFF497T	7	FP100/FP98		
K131	FP112	6/15/2002	M	000600E4CE	7	FP100/FP98		
K132	FP67	6/18/2002	F	000600D0F1	10	Unknown	1/20/2003	FP116
K133	FP67	6/18/2002	M	000600EBA8	10	Unknown		
K134	FP67	6/18/2002	M	000600E776	10	Unknown		
K135	FP107	7/7/2002	M	0006010509	9-10	Unknown		
K136	FP107	7/7/2002	F	000600F465	9-10	Unknown		

Kitten ID	Dam ID	Date marked	Sex	Transponder ID	Estimated age in days	Purported field sire	Date collared	Eventual panther ID
K137	FP102	7/19/2002	F	0006318229	15	FP79		
K138	FP102	7/19/2002	M	000630E287	15	FP79		
K139	FP61	9/27/2002	F	000204FBC3T	10	Unknown		
K140	FP61	9/27/2002	M	000600D0D4	10	Unknown		
K141	FP61	9/27/2002	M	000600F2F8	10	Unknown		
K142	FP61	9/27/2002	F	0001D29A56T	10	Unknown		
K143	FP87	3/25/2003	F	000600DD57	15	FP79		
K144	FP87	3/25/2003	M	ID not recorded	15	FP79		
K145	FP87	3/25/2003	F	ID not recorded	15	FP79		
K146	FP101	4/19/2003	F	00062EDF9D	10	FP65/FP100		
K147	FP101	4/19/2003	M	0006328F81	10	FP65/FP100	12/17/2004	FP135
K148	FP101	4/19/2003	F	00062E2A15	10	FP65/FP100		
K149	FP110	6/3/2003	F	000600F8DE	6-10	Unknown		
K150	FP110	6/3/2003	M	000600CCD1	6-10	Unknown	3/4/2004	FP130
K151	FP110	6/3/2003	F	000600C049	6-10	Unknown		
K152	FP93	8/5/2003	F	000600037C	21	FP60	2/8/2007	FP150
K153	FP93	8/5/2003	M	0005FFE2D6	21	FP60		
K154	FP93	8/5/2003	M	0006000B2A	21	FP60		
K155	FP120	2/7/2004	F	0005FFE0A	14	Unknown		
K156	FP120	2/7/2004	M	0005FFE0DA	14	Unknown		
K157	FP75	3/21/2004	M	0006327AC0	23	Unknown		
K158	FP75	3/21/2004	M	000632781C	23	Unknown		
K159	FP75	3/21/2004	F	00062EE361	23	Unknown		
K160	FP116	5/1//2004	F	0006479F70	14	FP65		
K161	FP116	5/1//2004	F	000647D7A6	14	FP65		
K162	FP116	5/1//2004	M	0006485640	14	FP65		
K163	FP107	5/21/2004	M	0006327255	7	Unknown		
K164	FP107	5/21/2004	M	0006326E04	7	Unknown		
K165	FP107	5/21/2004	F	000632227C	7	Unknown		

Kitten ID	Dam ID	Date marked	Sex	Transponder ID	Estimated age in days	Purported field sire	Date collared	Eventual panther ID
K166	FP107	5/21/2004	F	000647A475	7	Unknown		
K167	FP70	6/6/2004	F	00064DBAB1	12	Unknown		
K168	FP70	6/6/2004	M	00064DAB32	12	Unknown		
K169	FP70	6/6/2004	F	00064D7C86	12	Unknown	2/10/2008	FP161
K170	FP102	8/5/2004	F	00064DEB7D	15	FP79		
K171	FP102	8/5/2004	M	00064DDEEA	15	FP79		
K172	FP102	8/5/2004	F	00064D918C	15	FP79		
K173	FP121	9/1/2004	F	0006000738	14	Unknown		
UCFP67	FP113	9/2/2004	F	dead not marked	< 7	Unknown		
K174	FP124	9/29/2004	M	000647D79D	21+	Unknown		
K175	FP124	2/10/2005	M	0005FFF5E1	14	Unknown		
K176	FP124	2/10/2005	M	00064D67F9	14	Unknown		
K177	FP124	2/10/2005	F	0006000D6B	14	Unknown		
K178	FP110	3/7/2005	M	000601E07A	12	Unknown		
K179	FP110	3/7/2005	F	00064DD051	12	Unknown		
K180	FP107	3/15/2005	F	000600E4BB	14	FP119/FP131		
K181	FP107	3/15/2005	F	000600F978	14	FP119/FP131		
K182	FP129	4/6/2005	F	0006482822	10	Unknown		
K183	FP129	4/6/2005	M	00064DE502	10	Unknown	3/3/2006	FP147
K184	FP129	4/6/2005	M	00064D7610	10	Unknown		
K185	FP113	4/20/2005	M	000647B5F9	15	FP131/FP133		
K186	FP113	4/20/2005	F	000647AEBB	15	FP131/FP133		
K187	FP116	6/19/2005	M	00064D6A85	22	Unknown		
K188	FP116	6/19/2005	F	000647AEEE6	22	Unknown		
K189	FP116	6/19/2005	M	000647BC03	22	Unknown		
K190	FP128	7/21/2005	M	64D816A	24	Unknown		
K191	FP128	7/21/2005	M	647C7FE	24	Unknown		
K192	FP75	8/7/2005	M	000647CDE9	7	FP135		
K193	FP75	8/7/2005	F	00064DB63B	7	FP135		

Kitten ID	Dam ID	Date marked	Sex	Transponder ID	Estimated age in days	Purported field sire	Date collared	Eventual panther ID
K194	FP75	8/7/2005	F	00064DAC56	7	FP135		
K195	FP75	8/7/2005	M	000600E8A6	7	FP135		
K196	FP110	11/1/2005	M	00063DE442	21	Unknown		
K197	FP110	11/1/2005	M	00063DA510	21	Unknown		
K198	FP110	11/1/2005	M	00064339FD	21	Unknown		
K199	FP110	11/1/2005	F	000643666C	21	Unknown		
K200	FP107	2/17/2006	F	0006009668	6	FP131		
K201	FP107	2/17/2006	M	000600F274	6	FP131		
K202	FP121	3/5/2006	F	000600DAB4	14	Unknown		
K203	FP121	3/5/2006	M	000600B508	14	Unknown		
K204	FP121	3/5/2006	M	0006483B07	14	Unknown		
K205	FP94	6/22/2006	F	00064DA2F2	18	Unknown		
K206	FP94	6/22/2006	M	00063D8B9D	18	Unknown		
K207	FP94	6/22/2006	F	00063DD7D8	18	Unknown		
K208	FP145	6/23/2006	F	000647B5DA	12	FP138		
K209	FP145	6/23/2006	F	00064ECCA4	12	FP138		
K210	FP145	6/23/2006	F	000672579C	12	FP138		
K211	FP93	7/1/2006	F	00064068FF	18	FP133		
K212	FP93	7/1/2006	F	000647879D	18	FP133		
K213	FP93	7/1/2006	F	00064D988C	18	FP133		
K214	FP95	7/3/2006	F	00064D852D	10	Unknown		
K215	FP95	7/3/2006	F	00064D5EDC	10	Unknown		
K216	FP95	7/3/2006	M	000647C887	10	Unknown		
K217	FP102	7/12/2006	M	000672358E	18	FP138		
K218	FP102	7/12/2006	M	000671CA33	18	FP138		
K219	FP140	11/15/2006	F	0006435A2B	9-11	FP119		
K220	FP140	11/15/2006	M	0006436824	9-11	FP119		
K221	FP148	1/18/2007	F	000647D2EE	21	FP146		
K222	FP148	1/18/2007	M	00064DC433	21	FP146		

Kitten ID	Dam ID	Date marked	Sex	Transponder ID	Estimated age in days	Purported field sire	Date collared	Eventual panther ID
K223	FP148	1/18/2007	F	00064E23C	21	FP146		
K224	FP124	2/17/2007	M	64EED68	9	Unknown		
K225	FP124	2/17/2007	M	64E00C9	9	Unknown		
K226	FP93	3/8/2007	M	6712488	16	Unknown		
K227	FP93	3/8/2007	M	64DF113	16	Unknown	2/21/2008	FP163
K228	FP93	3/8/2007	F	64EO84F	16	Unknown		
K229	FP110	3/20/2007	F	0006327849	10-12	FP137		
K230	FP110	3/20/2007	M	00063DD906	10-12	FP137		
K231	FP110	3/20/2007	F	00063DC6F3	10-12	FP137		
K232	FP110	3/20/2007	M	00063218EB	10-12	FP137		
K233	FP113	3/25/2007	F	00063DC1F0	7	FP119		
K234	FP113	3/25/2007	M	00063DC585	7	FP119		
K235	FP113	3/25/2007	M	0006439AB7	7	FP119	2/9/2010	FP177
K236	FP103	4/4/2007	F	0006722801	24	FP127		
K237	FP103	4/4/2007	F	00067142C6	24	FP127		
K238	FP103	4/4/2007	M	000671D047	24	FP127		
K239	FP149	4/13/2007	F	00063DCBCC	11-13	Unknown		
K240	FP149	4/13/2007	F	000631A816	11-13	Unknown		
K241	FP151	4/21/2007	M	67245C4	16	Unknown		
K242	FP151	4/21/2007	F	67216AA	16	Unknown		
K243	FP151	4/21/2007	F	64E6E50	16	Unknown		
K244	FP145	4/26/2007	M	6718E19	16	FP133		
K245	FP145	4/26/2007	M	6718AEE	16	FP133		
K246	FP145	4/26/2007	F	6722453	16	FP133		
K247	FP107	4/27/2007	F	0006437F96	10-12	Unknown		
K248	FP107	4/27/2007	M	0006435576	10-12	Unknown		
K249	FP107	4/27/2007	F	dead not marked	10-12	Unknown		
K250	FP128	5/12/2007	M	0006435419	10-12	Unknown		
K251	FP128	5/12/2007	M	0006434A69	10-12	Unknown		

Kitten ID	Dam ID	Date marked	Sex	Transponder ID	Estimated age in days	Purported field sire	Date collared	Eventual panther ID
K252	FP128	5/12/2007	F	0006433EFA	10-12	Unknown		
K253	FP150	7/20/2007	M	6726F07	18	Unknown		
K254	FP150	7/20/2007	F	671F6F3	18	Unknown	2/7/2010	FP175
K255	FP150	7/20/2007	F	67231E8	18	Unknown		
K256	FP150	7/20/2007	F	671E895	18	Unknown		
K257	FP110	8/10/2007	M	0006439E20	13-15	Unknown		
K258	FP110	8/10/2007	M	000643422C	13-15	Unknown		
K259	FP151	8/27/2007	M	dead not marked	17-20	Unknown		
K260	FP151	8/27/2007	U	dead not marked	17-20	Unknown		
K261	FP107	9/25/2007	M	000643530F	10-14	Unknown		
K262	FP107	9/25/2007	M	0006435247	10-14	Unknown		
K263	FP107	9/25/2007	M	00063DC5C2	10-14	Unknown		
K264	FP151	3/4/2008	F	6957DE2	21	Unknown	2/21/2010	FP180
K265	FP151	3/4/2008	M	695B244	21	Unknown		
K266	FP140	5/2/2008	M	00063DF3C8	7	FP154		
K267	FP140	5/2/2008	M	00063DEAA1	7	FP154		
K268	FP162	5/23/2008	F	dead not marked	14	FP138		
K269	FP162	5/23/2008	M	dead not marked	14	FP138		
K270	FP158	6/7/2008	F	6435FEC	14-17	FP146		
K271	FP158	6/7/2008	M	6435381	14-17	FP146		
K272	FP158	6/7/2008	M	642652B	14-17	FP146		
K273	FP158	6/7/2008	M	643824C	14-17	FP146		
K274	FP153	7/20/2008	F	695849E	14	Unknown		
K275	FP153	7/20/2008	M	695ACE5	14	Unknown		
K276	FP153	7/20/2008	M	6958EAA	14	Unknown		
K277	FP161	2/25/2009	M	698B098	16	Unknown		
K278	FP161	2/25/2009	M	69581FC	16	Unknown		
K279	FP161	2/25/2009	F	6959939	16	Unknown	3/1/2010	FP182
K280	FP162	5/7/2009	F	695AOB3	25-27	Unknown		

Kitten ID	Dam ID	Date marked	Sex	Transponder ID	Estimated age in days	Purported field sire	Date collared	Eventual panther ID
K281	FP153	7/8/2009	M	671F728	30	Unknown		
K282	FP153	7/8/2009	M	6958DCD	30	Unknown		
K283	FP168	7/21/2009	M	0006483E5C	7	Unknown		
K284	FP168	7/21/2009	M	0006434DB7	7	Unknown		
K285	FP170	7/28/2009	M	00063DF972	22	Unknown		
K286	FP170	7/28/2009	M	00063DE7FC	22	Unknown		
K287	FP170	7/28/2009	F	000600E52E	22	Unknown	2/28/2011	FP192
K288	FP172	2/20/2010	M	00063DDEB6	15	Unknown		
K289	FP172	2/20/2010	M	0006435874	15	Unknown		
K290	FP172	2/20/2010	M	0006436050	15	Unknown		
K291	FP145	2/25/2010	F	00069577CI	28	Unknown		
K292	FP145	2/25/2010	M	000695BO19	28	Unknown		
K293	FP145	2/25/2010	F	00067214F1	28	Unknown		
K294	FP162	3/23/2010	M	6957879	14	FP133		
K295	FP162	3/23/2010	F	695A869	14	FP133		
K296	FP162	3/23/2010	F	695A5CF	14	FP133		
K297	FP148	4/13/2010	F	00063DFB49	14	Unknown		
K298	FP148	4/13/2010	F	0006436575	14	Unknown		
K299	FP148	4/13/2010	M	0006435550	14	Unknown		
K300	FP161	5/26/2010	M	000695AD83	16	Unknown		
K301	FP161	5/26/2010	F	0006723CE4	16	Unknown		
K302	FP161	5/26/2010	F	000695B151	16	Unknown		
K303	FP102	6/6/2010	M	0006958363	21	Unknown		
K304	FP102	6/6/2010	M	000695A272	21	Unknown		
K305	FP178	6/22/2010	M	0006434D2E	14-17	Unknown		
K306	FP178	6/22/2010	M	000643461A	14-17	Unknown		
K307	FP113	7/15/2010	F	0001EFF852	5-7	Unknown		
K308	FP113	7/15/2010	M	000643352E	5-7	Unknown		
K309	FP113	7/15/2010	F	0006439939	5-7	Unknown		

Kitten ID	Dam ID	Date marked	Sex	Transponder ID	Estimated age in days	Purported field sire	Date collared	Eventual panther ID
K310	FP175	8/2/2010	F	0006959F9E	18	Unknown		
K311	FP175	8/2/2010	F	0006959B00	18	Unknown		
K312	FP110	8/4/2010	F	0006436660	10-12	Unknown		
K313	FP110	8/4/2010	F	00063DCB00	10-12	Unknown		
K314	FP110	8/4/2010	M	00064359C2	10-12	Unknown		
K315	FP148	1/17/2011	M	0006433EE1	12	Unknown		
K316	FP148	1/17/2011	M	0006437C54	12	Unknown		
K317	FP178	1/27/2011	M	0006436F25	12-14	Unknown		
K318	FP178	1/27/2011	M	00063DECC8	12-14	Unknown		
K319	FP175	1/27/2011	M	0006959F88	21	Unknown		
K320	FP175	1/27/2011	F	000695A8A8	21	Unknown		
K321	FP113	3/9/2011	M	00063460F7	21	Unknown		
K322	FP162	4/15/2011	F	0006959680	19	Unknown		
K323	FP162	4/15/2011	M	000695A73E	19	Unknown		
K324	FP162	4/15/2011	M	0006959FC4	19	Unknown		
K325	FP162	4/15/2011	M	000695A29B	19	Unknown		
K326	FP184	4/26/2011	M	0006483D1B	12	Unknown		
K327	FP184	4/26/2011	M	00064DB286	12	Unknown		
K328	FP184	4/26/2011	F	000631C890	12	Unknown		
K329	FP184	4/26/2011	M	000647B1C4	12	Unknown		
K330	FP182	4/29/2011	M	0006959053	14	Unknown		
K331	FP182	4/29/2011	M	000695823A	14	Unknown		
K332	FP182	4/29/2011	F	0006957B55	14	Unknown		
K333	FP182	4/29/2011	M	0006958665	14	Unknown		
K334	FP188	5/26/2011	F	0001D3E191T	18	Unknown		
K335	FP188	5/26/2011	M	00012A1A27	18	Unknown		
K336	FP188	5/26/2011	M	0001E2E62ET	18	Unknown		
K337	FP145	6/9/2011	M	00069584D5	12	Unknown		
K338	FP145	6/9/2011	F	000695B041	12	Unknown		

Kitten ID	Dam ID	Date marked	Sex	Transponder ID	Estimated age in days	Purported field sire	Date collared	Eventual panther ID
K339	FP145	6/9/2011	F	00069580FE	12	Unknown		
K340	FP151	6/10/2011	F	000695B062	21	FP187		
K341	FP151	6/10/2011	M	0006957B2E	21	FP187		

^a The remains of a sibling to K24-26 were found at the den site. Condition of the carcass made sex identification impossible.

^b This kitten was not observed or marked at the den, but was captured at the carcass of the dam on 2/5/1998. Eventually released into the wild as FP69.

^c This kitten was not observed or marked at the den, but was captured near FP48 and collared as FP75 on 1/11/1999. Reunited with FP48 the following day.

^d FP95 was observed with 2 kittens from the air on 1/2, 3/31, and 4/1/2003, verifying that at least 1 littermate of K112 was not recorded on 4/21/2002.

Appendix III. List of all known dens of radiocollared female Florida panthers and Texas pumas in southern Florida from June 1985 to June 2011. Kitten numbers preceded with “K” indicate natal den was visited. Samples are ordered by female ID and secondarily by year.

Data collected by FWC and BCNP.

Panther ID	Den date	Location^a	Habitat	Minimum number of kittens at den	Kittens handled	Purported field sire
FP009	Jun-1985	S Golden Gate Estates	Unknown	1	FP10♂ den not visited	Unknown
FP009	Jun-1987	FSPSP	Hardwood hammock	1	den not visited	FP12
FP009	May-1989	FSPSP	Mixed swamp	Unknown	den not visited	Unknown
FP009	Jul-1990	FSPSP	Mixed swamp	2	FP202♂, FP203♂ den not visited	FP37
FP009	Jun-1993	FSPSP	Hardwood hammock	Unknown	den not visited	FP51
FP011	May-1986	BCNP - Bear Island	Pine/palmetto	3	FP19♀ den not visited	FP12
FP011	May-1988	BCNP - Bear Island	Pine/palmetto	1	FP29♂ den not visited	FP20
FP011	Apr-1990	BCNP - Bear Island	Palmetto/oaks	1	♀(roadkill) den not visited	FP12
FP011	Jul-1991	Price's	Unknown	1	FP47♂ den not visited	FP12
FP011	Mar-1993	BCNP - Bear Island	Unknown	Unknown	den not visited	FP12
FP014	Apr-1989	Long Pine Key	Pine/palmetto	2	FP42♂, den not visited	FP16
FP014	Mar-1991	Long Pine Key	Pine/palmetto	Unknown	den not visited	FP16
FP015	May-1988	Long Pine Key	Vines/ferns	Unknown	den not visited	FP16
FP019	Mar-1988	Price's	Pine/palmetto	4	FP30♂ den not visited	FP13
FP019	Jul-1989	FPNWR	Palmetto, myrtle	1	FP43♂ den not visited	FP12
FP019	Nov-1990	Rock Spring Island	Pine/palmetto	2	FP205♀, FP45♂ den not visited	FP12
FP019	Mar-1992	NE Hog Pond	Pine/palmetto	2	UCFP21♀, FP53♂ den not visited	FP12
FP019	May-1994	FPNWR	Mixed swamp	2	K12♀, K13♀	FP51
FP019	Mar-1996	Barfield's	Cypress swamp	2	K27♀, K28♀	FP54, FP51
FP023	Aug-1992	Raccoon Point	Pine/palmetto	2	FP209♀, FP210♂	FP42
FP023	Dec-1992	Raccoon Point	Pine/palmetto	1	FP55♀ den not visited	FP42
FP031	Mar-1989	Catherine Island	Pine/palmetto	3	FP34♂, FP35♂ den not visited	FP12
FP031	Jul-1990	Regency Farms	Palmetto/myrtle	2	FP201♂, FP204♀ den not visited	FP12
FP031	Sep-1991	Barfield's	Palmetto	2	FP48♀, FP52♀ den not visited	FP12
FP032	Mar-1989	Catherine Island	Pine/palmetto	Unknown	den not visited	Unknown
FP032	May-1992	FPNWR	Palmetto	1	FP208♀	FP12
FP032	Mar-1996	FPNWR	Pine/palmetto	1	UCFP24 (Dead ♀)	Unknown
FP036	Mar-1990	BCSIR	Pine/palmetto	Unknown	den not visited	Unknown
FP036	May-1991	BCNP - Addition Lands	Palmetto	2	FP207♂, FP50♂ den not visited	FP26

Panther ID	Den date	Location ^a	Habitat	Minimum number of		Purported field sire
				kittens at den	Kittens handled	
FP036	Oct-1993	N of BCSIR	Pine/palmetto	1	den not visited	FP26, FP34
FP036	Jun-1995	Canoe Lake Strand	Mixed swamp	Unknown	den not visited	FP45
FP036	Jan-1996	Wilson Cypress	Hardwood hammock	4	K24♀,K25♂,K26♂,UCFP44	FP45
FP040	Nov-1990	Baker's Grade	Hardwood/Schinus	2	FP206♀, FP44♂ den not visited	FP26
FP040	Mar-1992	Baker's Grade	Pine/palmetto	2	FP54♂, K02♂	FP28
FP040	May-1993	Baker's Grade	Cypress, cabbage	3	K03♂,K04♀,K05♀	FP26
FP040	Apr-1997	BCNP - Addition Lands	Pine/palmetto	2	FP69♀, K37♂	FP45
FP040	Sept-1995 ^b	Unknown	Unknown	1	FP60♂, ♀ tracks, den not visited	Unknown
FP048	Oct-1993	BCNP - Bear Island	Palmetto	3	K06♂,K07♀,K08♀	FP12
FP048	Jun-1995	Dozier Hammock	Palmetto	2	FP59♂, K17♀	Unknown
FP048	Sep-1996	NE Doctor's Hammock	Pine/palmetto	3	FP62♂,FP64♂,UCFP50♂	Unknown
FP048	Jun-1998	BCNP - Bear Island	Pine/palmetto	2	K51♂, FP75♀	FP68 or FP45
FP048	Oct-1999	BCNP - Bear Island	Pine/palmetto	2	K74♀, K75♀(abandoned)	FP63 or FP68
FP049	Jan-1999	BCNP - Addition Lands	Unknown	1	K55♂	Unknown
FP049	Jul-2001	BCNP - Addition Lands	Unknown	1	K107♂	Unknown
FP052	Jul-1993	Sadie Cypress	Palmetto	2	1♂ (roadkill) den not visited	FP46
FP052	Jul-1994	Sadie Cypress	Hardwood hammock	Unknown	den not visited	Unknown
FP055	Apr-1995	BCNP	Pine/palmetto	2	K14♀,K15♀	FP42
FP055	Sep-1997	BCNP - N Burns Lake	Palmetto	1	K44♂	Unknown
FP055	Feb-1998	BCNP - N Monument Lake	Palmetto	3	FP102♀,K49♀,K50♂	Unknown
FP055	Apr-1999	BCNP	Palmetto	2	FP87♀, K61♂	Unknown
FP055	Jun-2001	BCNP - NE Airplane Prairie	Palmetto	1	K104♂	FP79
FP055	May-2002	BCNP	Pine/palmetto	1	K127♀	FP79
FP055	Sep-2003	BCNP	Pine/cabbage	Unknown	den not visited	Unknown
FP056	Apr-1994	Baker's Grade	Pine/palmetto	3	K09♂,K10♀,K11♂	Unknown
FP056	Oct-1995	North BCSIR	Sawgrass marsh	3	K20♂,K21♂,K22♂	FP45
FP056	Jul-1996	North BCSIR	Fern bed	2	K29♀?,K30♀	FP45
FP056	May-1997	Bakers Grade	Unknown	4	K40♂,K41♀,K43♂, FP67♀	FP45
FP057	Jun-1998	FSPSP	Palmetto	Unknown	den not visited	FP54
FP061	Mar-1999	Long Pine Key	Pine/palm	1	FP85♂	FP16
FP061	Sep-2002	EVER - East	Sawgrass marsh	4	K139♀, K140♂, K141♂, K142♀	Unknown
FP066	Sep-1998	Belle Meade	Palmetto	3	K52♂,K53♀,K54♂	FP72
FP066	Dec-1999	Private lands	Hardwood hammock	3	K76♂,K77♀,K78♀	FP60
FP067	Aug-2000	Private lands	Pine/palmetto	2	K84♂, K85♀	Unknown

Panther ID	Den date	Location^a	Habitat	Minimum number of kittens at den	Kittens handled	Purported field sire
FP067	May-2001	Private lands	Hardwood hammock	4	K98♀,K99♂,K100♂, K101♂	Unknown
FP067	Jun-2002	Private lands	Brazilian pepper	3	FP116♀, K133♂, K134♂	Unknown
FP069	Jul-1999	BCNP - NE of Baker's Camp	Hardwood hammock	3	K71♂,K72♀,K73♀	Unknown
FP070	Jun-1999	BCNP - NE of Monument Lake	Pine/palmetto	3	FP88♀, FP92♂, FP91♀	FP79
FP070	May-2004	BCNP - Turner River Unit	Palmetto/vines	3	K167♀,K168♂,K169♀	Unknown
FP071	Jun-1999	BCNP	Mixed swamp	4	FP90♂, FP86♀, K69♂, K70♀	FP79
FP073	Aug-1997 ^c	BCSIR	Unknown	1	FP74♂ den not visited	Unknown
FP073	Feb-1999	BCSIR	Pine/palmetto	1	FP84♂ den not visited	Unknown
FP073	Feb-2002	BCNP - Addition Lands	Pine/palmetto	3	K109♂, K110♂, K111♀	Unknown
FP075	Apr-2000	Private lands	Hardwood hammock	Unknown	den not visited	Unknown
FP075	Jun-2001	BCNP - Bear Island	Pine/palmetto	2	K102♂,K103♂	FP59
FP075	May-2002	BCNP - Bear Island	Pine/palmetto	2	K128♂, K129♂	FP98, FP100
FP075	Mar-2004	BCNP - Bear Island	Pine/palmetto	3	K157♂, K158♂, K159♀	Unknown
FP075	Aug-2005	BCNP - Bear Island	Hardwood hammock	4	K192♂, K193♀, K194♀, K195♂	FP135
FP077	May-2000	BCNP - Addition Lands	Palmetto/vines	3	K81♂,K82♀,K83♂	Unknown
FP077	Aug-2001	BCNP - Addition Lands	Pine/palmetto	1	K108♂	Unknown
FP078	Apr-2000	FPNWR	Palmetto/oak	2	FP107♀, FP96♂	FP59
FP078	Apr-2002	FPNWR	Palmetto	4	K117♀, K118♀, K119♀, K120♂	FP59
FP082	Dec-2000	OSSF	Unknown	3	K86♀,K87♀,K88♂	FP65
FP083	Apr-2002	FSPSP	Pine/palmetto	1	K123♂	Unknown
FP083	Jun-2004	FSPSP	Pine/palmetto	Unknown	den not visited	Unknown
FP087	Jan-2001	BCNP	Pine/palmetto	3	K89♀,FP108♂,K91♂	FP79
FP087	Mar-2003	BCNP - N of Oasis	Pine/palmetto	3	K143♀, K144♂, K145♀	FP79
FP088	May-2001	BCNP - Loop Unit	Cypress/ferns	4	K94♂,K95♀,K96♂, K97♀	Unknown
FP093	Apr-2002	BCNP - Turner River Unit	Pine/palmetto	4	K113♀, K114♀, FP119♂, K116♀	FP79
FP093	Jul-2003	BCNP - Turner River Unit	Hardwood hammock	3	K152♀, K153♂, K154♂	FP60
FP093	Jun-2006	BCNP - Turner River Unit	Tropical hardwood	3	K211♀, K212♀, K213♀	FP133
FP093	Feb-2007	BCNP - Turner River Unit	Pine/palmetto	3	K226♂, K227♂, K228♀	Unknown
FP094	Jun-2006	EVER - CIA hammock	Hardwood hammock	3	K205♀, K206♂, K207♀	Unknown
FP095	Mar-2002	EVER - Long Pine Key	Pine/palmetto	1	K112♀	FP85
FP095	Jun-2006	EVER - Long Pine Key	Hardwood/palmetto	3	K214♀, K215♀, K216♂	Unknown
FP101	Apr-2002	BCSIR	Pine/palmetto	2	K121♂, K122♀	Unknown
FP101	Apr-2003	Private lands	Pine/palmetto	3	K146♀, K147♂, K148♀	FP65/FP100
FP102	Jun-2001	BCNP - Monument Lake	Pine/palmetto	2	K105♂,K106♂	FP79

Panther ID	Den date	Location ^a	Habitat	Minimum number of		Purported field sire
				kittens at den	Kittens handled	
FP102	Jul-2002	BCNP - Monument Lake	Hardwood hammock	2	K137♀, K138♂	FP79
FP102	Jul-2004	BCNP - Burns Lake	Hardwood hammock	3	K170♀, K171♂, K172♀	FP79
FP102	Jun-2006	BCNP - Turner River Unit	Hardwood hammock	2	K217♂, K218♂	FP138
FP102	Jun-2010	SBCNP	Pine/palmetto	2	K303♂, K304♂	Unknown
FP103	Apr-2007	BCNP - Corn Dance	Hardwood hammock	3	K236♀, K237♀, K238♂	FP127
FP106	May-2002	FPNWR	Hardwood hammock	3	K124♀, K125♂, K126♂	Unknown
FP107	Jun-2002	FPNWR	Hardwood hammock	2	K135♂, K136♀	Unknown
FP107	May-2004	FPNWR	Hardwood hammock	4	K163♂, K164♂, K165♀, K166♀	Unknown
FP107	Mar-2005	FPNWR	Hardwood hammock	2	K180♀, K181♀	FP119, FP131
FP107	Feb-2006	FPNWR	Pine/palmetto	2	K200♀, K201♂	FP131
FP107	Apr-2007	FPNWR - Rock Island	Pine/palmetto	3	K247♀, K248♂, K249♀	Unknown
FP107	Sep-2007	FPNWR	Pine/palmetto	3	K261♂, K262♂, K263♂	Unknown
FP110	May-2003	OSSF	Pine/palmetto	3	K149♀, K150♂, K151♀	Unknown
FP110	Feb-2005	OSSF	Pine/palmetto	2	K178♂, K179♀	Unknown
FP110	Nov-2005	OSSF	Hardwood hammock	4	K196♂, K197♂, K198♂, K199♀	Unknown
FP110	Mar-2007	OSSF	Pine/palmetto	4	K229♀, K230♂, K231♀, K232♂	FP137
FP110	Aug-2007	OSSF	Hardwood hammock	2	K257♂, K258♂	Unknown
FP110	Nov-2007	OK Slough-Dog Island	Palmetto	Unknown	den not visited	Unknown
FP110	Aug-2010	OK Slough-FWC WMA	Palmetto	3	K312♀, K313♀, K314♂	Unknown
FP112	Jun-2002	BCNP - Bear Island	Pine/palmetto	2	K130♂, K131♂	FP98, FP100
FP113	Aug-2004	FPNWR	Pine/palmetto	Unknown	UCFP67	Unknown
FP113	Apr-2005	FPNWR	Pine/palmetto	2	K185♂, K186♀	FP131, FP133
FP113	Mar-2007	FPNWR	Hardwood hammock	3	K233♀, K234♂, K235♂	FP119
FP113	Apr-2009 ^d	FPNWR	Unknown	1	1 kitten via remote camera	Unknown
FP113	Jul-2010	Private, North of FPNWR	Pine Palmetto	3	K307♀, K308♂, K309♀	Unknown
FP113	Mar-2011	Private, North of FPNWR	Pine Palmetto	1	K321♂	Unknown
FP116	Apr-2004	Hendry Co. Gum Swamp	Hardwood hammock	3	K160♀, K161♀, K162♂	FP65
FP116	May-2005	BCNP- Addition Lands	Pine/palmetto	3	K187♂, K188♀, K189♂	Unknown
FP120	Jan-2004	BCNP - Turner River Unit	Pine/palmetto	2	K155♀, K156♂	Unknown
FP121	Aug-2004	BCSIR	Pine/palmetto	1	K173♀	Unknown
FP121	Feb-2006	BCSIR	Pine/palmetto	3	K202♀, K203♂, K204♂	Unknown
FP124	Sep-2004	BCNP - Stairsteps	Pine/palmetto	1	K174♂	Unknown
FP124	Jan-2005	BCNP - Pinecrest	Pine/palmetto	3	K175♂, K176♂, K177♀	Unknown
FP124	Feb-2007	BCNP - Stairsteps	Cypress/hardwood	2	K224♂, K225♂	Unknown

Panther ID	Den date	Location ^a	Habitat	Minimum number of		Purported field sire
				kittens at den	Kittens handled	
FP128	Jun-2005	BCSIR	Pine/palmetto	2	K190♂, K191♂	Unknown
FP128	May-2007	Stirelli property - Add Lands	Palmetto/fern	3	K250♂, K252♂, K252♀	Unknown
FP129	Apr-2005	BCNP- Corn Dance	Unknown	3	K182♀, K183♂, K184♂	Unknown
FP140	Nov-2006	FPNWR	Hardwood hammock	2	K219♀, K220♂	FP119
FP140	May-2008	FPNWR	Cypress/ferns	2	K266♂, K267♂	FP154
FP145	Jun-2006	BCNP -Deep Lake	Pine/palmetto	3	K208♀, K209♀, K210♀	FP138
FP145	Apr-2007	BCNP - Deep Lake	Hardwood hammock	3	K244♂, K245♂, K246♀	FP133
FP145	Feb-2010	SBCNP	Palmetto	3	K291♀, K292♂, K293♀	Unknown
FP145	Jun-2011	SBCNP	Palmetto	3	K337♂, K338♀, K339♀	Unknown
FP148	Jan-2007	Belle Meade-PSSF	Palmetto	3	K221♀, K222♂, K223♀	FP146
FP148	Apr-2010	Belle Meade-PSSF	Pine/palmetto	3	K297♀, K298♀, K299♂	Unknown
FP148	Jan-2011	Belle Meade-PSSF	Cypress swamp/ferns	2	K315♂, K316♂	Unknown
FP149	Apr-2007	PSSF	Bracken fern	2	K239♀, K240♀	Unknown
FP150	Jul-2007	SBCNP	Palmetto	4	K253♂, K254♀, K255♀, K256♀	Unknown
FP151	Apr-2007	BCNP- Turner River	Palmetto	3	K241♂, K242♀, K243♀	Unknown
FP151	Aug-2007	SBCNP	Palmetto	2	K259♂, K260 unknown sex	Unknown
FP151	Mar-2008	BCNP-Turner River	Palmetto	2	K264♀, K265♂	Unknown
FP151	Jun-2011	BCNP-Turner River	Palmetto	2	K340♀, K341♂	FP187
FP153	Jul-2008	BCNP-Turner River	Palmetto	3	K274♀, K275♂, K276♂	Unknown
FP153	Jul-2009	SBCNP	Hardwood hammock	2	K281♂, K282♂	Unknown
FP158	Jun-2008	CSSP	Pepper/climbing fern	4	K270♀, K271♂, K272♂, K273♂	FP146
FP158	Apr-2010 ^e	PSSF	Pine/palmetto	2	kittens not handled	Unknown
FP160	Oct-2008	Jack-In-The-Box Ranch CREW	Hardwood hammock	Unknown	Den not visited	Unknown
FP161	Feb-2009	SBCNP	Palmetto	3	K277♂, K278♂, K279♀	Unknown
FP161	May-2010	SBCNP	Pine/palmetto	3	K300♂, K301♀, K302♀	Unknown
FP162	May-2008	BCNP-Turner River	Hardwood hammock	2	K268♀, K269♂ (both dead)	FP138
FP162	Apr-2009	SBCNP	Hardwood hammock	1	K280♀	Unknown
FP162	Mar-2010	SBCNP	Hardwood hammock	3	K294♂, K295♀, K296♀	FP133
FP162	Apr-2011	SBCNP	Palmetto	4	K322♀, K323♂, K324♂, K325♂	Unknown
FP168	Jul-2009	CREW-Flint Pen	Pine/palmetto/fern	2	K283♂, K284♂	Unknown
FP170	Jul-2009	PSSF	Cabbage Palm/shrub	3	K285♂, K286♂, K287♀	Unknown
FP172	Feb-2010	BCNP- Addition Lands	Palmetto	3	K288♂, K289♂, K290♂	Unknown
FP175	Aug-2010	NBCNP, Bear Island	Pine/palmetto	2	K310♀, K311♀	Unknown
FP175	Jan-2011	NBCNP, Bear Island	Palmetto/pine scrub	2	K319♂, K320♀	Unknown

Panther ID	Den date	Location ^a	Habitat	Minimum number of		Purported field sire
				kittens at den	Kittens handled	
FP178	Jun-2010	NBCNP, Bear Island	Pine/palmetto	2	K305♂, K306♂	Unknown
FP178	Jan-2011	Bear Island, South of Windmill	Palmetto/oak scrub	2	K317♂, K318♂	Unknown
FP180	Mar-2011 ^f	SBCNP		2	Den not visited	
FP182	Apr-2011	SBCNP	Hardwood scrub	4	K330♂, K331♂, K332♀, K333♂	Unknown
FP184	Apr-2011	NBCNP, Addition Lands	Saw Palmetto	4	K326♂, K327♂, K328♀, K329♂	Unknown
FP188	May-2011	Troyer Bros., Lee County	Cypress/ferns	3	K334♀, K335♂, K336♂	Unknown
TX101	Sep-1995	BCSIR	Pine/palmetto	2	FP73♀, FP79♂	Unknown
TX101	Dec-1996	BCSIR	Palmetto/oak	2	FP65♂, FP66♀	FP45
TX105	Aug-1996	EVER - Long Pine Key	Tropical hardwood	1	K34♀	FP16
TX105	Jul-1999	EVER - Long Pine Key	Brazilian pepper	1	FP94F1♀ den not visited	FP16
TX106	Nov-1995	S Golden Gate Estates	Cypress/mixed	1	K23♀	FP51
TX106	Feb-1998	N Golden Gate Estates	Vines/cabbage	1	K47♂	FP54, FP59
TX106	Jun-1999	PSSF	Cabbage	2	K62♀, FP83♀	FP54
TX106	Mar-2001	FPNWR	Pine/palmetto	2	K92♀, K93♂	FP60
TX107	Apr-1997	BCNP - N of Oasis	Pine/palmetto	2	FP70♀, FP71♀	Unknown
TX107	Feb-1999	BCNP - N of Buckskin Prairie	Pine/palmetto	3	K56♀, K57♂d, FP93♀	FP79
TX108	Jun-1996	EVER - Long Pine Key	Tropical hardwood	1	FP61♀ den not visited	FP16
TX108	Jan-1998	EVER - Long Pine Key	Tropical hardwood	2	FP95♀, K46♂	FP16

^aBCNP = Big Cypress National Preserve; BCSIR = Big Cypress Seminole Indian Reservation; CREW = Corkscrew Regional Ecosystem Watershed; CSSP = Collier-Seminole State Park; EVER = Everglades National Park; FPNWR = Florida Panther National Wildlife Refuge; FSPSP = Fakahatchee Strand Preserve State Park; NBCNP = Big Cypress National Preserve north of Interstate 75; OSSF = Okaloacoochee Slough State Forest; PSSF = Picayune Strand State Forest/Wildlife Management Area; SBCNP = Big Cypress National Preserve south of Interstate 75.

^bFP40 had lost her collar when her kitten FP60 was captured at 6 months of age on 3/6/96. Den is assumed to have dated to September 1995.

^cFP73 was marked as a kitten then captured with her 15month old kitten FP74 on 11/12/98. Den is assumed to have dated to August 1997.

^dFP113 den in April 2009 was not documented by FWC during routine monitoring. A 4 month old kitten was photographed with FP113 on 28 July 2009 via trail camera on FPNWR.

^eFP158 den in April 2010 was visited by FWC, but kittens were not sampled or marked. This litter subsequently failed with the death of FP158 on 22 May 2010.

^fFP180 den in March 2011 was not documented by BCNP staff. A visual was obtained of FP180 with two 4 month old kittens on 8 July 2011 during routine aerial telemetry monitoring.

Appendix IV. Florida panther and Texas puma mortalities and injuries sorted by year through 30 June 2011. Data collected by FWC and BCNP. Ages are estimated unless panthers were handled as kittens at natal dens. Age values are in years unless noted otherwise.

Date	Panther ID	Sex	Age	Location ^a	Cause
Circa 1940s	UCFP01	U	Unknown	Immokalee, Collier County	Preserved skin, skull and bones
1954	UCFP47	U	Unknown	Rocky Lake, Hendry County	Taxidermy pelt from hunted specimen
2/13/1972	UCFP28	M	2 to 3	SR 25 south of Moore Haven	Vehicle
3/8/1978	UCFP02	M	2 to 3	L-28, Dade County	Shooting
2/1/1979	UCFP03	M	Unknown	US 41, Gannet Strand	Unknown
12/23/1979	UCFP04-(G80-4)	F	1.5 to 2.5	SR 29 just north of SR 84	Vehicle
2/7/1980	UCFP05-(G80-15)	M	1.5 to 2.5	SR 29 near Sunniland	Vehicle
4/19/1981	UCFP06-(G81-19)	F	2 to 3	SR 29 near Copeland	Vehicle
4/16/1982	FP06	M	6 to 7	Northeast BCNP	Unknown
1/17/1983	FP03	F	9+	FSPSP	Capture
3/18/1983	UCFP09-(G83-22)	M	2 to 3	US 27 Palmdale	Vehicle
5/22/1983	UCFP10	F	Adult	L-8 canal near Canal Point, Palm Beach County	Shooting
11/18/1983	FP05	F	8 to 9	Fakahatchee Conservation Club	Unknown
12/1/1983	UCFP08	M	3 to 6	Seminole Indian Reservation, Hendry County	Shooting
12/14/1983	FP01	M	12 to 14	SR 84; MM18	Vehicle
10/27/1984	FP02	M	14+	FSPSP	Intraspecific aggression
10/30/1984	UCFP11	F	2 to 3	Corbett WMA, Palm Bch. Co. (Elmer Brooker)	Shooting
11/2/1984	BIG GUY	M	2 to 4	US 41	Vehicle - Injured
11/12/1984	UCFP12-(G84-26)	F	8 to 10	SR 84; MM16	Vehicle
1/8/1985	UCFP13-(G85-BNZ)	F	1.5 to 2	SR 84; MM16	Vehicle
3/23/1985	UCFP14	F	2 to 3	Collier Seminole State Park; Collier Co.	Shooting (skeleton)
4/18/1985	FP04	M	12+	SR 84; MM17	Vehicle
5/12/1985	NONE	F	Unknown	CR 951; 2 miles N of US 41	Vehicle
10/26/1985	FP07	M	10	SR 29; 4 miles S of SR 84	Vehicle
1/1/1986	FP09	F	4 to 5	Golden Gate Estates, S of SR 84	Shooting (not fatal)
11/15/1986	UCFP15	F	4 to 5	SR 84; MM16.5	Vehicle
1/27/1987	FP10	M	16 to 20 mos.	Mud Lake Strand	Intraspecific aggression- by adult male panther
6/17/1987	FP20	M	3 to 4	CR 858; 0.8 miles E of SR 29	Vehicle - Injured
12/14/1987	FP13	M	6 to 8	SR 29 Sunniland	Vehicle
12/19/1987	UCFP17	M	~10	Crane Swamp, Framton WMA, Volusia Co.	Unknown- only skeletal remains found
6/10/1988	FP15	F	7 to 8	EVER	Intraspecific aggression

Date	Panther ID	Sex	Age	Location ^a	Cause
7/23/1988	FP21	F	2.5	1 mile east of US1 on Palm Drive	Vehicle - injured
8/20/1988	FP08	F	13 to 15	Gainesville	Liver failure (old age)
8/22/1988	FP24	M	3 to 5	Glades Co. near Palmdale	Unknown
8/24/1988	FP20	M	4 to 5	Bear Island	Congenital heart defect
8/26/1988	FP25	M	4 to 5	FPNWR	Intraspecific aggression- bacterial infection from fight
11/29/1988	FP28	M	1.5 to 2	Near Daniels Road, Ft. Myers Airport	Vehicle - injured
1/25/1989	UCFP18-(RK-850)	M	3	CR 850 1.5 miles south of SR 82	Vehicle
7/23/1989	FP27	M	3 to 4	EVER	Unknown
11/25/1989	FP33	M	3	2 miles NW of Hendry Prison	Rabies
1/24/1990	FP35	M	10 mos.	Gainesville	Capture-related abandonment (infection)
1/29/1990	FP30	M	22 mos.	FSPSP	Intraspecific aggression- killed by FP37
6/18/1990	UCFP19-(RK-846)	M	10 mos.	CR 835 (846) 1 mile E of CR 833	Vehicle
6/18/1990	FP39	M	3 to 4	EVER	Pyothorax
7/23/1990	FP17	M	9	Addition lands near Tangerine Camp	Unknown
9/26/1990	FP41	F	2	Hendry Co. W of BCSIR	Intraspecific aggression- killed by FP28
10/3/1990	FP18	F	9	Hendry Co. So. of CR 846 near Rock Lake	Intraspecific aggression- killed by FP28
11/26/1990	FP37	M	4 to 5	SR 29; 0.5 miles N of I-75	Vehicle
2/4/1991	UCFP20-(FP11's kitten)	F	9 mos.	SR 29 Pistol Pond Bridge	Vehicle
6/20/1991	FP14	F	10 to 11	EVER	Unknown
7/20/1991	FP22	F	5	EVER	Infection
11/1/1991	FP43	M	2	BCSIR, Hendry Co.	Intraspecific aggression- killed by FP26
4/7/1992	NONE	M	Unknown	Alico Rd.	Vehicle
5/27/1992	FP29	M	4	Hendry Co., Gum Swamp	Pseudorabies
9/25/1992	FP28	M	5.5	BCSIR, Hendry Co.	Intraspecific aggression- possibly killed by FP26
11/9/1992	UCFP21-(FP19's kitten)	F	7 mos.	SR 29 Sunniland	Vehicle
2/19/1993	FP47	M	18 mos.	FSPSP	Intraspecific aggression- killed by male FP51
2/26/1993	FP53	M	11 mos.	Private lands N of FPNWR	Intraspecific aggression-killed, eaten by uncollared male
7/6/1993	FP44	M	2.5	Raccoon Pt. SBCNP	Intraspecific aggression-killed by FP42
8/9/1993	UCFP22	M	2 to 3	Daniels Rd.; 1 mile east of I-75	Vehicle
11/15/1993	FP34	M	5	SE Hendry Co. L28	Bacterial infection from lacerated esophagus
12/6/1993	FP50	M	2.5	CR 846; 5 miles east of Immokalee	Vehicle
2/28/1994	UCFP23-(FP52's kitten)	M	8 mos.	3 miles north of County Line Road	Vehicle
3/3/1994	FP31	F	12 to 14	SR 29 Sunniland	Vehicle
7/8/1994	FP26	M	11 to 12	4 miles E. Hendry Prison	Intraspecific aggression- killed by FP46; punctured skull
8/4/1994	FP38	F	9	Conservation Area 3A	Pleuritis related to chest puncture

Date	Panther ID	Sex	Age	Location ^a	Cause
11/8/1994	FP12	M	13 to 14	Private lands, Hendry County	Intraspecific aggression- infected bite wounds from FP46
1/14/1995	FP52	F	3.3	CR 846 near Dupree Rd.	Vehicle
6/22/1995	FP42	M	6	Turner River Unit	Unknown
9/21/1995	TX102	F	4	CR 833 just N of CR 835 (846)	Vehicle
3/18/1996	UCFP24	F	1.5 to 2 week	FPNWR	Unknown (dehydrated)
4/24/1996	UCFP29	M	3 to 5	5.5 miles E of SR 29 on CR 832	Vehicle
5/2/1996	UCFP30	F	1	US 41 @ Turner River	Vehicle
3/30/1997	FP58	M	3	Sadie Cypress	Intraspecific aggression- septicemia from bite wounds
7/13/1997	UCFP31	U	Unknown	CR 846; 1.5 miles W CR 858	Vehicle
12/2/1997	FP19	F	11.5	FPNWR (Merry Christmas)	Ruptured aorta
12/26/1997	FP21	F	11 to 12	White Oak	Euthanasia
2/2/1998	FP40	F	10	Bear Island - E Harrell Strand	Intraspecific aggression- died of infected bite wounds
2/14/1998	FP64	M	1.5	SR 29 at clear-cut, FPNWR	Intraspecific aggression
4/18/1998	TX104	F	6 to 7	S of Sabal Palm Road in citrus grove	Shooting
6/13/1998	UCFP25	F	2	CR 846; 3 miles E CR 858	Vehicle
7/17/1998	FP51	M	9	SR 29 @ Bear Island Grade	Vehicle
8/2/1998	FP45	M	7.5	BCSIR, Hendry Co.	Intraspecific aggression
9/17/1998	UCFP26	M	3 to 5	US 41	Vehicle
10/10/1998	FP36	F	14+	NBCNP; E. of L28 interceptor canal	Unknown (likely natural)
12/23/1998	FP72	M	3 to 4	BCSIR, Hendry Co.	Intraspecific aggression- killed by uncollared male
2/3/1999	FP46	M	9 to 9.5	Private land S. CR 846, Hendry Co	Intraspecific aggression
3/26/1999	FP64	M	2.5	Audubon's Corkscrew Sanctuary	Intraspecific aggression- killed by uncollared male
7/8/1999	UCFP27	F	2	Farm road E of Hendry Prison	Vehicle
8/19/1999	TX103	F	Unknown	SBCNP, S. Lostman's Pines 1mi. N of EVER bound	Metabolic complications associated with pregnancy
9/8/1999	FP74	M	2.5	US 27 near Venus	Vehicle
10/29/1999	UCFP33	M	11 mos.	CR 833; 2 miles N BCSIR	Vehicle
11/13/1999	FP76	M	2.5 to 3	FSPSP; 1.9 miles W of SR 29 off of Lancaster Grade	Intraspecific aggression- killed by FP54
1/3/2000	FP16	M	14	NE boundary of EVER	Unknown
2/10/2000	FP80	F	4 to 5	West of Swamp Safari, BCSIR	Vehicle
2/28/2000	K76-(FP66's kitten)	M	3 mos.	1 mile W SR 29 on CR 858	Vehicle
3/1/2000	FP68	M	5 to 7	NBCNP W of Tangerine tram	Unknown
3/23/2000	UCFP34	M	1.5 to 2	CR846; 2 miles E of County Line Rd	Vehicle
3/29/2000	TX101	F	Unknown	BCSIR; 1/4 mile W of Game Pen, 3/4 mile S of canal	Unknown
4/20/2000	FP84	M	14 mos.	Fisheating Crk. WMA, N. of creek, 5 mi W of US 27	Unknown
6/23/2000	UCFP35	M	1.5 to 2	CR846; 2 miles east of Immokalee	Vehicle

Date	Panther ID	Sex	Age	Location ^a	Cause
8/13/2000	UCFP36	F	1.7	CR 846; East of Immokalee near power lines	Vehicle
11/10/2000	FP89	M	3.5	SBCNP, 2 miles NW of Mud Lake	Intraspecific aggression- killed by FP79
12/1/2000	FP23	F	14	SBCNP 2 miles E of Turkey Foot	Unknown
12/29/2000	UCFP37	F	5	4.5 miles E SR29 on CR846	Vehicle
1/18/2001	TX107	F	8 to 9	SBCNP; 11 Mile Rd.	Unknown
2/27/2001	FP11	F	19 to 20	200 yds. S of CR 846, 1 mile E of Dupree Rd.	Intraspecific aggression
4/14/2001	UCFP38	F	2	CR 833 1 mile N BCSIR, Hendry Co.	Vehicle
4/26/2001	FP90	M	1.9	US 27; 2.5 miles N of Terrytown	Vehicle
5/7/2001	UCFP39	F	10 mos.	SR 29; 1/2 mile N of Jerome	Vehicle
5/7/2001	UCFP40	M	10 mos.	SR 29; 1/2 mile N of Jerome	Vehicle
5/22/2001	UCFP41	M	2 to 3	SR 29; Sunniland, near Mine Rd.	Vehicle
6/14/2001	UCFP42	F	3 to 4	CR846; 1 mile E of Powerline	Vehicle
8/17/2001	UCFP43	M	2 to 3	CR846; 1 mile east of Powerline	Vehicle
9/1/2001	FP92	M	2.2	N Flint Pen Strand, CREW	Unknown
12/2/2001	FP97	M	2	E of Gopher Ridge Grove N of Immokalee	Intraspecific aggression
1/3/2002	FP49	F	12	NBCNP Addition Lands	Intraspecific aggression- killed by uncollared male
1/15/2002	FP96	M	1.75	N end Big Corkscrew Island	Intraspecific aggression
1/16/2002	FP105	F	~7	FPNWR, SW corner of clear-cut	Unknown
4/5/2002	UCFP45	M	3	3.4 miles N of Palmdale, Glades County	Vehicle
4/10/2002	UCFP46	M	6 mos.	1/2 mile N of Deep Lake, Collier County	Vehicle
7/1/2002	FP98	M	4 to 5	1 km north of Pistol Pond on SR 29	Vehicle
9/5/2002	FP111	M	9 to 10	OSSF, N of CR832	Intraspecific aggression
9/11/2002	FP112	F	4	NBCNP - Bear Island	Intraspecific aggression
9/12/2002	FP32	F	15	FPNWR - Rock Island	Malnutrition (old-age)
10/16/2002	FP78	F	6	FPNWR - Fire Tower	Intraspecific aggression
11/10/2002	UCFP48	F	8 to 9 mos.	CR846; 5-6 miles east of Immokalee	Vehicle
11/16/2002	FP108	M	22 mos.	SBCNP Raccoon Pt.	Traumatic Neck Injury
11/25/2002	UCFP49 (K98)	F	19 mos.	CR846; 3-4 miles east of Immokalee	Vehicle
11/28/2002	FP99	M	33 mos.	CR846; 1/4 mile N of Collier County Fairgrounds	Vehicle
1/15/2003	FP67	F	5.5	Hendry County; Gum Slough	Intraspecific aggression- killed by FP65
1/26/2003	UCFP50 (K33)	M	6.3	CR846; 3.4 miles E Everglades Boulevard	Vehicle
02/20/2003	FP106	F	3	SR29 at Sunniland Mine entrance	Vehicle
2/22/2003	FP109	M	10+	OSSF north of CR832	Intraspecific aggression
3/10/2003	UCFP51	M	1.5 to 2.0	I-4; 0.25 miles E of I-75, near Tampa	Vehicle
3/20/2003	UCFP52	M	2 to 3	CR833; 2 miles S CR832, Hendry County	Vehicle

Date	Panther ID	Sex	Age	Location ^a	Cause
4/4/2003	FP118	F	1	BCSIR; Game Pen	Unknown
5/10/2003	FP82	F	6	OSSF	Intraspecific aggression
6/13/2003	UCFP55	M	1 to 1.5	BCSIR Safari Pen	Unknown
6/14/2003	UCFP56	M	1 to 1.5	BCSIR Safari Pen	Unknown
6/16/2003	UCFP57	F	4 to 6	BCSIR Safari Pen	Unknown
5/17/2003	FP115	F	4 to 5	OSSF - Sick Island	FeLV
5/25/2003	UCFP53	F	2 to 3	SR29; 1.4 miles N CR858, Collier County	Vehicle
6/3/2003	UCFP54	M	8 to 10 mos.	SR29; 1.7 miles N CR858, Collier County	Vehicle
6/19/2003	FP87	F	4	SBCNP; 7 miles NNE of Oasis	Intraspecific aggression
6/28/2003	FP73	F	7.8	BCSIR; Game Pen	Unknown
6/30/2003	UCFP58	F	~1	CR846; 3/4 mile E of Everglades Boulevard	Vehicle
7/12/2003	FP77	F	6	BCSIR Game Pen	Unknown
10/17/2003	FP114	M	1.5	FPNWR; S of Oil Pad Rd. SR29	Intraspecific aggression
11/2/2003	UCFP59	M	3 to 4 mos.	CR 858; 1.2 miles west of SR 29	Vehicle
11/7/2003	FP86	F	4.5	University of Florida, Gainesville	Euthanasia
12/9/2003	UCFP60	M	~2 to 3	US41; ~ 1 mile east of CR92	Vehicle
12/12/2003	FP91	F	4.5	SBCNP; Turner River Unit	Intraspecific aggression
12/25/2003	UCFP61	F	~2 to 3	CR833; 1.7 miles N CR846 intersection	Vehicle
1/11/2004	UCFP62	F	~7 to 8 mos.	US41 near 40 Mile Bend	Vehicle
2/13/2004	FP122	F	2 to 3	OSSF; NW Wild Cow Island	FeLV
2/26/2004	UCFP63	M	~3.5	I-75; eastbound lane, MM99	Vehicle
3/1/2004	FP85	M	5	EVER	Unknown
3/3/2004	UCFP64	U	Unknown	SR66; ~0.75 miles W of SR635	Vehicle collision; DNA sample collected from bumper
4/6/2004	UCFP65	M	~2	SR29; 200 yards N of Bear Island Grade	Vehicle
6/27/2004	UCFP66	M	~3	I-75; 0.5 miles W of Everglades Boulevard, MM93	Vehicle
7/7/2004	FP55	F	~11.5	SBCNP	Intraspecific aggression
7/11/2004	FP120	F	~4	US41, ~750 m W of Turner River Road	Vehicle – Injured
7/22/2004	FP132	M	3 to 3.5	OSSF	FeLV
7/28/2004	FP117	M	27 mos.	0.75 miles S of CR832, E. of Wild Cow Grade	Unknown
8/2/2004	K156	M	6 mos.	US41 at Turner River Road	Vehicle
8/17/2004	K94	M	3.3	I-75; eastbound lane near MM98	Vehicle
9/2/2004	UCFP67	F	< 7 days	FPNWR; Ridge Road	Trauma/lacerations
9/30/2004	UCFP68	F	3 to 6	SBCNP; N of Oasis Ranger Station	Unknown
10/25/2004	UCFP69	F	2	SR 29; 2.5 miles N of CR 858	Vehicle
11/22/2004	FP59	M	9.4	Just east of Ford Test Track, Collier County	Intraspecific aggression

Date	Panther ID	Sex	Age	Location ^a	Cause
12/1/2004	UCFP70	F	1	SR 29 at Owl Hammock Curve	Vehicle
12/6/2004	K128	M	2.5	CR 832; 1 mile east of RR grade	Vehicle
1/1/2005	FP126	M	1.6	1/2 mile S CR 846; Sadie Cypress	Intraspecific aggression
2/4/2005	UCFP71	M	2 to 3	US 41; just east of 11 Mile Road	Vehicle
2/25/2005	UCFP72	M	2	SR 29 near Jerome	Vehicle
4/7/2005	UCFP73	M	7 mos.	CR951 S of Rattlesnake Hammock Road	Vehicle
5/7/2005	FP120	F	5	US41 near Turner River	Vehicle
6/4/2005	UCFP74	M	3	I-95; St. John's/Flagler County line	Vehicle
6/14/2005	FP136	F	4	2 miles NE Burns Lake, SBCNP	Spinal trauma
6/19/2005	UCFP75	M	2	SR 29 at Owl Hammock Curve	Vehicle
8/29/2005	K153	M	2.1	CR951, 1.2 miles south of Davis Blvd.	Vehicle
9/12/2005	FP69	F	8.3	NBCNP – Addition Lands	Septicemia, underlying cause unknown
9/18/2005	UCFP76	M	1	US 41; 1.4 M east of CR 951	Vehicle
12/2/2005	K49	F	7.8	SR 29; 1 mile N Wagon Wheel Road	Vehicle
1/14/2006	FP70	F	8.6	US 41 near Turner River	Vehicle
1/15/2006	UCFP77	F	2 to 3	BCSIR; west of Swamp Safari	Intraspecific aggression
1/25/2006	UCFP78	M	9 mos.	CR846; 1 mile W of CR858	Vehicle
1/26/2006	UCFP79	F	2	CR846; near Collier County Fairgrounds	Vehicle
2/2/2006	UCFP80	F	2	Card Sound Road, Dade County	Vehicle
2/27/2006	UCFP81	M	2	I-75; Ft. Myers, between exits 137-138	Vehicle
2/27/2006	UCFP82	U	Unknown	0.2 M west of SR 29, Hendry County	Unknown - skeletal remains
3/9/2006	FP104	M	5.5	SBCNP	Septicemia, underlying cause unknown
3/11/2006	UCFP83	M	3	1 M south of Corkscrew Rd., Flint Pen Strand	Intraspecific aggression
3/22/2006	FP129	F	5	SBCNP	Unknown
4/6/2006	K203	M	1 mo.	BCSIR	Unknown
4/14/2006	UCFP84	M	3 to 4	I-4, SW of Orlando	Vehicle
6/5/2006	UCFP85	M	3 to 4	CR 832; 3 miles east of OK Slough SF	Vehicle
7/6/2006	UCFP86	U	Unknown	SR29 0.6 mi south of Sunniland	Vehicle - carcass not found (possibly consumed by a gator)
8/24/2006	UCFP87	M	3	Corkscrew Rd. near Alico, Lee County	Vehicle
10/27/2006	FP135	M	3.5	University of Florida, Vet School	Intraspecific aggression/euthanasia
10/23/2006	FP48	F	15	Sunniland, Collier County	Unknown
11/26/2006	UCFP88	F	2	US 41 between Manatee Rd and CR951	Vehicle
12/12/2006	UCFP89	M	3-5	County Line Road, Collier/Hendry	Vehicle
1/10/2007	FP116	F	4.5	Williams Ranch, Hendry County	Intraspecific aggression
1/24/2007	UCFP90	F	4-6 mos.	CR 832 1mile W of Forestry tower	Vehicle

Date	Panther ID	Sex	Age	Location ^a	Cause
1/25/2007	FP100	M	10	Micosukee Res N of I-75	Unknown
1/29/2007	FP134	M	5.5	Addition Lands W of L-28, S of pipeline	Intraspecific aggression
3/9/2007	UCFP91	M	5 mos.	CR 832 west of Keri tower, OSSF	Vehicle
3/21/2007	FP130	M	4	I-4 near Osceola, Orange county line	Vehicle
3/29/2007	UCFP92	M	1.5	US 41 1.2 mi W of SR 29	Vehicle
3/30/2007	UCFP93	M	2	I-75 .5 mi N Corkscrew Road, Lee County	Vehicle
4/3/2007	UCFP94	M	2 to 3	I-75 2 mi E of toll booth MM98, Collier County	Vehicle
4/18/2007	UCFP95	M	2 to 3	Walk-in-Water road, Polk County	Vehicle
4/27/2007	K249	F	10-12 days	FPNWR Unit12	Septicemia
5/3/2007	K247	F	16-18 days	FPNWR Unit12	Complications related to dermatophytosis
5/3/2007	K248	M	16-18 days	FPNWR Unit12	Unknown
5/9/2007	UCFP96	F	3	US1 1/2 mile south of Card Sound Rd., Dade Co.	Vehicle
5/14/2007	UCFP97	F	4-5	Corkscrew Rd. near Alico, Lee County	Vehicle
6/11/2007	UCFP98	M	20-24 mos.	SR29 at Jerome wildlife crossing	Vehicle
6/14/2007	UCFP99	M	12-15 mos.	0.7 miles west of Sunshine Blvd on SR82	Vehicle
6/23/2007	UCFP100	M	2-3	SR 29 3 mi S of Immokalee	Vehicle
6/23/2007	K199	F	20 mos.	CR832 0.6 mi W of Forestry tower	Vehicle
6/26/2007	UCFP101	M	4	US41, 1 mile east of Krome Ave	Vehicle
8/2/2007	FP103	F	7	SBCNP	Intraspecific aggression
8/27/2007	K259	M	3 wks	SBCNP	Suspected black bear predation at den
8/27/2007	K260	Unk	3 wks	SBCNP	Suspected black bear predation at den
9/12/2007	UCFP102	M	2	I-75, 1.5 miles east of SR29	Vehicle
9/27/2007	FP128	F	7.5	BCSIR Game pen	Unknown
3/9/2008	UCFP103	M	2 to 3	Pine Ridge Rd, half way between CR951, Logan	Vehicle
3/14/2008	FP127	M	5	NBCNP -Addition Lands	Intraspecific aggression
4/12/2008	UCFP104	F	1 to 2	SR 29 2.6 km north of US 41	Vehicle
4/9/2008	FP157	M	3	CREW	Intraspecific aggression
4/16/2008	FP131	M	9	Horse Trial grounds, N of CR 858, W of SR 29	Pneumonia
4/23/2008	UCFP105	F	5 to 6	0.24 miles west of Jane's Scenic, N side of Mud Tram	Unknown or Accidental
5/4/2008	UCFP106	M	2	4736 Leonard Boulevard, Lehigh Acres, Lee Co.	Vehicle
5/12/2008	FP138	M	7	5.5 km north of Monument Lake Camp. S BCNP	Unknown
5/22/2008	UCFP107	F	2 to 3	2.4km south of US41 on CR951, moving east to west	Vehicle
5/23/2008	K268	F	2 weeks	SBCNP	Consumed (possible intraspecific aggression)
5/23/2008	K269	M	2 weeks	SBCNP	Consumed (possible intraspecific aggression)
6/30/2008	FP164	M	2.5	SBCNP	Unknown

Date	Panther ID	Sex	Age	Location ^a	Cause
7/28/2008	UCFP108	F	3 to 4	Immokalee Rd 1.7 mile E of Oil Grade Rd	Vehicle
8/6/2008	FP107	F	8	FPNWR	Unknown
9/15/2008	FP155	M	3	Lee Hendry Landfill, Hendry Co.	Unknown
9/15/2008	UCFP109	M	8	Private Property- 2 mi E of Corkscrew Sanctuary	Unknown
9/29/2008	UCFP110	F	2-3 mos.	EVER	Vehicle
10/22/2008	FP152	M	5-6	SBCNP	Intraspecific aggression
10/24/2008	UCFP111	F	6-8 mos.	2.4km N of Oil Well Rd on SR29	Vehicle
11/4/2008	UCFP112	M	3	SR80 east of CR833	Vehicle
11/16/2008	UCFP123	M	3-4	Troupe County, Georgia	Shooting
11/26/2008	UCFP113	M	4 to 5	Alico Road, Lee County	Vehicle
11/28/2008	UCFP114	F	4	CR858, 1 mi E of Camp Keais Rd	Vehicle
1/11/2009	UCFP115	M	4	CR832, E of OK Slough SF	Vehicle
1/17/2009	K253	M	18 mos.	Eastbound exit ramp, I-75/SR29	Vehicle
1/20/2009	UCFP116	F	4 to 5	SR 29 3 mi S of Immokalee	Vehicle
2/2/2009	UCFP117	M	3	Seminole Indian Reservation	Intraspecific aggression
3/25/2009	UCFP118	M	1.5	Treeline Ave (between Alico/Daniels)	Vehicle
4/9/2009	UCFP119	F	2 to 3	US41 Turner River	Vehicle
4/21/2009	UCFP120	F	2	Big Cypress Mitigation Bank	Shooting
5/14/2009	UCFP121	M	2	SR29 ~4 mi S I-75	Vehicle
5/25/2009	UCFP122	M	2	Immokalee Rd near Camp Kaeis Rd	Vehicle
6/12/2009	FP140	F	7	FPNWR, SE of Hog Pond	Intraspecific aggression
7/28/2009	FP204	F	19	Captive, White Oak	Euthanasia
8/5/2009	UCFP124	M	1.5	I-75, mile marker 90	Vehicle
9/6/2009	UCFP125	F	2	I-75, mile marker 96.5	Vehicle
9/15/2009	UCFP126	M	2	East of Ave Maria, Ranch 1 Orange Gr.	Unknown
10/5/2009	FP166	M	5-6	Seminole Indian Res.; N. of Safari Pen	Intraspecific aggression
10/9/2009	UCFP127	F	3-4	Turner River, 600m S. of US41	Unknown
N/A	UCFP128	N/A	N/A	N/A	Under investigation
10/19/2009	UCFP129	M	3-4 mos.	CR 846 2 miles E of Immokalee	Vehicle
10/21/2009	UCFP130	F	3-4	CR 846 2 miles E of Immokalee	Vehicle
11/1/2009	UCFP131	F	3-4 mos.	CR 833 N boundary of BCSIR	Vehicle
11/19/2009	UCFP132	M	3-4	FL Turnpike S of Yeehaw Junction	Vehicle (head removed posthumously)
12/17/2009	UCFP133	M	3-4	I-75 1/2 mi W Snake Road	Vehicle
12/23/2009	UCFP134	M	3	Corkscrew Rd near CREW Gate 5	Vehicle
12/29/2009	UCFP135	F	4	2 miles N of Jerome on SR29	Vehicle
12/31/2009	UCFP136	F	3-4 mos.	County Barn Rd, 0.3 mi S of Davis Blvd	Vehicle

Date	Panther ID	Sex	Age	Location ^a	Cause
1/16/2010	UCFP137	M	2.5	1 mi S Corkscrew Rd, near Bella Terra	Intraspecific aggression
1/29/2010	UCFP138	M	6-8	N of Shell Island Rd, Rookery Bay	Unknown -skeletal remains; date of death unknown
3/12/2010	UCFP139	F	3	Corkscrew Rd, CREW Marsh Trailhead 1	Vehicle
3/16/2010	FP174	M	4-5	I-75 eastbound, mile marker 95	Vehicle
3/22/2010	FP172	F	5	BCNP Addition Lands	Intraspecific aggression
4/15/2010	UCFP140	M	1.5-2	I-75, mile marker 117, Lee County	Vehicle
4/29/2010	UCFP141	F	6 mos.	Church Rd near Hendry Co landfill	Vehicle
5/4/2010	UCFP142	F	8 mos.	Golden Gate Blvd (between 5th-7th St NW)	Vehicle
5/21/2010	FP169	M	5-6	US 41, 4km W of Monroe Station	Vehicle
5/22/2010	FP158	F	5	US 41, 1km east of SR92	Vehicle
5/23/2010	UCFP143	M	7-8 mos.	US 41, 2.2km east of CR951	Vehicle
5/31/2010	UCFP144	M	12-14 mos.	CR833, 0.7km north of CR832	Vehicle
6/21/2010	FP144	M	6	BCNP Addlands north of I75	Intraspecific aggression
6/24/2010	UCFP145	M	16-18 mos.	SR29, 3.7km south of Farm Workers Village	Vehicle
8/3/2010	UCFP146	F	3-4	SR 29, 1 mi S of Owl Hammock, Collier Co.	Vehicle
10/1/2010	UCFP147	F	3	US41, 1.7 miles east of Monroe Station	Vehicle
10/15/2010	FP168	F	8	CREW-Flint Pen Strand	Intraspecific Aggression
10/25/2010	FP102	F	12yrs 8 mos.	SBCNP	Intraspecific Aggression
11/17/2010	FP176	M	4-5	Keri Rd., OK Slough State Forest	Vehicle
12/12/2010	UCFP148	M	2-3	US 27, 0.5 mi E SR 80, Hendry County	Vehicle
12/13/2010	UCFP149	M	1.5	GG Blvd at 7th ST NW, Collier County	Vehicle
12/19/2010	UCFP150	M	8-9 mos.	CR846, 1.5 miles south of CR833	Vehicle
12/22/2010	FP173	M	5	Lee County Port Authority Mitigation Land	Unknown
12/23/2010	UCFP151	F	10-18 mos.	Private property, Collier County	Intraspecific Aggression
1/5/2011	FP141	M	8.5	Private property, Hendry County	Unknown
1/7/2011	K284	M	1.5	SR29 south of Sears Rd., Hendry County	Vehicle
1/13/2011	UCFP152	F	3	MM98 on I75 Eastbound, Collier County	Vehicle
1/21/2011	UCFP153	M	8 months	MM98 on I75 Westbound, Collier County	Vehicle
1/21/2011	UCFP154	M	8 months	Orange grove north of Sears Rd, Hendry County	Intraspecific Aggression
2/23/2011	UCFP155			Golden Gate Estates, Collier County	Poached
2/26/2011	UCFP156	M	3-4	I-75 near MM114, Collier County	Vehicle
3/2/2011	FP170	F	4.5	Swan Lake PSSF, Collier County	Intraspecific Aggression
3/15/2011	UCFP157	F	>3	Big Cypress National Preserve	Unknown (skeletal remains)
3/12/2011	UCFP158			Seminole County	Shooting
3/25/2011	UCFP159				Under Investigation
3/25/2011	FP83	F	11yrs 10 mos.	US41 west of Port of the Islands	Vehicle
4/30/2011	UCFP160	M	12-14 mos.	US41 at 50 mile bend	Vehicle

Date	Panther ID	Sex	Age	Location^a	Cause
5/3/2011	K322	F	5 wks	SBCNP	Wildfire
5/3/2011	K323	M	5 wks	SBCNP	Wildfire
5/3/2011	K324	M	5 wks	SBCNP	Wildfire
5/3/2011	K325	M	5 wks	SBCNP	Wildfire
6/1/2011	FP186	M	11.5 mos.	Bird Rookery Swamp, Collier County	Intraspecific Aggression

^a BCSIR = Big Cypress Seminole Indian Reservation; CREW = Corkscrew Regional Ecosystem Watershed; EVER = Everglades National Park; FPNWR = Florida Panther National Wildlife Refuge; FSPSP = Fakahatchee Strand Preserve State Park; NBCNP = Big Cypress National Preserve north of Interstate 75; OSSF = Okaloacoochee Slough State Forest; PSSF = Picayune Strand State Forest/Wildlife Management Area.; SBCNP = Big Cypress National Preserve south of Interstate 75.

FPRMTF: FUNDING INFORMATION AS OF 30 JUNE 2011

Beginning Balance July 1, 2010	<u>\$2,132,329</u>
Fiscal Year 2010-2011 Actual Revenue	
Panther License Plate Annual Use Fees	\$ 1,276,861
Interest Earnings	54,085
Total Actual Revenue	<u>\$ 1,330,946</u>
Fiscal Year 2010-2011 Appropriations	
Panther Management	\$574,011
Panther Research	341,062
OED	20,000
Administration Overhead	83,997
Service Charge to General Revenue	194,177
Reversions	(193,990)
Total Appropriations Spent	<u>\$1,019,257</u>
Projected Fund Balance June 30, 2011	<u>\$2,444,018</u>

September 9, 2011
 Office of Finance and Budget
 Florida Fish and Wildlife Conservation Commission