



Version 2

This presentation was edited on June 17th, 2015.

Slide #33 had edits made to the notes section for clarity.

Slide # 36 had edits made to both the Slide and the notes for clarity.



Panthers were persecuted in the early times, including a bounty in FL and many states. By the 1970s there perhaps as few as 30 panthers restricted to 3-4 counties in extreme south FL.

This led to the recovery management phase.

The state protected panther in 1958 and they were included as an endangered species as part of the ESA of 1973.

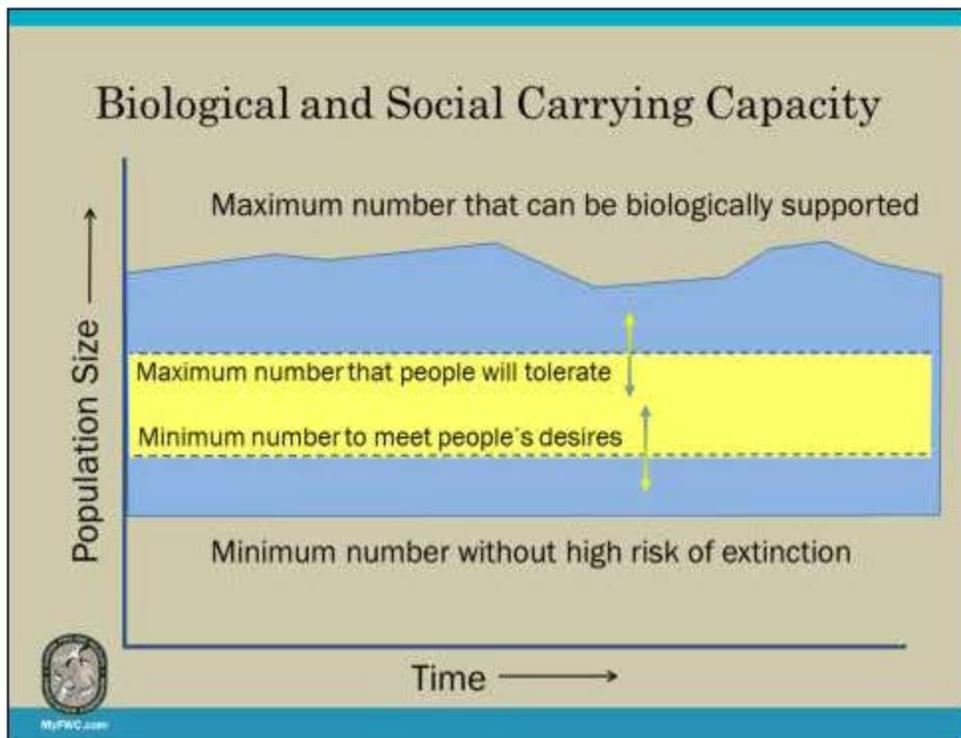
Our state research program got underway in the 1980s and continues to this day.

The population has been growing since the mid 90s and today our range of possible population is 100-180.

While this is certainly seen as success, that panther is still listed as federally endangered.

But as numbers have increased, in recent years, we have entered into the conflict management phase and these efforts take up a greater and greater portion of our time and resources.

In particular, more panthers have led to an increase of reported panther depredations on pets, hobby live stock, and calves in commercial cow/calf operations. Public safety also has become a greater concern. As conflicts increase, social tolerance of panthers is strained. Populations cannot continue to increase indefinitely. Determining what a sustainable population of panthers is for south Florida is not just a biological question but also a social one. Defining sustainable panther coexistence will need to address a host of issues including the probability of persistence, depredation rates, public safety concerns, and prey availability.



A key concept in how wildlife biologists conceptualize and manage fish and wildlife species is biological carrying capacity. Biological carrying capacity is the number of individuals that a given area can support. A corollary to biological carrying capacity is social carrying capacity. This is the number of individuals of a species that humans want or can tolerate. Although it can be challenging to achieve, ideally social carrying capacity (yellow zone) lies within the biological carrying capacity of an area (blue zone). Unfortunately, this is not always the case. Note that the upper boundary of the blue zone, the biological carrying capacity is not a straight line. That is because carry capacity can change over time due to changing environmental conditions or as a result of human impacts. Also, social carrying capacity, the number desired or the number tolerated can vary among people and groups.

Research Update

- Panther camera grid study
- Deer camera grid study
- Monitoring south Florida population demographics and health
- Monitoring natural panther range expansion



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The next 14 slides provide a research update including an update of the panther camera study that was introduced at last June's Commission meeting; the relation of this study to ongoing and potential future prey research; and a brief update on panther monitoring activities over the past year, both in south Florida and also north of the Caloosahatchee River.

FWC Camera Study: Phase One

- Test effectiveness of technique in Addition Lands of Big Cypress National Preserve
- Work informed by similar project in Picayune Strand
- 40,000 acre study area
- 50 cameras
- 4-5 month sampling period

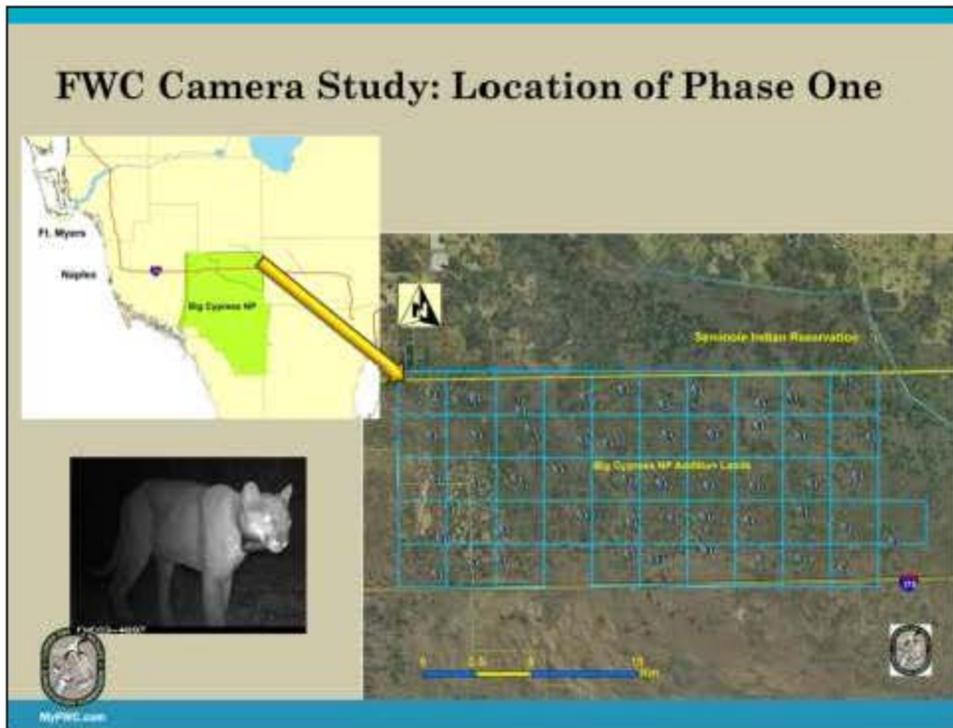


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The objective of phase 1 of the study is to determine whether deployment of a camera array can provide a statistically valid estimate of population density within the study area. The design of phase 1 benefitted from work done with camera arrays in the Picayune Strand State Forest by the Conservancy of Southwest Florida and additional statistical evaluation by NC State University and the US Geological Survey. Working with these partners, FWC developed a statistical technique that can estimate the density of panthers in a study area using camera traps. This technique has specific requirements on the size of the study area (approximately 40,000 acres), number of cameras needed (approximately 50), deployment length (4-5 months) and number of radio-collared panthers needed in the study area (5-7).

The Addition Lands of Big Cypress National Preserve (BCNP) were chosen because of implications regarding future management initiatives in that area as they relate to panthers, deer, possible increase in hunter and ORV access. It is also a large area of public land that can incorporate such a large study design.

The FWC study is being done in conjunction with another camera grid for panthers that is located on the Florida Panther National Wildlife Refuge (FPNWA) and coordinated by David Shindle at the Conservancy. FPNWR is comprised of a different assortment of habitats than the Addition Lands, a more frequent burn regime and is completely closed to hunting. In addition, Elina Garrison (head FWC Deer Researcher) and collaborators at UGA have initiated 3 camera grids for a deer survey on the Bear Island and Addition lands Units of BCNP as well as the FPNWR. The combination of these studies demonstrates the high level of collaboration between and within agencies or other organizations. Photographic data collected on panthers, deer, and other wildlife could prove useful for a variety of purposes besides just getting density estimates for panthers or deer.



This slide shows the study location of the FWC camera study on BCNP Addition Lands.

Since a number of marked (i.e. radio-collared) panthers are required for the study design, 5 new panthers were captured and collared during the 2013-14 season. Note that 2 panthers had been previously collared in the study area.

Once perfected, this methodology could be used on a variety of habitats (including private lands) to get a better estimate of density across the panther range. That information could then be used to provide total population estimate with statistical confidence.

FWC Camera Study: Phase One Update

- 50 cameras deployed 1 Apr - 19 Sept 2014
- Total of 179,957 photos
- Approximately 88,085 wildlife photos
- 2,193 photos of panthers (46 of 50 cameras)
 - 131 unmarked panther events
 - 114 marked panther events
- Over 35 species documented on cameras
 - Whitetail deer most common
- Density estimates expected in 2015

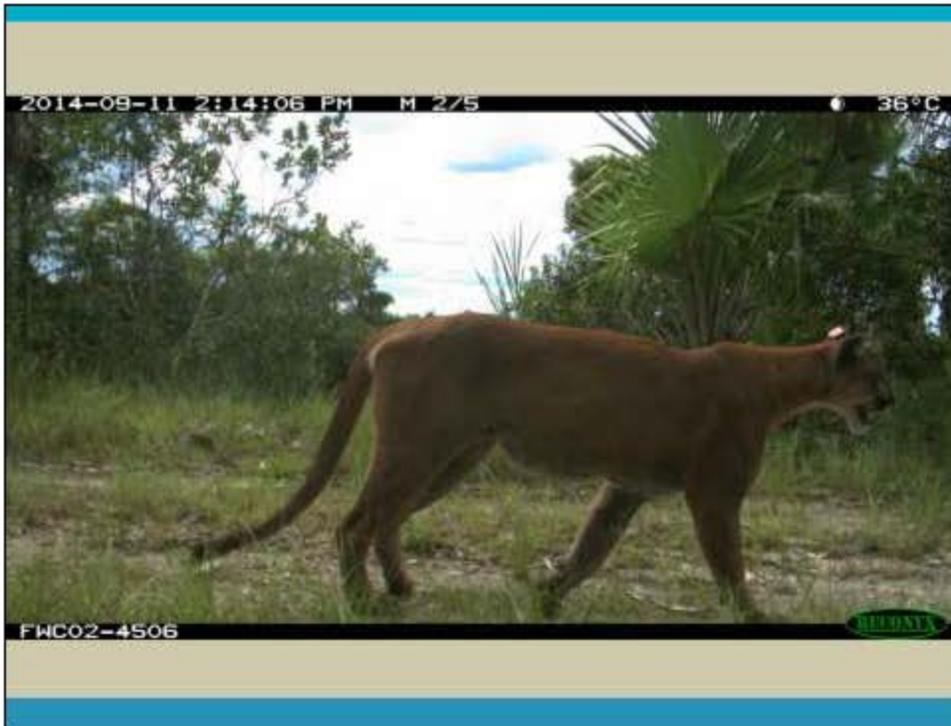


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50 cameras were deployed in the study area and photographed wildlife continuously between April and September, 2014. Cameras averaged 157 trap nights (number of nights the camera was actively taking photographs). A total of 179,957 photos were taken; 88,085 of those photos captured wildlife including 2,193 photos of panthers. Note that the cameras take a series of 5 photos for each motion trigger so the number of photos of a species does not directly correlate to the number of individuals of that species photographed.

Panthers were detected by 46 of 50 cameras. To assist in interpreting the panther photos, we had to define what constitutes a “unique event” to avoid double counting the same animal in a short period of time. In general, unique siting events required at least 60 minutes between successive photographs. Collared animals were easily identified, however uncollared animals could typically only be identified by sex. Using our approach, photographs of uncollared panthers of the same sex had to be at least 60 minutes apart in order to be considered unique events. Of the 2,193 panther photos collected, 245 were considered unique events, 131 of which involved unmarked panthers and 114 involved marked panthers. It is important to note that these are multiple photographs of the same individual panthers and that in most cases we can not distinguish individual panthers from the photographs.

The large number of non-wildlife photos is a result of a few cameras being tripped by vegetation. However, the storage capacity of the cards in these cameras was large enough to prevent any lost time photographing wildlife due to large numbers of non-wildlife photos.



This slide shows a series of collared and uncollared panther photos.

FWC Camera Study: Phase Two

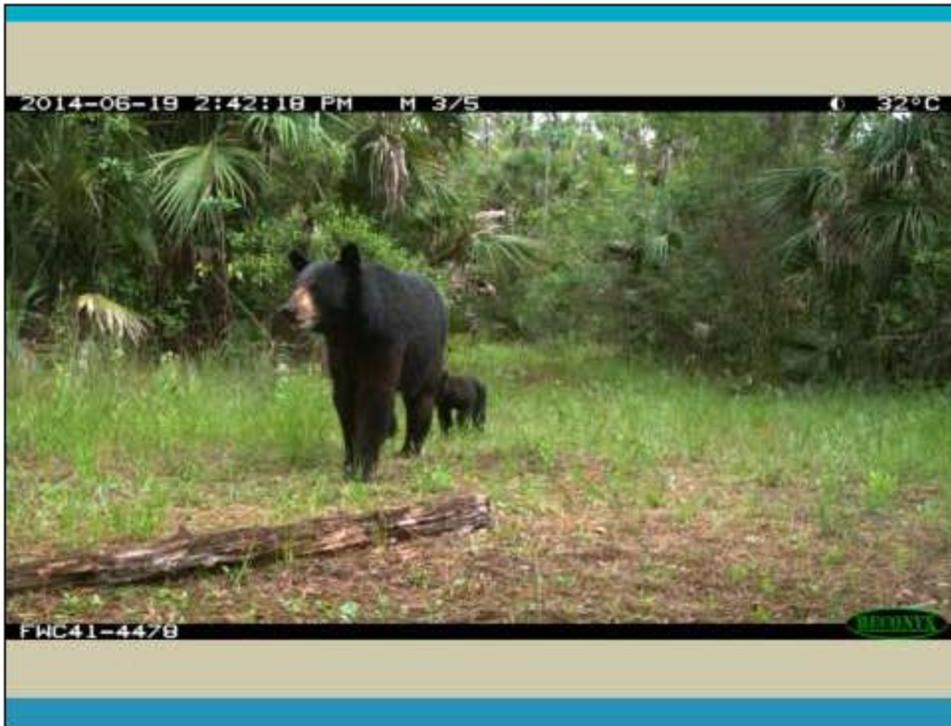
- Improve the analytical technique
- Attempt to obtain density estimate for the entire breeding range
- Incorporate new covariates
 - Water levels
 - Prey base
 - Habitat
 - Intensity of use by recreationists
- Deploy additional camera grids



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Phase II will commence in the 15-16 FY. Will attempt to improve the analytical technique to allow for a range-wide estimate of the population size for the FL panther. Additional variables including water levels, prey base, habitat quality and quantity and intensity of recreational usage will be incorporated in an effort to improve the precision of density estimates and to more accurately extrapolate estimates of density to unsampled areas across the breeding range.

The strategy is to test the new analytical technique by collecting data from additional camera grids across panther habitat of varied quality. Collecting data from private lands would improve the estimates, but very large blocks of land (40,000 acres) may make such an endeavor logistically challenging.



In addition to photographers of panthers the camera capture a wide array of wildlife.

To date, we have only reviewed and summarized the data for other wildlife on 25 cameras. On those cameras there were 45,299 photos of wildlife. The most frequent species photographed was White-Tailed Deer. Over 35 different species were documented that included mammals, birds, reptiles, insects.

16,825 were whitetail deer (37%)

9,516 were turkey (21%)

1,000 were panther (2%)

These preliminary results, that show numerous and diverse species on the study sites is similar to the results of previous studies by David Shindle, on the Panther Refuge and in the Picayune State Forest. In some areas of south Florida other researchers and stakeholders have reported an apparent decline in the abundance of some prey species. We believe additional research on long-term prey abundance and trends is warranted.

South Florida Deer Study

Research Need

- Concerns over population declines
- Need for better monitoring tool
- Changes in the landscape

Team Effort

- FWC, UGA, Jones Center, USFWS, Conservancy of Southwest Florida, NPS, Florida hunters

Progress /update

- Field work began in January 2015
- 100 deer captured with helicopters and fitted with GPS collars
- 180 remote sensing cameras in Panther Refuge, Bear Island and Addition Lands North





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One such study of prey is underway: the south FL deer study. Because of concerns over population declines in some areas and the recognized need for better monitoring, FWC initiated a cooperative 5 year study. This project involves multiple FWC divisions. The research is being lead by scientists from the University of Georgia and the Joseph W. Jones Ecological Research Center. Other partners include Big Cypress National Preserve, the USFWS, and the Conservancy of Southwest FL, and Florida hunters.

The research is intended to provide:

- Annual and seasonal survival rates of adult bucks and does
- Causes of mortality
- Spatially explicit capture recapture model that will provide deer population density and abundance estimates with precision required to justify management decisions
- Annual and seasonal home-range and movement patterns
- Estimate of fawn recruitment rate and other population information (e.g. timing of fawning, antler casting).
- Ability to assess the effects of hydrology, hunting, predation, climatic conditions, habitat characteristics (including impacts of prescribed fire and wildfire) and landscape on deer population dynamics

Monitoring Population Demographics and Health -- Recent field data (NPS and FWC)

Since 30 June 2014	What we learned/accomplished
<ul style="list-style-type: none"> • Samples/data collected on 46 panthers • 10 new radiocollars deployed • Currently monitoring 26 • 5 dens located • 14 kittens handled • 3 panthers tested + for FeLV • Panther stomach contents analysis 	<ul style="list-style-type: none"> • Panther fitness and survival • Genetic material collected and analyzed • Reproduction parameters • Assessed varied home range models and movement patterns using GPS collar data • Information of panther food habits



NPS/FWC.com

The purpose of this slide is to provide a quick update on some of the activities/accomplishments over the past year (listed on the left). On the right are some of the information needs that are filled by our ongoing program to capture and radio tracking panthers. It is important to note that our capture and radio tracking work provide far more data than simply the location of panthers. It is foundational technique for collecting long-term data for monitoring of population demographics and health; a cornerstone of FWC's panther research and management program. In order to effectively manage a sustainable population we need information that monitors health, diseases, and genetics, information on reproduction, adult and kitten survival. All of these are important components of measuring successful recovery and demonstrating long-term sustainability. Collecting these data is slow, takes many years, and is dependent on an agency commitment to monitoring. FWC staff have many tools and individual projects that contribute to the overall data collection and understanding. These include: capture, examine, and monitor adult panthers; tag female panthers in order to find kittens; locate dens and then examine and micro-chip kittens; necropsy and sample all panther mortalities.

Results of the past years work include:

- Samples collected from 36 dead panthers and 10 captured panthers that were radio-collared
- 5 of 10 radiocollars deployed by FWC were GPS.
- During the year 26 panthers monitored is inclusive of FWC and NPS
- 5 dens were located (includes FWC and NPS).
- 3 panthers have tested positive for feline leukemia (FeLV). Our vigilance in monitoring for this deadly viral disease for panthers is critical in assisting with trying to reduce the probability of an outbreak spreading through the population.
- Data from radio-collared panthers continues to provide information to inform us on panther fitness, survival and population persistence. Play a key role in PVA modeling.
- Genetic monitoring of the population continues via the collection of DNA from all panthers handled by FWC and NPS. Samples processed on a biannual basis. We successfully collected several biopsies using biopsy darts to remotely sample panthers treed by our houndsman.
- Stomach contents of more than one panther collected at necropsy and 175 panther scats collected in the field have been examined and final data analysis and publication preparation is underway. Prey items in order of frequency are deer, wild hog, raccoon, and armadillo. Live stock or domestic animals made up a very small proportion of the samples, with domestic cat being the most frequent.
- Research staff published 5 peer reviewed journal articles over the past year with another in press.

FWC Panther Monitoring -- VHF and GPS

VHF	GPS
<ul style="list-style-type: none"> • Cost \$200-\$300 each • Last 3-5 years • Require FWC panther staff fly 3 times/week • Collects data sufficient for demographic analyses • No data on fine scale movement or behavioral patterns. • Daytime only • Annual Cost \$70,000 	<ul style="list-style-type: none"> • Cost \$2000-\$3000 each + monthly transmission fees • Tested models last 1 year • Do not always transmit data in dense cover • Provides fine scale movement and behavioral data (day and night) • Can negate the need to fly if transmissions are reliable • Annual cost \$65,000



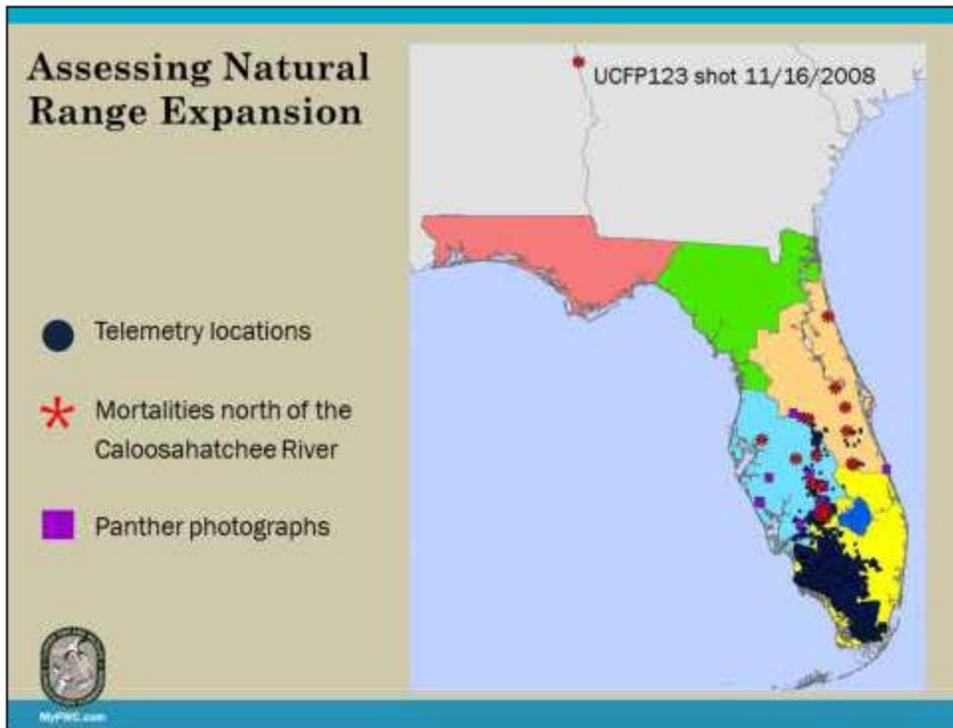
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FWC staff evaluate new technology in order to maximize data collection accuracy, efficiency, and reduce risk and cost. In particular staff have been evaluating advances in in wildlife telemetry. Traditional telemetry involved fitting study animals with radios that broadcast a very high frequency signal that is picked up by biologist using antennas either on the ground or in the air. New technologies involves Global Positioning systems, satellites and cell phone technology. Both have advantages and disadvantages.

Details on cost of VHF vs. GPS tags:

- VHF radiocollars cost ~\$300 per unit.
- GPS radiocollars can range between \$2000-\$3000per unit.
- Maintenance cost of GPS radiocollars after deployment is low (~\$20/unit/month for data transmission fees)
- Monitoring VHF radiocollars via aerial telemetry costs \$205/hr. Average flight time is 2.5 hours for locating 15-20 panthers. This equates to \$1538/week for flights or approximately \$70,000 per year
- FWC has tracked approximately 20 panthers per year. Costs to monitor 20 panthers with GPS-GSM or Iridium radiocollars would be approximately \$64,800/year for the cost of the radiocollars and transmission fees

FWC is moving toward a greater use of GPS collars because of the potential for more robust data collection and the reduced risk of staff flying. We fully anticipate that the battery limitations with GPS units will be resolved as the technology continues to advance and improve which will allow us to fully embrace and utilize this technology.



Range expansion is a natural consequence of a growing population. While the Caloosahatchee River, Lake Okeechobee, and the St. Lucie River may discourage some panther movement north, it is not a true barrier. Physical evidence of panthers have been documented in 3 FWC regions, and clearly a panther ranged into at least a fourth FWC region as it was recovered in Georgia. To date, all of the physical evidence of panthers north of the river have been from males. However, some reports from the public have suggested that females may already be north of the river. In order to follow up on public reports and input from stakeholders, FWC began placing wildlife cameras on public and private lands in an effort to photo document panther presence.

Remote Camera Monitoring North of Caloosahatchee River

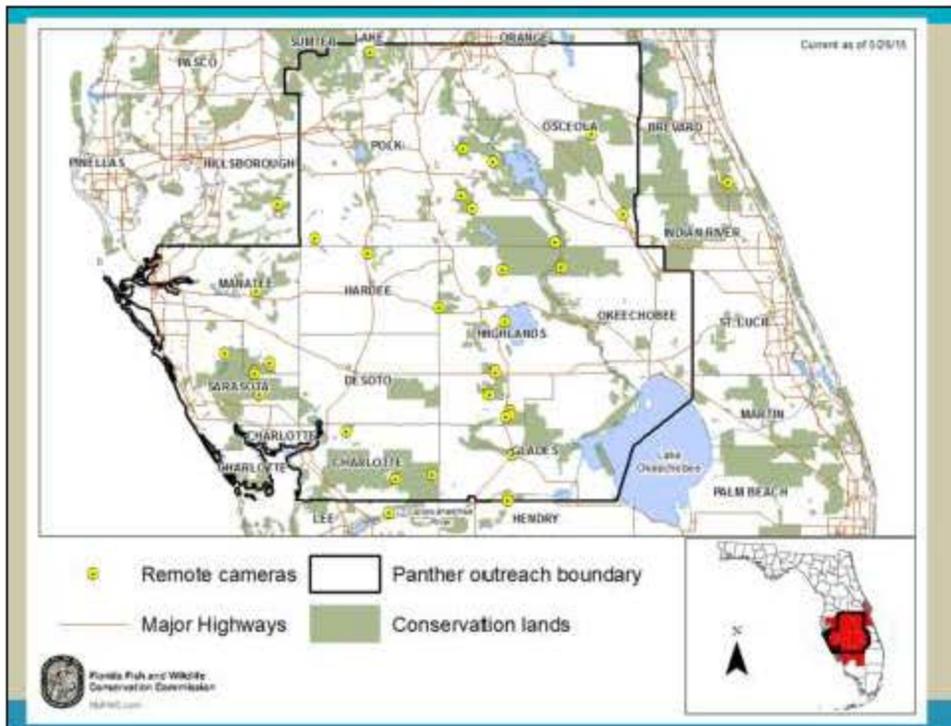
- 36 cameras placed
 - 17 on public lands, 19 on private lands
 - Minimum of 8 different panthers currently “known” between Caloosahatchee River and Green Swamp (including FP232)



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Panther photos have been obtained from 10 different camera sites. First cameras were deployed January 2014.

About 75 total photos of panthers have been obtained.



Yellow dots show the approximate locations of trail cameras deployed since Jan 2014. This network of cameras provides a relatively low cost method of monitoring a wide area for panther presence and could perhaps confirm the presence of female or breeding panthers.



The above are examples of photos of panthers north of the Caloosahatchee river, in four different counties, taken from the FWC camera network.

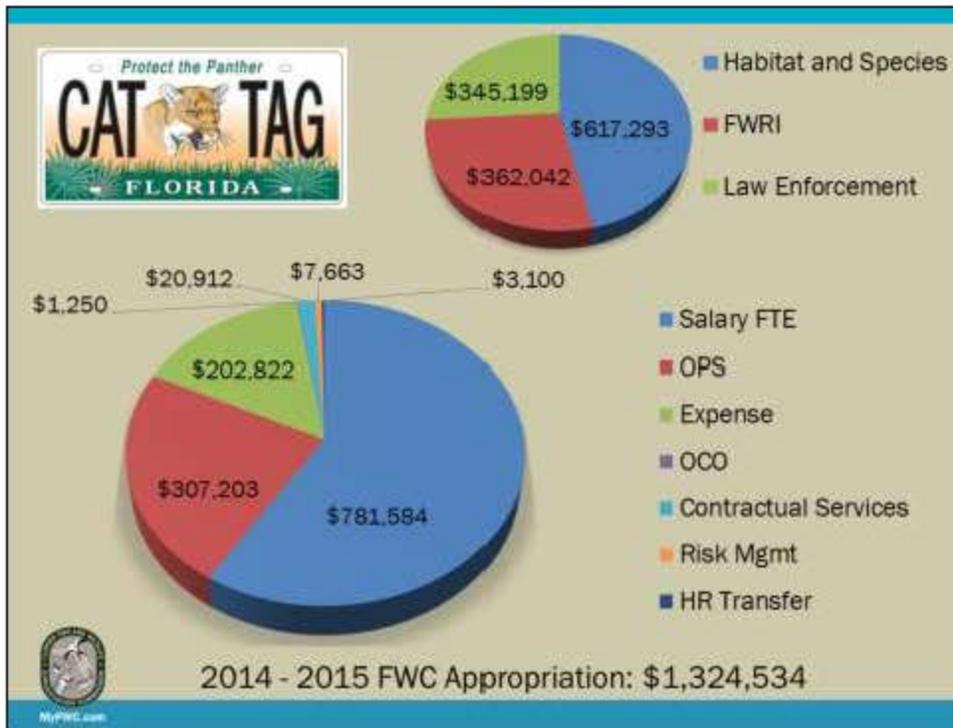
Management Update

- Panther Conflict
 - Depredation
 - Roadkill
 - Human safety
- Private Lands Initiatives
- Funding/Support

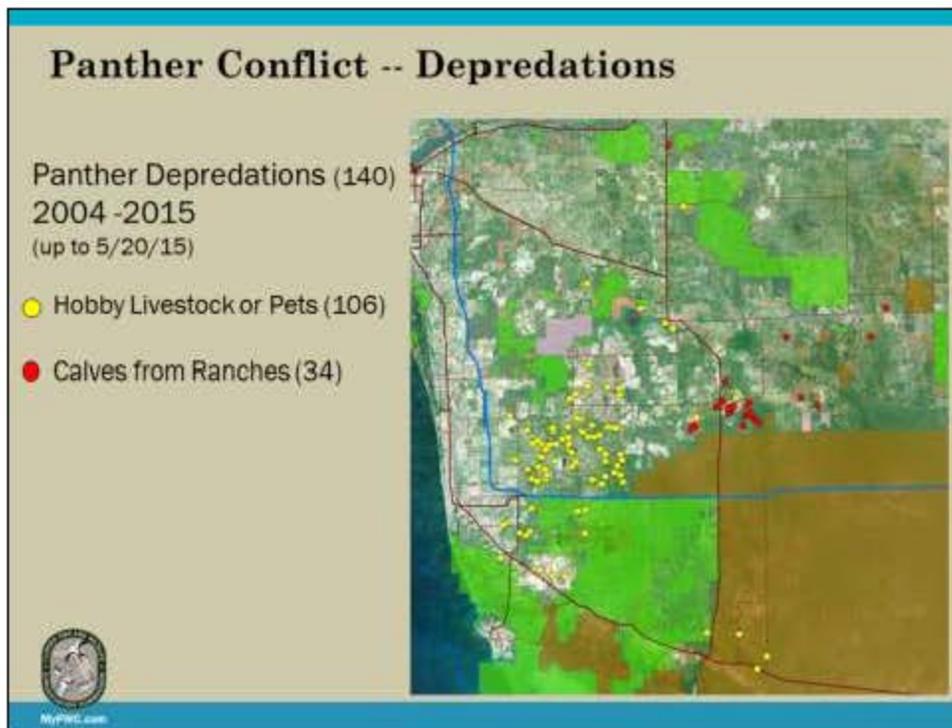


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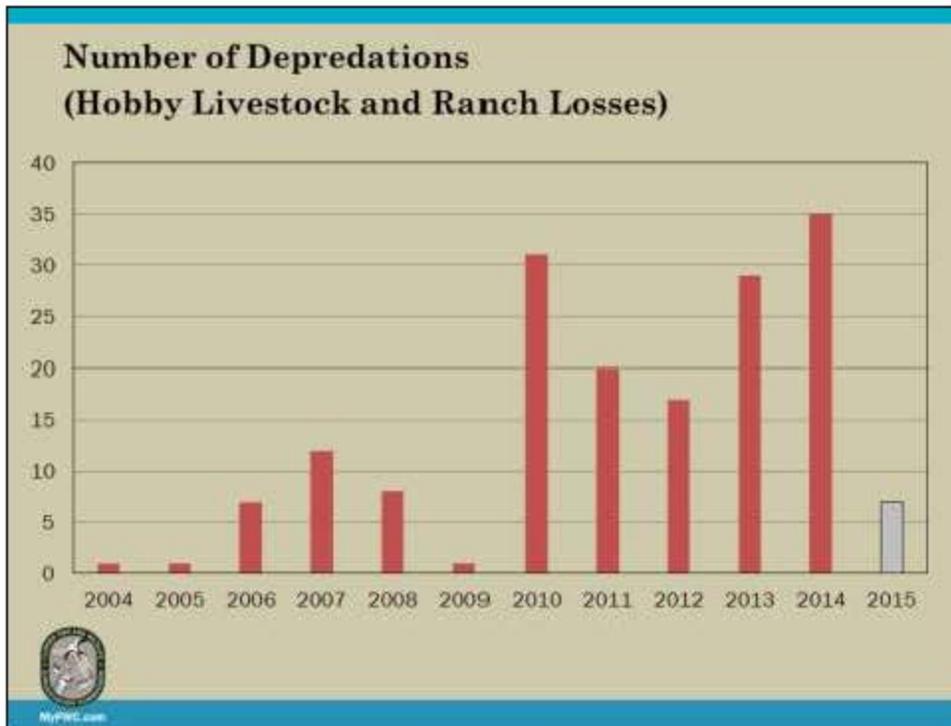
The next 16 slides provide an update on management activities including types of panther conflict, private land initiatives, and funding.



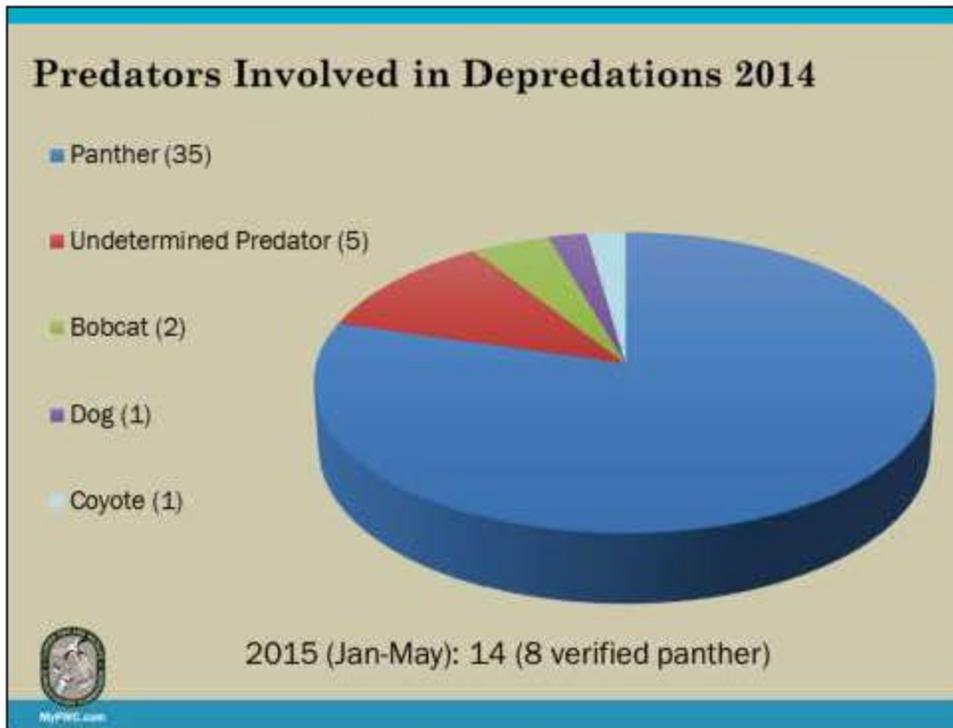
The panther license plate provides funds for the majority of the FWC panther conservation program. In addition to funding 5 biological staff, the tag also provides salary dollars to the Division of Law Enforcement to support funding for 5 FWC officers.



A panther depredation is the term used when a panther kills either a pet or domestic livestock. This map shows the locations for depredations from 2004 through April 2015. The yellow dots are cases of depredation of a pet, or “hobby” livestock. The red dots represent depredations of calves from cattle ranches. Some depredation cases have occurred at the same or very near-by locations so the dots cover up other dots on the map.



This bar graph shows the number of depredation incidents that have occurred annually since 2004. Note that the 2015 data is through only through April, so at this point it does not represent a decrease, but rather just an incomplete year. Also of note is that the data have not been collected equally over the years. For example, the data include a IFAS calf study in 2011-2013 which likely resulted in an increased awareness of depredations during those years. Typically, because of the size of ranches and the type of habitat, depredated calves are not found. Another factor may be an increased awareness by homeowners regarding who to report depredations to. We have stressed the importance of reporting these cases as part of our public outreach. Regardless of the possible affect of reporting bias, the fact remains that during the past 11 years, the five highest years on record were the most recent 5 years. Accordingly, investigation of depredation reports has become a much more significant part of the FWC panther team’s job duties and take greater resources.



FWC staff respond to and investigate reports of depredations. Not all depredation reports are from panthers. This chart show the percentages of wildlife responsible for the depredations investigated in 2014.

FWC Response to Increasing Depredations

- Added depredation information to FWC web site
- Created an email notification system to update stakeholders regarding depredations
- Put out a statewide press release that focused on depredation issue
- Coordinated increased neighborhood notifications



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As the number of depredations that we are investigating has been increasing we have taken a number of steps to address this issues. We added statistics regarding depredations to our web pages so that public is more aware of this problem. We now provide notification to people using the our Gov-delivery system when depredations occur. We have coordinated two news media pieces that specifically highlighted the depredation problem. We have ramped up our response by coordinating with partners to ensure that neighbors in the immediate area are aware. FWC has also added an additional staff member to the Naples field office to address increasing bear conflicts. While not officially part of the panther program this staff member provides increased capacity to canvass neighborhoods and provide technical assistance to homeowners some of which may have bear and/or panther concerns.

Neighborhood Notification and Homeowner Assistance

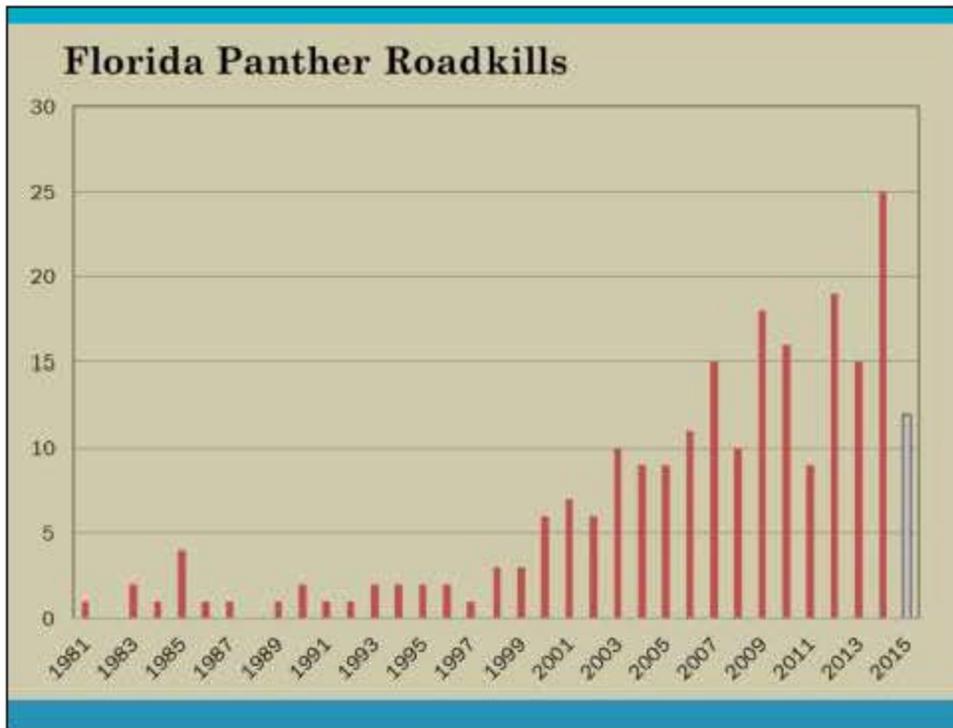
- September 2014 - 6 sq. mile area canvassed
- Six other site specific areas canvassed subsequent to individual depredations
- Canvassed area ranges from $\frac{1}{2}$ - 1 mile "radius" from depredation location
- Living with Panthers brochures, Living with Bears brochures provided
- Safety pens for hobby wildlife



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Public safety is paramount importance to FWC and depredation reports provide us with clear evidence that panthers are in suburban neighborhoods. We believe it is important that people in these areas are made aware when a depredation occurs, so they can take steps to protect their livestock or pets and also to remind them of safety precaution to take when living in panther country. Over the past year, one of the canvassed areas was in south Naples, all others were in Golden Gate Estates.

Defenders of Wildlife and The Conservancy of Southwest Florida have programs in place to assist animal owners in acquiring and building a safety pen to protect their pets and hobby livestock (i.e. backyard farm animals such as goats, etc). These two groups partner whenever possible to further decrease the cost of pens for the homeowner. Additionally, a group of volunteers erect the pen which also makes it easier on the homeowner. When FWC investigates and verifies a panther depredation the owner is informed of the programs during the site visit and given information (brochure outlining programs and contacts).



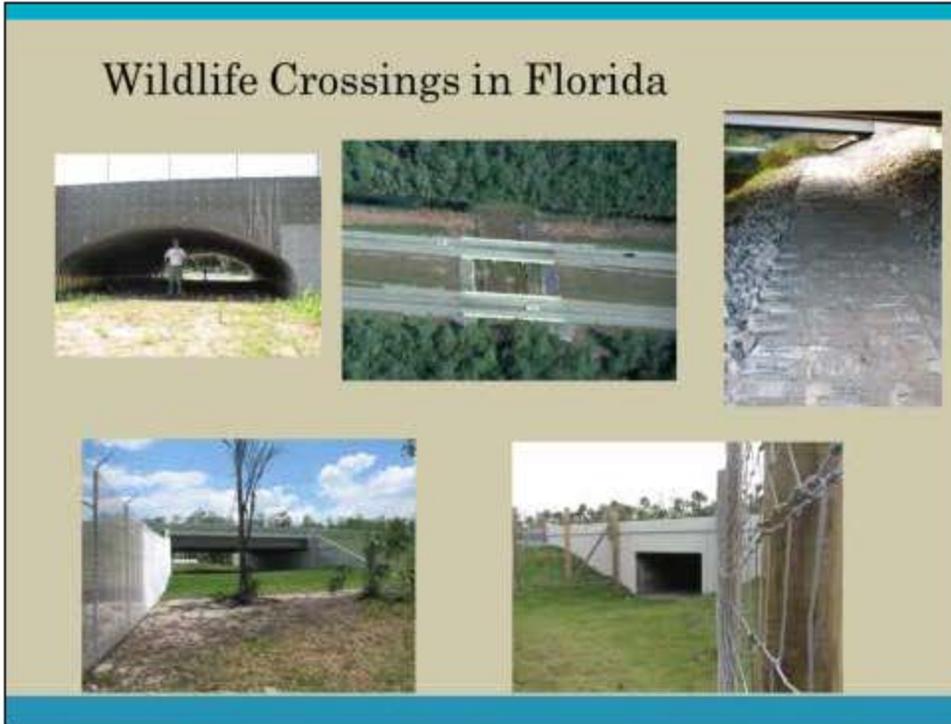
Collision with vehicles is a leading cause of death for panthers. As the graph shows, annual roadkill numbers are increasing over time. 2014 was the highest year on record for panther roadkills with 25 verified.

Graph includes road kills through 20 May 2015.



This map shows the location of the 2014 and 2015 roadkills (through 4-30-2015). Some road kills occurred close to wildlife crossings because fencing is not continuous along the road. Fencing lengths vary according to the local conditions but is generally from $\frac{1}{4}$ to $\frac{1}{2}$ mile on either side of the crossing.

Wildlife Crossings in Florida



FDOT, FWS FWC and the private sector have worked together to construct 60 structures to accommodate panther and other wildlife movement across Florida's roads. There are different types of wildlife crossings. Some are bridges over land that allow the animals to pass beneath. The crossing in the upper left is that type; it is a crossing under CR 846 east of Immokalee (the first privately-funded crossing as part of development mitigation). The top middle photo shows what these crossings look like from the air, this one under I-75. The upper right photo shows a crossing under S.R. 80 near Labelle that is a shelf that allows animals to pass next to the canal. The two bottom photos compare the old style crossing under S.R. 29 that measures 8' high by 50' wide. Newer crossings are smaller like the one pictured on the lower right which is 5' high by 10' wide.

Animal Use of Wildlife Crossings



While panthers may be the primary reason for wildlife crossings in SWFL they are used by a wide variety of animals.

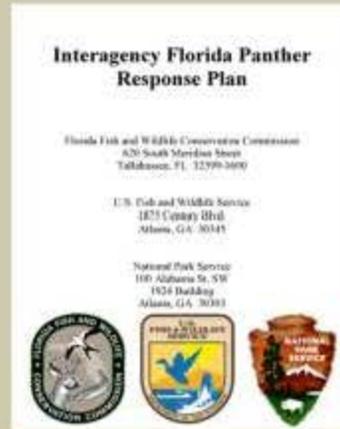
Panthers and Human Safety

Interagency Response Team

- Meets annually
- Reports to senior level oversight committee
- Produces annual report



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Panthers are powerful predators, and although generally afraid of people, there have been multiple cases of puma (mountain lion / cougar) attacks in other states, some resulting in fatalities. Accordingly the FWC in partnership with the USFWS and NPS developed a Florida Panther response plan to deal with panther conflicts and particular cases where public safety is at risk. The interagency response team provides a forum to address potential human safety issues both in response to an event and also proactively. The response team assesses annual cases and provides an annual report, and reports to an interagency (FWC, FWS, NPS) senior level oversight committee. Public safety is of paramount importance to FWC. With increasing panther and human populations a greater emphasis on public safety is warranted.

Panthers and People -- Unusual Cases 2014 - 2015

October 2014: panther acting strangely near road



Captured, panther had been shot in face and was blind; placed at Naples Zoo

November 2014: young panther on tennis court in east Naples



Captured, not suitable for release; placed at Miami Zoo

February 2015: Panther found in yard in Port Royal, Naples



Captured, fitted with GPS collar, relocated and released



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In addition the research and management activities that we plan for there are always a variety of panther related cases that our staff respond to each year. Often these situations relate to public safety and make interesting news. This slide shows three examples of cases that FWC staff, based at our Naples field station, responded to.

Usually, when roads are involved staff are called to respond to dead panther on the road way. This past October they responded to a report of a live but potentially injured panther next to Immokalee Road. After the panther was captured it was determined that instead of collision injury the panther was essentially blind as a result of a shotgun blast. This panther was treated, and the Naples Zoo offered to provide long term care for the cat.

In 2014, a young panther was found on a tennis court in east Naples. The panther was captured. Because it was so young, it was not considered a candidate for eventual release because it would not benefit from the process of its mother teaching it to hunt. The Miami Zoo offered to provide long-term care for this panther.

In February of 2015 homeowners in Port Royal in Naples were surprised to find a young adult male panther trying to hide in yards. The panther was darted and removed from this waterfront community.



FP238 captured on 2/3/15 in Port Royal and released late that same day in Picayune Strand State Forest. The young male quickly returned to the Rookery Bay area where he remained for a few months. In mid-April, FP238 made a big movement away from Rookery Bay by heading east to Fakahatchee Strand, then returning west through Picayune Strand State Forest and entered into an urbanized area of east Naples. He then returned to Rookery Bay after about a week's worth of travel. Recently, he bolted from Rookery Bay, traveling generally along US 41 and is currently in Big Cypress National Preserve some 40+ miles from his capture location.

Private Land Initiatives

- Payment for Ecosystem Services
 - Drafted by Panther Recovery Implementation Team
 - Applying for federal funding
- Farm Service Agency payment for loss
- Safe Harbor
- Habitat Conservation Plans



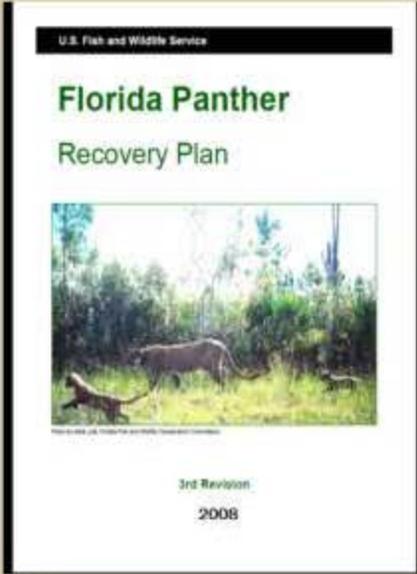
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The Panther Recovery and Implementation Team developed and drafted a Payment for Ecosystem Services (PES) approach for landowners that provide panther habitat through land management practices. FWC and partners are developing a proposal to submit to Natural Resources Conservation Service (part of the U.S. Department of Agriculture) for potential funding.

As part of the revised Farm Bill, the Farm Service Agency (also part of the US Department of Agriculture) has a program to pay for depredations from panthers in Florida. The program was effectively retroactively. Thus far \$6,130 has been paid for the loss of 18 calves with the average payment being \$340 per calf.

The USFWS continues to explore other Federal initiatives designed to provide benefit to landowners in panther habitat. Safe Harbor is a voluntary conservation agreement between a non-Federal landowner and the USFWS. Landowners receive assurances that additional conservation measures will not be required and additional restrictions will not be imposed in the future. A Safe Harbor approach has been drafted by the Service and reviewed by the Panther Recovery Implementation team.

Habitat Conservation Plans (HCPs) are plans that provide coverage to landowners for potential “take” of panthers associated with land development. A HCP for eastern Collier County is in development.



Recovery Criteria

Endangered to Threatened
Two populations of 240

Delisting
Three populations of 240

A viable population, for purposes of Florida panther recovery, has been defined as one in which there is a 95% probability of persistence for 100 years

U.S. Fish and Wildlife Service
Florida Panther
Recovery Plan
3rd Revision
2008
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The goal of the Federal Recovery plan is to achieve long-term viability of the Florida panther to a point where it can be reclassified from endangered to threatened and then removed from the Federal List of endangered and threatened species. To meet this goal there are three recovery objectives in the plan:

- 1) maintain restore the panther population in south Florida including expansion north of the Caloosahatchee river
- 2) Establish viable population of panthers outside of south and south-central Florida
- 3) Facilitate recovery through public awareness and education

A viable panther population is defined in the plan as having a 95% probability of persistence for 100 years. The plan sets forth that the minimum size of a viable population is 240 animals. The plan further requires three such populations of 240 each for the panther to be removed from the Federal List.

The current recovery criteria likely would require panther populations to be established outside of Florida, if that is the case the state of Florida and FWC would not have the legal authority or ability to achieve recovery.

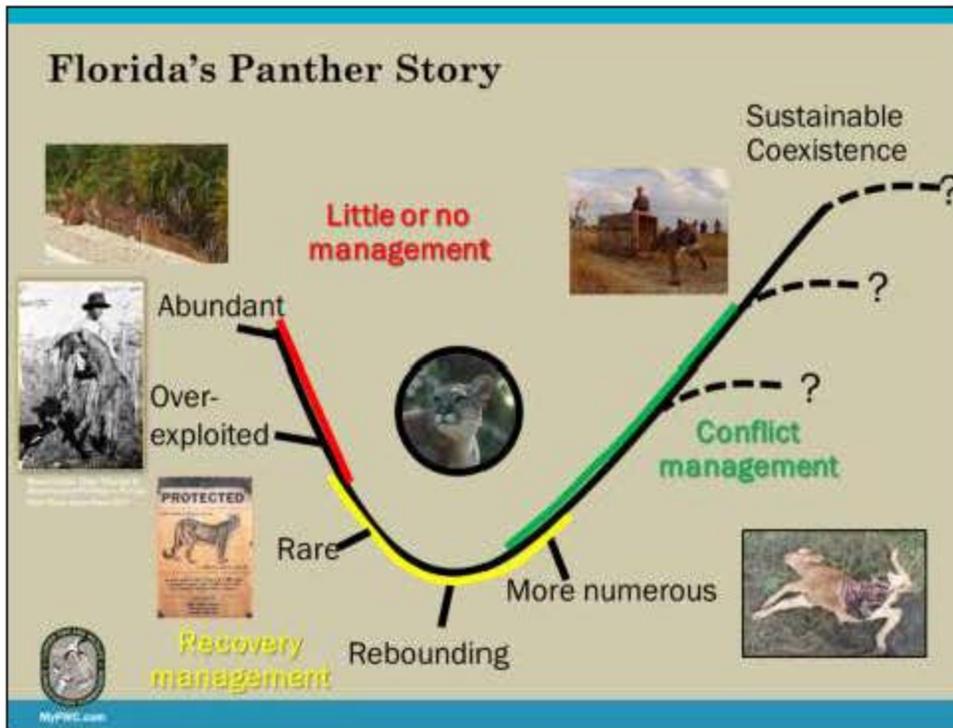
Panther Recovery Implementation Team

- Established by FWS 2013
- Originally had 7 members
 - FWS (2), NPS, FWC (2), Barron Collier, DOW
- 2014 added two members:
 - Todd Hallman (hunting perspective)
 - Lindsey Wiggins (ranching/agricultural perspective)
- Finalized a Payment for Ecosystem Services proposal and provided to FWS and FWC
- Forming sub-teams to address important issues



NPS.gov

The first federal recovery plan was developed by a team of 42 members. The FWS established a new Panther Recovery Implementation Team in 2013 to provide oversight and help prioritize panther recovery. Originally the team consisted of 7 members: 2 from FWS, 2 from FWC, 1 from National Park Service, 1 from Barron Collier Co. and 1 from Defenders of Wildlife. Over the past year 2 additional members were appointed: Todd Hallman (Florida Sportsmen's Conservation Association) and Lindsey Wiggins, (Regional Livestock Extension Agent).



In the early years, our panther management focused on individual panthers. Today, with significantly more panthers occupying virtually all suitable habitat in south Florida, our focus is shifting. Today's challenge is to manage the population so that it meets our goal of sustainable coexistence. Determining what population level best fits the concept of sustainable coexistence will require both social and biological science, as well as stakeholder engagement.

Panther Program Challenges

- Recovery criteria are outdated and not feasible
- Increasing conflicts
- Importance of private lands, but limited tools
- Limited state resources

Staff seek guidance and direction from Commission



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The federal Recovery Plan for the Florida Panther has a goal to recover the population of the species to a point where it no longer merits listing under the federal Endangered Species Act. The plan requires three populations of panthers of at least 240 each and includes panther populations in other states. Therefore, under the current plan, recovery may not be able to be achieved in FL alone, but will likely depend on actions of the FWS and other states. Many of the “costs” and all of the conflicts are being experienced only within Florida. Exploration of additional resources for FWC to manage, research and address challenges is certainly needed. More tools to effectively manage a large predator such as panthers are needed and acceptance of these tools under the federal Endangered Species Act must be achieved. Some Florida specific changes within a revision of the Recovery Plan should be explored for both population goals and addressing conflict animals as populations increase. Additional commitment from USFWS and the National Park Service is needed to successfully address the issues with this Federally listed species into the future.