

# Florida Panther Recovery Implementation Team Meeting Summary

October 22-23, 2013  
Gainesville, FL

The meeting began with group introductions, including introducing invited guests. The purpose of the meeting was to discuss the status of ongoing panther demographic research and learn of available landowner incentive opportunities.

Invited Guests: Caitlin Jacobs (UF), Dr. Martin Main (UF), Dr. Madon Oli (UF), Madelon van de Kerk (UF-via webex), Henry Burkwhat (NRCS), Michael Bush (NRCS)

We had an initial discussion about whether the Recovery Implementation Team (Team) meetings should be open, public meetings. Recovery Teams and Recovery subteams are not legally required to be publicly noticed or include public participation. They are considered working meetings of appointed Recovery Team members and invited guests. However, we will consider hosting open meetings on specific topics in the future, where the public is invited to observe, (sometimes referred to as fishbowl meetings) or full public meetings where the public is invited to participate. We will also investigate the possibility of helping organize a panther forum where all interested stakeholders could participate, similar in some ways to the Manatee Forum, created jointly by FWC and FWS.

## Population Dynamics

Dr. Madan Oli started this session with a brief overview of how the Florida panther population has responded to the effects of genetic restoration. In brief, the findings from that research suggested that the panther population would have declined substantially in the absence of the genetic restoration and would have experienced a much higher risk of extinction. This research was published this year: Hostetler et al. 2013. *J. Animal Ecology*, 82: 608-620.

Dr. Oli also emphasized the importance of considering criterion to determine the status of the panther population in addition to, or instead of, a threshold population size, such as the minimum viable population (MVP). He suggested using criteria similar to those used for the Florida manatee: estimated population growth rate and survival rates. If a MVP is desired, we must consider the uncertainty associated with the parameters used for estimating those values. Panther growth rate is most sensitive to changes in survival rates. We should focus on obtaining more field data on adult and kitten survival. In addition, carrying capacity is very difficult to estimate because it changes based on environmental parameters. The increase in intraspecific aggression could be an indicator that the population is reaching carrying capacity.

Dr. Oli and his PhD student, Madelon van de Kerk, are currently working on an individual-based spatially-explicit model for panthers in South Florida. Madelon presented a piece of this research that modeled the movements of panthers in the landscape. This model is intended to

be used to investigate the influence of behavioral interactions, habitat quality, and spatial ecology on the dynamics and persistence of the panther. Some Team members expressed concerns about the applicability of this research addressing recovery priorities.

Following that discussion, Kipp Frohlich gave a summary of a recent analysis that was done by FWC as a first attempt to statistically estimate the size of the panther population in Florida. This work was in response to a 2011 legislative proviso to assess analytical techniques that may provide a statistically robust estimate of the Florida panther population. The analysis used a mark/resighting technique for the available radio telemetry and road kill data. The results indicated that the numbers of panthers in Florida range somewhere between 120 and 500 animals (mean of 242). It is recognized that this estimate is very imprecise with a very wide range, and that it is likely the result of the very small sample sizes of data used in this analysis. This work will be peer reviewed soon. Caution should be taken with interpretation of these results until the peer review is completed and the work is published. The publication will focus more on the methods used than the results. The Team did not recommend that the current population range that is reported by FWC and FWS (100-160) be revised at this time.

An additional approach using camera grids to estimate density is also being pursued and could be used as a comparison in future analyses.

### **Range Expansion and Reintroduction**

This session was intended as a brief summary of a couple of agency initiatives to begin conversations about panther reintroduction. Laurie Macdonald presented an overview of the purpose of a meeting at White Oak Plantation in 2010. That meeting, Human Dimensions in Carnivore Conservation, was sponsored by Defenders of Wildlife, with the intent to begin the discussion of how to work on the social acceptance aspect of panther reintroduction, and hear about the “lessons learned” from other carnivore reintroduction programs. Following that meeting, the Service hosted a training workshop in 2012 to learn more about the Bleiker method of “informed consent,” where panther reintroduction was used as a case study. Both of these efforts were designed to help address the sociological issues associated with panther reintroduction; the White Oak meeting helped with recommendations and the Bleiker workshop provided the skills and a process. Unfortunately, agency plans to move forward with a reintroduction plan were delayed due to the increasing need to address panther depredation issues in South Florida.

All Team members feel that panthers (females) will eventually expand their range across the Caloosahatchee River. Some expressed the need to facilitate range expansion and work with landowners north of the Caloosahatchee River first. Others felt that because panthers will cross the river naturally, we should focus reintroduction efforts in another state.

The Team needs to investigate the likelihood of female panthers dispersing on their own across the Caloosahatchee River vs. having the agencies facilitate movement across the river. We also need to know how the landscape will be changing due to urbanization and climate change. We need to begin having discussions with landowners north of the River about what this means to

them. We will also need to get engaged with communities that are located in high quality panther habitat that could serve as possible recipient sites.

At future meetings the Team will discuss developing a plan for addressing both biological and human concerns for a possible panther reintroduction into areas of its former range. A subteam to assist with development of this planning effort will be appointed.

At our next meeting, the Team will talk about the FWS tools (Safe Harbor and “experimental population” designation) that could be used to provide landowner assistance and regulatory relief in areas where panthers would be introduced.

As a sidenote, the FWC is currently holding “inreach” sessions, talking to other regions about how to handle public inquiries about panthers because the cats are being seen in areas beyond southwest Florida.

### **Landowner Assistance**

The purpose of this session of the meeting was to inform Team members about an ongoing study on panther depredation in southwest Florida, and about the tools available to assist landowners that currently have or could have panthers on their property.

Caitlin Jacobs, a graduate student at UF, is currently studying calf survival on two ranches in southwest Florida. She is also looking at factors affecting calf depredations by panthers such as calf size and age, and associated habitat variables such as proximity to edge, amount of forested areas, etc. She is also surveying ranchers to evaluate their opinion regarding compensation programs and incentive based programs for providing wildlife habitat. Caitlin’s work will be valuable for ranchers in South Florida as well as for ranchers in areas where panthers could occur in the future.

Scott Sanders, Director of the Office of Conservation Planning Services in FWC, provided an overview of the services offered by this program, with the intended purpose to grow and nurture public private partnerships. Through the Land Use Planning Program and the Landowner Assistance Program, FWC develops and helps implement comprehensive, habitat-based management plans and incentive programs for landowners. It provides managers of publicly owned lands with technical assistance to implement land-use plans that reduce negative impacts on fish and wildlife, and offers voluntary habitat-management assistance to landowners who want to manage their lands for wildlife. The program can provide technical, financial and educational support and also recognizes and rewards landowners for their efforts.

The Florida Land Stewardship Program is a partnership between FWC, NRCS and FWS that allows the agencies to work together in a coordinated manner to focus on outreach and education and product planning. These agencies are involved with the NRCS Farm Bill Program, providing conservation easements, best management practices for wildlife on private lands, payment for ecological services and conservation accounting at the regional scale.

A majority of funding for private landowners is provided through the NRCS Farm Bill. There is a diversity of approaches for landowners, and conservation benefit can also be accounted for landowners who are not enrolled in government programs.

The Team had some discussion about the qualifications for the Farm Bill and how some landowners won't qualify because of their adjusted gross income (AGI). The current AGI rule, also known as the "Scotty Pippen Rule," is designed to prevent extremely wealthy, non-farmers from receiving benefits under U.S. farm policy.

Landowners could also look into the Conservation Stewardship Program (CSP) within NRCS. The CSP encourages land stewards to improve their conservation performance by installing and adopting additional activities, and improving, maintaining, and managing existing activities on agricultural land and nonindustrial private forest land. NRCS will make CSP available nationwide on a continuous application basis. CSP participants will receive an annual land use payment for operation-level environmental benefits they produce. Under CSP, participants are paid for conservation performance: the higher the operational performance, the higher their payment. It is possible that CSP could be a funding source for landowners who have panthers on their property.

In addition, FWS provides a Partners for Fish and Wildlife Program that provides technical and financial assistance to private landowners who are willing to work with the Service and other partners on a voluntary basis to help achieve habitat restoration for the benefit of federal trust species. This Program can assist with projects in all habitat types which conserve or restore native vegetation, hydrology, and soils associated with imperiled ecosystems, or otherwise provide an important habitat requisite for a rare, declining or protected species.

The Team thought that the Partners Program might be the best and most efficient mechanism to try to secure funding for a pilot program for compensating landowners in southwest Florida who are managing their habitat well for panthers, and also to help offset any depredation caused by panthers. Agency staff from FWS and FWC were volunteered to work on developing a concept for using the Partners Program for this purpose to present at our next meeting.

The next meeting will be on January 28-29, 2014 in St. Petersburg, FL