South Florida Deer Research Project Quarterly Update
July – September 2015

Survival Monitoring

- During this quarter, we investigated 11 mortality events.
- At each mortality event, we searched the site for sign providing evidence of the predation or scavenging event.
- We documented mortality events for 5 female and 6 male white-tailed deer. The 5 female deer mortalities are categorized as follows: 1 black bear predation event, 3 panther predation events and 1 suspected disease. The 6 male deer mortalities were categorized as 3 panther predation events, 2 suspected disease and 1 unknown. In some instances we cannot definitively eliminate the possibility of scavenging, and the causes of all mortality data should be considered preliminary until all reviews are completed.
- To summarize, the total number of deer that have been collared/monitored since the beginning of the study is 116 deer. Of those, 39 deer have died. In this quarter, 2 additional collars were dropped, bringing the total number of deer being monitored at the end of the 3rd quarter to 73.

Camera Trapping

- We continued to monitor the 180 cameras in the Florida Panther National Wildlife Refuge and Big Cypress National Preserve.
- Each camera trap was visited at least twice, but typically three times, during the quarter to download data and to maintain the trap site (i.e., clear vegetation, replace batteries, and exchange any malfunctioning cameras).

Other Activities

- We compiled and processed photo data from the previous service period and began photo interpretation. We began the process of uniquely identifying male deer based on antler characteristics and morphology. To date we have uniquely identified 63 male deer from 2014 images of male deer photographed on the Florida Panther National Wildlife Refuge from 12/10/2014 to 9/31/2015. In addition, over 100,000 images have been processed and catalogued by species or group. We have developed methods to account for independence of detections in photo data.
- We continued the development of spatial capture-recapture models to accommodate the data that will arise from this study.
- In order to put the current project in context, we have conduct analysis of historic (i.e., 1990–2015) harvest data for feral swine and white-tailed deer across multiple WMAs in South Florida. The primary goal of this endeavor was to understand the effects of changes in predator populations, water management, and fire history on ungulate populations in South Florida over large spatial and temporal scales. This effort has resulted in abstracts that were accepted for presentation at the 22nd Annual Meeting of The Wildlife Society in Winnipeg, Manitoba, and the 69th Annual Conference of the Southeastern Association of Fish & Wildlife Agencies in Asheville, North Carolina.

Outreach

- We presented a study update at the Florida Panther National Wildlife Refuge to U.S. Fish and Wildlife Service and Big Cypress National Preserve personnel. We also provided an update to the Florida Fish and Wildlife Conservation Commission Deer Team.

Next Quarter

- All monitoring, camera survey efforts and other activities will continue into the next quarter. We are also preparing for the helicopter and rocket-netting captures that will resume this winter.