

South Florida Deer Research Project Quarterly Update

July – September 2017

General Field Conditions

- From 01 July 2017 – 30 September 2017, a weather station on the Florida Panther National Wildlife Refuge recorded 51 inches of precipitation. This amount of rainfall is high for southern Florida, and is on par with the *total yearly* rain accumulations on the Florida Panther National Wildlife Refuge for 2015 (~51 inches) and 2016 (~55 inches). A significant amount of the precipitation (~10.5 inches) fell in a 48 hour period from September 9th to September 10th from Hurricane Irma resulting in widespread inundation of the study site.

Survival Monitoring

- During this quarter, we investigated 7 (2 females, 5 males) mortalities.
- The mortalities were categorized as follows: 4 panther predation events, 1 bear predation, and 2 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.
- 2 collars (2 females) reached the end of their deployments and were remotely released and recovered.
- We currently have 90 deer radio-collared.
- We continue to compile and process GPS collar data. To date, we have 554,141 locations of individual deer.

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 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).
- During this quarter, we have processed and catalogued 12,423 images. To date, we have processed and catalogued 443,885 images by species or group (Addition Lands 134,150; Bear Island 142,509; FPNWR 167,226).

Additional Notes

- In preparation for Hurricane Irma, the Florida Panther National Wildlife Refuge closed its facilities on 6 September 2017. Due to facility closures and evacuation of personnel, camera trap monitoring and mortality investigations have been delayed. Assessing the impacts of Hurricane Irma to the landscape and wildlife is ongoing.
- None of the collared deer died during hurricane Irma that passed within 13 miles of the Florida Panther National Wildlife Refuge. However, GPS data indicated some unusual movement patterns during the storm. The team is currently analyzing deer movement and habitat use data before, during, and after the storm in more detail.

Thus far most of the 180 South Florida Deer project cameras have survived record floods, wildfires and now a hurricane. Photo by David Connors.

