

South Florida Ecosystem Restoration Task Force

Invasive Exotic Species Strategic Action Framework

EDRR Case Study: Gambian Pouched Rat

Gambian pouched rats (GPR) are large rodents native to Africa, weighing an average of 3 pounds and measuring 20-35 inches from the head to the tip of the tail. GPR primarily eat fruit and grains, but they have been known to eat insects, crabs, and snails. GPR are a vector of a number of serious diseases, including monkey pox; however, several GPR captured in Florida have been tested and all were negative for this zoonotic disease. Due to the somewhat isolated nature of the infestation, it was determined that eradication is possible and remains the ultimate goal.

Case Presentation

GPR were bred in captivity by an individual on Grassy Key, north of Marathon, in the Florida Keys. Between 1999 and 2001, eight rats apparently escaped and subsequently established a reproducing population, which was reported to the U.S. Fish and Wildlife Service (USFWS) in 2004. The State of Florida is concerned about potential impacts to agriculture should they spread to mainland south Florida, as well as potential interactions with native Florida rodents in the Keys and elsewhere.

The GPR infestation is currently centered around the escape location on a key that is mixed residential, hardwood hammock, and salt marsh. The population had also spread west to Crawl Key where eradication efforts seem to have been successful. The majority of management activities take place on private properties and require coordination between multiple state and federal agencies and the city of Marathon. A number of innovative control measures have been employed and success was even declared in 2010 after trapping had produced no rats for one year. Unfortunately, this declaration was premature and in 2011, the Florida Fish and Wildlife Conservation Commission (FWC) received a credible rat report by a reliable citizen in the area and subsequent trapping confirmed a hold-out population remained.

The Wildlife Impact Management Section (WIM) of FWC continues to lead efforts to eradicate this species by conducting monitoring and trapping activities. In

2015, WIM hired staff to carry out monitoring and trapping on Grassy Key monthly through June. There were no GPRs trapped or observed in cameras during these efforts which were made possible by a Florida Fish and Wildlife Conserve Wildlife Tag Grant. Although funding from the grant ends in July 2015, WIM will continue to monitor for GPRs using camera traps and by screening reports from the public via the Exotic Species Hotline and the IveGot1.org website. The project will be considered a success after five years of monitoring have passed with no credible sightings or captures.

Management Actions and Outcome

The USFWS, FWC, and a student at Texas A&M began trapping efforts soon after GPRs were reported to the USFWS in 2004. In 2005, FWC held a multi-agency meeting to create an eradication plan. The pilot eradication project began on Crawl Key in June 2006 with USFWS and FWC funding the U.S. Department of Agri-

Gambian Pouched Rats

Gambian pouched rats are large rodents native to Africa that are a vector for serious diseases, including monkey pox. Efforts to eradicate this species from the Florida Keys are being led by the Florida Fish and Wildlife Conservation Commission (FWC).



Photo: FWC.

culture Wildlife Services to conduct trapping and toxic baiting for GPRs. Rats were also tracked using radio telemetry to determine regular movement patterns. A large-scale eradication effort began in January 2007 consisting of the deployment of 1,000 toxic bait stations, live trapping, and further testing of toxicants. Remote cameras were used for monitoring throughout the project. Initial efforts attempted to saturate the area with traps and bait stations and as the project continued, efforts became more targeted based on results of monitoring.

During the project, different baits were tested and attempts were made to get access to more properties throughout the neighborhood. Adjustments were made to the bait station designs and toxicants to increase effectiveness and limit effects on non-targets. As this project took place both within and in close proximity to private homes, the concerns of residents were a constant consideration. Residents were especially concerned about impacting non-targets, including raccoons and feral cats. Live trapping was used more around private homes to address this concern. In general, live trapping GPRs is not difficult and does not require sophisticated baits. However, there were some individuals who refused access to their property and that may have contributed to the lack of complete success. Radio telemetry confirmed that rats were frequently traveling to these “no access” properties. More mature rats also seemed to become trap-shy.

There was an attempt to create a “Judas rat” with a mature female that was trapped, sterilized, and released with an implanted transmitter. It was hoped that she would attract breeding males but this did not seem to be the case and it was discovered that live trapping around the coral island was difficult due to the false signals given when the signal was bouncing off of the hard coral formations.

Overall this project demonstrated excellent inter-agency coordination and cooperation with local government and private residents. A declaration of success in 2010 was premature but there have been no

Have you Seen a Gambian Pouched Rat?



Gambian pouched rats are gray to brown in color with a paler belly and feet that are off-white. Most of the tail is dark gray while the final third is off-white. This rate can be 20-35 inches in length and weighs 3 lbs. on average. These rats have been sighted on Grassy Key.

REPORT SIGHTINGS:

1-888-IVE-GOT1

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confirmed sightings since 2013. Over the course of the project, funds have been made available through grants, operational budgets, and in-kind services both from agencies directly involved with management activities and agencies with a vested interest in the success of the project. GPRs have since been listed as prohibited by the FWC making personal possession illegal in Florida, although they are still allowed as pets in much of the U.S.

Key Recommendations/Issues

As with other rapid response projects, early action, significant efforts and funding, and a directed plan were needed to assess and target eradication efforts. Follow up assessment was important even after the initial findings were concluded. In this case, agencies were able to find available monies to do this work, aided by the fact that a large agricultural interest was involved. However, funding has not been consistent and this case illustrates the need for a dedicated source of funding to be available for rapid response efforts and follow-up.

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This document is part of a series of case studies developed for the Invasive Exotic Species (IES) Strategic Action Framework. This particular case study highlights issues within the Eradication/EDRR Phase of the IES Invasion Curve. 6/1/15