

**Project Perch's mission is to protect and nurture the Burrowing Owl in SE Florida.
A real life HOOT, join now!**



Project Perch's BuOw Blog 4 – Part 1

Saturday, June 22, 2013

Tropical Storm Andrea

On June 7, a little after lunch the rain really started falling; it was the rain bands from Tropical Storm Andrea. Around 3pm, I was on the phone with one of our partners and we were watching together. It really looked miserable out there and it just didn't stop. By 5pm I would send an e-mail out talking about owl burrows and flooding.

We checked the National Oceanographic and Atmospheric National Weather Service State Listings for Florida and found some of the following total rainfalls for June 7: West Palm Beach 18", Hallandale Beach 13", North Miami 13.94" and Ft. Lauderdale 8.05". There were reports of a band of rain dropping 13-17" and reports of flash flooding starting as early as 2pm. That's a lot of rain.

We had been watching for a lot of the storm, but at 6:05pm the male dragged something out of the burrow that appeared to be too big to be a prey item; we worried it was an owlet. We went back through the archives to see how badly the rains were affecting them. The female came out of the burrow at 1:30pm, and it just continued to pour, and she doesn't go back into the burrow until almost 5pm, more than 3 hours later.

Burrow Flooding in Miami and Dade Counties

There are very few studies on Florida burrowing owls but I have been reading them all and had just re-read a study Brian Mealey had done in 1987-1990. He was documenting the reproductive ecology of burrowing owls in Dade and Broward Counties and he wrote the following:

Results. Nesting Failures. Of 123 known failures only 33 (27%) had clearly attributable causes. The primary reason for known nesting failures was flooding (N=21.63%).

Result. Mortality. Out of 18 owls, 4 (22%) were killed by drowning.

Results. Chronology. Owls appeared in January, and sightings rapidly increased until about the month of June. Numbers peaked in late May and early June. During the following months, the sightings decreased as adults shifted to a more crepuscular and nocturnal behavior and the young dispersed to new areas. The onset of summer and the rainy season probably play major roles in the shift in behavior and in fledgling dispersal due to the flooding of burrows.¹

There was another reference to burrow flooding in Betty Glibert's book, which documents the owls in Cape Coral Florida. In the forward to Buffy the Burrowing Owl, there is a story told about Buffy's burrows:

*"As I thought about that location, I remembered that recently a burrow on the very next street was flooded earlier this spring, 2008, and three owl chicks had to be rescued from the high water. Following the rescue, I had to put in a new burrow a little higher up from the swale area to protect the family from further floods. The pair of adult owls moved right in to their new home and are there today. Since Buffy's home was only a few hundred yards away, my wife and I decided to go see if Buffy's original home might still be on that corner. To our dismay a new house stood on the lot where Buffy was born and grew up. But as we drove up 35th Terrace, we noticed two new burrows are being used by descendants of Buffy's family. Owls stay in one burrow for life unless they are forced to build a new home somewhere else, and most owls that have to build somewhere do so nearby. We would like to think that it was Buffy's family we helped out during the heavy rains in April 2008, and that they and their offspring will continue to live in the neighborhood for years to come."*²

When we woke up, we immediately checked on the owls. On June 8 at 6:15am, we thought we could still hear babies and the female brought some food down into the burrow and 25 seconds later came back out. Seemed like a great sign. We continued to watch and by 10:30am we were talking about how their behavior had returned to normal and they still appeared to feeding owlets, we were amazed. But by the end of the day, their behavior was changing and they were not bringing food into the burrow anymore. By June 9 and 10, they were mating again.

We also posted the following picture and caption on FaceBook:



Rain rain go away!

The burrow received more than 13" of rain yesterday from Tropical Storm Andrea. Flooding is a major cause of nest failure in Broward and Dade counties, so let's keep our fingers crossed.

Immediately, there was a question about whether the artificial burrow's design would make the flooding worse.

Sources:

¹ Mealey, Brian. 1997. Reproductive Ecology of the Burrowing Owls, *Speotyto Cunicularia Floridana*, in Dade and Broward Counties, Florida. Falcon Batchelor Bird of Prey Bird of Prey Center, Miami Museum of Science, Florida. <http://www.instwildlifesciences.org/Mealey.BUOW1997.pdf>

² Gilbert, Betty. 2008. Buffy the Burrowing Owl. ISBN: 978-0-942407-88-4.