

January 28, 2016

Mr. Bob Progulski U.S. Fish & Wildlife Service 1339 20<sup>th</sup> Street Vero Beach, FL 32960

Dear Mr. Bob Progulske:

Florida Power & Light Company (FPL) is pleased to submit the 2015 Annual Report for the Federal Fish & Wildlife Endangered Species Permit. This report fulfills General Conditions K., L., and M., of permit number TE092945-3. The activities conducted under this permit are summarized below:

- 1. There were 124 crocodiles spotted during the ID surveys conducted from January through December.
- 2. June through July there were 9 successful nests found during day and night time nesting surveys.
- 3. There were 119 hatchlings released.

The detailed activities conducted under this permit are summarized in the attached report.

If you need any additional information, please call me at 561-691-7132.

Sincerely, Kussistatan

James Lindsay

FPL Principal Biologist

# FLORIDA POWER & LIGHT COMPANY

#### **TURKEY POINT PLANT**

# ANNUAL AMERICAN CROCODILE (Crocodylus acutus) REPORT

FEDERAL PERMIT TE092945-3

January 2016



FLORIDA POWER & LIGHT COMPANY

JUNO BEACH, FLORIDA

# **Table of Contents**

Table of Contents2
1.0 Introduction
2.0 Procedures and Instructions4-8
3.0 Results9
4.0 Discussion9-10
5.0 Conclusion10-11
6.0 Appendices12-14
Figure 1. Numbering and Identification System for the Turkey Point Cooling Canal System
Figure 2. 2015 Nest Locations at Turkey Point
Table 1. Latitude and Longitude of Nest Locations 2015
Table 2. Crocodile Nest Surveys 2015
Table 3. Night Surveys 2015
Table 4. Tagged Hatchlings 2015
Table 5. Crocodile ID Surveys 2015
Table 6/Chart 1. American Crocodile Data from Turkey Point Power Plant 2011-2015

#### 1.0 INTRODUCTION

The Turkey Point Power Plant is located on an approximately 11,000-acre coastal site in South Florida. The facility consists of two fossil fuel-powered single cycle generating units (Units 1 and 2), two nuclear powered generating units (Units 3 and 4), and one natural gas-fired combined cycle generating unit (Unit 5). Turkey Point Power Plant is bordered by FPL's 13,000-acre Everglades Mitigation Bank to the south and west, Biscayne National Park to the north, Biscayne Bay to the east and the Everglades to the west. It is located within Sections 27, 28, 29, 31, 32, 33 and 34, Township 57 South, Range 40 East in Miami-Dade County, Florida.

In the early 1970s, FPL was required by the Department of Justice to engineer and construct a closed loop cooling canal system and to discontinue the use of Biscayne Bay for condenser cooling. FPL began operating this 5,900-acre system in 1972. The American crocodile was first discovered on site in 1976 and the first nest was observed in 1978. Thus, FPL has monitored crocodile nesting and the overall population at the Turkey Point site since the 1970s. In 1979, the majority of the Turkey Point Power Plant site was designated as critical habitat for the American crocodile by the U.S. Fish and Wildlife Service (FWS). The cooling canal system offers optimum nesting, foraging, breeding and basking habitat for the crocodile. The cooling canal system has constant water levels, appropriate nesting substrate, security from human disturbance, isolation from nest and hatchling predation, and access to lower salinity refugia. Nesting activity within the cooling canal system constitutes approximately a third of the total annual nest production in the United States.

In the 1980s, FPL initiated a management program at the Turkey Point Power Plant site to benefit the American crocodile. The management program includes: 1) preserving and creating habitat suitable for crocodile nesting and basking; 2) establishment of exclusion zones during the nesting season; 3) monitoring surveys to document population size, activity, growth and survival; 4) relocation of hatchlings to lower salinity areas to increase survival; 5) the construction of ponds for use as hatchling refugia; and 6) prohibiting automobile use, road maintenance and other construction activities within the cooling canal system at night and during critical periods of the nesting season. The management activities conducted by FPL have resulted in an increase in the crocodile population. Because of the conservation effort given to this species, the American crocodile was down listed from an endangered species to a threatened species in 2007.

This annual report gives a detailed summary of the crocodile monitoring activities conducted in 2015. FPL's monitoring plan consists of night nesting/hatchling surveys, day nesting surveys, interceptor ditch surveys, spatial distribution surveys, and capture surveys. Qualitative and quantitative data are included in the report for all surveys except for the spatial distribution survey and the capture

survey. Since this work was conducted under other state and federal permits, the data will be submitted in the first quarter of 2016 in another report compiled by the University of Florida.

#### 2.0 PROCEDURES AND INSTRUCTIONS

\*The permittee must carry a copy of the FWS Endangered Species permit at all times when conducting authorized surveillance activities.

	Type/Requirement	Periodicity
2.1	Night time surveys	Conducted from April through
		mid-August.
2.2	Day time surveys. Potential nest survey.	Conducted to locate all possible nest sites. April through mid-August.
2.3	Interceptor Ditch survey (ID canal)	~ Once per week, year round.
2.4	Turkey Point Units 3 & 4 Conditions of Certification licensee. Activity monitoring of entire Cooling Canal System.	2.4.1 Spatial distribution survey. Consist of 3 to 4 nights per event
		<b>2.4.2 Capture survey.</b> Three yearly events. ~3 nights per event.

# 2.1 Night Surveys

- **2.1.1 Type of survey:** An airboat survey of the nesting hot spots of the year. Conducted at night, starting at sundown.
- **2.1.2 Objective**: To locate any hatched nests and capture the hatchlings in the surrounding areas. Observations of possible new nests, female activity, and potential hatching activity are documented. Night surveys are also used as a time to release marked hatchlings back into ponds within the cooling canal system.
- **2.1.3 Equipment**: Airboat, 200,000 candle power spot/flood beam, low-powered head beams (to spot hatchling eye shine), handheld flashlights, canvas hatchling bags, thermometer, salinity refractometer, and field notebook.
- \*The permittee must carry a copy of the permits at all times when conducting the authorized field surveillance activities.

#### 2.1.4 Specific Instructions:

- Review the night's survey plan: areas that will be surveyed, recent nest activity, and any other objectives.
- Contact security at phone extension 6074 and inform them about the survey activities and how long the survey is expected to last.
- Gather equipment and inspect the airboat.
- At the start of the survey (when in airboat), document weather conditions, time, and persons conducting the survey in field notebook.
- Salinity, air temperature, and water temperature are taken at the location of the captures.
- Proper field book documentation of activities throughout the survey is required. Examples include location(s) of hatchlings captured, nest locations, areas surveyed. See Appendix 1.
- Once the survey is completed and specialists have returned to the dock, document the time and add any last comments.
- Place all hatchlings in the proper aquariums in the garage; make sure all documentation for hatchling aquariums are complete.
- Place all equipment in proper storage areas.

#### 2.2 Potential Nest Survey

- **2.2.1 Type of Survey:** Daytime airboat survey in the cooling canals to locate potential nests and monitor adult female visitation of nest sites, usually conducted during early morning hours.
- **2.2.2 Objective:** To locate potential nest sites for the year, locate hatched nests, and document activity that will indicate a nest is about to hatch. The nest surveys gather the information needed to indicate where the night surveys need to focus.
- **2.2.3 Equipment:** Airboat, GPS, thermometer, salinity refractometer, canvas hatchling bags, plenty of drinking water, flagging tape, and field notebook.
- \*The permittee must carry a copy of the permits at all times when conducting the authorized field activities.

#### 2.2.4 Specific Instructions

- Gather equipment and inspect the airboat.
- Document start time of survey and weather conditions and persons conducting the survey in field notebook.
- Survey crocodile hot spots for potential nests. Look for drags and slides on the side of berms.
- Upon finding a potential nest site, document location in the field notebook and flag the area.
- Upon finding areas of activity, such as tail drags, slides, digging, and test holes, document activity in the field notebook.

- Upon finding a hatched nest, document locations, GPS coordinates, and assign a nest number. Dig out the nest and document the number of hatched eggs, number of infertile eggs, and number of crocodiles to match up with total number of eggs.
- Survey surrounding area for hatchlings, if possible make captures.
   Document exact location of hatchlings to allow for ease of capture during the night survey.
- Throughout nest surveys, document any crocodiles 2.0 m and over found around any potential nest site.
- Once various nests have hatched, place proper FPL nest signs in area.
- Document time back to lab. Document any recent hatched nests on a cooling canal map.

# 2.3 Interceptor Ditch Survey (ID canal)

- **2.3.1 Type of Survey:** Truck survey is usually conducted during morning hours. Specialist surveys the entire Interceptor Ditch Canal.
- **2.3.2 Objective:** To document any crocodile observed while driving from the south end to the north end of the ID. Write down a size estimate in meters, position in canal, and location in miles (either calculated by the vehicle's odometer, or by using a GPS). During non-nesting/hatchling season, the survey is conducted approximately once per week. Due to the heavy workload experienced during the nesting and hatchling seasons, the ID surveys are conducted when personnel are available.
- **2.3.3 Equipment:** Truck, field notebook, GPS, binoculars, and if at night, a spotlight.

#### 2.3.4 Specific Instructions

- Drive to the southwest end of the cooling canals.
- Begin survey at the south end of the ID canal. Write down starting time and weather conditions. Set odometer to zero on the vehicle or record the GPS location.
- Begin survey by driving north and observing the center and east bank of the ID canal. For approximately the first mile, observe crocodile activity in the C-107 canal, which is adjacent to the ID canal.
- Once an animal is observed, document the size, position in canal, and the location in miles or GPS coordinates.
- Continue survey until the north end of the canal is reached at about 5 miles.
- Throughout the survey, document any interesting observations or other animals seen.

**2.4 Survey Conditions of Certification.** Turkey Point Units 3 & 4 Conditions of Certification licensee. Activity monitoring of entire Cooling Canal System.

"Data collected shall include animal size, GPS location, salinity, and air/water temperatures (XVI.B.)"

Surveys shall be conducted both pre and post Unit 3 & 4 Uprate Project to determine any effects of temperature and salinity changes on crocodiles in the cooling canal system.

#### 2.4.1 Spatial distribution survey

the UF biologists to download the data.

- **2.4.1.1 Type of Survey:** Airboat survey of the entire cooling canal system, conducted by an FPL crocodile specialist and two University of Florida (UF) biologists. The entire cooling canal system is covered in a 3 night period. A truck survey of the ID canal is conducted as part of the requirements, as well. Throughout the cooling canals, data loggers have been set at specific locations to gather temperature. During the survey, periodic stops at the data loggers allow
- **2.4.1.2 Objective:** To thoroughly survey the entire cooling canal system documenting the size and location of any crocodile found. The three (3) to four (4) night surveying event is conducted by an FPL qualified person (crocodile specialist) and two biologists from UF.
- 2.4.1.3 Equipment: Airboat, 200,000 candle power Q-beam, GPS.

#### 2.4.1.4 Specific Instructions

- Specialist will contact security at 6074 and inform them about the activities of the night.
- Specialist will meet with UF biologists at a designated time (usually before sundown).
- The survey is broken into 3 parts. Cooling Canal Sections 1, 2, and 3 on the west side are surveyed on the first night, sections 4 and 5 on the west side are surveyed on night two, and the entire east side along with the ID truck survey are conducted on the third night.
- Document start of survey and names of the biologist doing the survey.
- Go to designated starting area for that night's section.
- Specialist will drive the boat while one person spots the animals and the other writes down the data.
- When an animal is spotted, the driver will approach the animal at a reasonable speed, ease off the accelerator, and allow for the spotter to get a look at the animal. The biologist will then estimate the size, a way point is taken, and the information is documented. This will occur throughout the survey.

- Data loggers are positioned at certain locations. Once a data logger is located, the driver will approach slowly. The data logger's information is downloaded and the data logger is returned to the water.
- Salinities are also taken at specific locations.
- Proper general housekeeping is performed after each survey.
- Information gathered by the specialists is kept in the FPL crocodile database.

#### 2.4.2 Capture Survey

Permit Requirement: Additional data shall be collected to determine changes to growth and survival of crocodiles within the Cooling Canal System. The entire cooling canal system shall be monitored at least three times a year for three days and three nights per event. Data collected shall include biometric data for each crocodile that is hand captured or trapped.

- **2.4.2.1 Type of Survey**: This survey utilizes a truck and airboats during both the day and night. It covers the cooling canals, ID canal, C-107, and Sea Dade canals. The survey is conducted with FPL crocodile program staff and the UF biologists.
- **2.4.2.2 Objective:** Over the designated time period for the survey, biologists attempt to capture any crocodile encountered. The biologists will gather various measurements and biometric data. Once the data are collected, the crocodile is then released.

#### 2.4.2.3 Specific Instructions:

- Teams of at least 3 specialists per airboat, and a total of 3 airboats will be assigned specific sections of the Cooling Canal System.
- In addition, a team of 2 specialists will conduct a truck survey of the Interceptor Ditch Canal.
- Each team and airboat will conduct surveys for animals within the predetermined sections.
- Once an animal is spotted, the attempt for capture begins utilizing the snare technique. For animals less than one (1) meter in length, hand capture is preferred.
- Biometric data are recorded and later analyzed for growth and population status.
- All animals are micro-chipped and scutes are clipped for ID purposes and DNA testing.
- Proper general housekeeping is performed after each survey.
- Information gathered by the specialists is kept in the FPL crocodile database.

#### 3.0 RESULTS

In 2015, all of the surveys included in the monitoring plan were conducted and data were collected. The data from the spatial distribution and capture surveys will be submitted in another report compiled by the University of Florida, since all work was completed under their permits.

This year, we observed lower nesting and hatchling numbers compared to 2014. We had nine successful nests found and 119 hatchlings tagged and released.

The first successful nest was discovered on June 22, 2015, with the last successful nest located on July 20, 2015. There were two successful nests found within the crocodile habitat in the Everglades Mitigation Bank which was constructed in 2014.

For more on these results, see Figure 2, Table 1 and Table 4.

#### 4.0 DISCUSSION

During the 2015 American crocodile nesting season, a total of 9 successful nests were found (7 in the cooling canal system and 2 in the constructed Mitigation Crocodile Sanctuary (MCS) in the Everglades Mitigation Bank) and 119 hatchlings were captured and released at Turkey Point. This is compared to the 25 nests (22 in the cooling canals and 3 in the MCS) and 409 hatchlings captured in 2014. It should be noted that the total number of hatchlings has fluctuated depending on environmental conditions over the past 30 years.

This past year, the cooling canal system continued to experience heightened levels of salinity and algae. Since last year, we have been executing a multiphased strategy to improve the long-term health of the canals. Independent analysis show that rainfall, or, increasing the amount of water in the system by other means is the best, quickest way to reduce salinity and temperature, two factors that encourage algae growth. These strategies, along with other activities (increased construction, dredging, traffic) taking place on-site could have contributed to the lower number of nests this season. For these reasons, FPL continued to release all hatchlings outside of the cooling canal system.

The 2015 season began with the first hatched nest discovered on 6/22/15 outside the cooling canals in the MCS. Shortly after on 6/26/15, the first hatched nests in the cooling canals were found on B1ESXN2 and B2ESXN2. Remaining nests hatched between a two week period in mid-July, with the last hatched nest found on 7/20/15. Hatch date patterns for 2015 are similar to those of 2013 and 2012; with 2014 having one of the earliest hatch dates (6/9/14) for initial nests at Turkey Point and considered the exception to the pattern. All documented hatched nests occurred in previous years' nest locations, designated as crocodile sanctuaries. Six of the seven nests located in the cooling canals occurred on the

east side of the system (85%), with five of those located in the northern most berms. There was a significant amount of nests (48%) on the east side in 2014 as well. This increase in activity on the east side should indicate some significance in preserving nesting habitat (especially in the northern most canals of the east side) and creating new sanctuaries on the east side. In general, maintenance and creation of crocodile sanctuaries within the cooling canals will be important in promoting future nesting.

Nest and night surveys continued into the first week of August in an attempt to locate any potential missed hatchlings or nests. Two potential nests showed a lot of activity throughout the season with a lot of drags, but by August the drags stopped. Both locations were excavated with shovels and no egg fragments/eggs were found indicating either we did not find the egg cavity and thus the spot was a failed nest, or the locations were test areas for crocs and no nests were ever deposited by the female.

During the 2015 season, 119 hatchlings were captured, marked, and released. The average weights of hatchlings were 55g and the average total lengths 26cm, fitting usual patterns from previous years. Survey efforts around three particular hatched nests resulted in a low yield of hatchlings seen and thus captured. This might be the result of females moving hatchlings to hidden burrows/ locations, hatchlings becoming prey, or infertile clutches. An example of predation is nest 09-15, located on B12SXN4(S) pond, which had drags leading from the nest cavity into the pond. When we entered the pond at night to shine and capture the hatchlings, a larger eye shine from a juvenile was spotted. Only 5 hatchlings were captured from the pond, indicating the juvenile might have eaten the remaining hatchlings.

Every year, the MCS is prepped prior to nesting season by removing excessive ground vegetation, which has led to great success. This year, we had two hatched nests in the MCS. This same style of vegetation removal used on the berms in the cooling canals could create a more detailed way of removing exotic vegetation while maintaining native plants.

In an effort to educate the public on this threatened species, FPL collaborated with several media outlets to showcase the efforts of the crocodile program. The media outlets include the Discovery Channel Canada, Animal Planet, and several local news stations. The FPL crocodile team also showcased the crocodile program by participating in career days at five schools in May 2015 and school science programs within the community. They also participated in several fundraisers for community partners in the area.

#### 5.0 CONCLUSION

The American crocodile population continues to remain in a much stronger position that before the Turkey Point Cooling Canal System was established.

Today, hundreds of crocodiles migrate in and out of the system and call the system home.

Despite the environmental changes taking place within the Turkey Point Cooling Canal System, the American crocodiles had nine successful nests and 119 hatchlings were released outside of the cooling canal system.

FPL will continue to monitor the Turkey Point population in order to better understand the potential trends for this threatened species.

#### **6.0 APPENDICES**

# Appendix 1

#### Proper note taking for the crocodile hatchling season

By Mario Aldecoa Crocodile Specialist FPL Turkey Point 2009

Note taking is one of the most important aspects of conducting any survey. It helps to keep the information organized and valid. The information that will be gathered during the hatchling surveys is required and will be documented in a crocodile database for permit purposes. Remember, these animals are a threatened species and the information we gather is needed to assess their health and status.

#### **Key Terms:**

- Canal number and section, Example: C13SXN4. Berm: B13SXN4. Keep in mind if you are in the north end or south end, B13SXN4 south.
- Temperatures read will be recorded in Celsius.
- Salinity will be recorded in Parts Per Thousand (ppt).

## **Heading**

- Date, left hand corner
- Title of survey, example: Night Survey
- Initials of people conducting the survey, right hand corner
- Right hand corner, first line: Weather conditions, moon phase, mosquito severity

# **Crocodiles observed (non-captures)**

- Location of animal observed will either be recorded in water (canal) or land (berm). Example: in a canal, C12SXN4, on a berm, B12SXN4.
- Estimate of size in meters. 1 meter = 3.28 feet. Example: 6ft animal is about 2 meters. Think first in feet then convert to meters.
- In the area of observation, record air temperature, water temperature, and salinity. Example: T air – 21°C, T water - 25°C, Salinity - 67ppt

#### **Hatchlings Captured**

- Location of captures (same format, B29SXN4 or C5ESXN2); if in a pond, B12SXN4 pond.
- Number captured
- If captured in a pond, take salinity and water temperature.

- Document details, Example: captured under tree, found in and out of water.
- If animals are captured in different locations, PLACE IN SEPARATE BAGS. Record specific location of captured animals on canvas bags.

### Lab work

- Hatchlings will be placed in aquariums with clean water.
- A note will be place on the aquarium with capture location and the number of hatchlings. If this information is not present, then the capture was useless and valuable information is lost.
- The return time will be documented and a review of notes shall be conducted to ensure accuracy.
- All equipment will be placed back into the proper place.

The information stated above must be followed and no deviations taken.

# Appendix 2

# **Permit Designees/Researchers**

James Lindsay
Frank Mazzotti
Joseph Wasilewski
Bob Bertelson
Mario Aldecoa
Jodie Gless
Kenneth Spivey
Monica Cardona
Kristin Eaton

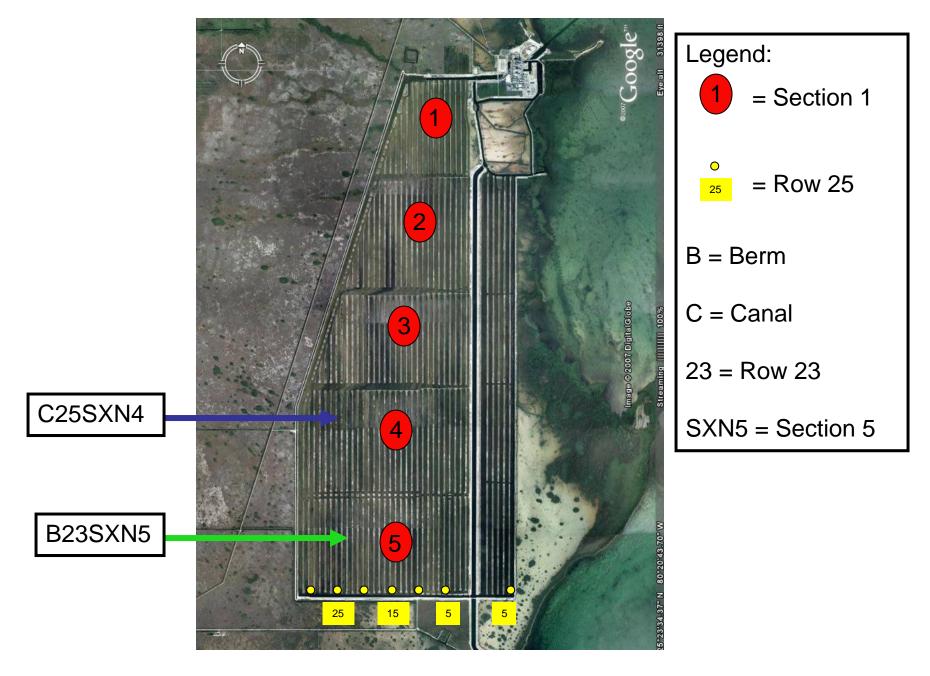


Figure 1. Numbering and Identification System for the Turkey Point Cooling Canal System



Figure 2. 2015 Nest Locations at Turkey Point

**Table 1. Latitude and Longitude of Nest Locations 2015** 

	Crocodile Nests 2015										
Date	Nest Number	Berm Location	Latitude	Longitude							
6/22/2015	01-15	Croc Mit Sanct (N) E Mound	25° 21' 4.00" N	80° 20 '34.66" W							
6/26/2015	02-15	B1ESXN2	25° 25' 5.33" N	80° 20' 10.08" W							
6/26/2015	03-15	B2ESXN2	25° 25' 2.39" N	80°20'6.91"W							
7/8/2015	04-15	B5ESXN2 (N)	25° 25' 5.60" N	80°19'56.73"W							
7/8/2015	05-15	B1ESXN5 (N) Pond	25° 22' 25.16" N	80°20'10.67"W							
7/10/2015	06-15	B1ESXN2	25° 25' 5.27" N	80°20'9.80"W							
7/16/2015	07-15	Croc Mit Sanct (S) Middle Mound	25° 21 '3.78" N	80°20'37.20"W							
7/17/2015	08-15	B4ESXN2	25° 25' 5.45" N	80°19'59.70"W							
7/20/2015	09-15	B12SXN4 (S) Pond	25° 22' 53.27" N	80°20'57.50"W							

Page 1 TABLE 1

**Table 2. Crocodile Nest Surveys 2015** 

					<u>Cı</u>	rocodile N	Nest Surve	<u>y 2015</u>			
<u>Date</u>	Time of Day	<u>Location</u>	<u>Nest</u> <u>Number</u>	Number Egg shells	# Un-hatched	Number Dead	Number Infertile	Number Captured	Hatchlings Released	Comments	Surveyor
		(N) Mound Mitigation Croc									
3/11/2015	2:38pm	Sanctuary (MCS)								Slight drags and test holes	M.A
										Lots of drags in usual spot, 2.0m croc in center pond, probably the	
		(S)(W) Mound MCS								female	M.A
3/30/2015	8:00am	C5ESXN4 and C5ESXN3								2.0m and 2.5m crocs	M.A
		B1ESXN2								Lots of drags and digging in usual spot	M.A
		(N) and (S) Mound MCS								Lots of activity	M.A
4/1/2015		B5ESXN2								Drags in usual spot	M.A
4/3/2015		Hot spots								No new activity	M.A
4/6/2015	8:12am	B10SXN2								Fresh drags	M.A
		B4ESXN2								Iguana drags, maybe croc as well	M.A
		B1ESXN2								Drags in usual spot	M.A
		B12SXN4(S) pond								Drags in two spots	M.A
		MCS								Drags on all mounds	M.A
4/13/2015	8:12am	B18SXN5								Faint drags, maybe?	M.A
		B4ESXN2								Drags	M.A
		B1ESXN5								New spot a little south of north pond	M.A
		B12SXN4(S) pond								Drags. Pond very dry	M.A
		MCS								Lots of drags on all potentials	M.A
4/15/2015	8:38am	Hot spots								No new activity	M.A
4/20/2015		Hot spots								No new activity	M.A
4/21/2015		Hot spots								No new activity	M.A
4/22/2015		Hot spots								Recent rains. Least terns have arrived. No new activity	M.A
4/27/2015		MCS								Drags on south mound and north mound	M.A
4/28/2015		Hot spots								No new activity	M.A
5/11/2015		Hot spots								No new activity	M.A
5/20/2015		B12SXN4(S) pond								Some very nice drags on mound	M.A
3/20/2013	0.144111	B5ESXN2								Drags	M.A
6/5/2015	7:51am	Hot spots	+							No new activity	M.A
6/15/2015		Hot spots	+							No new activity	M.A
										·	
6/17/2015	6.00am	B5ESXN2 B1ESXN2								Drags	M.A M.A
		B31SXN5								Drags South of north pand, passible paywanet	
0/40/0045	0.00									South of north pond, possible new spot	M.A
6/18/2015	8:23am	B31SXN5								Fresh drags	M.A
0/40/0045	0.04	MCS								Drags north east mound	M.A
6/19/2015	ช:บาam	Hot spots	-	-						No new activity	M.A
6/22/2015	6:58am	MCS	01-15	9						North east mound. Looks like female took hatchlings into Sea Dade finger canal	M.A
6/23/2015		B5ESXN2	J. 10	† •						Drags	M.A
5/25/2010	0.000	B31SXN5								Drags	M.A
		B10SXN2								Drags	M.A
		East Finger Canal (EFC) pond		+					27	Drago	M.A
6/24/2015	0:1/am	B5ESXN2								Drags	M.A
0/24/2013	9. 14aiii	B31SXN5	+							Drags	M.A
		B10SXN2	+	1						Maybe faint drags	M.A
6/25/2015	7,46om	B31SXN5	+			<del> </del>				Drags	M.A

Page 1 TABLE 2

**Table 2. Crocodile Nest Surveys 2015** 

					<u>Cı</u>	rocodile I	Nest Surve	<u>y 2015</u>			
<u>Date</u>	Time of Day	<u>Location</u>	<u>Nest</u> <u>Number</u>	Number Egg shells	# Un-hatched	Number Dead	Number Infertile	Number Captured	Hatchlings Released	Comments	Surveyor
		B12SXN4(S) pond								Drags	M.A
6/26/2015	7:00am	B1ESXN2	02-15	6		4	1			Lots of fire ants in and around nest	M.A
		B12SXN4(S) pond								Drags	M.A
	8:28pm	B2ESXN2	03-15					12		Captured hatchlings under buttonwood	M.A
6/30/2015	9:30am	B12SXN4(S) pond								Drags	M.A
		B4ESXN2								Drags	M.A
7/1/2015	9:00am	MCS								Drags	M.A
		B5ESXN2								Drags	M.A
		B12SXN4(S) pond								Drags	M.A
7/3/2015	6:58am	B12SXN4(S) pond								Drags	M.A
		B31SXN5								Drags	M.A
		B4ESXN2								Drags	M.A
7/6/2015	7:00am	B12SXN4(S) pond								Drags	M.A
		B4ESXN2								Drags	M.A
7/7/2015	7:26am	Hot spots								No new activity	M.A
7/8/2015	8:41am	B5ESXN2	04-15	1	1	1		2		Could not find the rest of the hatchlings	M.A
		B1ESXN5(N) pond	05-15	3						Hatchlings in pond in burrow.	M.A
7/9/2015	7:22am	Hot Spots								No new activity	M.A
7/10/2015	7:12am	B1ESXN2	06-15	9	8	4	12	14			M.A
7/13/2015	7:29am	B4ESXN2								Fresh drags	M.A
		B12SXN4(S) pond								Nice drags	M.A
7/14/2015	7:34am	B4ESXN2								Super fresh drags, I almost thought it had hatched	M.A
7/15/2015	7:21am	B4ESXN2								Drags	M.A
		MCS								Middle mound drags	M.A
7/16/2015	7:22am	MCS	07-15	7	1	1		1			M.A
7/17/2015		B4ESXN2	08-15	9	6	9	2	15		Captured 9 in pond	M.A
7/20/2015		B12SXN4(S) pond	09-15	6	-	2		-		Looks like hatched out Friday or Saturday night	M.A
7/21/2015		Hot spots								No new activity	M.A
		Mangrove ponds							5	From nest 05-15, released at south mangrove ponds	M.A
7/22/2015	8:35am	Hot spots								No new activity	M.A
7/23/2015		Hot spots								No new activity	M.A
7/24/2015		Hot spots								No new activity	M.A
7/27/2015		Hot spots								No new activity	M.A
7/28/2015		Hot spots								No new activity	M.A
7/29/2015		Hot spots								No new activity	M.A
		·								Released MCS hatchlings in two spots off of C-107 canal. Also,	
		C-107 and EFC pond							11+2	released one recapture in EFC pond	M.A
7/30/2015		Hot spots								No new activity	M.A
8/4/2015		Hot spots								No new activity	M.A
8/5/2015	8:40am	Hot spots								No new activity	M.A

Page 2 TABLE 2

Table 3. Night Surveys 2015

				Night Surv	eys 2015			
<u>Date</u>	Start time	Conditions	Hatchlings captured	Location of capture	Crocodiles observed	Comments	Hatchlings released	<u>Surveyors</u>
6/22/2015	8:30pm	Light bugs	27	EFC, Sea Dade Canal.				M.A/Nick Vitale
6/26/2015	8:28pm		2+12	B1ESXN2 and B2ESXN2		Found new nest on B2ESXN2, nest 03-15	12+2+5 at West finger canal	M.A/P.A/N.V
7/8/2015	8:30pm		4+12	4 in C2ESXN2 and 12 in B1ESXN5 Pond	2.25 m croc in section 2 east side			M.A/P.A/K.S
		Double of such				Shined all hot spots for potential hatchlings and nests we may have missed. No		
7/14/2015 7/16/2015	·	Partly cloudy	9	Mitigation Croc Sanctuary, main pond		hatchlings  1 recapture in EFC		M.A/K.S M.A/K.S
7/20/2015			5	B12SXN4 S Pond		Saw juvenile eye shine in pond, indicating the juvenile might have eaten the remaining hatchlings		M.A/K.S/P.A
7/28/2015	8:30pm	Buggy	11+2	11 in C5ESXN3 and 2 in C2ESXN2		1 recapture in south collector canal around canal 8		M.A/K.S

Table 4. Tagged Hatchlings 2014

								<u>Ta</u>	agged I	Hatchlings 2015					
<u>Date</u>		Turkey Point		Snout Vent	<u>Total</u> <u>Length</u>	<u>Head</u> Length	Head width	<u>Weight</u>					ıte clip		
	Nest Number	<u>Number</u>	Tag Number	(cm)	<u>(cm)</u>	<u>(cm)</u>	<u>(cm)</u>	<u>(g)</u>	<u>Sex</u>	Capture location	Release Location	RD	LD	S	<u>Comments</u>
6/23/2015	01-15		032048879	13.1	26.2	4.1		64		EFC Mit Croc Sanctuary (east mound)	EFC pond	9,4,5	8		
6/23/2015	01-15		031882835	13	25.9	4.1				EFC Mit Croc Sanctuary (east mound)	EFC pond	9,4,5	8	.,	
6/23/2015	01-15	1982	031877316	12.6	25.4	4.1				EFC Mit Croc Sanctuary (east mound)	EFC pond	9,4,5	8	2,10	
6/23/2015	01-15	1983	032056579	13.2	26.7	4	2	63.3		EFC Mit Croc Sanctuary (east mound)	EFC pond	9,4,5	8	3,10	
6/23/2015	01-15	1984	031865325	13.3	26.7	4.1				EFC Mit Croc Sanctuary (east mound)	EFC pond	9,4,5	8	4,10	
6/23/2015	01-15	1985	032089533	13.2	26	4.1				EFC Mit Croc Sanctuary (east mound)	EFC pond	9,4,5	8	5,10	
6/23/2015	01-15	1986	032025278	12.8	26.5	4.1				EFC Mit Croc Sanctuary (east mound)	EFC pond	9,4,5	8	6,10	
6/23/2015	01-15	1987	031861831	13.1	27	4.1				EFC Mit Croc Sanctuary (east mound)	EFC pond	9,4,5	8	7,10	
6/23/2015	01-15	1988	032057320	13.2	26.6	4.2				EFC Mit Croc Sanctuary (east mound)	EFC pond	9,4,5	8	8,10	
6/23/2015	01-15	1989	031861884	12.9	26	4.1				EFC Mit Croc Sanctuary (east mound)	EFC pond	9,4,5	8	9,10	
6/23/2015	01-15	1990	032001280	12.6	25.7	4.1				EFC Mit Croc Sanctuary (east mound)	EFC pond	9,4,5	9		
6/23/2015	01-15	1991	032040610	13.1	26.8	4.1				EFC Mit Croc Sanctuary (east mound)	EFC pond	9,4,5	9	.,	
6/23/2015	01-15	1992	031863853	13.2	26.6	4.1				EFC Mit Croc Sanctuary (east mound)	EFC pond	9,4,5	9	2,10	
6/23/2015	01-15		031869868	12.5	25.3	3.9				EFC Mit Croc Sanctuary (east mound)	EFC pond	9,4,5	9	3,10	
6/23/2015	01-15	1994	031869322	13.3	26.9	4.2				EFC Mit Croc Sanctuary (east mound)	EFC pond	9,4,5	9	4,10	
6/23/2015	01-15	1995	031882055	13	26.5	4.1				EFC Mit Croc Sanctuary (east mound)	EFC pond	9,4,5	9	5,10	
6/23/2015	01-15	1996	031861858	13	25.7	4.1				EFC Mit Croc Sanctuary (east mound)	EFC pond	9,4,5	9	6,10	
6/23/2015	01-15	1997	032088524	13.3	26.6	4.1			UKN	EFC Mit Croc Sanctuary (east mound)	EFC pond	9,4,5	9	7,10	
6/23/2015	01-15	1998	031863350	13.3	26.8	4.2				EFC Mit Croc Sanctuary (east mound)	EFC pond	9,4,5	9	8,10	
6/23/2015	01-15	1999	031885330	12.6	25.3	4				EFC Mit Croc Sanctuary (east mound)	EFC pond	9,4,5	9	9,10	
6/23/2015	01-15	2000	032005552	13	26.3	4.1	2			EFC Mit Croc Sanctuary (east mound)	EFC pond	9	0	11	
6/23/2015	01-15	2001	031865814	12.9	26.4	4.1				EFC Mit Croc Sanctuary (east mound)	EFC pond	9	0	.,	
6/23/2015	01-15	2002	032062824	13.1	26.5	4.2				EFC Mit Croc Sanctuary (east mound)	EFC pond	9	0	2,11	
6/23/2015	01-15		032045842	12.8	25.7	4.1			UKN	EFC Mit Croc Sanctuary (east mound)	EFC pond	9	O	3,11	
6/23/2015	01-15		031866774	13.2	26.6	4.2				EFC Mit Croc Sanctuary (east mound)	EFC pond	9	0	4,11	
6/23/2015	01-15		032090636	12.5	25.5	4	2			EFC Mit Croc Sanctuary (east mound)	EFC pond	9	0	5,11	
6/23/2015	01-15	2006	032090339	12.9	25.8	4				EFC Mit Croc Sanctuary (east mound)	EFC pond	9	0	6,11	
6/26/2015	02-15		031866350	11.9	24	3.9				B1ESXN2	WFC pond	9	0	7,11	
6/26/2015	02-15	2008	031870542	11.5	23.1	3.9				B1ESXN2	WFC pond	9	0	8,11	
6/26/2015	02-15	2009	031875292	12.1	24.1	4	2			B1ESXN2	WFC pond	9	0	9,11	
6/26/2015	02-15		032059297	11.8		3.8			UKN	B1ESXN2	WFC pond	9		11	
6/26/2015	02-15		031866312	12.5	25.1	4	1.9		UKN	B1ESXN2	WFC pond	9	1	1,11	
6/26/2015	02-15		031882525	12.5	25.1	4	_			B1ESXN2	WFC pond	9	1	2,11	
6/26/2015	02-15		032048566	12.1	24.1	3.9				B1ESXN2	WFC pond	9	1	3,11	
6/26/2015	03-15		031884525	14.1	29	4.5				B2ESXN2	WFC pond	9	1	4,11	
6/26/2015	03-15		031870534	14.7	30.1	4.4				B2ESXN2	WFC pond	9		5,11	
6/26/2015	03-15		032002583	14.2	29.6	4.4				B2ESXN2	WFC pond	9	•	6,11	
6/26/2015	03-15		032092092	14.5	28.9	4.4				B2ESXN2	WFC pond	9		7,11	
6/26/2015	03-15		031884278	14.2	29.4	4.5				B2ESXN2	WFC pond	9	1	8,11	
6/26/2015	03-15		032031591	13.4	27.2	4.2			UKN	B2ESXN2	WFC pond	9	1	9,11	
6/26/2015	03-15		032046860	13.7	28.1	4.2				B2ESXN2	WFC pond	9	2	11	
6/26/2015	03-15		032055882	14	28.4	4.4				B2ESXN2	WFC pond	9	2	1,11	
6/26/2015	03-15		032048894	13.6	27.6	4.2			UKN	B2ESXN2	WFC pond	9	2	2,11	
6/26/2015	03-15		031885637	13.6	28.4	4.3				B2ESXN2	WFC pond	9	2	3,11	
6/26/2015	03-15		031886566	13.7	28	4.3			UKN	B2ESXN2	WFC pond	9	2	4,11	
6/26/2015	03-15	2025	032043567	14.4	29.5	4.5	2	54.1	M	B2ESXN2	WFC pond	9	2	5,11	

EFC - East Finger Canal WFC - West Finger Canal

UKN - Unknown sex Page 1 TABLE 4

Table 4. Tagged Hatchlings 2014

		T	TT	1				In . = 2.0.1. 0.0				1
7/9/2015	05-15	2026 032015325	12.6	25.4	4.3	2.1	50.1 F	B1ESXN5 (N) pond	EFC mangrove ponds	9	2 6,11	
7/9/2015	05-15	2027 031881854	13	25.7	4.2	2	50.2 M	B1ESXN5 (N) pond	EFC mangrove ponds	9	2 7,11	
7/9/2015	05-15	2028 032087284	12.4	24	4.1	2	48.2 F	B1ESXN5 (N) pond	EFC mangrove ponds	9	2 8,11	
7/9/2015	05-15	2029 032008516	12.6	25.3	4.2	2	52 M	B1ESXN5 (N) pond	EFC mangrove ponds	9	2 9,11	
7/9/2015	05-15	2030 031884019	12.2	24.1	4.1	2	44.9 F	B1ESXN5 (N) pond	EFC mangrove ponds	9	3 11	
7/9/2015	05-15	2031 032000572	12.4	24.7	4.1	1.9	43.7 UKN	B1ESXN5 (N) pond	EFC mangrove ponds	9	3 1,11	
7/9/2015	05-15	2032 032048000	12.4	24.7	4.1	2	45.6 M	B1ESXN5 (N) pond	EFC mangrove ponds	9	3 2,11	
7/9/2015	05-15	2033 031870096	12.1	24.4	4.1	1.9	39.4 F	B1ESXN5 (N) pond	EFC mangrove ponds	9	3 3,11	
7/9/2015	05-15	2034 032016773	11.9	23.5	4	2	40.1 M	B1ESXN5 (N) pond	EFC mangrove ponds	9	3 4,11	
7/9/2015	05-15	2035 032091613	12.5	24.5	4	1.9	43.8 F	B1ESXN5 (N) pond	EFC mangrove ponds	9	3 5,11	
7/9/2015	05-15	2036 032000552	12.3	24.6	4.1	2	46.5 M	B1ESXN5 (N) pond	EFC mangrove ponds	9	3 6,11	
7/9/2015	05-15	2037 032089586	12.2	24.1	4.1	2	43.5 UKN	B1ESXN5 (N) pond	EFC mangrove ponds	9	3 7,11	
7/9/2015	04-15	2038 031863124	12.2	24.6	4	2	60.4 F	B5ESXN2	EFC mangrove ponds	9	3 8,11	
7/9/2015	03-15	2039 032014875	14.4	28.9	4.6	2.1	62.8 M	B2ESXN2	Mangrove ponds east of sanct	9	3 9,11	
7/9/2015	03-15	2040 032041776	14.2	29	4.5	2.1	57.5 M	B2ESXN2	Mangrove ponds east of sanct	9	4 11	
7/9/2015	03-15	2041 032049532	13.9	28.4	4.5	2.1	58.5 M	B2ESXN2	Mangrove ponds east of sanct	9	4 1,11	
7/9/2015	03-15	2042 031861633	13.6	27.5	4.2	2	48.7 M	B2ESXN2	Mangrove ponds east of sanct	9	4 2,11	
7/10/2015	06-15	2043 032044078	12.4	25.4	4.1	2	50.9 UKN	B1ESXN2	Mangrove ponds east of sanct	9	4 3,11	
7/10/2015	06-15	2044 032093274	12.1	24.9	4.1	1.9	48.2 UKN	B1ESXN2	Mangrove ponds east of sanct	9	4 4,11	
7/10/2015	06-15	2045 032050364	12.2	24.7	4.1	2	63.9 M	B1ESXN2	Mangrove ponds east of sanct	9	4 5,11	
7/10/2015	06-15	2046 031881629	12.5	25.2	4.2	2	58 UKN	B1ESXN2	Mangrove ponds east of sanct	9	4 6,11	
7/10/2015	06-15	2047 031865269	12.2	24.7	4.1	2.1	57.4 F	B1ESXN2	Mangrove ponds east of sanct	9	4 7,11	
7/10/2015	06-15	2048 031866368	12.6	25.5	4.1	2.1	61.1 F	B1ESXN2	Mangrove ponds east of sanct	9	4 8,11	
7/10/2015	06-15	2049 032015036	11.4	22.7	3.9	1.9	44.4 UKN	B1ESXN2	Mangrove ponds east of sanct	9	4 9,11	
7/10/2015	06-15	2050 032047594	12.6	25.3	4.1	1.0	62.5 UKN	B1ESXN2	Mangrove ponds east of sanct	9	5 11	
7/10/2015	06-15	2051 032000880	11.1	22.2	3.9	1.9	48.4 UKN	B1ESXN2	Mangrove ponds east of sanct	9	5 1,11	
7/10/2015	06-15	2052 031881307	12.3	25.4	3.9	1.9	55.9 F	B1ESXN2	·	9	5 2,11	
7/10/2015	06-15	2053 031887107	12.3	26	4.2	2	58.5 UKN	B1ESXN2	Mangrove ponds east of sanct	9	5 3,11	
7/10/2015	06-15	2054 031888574	12.9	25	4.2	2	50.7 UKN	B1ESXN2	Mangrove ponds east of sanct	9	5 4,11	
7/10/2015	06-15	2055 031865282	13	25.6	4.1	1.9	59.9 M	B1ESXN2	Mangrove ponds east of sanct	9	5 5,11	
	07-15	2056 032054258	11.9	32.5	3.7	1.9	48.4 F		Mangrove ponds east of sanct	9	5 6,11	
7/17/2015				24.1	3.7			Mit Croc Sanct (M)(S) mound	C-106 pond	9		
7/17/2015	07-15	2057 031867596	12			1.9	50.9 F	Mit Croc Sanct (M)(S) mound	C-106 pond	9	5 7,11	
7/17/2015	07-15	2058 032005855	12.1	24	3.9	1.9	46.9 F	Mit Croc Sanct (M)(S) mound	C-106 pond	,	5 8,11	
7/17/2015	07-15	2059 031871848	11.9	24.3	3.8	1.9	47.1 M	Mit Croc Sanct (M)(S) mound	C-106 pond	9,5	· · · · · ·	Accidently cut RD-5
7/17/2015	07-15	2060 032005852	11.6	23.6	3.9	1.9	51 M	Mit Croc Sanct (M)(S) mound	C-106 pond	9	6 11	
7/17/2015	07-15	2061 031878837	11.6	23.7	3.9	1.9		Mit Croc Sanct (M)(S) mound	C-106 pond	9	6 1,11	
7/17/2015	07-15	2062 031882021	11.8	23.3	3.8	1.9	50.9 F	Mit Croc Sanct (M)(S) mound	C-106 pond	9	6 2,11	
7/17/2015	07-15	2063 031869518	11.6	23.1	3.8	1.9	49.2 M	Mit Croc Sanct (M)(S) mound	C-106 pond	9	6 3,11	
7/17/2015	07-15	2064 031861289	11.6	23.7	3.8	1.9	49.2 M	Mit Croc Sanct (M)(S) mound	C-106 pond	9	6 4,11	
7/17/2015	07-15	2065 032059636	11.2	22.5	3.7	1.7	47.2 M	Mit Croc Sanct (M)(S) mound	C-106 pond	9	6 5,11	
7/17/2015	08-15	2066 031877793	12.5	24.9	4	2	52.6 M	B4ESXN2	South mangrove ponds	9	6 6,11	
7/17/2015	08-15	2067 032076020	12.9	25.6	4.2	2	57.8 M	B4ESXN2	South mangrove ponds	9	6 7,11	
7/17/2015	08-15	2068 031882850	12.4	24.5	4	2	51.9 UKN	B4ESXN2	South mangrove ponds	9	6 8,11	
7/17/2015	08-15	2069 032059277	12.8	25.2	4	2	53.7 M	B4ESXN2	South mangrove ponds	9	6 9,11	
7/17/2015	08-15	2070 031886096	12.7	25.5	4.1	2	53 M	B4ESXN2	South mangrove ponds	9	7 11	
7/17/2015	08-15	2071 032006806	13.3	26.9	4.2	2	60.1 M	B4ESXN2	South mangrove ponds	9	7 1,11	
7/17/2015	08-15	2072 032055820	12.4	24.7	4	2	52.7 F	B4ESXN2	South mangrove ponds	9	7 2,11	
7/17/2015	08-15	2073 031883277	12	24.3	4.1	2	49.5 M	B4ESXN2	South mangrove ponds	9	7 3,11	
7/17/2015	08-15	2074 032001889	13.2	26.3	4.1	2	57.7 M	B4ESXN2	South mangrove ponds	9	7 4,11	
7/17/2015	08-15	2075 032091317	13.3	26.3	4.1	2	61.7 M	B4ESXN2	South mangrove ponds	9	7 5,11	
7/17/2015	08-15	2076 032093044	12.9	25.9	4.1	2	61.6 F	B4ESXN2	South mangrove ponds	9	7 6,11	

EFC - East Finger Canal WFC - West Finger Canal UKN - Unknown sex

Page 2 TABLE 4

Table 4. Tagged Hatchlings 2014

7/17/2015	08-15	2077	032001626	12.5	25.2	4	2	61.4	M	B4ESXN2	South mangrove ponds	9	7	7,11	
7/17/2015	08-15	2078	031866616	12.9	26	4.1	2	59.3		B4ESXN2	South mangrove ponds	9	7	8,11	
7/17/2015		2079	836533101	12.4	25.2	4.1	2	50.2		B4ESXN2	South mangrove ponds	9	7	9,11	
7/17/2015		2080	032059020	12.6	25.6	4.1	1.9	57.1		B4ESXN2	South mangrove ponds	9	8	11	
7/21/2015		2081	836575011	12.2	24.8	3.9	1.9	52		B12SXN4(S) pond	South mangrove ponds	9	8	1,11	
7/21/2015	09-15	2082	836569118	12.3	25.2	3.9	2	52.6		B12SXN4(S) pond	South mangrove ponds	9	8	2,11	
7/21/2015	09-15	2083	836558611	12.1	24.6	4	1.9	52.1		B12SXN4(S) pond	South mangrove ponds	9	8	3,11	
7/21/2015	09-15	2084	836570554	31.2	26.9	4.2	2.2	58.4	M	B12SXN4(S) pond	South mangrove ponds	9	8	4,11	
7/21/2015	09-15	2085	836554609	11.5	23.3	3.9	1.9	49.4	UKN	B12SXN4(S) pond	South mangrove ponds	9	8	5,11	
7/29/2015	MCS	2086	836519021	13.5	26.5	4.4	2.1	50.3	UKN	C5ESXN3	C-107 mangroves	9	8	6,11	
7/29/2015	MCS	2087	836567846	13.6	27.3	4.4	2.1	55.9	M	C5ESXN3	C-107 mangroves	9	8	7,11	
7/29/2015	MCS	2088	836561634	13.3	26.4	4.4	2	55.8	M	C5ESXN3	C-107 mangroves	9	8	8,11	
7/29/2015	MCS	2089	836576378	13.6	27.1	4.4	2	55.3	М	C5ESXN3	C-107 mangroves	9	8	9,11	
7/29/2015	MCS	2090	836575117	13.4	26	4.3	2	48.7	М	C5ESXN3	C-107 mangroves	9	9	11	
7/29/2015	MCS	2091	836549857	14	27.8	4.5	2.1	58.5	М	C5ESXN3	C-107 mangroves	9	9	1,11	
7/29/2015	MCS	2092	836553808	14	27.9	4.5	2.1	62.3	F	C5ESXN3	C-107 mangroves	9	9	2,11	
7/29/2015	MCS	2093	836572035	13.3	25.9	4.3	2	46.7	M	C5ESXN3	C-107 mangroves	9	9	3,11	
7/29/2015	MCS	2094	836557106	13.2	26.5	4.5	2.1	54.6	UKN	C5ESXN3	C-107 mangroves	9	9	4,11	
															Marked by Steph
7/29/2015	MCS	2095	836566018	14	27	4.2	2	66.4	F	C5ESXN3	C-107 mangroves	9	9	5,11	Wasilewski
															Marked by Steph
7/29/2015		2096	836580370	12.5	25.7	4	1.9	53.9		C5ESXN3	C-107 mangroves	9	9		Wasilewski
7/29/2015	MCS	2097	836556319	13.6	26.5	4.2	2	50.1	M	C3ESXN2	C-107 mangroves	9	9	7,11	
7/29/2015	MCS	2098	836573574	12.1	25	4	1.9	42.2		C3ESXN3	C-107 mangroves	9	9	8,11	
	RECAPTURE	2039	032014875	14.9	30.2	4.6	2.1	63.6		EFC Mit Croc Sanctuary (East Mound)	C-106 pond	9	3	9,11	
7/29/2015	RECAPTURE	2016	032002583	16.3	33.9	5.2	2.1	99	M	South collector canal 7/8	C-107 mangroves	9	1	6,11	

EFC - East Finger Canal WFC - West Finger Canal UKN - Unknown sex

Page 3 TABLE 4

Table 5. Crocodile ID Surveys 2015

				Crocodile II	D Survey 2015		
Date	Time Started	<u>Distance</u> From Start	Crocodile Observed	Location	Total Length (est.)	Surveyor	Comments
	12:23pm	0.07mi			1.5m	M.A	Basking
17072010	12.200111	0.25mi		EB ID	1.25m	M.A	
		0.31mi			2.0m	M.A	
		0.36mi			2.75m	M.A	Basking
		0.40mi		EB ID	1.5m	M.A	Jacking
		0.41mi		EB ID	1.5m	M.A	
		0.43mi		EB ID	1.75m	M.A	
		0.44mi		EB ID	1.25m	M.A	
		0.45mi		EB ID	2.5m	M.A	Basking
		0.46mi		EB ID	1.75m	M.A	Daoking
		0.49mi			1.5m	M.A	
		1.17mi			2.25m	M.A	Basking
		2.68mi			2.0m	M.A	Basking
		2.93mi			2.75m, 2.0m	M.A	Basking
		4.02mi		EB ID	1.25m	M.A	Dasking
		5.60mi	<u>'</u>		UKN	M.A	
1/12/2015	10:11am	0.12mi	1		1.75m	M.A	
1/12/2013	10.114111	0.12111 0.24mi		EB ID	1.5m	M.A	
		0.25mi		EB ID	1.5m	M.A	
		0.26mi			2.75m, 2.75m, 2.25m	M.A	Awesome male combat and territorial behavior. Female on bank while one male on either side of her. Males would approach each other and explode into combat!
			3		3.0m, 2.0m, 2.5m	M.A	3.0m and 2.0m basking on west bank of sanctuary while 2.5m in canal. Could be trio that nests on sanct. Male and females
4/13/2015	1:12pm	0.14mi	1	EB ID	1.25m	M.A	
		0.24mi	1	EB ID	1.5m	M.A	
		0.27mi	1	EB ID	1.75m	M.A	
		0.37mi	1	EB ID	2.5m	M.A	
_		0.50mi	1	Center ID	1.5m	M.A	

EB ID - East Bank Interceptor Ditch NID - North Interceptor ditch

Table 5. Crocodile ID Surveys 2015

	0.57mi	1 EB ID	1.75m	M.A		
	0.73mi	1 Center ID	2.0m	M.A		
	0.93mi	1 Center ID	2.5m	M.A		
	1.23mi	1 EB ID	1.5m	M.A		
	1.86mi	1 Center ID	2.0m	M.A		
	2.22mi	1 EB ID	1.25m	M.A	+	
	2.57mi	1 EB ID	1.25m	M.A		
	3.4mi	1 Center ID	1.5m	M.A	+	
	5.58mi	NID	UKN	M.A		
4/27/2015 9:30am	0.04mi	1 EB ID	2.5m	M.A		
	0.08mi	1 EB ID	2.0m	M.A	+	
	0.1mi	1 EB ID	1.75m	M.A	+	
	0.2mi	1 EB ID	1.75m	M.A		
	0.25mi	1 EB ID	1.5m	M.A		
	0.3mi	1 EB ID	2.5m	M.A		
	0.35mi	1 EB ID	2.5m	M.A		
	0.37mi	1 EB ID	1.5m	M.A		
	0.38mi	2 EB ID	1.25m, 1.5m	M.A		
	0.4mi	1 EB ID	1.5m	M.A		
	0.45mi	1 EB ID	1.25m	M.A		
	0.48mi	2 Center ID	1.25m, 2.0m	M.A		
	0.49mi	1 EB ID	1.75m	M.A		
	0.5mi	1 EB ID	1.75m	M.A		
	0.7mi	2 EB ID	2.25m, 1.75m	M.A		
	1.0mi	1 EB ID	2.0m	M.A	Basking	
	1.1mi	1 EB ID	2.0m	M.A		
	1.5mi	1 EB ID	2.0m	M.A	Mangroves	
	1.7mi	1 Center ID	2.5m	M.A		
	1.9mi	1 EB ID	1.75m	M.A		
	1.95mi	1 EB ID	1.5m	M.A		
	2.3mi	1 EB ID	1.5m	M.A		
	2.5mi	1 Center ID	UKN	M.A		
	2.54mi	1 EB ID	2.0m	M.A		
	3.5mi	1 EB ID	1.25m	M.A		
	3.7mi	1 EB ID	1.25m	M.A		
	4.0mi	1 Center ID	2.25m	M.A		
	4.4mi	1 EB ID	1.25m	M.A		

EB ID - East Bank Interceptor Ditch NID - North Interceptor ditch

Table 5. Crocodile ID Surveys 2015

		4.5mi	1 Center ID	2.0m	M.A	
		4.8mi	1 EB ID	1.25m	M.A	
		5.5mi	NID	UKN	M.A	
8/20/2015	10:34am	0.12mi	2 EB ID	2.0m, 1.75m	M.A	
		0.17mi	1 EB ID	2.25m	M.A	
		0.28mi	1 EB ID	2.0m	M.A	
		0.37mi	1 EB ID	1.75m	M.A	
		0.42mi	1 EB ID	1.5m	M.A	
		1.38mi	1 Center ID	2.75m	M.A	
		5.59mi	NID	UKN	M.A	
8/25/2015	10:03am	0.11mi	1 EB ID	2.0m	M.A	
		0.13mi	1 EB ID	1.75m	M.A	
		0.17mi	1 EB ID	1.75m	M.A	
		0.23mi	1 EB ID	1.75m	M.A	Looks skinny
		0.25mi	1 EB ID	1.75m	M.A	
		0.28mi	1 EB ID	1.5m	M.A	
		0.29mi	1 EB ID	2.0m	M.A	
		0.33mi	1 Center ID	2.5m	M.A	
		0.35mi	1 EB ID	1.5m	M.A	
		0.63mi	1 EB ID	2.0m	M.A	
		0.90mi	1 EB ID	1.25m	M.A	
		2.9mi	1 EB ID	1.25m	M.A	
		4.14mi	1 EB ID	1.25m	M.A	
		5.60mi	NID	UKN	M.A	
8/31/2015	9:59am	245ft	1 EB ID	1.25m	M.A	
		525ft	1 EB ID	1.35m	M.A	
		0.24mi	1 EB ID	1.25m	M.A	
		0.63mi	1 EB ID	1.5m	M.A	
		0.95mi	1 Center ID	1.5m	M.A	
		1.09mi	1 Center ID	1.5m	M.A	
		1.78mi	1 EB ID	2.0m	M.A	
		2.16mi	1 EB ID	2.0m	M.A	
		2.65mi	1 EB ID	1.5m	M.A	
		2.87mi	1 EB ID	1.25m	M.A	
		2.97mi	1 EB ID	2.25m	M.A	
		3.10mi	1 Center ID	2.0m	M.A	
		3.67mi	1 EB ID	1.25m	M.A	

EB ID - East Bank Interceptor Ditch NID - North Interceptor ditch

Table 5. Crocodile ID Surveys 2015

	5.56mi	NID	UKN	M.A	
9/17/2015 10:42am	0.15mi	1 EB ID	2.0m	M.A	
	0.23mi	1 EB ID	1.75m	M.A	
	0.33mi	1 EB ID	2.5m	M.A	
	0.37mi	1 EB ID	2.0m	M.A	
	1.02mi	1 EB ID	2.0m	M.A	
	2.19mi	1 EB ID	UKN	M.A	
	2.71mi	1 Center ID	2.75m	M.A	
	4.71mi	1 EB ID	2.5m	M.A	
	5.59mi	NID	UKN	M.A	
10/7/2015 9:48am	0.12mi	1 EB ID	2.0m	M.A	
	0.17mi	1 EB ID	2.0m	M.A	
	0.19mi	1 EB ID	2.0m	M.A	
	0.24mi	1 EB ID	2.25m	M.A	
	0.36mi	1 EB ID	2.5m	M.A	
	0.37mi	1 EB ID	2.0m	M.A	
	0.39mi	1 EB ID	2.0m	M.A	
	0.74mi	1 EB ID	2.5m	M.A	
	2.03mi	1 Center ID	2.5m	M.A	
	4.69mi	1 EB ID	2.25m	M.A	
		. 50.10			Crocs interacting. Smaller croc submerging and blowing bubbles up by larger croc, then lifting head straight up
	5.01mi	2 EB ID	2.75m, 2.0m	M.A	vertical by larger croc. Cool!
	5.59mi	NID	UKN	M.A	

**Table 6. American Crocodile Data from Turkey Point Power Plant 2010-2015** 

Number of:	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Tagged Hatchlings	268	229	429	409	119
Adults Sighted in ID Canal	180	165	275	157	124
Successful Nests Found	15	18	25	25	9

Page 1 TABLE 6

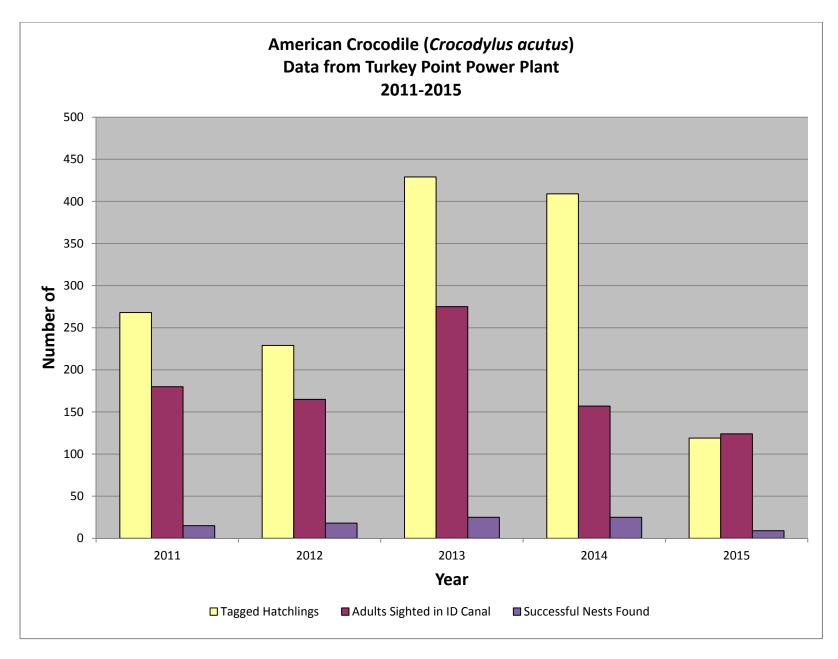


Chart 1. American Crocodile Data from Turkey Point Power Plant 2011-2015