Scope of Work

- Monitor birds at a rookery at Juno Dunes Natural Area
- Learn about bird identification, behavior, nesting, foraging habits, and flight-line counts of wading birds
- Conduct independent weekly bird counts morning or evening
- Determine peak nesting density and primary foraging flight directions
- Provide baseline data for future surveys
Study Area

- Juno Dunes Natural Area is located in Palm Beach County between the Intracoastal Waterway and the Atlantic Ocean.
- The rookery is located South of Donald Ross on US 1 in the western section of the natural area (behind the trees in the picture).
The Rookery

- The rookery is located in a disturbed tidal swamp community which was originally part of a large basin marsh system dominated by sawgrass.
- The rookery is situated around a 0.3 acre pond.
- The mangroves surrounding the pond are used by wading birds for nesting.
The Flight Line Method

- Morning flight-line counts were conducted from January to April 15th
- Monitor location is located 400 ft away from rookery
- Wading birds were observed flying in and out of colonies
- Number of birds, species, and flight directions were recorded
Flight Line Method continued...

- A nest count or sampling method is taken when using the flight-line method.
- A nest count was not completed in this study due to inaccessibility to the rookery and time frame of study.
- An attempt was made to monitor rookery on April 19th. 11 Little Blue Herons and 1 Cattle Egret were observed roosting.
- In addition, one large alligator was observed.
Results

- Wading birds arrived at the rookery in late March
- Five species of wading birds were observed
- Two species are considered species of special concern. Little Blue Herons and Tri-colored herons
- Little Blue Heron and Great Egret were the dominant species
- The flight-line method used in the survey may provide useful data for wading bird monitoring, is cost effective, and can be completed with the assistance of volunteers in the community or students completing internships
Birds Observed at Juno Dunes rookery

- Great Blue Heron
- *(Ardea herodias)*
- Largest heron in North America (46-52 inches in length)
- Bluish gray body and yellowish bill, blackish yellow legs
- Long black plumes on back of crown in breeding season
- Feeds in marshes and swamps, but also found to hunt for woodchucks and mice in fields and forest edges
- Called “crane” or “blue crane” by locals
- Neck is folded in S-shape in flight (typical of herons) with long legs trailing behind
Little Blue Heron  
(Egretta caerulea)

- Small, slate blue heron, with greenish grey legs and bluish beak with black tip
- Species name is from Latin, meaning “dark blue”
- After breeding, it may migrate as far north as Newfoundland
- Juvenile is completely white
- Listed as species of special concern by FWCC
Great Egret *Ardea alba*

- Large white egret with yellow bill and black legs and feet (37-41 in)
- Develops long trains of plumes on its back in breeding season
- Has unusual bathing behavior. It bends legs to squat and submerge most of body for several minutes before cleaning
- The species name is from Latin *albus*, meaning “white”
- Hunted to near extinction in the late 1800’s because of its feathers
- Today, loss of wetlands continues to threaten the population
Cattle Egret *Bubulcus ibis*

- Small white egret with yellow bill and yellowish, greenish feet
- Buff orange breeding plumes on crown, fore neck and back
- Originally from Portugal, Spain, and Africa
- Introduced to Florida in early 1940s
- Feeds with cattle, horses, and other livestock often riding on their backs
- Also called cow heron or tick bird. Europeans named it buff-back heron referring to its breeding plume colors.
Tricolored Heron *Egretta Tricolor*

- Medium size, grey heron with white underparts
- Yellow beak, facial skin, legs and feet
- Also called Gaulin or Louisiana Heron
- Feeds by wading deep up to its belly
- Has been seen running in water after fish which is caught quickly with its beak
- Called “Lady of the Water” by the Audubon Society because of its grace and beauty
- Listed as a species of special concern by FWCC
My thoughts on the Internship

- Truly enjoyable experience
- Gained invaluable knowledge of wading birds in Florida
- Increased my knowledge of their importance and the threats they are facing
- Increased my interest in bird watching, especially wading birds
Thank you to:

- PBC Environmental Resources Management Staff:
  - Ginny Powell
  - Melissa Tolbert
  - Barbara Bobsein
  - Michael Cheek
- Palm Beach Community College:
  - Professor Jessica Miles
The End