



UCF

# Marine Turtle Research Group

UNIVERSITY OF CENTRAL FLORIDA



# UCF MARINE TURTLE RESEARCH GROUP

## Whole – life history approach:

- 37+ years of nesting beach research
- 37+ years of coastal juvenile research
- 11+ years of oceanic juvenile research



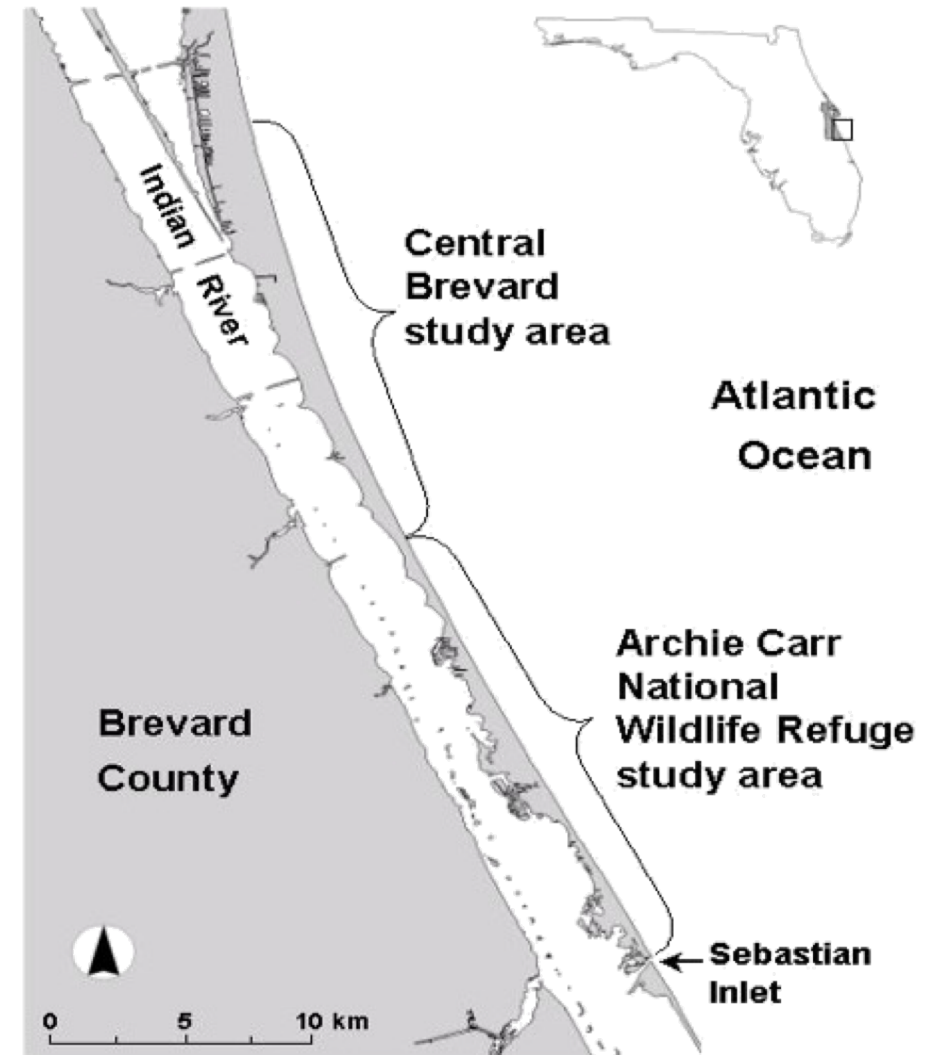
# UCF MARINE TURTLE RESEARCH GROUP

## Four main projects

1. Beach monitoring
2. In water coastal netting
3. Offshore capture
4. Nesting surveys – just nest/crawl counts

## Standardized data collection since 1982

- Tags for individual identification
- Morphometrics
- Metadata
- Daily number of nests laid





# NIGHTTIME SURVEYS



# DAYTIME SURVEYS



Photos: C. Long, R. Chabot, K. Mills, G. Stahelin, K. Phillips



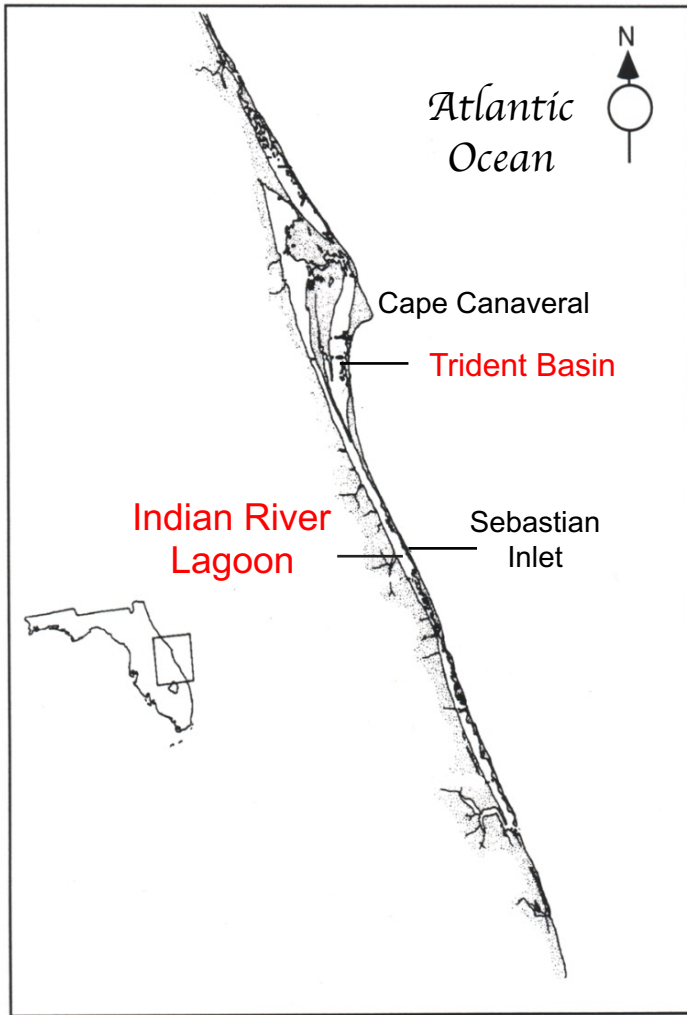
# NEST INVENTORIES



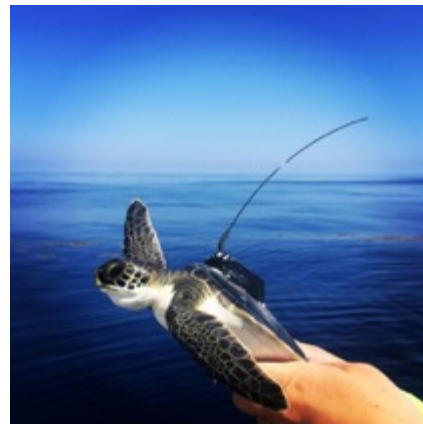
Photos: K. Mansfield, G. Stahelin, E. Seney



# COASTAL SAMPLING (JUVENILES)



# OFFSHORE SAMPLING



Photos: K. Mansfield; G. Stahelin



# DATA USE



- **Scientific Advisory Service**

1. Post-construction/nourishment monitoring
2. Provide data to state and federal agencies (20-33% of all Atlantic sea turtle nesting happens in our study area)
3. Post-oil-spill assessments
4. Robust analyses for conservation/species recovery
5. Partnerships or contracts with: ACOE, USFWS, NOAA, NMFS, FWCC, Brevard County, etc.

- **Research and Education**

- Platform for undergraduate and graduate research
- Field-based training/pre-veterinary experience
- Outreach

# CURRENT DATABASE—PROBLEM

- Current database is old, not relational
- Unable to query and generate reports
- Have to enter data chronologically
- Database grew with project over decades but didn't grow with available database tech
- Key data reported in comments (older entries)
- Limited/clunky remote access from field station





# GOALS

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- Develop a functional, flexible new database to store/migrate current data while allowing for future growth of program (decades of data)
- A program that will be easy to learn and allow for easy addition of new fields as needed
- Customizable exports for generating deliverables for different agencies (submitted >80 reports in 2018 to contracting agencies)
- Ability to track individual turtles through time (changes to tags, etc.)
- Functional remote access from coastal field building

# REQUIREMENTS

## Must-have:

- **Continued paper datasheet use.**
- Access to database from a web browser with full capabilities
- Ability to add/remove or rearrange fields or layout as needed
- Programming language that does not require annual renewals of licenses or that limit the number of computers/browsers allowed to access it
- Ability to track individual turtles through time with changes to tags (tag loss/new tags)
- Ability to generate customizable reports for agency deliverables
- Feature with individual turtles to track fate of samples collected from those turtles/time (where stored, if used, results from analyses like stable isotope, genetics, diet, etc.).





# REQUIREMENTS

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## Nice-to-have:

- GIS features
- Ability to track data (nest numbers, nest success) through time by area surveyed (half-km standardized survey areas)

## Home run:

- All of the above, plus...
- Capacity to store scanned documents and photos (or link records to a specific document stored in the cloud)