



Tracking Rehabilitated Juvenile Green Sea Turtles: Expanding Navigational Understanding



Josalyn Gomez, Alexa Friz, Angela Martin, Ed McGinley, Ph.D.
Natural Sciences Department, Flagler College, St Augustine FL

Introduction

In this study, we track and identify juvenile green sea turtles (*Chelonia Mydas*) in various St. Augustine Marinas using a photo identification software called The Internet of Turtles. We use this data collected in conjunction with Whitney Laboratory (WL) hospital records to measure the individual's recurrence rate to these marinas before and after treatment at the hospital.

The objective is to provide evidence of the navigational return of sea turtles to various marinas, alongside the success rate of treatments once released.

Figure 1. Map of study sites (northern three markers) and the Whitney sea turtle hospital (southern point).



Methods

- Weekly turtle observation at Camachee Cove (CC), Conch House (CH), and St. Augustine Municipal Marina (MM)
- Data Sheets collected location information
- Internet of Turtles allows us to match dorsal scale patterns with others in the database



- WL records processed in Internet of Turtles to find matches with marina individuals, timestamps crucial to show return to same marina.



Results



Figure 2. Turtle MOST20-110 seen from left: CC (8-13-2020), CC (8-31-2020), and intake photo from Whitney Sea turtle hospital (8-31-2020).

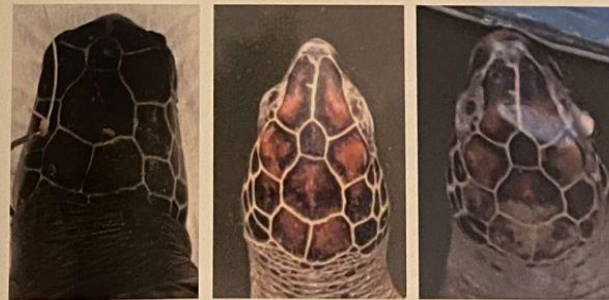


Figure 3. Turtle MOST20-036 seen from left: intake photo from Whitney Sea turtle hospital (9-9-2020) with fish hook lodge in scales on left side of head, CH (12-6-2020), and CH (12-16-2021).

Conclusion & Future Implications

- Turtles can be tracked between marinas and hospital
- Photo ID software can match turtles photographed in water and on land



- Continue to gather marina and hospital data
- Track regression of FP so places like WL can explore treatment methods that will present the highest degree of success for low FP recurrence.

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