

Diamondback Terrapin Turtles



By

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Goodwin Islands



Naval Weapons Station Felgate Creek

Map of Crab Pots



Primary Research Questions

- How does commercial crabbing affect age and size in terrapin populations?
 - Comparison between Felgate and Goodwin
- How does raccoon predation affect population structure at the Goodwin islands
 - Comparison between Goodwin islands

Additional Research Questions

- How do water and air temperatures affect the number of turtles found onshore at the Goodwin islands?
- What abnormalities and deformities are found in terrapins at the Felgate site?
- How do shell and body colors vary and what patterns, if any, are found in the variation?

Nest Predation

- Turtles lay eggs between May and August
- Raccoons and other predators find nests
- Majority of nests are predated, exact percent varies by island



Nest Predation and Age Structure of Goodwin

- Terrapins have been shown to return to the same tidal creek area to nest
- Islands with higher rates of predation are not getting as many new recruits as lower predated islands
- **Hypothesis:** Females on West Island will be older than Middle Island, and even older than East Island

Previous Research at W&M

Nest predation data adapted from Ruzicka, 2006

	WI	MI	EI	Total
Depredated	302	570	219	1091
Partially Predated	0	11	10	21
Intact	9	8	24	41
Hatched/ Emerged	4	59	146	209
Total	315	648	399	1,362
Percent predated	96	88	55	80

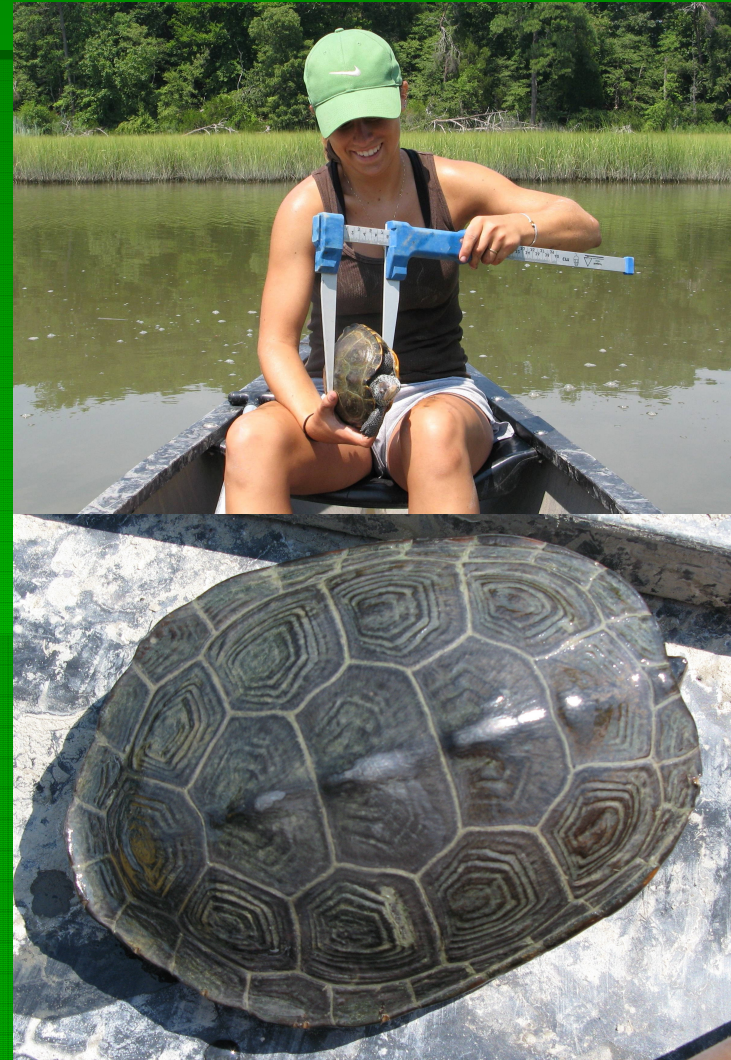
Nest Data

- Older females lay larger nests
- Previous years' data showed one egg higher average on the west island
- Successful nests are just beginning to hatch

Island	Total Nests	Avg. Clutch size
West	73	5.8
Middle	686	7.4
Middle Back	207	7.4
East	410	7.3
Felgate	41	6.0

Daily Methods

- CANOE!!!
- Walk on beach searching for egg shells
- Modified crab pots
- Turtles
 - Measure length, width, depth
 - Weight
 - Age
 - Tag turtle



Felgate Movements

15, 15, 4, 4

6, 6, 10

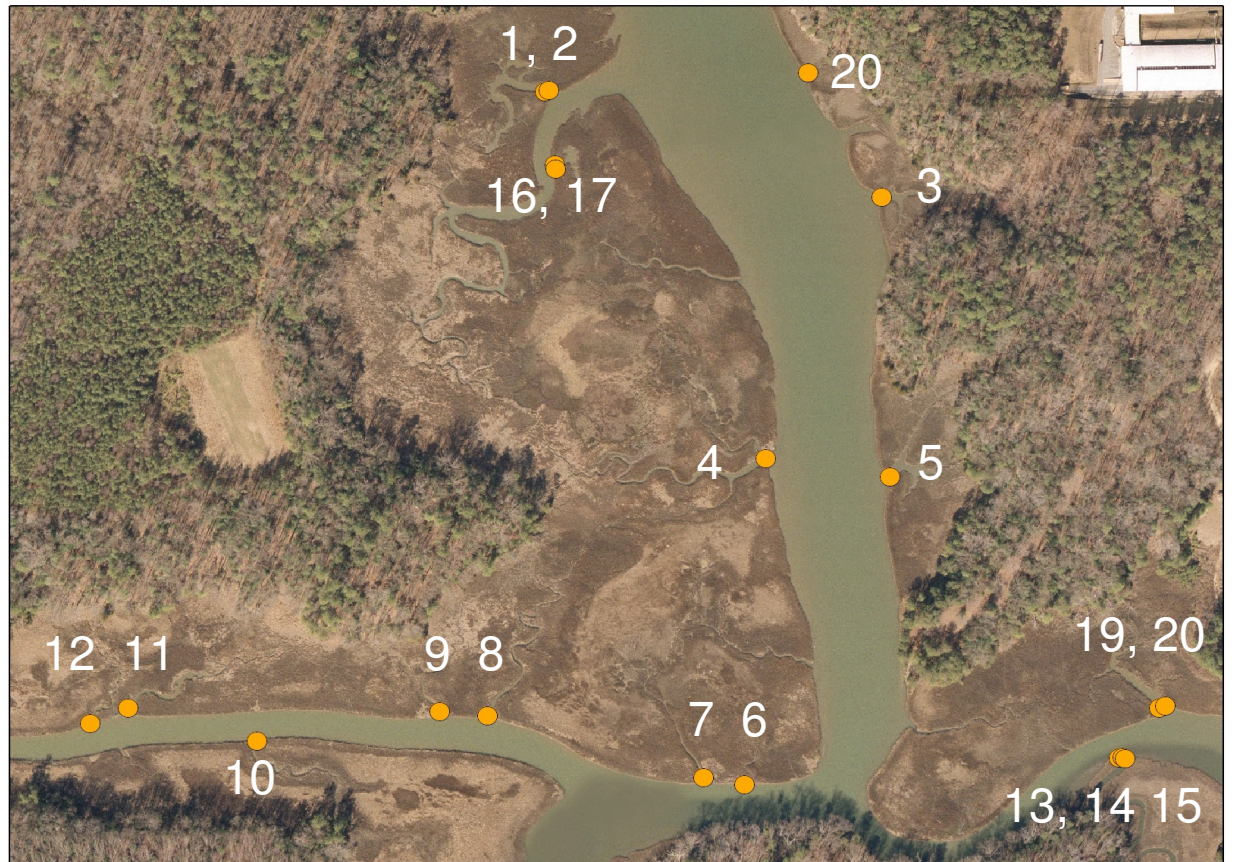
4, 1, 8

4, 3, 8

7, 5, 6

10, 12, 17

7, 5, 10



6, 8, 15, 15

6, 8, 8

Body and Shell Colors

- Carapace
 - Brown, black, wood pattern
- Plastron
 - Varying shades of orange, wood pattern
- Body
 - Shade varies from white to black
 - Spots often visible, but usually not seen on darker turtles
- Head
 - Spots joined or distinct
 - Stripes above mouth, diamond on head
 - Color can be different than body color



Other Sights to See!

