New Hope for Sea Turtles in Honduras

Presented to WIDECAST 2015

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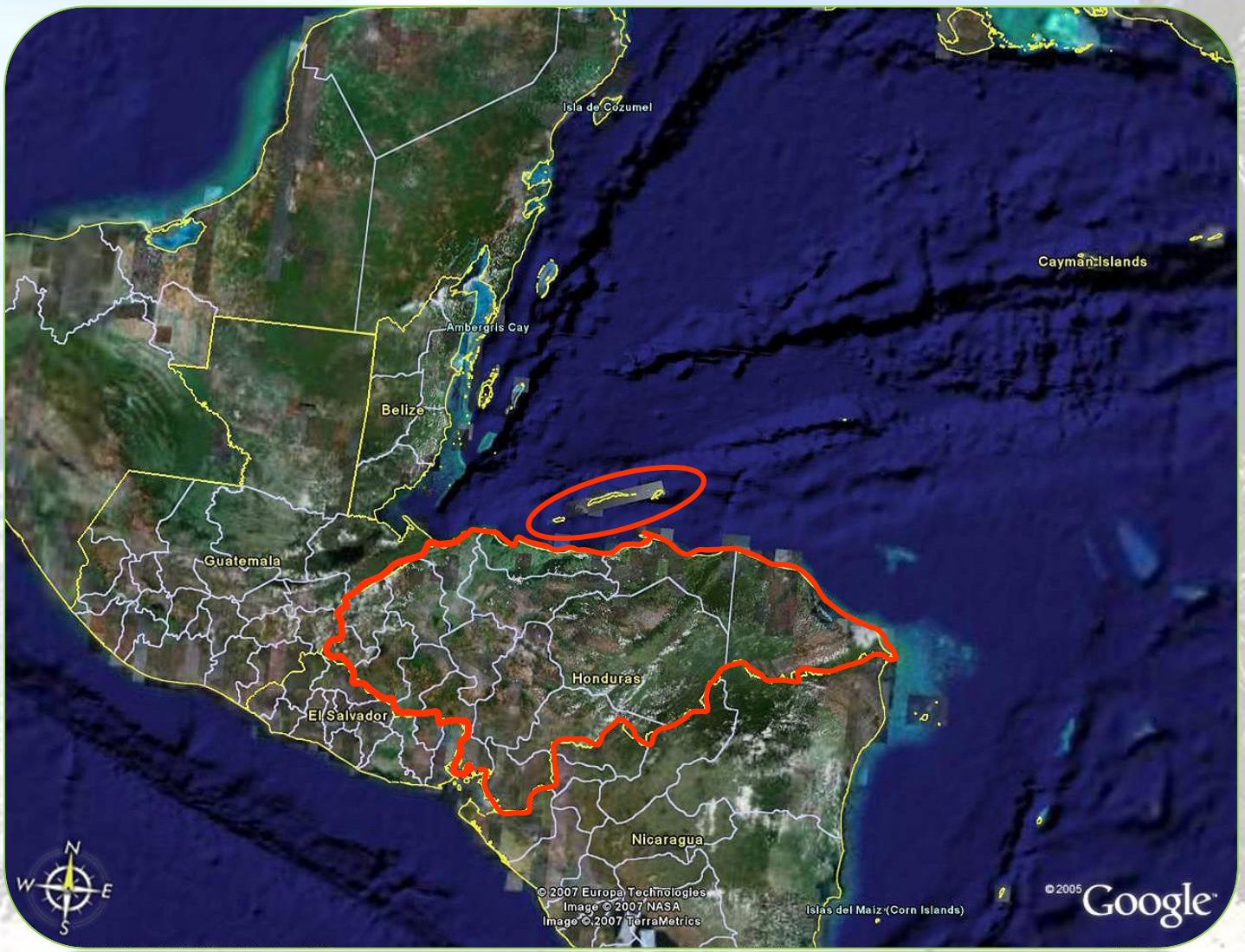
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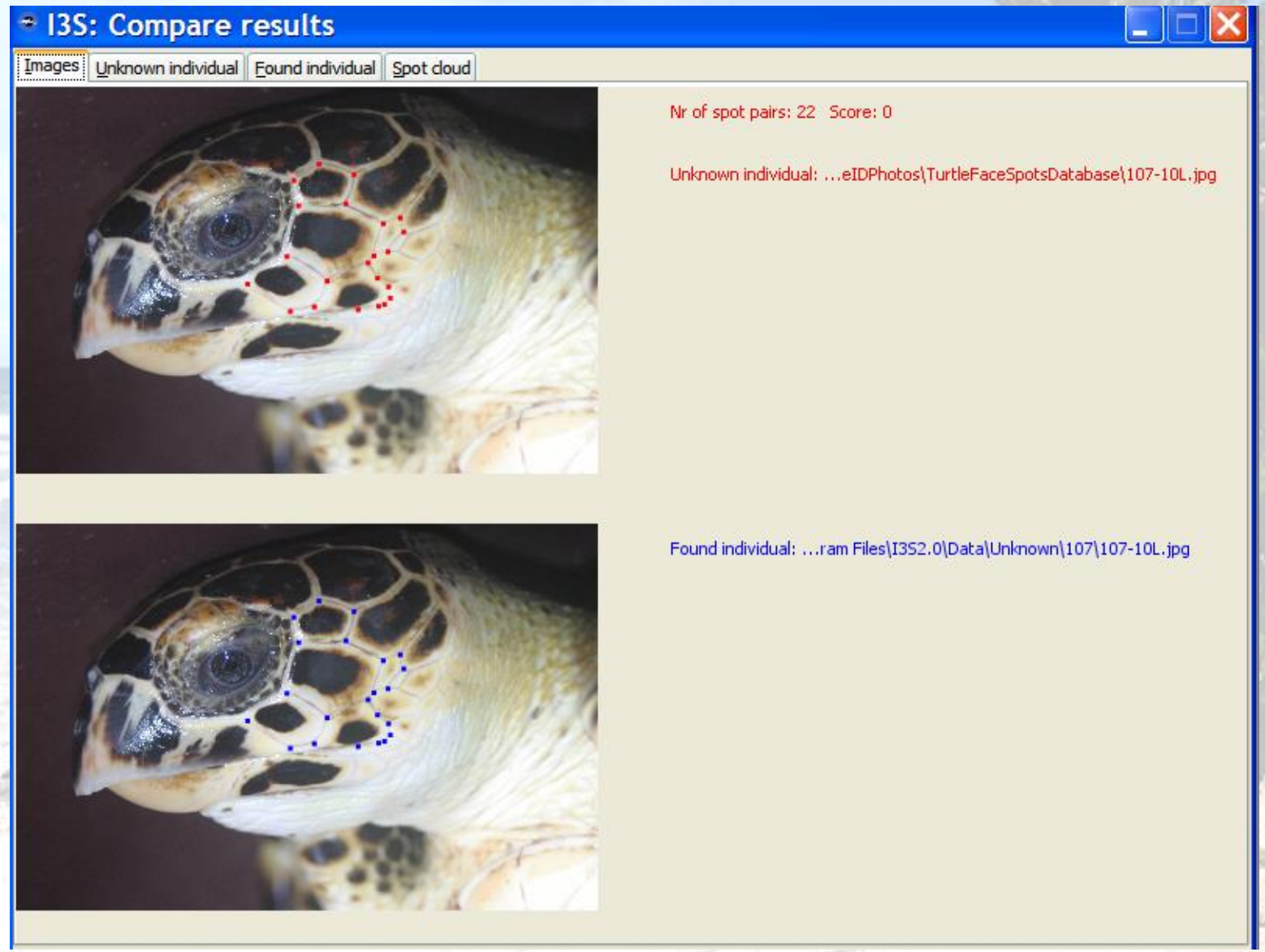
Roatán, Bay Islands, Honduras

What we want to know?

- *Species Diversity and Distribution*
- *Habitat Distribution and Use by Sea Turtles*
- *Habitat and Turtle Health*
- *Population Dynamics of Resident and Transient Turtles*
- *Genetic Diversity of Turtles*
- *Migratory and Resident Turtle Interactions with Fisheries*

automated digital search system



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ENDANGERED SPECIES RESEARCH
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Recognition of juvenile hawksbills *Eretmochelys imbricata* through face scale digitization and automated searching

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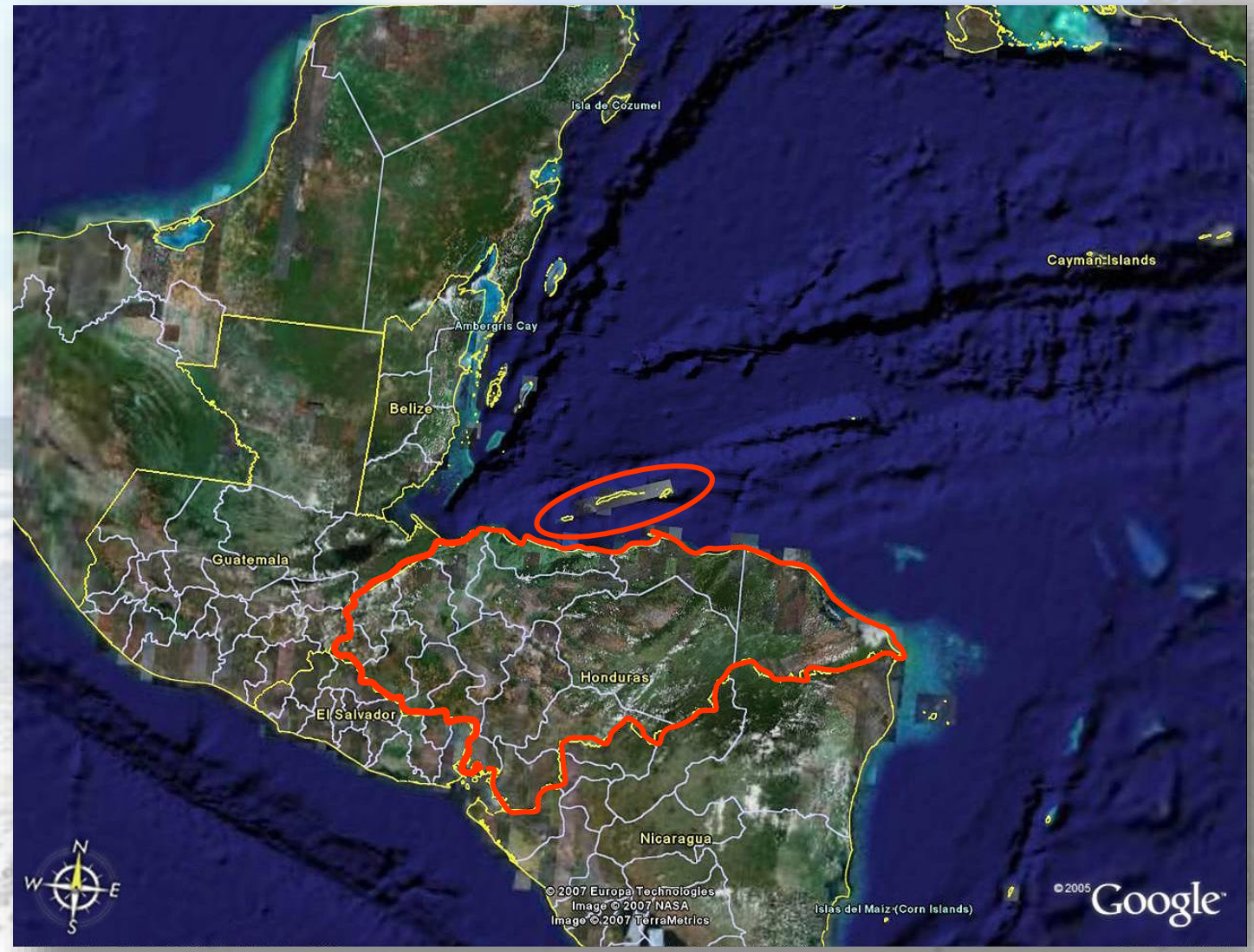
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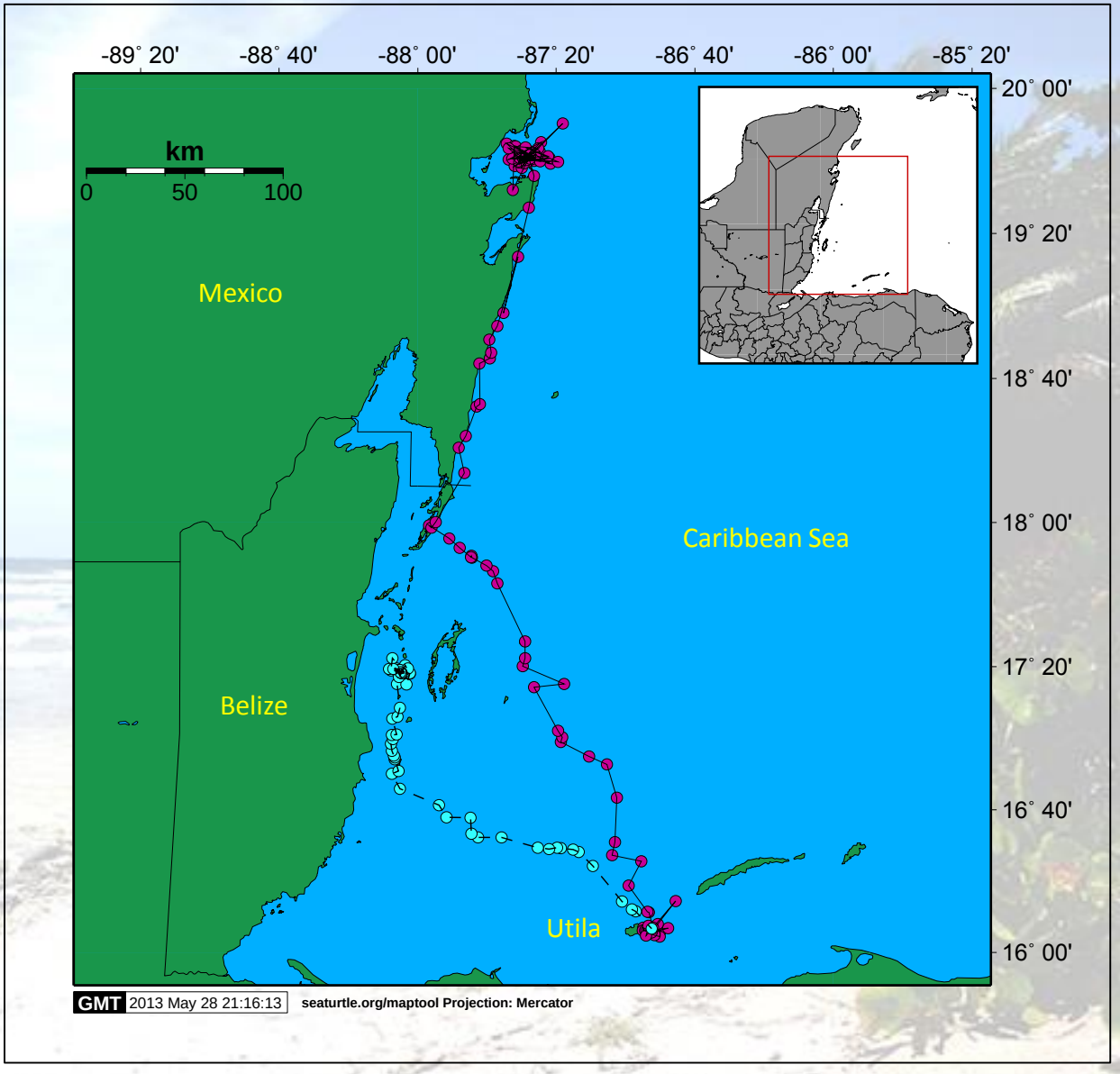
First hawksbill turtles tagged in Honduras

"Chel"

"Ginger"

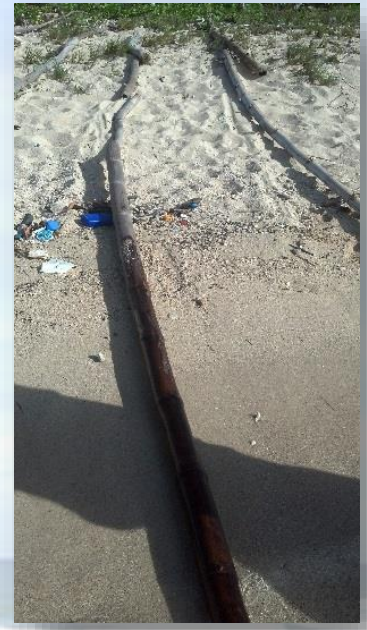


Chel: Magenta dots, solid line Ginger: Light blue dots, dashed line

Utila supports nesting females from varying distances and countries

Pollution along Pumpkin Hill Beach

… or could become trapped in plastic and never make it to the water.





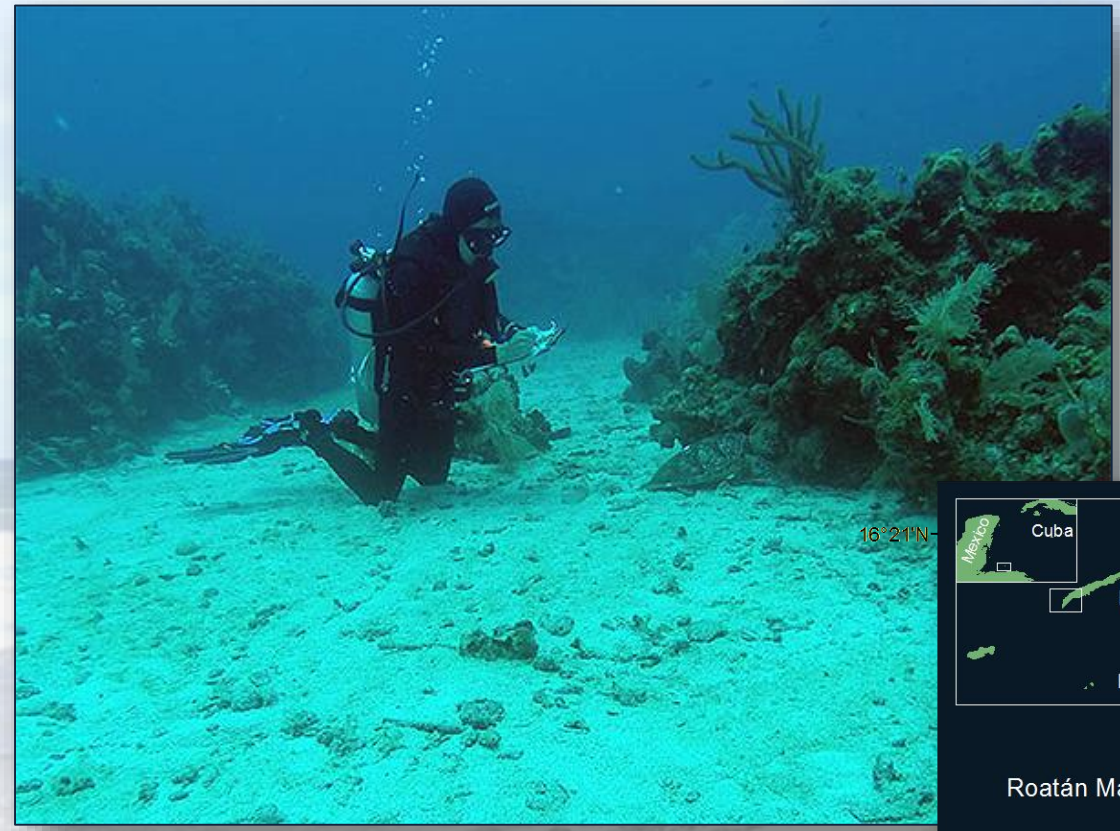
Testing impacts of pollution density on hatchling running speed

Turtle Habitat Utilization

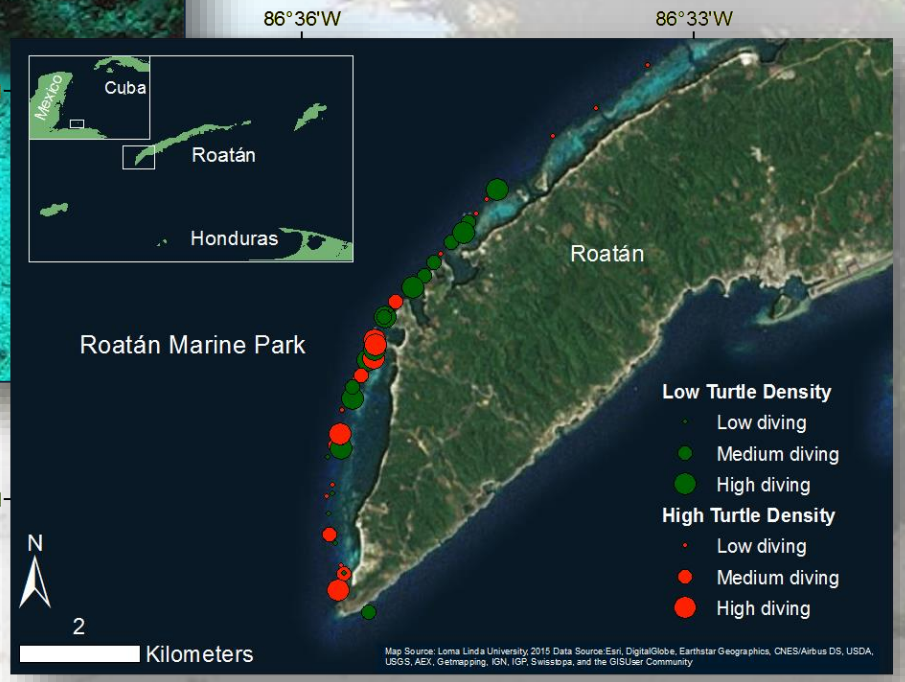
Dustin Baumbach

Roatán Marine Park

Turtle Responses to Divers



Christian Hayes



Roatán Marine Park

Calitan 2009 - 2015

Community outreach connecting health and marine conservation

Calitan 2010

LLU SIMS 2012 - 2014
Working with the community of El Venado (Pacific) to integrate community health with marine conservation.

Nutrition education in El Venado

ProTECTOR 2014 Interns

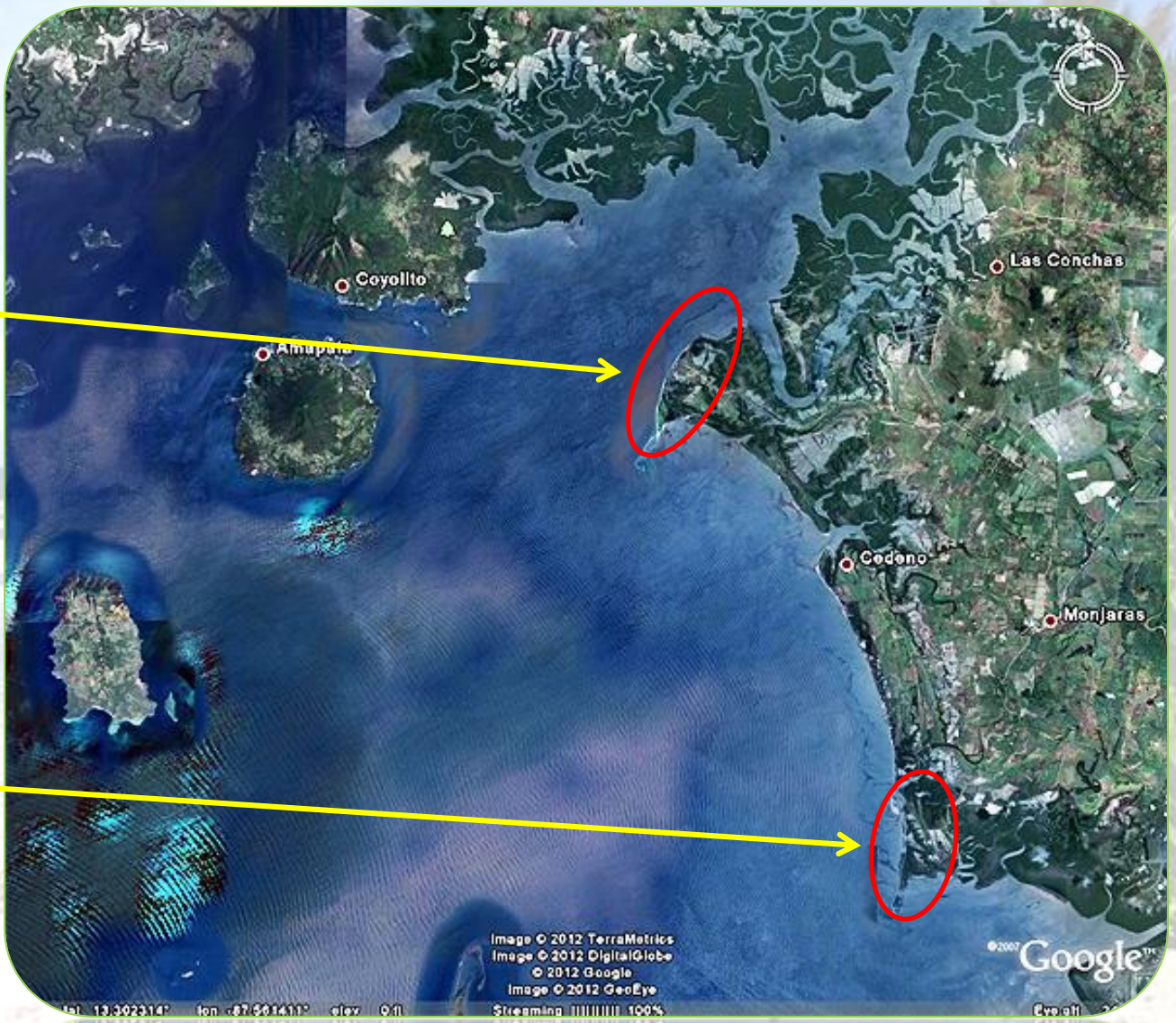
Linda Baeza, CA

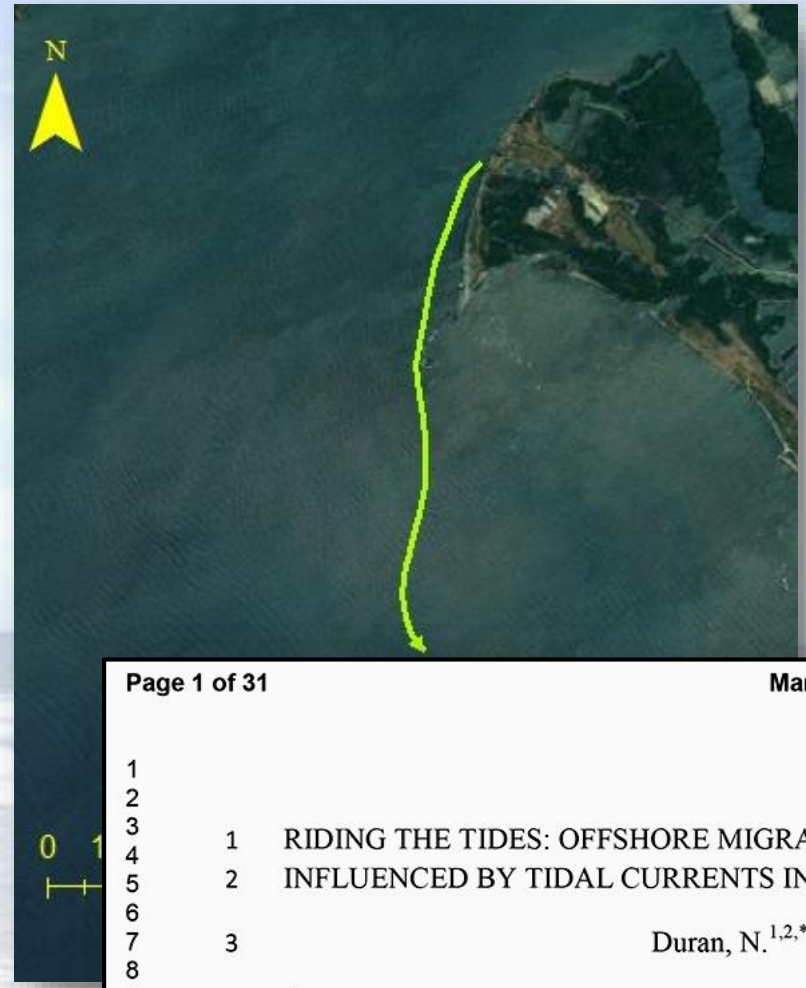
Marsha Wright, TN

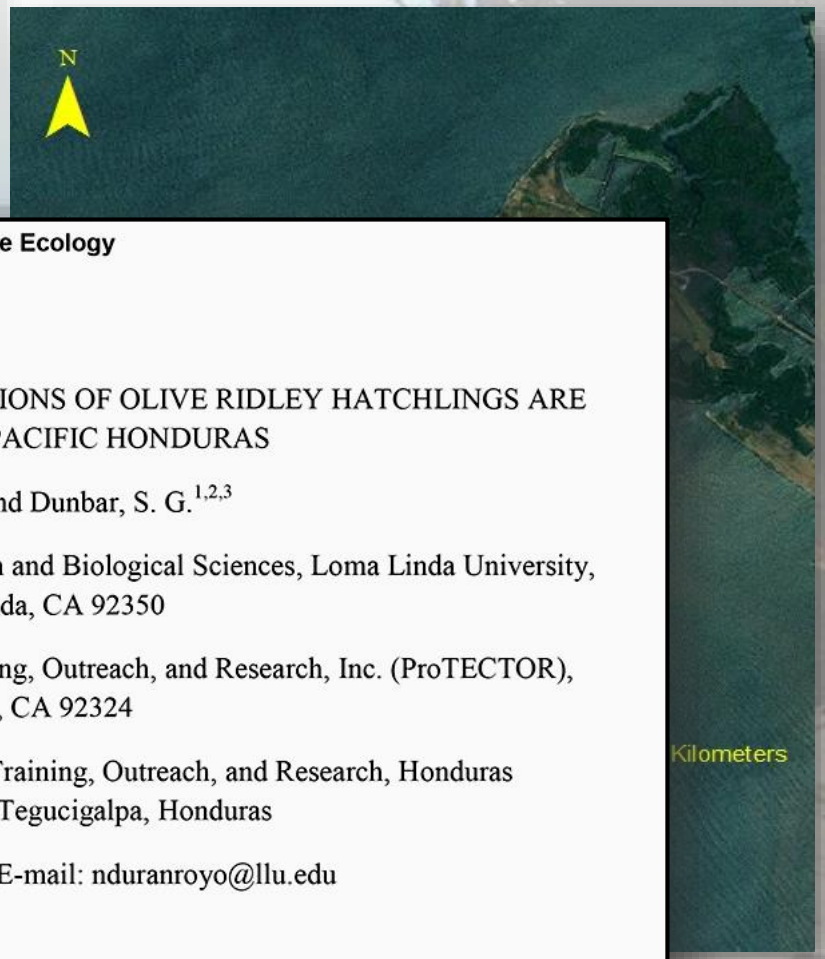
Rodney Smith, WA

Punta Ratón

El Venado







Releas
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RIDING THE TIDES: OFFSHORE MIGRATIONS OF OLIVE RIDLEY HATCHLINGS ARE INFLUENCED BY TIDAL CURRENTS IN PACIFIC HONDURAS

Duran, N.[1,2,*] and Dunbar, S. G.[1,2,3]

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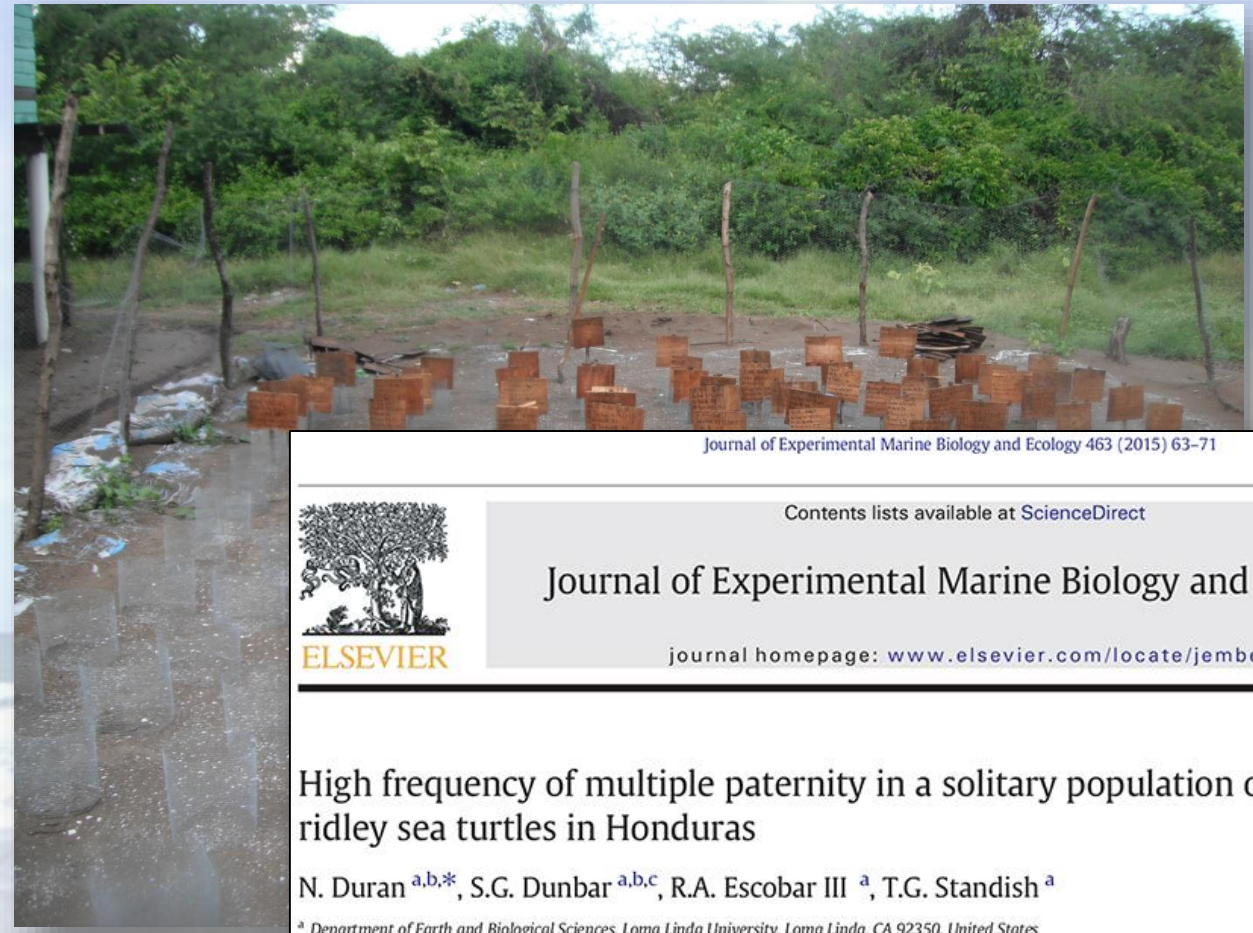

Noemi Duran

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High frequency of multiple paternity in a solitary population of olive ridley sea turtles in Honduras

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[b] Protective Turtle Ecology Center for Training, Outreach, and Research, Inc. (ProTECTOR), Colton, CA 92324, United States
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Nest-site fidelity
Pooled samples

ABSTRACT

Females of all seven living species of sea turtles are known to be polyandrous and show multiple paternity. The frequency of multiple paternity varies among species, and among populations of the same species. In the olive ridley sea turtle (*Lepidochelys olivacea*), multiple paternity levels correlate with the abundance of individuals in the mating system, being much higher in arribada rookeries than in solitary nesting sites. We used two highly polymorphic microsatellite markers (Cm84 and Or1) to assess the level of multiple paternity in an olive ridley solitary population nesting in the Gulf of Fonseca, Honduras. We found evidence of multiple paternity in 6 out of 8 clutches (75%), with a minimum number of two fathers in four clutches, and a minimum of three in the remaining two clutches. This high level of multiple paternity in a small solitary population suggests that some of the females nesting in Honduras may be coming from proximal Nicaraguan arribada nesting beaches. Historical evidences and recent satellite telemetry data support this hypothesis. In addition, we show that multiple paternity studies can be effectively performed in the absence of maternal samples, and that pooled DNA samples can be used with results comparable to individual hatchling sampling in multiple paternity analyses.

Multiple

Working with community members and tourist visitors in El Venado

ProTECTOR's Efforts

RIDING THE TIDES: OFFSHORE MIGRATIONS OF OLIVE RIDLEY HATCHLINGS ARE INFLUENCED BY TIDAL CURRENTS IN PACIFIC HONDURAS

Duran, N.[1,2,*] and Dunbar, S. G.[1,2,3]

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RUNNING OUT OF TIME; BEACH POLLUTION DENSITY IMPACTS ON HAWKSBILL (*Eretmochelys imbricat*

Dunbar, S. G.[1,2,3,*], Sung, K.[4], Cole, L.[5], Smith, R.[1], Bahjri, K.[6]

SWOT report Volume IV

The State of the World's Sea Turtles

INSIDE:
CONFRONTING CLIMATE CHANGE
STUDYING HAWKSBILLS IN THE DEEP
MINIMIZING LOGGERHEAD AND LONGLINE INTERACTIONS

United States Fish and Wildlife Services

SWOT report Volume I

The State of the World's Sea Turtles

MINISTRY OF EN
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MINISTRY OF ENVIRONMENT, DIGEPESCA, HONDURAS

REPORT OF THE GULF OF FONSECA HAWKSBILL PROJECT IN PACIFIC HONDURAS

Stephen G. Dunbar, Lidia Salinas, and Samaria Castellanos

Home Range and Foraging Ecology of Juvenile Hawksbill Sea Turtles (*Eretmochelys imbricata*) on Inshore Reefs of Honduras

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[2]Protective Turtle Ecology Center for Training, Outreach and Research, Inc.;
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Abstract. -- Despite the recognition of the historical importance of hawksbills in the Caribbean region of Honduras, prior sea turtle research in the area has been extremely limited, and little is known about hawksbill turtle (*Eretmochelys imbricata*) ecology from this region. We tracked 6 juvenile hawksbills (28.7–35.6 cm, straight carapace length [SCL]) with radiotelemetry off the coast of Roatán in the Bay Islands of Honduras, conducted habitat assessments at 14 sites, and examined the diet of 5 juvenile hawksbills (19.8–49.7 cm, SCL) using gastric ($n = 4$) and fecal ($n = 1$) samples. Home ranges of all 6 turtles were small, with 100% minimum convex polygons from 0.15 to 0.55 km^2, and a 50% fixed kernel density for all animals pooled of 5.46 km^2. The habitat assessment showed that common prey items in hawksbill diets were abundant in areas

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DIFFERENCES IN DIURNAL AND NOCTURNAL SWIMMING PATTERNS OF RIDLEY SEA TURTLE HATCHLINGS IN THE GULF OF FONSECA, HONDU

Duran, N.[1,2,*] and Dunbar, S. G.[1,2,3]

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BEACH AND NEST CHARACTERISTICS OF A HAWKSBILL (*ERETMOCHELYS IMBRICATA*) NESTING SITE IN CARIBBEAN HONDURAS

Submitted to the Journal of Marine Ecology, 2014

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Lindsey Damazo

Dustin Baumbach

Christian Hayes

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Adopt a Sea Turtle or be a ProTECTOR Volunteer/Intern