

Project Update: July 2017

Six-month report:

October/November 2016 - Project Administration and Local Education Programs:

1. Continue project fundraising, staff recruitment and training, volunteer recruitment, website and media updates, field purchases, and project planning and management.

This proceeded as planned, prior to receipt of Rufford funds in December 2016.

2. Provide four education programs at local elementary schools prior to "summer" vacation.

This was postponed until November 2017, because Rufford funds were not received until early December, which was during school "summer" vacation. We took some local students out on patrol one night to give them first-hand knowledge of sea turtle conservation efforts (see photos).

November/December 2016 through March/April 2017 - Field Work:

1. Contract local residents (including former poachers) for nighttime beach patrols. *We contracted five local residents to conduct patrols; four were experienced patrollers and one was new (the son of 11-year patroller). We also contracted with another son of a patroller to enter field data into our Excel database, so that timely field reports could be emailed to STF President (see two father-son photos). Two volunteer biologists, Nancy Tankersley, M.S. and Eddie Bennett, M.S., supervised our team during January and February 2017, adding very helpful expertise to our field patrols (see photos).*

2. Conduct training, and pair experienced patrollers with new recruits and volunteers.

Completed (see photo).

3. Conduct nightly patrols on 10 km of beaches.

This was completed as planned, except during full moon nights (typically low nesting activity, so scheduled nights off) and unforeseen circumstances (e.g., vehicle break-downs). Patrols started October 29, 2016 and ended May 14, 2017 (see photos). Preliminary results show 77 nests recorded. This was a low-activity year, probably due to poor nutrition of females from effects of El Nino current.

- a) Patrollers identify nesting species, collect measurements of nesting turtles and tracks, and record any existing flipper tags or apply new tags.

Preliminary results show that nesting activity was recorded for green, olive ridley, hawksbill, and leatherback sea turtles. Twenty-nine new flipper tags were attached. Four tagged turtles returned to nest on our beaches, previously tagged 3-4 years ago.

b) Location of nesting activity is recorded with Global-Positioning System (GPS) radios.

All original and moved nest locations were recorded with GPS data.

c) Eggs are collected and counted.

Preliminary results show that 5,080 eggs from 72 nests were protected. This is comparable to last year's totals and substantially lower than previous years (8,000-12,000 eggs saved from similar patrol effort).

ii Weights and measurements are taken from 10 eggs from each clutch. *Preliminary results show that 416 eggs were measured for diameter, and 394 were weighed. These are possible indicators of female nutritional levels.*

iii A new egg chamber is excavated nearby and moved eggs are placed in bottom after air and nest temperature and nest depth are recorded. *Preliminary results show that 48 newly-laid nests were moved to hidden locations on their native beaches by STF patrollers. Twenty-four nests were protected in-situ; five were found stolen by poachers. Sixty-five air and nest temperatures were recorded; 23 nest depths were recorded. Lack of functional equipment sometimes inhibited complete data collection.*

iiii During or after hatchling emergence, patrollers excavate nests to collect data on hatching success, and measure and weigh 10 hatchlings (if possible) before ocean entry. *Preliminary results show that hatch rate was 88%. 253 hatchlings were measured and 272 hatchlings were weighed.*

1. Community beach clean-ups will be advertised and coordinated during the nesting season to draw attention to the importance of a clean nesting environment for these endangered sea turtles.

Due to high rains in October and November, nesting beaches were filled with trash and wood debris from river flooding nearby. STF contacted extra help for 3 major beach cleanups, plus nightly cleaning by patrol staff during the first 2 weeks of November. An additional community clean-up on nesting beaches was coordinated in February 2017, with 9 volunteers and nearly 600 lbs of trash collected.

April/May through October 2017 - Focus on Data Analysis and Report Writing:

2. Data analyses and related statistical analyses. Data is stored annually on a custom Excel database, and compiled to synthesize and analyze with past years' data.

Our volunteer data manager is currently working on final edits and synthesis of this season's data.

3. Report writing and publication. Results are shared with government officials, conservation groups, and scientists to help understand these populations,

document core nesting areas, and spur conservation action. Updates and results are posted on the STF Facebook and website www.seaturtlesforever.org. This is currently active. Our lead biologist also attended the International Sea Turtle Symposium and shared STF's work with government officials, conservation groups, and scientists. We are sharing data for a publication showing effects of El Nino on nesting activity with lead biologist for Playa Grande from The Leatherback Trust. We also renewed our federal permit with the Costa Rican government (see office photo).



