Activity Report on the

Dutch Caribbean Nature Alliance
Sea Turtle Satellite Tracking
Project 2005

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**Introduction**

In June funding from the Dutch Caribbean Nature Alliance (DCNA) was confirmed to initiate a satellite tracking project of sea turtles on St Eustatius and St Maarten, with collaboration from the St Eustatius National Parks Foundation (STENAPA) and the Nature Foundation St Maarten. The object of this study was to determine the migration pathways and feeding grounds of the islands’ nesting green and hawksbill turtles.

The purpose of this report is to summarise the activities of the DCNA Sea Turtle Satellite Tracking Project 2005, with specific reference to public awareness activities on St Eustatius and media coverage of the project.

**Research Activities**

The following is a summary of the research activities that were conducted as part of this project, from July to October, 2005.

- In July, sea turtle biologist Dr Robert Van Dam conducted preliminary visits to St Eustatius and St Maarten. The object of these short visits was to determine the primary nesting beaches where females would most likely be encountered on each island, and to arrange the logistics for the research trips later in the season. In addition, training in the transmitter attachment procedure was given to the Sea Turtle Programme Co-ordinator and STENAPA Manager on St Eustatius, and researchers on St Maarten. A preliminary schedule for the attachments was drafted for September, and daily track surveys were organised to collect data on nesting females to calculate predicted nesting dates during that time. The initial plan was to attach five transmitters in total; three on St Eustatius, ideally on both species, and two on hawksbills on St Maarten.

- Dr Van Dam returned to St Eustatius on September 20. Following a briefing regarding equipment and protocol, the night patrol was conducted with the Sea Turtle Programme Co-ordinator and a Working Abroad volunteer. At 10.45pm a green turtle was encountered on Zeelandia Beach; she went on to nest successfully and afterwards the satellite transmitter was attached (See Appendix 1), with the additional help of the STENAPA Manager.

- Following reports from Dominique Vissenberg, NME Officer for the Dutch Windward Islands, of a hawksbill false crawl track on one of the monitored beaches on St Maarten on September 23, Dr Van Dam and the Sea Turtle Programme Co-ordinator travelled there on September 24 to attach a transmitter to the female should she return; unfortunately they did not encounter the individual, who had nested the previous evening.

- Night patrols during the next week were unsuccessful; no more green or hawksbill turtles were encountered on St Eustatius. Further detailed training was given to the Sea Turtle Programme Co-ordinator and STENAPA Manager regarding transmitter attachment; when Dr Van Dam left St Eustatius on September 28 nightly patrols continued until October 20 but no other females were encountered. The only turtle that was seen during that time was the same individual who returned to nest 11 days after her transmitter was attached. She was seen by the Sea Turtle Programme Co-
ordinator and a STENAPA intern; she nested successfully and the transmitter looked in good condition.

- Dr Van Dam returned to St Maarten on October 6 and conducted nightly patrols on two of the monitored beaches with Dominique Vissenberg and a volunteer. The hawksbill was encountered making a false crawl on October 9; researchers successfully attached her transmitter (See Appendix 2).

**Public Awareness**

- At the beginning of September, to publicise the DCNA Sea Turtle Satellite Tracking Project, the Sea Turtle Programme Co-ordinator visited five of the schools on St Eustatius to give a presentation to students about satellite tracking and how it can be used to help researchers improve sea turtle conservation. The schools visited were Golden Rock School, Governor De Graff School, Seventh Day Adventist School, Statia Terminal School and Gwendolyn Van Putten High School. The level of detail and complexity of the presentation was varied depending on the age and comprehension of the students, which ranged from Cycle 1 – Grade 12.

- During these talks the students were also invited to enter the “Name the Turtle” Competition organised by STENAPA. The entries were divided into three categories, depending on the grade or age of each student; they either had to draw a picture of a turtle, write an essay about the turtle’s journey to her feeding ground, or make a model of a turtle out of recyclable materials. Each entry also had to include a name for the turtle. All of the school principals also received a letter informing them of the competition and provided with information about what the students were required to do (See Appendix 3).
  - Students were given approximately two weeks to send in their entries, which were collected from each school by the Sea Turtle Programme Co-ordinator on September 19, 2005.
  - A total of 106 entries were received from students in grades 1 – 10; from four of the five schools visited; no entries were received from the Gwendolyn Van Putten High School.
  - The winners from each category were given the opportunity to name one of the turtles that was to have a transmitter attached. They also won a subscription to STENAPA’s Snorkel Club, a t-shirt, a boat trip around the island and a certificate. Due to the quantity and quality of the entries runners-up were chosen from each category. They won the boat trip and a certificate. Everyone who participated received a badge featuring “Scout”, the mascot of the “Help out or sea turtles miss out” campaign.
  - All of the competition entries were included in an exhibition about the satellite tracking project that is on display at the public library (See Appendix 4).
  - The competition was featured in a press article that was printed in October (See Media Coverage below).

- The display in the public library features a map for the “Where’s the Turtle?” Competition which is regularly updated by the Sea Turtle Programme Co-ordinator; details of the most recent location of each of the two turtles are given, in addition to an estimation of how far each turtle has swum from their release site.
In October a follow-up visit was arranged at each of the five schools; the Sea Turtle Programme Co-ordinator, assisted by Dominique Vissenberg, gave a short presentation about the success of the project and announced the winners of the “Name the Turtle” Competition. In addition the details of a second contest were also given; this was entitled “Where’s the Turtle?” and involved the students guessing how far they thought the turtles would swim, and where they would go on their migrations to feeding grounds. Again, students from Cycle 1 – Grade 12 were visited; following these visits it was decided that any future activities relating to this particular project should be limited to students in Grades 3 and higher.

Media Coverage

The DCNA Sea Turtle Satellite Tracking Project 2005 was featured in five articles that appeared in the Daily Herald newspaper between September and November (See Appendix 5).

- On September 24 there was an article of an interview with Dr Van Dam and the Sea Turtle Programme Co-ordinator.
- The winners of the “Name the Turtle” Competition were announced in an article of October 7.
- An article from October 19 gave details about the attachment of the transmitter to the hawksbill “Archie” from St Maarten.
- Another article printed in October (not shown in Appendix 5), detailed the winners of the competition organised on St Maarten.
- November 1 saw a weekly update on the location of “Archie” – featuring a map of her track.
- Another update appeared on November 8, giving details about the locations of both turtles “Miss Shellie” and “Archie”.

A radio interview was broadcast on Statia Radio in September which mentioned the DCNA Sea Turtle Satellite Tracking Project 2005.

- The Sea Turtle Programme Co-ordinator talked about project in detail; questions were answered about how satellite telemetry works, how it is used to aid turtle researchers; and the details of the “Name the Turtle” competition were repeated.

The September issue of the STENAPA newsletter, which is published quarterly, featured a front-page article about the DCNA Sea Turtle Satellite Tracking Project 2005; this newsletter is sent to a wide variety of interested parties, both locally, regionally and internationally (See Appendix 6).

The STENAPA website (www.statiapark.org) has several pages dedicated to the project, with a direct link from the homepage. There is a brief introduction to satellite telemetry and the attachment procedure; a separate page provides details of each turtle, including a live link to maps on the seaturtle.org website.
APPENDICES

Appendix 1
Photographs of “Miss Shellie” showing the attachment of a satellite transmitter and a recent map showing her current location (Available on-line via the STENAPA website – www.statiapark.org).

Working Abroad volunteer, STENAPA manager and Sea Turtle Coordinator with “Miss Shellie”

“Miss Shellie” in the holding box, waiting for the fibreglass resin to dry before her release

Track of “Miss Shellie” showing her most recent location off St Eustatius
Appendix 2
Attachment of a satellite transmitter to “Archy” and a map showing her current location.

“Archy” on her way back to the sea with her transmitter

Researchers on St Maarten with “Archy”

Track of “Archy” showing her current location in the Virgin Islands
1 September, 2005

Dear Principal and Teachers,

Subject: Details of the “Name a Turtle” and “Where’s the Turtle?” Competitions

At the end of September, as part of the St Eustatius Sea Turtle Conservation Programme, STENAPA will be conducting a special project together with the Nature Foundation of St Maarten. We are planning to attach satellite transmitters to several female turtles so that we can follow them when they leave their nesting beach on the island and migrate to their feeding grounds.

To inform the local community I am planning on visiting all the island schools to give a brief presentation to all students. In addition, the project will be discussed in the local media, both in the newspaper and on radio.

To actively involve the local school children we are planning to organize two different competitions in relation to this project. The first of these is the “Name a Turtle” Competition, which will give the winners the opportunity to name one of the turtles that we will follow on-line. The second competition, “Where’s the Turtle?”, will allow the students to guess where they think the turtles will end up after their migration, and how far they will have swum to get to their feeding ground.

Attached is a copy of the competition details.

For the “Name a Turtle” Competition students will be requested to return their entries to their school and someone from STENAPA will come to collect them on the closing date (Friday 16th September). We will also receive entries at the STENAPA office in Gallows Bay. For the “Where’s the Turtle?” Competition the entries will all be at the library, and collected from there by STENAPA staff. The closing date will be dependent on the turtles and so can’t be set right now!

I hope that this gives you sufficient information about our special Satellite Tagging Project and our competitions. If you would like further information please contact me at the STENAPA office on the phone number below.

Thank you in advance for your school’s participation in this exciting project.

Sincerely,

Emma Harrison
Programme Coordinator
St Eustatius Sea Turtle Conservation Programme
Tel/Fax: 318-2884
“Name the Turtle” Competition Details

The idea behind this competition is for students to produce a piece of art, a story or a model of a turtle. There will be different entries depending on their grade in school.

- **For students lower than grade 4**
  - Draw a picture of a turtle with a transmitter on her back, showing where she might end up when she leaves Statia. Remember to put the turtle’s name in the picture!

- **For students in grade 5 and 6**
  - Write a story about the journey the turtle will make when she leaves Statia, describing what she may see on her way. Don’t forget to write the turtle’s name!

- **For students higher than grade 6**
  - Make a turtle (with a transmitter on her back) out of recyclable materials you find at home. Make sure that you put the name of the turtle somewhere!

Winners will be given the opportunity to name one of the turtles that will have a satellite transmitter attached. This name will be used for the turtle while she is tracked on-line. The winners will also receive a free subscription to STENAPA’s Snorkel Club (or Junior Ranger Club if they have already participated in Snorkel Club). They will be announced in the local media and their entries displayed in the library.

Important things for the students to remember:
- Put a name for the turtle somewhere on their entry
- Write their full name, age, grade, teacher’s name, school name and contact phone number on their entry
- Hand their entry in to their school or at the STENAPA office
- The closing date will be Friday 16th September
- Winners will be announced the week commencing Monday 19th September

“Where’s the Turtle?” Competition Details

This competition is designed to make students think about where the turtles may go during their migration to feeding grounds. It will be open to all interested students.

- This competition will begin once the turtles have been released and start to send us information from their transmitters – probably towards the end of September or beginning of October
- For each turtle there will be 2 chances to win – giving 6 possible winners if we get all 3 turtles
- We want students to guess where she will be at the end of her journey and how far you think she will have swum to get there
- To make it fair for everyone we will have a lottery for the location
  - A map of the Caribbean will be divided into squares and each square given a number
  - Each person will pick a number from a bag and their name will be written down in that square
  - Each person will then have the chance to guess at the total distance the turtle has swum during her journey
- The competition will run until the researchers believe that the turtle has finished her journey and arrived at her feeding ground and winners will be announced after that time – so no closing date can be announced at this time
- The winners will be, for each turtle, the person with their name in the square where she ends her journey (or the next closest square if no-one’s name is in the exact square) and the person who guesses closest to the final distance she traveled
- The prize will be a STENAPA T-shirt
Appendix 4

Photographs of the library exhibit about the DCNA Sea Turtle Tracking Project 2005, and competition entries and winners.

Photograph showing library exhibit

Photograph of board detailing the project and each turtle

Part of library exhibit showing competition artwork and details of the “Where’s the Turtle?” Competition and map

Photograph of library exhibit showing winning entries from the “Name the Turtle” Competition
Appendix 5

Copies of newspaper articles featuring the DCNA Sea Turtle Satellite Tracking Project 2005.

*Copy of article from the Daily Herald September 24, 2005*
Appendix 5 Continued

 Winners announced in Statia’s Turtle Tracking Program contest

Sint Michiel, left, with her certificate, while turtle coordinator Emma Marriott hands Statia’s award.

Emma Marriott, who received a certificate and also was invited on the boat trip, were Elizabeth Brandon of Gouden Rood School and Paula Bultman, Elizabeth Stads, and Eric Poppen, all at Bonaire Terminal School.

All of the contest entries are now on display at the public library. A map of the Caribbean is also included in the display, which will be updated with the current locations of each turtle during its migration to feeding grounds hundreds of miles from Statia.

In addition, a prize for the best essay won by student Anna Stals, age 11, was presented to her by the St. Eustatius National Park Foundation.

Copy of article from the Daily Herald October 7, 2005

St. Maarten, Statia sea turtle tracking project swims off

POINTE BLANCHE—The first St. Maarten hawksbill sea turtle Archy was fitted with a satellite transmitter last week as part of the Dutch Caribbean Nature Alliance (DCNA) Nature Foundation St. Maarten and St. Eustatius National Parks Stenapa sea turtle monitoring programme.

To date, nothing is known about where these animals go once they leave the islands, according to Donnie Visser, chairman, Nature Foundation Educational Coordinator.

In St. Maarten, the first hawksbill nest on the Guana Bay was located on September 19, and was estimated to be about a week old.

On September 24, the first track was recorded at Gibbs Bay.

The Nature Foundation concluded it had to return to either of these two beaches around Saturday, October 8. With the help of volunteers Martina van’t Laar, Sylvia Close and Arjen Hilhorst, the research team partnered both beaches from Friday until Sunday from 8:00pm to 4:00am.

“On the last night, the team got lucky and finally found the hawksbill turtle that they had been looking for those three rain-filled nights,” she added.

The medium-sized hawksbill came ashore on Guana Bay beach, in front of The Boardroom cafe, at 11:30pm.

As the turtle returned to the ocean right away, without nesting, the research team was very lucky to have caught her in time. “She remained calm throughout the transmitter attachment procedure and was released again at 1:30am.” Archy’s whereabouts since her release can be viewed online at www.naturefoundation.org or call 542-0267.

Copy of article from the Daily Herald October 19, 2005
St. Maarten sea turtle Archy appears to have reached her first feeding ground in the British Virgin Islands (in photo). In one week she travelled only 40 km, compared to her first week when she moved more than 300 km, according to Nature Foundation St. Maarten. She was fitted with a satellite transmitter last month as a part of a sea turtle conservation and preservation project in the Dutch Windward Islands. Interested persons can keep track of Archy online at www.naturefoundationxsm.org or http://www.seaturtle.org/tracking/ and click on number 97 in the list (Netherlands Antilles turtle tracking 2005).
Appendix 6
Copy of the front page of the September issue of STENAPA newsletter featuring the DCNA Sea Turtle Satellite Tracking Project 2005.

STENAPA Update
Turtle Satellite Tracking Project
This year we are hoping to finally solve the mystery of where turtles go, once they leave Statia’s nesting sites. With funding from the Dutch Caribbean Nature Alliance (DCNA), STENAPA and the Nature Foundation of St Maarten have started a satellite tracking study of Green and Hawksbill Turtles. The aim of this project is to track these animals on the way to their foraging grounds, once they leave the island’s waters towards the end of October. Getting to know the turtle’s movement patterns will give us a much clearer picture of their geographical range. This will allow us to improve protection and conservation efforts, not only on the nesting beaches, but also in other essential habitats. Satellite tracking will indicate the migration pathways turtles use, enabling us to determine any potential threats, such as fisheries interaction or other animals may encounter on their way between nesting and feeding grounds.

The transmitter is a 12cm by 5cm by 3cm box, and weighs 200 grams with an antenna attached at one end. There is no danger of it hurting the turtle as its design is streamlined and therefore will not interfere with any normal behaviour and movements. Attachment procedure of the transmitter poses no risk to the animal. To limit movement during tagging, she is put in a holding box where her carapace is cleaned of any algae or barnacles before attaching the transmitter, plus a soft cushioning layer to her shell. It sits towards her head which will be out of water when she surfaces for air, enabling signals to be sent to satellites. Layers of hardened protective fiberglass encase the transmitter, protecting it from damage during the journey through the ocean, reefs and other obstacles the animal may encounter. All this is done after she is finished with nesting.

A very important aspect of this project has been the opportunity to increase public awareness of turtle conservation issues. Programme Coordinator Dr Emma Harrison visited Statia’s schools in September to give presentations on satellite telemetry. At the same time a “Name the Turtle” competition was organised. Students were given the task of drawing turtles, projecting where their migratory path might lead them, writing an essay about a turtles journey or making a model of a turtle using only recycled materials. Over a hundred entries were received and judging was no easy task. All winners were allowed to choose names for the tagged turtles, one of them being Miss Shellei. She and the other turtles can be followed on STENAPA’s website www.statapark.org

Good luck to all turtles and a safe return to Statia II
Miss Shellie on her way

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Special points of interest:
Wednesday Oct. 19 at 3:00 PM
Join Beach Cleanup at Cunucu

Saturday Oct. 29 and Sunday Oct. 30 at 8:00 AM
Hike on the Quill Trail with Author of Reptiles and Amphibians of Dutch Caribbean. Meet at the top of Rosemary Lane.

Saturday Nov. 5 and Sunday Nov. 6 at 9:00 AM
Help clear our large trees from Mexican Creeper Corallita (see flyers for detail)

Guided tours at the Botanical Gardens are available from 8am-10pm every weekday. Contact the office if you want to have a guided tour outside of these hours. The Garden is open from sunrise to sunset everyday.

* Turtle nesting season is nearly over. Contact the office if you want to join a patrol.