



Research and Monitoring of Bonaire's Sea Turtles:
2018 Technical Report



Report prepared by
Kaj Schut M.Sc., Mabel Nava M.Sc., Frank F. Rivera-Milán Ph.D.

To learn more, please contact:
Sea Turtle Conservation Bonaire • Mabel Nava, Manager
stcb@bonaireturtles.org • Phone: (+599) 717-2225 • Turtle hotline: (+599) 780-0433
PO Box 492 • Kralendijk, Bonaire • Caribbean Netherlands

STCB is a proud member of



Executive Summary

Sea Turtle Conservation Bonaire (STCB) has been protecting sea turtles on Bonaire since 1991, so this year represents the 27th Anniversary of our organization. In 2002, we standardized our research and monitoring efforts, following the appointment of a Scientific Officer. Annually we monitor our nesting beaches around Bonaire, conduct intensive net-capture and transect-count surveys, and we regularly track sub-adult and post-breeding migrations using satellite telemetry. These techniques provide us with a better understanding of Bonaire sea turtles' breeding success, abundance, health, growth rates, migratory paths and distant feeding grounds, residency duration, habitat quality, and threats. Following the analysis of our in-water transect counts, net captures, and nesting data by Scientific Advisor Dr. Frank Rivera-Milán, we implemented new methodologies in 2018 to allow estimation of sea turtle abundance. Some of the results are shared in this report.

During the 2018 season, we recorded 55 nests at our index beach on Klein Bonaire. A total of 32 hawksbill, 18 loggerhead and five green turtle nests and suspected nests were documented on "No Name Beach". On the beaches on Bonaire and Klein Bonaire combined, we observed three sea turtle species (hawksbills, loggerheads and green turtles) crawling 283 times, which included a total of 105 confirmed or suspected nests. Nine green turtle nests were recorded in northeastern Bonaire. Hawksbills and loggerheads mainly nested on Klein Bonaire and the beaches of southern Bonaire. The nesting period on Bonaire in 2018 ran from May to December with the highest number of nests laid between mid-June and mid-September.

Estimates of clutch size and hatch success suggest that around 10,322 turtles hatched from nests on Klein Bonaire and Bonaire in 2018, including approximately 4,989 hawksbills, 3,583 loggerheads, and 1,750 green turtles.

During 144 transect-count surveys along the west coast of Bonaire and around Klein Bonaire, we detected 288 green turtles and 28 hawksbills. Netting in Lac Bay was conducted in six weekly sessions between June-August and October-December, during which we captured 196 green turtles, two hawksbills and one loggerhead. The aggregation of green turtles near Lac remains much larger than sites along the west coast.

The total occurrence of fibropapillomatosis (FP) among green turtles captured in nets at Lac declined considerably in 2018, continuing the downwards trend observed in 2015. This year only 2% of green turtles captured in and around Lac had visible FP tumors.

STCB co-authored an important research paper and contributed to two presentations, one of which won the Archie Carr award for best student poster presentation at the International Sea Turtle Symposium held in February 2019. The research paper, "Megaherbivores may impact expansion of invasive seagrass in the Caribbean", was led by Majolijn J.A. Christianen and published in the *Journal of Ecology*. The presentation at the International Sea Turtle Symposium, "Green turtle grazing results in a consistent response in seagrass ecosystem metabolic carbon capture across Caribbean meadows" as well as the presentation at the

Association for the Sciences of Limnology and Oceanography, “Consistent response in seagrass ecosystem metabolic carbon flux to green turtle grazing across Caribbean meadows” were delivered by R.A. Johnson.

During 2018, there were 10 sea turtle hotline incidents reported, involving 5 hatchlings and 6 juvenile sea turtles. The fishing industry and associated by-catch, one of the biggest threats Caribbean-wide, was implicated in approximately 30% of the turtles in trouble. One incident was related to the poaching of a green turtle. A total of five incidents were related to a large mass of seaweed sargassum that drifted inside the Lagoen and Sorobon area at the end of December 2017 and March 2018. In the open ocean, these floating mats are extremely diverse, providing important habitat for over 250 species of fish and invertebrates, many of which are not found anywhere else. Young sea turtles often spend their tender years finding refuge and a plentiful food supply in these floating seaweed mats. However, when it enters coastal areas and starts rotting, it can cause mortality. Unfortunately, climate change has brought warmer temperatures, which increases algal growth rates, and possibly stronger currents/shifting currents, which combined with more and more land-based nutrients flowing into our oceans, are thought to be the reason why we are seeing more and more massive ‘strandings’ of these floating seaweed mats.

Table of Contents

Executive Summary.....	i
Table of Contents.....	iii
Background	1
Nesting Beach Surveys	2
Foraging Ground Surveys.....	8
Occurrence of Disease.....	12
New Research Initiatives.....	14
Turtle Strandings.....	15
Appendix I. 2017 Funders and Donors.....	16
Appendix II. 2017 Staff, Interns and Board of Directors	18
Appendix III. 2017 STCB Partners, Supporters and Volunteers	19
Appendix IV. Ways to donate.....	21

Background

Founded in 1991, this year sees the 27th Anniversary of STCB, and it was twenty-seven years ago when STCB began to monitor the status of and threats to Bonaire's sea turtles, using the resulting knowledge to protect them. Comprehensive local laws, as well as international treaties, now protect sea turtles, their nests and eggs from harvest and harassment. The community and tourism industry generally understand the importance of sea turtles to a healthy ecosystem and their value to an economy centered on dive tourism. It is a rare resident or guest who is not captivated by encounters with these beautiful and endangered species. The most serious challenges facing Bonaire's sea turtles are not direct threats like poaching or lack of support for sea turtle protection. The main threats now are indirect, related to a rapidly increasing human population and the development that goes along with it. These indirect threats to sea turtles are also the major threats to Bonaire's rich ecosystems, biodiversity, and our own quality of life.

In this landscape, we no longer look at sea turtle conservation as something apart from society. To ensure a secure future for Bonaire's sea turtles, we must address the issues that threaten sea turtles, biodiversity and social well-being, because they are inter-related. Sea turtles can thrive only when their ecosystems are healthy and the human community thrives. Following our mission, conservation and applied research remain the core work of STCB. Our work spans research, conservation, education, outreach, advocacy, and policy. This technical report summarizes STCB's scientific outcomes from the 2018 season. STCB's research and monitoring activities are designed to better understand Bonaire's nesting population and foraging aggregations, to contribute to the body of scientific knowledge in the greater Caribbean region, and to inform sound management policies on national and regional scales. Our work includes regular foot patrols of nesting beaches to assess the volume of nesting activities, post-hatch nest excavations to estimate how many hatchlings are released from Bonaire's beaches each year, and extensive snorkel and netting surveys of key sea turtle foraging grounds.

Nesting Beach Surveys

A fundamental component of our research program is the monitoring of Bonaire's nesting beaches. "No Name Beach" (NNB) on Klein Bonaire continues to serve as our index beach for assessing abundance and species composition. We patrolled this beach three mornings per week, beginning in late April and continuing until December. We documented all crawls, identified species, and recorded the outcome as a false crawl (unsuccessful nesting attempt; no eggs were laid), confirmed nest (eggs were sighted), or suspected nest (eggs were not observed, but site disturbance suggested that a nest was laid). Furthermore, we excavated each nest post-hatching to calculate nest hatch success.

We recorded 32 hawksbill nests (i.e., confirmed and suspected), 18 loggerhead nests, and five green turtle nests on "No Name Beach" in 2018. The year 2018 marked a downturn in the number of hawksbill nests at No Name beach, with 32 nests in 2018 compared to 61 nests in 2017 (Figure 1). As Bonaire's nesting populations are relatively small, fluctuations in nesting numbers are not unexpected. The long-term trends in nesting for both hawksbills and loggerheads remained stable and continue to suggest that the populations are fluctuating around an average of 18 nests for loggerheads and 40 nests for hawksbills on our index beach (Figure 2 & 3).

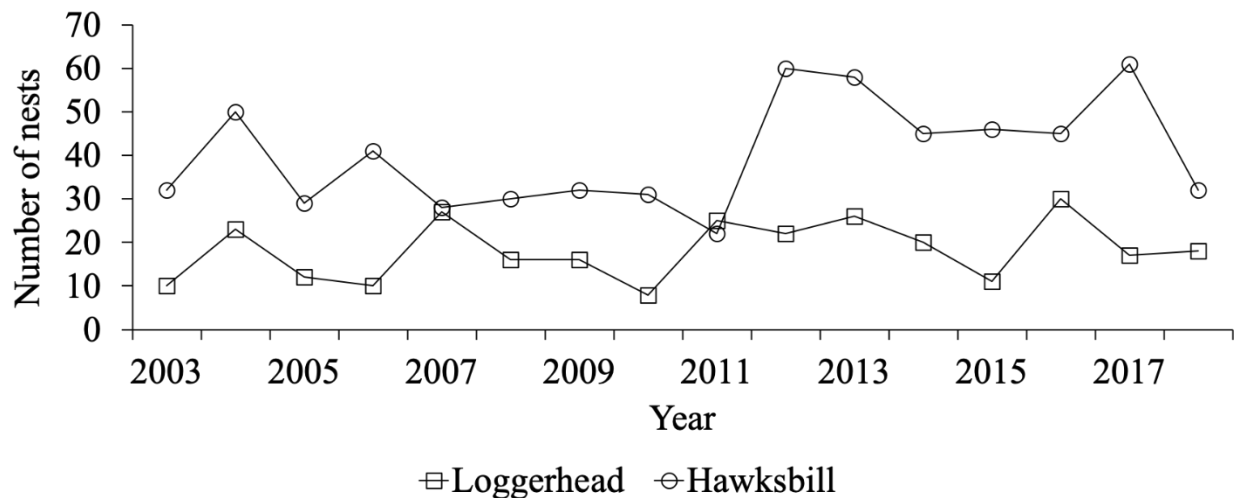


Figure 1. Number of hawksbill and loggerhead turtle nests found in Klein Bonaire's No Name Beach in 2003-2018.

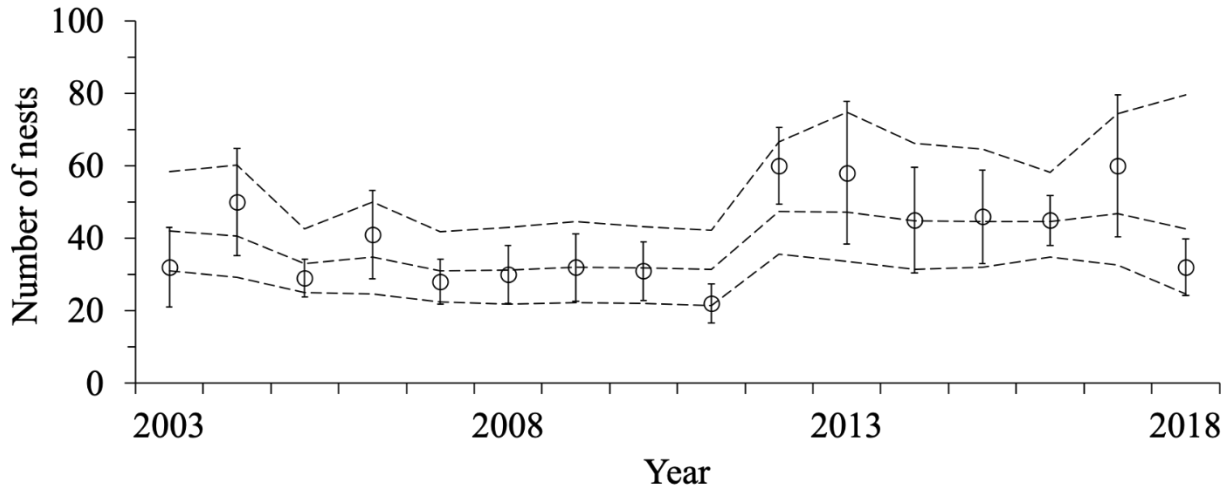


Figure 2. Hawksbill turtle nests found in Klein Bonaire's No Name Beach in 2003-2018. Based on statistical modeling, the number of hawksbill turtle nests found remained stable, showing no trend, but fluctuating around an average of 40 nests in the surveyed area, which covered about 8 hectares including sand, rubble and dirt substrates. Circles with vertical lines are for estimated abundance means and standard deviation. Dashed lines are for modeled trend median and 2.5% and 97,5% percentiles.

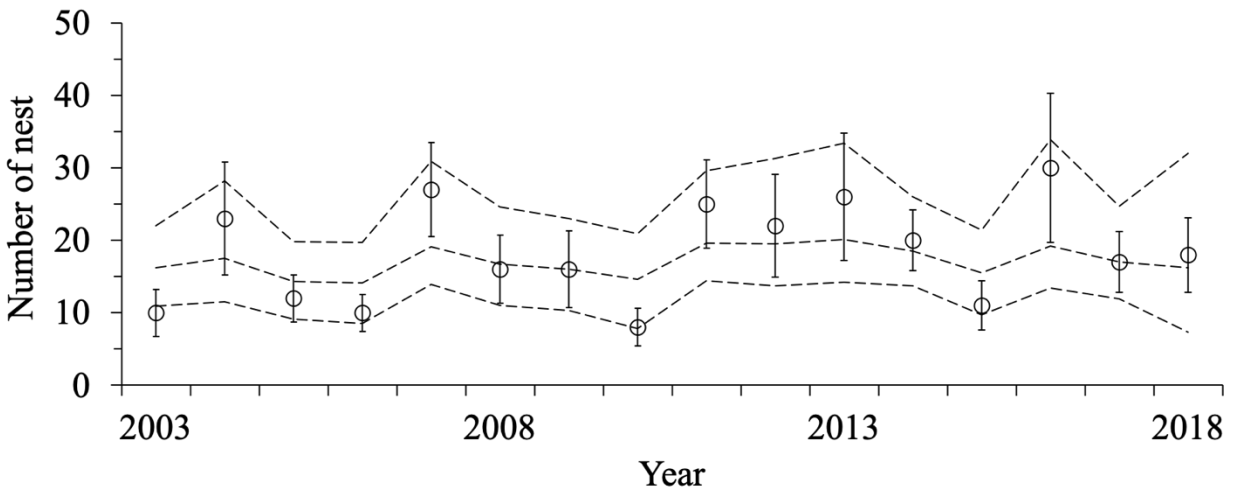


Figure 3. Loggerhead turtle nests found in Klein Bonaire's No Name Beach in 2003-2018. Based on statistical modeling, the number of loggerhead turtle nests found remained stable, showing no trend, but fluctuating around an average of 18 nests in the surveyed area, which covered about 8 hectares including sand, rubble and dirt substrates. Circles with vertical lines are for estimated abundance means and standard deviation. Dashed lines are for modeled trend median and 2.5% and 97,5% percentiles.

Hawksbill and loggerhead nests at No Name were laid fairly continuously along the nearly 2km long beach (Figure 4). The average distance to the high water mark of nests recorded varied between the three different species, with loggerheads laying closest to the high water mark, followed by hawksbills and green turtles (Figure 5).

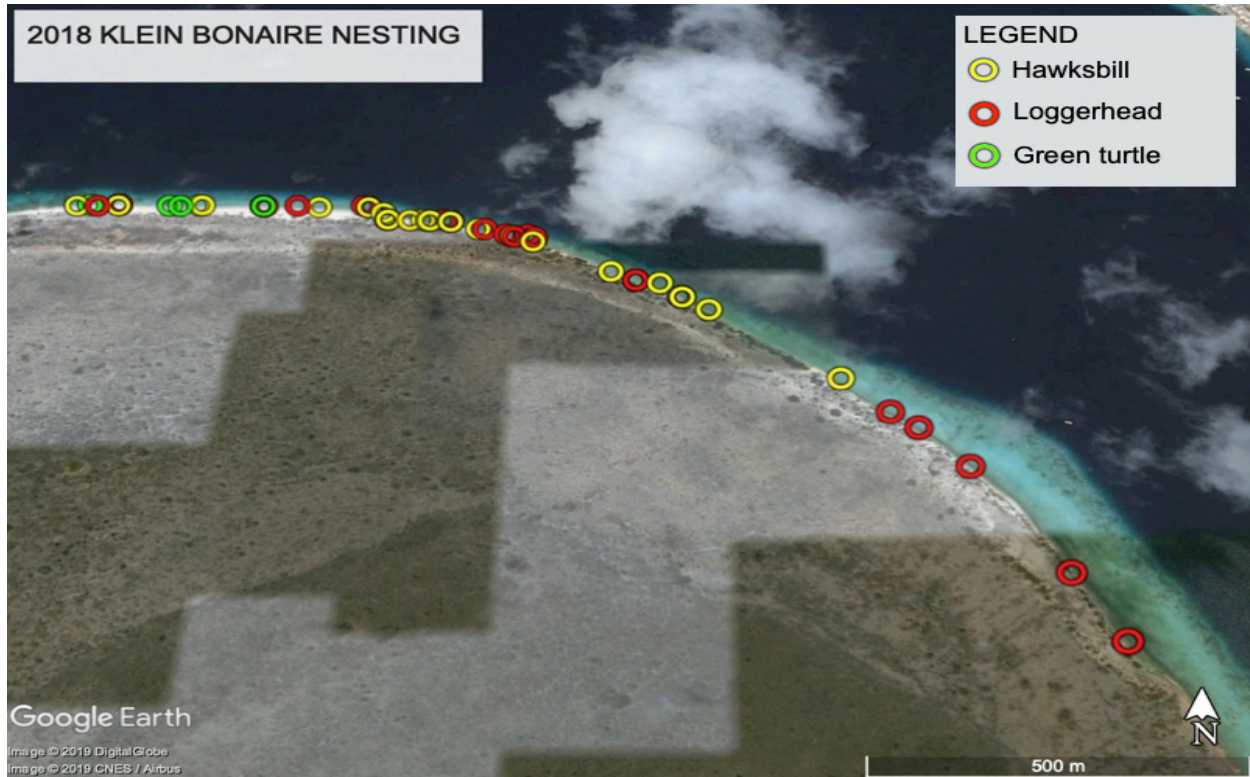


Figure 4. Distribution of hawksbill and loggerhead nests encountered in 2018 along “No Name Beach”, Klein Bonaire.

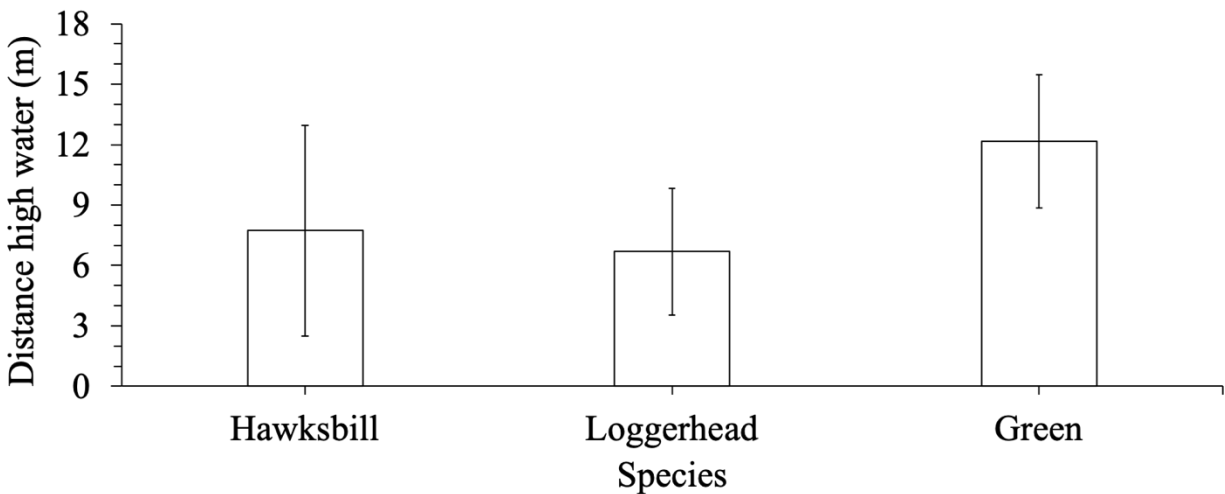


Figure 5. Bar plot showing average distance from water high mark to nests found in Klein Bonaire’s No Name Beach. For hawksbill, loggerhead and green turtles, means and standard deviations (vertical lines) were: 7.73 ± 5.23 , 6.69 ± 3.15 and 12.15 ± 3.31 meters, respectively.

On Bonaire, we recorded 8 hawksbill nests, 21 loggerhead nests, and 21 green turtle nests. In 2018, an above average number of nests was recorded on the southern beaches, including 21 loggerhead, 8 hawksbill and 12 green turtle nests. Unfortunately, due to a rain event in October, six nests were completely lost. In contrast to previous years, species composition

was not consistent between Klein Bonaire (KB) and the beaches of southern Bonaire (South): hawksbills were the predominant species recorded on Klein Bonaire whereas loggerhead nesting was more common in the south (Figure 6). In 2018, green turtles laid nine nests on Playa Chikitu in the Washington Slagbaai National Park (North).

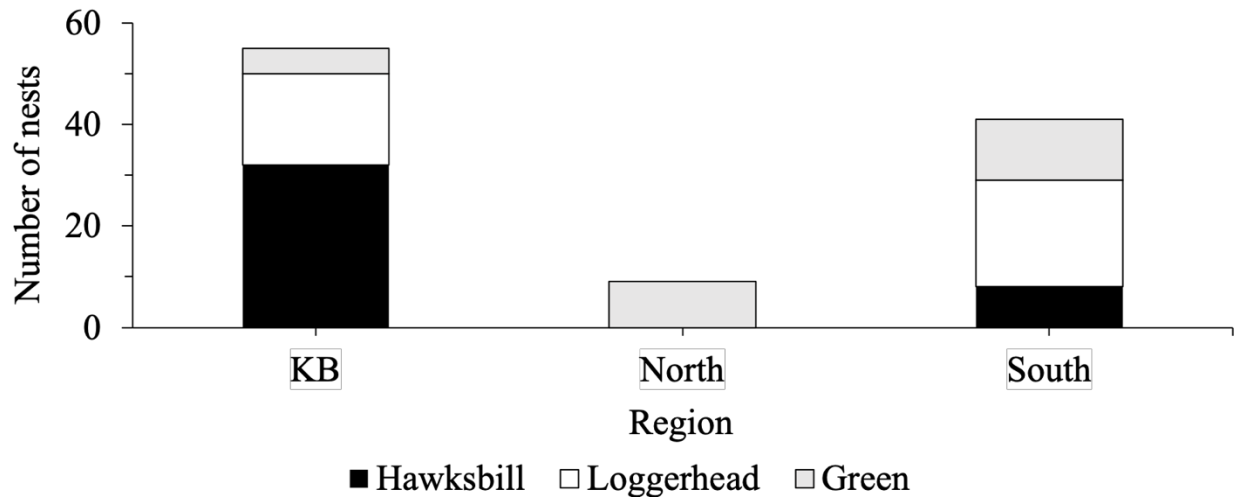


Figure 6. Bar plot of standardized nest searches in Klein Bonaire’s No Name Beach resulted in 32 hawksbill turtle nests, 18 loggerhead turtle nests and 5 green turtle nests found in 2018. In addition, 9 green turtle nests were found in northern Bonaire; and 21 loggerhead turtle nests, 12 green turtle nests and 8 hawksbill turtle nests, were found in southern Bonaire.

On Klein Bonaire, hawksbill and loggerhead nesting was spread across most of “No Name Beach” (Figure 7). Once again, nesting attempts on the western areas (i.e., low beach marker numbers) were often unsuccessful and resulted primarily in false crawls. We recorded one loggerhead nest on the far eastern end of the site.

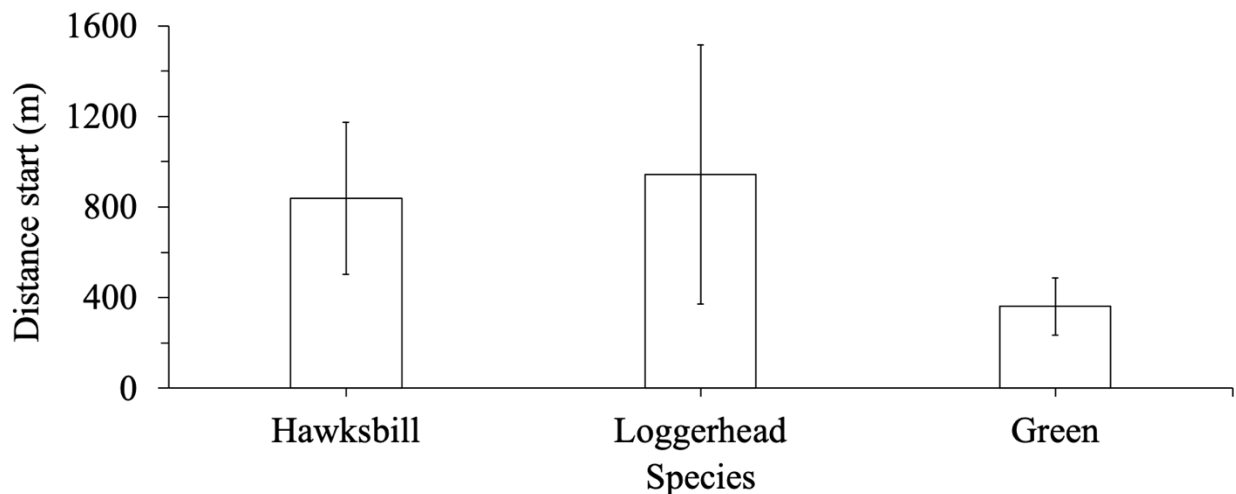


Figure 7. Bar plot showing average distance from transect start to nests found in Klein Bonaire’s No Name Beach. For hawksbill, loggerhead and green turtles, means and standard deviations (vertical lines) were: 838 ± 336 , 943 ± 571 and 361 ± 126 meters, respectively.

“No Name Beach” on Klein Bonaire is systemically monitored by trained STCB staff and volunteers, therefore these data provide the most reliable indicators of nesting activity seasonality. We first observed nesting on Klein Bonaire at the beginning of May, and the last nest was recorded in October (Figure 8). The loggerhead nesting season spanned from May to September, and the hawksbill nesting ran from May to October with peaks in August and September. We also recorded five green turtle nests on Klein Bonaire in 2018. The green turtle nesting season spanned from late August to mid-October.

Sea turtles may false crawl several times before laying a nest and individuals vary with respect to nesting efficiency. Hence, confirmed and suspected nests provide a more accurate picture of seasonal nesting activity. False crawls can also be informative about nesting activity. High numbers of false crawls may result from changes to nesting habitat, other challenges with beach management or from climatic factors (notably temperature and rainfall).

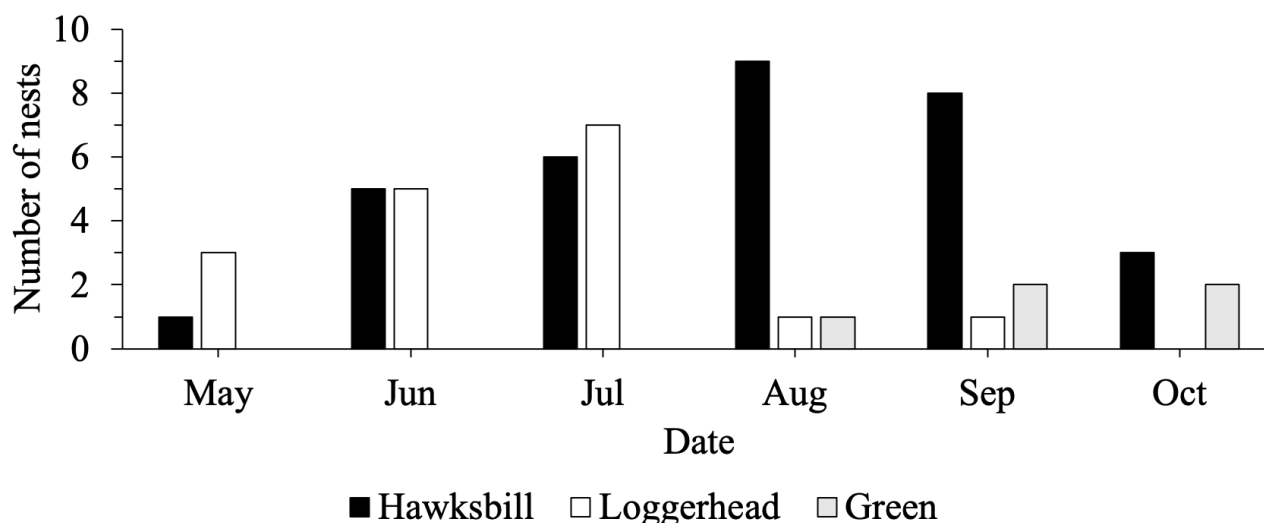


Figure 8. Bar plot of standardized searches in Klein Bonaire’s No Name Beach resulted in 32 hawksbill turtle nests, 18 loggerhead turtle nests and 5 green turtle nests found between May and October 2018. The peak of nesting activity occurred between June and September.

Evaluating reproductive success continues to be a core component of STCB’s research program. Estimated clutch sizes (number of eggs / nest) varied by species [loggerhead (mean: 133; Standard Deviation: 21); hawksbill (mean: 155; SD: 20); green (mean: 144; SD: 23); Figure 9]. Hatch success for nests defined as the percentage of eggs per clutch that successfully hatch, was highest for green turtles (mean: 87%; SD: 9%), followed by hawksbills (mean: 81%; SD: 21%), and loggerheads (mean: 77%; SD: 24%) (Figure 10 & 11).

Based on the clutch size and hatch success data, we estimate that a total of around 10,322 turtles hatched from nests on Klein Bonaire and Bonaire in 2018, including approximately 4,989 hawksbills, 3,583 loggerheads, and 1,750 green turtles.

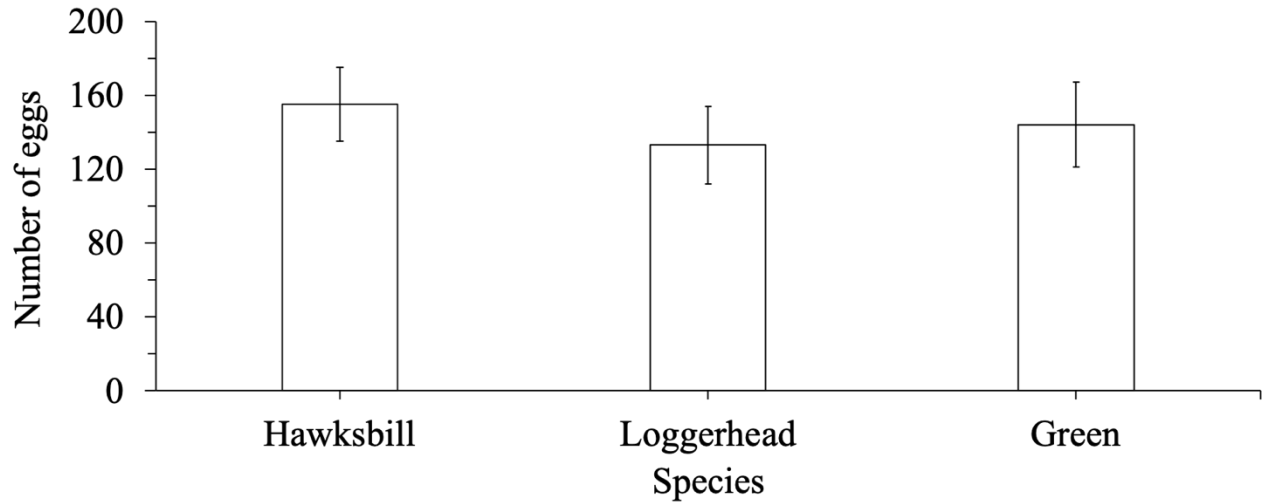


Figure 9. Bar plot showing average clutch size of nests found in Klein Bonaire's No Name Beach. For hawksbill, loggerhead and green turtles, means and standard deviations (vertical lines) were: 155 ± 20, 133 ± 21 and 144 ± 23 eggs, respectively.

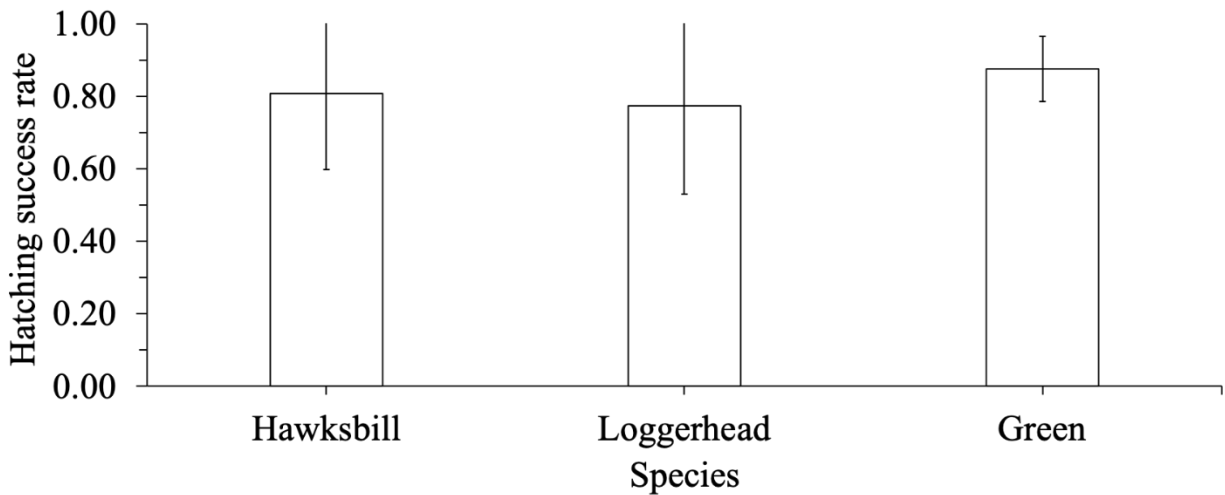


Figure 10. Bar plot showing average hatching success rate of nests found in Klein Bonaire's No Name Beach. For hawksbill, loggerhead and green turtles, means and standard deviations (vertical lines) were: 81% ± 21%, 77% ± 24% and 87% ± 9%, respectively.

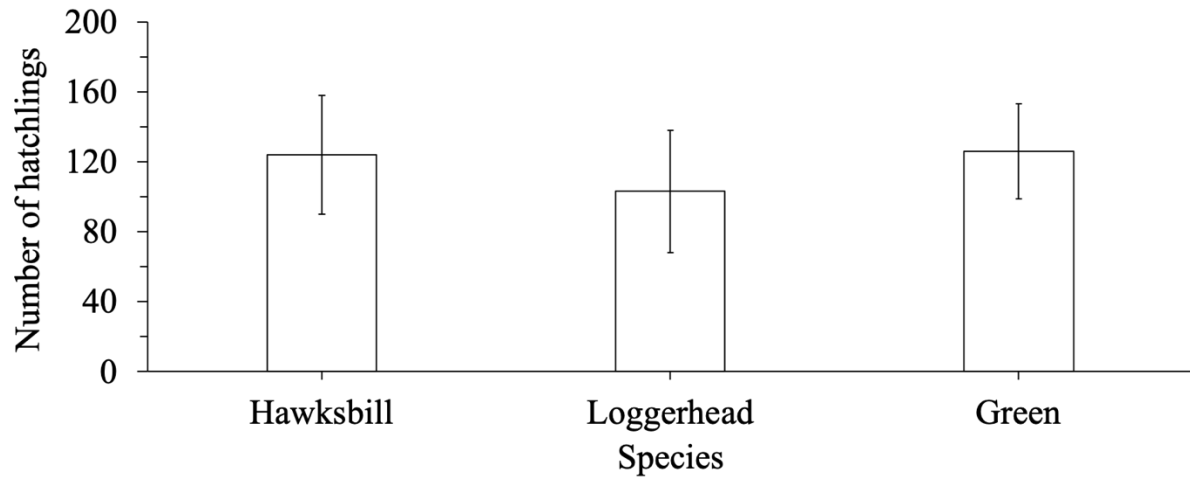


Figure 11. Bar plot showing average hatchlings at nests found in Klein Bonaire's No Name Beach. For hawksbill, loggerhead and green turtles, means and standard deviations (vertical lines) were: 124 ± 34, 103 ± 35 and 126 ± 27 hatchlings, respectively.

Foraging Ground Surveys

A rigorous in-water research program constitutes the other primary element of the work of STCB. This program, which seeks to better understand the sea turtle aggregations foraging in Bonaire's waters, collects count data and is implemented with two techniques. First, we conduct transect-count surveys, based on repeated counts at fixed sites with the same number of observers, along the entire west coast and around Klein Bonaire (Figure 12). For each sea turtle detected, observers record species, time, location and behavior. In 2018, sampling around Klein Bonaire and along the west coast was completed between February and May. Although we observed hawksbills and green turtles island-wide, counts of greens were much higher than hawksbills at all sites (Figures 13 & 14).



Figure 12. Map of Bonaire and Klein Bonaire showing 36 1000-meter long transects, with 18 of them established randomly and 18 of them established systematically. For transect-count surveys, 5-7 observers snorkelled parallel to the coast at a distance of about 10–25 metres from each other, covering the reef contour from shallow water to about 20–25 metres deep.

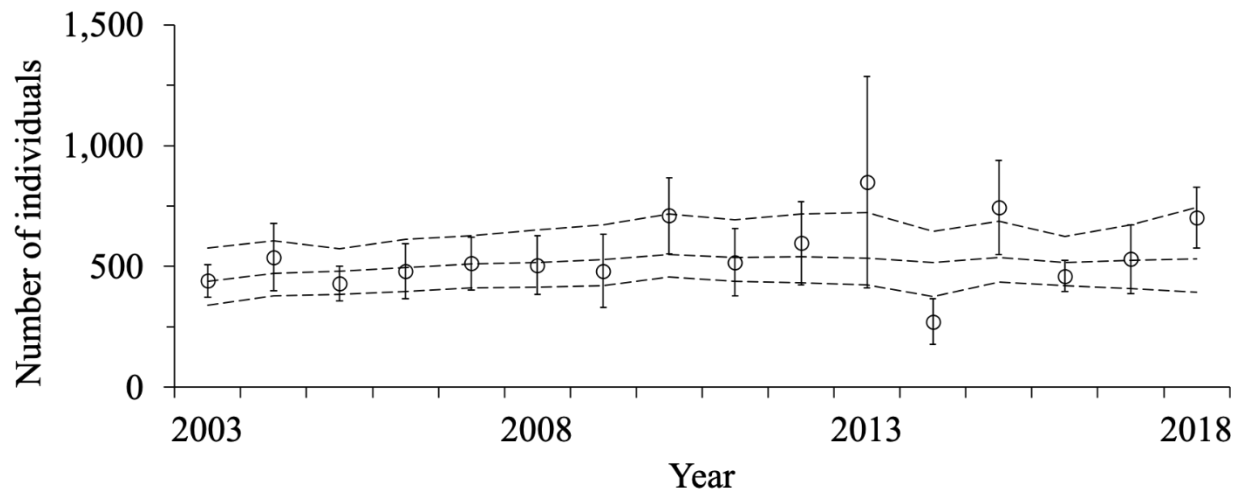


Figure 13. Green turtle transect-count survey in NWB, SWB and KB in February-May 2003-2018. Based on statistical modeling, green turtle numbers remained stable, showing no trend, but with abundance fluctuating around an average of about 500 individuals in the surveyed area. Circles with vertical lines are for estimated abundance means and standard deviation. Dashed lines are for modeled trend median and 2.5% and 97.5% percentiles.

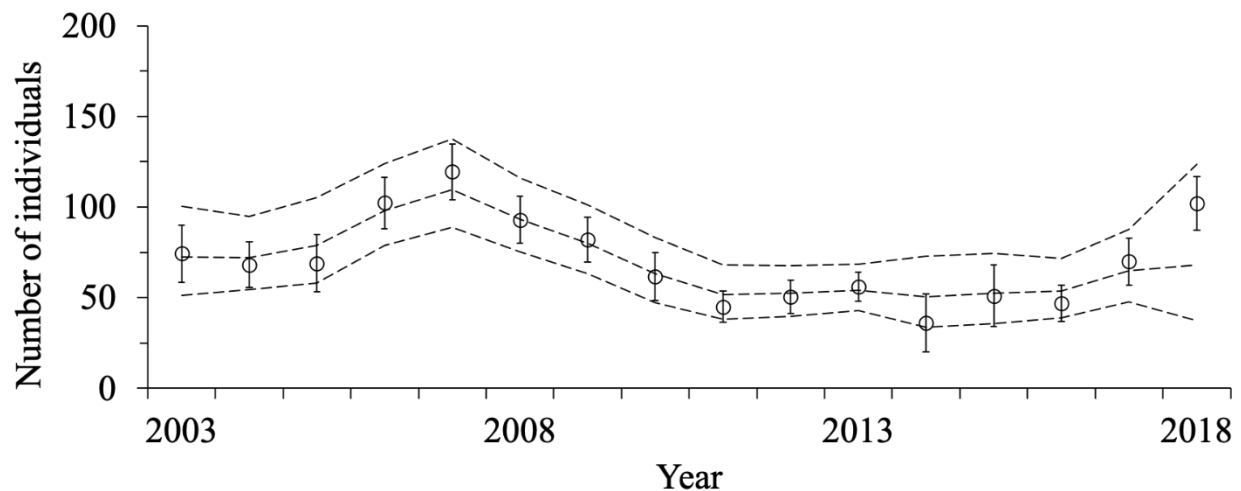


Figure 14. Hawksbill turtle transect-count survey in NWB, SWB and KB in February-May 2003-2018. Based on statistical modeling, hawksbill turtle numbers remained stable, showing no trend, but with abundance fluctuating around an average of about 70 individuals in the surveyed area. Circles with vertical lines are for estimated abundance means and standard deviation. Dashed lines are for modeled trend median and 2.5% and 97.5% percentiles.

We conducted net captures, the second in-water method used to gather information about Bonaire's sea turtle aggregations, in the bays on the southeast coast of Bonaire, namely in Lac. During 2018, we conducted 74 netting sessions at Lac over six one-week periods. We established 44 points systematically inside Lac. However, only 29 points were accessible by boat, and one accessible point was not surveyed because of the risk of damaging the coral.

A total of 103 and 93 green turtles were captured and measured in summer and fall-winter, respectively. We continued to document much higher captures for green ($n=196$) than for hawksbill turtles ($n=2$). Based on statistical modeling, green turtle numbers increased between 2003-2018, showing a significant trend, with abundance reaching about 500 green turtles in June-August and October-December 2018 (Figures 15 & 16).

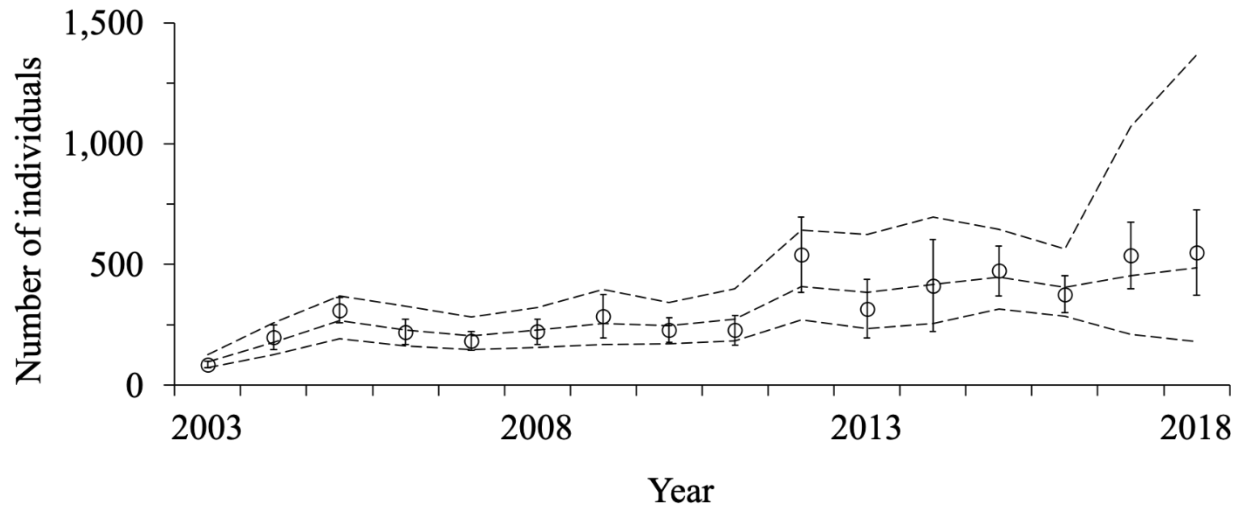


Figure 15. Green turtle net-capture survey inside Lac Bay in 2003-2018. Based on statistical modeling, green turtle numbers increased, showing a significant trend, with abundance reaching about 500 green turtles in June-August 2018. Circles with vertical lines are for estimated abundance means and standard deviation. Dashed lines are for modeled trend median and 2.5% and 97,5% percentiles.

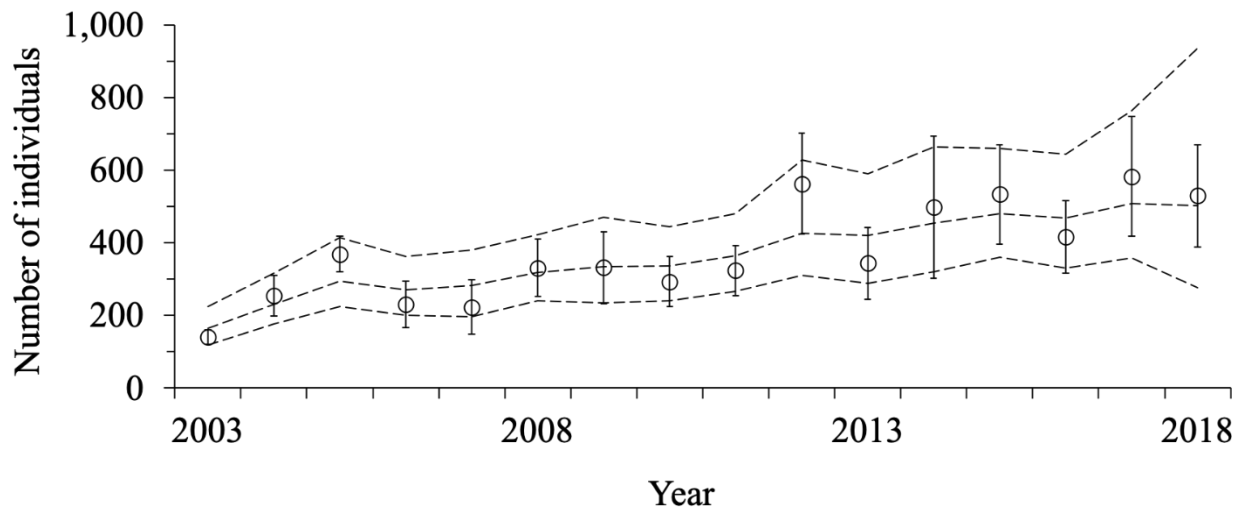


Figure 16. Green turtle net-capture survey inside Lac Bay in 2003-2018. Based on statistical modeling, green turtle numbers increased, showing a significant trend, with abundance reaching about 500 green turtles in October-December 2018. Circles with vertical lines are for estimated abundance means and standard deviation. Dashed lines are for modeled trend median and 2.5% and 97,5% percentiles.

For green turtles in summer and fall-winter, mean straight-line carapace length (SCL) and standard deviations were 54.7 ± 9.1 and 54.1 ± 10.4 cm (Figure 17). Overall ($n=196$ greens), mean and standard deviation were 54.4 ± 9.7 cm. During the summer and fall-winter net-capture surveys, two hawksbills and one loggerhead were captured. For the hawksbill, mean and standard deviation were 66.5 ± 3.0 cm. The loggerhead SCL max. was 57.1 cm.

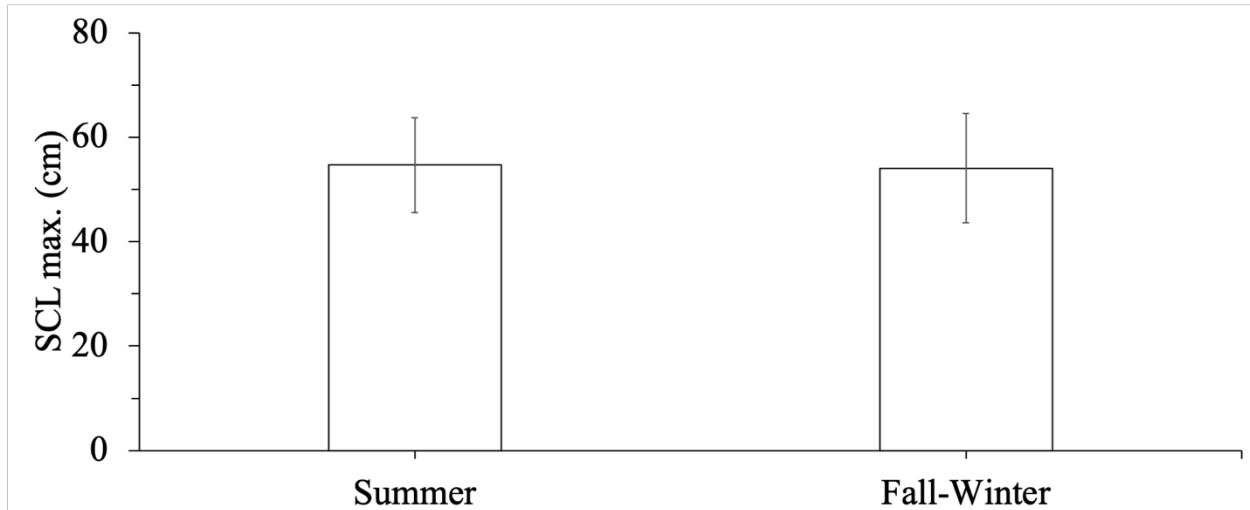


Figure 17. Green turtle maximum straight-line carapace length (cm) in Lac Bay (Mean \pm SD)

Occurrence of Disease

Fibropapillomatosis (FP) is a disease characterized by tumors concentrated around soft skin tissues, the eyes, and the base of flippers. FP tumors, which primarily afflict green turtles, interfere with daily functions and ultimately may result in death. Causes of the disease are not fully understood, but factors such as environmental pollutants and urbanization may be associated with FP's occurrence (e.g., Aguirre, A. A., & Lutz, P. L. 2004, Marine turtles as sentinels of ecosystem health: is fibropapillomatosis an indicator? *EcoHealth*, 1, 275-283).

Since 2011, there has been an increase in the number of green turtles with FP captured in and adjacent to Lac, with over a third of them showing signs of FP in 2012. During 2015-2018, there was a decline in the number of green turtles with FP. Of 196 green turtles captured in Lac, only 2% (n=4) were infected with the disease in 2018 (Figure 14).

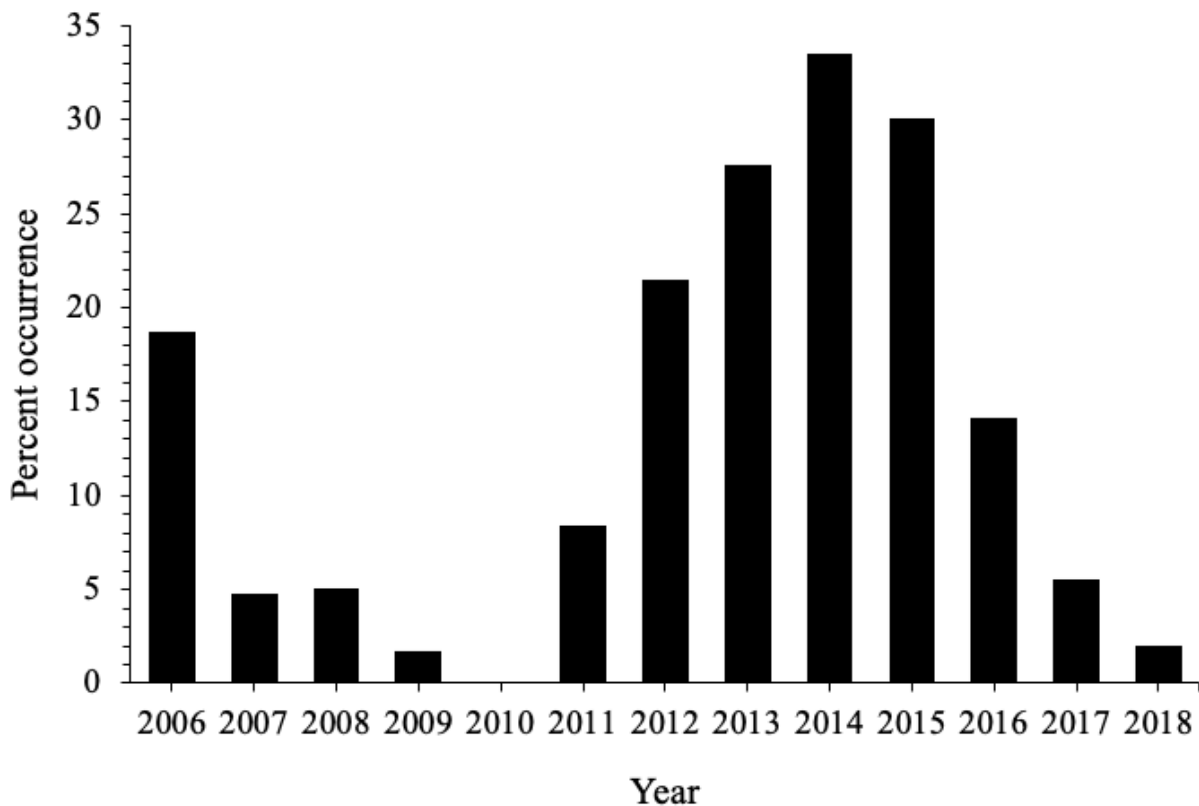


Figure 17. Occurrence of visible fibropapilloma tumors on green turtles captured in and around Lac, Bonaire during the 2018 research season.

New Research Initiatives

Since 2003, STCB staff and volunteers have been collecting transect-count and net-capture survey data to monitor and model trends in annual abundance at foraging grounds along the entire west coast of Bonaire, around Klein Bonaire and inside Lac Bay.

In 2017, we started to work with Population Ecologist Dr. Frank Rivera-Milán and Fernando Simal (WILDCONSCIENCE) to analyze the survey data collected and to optimize survey. As a result, we conducted repeated transect-count and net-capture surveys, accounting for survey and site specific covariables, such as month, region, and the number of trained and untrained observers.

Following the collection of transect-count and net-capture survey data between January and December 2018, STCB, in collaboration with Rivera-Milán, produced a manuscript on trends in annual abundance for green and hawksbill turtles foraging along the west coast of Bonaire and around Klein Bonaire. This manuscript has been submitted for publication in an international scientific journal.

In addition, STCB and Rivera-Milán are working on a second manuscript on sea turtle nesting trends on the index beaches of Klein Bonaire and Playa Chikitu. Both publications will feed the regional pool of information to further enhance the quality of sea turtle research in the Caribbean.

Also in 2018, STCB staff co-authored an important research paper and contributed to two presentations, one of which won the Archie Carr award for best student poster presentation at the International Sea Turtle Symposium held in February 2019. The research paper, “Megaherbivores may impact expansion of invasive seagrass in the Caribbean”, was led by Majolijn J.A. Christianen and published in the Journal of Ecology. This article is available online at bonaireturtles.org/wp/explore/publications/. At the International Sea Turtle Symposium, the presentation “Green turtle grazing results in a consistent response in seagrass ecosystem metabolic carbon capture across Caribbean meadows”, as well as the presentation at the Association for the Sciences of Limnology and Oceanography, “Consistent response in seagrass ecosystem metabolic carbon flux to green turtle grazing across Caribbean meadows” were delivered by R.A. Johnson.

Turtle Strandings

Stranded turtles are animals found dead, injured, or sick, or sometimes apparently healthy but in an unsuitable circumstance, such as entangled in debris along the shoreline. Strandings are reported to STCB directly via the Sea Turtle Hotline (+599-780-0433).

In summary, during 2018, there were 10 sea turtle hotline incidents reported, involving 11 hatchlings and juvenile sea turtles. Six of these incidents were directly related to turtles in trouble. One of the incidents was related to poaching: flippers of a green turtle were found near the Fisherman's Hut in May 2018 (Figure 16).

One of the biggest threats Caribbean-wide to sea turtles is the fishing industry and associated by-catch. In 2018, three incidents were directly related to local fisheries. This included one turtle that was reported with a hook in its right front flipper and fishing line coming from one of the rear flippers; one turtle that was found dead, with a broken carapace, which indicated that the turtle may have been struck by a boat; and one decomposed sea turtle found in a ghost net at Sorobon (Figure 16).



Figure 16. Left: A flipper of a juvenile green turtle found at the Fisherman's Hut in May 2018. Right: A decomposed sea turtle in a ghost net.

As a result of large seaweed sargassum mats drifting in Lagoen and Sorobon (December 2017 and March 2018), we found five live hawksbill hatchlings at Sorobon, Lagoen and Kontiki, which were released after assessment, and one dead juvenile green turtle at the shrimp farm.

Once again, STCB is very grateful to all volunteers, who regularly assist STCB staff with turtle in trouble calls, and to everyone who has reported turtles in trouble including local tourist and dive operations.

Appendix I. 2018 Funders and Donors

STCB is a non-profit, non-governmental organization. We raise funds through conservation and research grants and contracts, merchandise sales and from individual and business donors.



Flagship Funder 2008 – 2019

Since 2008, WWF - Netherlands has been the flagship funder for STCB's sea turtle conservation work on Bonaire.



Major Funders

Dutch Ministry of Economic Affairs, Agriculture and Innovation (EZ)
Stichting DierenLot

Platinum Funders/Donors [\$1000+]

Barbara Chu
Blue Jay Holding B.V.
Casa Presioso
ContourGlobal Bonaire
Corendon
Dive Friends Bonaire
Rob Hulsbergen
Ronald Gravesteijn

Gold Funders/Donors [\$500 - \$999]

ABC Travel
Administratiekantoor Brandaris
Alain de Brouwer & Dinska Dohmen
Ashley & Barrett Jackson
Becky & Lester Litton
Bonaire Logistics
Bonaire Office Systems
Bonnie Watson (In memory of Marlyn Kader)
Botman Family
Bruce Brabec & Marlene Robinson
Buts Technical Consultancy
Cargill Salt Bonaire
CAVO Amsterdam
De Statiegeld B.V.
Den Laman Condominiums
dNM Interim
Doris & Martin Elle
Dr. Robert Andrew Rutherford Trust
Hamlet Oasis Resort
Harbour Village Beach Resort
Harbourtown Real Estate
HICC Kantoormeubelen
International Tax Advisors BV

Jim & Judy Kewley
Kooyman Bonaire
Loek & Vera Maartens
Mentha Capital
Nederlands-Belgische Schildpaddenvereniging
Personal Care Concepts
Piet Boon Bonaire
Power of Love 7
QVillas Bonaire
RE/MAX Paradise Homes
Sand Dollar Canasta Group
Sunbelt Realty Bonaire
SunRentals Bonaire
Terramar Luxury Apartments
Tricia O'Malley
Villa Kiki Bonaire
VIP Diving Bonaire
WILDCONSCIENCE

Silver Donors [\$100 - \$499]

Alan Scott
Barbara Larkin
Delno Tromp
Djambo Bonaire
dNM Interim staff
Family van Winsen
Frank Wijnants
Jacob & Ben Rubin
Jennifer Christman
Karin Breedvelt
Maduro & Curiel's Bank
Pat & Sal Guia
Paul Hoetjes
Peter Ollendorf
Phish Phaktory
Randy Grottke
Scott O'Brien
Stephen Quann
Thomas Quinby
Wendy & Bas Brull Franssen

Bronze Donors [\$50 - \$99]

Fee Smulders & Milan van Boheemen
Hope Morris
Katrin Koster
Matthias & Madeleine Cupper
Mike
Simone & Rinse Kool
Anonymous donors

Appendix II. 2018 Staff, Interns and Board of Directors

Staff

Mabel Nava, Manager

Kaj Schut, Communication Coordinator

Gielmon “Funchi” Egbreghts, Contractor Field Technician

Interns/Research Assistants

Arne van Liere

Lianne Spoor

Mavelly Velandia

Consultants

Frank Rivera-Milán

Fernando Simal, WILDCONSCIENCE

Eric van de Keuken, Administratiekantoor Brandaris B.V.

STCB – Bonaire, Board of Directors 2018

Ger Bakker, *President*

Christine Ball, *Treasurer*

Rosa Hoes

Viktor Wijnand

Allerd Stikker, *Advisory Member*

Albert de Soet, *Honorary Member*

Appendix III. 2018 STCB Partners, Supporters and Volunteers

International Partners

Wider Caribbean Sea Turtle Conservation Network (WIDECAST)

World Wildlife Fund Netherlands (WWF-NL)

Regional/Research Partners

CARMABI (Curaçao)

Dutch Caribbean Nature Alliance (DCNA)

Groningen University

Loggerhead Marinelife Center

Nature Foundation St. Maarten

Parke Nacional Arikok (Aruba)

Saba Conservation Foundation

Sea Turtle Conservation Curacao

St. Eustatius National Parks Foundation

Turtugaruba

Wageningen University

Local Partners

Bonaire Department of Environment and Natural Resources (DRO)

Echo Bonaire

EZ Ministry of Economic Affairs

Jong Bonaire

NGO Platform

Openbaar Lichaam Bonaire (OLB)

STINAPA Bonaire - Bonaire National Marine Park; Washington-Slagbaai National Park & STINAPA

Junior Rangers

WILDCONSCIENCE

Local Business Partners and Supporters

These businesses provide ongoing support to STCB programs and activities through the donation of in-kind materials and/or services:

Administratiekantoor Brandaris

Adventure Makers Bonaire

Bonaire Marine Center BV

Bonaire East Coast Diving

Bonaire Rent-A-Car

Cactus Blue

Carib Inn (Bruce Bowker)

Caribe Car Rental

Cargill Salt Bonaire

Coral Paradise

Dive Friends Bonaire

Div'Ocean

Elements

Harbour Village Beach Resort

Harbour Village Marina

Mangrove Info Center

Nos Consuelo
SELIBON
VIP Diving
Wil's Grill

2018 Volunteers

BEACHKEEPER PROGRAM VOLUNTEERS

Aja Radl & Scott Gilchrist, Angela Ditters, Annabelle Feuerstein, Astrid Roedoe, Bill & Bunny Horton, Bonnie Watson, Brigitte Boekhoudt, Bruce and Karen Zavon, Carine Van Riel-Murijn, Cathleen & David Whillock, Catrien van Manen, Chantal van Balen, Ger Bakker, Gerdijanne Leestemaker, Hans & Jannie Koning, Laura Beskers, Loek & Vera Maartens, Lothar A Schwarte, Marian Sonneveldt, Marianne Scholtz, Martijn van Cadsand, Nicole Rijsemus, Nicole & Noa Roomer, Paul Berezinski, Paula Zijlstra, Rafa, Rob Hulsbergen, Sue O'Brien, Tim Patrick Miller, Viktor Wijnand, Wendy en Bas Brull Franssen, Wouter van Rossum.

FISHING LINE PROJECT CORE VOLUNTEERS

Hans & Jannie Koning

IN-WATER SURVEY/NETTING VOLUNTEERS

Aja Radl, Alfonso & Ayo, Anna Karlsson, Annabelle Feuerstein, Bonnie Watson, Beat Schenkel, Bill & Bunny Horton, Brenda Free & John Magruder, Caitlin Hale, Chantal van Balen, Daan Zeegers, Dayna & Caspar Anderson, Dee, Dianna Rybak, Ellie Nicholson, Fana, Fernando Simal, Ger Bakker, Hans & Jannie Koning, Lotte Dalmeijer, Micky Reijnders, Mike Mack, Nikolai & Knut Pedersen, Patti Dougherty, Pauline Raimbault, Rob Hulsbergen, Scott Gilchrist, Scott Johnson, Stephanie Braig, Sue O'Brien, Thomas Janssen.

OFFICE & PRESENTATION VOLUNTEERS

Audrey Zamkow
Hans & Jannie Koning
Loek Maartens

Appendix IV. Ways to donate

You can help protect Bonaire's sea turtles by donating to STCB. We welcome – and depend on – the financial support of people like you. Whether it's \$10, \$100, or \$10,000, it will make a difference. Please note that, as of January 1st 2015, the Dutch Tax Service (Belastingdienst) granted Sea Turtle Conservation Bonaire with ANBI status. ANBI status favors STCB's Donors in countries that grant tax concessions to foreign registered charities, as well as those based in the Netherlands. STCB Donors may be able to deduct the amount from taxable income.

Online

Go to our website at <http://www.bonaireturtles.org/wp/act/donate/>. You can now make a donation via **PayPal** at this page.

Donate by mail

Make check payable to '*Sea Turtle Conservation Bonaire*' then mail to:

Sea Turtle Conservation Bonaire
PO Box 492
Kralendijk, Bonaire
Dutch Caribbean (Netherlands Antilles)

Donate by bank transfer

To make a donation locally on Bonaire:

Maduro & Curiel's Bank (Bonaire) N.V.
Account name: Sea Turtle Conservation Bonaire
Account number: 101.169.209

To make a donation from the USA:

Beneficiary: '*Sea Turtle Conservation Bonaire*'
Account number: 101.169.209
Beneficiary Bank: Maduro & Curiel's Bank (Bonaire) N.V.
Swift code: MCBKBQBN
Correspondent Bank: Standard Chartered Bank
ABA # 026002561
Swift Code: SCBLUS33

To make a donation from the Netherlands

Beneficiary: '*Sea Turtle Conservation Bonaire*'
Account number: NL71 RABO 0313 2425 26
Beneficiary Bank: Rabobank

To make a donation from Europe:

Beneficiary: '*Sea Turtle Conservation Bonaire*'
Account number: 101.169.209
Beneficiary Bank: Maduro & Curiel's Bank (Bonaire) N.V.
Swift code: MCBKBQBN
Correspondent Bank for Euro: Rabobank Nederland
Swift Code: BBRUBE33

To discuss other ideas for giving, please call STCB Manager, Mabel Nava, on +599-717-2225, or email us at stcb@bonaireturtles.org