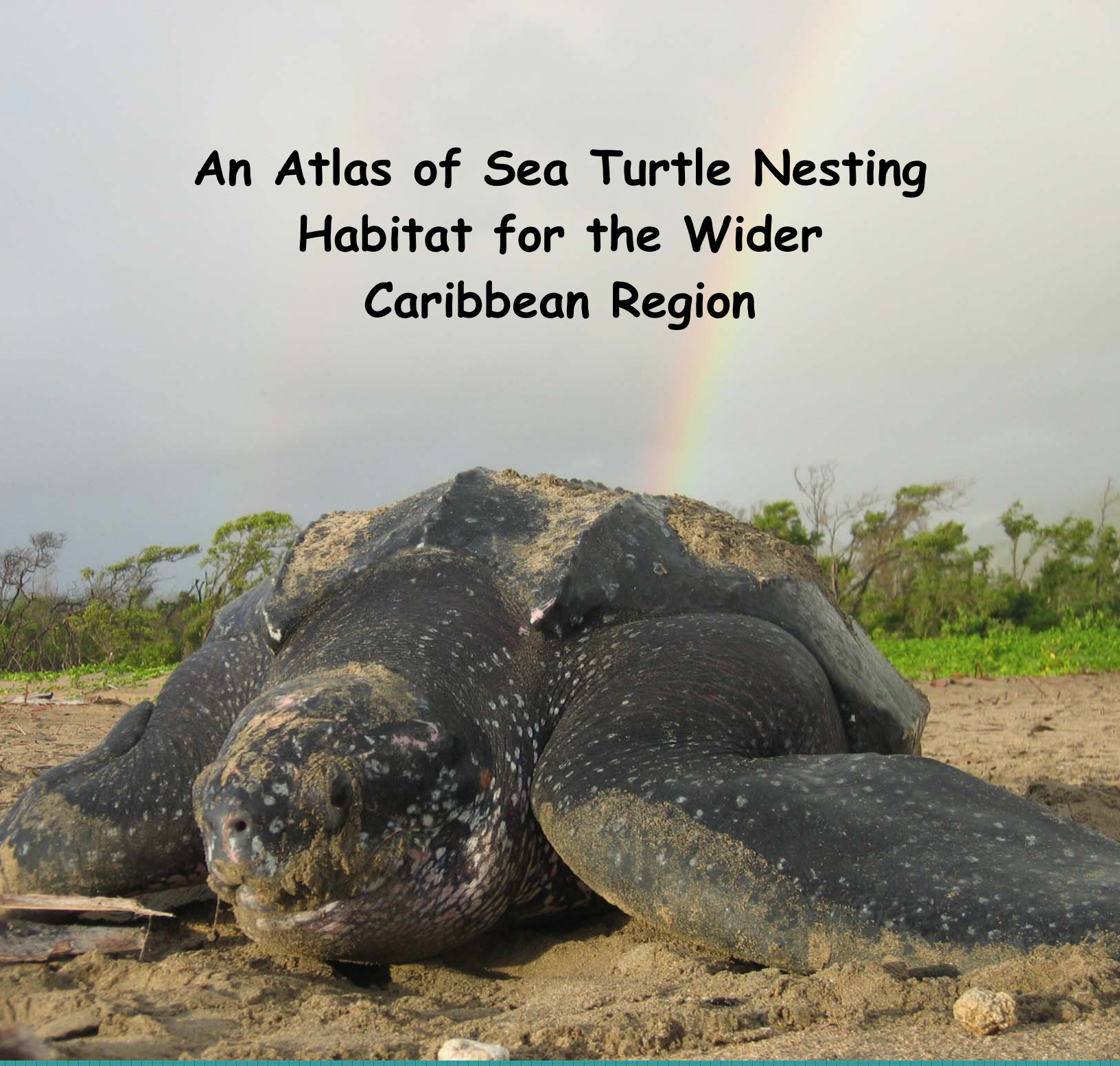
An Atlas of Sea Turtle Nesting Habitat for the Wider Caribbean Region



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WIDECAST Technical Report No. 6
2007

For bibliographic purposes this document should be cited as:

Dow, Wendy, Karen Eckert, Michael Palmer and Philip Kramer. 2007. An Atlas of Sea Turtle Nesting Habitat for the Wider Caribbean Region. The Wider Caribbean Sea Turtle Conservation Network and The Nature Conservancy. WIDECAST Technical Report No. 6. Beaufort, North Carolina. 267 pages, plus electronic Appendices.

ISSN: 1930-3025

Cover photo: Kim Maison (Levera National Park, Grenada)

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Wider Caribbean Sea Turtle Conservation Network

Wendy Dow
Karen Eckert

The Nature Conservancy
Protecting nature. Preserving life.

Michael Palmer
Philip Kramer

2007

Generously supported by:

Caribbean Environment Programme

Pegasus Foundation

U.S. Fish & Wildlife Service

Preface and Intent

For more than 25 years the Wider Caribbean Sea Turtle Conservation Network (WIDECAST), with Country Coordinators in more than 40 Caribbean nations and territories, has linked scientists, conservationists, natural resource users and managers, policy-makers, industry groups, educators, and other stakeholders together in a collective effort to develop a unified management framework, and to promote a region-wide capacity to design and implement scientifically sound sea turtle conservation programs.

As a Partner Organization of the UNEP Caribbean Environment Programme and its Regional Programme for Specially Protected Areas and Wildlife (SPAW), WIDECAST is designed to address research and management priorities at national and regional levels, both for sea turtles and for the habitats upon which they depend. We focus on bringing the best available science to bear on contemporary management and conservation issues, empowering stakeholders to make effective use of that science in the policy-making process, and providing an operational mechanism and a framework for cooperation at all levels, both within and among nations.

Network participants are committed to working collaboratively to develop their collective capacity to manage shared sea turtle populations. By bringing people together and encouraging inclusive management planning, WIDECAST is helping to ensure that utilization practices, whether consumptive or non-consumptive, do not undermine sea turtle survival over the long term.

This Technical Report asks a deceptively simple question: *"Where do sea turtles nest in the Wider Caribbean Region?"* An accurate answer is critical to the recovery of depleted populations in that it relates directly to the setting of priorities for national and international conservation action, population monitoring and habitat protection, as well as larger issues of coastal zone management and land use policy. Taking advantage of modern spatial analysis methods, as well as the unique expertise (and patience) of more than 120 Caribbean Data Providers and other experts, we have created the first regional maps of the distribution and abundance of the annual reproductive effort for all six Caribbean-nesting sea turtles.

This landmark database – a collaborative effort between WIDECAST and The Nature Conservancy – identifies all known sea turtle nesting sites in the Wider Caribbean Region (inclusive of Bermuda and Brazil); 1,311 beaches in all. Because some sites host nesting by multiple species, 2,535 species-specific sites are named. In no case were data simply absorbed from other regional synthesis efforts. We traced each data point to its original source for verification and rating, discarding many existing records that did not meet our criteria. As a result, data characterized as "Low" quality comprise less than 11% of the database and improving information in these areas is an ongoing priority.

The database significantly expands our understanding of habitat use, while at the same time facilitates the creation of operational frameworks to census populations, monitor stock recovery, and safeguard habitat in ways that have not been possible before. The entire database, available for interactive uses, is accessible through OBIS-SEAMAP at http://seamap.env.duke.edu/ and at www.widecast.org. Our sincere gratitude is extended to the hundreds of colleagues (Data Providers and others) who made this project possible, and we hope it sets an example for other geographic regions to follow.

Karen L. Eckert, Ph.D.
Executive Director
WIDECAST

Acknowledgements

A regional assessment of this magnitude could not have been accomplished without the support and active participation of the Wider Caribbean Region's sea turtle researchers, conservationists, and marine managers. In-depth, collaborative data exercises like this one are possible in our region because of mutual trust and established partnerships among sea turtle workers, a reality defined and nurtured by the WIDECAST network for more than 25 years. The concept of a network is eloquently described by Meadows and colleagues in *Beyond the Limits* (1992), as "a web of connections among equals" held together not by force, obligation, material incentive, or social contract, "but rather shared values and the understanding that some tasks can be accomplished together that could never be accomplished separately." This database is a superb example of such an accomplishment.

We are deeply grateful to the more than 120 Data Providers in 43 nations and territories who participated in this project, generously offering both their time and their expertise, principal among them being the following:

Anguilla (GB): James Gumbs (Department of Fisheries and Marine Resources); **Antigua and Barbuda:** Cheryl Appleton and Tricia Lovell (Fisheries Division), James Richardson and Peri Mason (Jumby Bay Hawksbill Project); **Aruba (NL):** Richard van der Wal and Edith van der Wal (Turtugaruba Foundation); **Bahamas:** Eleanor Phillips (The Nature Conservancy), Alan Bolten and Karen Bjorndal (Archie Carr Center for Sea Turtle Research, University of Florida); **Barbados:** Julia Horrocks (Barbados Sea Turtle Project, University of the West Indies), Jennifer Beggs (Mote Marine Laboratory); **Belize:** Renison Enriquez (Glover Marine Research Reserve), Isaias Majil (Fisheries Department), Janet Gibson (Wildlife Conservation Society); **Bermuda (GB):** Jennifer Gray (Bermuda Turtle Project, Department of Conservation Services); **Bonaire (AN):** Kalli De Meyer (Dutch Caribbean Nature Alliance), Imre Esser and Mabel Nava (Sea Turtle Conservation Bonaire); **Brazil:** Maria Marcovaldi, Luciano Soares, Alexandro Santos, Cláudio Belllini, Augusto Cesar Coelho Dias da Silva, Gustave Lopez, João Carlos Thomé, Eron Paes e Lima, Antonio 'Tonim' de Papua Almeida (Fundaçao Pró-TAMAR); **British Virgin Islands (GB):** Bertrand Lettsome, Mervin Hastings and Shannon Gore (Conservation and Fisheries Department); **Cayman Islands (GB):** Gina Ebanks-Petrie, Janice Blumenthal and Joni Solomon (Dept. Environment); **Colombia:** Elizabeth Taylor and Zunilda Baldonado (CORALINA), Claudia Ceballos (Iowa State University) and Instituto de Investigaciones Marinas y Costeras (INVEMAR); **Costa Rica:** Didiher Chacón C. (WIDECAST), Caribbean Conservation Corporation, ASTOP, Estación Las Tortugas, Tortuga Feliz; **Cuba:** Félix Moncada G. (Programa de Tortugas Marinas, CIP), Julia Azanza Ricardo (Universidad de La Habana), Rubén Blanco (Ministerio de Ciencia, Tecnología y Medio Ambiente, Isla de la Juventud), Fernando Hernandez (Empresa Nacional para la Conservación de la Flora y Fauna); **Curaçao (AN):** Brian Leysner (Curaçao Underwater Park, CARMABI); **Dominica:** Seth Stapleton and Rowan Byrne (Rosalie Sea Turtle Initiative-RoSTI), Stephen Durand (Forestry, Wildlife and Parks Division); **Dominican Republic:** Yolanda León (Grupo Jaragua, Univ. Autónoma de Santo Domingo, INTEC), Jesus Tomas (University of Valencia); **French Guiana (FR):** Benoit de Thoisy (Association Kwata), Laurent Kelle (Coordinateur Océans/Côtes, WWF Guianas), Amana Nature Reserve, Association Kulalasi, Association Sépanguy; **Grenada:** Carl Lloyd and Rebecca King

(Ocean Spirits), Marina Fastigi (KIDO Foundation), Gregg Moore (Univ. New Hampshire); **Guadeloupe (FR):** Eric Delcroix (Réseau Tortues Marines Guadeloupe), Office National de Forêts, L'Association Titè, L'Association Kap'Natirel, L'Association Eco-Lambda, Conservatoire du Littoral, La commune de Terre-de-Haut, Office National de la Chasse et de la Faune Sauvage, L'Association Evasion Tropicale, Association Le Gaïac, Le Parc National; **Guatemala:** Colum Muccio (ARCAS), Anabella Barrios (RCA Guatemala), Ana Beatriz Rivas (Fundary Manabique), Wilma Katz (Coastal Wildlife Club, Florida); **Guyana:** Annette Arjoon and Michelle Kalamandeen (Guyana Marine Turtle Conservation Society), Peter C. H. Pritchard (Chelonian Research Institute); **Haiti:** Jean Wiener (Foundation pour la Protection de la Biodiversitie Marine); **Honduras:** Carlos Molinero (MOPAWI); **Jamaica:** Andrea Donaldson (National Environment and Planning Agency), Rhema Kerr Bjorkland (Center for Marine Conservation, Duke University); **Martinique (FR):** Sévérino Raigné and Jean-claude Nicolas (SEPANMAR), Claire Cayol (VCAT ONCFS Réseau Tortues Marines), KAWAN Association, AMEPAS, ONF, Mairie de SAINTE-ANNE, MAIRIE du DIAMANT; **México:** F. Alberto Abreu G. (Unidad Académica Mazatlán, UNAM), Vicente Guzmán Hernández (Dirección del Área de Protección de Flora y Fauna "Laguna de Términos" (CONANP), Ciudad del Carmen, Camp.), Eduardo Cuevas (Pronatura Península de Yucatán, A.C, Mérida, Yucatán), Laura Sarti and René Kantún (Comision Nacional de Areas Naturales Protegidas), Patrick Burchfield and Luis Jamie Peña (Gladys Porter Zoo), Augusto Segovia (Yucatán Environment Ministry), Alejandro Arenas, Iñaky Iturbe and Roberto Herrera (Flora Fauna y Cultura de México, A.C., El Colegio de la Frontera Sur), US Fish and Wildlife Service, NOAA National Marine Fisheries Service, Texas Parks and Wildlife Department, Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT), Instituto Nacional de Pesca, Laguna de Términos Área de Protección de Flora y Fauna, Marea Azul, Ecología, Grupo Ecologista Quelonios A.C., Universidad Autónoma de Campeche, PEP-UPMP, La Universidad Autónoma del Carmen, Enlaces con tu Entorno, Ría Lagartos Reserva de la Biosfera, Centro Ecológico Akumal; **Montserrat (GB):** John Jeffers (Min. Agriculture, Trade and Environment); **Nicaragua:** Cynthia Lagueux and Cathi Campbell (Wildlife Conservation Society); **Panama:** Argelis Ruiz (Smithsonian Tropical Research Inst.), Anne Meylan (Florida Fish and Wildlife Conservation Commission); **Puerto Rico (US):** Carlos Diez and Hector Horta (Dept. Natural and Environmental Resources), Lesbia Montero (Univ. Puerto Rico Sea Grant Program); **Saba (AN):** Jan den Dulk and Susan Hurrell (Saba Marine Park); **Sint Maarten (AN):** Andy Caballero, Dominique Vissenberg and Beverly Nisbeth (Nature Foundation of Sint Maarten); **Sint Eustatius (AN):** Nicole Esteban and Arturo Herrera (St. Eustatius National and Marine Parks), Emma Harrison (Caribbean Conservation Corporation); **St. Kitts and Nevis:** Emile Pemberton (Department of Fisheries), Kimberly Stewart (Ross University), Kate Orchard (St. Christopher Heritage Society); **St. Lucia:** Dawn Pierre-Nathoniel (Department of Fisheries); **St. Vincent and the Grenadines:** Lucine Edwards (Fisheries Division); **Suriname:** Maartje Hilterman (IUCN National Committee of the Netherlands), Edo Goverse (Universiteit van Amsterdam), Marie-Louise Felix (WWF Marine Turtle Program Office - Guianas); **Trinidad and Tobago:** Dennis Sammy (Nature Seekers), Tanya Clovis (SOS Tobago), Stephen Poon (Wildlife Section-Forestry Div.), Scott Eckert (WIDECAST), Suzanne Livingstone (IUCN Global Marine Species Assessment Programme); **Turks and Caicos (GB):** Judith Garland-Campbell (Ministry of Natural Resources), Michelle Fulford-Gardiner (Dept. Environment and Coastal Resources), Lorna Slade (Providenciales Marine Turtle Monitoring Project); **USA:** Barbara Schroeder (NOAA National Marine Fisheries Service), Sandra MacPherson (US Fish and Wildlife Service), Anne Meylan (Florida Fish and Wildlife Conservation Commission), Donna Shaver (NPS Padre Island National Seashore), Jerome Phillips (Bon Secour National Wildlife Refuge); **United States Virgin Islands (US):** Rafe Boulon (NPS Virgin Islands National Park), Steve Garner (WIMARCS), Raquel Seybert (The Nature Conservancy), Amy Mackay (St. Croix Marine Turtle Conservation Project), Zandy Hillis (US National Park Service); **Venezuela:** Hedelvy J. Guada (CICTMAR), Vicente Vera (Ministry of Environment).

These data and their assembled results and significance remain the property of the Data Providers who, in collaboration with staff, volunteers and supporters, are the sole reason these maps could be produced and shared for the benefit of us all. For further information, including Data Use Agreements, please contact the Data Provider(s) directly. Contact information is provided in Appendix I of this Technical Report and is also available through the database host, OBIS-SEAMAP, at http://seamap.env.duke.edu/.

Finally, no progress would have been made without generous and timely financial support from The Nature Conservancy's Caribbean Marine Program, Pegasus Foundation, U.S. Fish and Wildlife Service's *Marine Turtle Conservation Fund*, and the UNEP-CEP Regional Programme for Specially Protected Areas and Wildlife (SPAW), enabled by a grant from the U.S. Department of State (Bureau of Oceans and International Environmental and Scientific Affairs). World Wildlife Fund (Latin America and Caribbean Program) supported the development of electronic appendices and online availability. We are also grateful for the expertise and partnership of Duke University's OBIS-SEAMAP (Ocean Biogeographic Information System – Spatial Ecological Analysis of Megavertebrate Populations) program, which serves as the database host.

Monitoring leatherback sea turtle populations at **Querepare Beach, Venezuela** (*photo by* Mariana Malaver) and **Matura Beach, Trinidad** (*photo by* Scott A. Eckert); and Kemp's ridleys at **Rancho Nuevo, Mexico** (photo by Jaime Pena)

Executive Summary

Six species of sea turtle nest in the Wider Caribbean Region (WCR). In partnership with more than 120 Data Providers, the spatial database of nesting habitat herein assembled is the most comprehensive for any region of the world, with 1,311 nesting beaches identified in 43 WCR nations and territories, inclusive of Bermuda to the north and Brazil to the south. Because some sites host nesting by multiple species, 2,535 species-specific sites are named. Of these, 77% are categorized in terms of abundance: <25, 25-100, 100-500, 500-1,000, or >1,000 nesting crawls per year. Hawksbill and green turtles are the least known, with 33% and 24%, respectively, of all known nesting sites associated with unknown crawl abundances.

Large nesting colonies are rare. Nesting grounds receiving more than 1,000 crawls per year range from 0.4% (hawksbill) to 7.0% (Kemp's ridley) of all known species-specific sites. For any species, roughly half of all known nesting sites support fewer than 25 crawls (fewer than 10 reproductively active females) per year. While some nations are making exemplary progress in identifying and monitoring nesting stocks, consistent sea turtle population monitoring effort is still lacking in most areas and recent data are scarce in some jurisdictions; two archipelagic States (Bahamas, St. Vincent and the Grenadines) and Hispaniola (Dominican Republic, Haiti) have never been completely assessed.

The regulatory landscape is fragmented. Thirty (69.8%) nations and territories prohibit sea turtle exploitation year-around: 29 of 43 jurisdictions mandate indefinite protection (eight of these allow exemptions for 'traditional' exploitation), while Anguilla has adopted a moratorium set to expire in 2020. With the exception of the Cayman Islands, legal sea turtle fisheries are based on minimum size limits (by weight or shell length), targeting large juveniles and adults in contradistinction to the best available science on management and recovery.

Threats matrices characterizing a range of risk factors, including those that result in the loss or degradation of critical habitat, reveal that beach erosion, nest loss to predators or physical factors, artificial beachfront lighting, direct exploitation of turtles and eggs, and pollution threaten the survival of sea turtles at their nesting grounds in more than 75% of all WCR nations and territories. With regard to factors potentially hindering population recovery at foraging grounds, more than 75% of Caribbean nations and territories cite pollution, fisheries bycatch, entanglement, coral reef and/or seagrass degradation, and losses to hunters, poachers and natural predators as threatening the survival of sea turtles at sea.

The data collected and assembled will allow for further research and analysis of sea turtle abundance (including population trends at index sites) and habitat use; for example, in conjunction with other datasets to determine areas of high biodiversity or areas in need of urgent protection. The database, archived and displayed online by OBIS-SEAMAP (http://seamap.env.duke.edu/), will be updated regularly and used to establish conservation and management priorities, and to inform and improve policy at national and regional levels. Future goals of the project are to research and incorporate seagrass and coral reef data to determine nationally and regionally significant foraging areas, thus identifying marine areas in need of management attention and contributing to the development of a network of population monitoring programs, including juvenile and adult age classes, at index sites.

Table of Contents

List of Figures and Tables

Introduction

Sea turtles are late-maturing and long-lived, and are among the most migratory of all Caribbean fauna. Threats accumulate over long periods of time and can occur anywhere in a population's range; thus population declines have typically resulted from a combination of factors, both domestic and foreign. In addition to centuries of largely unmanaged and unsustainable exploitation, sea turtles are accidentally captured in active or abandoned fishing gear, resulting in death to some tens (and perhaps hundreds) of thousands of turtles annually. Moreover, reef and seagrass degradation, oil spills, chemical waste, persistent plastic and other marine debris, high density coastal development, and an increase in ocean-based tourism have damaged or eliminated many Caribbean nesting beaches and feeding grounds.

Six sea turtle species are indigenous to the Wider Caribbean Region (WCR).[1] All are classified by the World Conservation Union as "Endangered" or "Critically Endangered" (IUCN 2004). All six species are listed on Annex II (full protection) of the Protocol concerning Specially Protected Areas and Wildlife (SPAW Protocol) to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention); Appendix I (full protection) of the Convention on Migratory Species (CMS); Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); and, most recently, recognized as being in need of "protection, conservation and recovery" throughout the hemisphere by the Inter-American Convention for the Protection and Conservation of Sea Turtles (Hykle 1999, Wold 2002).

In general, and notwithstanding welcome signs of population increase at some protected nesting grounds (*Leatherback*: Dutton et al. 2005, *Green Turtle*: Troëng and Rankin 2005; *Hawksbill*: Krueger et al. 2003, Richardson et al. 2004, Diez and van Dam, Chelonia Inc., unpubl. data; *Kemp's Ridley*: Márquez et al. 1999), sea turtle populations throughout the WCR are so severely reduced from historical levels (Carr 1956, Parsons 1962, Rebel 1974, King 1982, Groombridge and Luxmoore 1989, Ross et al. 1989, Reichart 1993, Jackson 1997, Meylan and Donnelly 1999, Fleming 2001, Bjorndal and Bolten 2003, Godley et al. 2004, Bräutigam and Eckert 2006) as to be considered by Bjorndal and Jackson (2003) "virtually extinct" from the standpoint of their role in Caribbean marine ecosystems. Once considered inexhaustible, some of the largest nesting colonies in the hemisphere, including those of green turtles in the Cayman Islands (Lewis 1940, Aiken et al. 2001) and hawksbill turtles in Chiriquí, Panama (Carr 1956, Meylan 1999), have all but vanished.

Intergovernmental meetings devoted to addressing shared management concerns have been convening in the region for more than two decades (e.g. Bacon et al. 1984, Ogren 1989, Eckert and Abreu Grobois 2001, IUCN 2002). In November 1999, resource managers and scientists

[1] The Wider Caribbean Region (see Figure 1) is defined as comprising the States and territories of the insular Caribbean (including the Bahamas), the north-eastern sector of South America (Colombia, Venezuela, the Guianas), Central America, Mexico and the USA to 30ºN latitude, including the waters of the Caribbean Sea, the Gulf of Mexico, and the Atlantic Ocean adjacent to these States and territories (UNEP 1983). Because of shared sea turtle stocks, WIDECAST (and thus this report) also embraces Bermuda to the north and Brazil to the south (Frazer 1985).

from 29 WCR nations and territories met in the Dominican Republic and unanimously recommended that "appropriate authorities, organizations, civic groups and other stakeholders promote scientific research, assessment and monitoring of marine turtles and their habitats, and standardize methods of data collection and analysis." To this end, delegates agreed *inter alia* on the need to "identify (locate), characterize, and rank (as to intensity of use and importance for management) marine turtle nesting and foraging sites", and to "identify, evaluate and rank threats to marine turtles and their habitats – both domestic and, to the extent practicable, throughout their ranges" (*Santo Domingo Declaration*: Eckert and Abreu Grobois 2001: *vi, viii*).

The fundamental need to identify habitat necessary for the survival of the region's sea turtles has long been recognized, yet the coastal zone remains one of the least protected environments in the region and unchecked shoreline development is a serious obstacle to sea turtle conservation in many areas. Emphasizing local partnerships and data-sharing opportunities enabled by the WIDECAST network, and taking advantage of modern spatial analysis methods, we have developed the region's first digital landscape of sea turtle nesting beaches. The landscape and supporting databases identify, characterize and rank sites based on only the most up-to-date information, including an exhaustive literature search and nearly two years of intensive collaboration with more than 120 Data Providers in 43 nations and territories.

In addition to unobstructed sandy beaches for egg-laying, sea turtles need healthy coral reef, seagrass and hard-bottom habitats for food and refuge, as well as safe passage through complex migratory corridors. These habitats are also at risk, mainly due to intense pressures arising from changes in water quality, patterns of coastal development and land use, and fisheries and other extractive industries (e.g. UNEP 1989, 2005, Sullivan Sealey and Bustamante 1999, Eckert and Abreu Grobois 2001, Fleming 2001, Godley et al. 2004, UNEP/GPA/CATHALAC 2004, Bräutigam and Eckert 2006, UNEP/GPA 2006). Notwithstanding, quantitative data on the status and distribution of marine habitat types are scarce, presenting a significant gap in the management framework of endangered species, such as sea turtles, that rely on them.

With an aim to definitively "identify, characterize, and rank" nesting habitat across this large region, and to lay the groundwork for doing the same with foraging habitat, we have developed National Reports, including maps and constituent data, for each of 43 countries and territories in the WCR (see Appendix III). These National Reports are also inventoried and available for public access at www.widecast.org, as well as in an interactive format at Duke University's OBIS-SEAMAP (Ocean Biogeographic Information System – Spatial Ecological Analysis of Megavertebrate Populations, Halpin et al. 2006) website: http:// seamap.env.duke.edu/.

Goals and Objectives

Recognizing that depleted and/or declining sea turtle stocks are in need of management and conservation attention is one thing; reversing population declines and monitoring sustained population recovery is another. Because sea turtles are highly migratory during all life history stages, they rely on critical habitats in many nations and territories for dispersal, forage, refuge, mating, migration, and nesting. Consequently, what appears as a decline or a recovery in a local population may be a direct consequence of the activities of people living hundreds or

thousands of kilometers away – so that effective management must occur cooperatively and collaboratively across range States.

Information gaps at local, national and regional levels can have significant consequences to management policy and conservation success at all levels. Chief among these gaps has been reliable and updated information concerning the location and status of critical habitat, as well as the distribution and abundance of the annual breeding effort. In the absence of such information, inter-jurisdictional collaboration in the conservation of shared sea turtle stocks – including attempts to cooperatively monitor the success of conservation actions by evaluating, in an integrated way, population trends at regionally important sites – is hindered.

Seeking to address key recommendations of the *Santo Domingo Declaration* (Eckert and Abreu Grobois 2001) and to promote the survival of Caribbean sea turtles by increasing our understanding of population abundance and habitat use, the objectives of this study were to:

- Generate the first standardized and geographically comprehensive spatial database of active sea turtle nesting beaches in the central western Atlantic Ocean;

- Inform policy-making regarding the protection of critical habitat, in particular nesting habitat, by making population and spatial databases, including information on contemporary threats to sea turtle survival, publicly available in print and electronic formats;

- Contribute essential species and habitat data to the ecoregional planning processes of international organizations and intergovernmental entities; and

- Promote implementation of regional agreements that protect sea turtles and their habitat: Convention for the Protection and Development of the Wider Caribbean Region, and the Inter-American Convention for the Protection and Conservation of Sea Turtles.

Methods

We utilized data from several different sources to generate the database. The primary sources of information were bilingual (English, Spanish) questionnaires completed by professional sea turtle researchers, government officials, conservationists, and informed community leaders in 43 nations and territories.[2]

The questionnaire was circulated to WIDECAST Country Coordinators and other potential Data Providers by WIDECAST and The Nature Conservancy (TNC) Caribbean Marine Programme Office in 2002, and then re-circulated to capture updated information in May 2006. The ques-

[2] Nesting sites were not documented north of 30°N latitude, the northern boundary of the Wider Caribbean Region (UNEP 1983), meaning that, in the case of USA, nesting north of Florida was not included for any species. Loggerhead turtle, *Caretta caretta*, nests deposited north of Florida comprise less than 10% of the nation's nesting each year (NOAA and FWS 2007a); nesting by other species north of Florida ranges from extremely rare to occasional.

tionnaire asked the Data Provider to identify (name) the nesting beaches for each species of sea turtle known to nest in the country, the location and length of those nesting beaches, the number of nesting crawls (binned to 'X' [unknown abundance], <25, 25-100, 100-500, 500-1000 and >1000) made by each species per nesting beach per year,[3] and the extent to which the nesting beach is monitored for sea turtle egg-laying and/or hatching activity.

Nesting sites for the purposes of this analysis are defined as operational management units, rather than strict geographic entities. The reason for this is that nesting sites are defined and monitored differently in different locations. Sometimes small beaches, proximal but physically separated, are viewed as a single "nesting beach" or management unit. Conversely, extensive beach strands, extending hundreds of kilometers in some cases, are oftentimes segmented (e.g. because of limited human resources or the logistics of beach access) for the purpose of monitoring and management. In the former case multiple, typically small, habitats might be coalesced; in the latter case, extensive shorelines might be divided. We worked closely with Data Providers to be as consistent, as realistic, and as accurate as possible in every case.

To ensure a comparable landscape we focused on a binned average of nesting crawls per year – namely, fewer than 25 crawls per year, on average; 25 to 100 crawls per year, on average; and so on. Not all sea turtle population monitoring efforts differentiate between successful and unsuccessful nesting, so standardizing on "crawls" (embracing both successful egg-laying and failed attempts) ensured that all countries could participate in a region-wide assessment. Moreover, we did not want to impose on Data Providers for proprietary details on exactly how many nests are laid each year, knowing that in many cases these carefully collected numbers are more suitable for peer-reviewed publication.

> *Important note*: Depending on location, the number of nesting crawls may be 2 to 10 times higher than the number of actual nests. The number of these nests may, in turn, be 2 to 10 times higher than the number of individual females. Therefore, the number of crawls is a baseline metric not to be confused with the number of clutches laid, nor with the always much smaller number of reproductively active individuals.

We compiled a list of governmental and non-governmental Data Providers, including WIDECAST Country Coordinators and other experts (see Appendix I), developed a relationship with each Data Provider, and kept in close contact with Data Providers in order to assemble the best available information during the project timeline. In addition to estimating annual crawl abundance, we asked each Data Provider to provide new (or verify existing) information about sea turtle status, protection policies, and nesting and foraging threats within the jurisdiction of their nation or territory. We telephoned each Data Provider in early June 2006 to collect detailed information about sea turtle threats and to answer any remaining questions. Those who could not be contacted by telephone received a standardized survey (see Appendix II) by mail or e-mail.

We encouraged Data Providers to supply geographic coordinates for nesting beaches. When these data were not available, we located nesting beaches from national maps or other sources. Data from all sources were compiled and annotated in a single Excel™ file with a separate worksheet for each country or territory. Finally, a thorough literature review was conducted to compile nesting site location information and analyze data from peer-reviewed literature, project reports, national recovery plans, regional assessments, and unpublished manuscripts.

[3] The project focused on nesting crawls, including both successful and unsuccessful nesting attempts, as the common metric to characterize habitat use and estimate population size.

The spatial organization of the data follows the concept of "Ecoregions" as defined by The Nature Conservancy (cf. Spalding et al. 2007) (Figure 1). For each country and territory the dataset includes nesting site data (beach name, latitude and longitude, approximate length, number of crawls for each species present, activity status [confirming that the nesting beach is currently active; historical nesting beaches no longer in use were excluded], beach monitoring status [confirming whether nesting activity is recorded daily, weekly, irregularly, etc.], and the time period over which the data were collected), Data Provider information, detailed notes on data points, and references for sources of data other than the primary Data Providers.

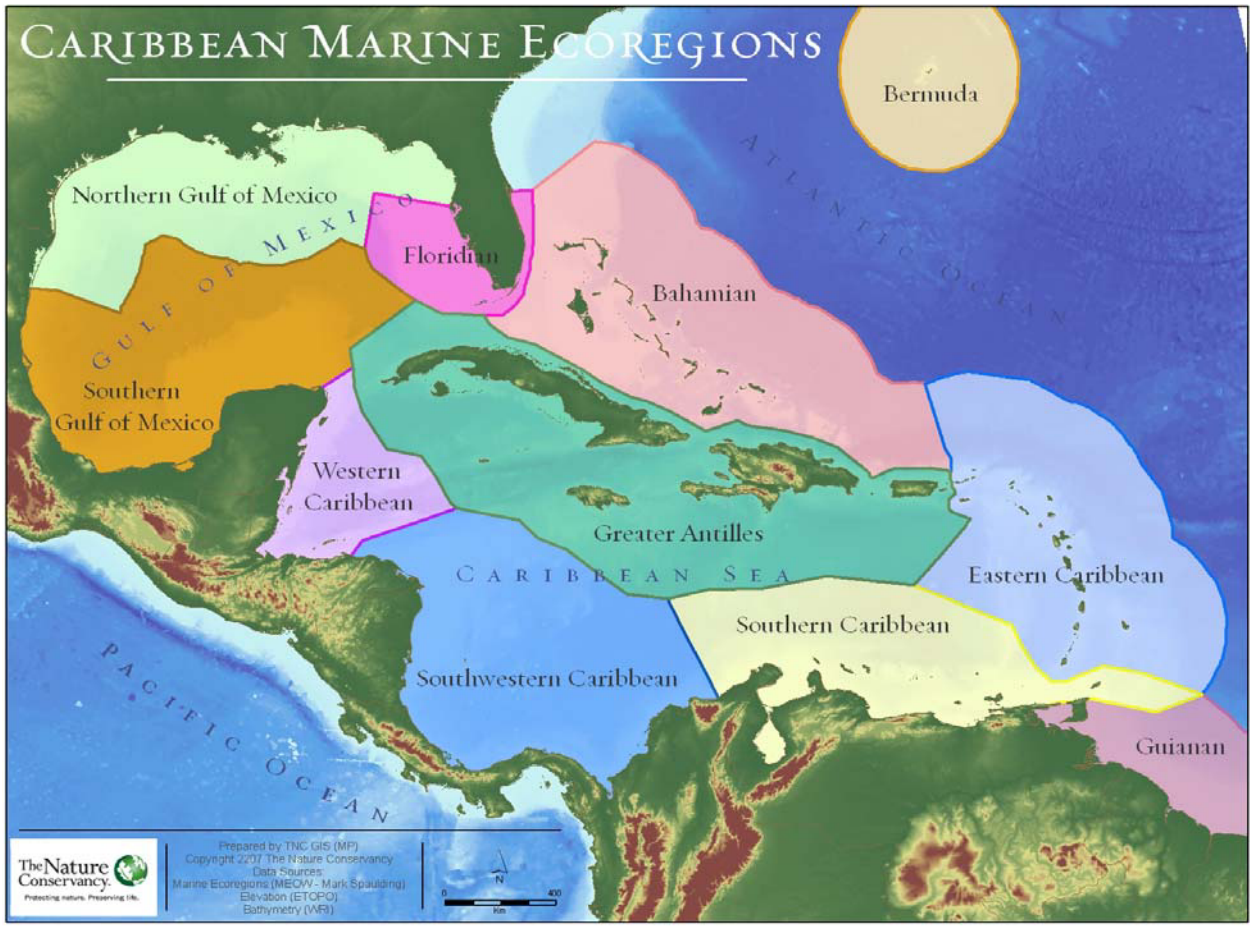


Figure 1. Caribbean Marine Ecoregions (adapted from Spalding et al. 2007).

Each data point was given a confidence rating of High, Moderate or Low. A High rating was assigned to data received and verified directly from WIDECAST Country Coordinators, active researchers, or other local experts, and to datasets derived from peer-reviewed published literature or published project reports less than 10 years old. A Moderate rating was assigned to datasets for which we were not personally familiar with the data source or how the data were collected, as well as to datasets 10 to 20 years old. A Low rating was given to datasets derived from non-expert or opportunistic observations, and to datasets more than 20 years old. In this way we were able to include the most recent nesting data available, while also identifying areas characterized by outdated information that would benefit from population monitoring efforts.

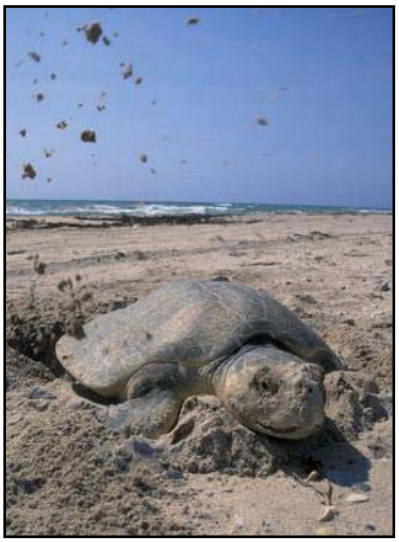
Data for individual countries and territories were combined to generate regional point and line shapefiles for nesting habitat using ESRI ArcGIS™ version 9.1. Point shapefiles were generated using latitude and longitude coordinates for each nesting beach. When locations were known, such as from GPS-based studies, these latitudes and longitudes were used. When locations were not known, they were estimated with the assistance of Data Providers and local maps. Nesting site coordinates should be considered approximate, as beach boundaries may change within and between years. Coordinates are located at the approximate midpoint of each beach. Line shapefiles were created using nesting beach start and end coordinates, generating a box around the beach, and clipping the beach from the GSHHS (Global, Self-consistent, Hierarchical, High-Resolution Shoreline) (Wessel and Smith 1996) shoreline shapefile. The GSHHS shoreline shapefile has varying resolution depending on geographic location, as it was generated by combining data in the World Data Bank (resolutions between 500-5000m) and the World Vector Shoreline (resolutions between 50-500m) (Wessel and Smith 1996). All shapefiles are projected using the World Geodetic System, Datum 1984 and are in units of decimal degrees.

Inevitably more information was available for some countries than for others. Supplemental data were often collected through literature reviews, but in some cases (e.g. Haiti, St. Vincent and the Grenadines) relevant data are extremely scarce from any source. Supplemental data were also collected through literature reviews to complete the protection policies and threats matrices when a full suite of information was not available from local Data Providers.

After assembling and organizing all available data, draft maps, reports and database tables were closely reviewed by the Data Providers. Each National Report (see Appendix III) features maps of all known sea turtle nesting sites, including species-specific landscapes (historical nesting beaches are not included if nesting no longer occurs), and tables representing sea turtle status, protection policies, and contemporary threats to nesting and foraging turtles and habitat.

National Reports (and summary tables) are organized by Ecoregion (TNC 2003, Spalding et al. 2007) and presented as follows: Bahamian, Greater Antilles, Eastern Caribbean, Guianan, Southern Caribbean, Southwestern Caribbean, Western Caribbean, Southern Gulf of Mexico, Northern Gulf of Mexico, and Floridian, followed by Bermuda and Brazil. Uniquely coded Beach Identification Numbers correspond to the underlying database compiled for each country.

Monitoring green turtles on **Mona Island, Puerto Rico** (*photo by* Scott Eckert, WIDECAST), Kemp's ridley turtles at **Padre Island National Seashore, USA** (*photo by* Jaime Pena, GPZ), and hawksbill turtles at **Carriacou, Grenada** *(photo by* KIDO Foundation).


Results

Species Distribution: Summary of Findings

The assessment involved nearly two years of collaboration with more than 120 Data Providers and local experts, resulting in a digital inventory of all known sea turtle nesting sites, including geographic location, colony size, the degree of legal protection afforded nesting females and their young, and contemporary threats to population survival. Six species nest seasonally on the continental and island shorelines of the WCR (Table 1). Hawksbills and green turtles nest in virtually every country, followed by leatherbacks, loggerheads, olive ridleys and Kemp's ridleys, the latter restricted to nesting sites in the USA and Mexico. In total, 1,311 discrete nesting sites are identified in 43 countries and territories extending from Bermuda, a British Overseas Territory in the North Atlantic, south to Brazil (Figure 2). Because discrete sites are sometimes associated with multiple species, Table 2 reflects a total of 2,535 species-specific nesting sites.

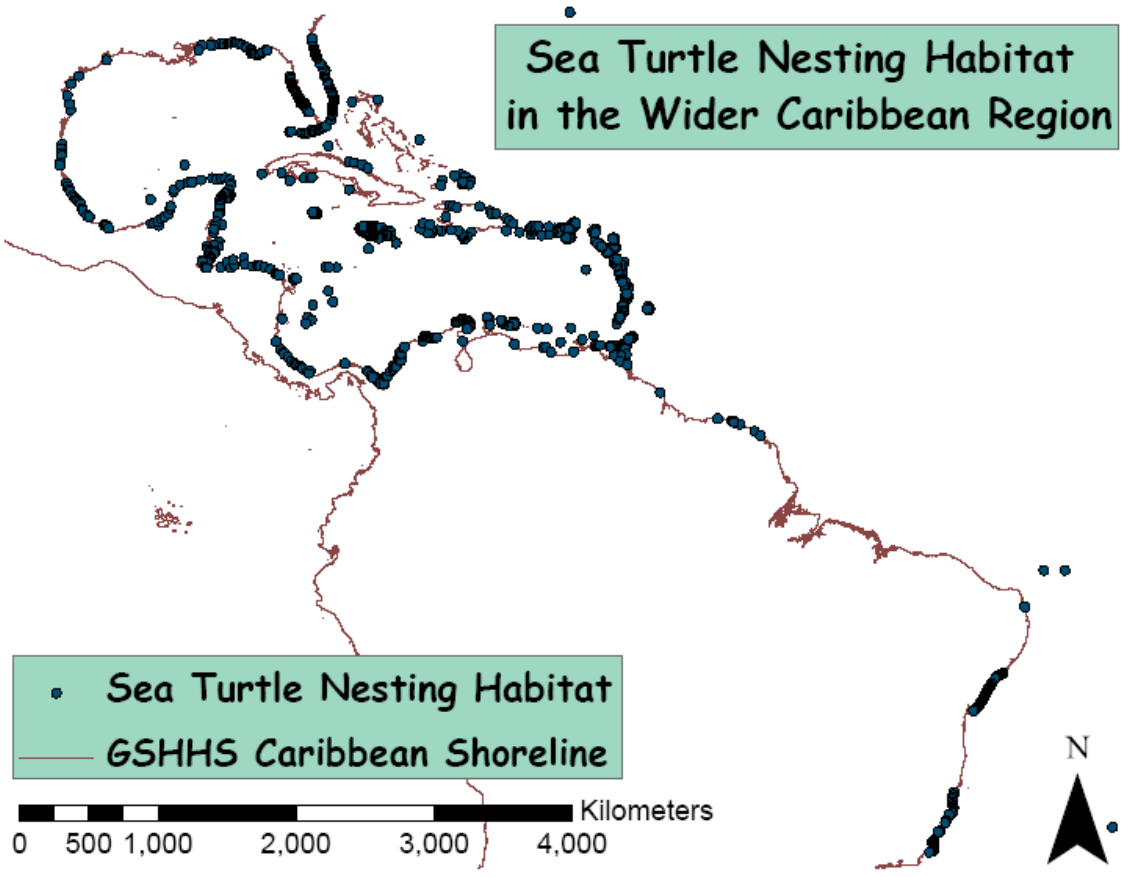


Figure 2. Sea turtles nest seasonally at 1,311 sites in 43 countries and territories of the Wider Caribbean Region, and including Bermuda and Brazil.

Table 1. Presence of sea turtles in the Wider Caribbean Region.

Marine Ecoregions with Countries/Territories	Loggerhead Turtle *Caretta caretta*	Green Turtle *Chelonia mydas*	Leatherback Turtle *Dermochelys coriacea*	Hawksbill Turtle *Eretmochelys imbricata*	Kemp's Ridley Turtle *Lepidochelys kempii*	Olive Ridley Turtle *Lepidochelys olivacea*
Bahamian						
Bahamas	N, F	N, F	N	N, F	A	I
Turks & Caicos Islands (GB)	N, IF	N, F	I	N, F	A?	A?
Greater Antilles						
Cuba	N, F	N, F	IN, IF	N, F	A	I
Cayman Islands (GB)	N, IF	N, F	A	F	A	A
Jamaica	N, IF	N, F	N	N, F	A?	A
Haiti	N, F	N, F	N, F?	N, F	A	A
Dominican Republic	N, I	N, F	N	N, F	A	A
Puerto Rico (US)	I	N, F	N, F	N, F	A	I
Eastern Caribbean						
British Virgin Islands (GB)	IN, IF	N, F	N	N, F	A	A
US Virgin Islands (US)	I	N, F	N	N, F	A	A
Anguilla (GB)	F	N, F	N	N, F	A	A
Sint Maarten (AN)	I	N, F	N	N, F	A	A
Saba (AN)	I	IN, F	I	IN, F	A	A
Sint Eustatius (AN)	IN	N, F	N	N, F	A	A
Saint Kitts & Nevis	I	N, F	N	N, F	A	A
Antigua & Barbuda	I	N, F	N	N, F	A	A
Montserrat (GB)	IN, F?	N, F	IN, F?	N, F	A	A
Guadeloupe (FR)	F	N, F	N, IF	N, F	A	I
Dominica	I	N, F	N	N, F	A	A
Martinique (FR)	F	IN, F	N, F?	N, F	A	I
Saint Lucia	I	N, F	N	N, F	A	A
Barbados	I, F?	N, F	N	N, F	A	A
Saint Vincent & Grenadines	I	N, F	N	N, F	A	A
Grenada	F	F	N	N, F	A	I
Guianan						
French Guiana (FR)	I	N, F	N	IN	A	N
Suriname	IF	N	N	N	A	N, F
Guyana	I	N, F	N	N	A	I
Southern Caribbean						
Trinidad & Tobago	I	N, F	N, F	N, F	A	IN, IF
Venezuela	N, F	N, F	N, F	N, F	A	A
Bonaire (AN)	N	N, F	I	N, F	A	A
Curacao (AN)	N, F	N, F	N, IF	N, F	A	I
Aruba (NL)	N, IF	N, F	N	N, F	A	I
Southwestern Caribbean						
Colombia	N, F	N, F	N, F?	N, F	A	I
Panama	IN, F	IN, F	N	N, F	A	A
Costa Rica	N, F	N, F	N	N, F	A	A
Nicaragua	F	N, F	N, IF	N, F	A	A
Western Caribbean, Gulf of Mexico and Florida						
Honduras	N, F	N, F	N	N, F	A	A
Guatemala	N, F	N, F	N	N, F	A	A
Belize	N, F	N, F	I	N, F	A?	A
Mexico	N, F	N, F	N, F	N, F	N, F	A
USA	N, F	N, F	N, F	IN, F	N, F	A
Bermuda						
Bermuda (GB)	IN, IF	IN, F	IF	F	I	A
Brazilian						
Brazil	N, F	N, F	N, F?	N, F	A	N, F

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

Large nesting colonies are rare. Sites receiving more than 500 crawls per year comprise between <1% and 8% of species-specific totals (Table 2). The largest majority of sites host extremely small colonies characterized by fewer than 25 crawls per year (perhaps 3-10 individual turtles). A variable number (0% - 33%) of sites for each species are known to support nesting, but reliable census data pertaining to colony size are not presently available (Table 2).

Table 2. Number of identified nesting sites in the Wider Caribbean Region, and including Bermuda and Brazil.

Species	Total	Number of crawls per year (proportion of total)					
		X	<25	25-100	100-500	500-1000	>1000
Loggerhead Turtle (*Caretta caretta*)	**552**	76 (.14)	228 (.41)	121 (.22)	87 (.16)	14 (.03)	26 (.05)
Green Turtle (*Chelonia mydas*)	**593**	142 (.24)	308 (.52)	66 (.11)	45 (.08)	17 (.03)	15 (.03)
Leatherback Turtle (*Dermochelys coriacea*)	**470**	101 (.21)	271 (.58)	60 (.13)	24 (.05)	4 (.01)	10 (.02)
Hawksbill Turtle (*Eretmochelys imbricata*)	**817**	268 (.33)	423 (.52)	90 (.11)	22 (.03)	11 (.01)	3 (.004)
Kemp's Ridley Turtle (*Lepidochelys kempii*)	**41**	0 (.00)	25 (.61)	2 (.05)	11 (.27)	0 (.00)	3 (.07)
Olive Ridley Turtle (*Lepidochelys olivacea*)	**62**	5 (.08)	28 (.45)	13 (.21)	13 (.21)	2 (.03)	1 (.02)

X = Presence, but unknown crawl abundance

Collectively, one-third of the identified species-specific nesting sites support hawksbill sea turtles, while approximately 20% support loggerhead, green, or leatherback sea turtles. In contrast, comparatively few sites support nesting by Kemp's ridley or olive ridley sea turtles (Figure 3).

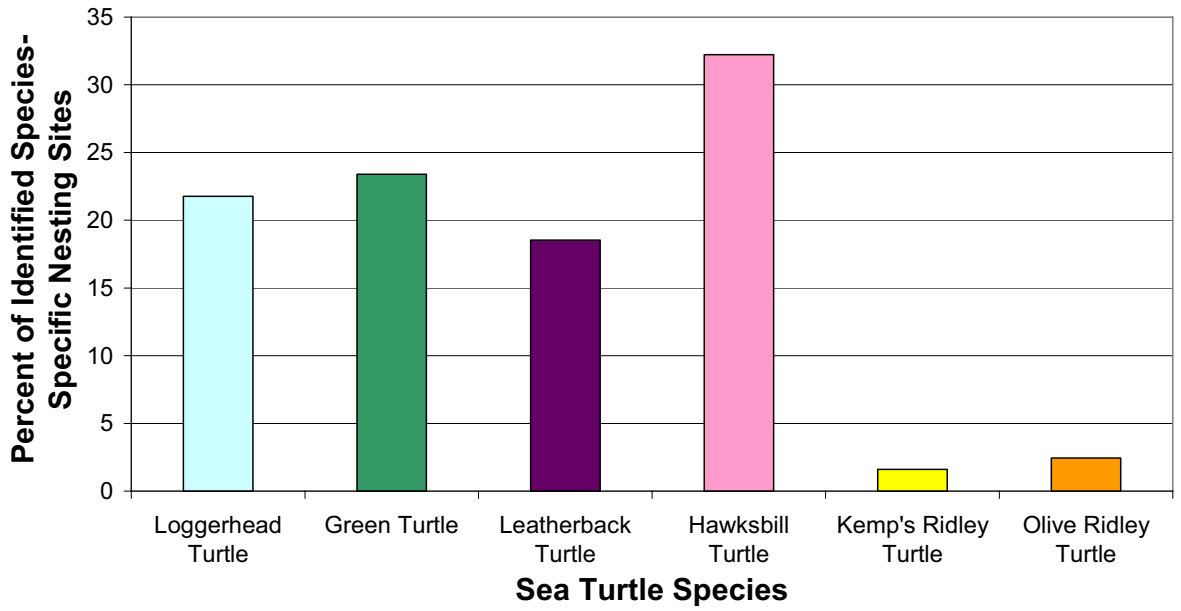


Figure 3. Frequency distribution of sea turtle species associated with the 2,535 species-specific nesting sites in the Wider Caribbean Region, and including Bermuda and Brazil.

Loggerhead sea turtles (*Caretta caretta*) generally nest in more temperate latitudes than do other Caribbean sea turtle species. The majority of nesting in the Wider Caribbean Region occurs in the USA (Florida)[4], where all but 1 of 40 beaches identified as having greater than 500 crawls per year are located (the other is located in Brazil) (Figure 4). Sites reporting between 100 and 500 crawls per year follow the same pattern, being clustered in the northern (Bahamas, Cuba, Mexico, USA) and southern (Brazil) extremes of the region. Forty-one percent of all known nesting beaches support fewer than 25 crawls per year; in 14% of sites, data are insufficient to estimate annual crawl abundance.[5] Refer to Table 1 and Table 2 for additional detail, and the National Reports (see Appendix III) for the distribution and abundance of the annual nesting effort in individual Caribbean nations and territories.

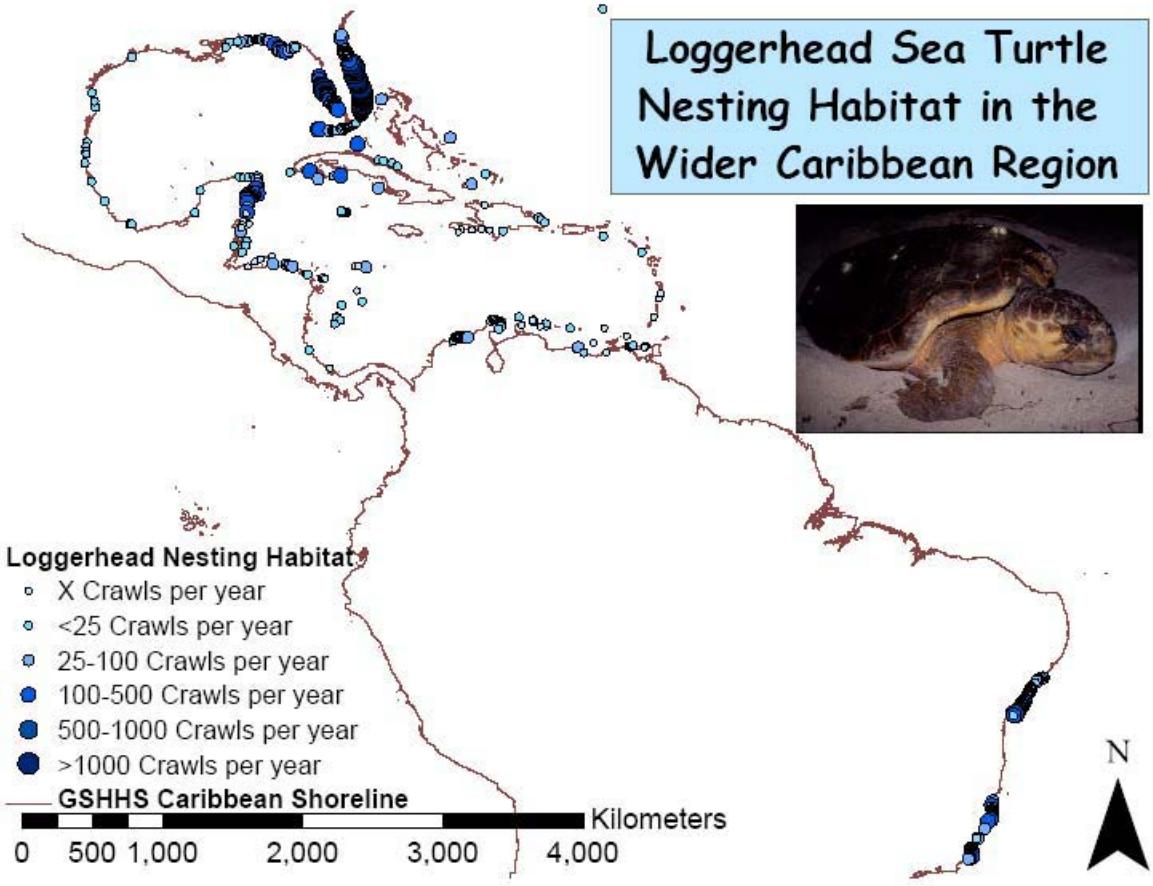


Figure 4. All known nesting sites (n=552) for loggerhead sea turtles (*Caretta caretta*) in the Wider Caribbean Region, and including Bermuda and Brazil.

[4] In all cases (Figures 4-9), in keeping with the defined northern boundary (30°N latitude) of the Wider Caribbean Region (UNEP 1983), only nesting beaches in Texas, Louisiana, Mississippi, Alabama and Florida were mapped and included in analyses. Nests deposited north of Florida comprise less than 10% of the nation's loggerhead sea turtle nesting each year (NOAA and FWS 2007a).

[5] The general view of local experts is that beaches where nesting is known to occur but where data are insufficient to estimate colony size (e.g. number of crawls per year), are low density sites most likely to fall in the "fewer than 25 crawls per year" category.

Green sea turtles (*Chelonia mydas*) nest throughout the Wider Caribbean Region (Figure 5). Tortuguero Beach in Costa Rica recorded over 50,000 crawls during the 2005 nesting season (de Haro and Troëng 2006a) and is by far the largest nesting colony of green turtles in the region. The 32 beaches reporting more than 500 crawls per year are broadly distributed along the continental margins of Brazil, Costa Rica, French Guiana, Mexico, Suriname, and the USA (Florida)[6]; the only insular sites in this category are in Venezuela (Aves Island) and Cuba. More than half (52%) of all known nesting beaches support fewer than 25 crawls per year; in 24% of sites, data are insufficient to estimate annual crawl abundance.[7] Refer to Table 1 and Table 2 for additional detail, and the National Reports (see Appendix III) for the distribution and abundance of the annual nesting effort in individual Caribbean nations and territories.

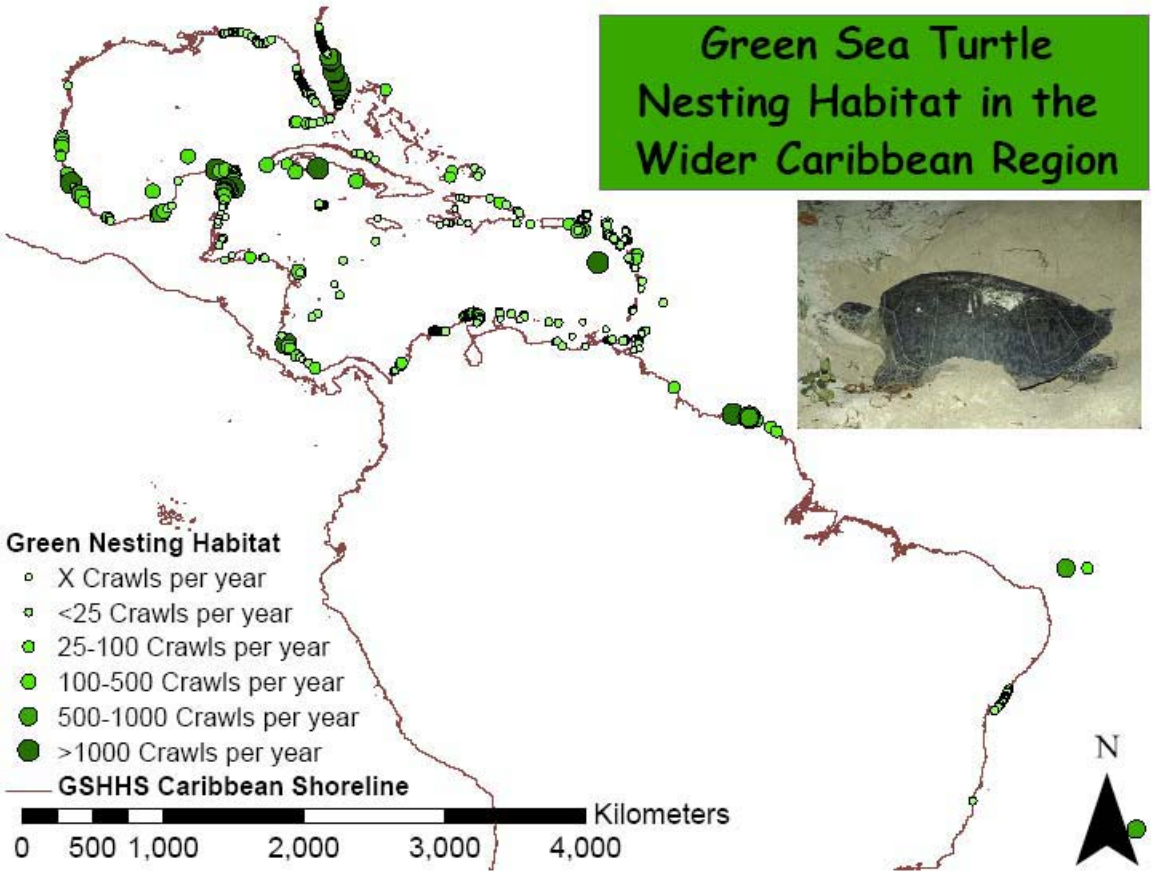


Figure 5. All known nesting sites (n=593) for green sea turtles (*Chelonia mydas*) in the Wider Caribbean Region, and including Bermuda and Brazil.

[6] In keeping with the defined northern boundary (30°N latitude) of the Wider Caribbean Region (UNEP 1983), only nesting beaches in Texas, Louisiana, Mississippi, Alabama and Florida were mapped and included in analyses. Nesting is rarely reported north of Florida (Woodson and Webster 1999, Williams et al. 2006).

[7] The general view of local experts is that beaches where nesting is known to occur but where data are insufficient to estimate colony size (e.g. number of crawls per year), are low density sites most likely to fall in the "fewer than 25 crawls per year" category.

Many of the largest leatherback sea turtle (*Dermochelys coriacea*) nesting colonies in the world are found in the Wider Caribbean Region. Ten colonies with more than 1,000 crawls per year are clustered in the southern (and mostly southeastern) sector of the region (Panama, Trinidad, Suriname, French Guiana). Four additional sites report between 500 and 1,000 crawls per year and are more broadly distributed, located in Costa Rica, Guyana, Suriname, and the US Virgin Islands (Figure 6).[8] More than half (58%) of all known nesting beaches support very small colonies, fewer than 25 crawls per year, and 21% have unknown crawl abundances.[9] Refer to Table 1 and Table 2 for additional detail, and the National Reports (see Appendix III) for the distribution and abundance of the annual nesting effort in individual Caribbean nations and territories.

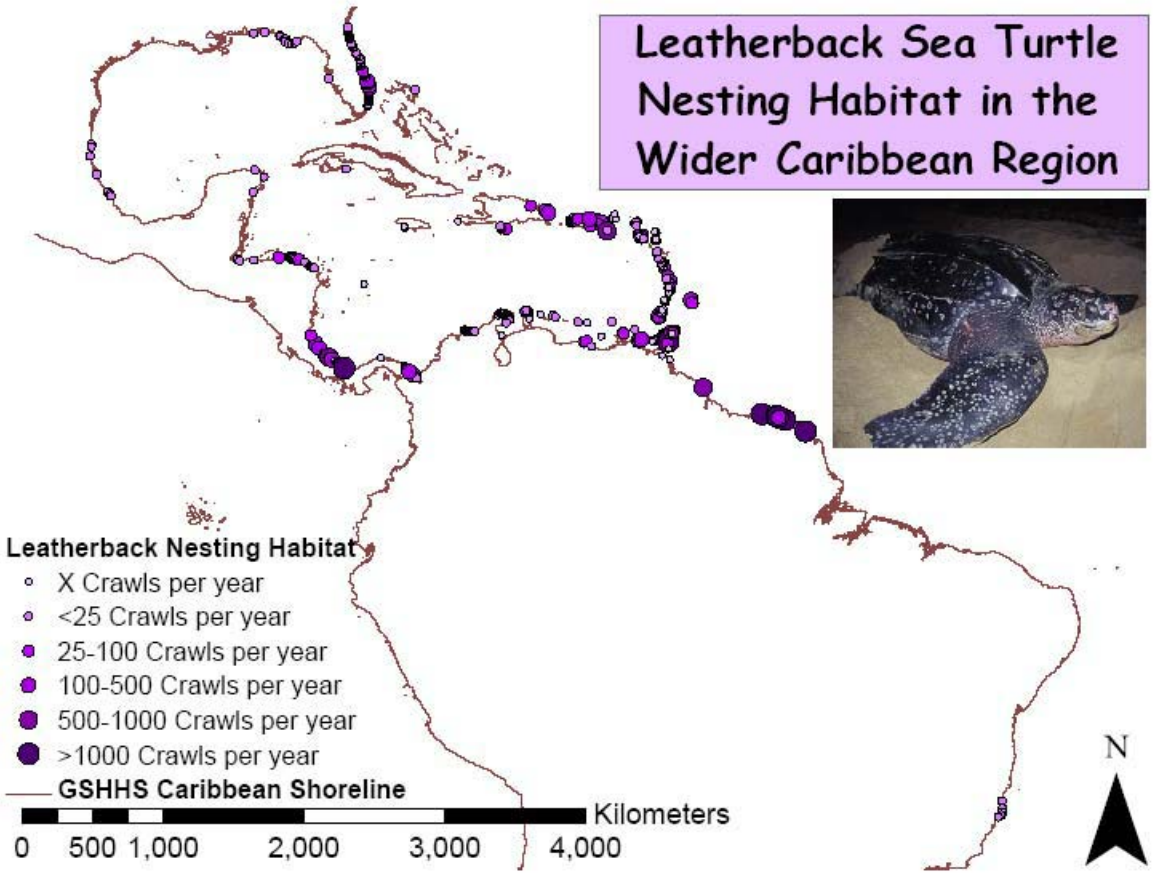


Figure 6. All known nesting sites (n=470) for leatherback sea turtles (*Dermochelys coriacea*) in the Wider Caribbean Region, and including Bermuda and Brazil.

[8] In keeping with the defined northern boundary (30°N latitude) of the Wider Caribbean Region (UNEP 1983), only nesting beaches in Texas, Louisiana, Mississippi, Alabama and Florida were mapped and included in analyses. Occasional nesting is also reported in Georgia, South Carolina and North Carolina and a single nesting is known from Assateague Island National Seashore in Maryland (Rabon et al. 2003).

[9] The general view of local experts is that beaches where nesting is known to occur but where data are insufficient to estimate colony size (e.g. number of crawls per year), are low density sites most likely to fall in the "fewer than 25 crawls per year" category.

Hawksbill sea turtles (*Eretmochelys imbricata*) nest in typically low densities throughout the Wider Caribbean Region and nesting does not occur north of Florida in the USA (Meylan and Redlow 2006). Only three sites – Mona Island (Puerto Rico), the west coast of Barbados, and Punta Xen (Mexico) – support more than 1,000 crawls per year (Figure 7). Five countries report nesting beaches with between 500 and 1,000 crawls per year, half of these sites are situated along the Yucatan Peninsula in Mexico and the others are located in Barbados, Panama, and the US Virgin Islands. Thirty-six of 817 (4.4%) nesting beaches support more than 100 crawls per year, in contrast, 52% receive fewer than 25 crawls per year and 33% have unknown crawl abundances.[10] Refer to Table 1 and Table 2 for additional detail, and the National Reports (see Appendix III) for the distribution and abundance of the annual nesting effort in individual Caribbean nations and territories.

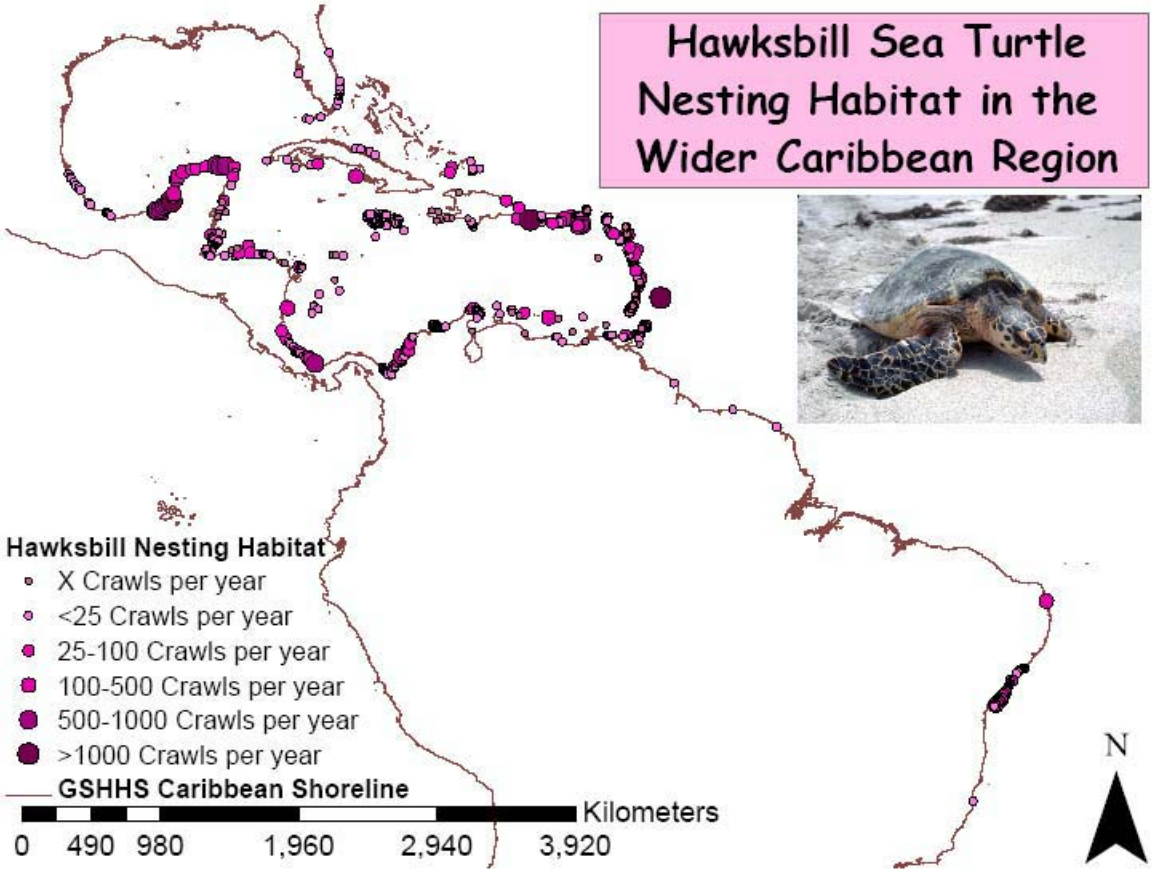


Figure 7. All known nesting sites (n=817) for hawksbill sea turtles (*Eretmochelys imbricata*) in the Wider Caribbean Region, and including Bermuda and Brazil.

[10] The general view of local experts is that beaches where nesting is known to occur but where data are insufficient to estimate colony size (e.g. number of crawls per year), are low density sites most likely to fall in the "fewer than 25 crawls per year" category.

Kemp's ridley sea turtles (*Lepidochelys kempii*) nest exclusively in the northern latitudes of the Wider Caribbean Region (Figure 8), primarily in Mexico and secondarily in the USA (Texas and Florida).[11] As is the case with the hawksbill turtle (Figure 7), there are only three sites known to receive more than 1,000 crawls per year. These sites are all located in the state of Tamaulipas, Mexico; the largest of these – Rancho Nuevo – received approximately 7,866 nests in 2006 (NOAA and FWS 2007b). Every known nesting site can be characterized in terms of an estimated number of crawls per year; the majority (61%) receive fewer than 25 crawls per year, but many small colonies are reported to be increasing. Refer to Table 1 and Table 2 for additional detail, and the National Reports (see Appendix III) for the distribution and abundance of the annual nesting effort in individual Caribbean nations and territories.

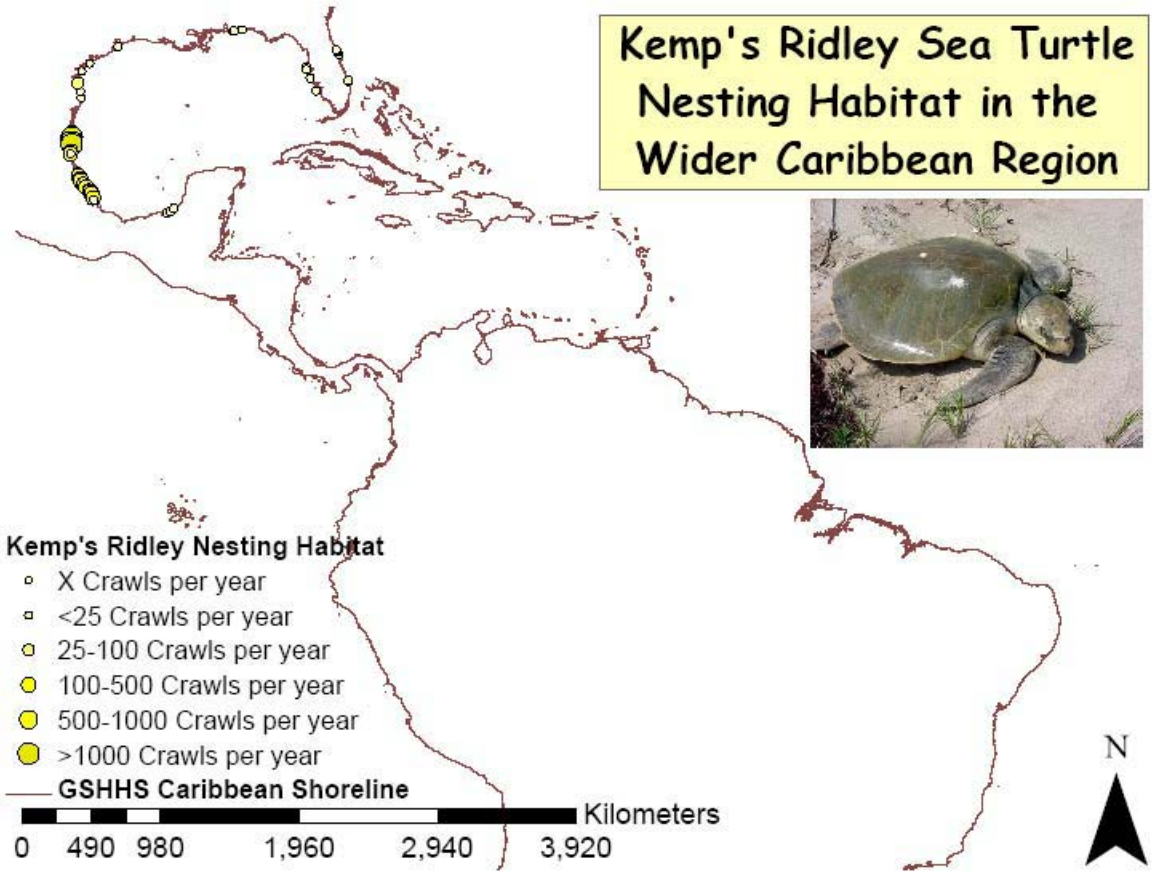


Figure 8. All known nesting sites (n=41) for Kemp's ridley sea turtles (*Lepidochelys kempii*) in the Wider Caribbean Region, and including Bermuda and Brazil.

[11] In keeping with the defined northern boundary (30°N latitude) of the Wider Caribbean Region (UNEP 1983), only nesting beaches in Texas, Louisiana, Mississippi, Alabama and Florida were mapped and included in analyses. It is worth noting, in the context of the restricted reproductive range of this species, that nesting, while extremely rare, also occurs in Alabama, Georgia, South Carolina and North Carolina ("eight total nests recorded between them": Donna Shaver, Chief, Division of Sea Turtle Science and Recovery, Padre Island National Seashore, US National Park Service, in litt. 29 October 2007).

Olive ridley sea turtles (*Lepidochelys olivacea*) nest primarily in the Guianas, with the largest nesting colonies located in Brazil, French Guiana, and Suriname (Figure 9). Relatively minor nesting occurs in Guyana and occasional nesting is reported in Trinidad and Tobago, Curaçao, and other southern Caribbean locations. Nearly half (45%) of all nesting sites support fewer than 25 crawls per year; only 8% of sites are associated with unknown crawl abundances.[12] A decline of more than 90% in the number of breeding-age adults in Suriname, until recently the region's largest olive ridley nesting colony, is attributed to fisheries interactions (summarized by Reichart and Fretey 1993, Reichart et al. 2003). Refer to Table 1 and Table 2 for additional detail, and the National Reports (see Appendix III) for the distribution and abundance of the annual nesting effort in individual Caribbean nations and territories.

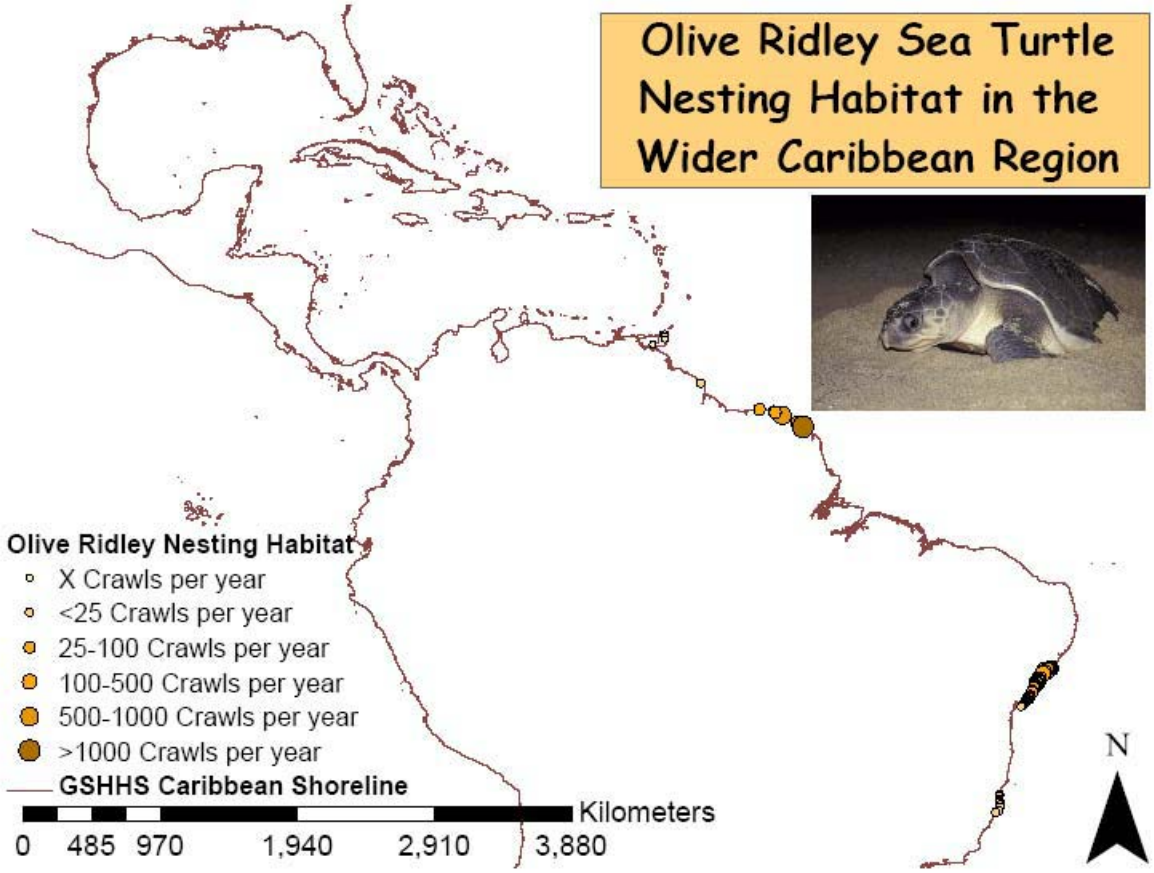


Figure 9. All known nesting sites (n=62) for olive ridley sea turtles (*Lepidochelys olivacea*) in the Wider Caribbean Region, and including Bermuda and Brazil.

[12] The general view of local experts is that beaches where nesting is known to occur but where data are insufficient to estimate colony size (e.g. number of crawls per year), are low density sites most likely to fall in the "fewer than 25 crawls per year" category.

In summary, a large majority (50.6%) of nesting sites receive fewer than 25 crawls per year by any particular species. In contrast, 13.9%, 8.0%, 1.9% and 2.3% receive an estimated 25 to 100, 100 to 500, 500 to 1,000 or more than 1,000 crawls per year, respectively (Figure 10). Approximately one in four (23.4%) sites cannot, with the information available, be characterized and ranked by colony size. These are unlikely to be high density nesting grounds. The frequency distribution for individual species illustrates a similar pattern, although species specific differences are evident (Figure 11).

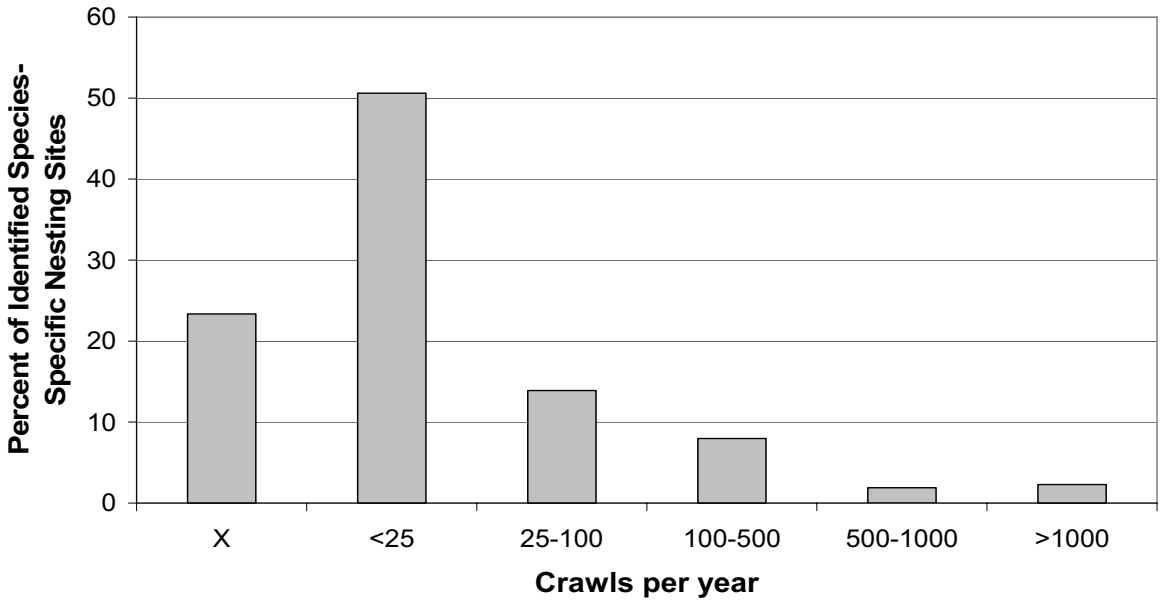


Figure 10. Frequency distribution of the number of crawls per year among the 2,535 identified species-specific nesting sites for sea turtles in the Wider Caribbean Region.

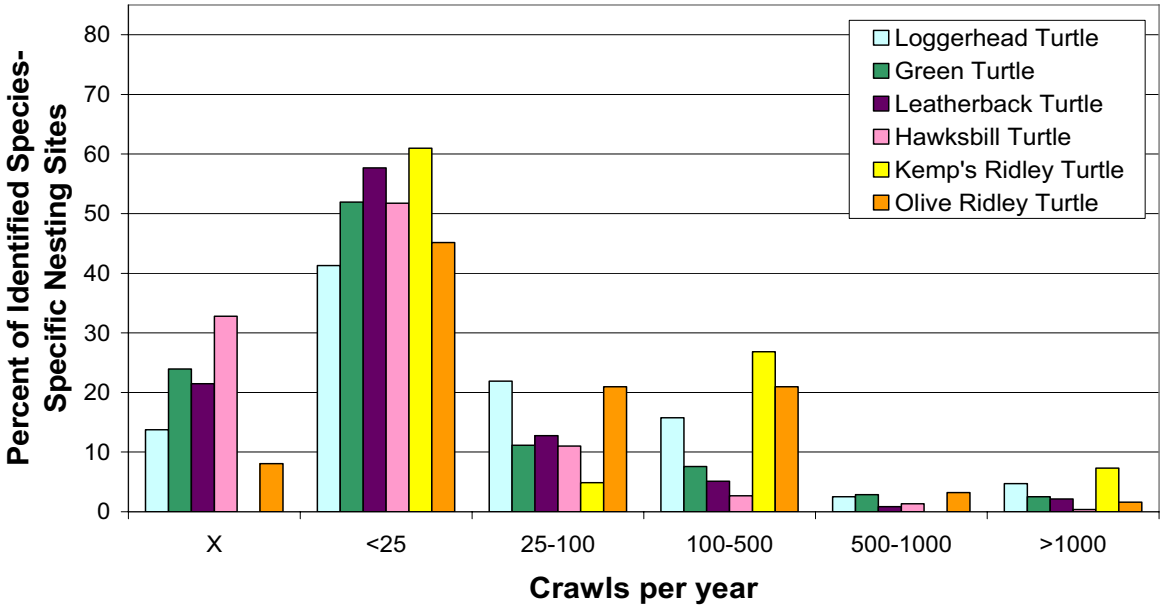


Figure 11. Frequency distribution of the number of crawls per species per year for the 2,535 identified species-specific nesting sites for sea turtle in the Wider Caribbean Region.

Active Threats and Protection Policies: Summary of Findings

Of the 43 nations and territories examined, 29 have legislated indefinite complete protection for sea turtles; in addition to these, Anguilla has adopted a moratorium set to expire in 2020 (Figure 12, Table 4). Eight of the 30 nations and territories, including Anguilla, where sea turtles are protected year-around, provide for exceptions relating to "traditional" or "subsistence" exploitation. Of these 30 jurisdictions, 22 report the taking of turtles on the nesting beach, 21 report the taking of turtles at sea, and 22 report the collection of eggs, all in contravention of existing law; only five describe enforcement of sea turtle protection laws as "adequate".

Thirteen nations and territories operate under regulatory regimes that leave one or more species seasonally subject to exploitation; with the singular exception of the Cayman Islands (which recently legislated maximum size limits for the sea turtle fishery), minimum size limits are the norm.

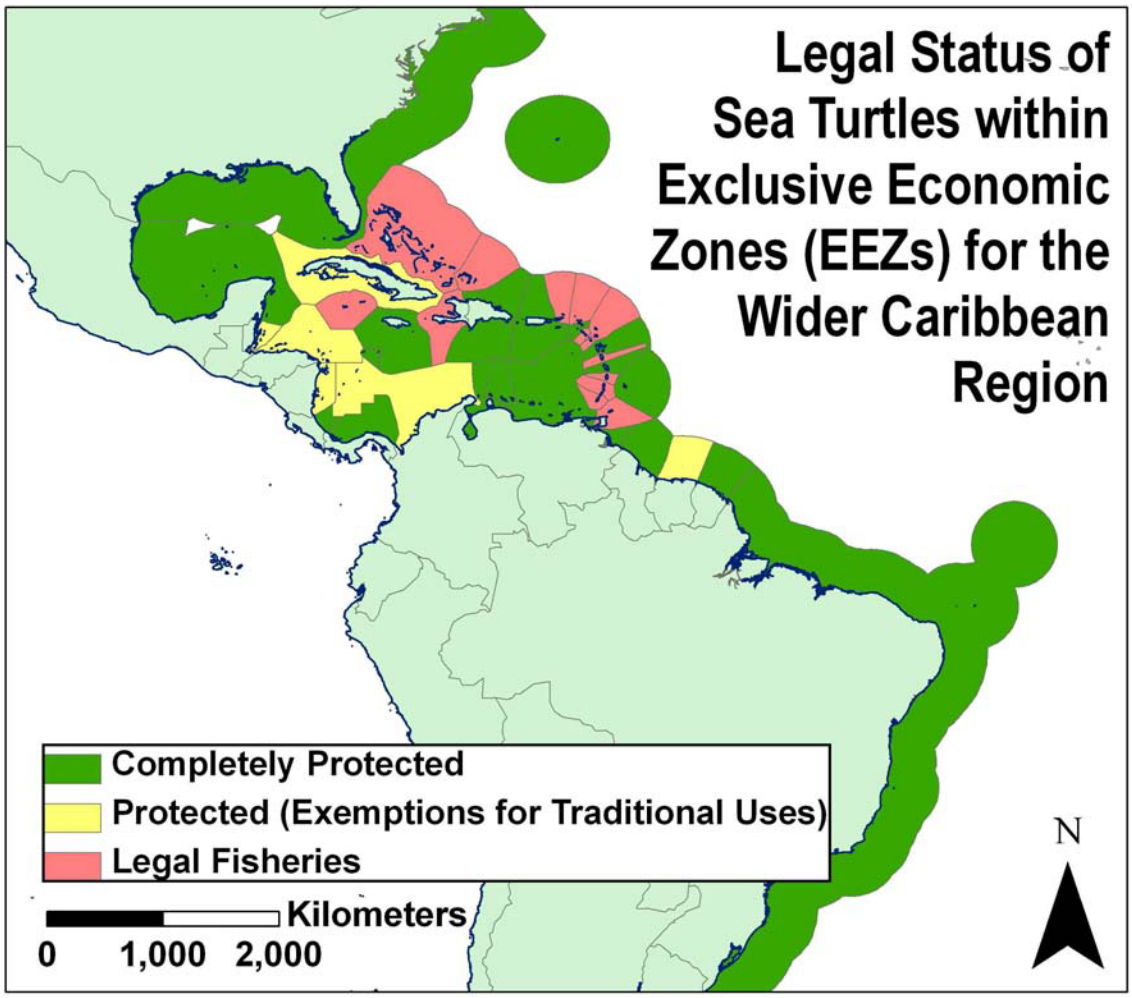


Figure 12. Summary of legal regimes protecting sea turtles in the Wider Caribbean Region, and including Bermuda and Brazil.

In addition to the legal and illegal exploitation of sea turtles and eggs, habitat loss (e.g. beach erosion, coral reef degradation, artificial beachfront lighting, pollution) and fisheries interactions

top a long list of factors (see Table 3) that threaten the survival of Caribbean sea turtles at their nesting (Table 5) and foraging (Table 6) grounds. From a region-wide perspective, mechanized beach cleaning, beach rebuilding (nourishment), offshore lighting, and power plant entrapment would appear to be least threatening to sea turtle populations.

Table 3. The proportion of Wider Caribbean nations and territories (n=41 in the case of nesting beaches, nesting being insignificant in Bermuda and Saba; n=43 in the case of foraging grounds) citing the factor as both present and constituting a threat to sea turtles. Data were assembled from responses to a standardized survey (see Appendix II) completed by local experts in each jurisdiction. The proportion of nations and territories characterizing the threat as "Frequent" appears in parentheses; this proportion does not differentiate between "Frequent" (F) on a national scale and "Frequent in Some Areas" (FA).

Threats to sea turtles on the beach (nesting/hatching) in the Wider Caribbean Region.	
Beach Erosion/Accretion	.95 (.21)
Nest Loss to Abiotic Factors	.95 (.18)
Artificial Lighting	.85 (.46)
Egg Collection by Humans	.85 (.37)
Killing of Nesting Females by Humans	.83 (.24)
Pollution	.83 (.21)
Nest Loss to Predators	.78 (.19)
Exotic (or Loss of Native) Vegetation	.68 (.43)
Recreational Beach Equipment and/or Other Obstacles	.68 (.39)
Beach Vehicular Use	.68 (.39)
Sand Mining	.68 (.36)
Harassment Due to Increased Human Presence	.66 (.19)
Beach Armouring/Stabilization Structures	.59 (.17)
Livestock Presence on the Beach	.56 (.13)
Mechanized Beach Cleaning	.39 (.31)
Beach Nourishment	.34 (.07)
Killing of Nesting Females by Predators	.32 (.15)

Threats to sea turtles in water (foraging/migration) in the Wider Caribbean Region.	
Pollution	.93 (.13)
Fisheries Bycatch	.91 (.38)
Entanglement	.91 (.26)
Coral Reef Degradation	.88 (.13)
Hunting/Poaching	.79 (.38)
Predators	.77 (.03)
Seagrass Degradation	.77 (.09)
Boat/Personal Water Craft Collisions	.67 (.07)
Disease/Parasites	.67 (.03)
Harassment Due to Increased Human Presence	.65 (.14)
Marina and Dock Development	.56 (.42)
Dredging	.42 (.11)
Oil and Gas Exploration, Development, Transportation	.40 (.00)
Offshore Artificial Lighting	.21 (.00)
Power Plant Entrapment	.14 (.00)

Table 4. National policy for the protection of sea turtles in the Wider Caribbean Region.

Marine Ecoregions with Countries/Territories	Complete (indefinite) protection	Moratorium (fixed period)	Prohibition(s) on take	Closed season	Minimum size limits	Maximum size limits	Annual quota
Bahamian							
Bahamas	No	No	E, NF, HB	Yes	Yes	No	No
Turks & Caicos Islands (GB)	No	No	E, N, NF	No	Yes	No	No
Greater Antilles							
Cuba	Yes*	–	E, N, NF	Yes	Yes	No	Yes
Cayman Islands (GB)	No*	No	E, N, NF	Yes	No	Yes	Yes
Jamaica	Yes	–	–	–	–	–	–
Haiti	No	No	E, NF	Yes	No	No	No
Dominican Republic	Yes	–	–	–	–	–	–
Puerto Rico (US)	Yes	–	–	–	–	–	–
Eastern Caribbean							
British Virgin Islands (GB)	No	Yes (LB & LG)	E, LB, LG	Yes	Yes	No	No
US Virgin Islands (US)	Yes	–	–	–	–	–	–
Anguilla (GB)	No	Yes (until 2020)	–	–	–	–	–
Sint Maarten (AN)	Yes	–	–	–	–	–	–
Saba (AN)	Yes	–	–	–	–	–	–
Sint Eustatius (AN)	Yes	–	–	–	–	–	–
Saint Kitts & Nevis	No	No	E, N, NF	Yes	Yes	No	No
Antigua & Barbuda	No	No	E, N	Yes	Yes	No	No
Montserrat (GB)	No	No	No	Yes	Yes	No	No
Guadeloupe (FR)	Yes	–	–	–	–	–	–
Dominica	No	No	E, N, NF	Yes	Yes	No	No
Martinique (FR)	Yes	–	–	–	–	–	–
Saint Lucia	No	No*	E, N, NF	Yes	Yes	No	No
Barbados	Yes	–	–	–	–	–	–
Saint Vincent & Grenadines	No	No	E, N	Yes	Yes	No	No
Grenada	No	No	E, N, NF, LB	Yes	Yes	No	No
Guianan							
French Guiana (FR)	Yes	–	–	–	–	–	–
Suriname	Yes*	–	–	–	–	–	–
Guyana	Yes	–	–	–	–	–	–
Southern Caribbean							
Trinidad & Tobago	No	No	E	Yes	No	No	No
Venezuela	Yes	–	–	–	–	–	–
Bonaire (AN)	Yes	–	–	–	–	–	–
Curacao (AN)	Yes	–	–	–	–	–	–
Aruba (NL)	Yes	–	–	–	–	–	–
Southwestern Caribbean							
Colombia	Yes*	–	HB	No	No	No	No
Panama	Yes	–	–	–	–	–	–
Costa Rica	Yes*	–	–	–	–	–	–
Nicaragua	Yes*	–	No	Yes	No	No	No
Western Caribbean, Gulf of Mexico and Florida							
Honduras	Yes*	–	No	No	No	No	No
Guatemala	Yes*	–	–	No	No	No	No
Belize	Yes*	–	–	No	No	No	No
Mexico	Yes	–	–	–	–	–	–
USA	Yes	–	–	–	–	–	–
Bermuda							
Bermuda (GB)	Yes	–	–	–	–	–	–
Brazilian							
Brazil	Yes	–	–	–	–	–	–

E = Eggs; N = Nests; NF = Nesting Females; HB = Hawksbill; LB = Leatherback; LG = Loggerhead; I = Insufficient; * See Note(s) in Country Report

Table 4. National policy for the protection of sea turtles in the Wider Caribbean Region.

Permits/ licenses required	Gear restrictions	Area closures	Reports of exploitation/ sale nationally	Reports of illegal trade inter-nationally	General public awareness of laws	Recent pro-secutions or penalties	Enforcement considered adequate	Penalties are an adequate deterrent
No*	Yes	Yes	Yes	Yes*	No (I)	Yes	No	No
No	No	Yes	Yes	Yes	No	No	No	Unknown
Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
–	No	Yes	Yes	No	Yes	Yes	No	No
Yes	No	No	Yes	No	No	No	No	No
–	No	Yes	Yes	Yes	No	No	No	No
Yes*	Yes	Yes	Yes	Yes*	Yes	Yes	No	No
Yes	Yes*	Yes	Yes	Yes*	Yes	Yes*	No	No
Yes*	Yes	Yes	Yes	Yes*	Yes	Yes	No	Yes*
–	Yes	No	Yes	No	Yes	No	No	Yes
–	No	No*	Yes	Yes	No	Yes	No	Yes
–	Yes	Yes	No	No	Yes	No	No	Yes
–	No	Yes	Yes	No	Yes	No	Yes	Yes
No	Yes	No	Yes	Yes	Yes	Unknown	No	Yes
Yes*	Yes*	Yes	Yes	Yes	No	No	No	Yes
No	No	No	Yes	Yes	Yes	Unknown	No	No
–	Yes	Yes	Yes	No	Yes	Yes	No	Yes
No	No	Yes	Yes	Yes	Yes	Yes	No	No
–	No	No	Yes	Unknown	Yes	Yes	No	Yes
No	Yes	Yes	Yes	Yes*	Yes	Yes	No	No
–	No	Yes	Yes	No	Yes	No	No	Yes
No	Yes	Yes	Yes	Yes	Yes	Unknown	No	Yes
Yes	Yes	No	Yes	Yes	Yes	No	No	Unknown
–	No	Yes	Yes	Yes	Yes	Yes	No (I)	Yes
No	Yes	Yes	Yes	No	Yes	Yes*	No	No
Yes	Yes	Yes	Unknown	Unknown	No (I)	Unknown	No	Unknown
No	Yes	Yes	Yes	Yes	No	Yes	No (I)	No
–	Yes	Yes	Yes	Yes	No	Yes	No	Yes
Yes	No	Yes	Yes	No	No (I)	No	No (I)	Yes
–	No	Yes	Yes	Unknown*	Yes	No	No	Yes
–	No	No	Yes	Yes	Yes	Yes	No	Yes
No	Yes	Yes	Yes	Yes	No	Unknown	No	Unknown
Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
–	Yes	Yes	Yes	Yes	No	Yes	No	Yes
No	Yes	No	Yes	Yes	Yes	Yes	No	No
No	Yes	Yes	Yes	Yes	No	Unknown	No	Unknown
Yes*	Yes	Yes	Yes	Yes	No	Yes	No	Yes
Yes	Yes	Yes	Yes	Yes	No (I)	Yes*	No (I)	Yes
–	Yes	Yes	Yes	Yes	Yes	No	No	Yes
Yes*	Yes	Yes	No	No	Yes	No	Yes	Yes
–	Yes	Yes	No	No	Yes	No	Yes	Yes
–	No	Yes	Yes*	No	Yes	No	Yes	No (I)

E = Eggs; N = Nests; NF = Nesting Females; HB = Hawksbill; LB = Leatherback; LG = Loggerhead; I = Insufficient; * See Note(s) in Country Report

Table 5. Threats to sea turtles on the beach (nesting/hatching) in the Wider Caribbean Region.

Marine Ecoregions with Countries/Territories	Killing of Nesting Females by Humans	Killing of Nesting Females by Predators	Nest Loss to Predators	Nest Loss to Abiotic Factors	Egg Collection by Humans	Harassment Due to Humans	Artifical Lighting
Bahamian							
Bahamas	Yes (R)	No	No	Yes (U)	Yes (FA)	No	Yes (R)
Turks & Caicos Islands (GB)	Yes (R)	No	No	Yes (U)	Yes (R)	No	No
Greater Antilles							
Cuba	Yes (O)	No	Yes (O)	Yes (U)	Yes (O)	Yes (O)	Yes (O)
Cayman Islands (GB)	Yes (R)	No	No	Yes (R)	Yes (R)	Yes (R)	Yes (O)
Jamaica	Yes (F)	No	Yes (U)	Yes (U)	Yes (F)	No	Yes (FA)
Haiti	Yes (U)	No	No	Yes (R)	Yes (F)	No	No
Dominican Republic	Yes (O)	Yes (R)	Unknown	Unknown	Yes (U)	No	Unknown
Puerto Rico (US)	Yes (O)	No	Yes (F)	Yes (U)	Yes (O)	Yes (R)	Yes (F)
Eastern Caribbean							
British Virgin Islands (GB)	Yes (R)	No	Yes (R)	Yes (U)	Yes (R)	Yes (FA)	Yes (U)
US Virgin Islands (US)	Yes (R)	Yes (O)	Yes (O)	Yes (O)	Yes (O)	Yes (R)	Yes (F)
Anguilla (GB)	No	No	Yes (R)	Yes (O)	Yes (U)	No	Yes (F)
Sint Maarten (AN)	Yes (R)	No	No	Yes (U)	No	Yes (FA)	Yes (F)
Saba (AN)	NA	NA	NA	NA	NA	NA	NA
Sint Eustatius (AN)	No	No	No	Yes (U)	No	No	Yes (R)
Saint Kitts & Nevis	Yes (R)	No	Yes (O)	Yes (U)	Yes (R/O)	Yes (U)	Yes (U)
Antigua & Barbuda	No	No	Yes (U)	Yes (U)	Yes (O)	Yes (R)	Yes (F)
Montserrat (GB)	Yes (R)	No	Yes (U)	Yes (U)	Yes (U)	Unknown	Unknown
Guadeloupe (FR)	Yes (R)	Yes (R)	Yes (R)	Yes (R)	Yes (R)	No	Yes (F)
Dominica	Yes (F)	Yes (R)	Yes (O)	Yes (F)	Yes (F)	Yes (F)	Yes (O)
Martinique (FR)	Yes (O)	No	Yes (O)	Yes (FA)	Yes (O)	Yes (O)	Yes (F)
Saint Lucia	Yes (F)	Yes (R)	Yes (O)	Yes (O)	Yes (O)	Yes (O)	Yes (O)
Barbados	Yes (O)	Yes (O)	Yes (O)	Yes (F)	Yes (O)	Yes (R)	Yes (F)
Saint Vincent & Grenadines	Yes (O)	Unknown	Yes (U)	Yes (U)	Yes (FA)	Unknown	Yes (O)
Grenada	Yes (O/F)	No	Yes (O)	Yes (U)	Yes (F)	Yes (U)	Yes (FA)
Guianan							
French Guiana (FR)	Yes (R)	Yes (O)	Yes (O)	Yes (F)	Yes (R/O)	Yes (O)	Yes (FA)
Suriname	No	Unknown	Yes (U)	Yes (U)	Yes (U)	Yes (O)	Yes (U)
Guyana	Yes (F)	No	Yes (R)	Yes (F)	Yes (F)	Yes (R)	Yes (R)
Southern Caribbean							
Trinidad & Tobago	Yes (F)	No	Yes (R)	Yes (F)	Yes (O)	Yes (O)	Yes (O)
Venezuela	Yes (F)	Yes (O/F)	Yes (F)	Yes (U)	Yes (F)	Yes (R)	Yes (U)
Bonaire (AN)	Yes (R)	No	No	Yes (U)	No	No	Yes (R)
Curacao (AN)	No	No	No	No	No	No	No
Aruba (NL)	No	No	Yes (R)	Yes (O)	No	Yes (R)	Yes (F)
Southwestern Caribbean							
Colombia	Yes (R/O)	Yes (R)	Yes (R/O)	Yes (U)	Yes (F)	No	Yes (R/O)
Panama	Yes (O)	No	Yes (F)	Yes (F)	Yes (F)	Yes (F)	Yes (O)
Costa Rica	Yes (F)	Yes (F)	Yes (U)	Yes (U)	Yes (F)	No	No
Nicaragua	Yes (O)	No	Yes (O)	Yes (O)	Yes (F)	Yes (O)	Yes (FA)
Western Caribbean, Gulf of Mexico and Florida							
Honduras	Yes (R)	Yes (U)	Yes (F)	Yes (U)	Yes (U)	Yes (F)	Yes (FA)
Guatemala	Yes (R)	No	Yes (O)	Yes (O)	Yes (F)	Yes (O)	Yes (R)
Belize	No	Unknown	Yes (U)	Yes (U)	No	Yes (U)	Yes (U)
Mexico	Yes (O)	No	Yes (F)	Yes (O)	Yes (O)	Yes (R)	Yes (F)
USA	Yes (R)	Yes (R)	Yes (O/F)	Yes (U)	Yes (R)	Yes (R/O)	Yes (O)
Bermuda							
Bermuda (GB)	NA	NA	NA	NA	NA	NA	NA
Brazilian							
Brazil	Yes (O)	Yes (R)	Yes (O)	Yes (O)	Yes (O)	Yes (O)	Yes (FA)

Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown; NA = Not Applicable

Table 5. Threats to sea turtles on the beach (nesting/hatching) in the Wider Caribbean Region.

Pollution	Beach Erosion/ Accretion	Beach Armouring/ Stabilization Structures	Beach Nourish-ment	Beach Obstacles	Mechanized Beach Cleaning	Beach Vehicular Use	Sand Mining	Exotic (or Loss of Native) Vegetation	Live-stock on the Beach
Yes (U)	Yes (U)	Yes (FA)	No	Yes (O)	No	No	Yes (O)	Yes (U)	No
No	No	No	No	No	No	No	No	No	No
Yes (U)	Yes (U)	Unknown	Yes (FA)	Yes (FA)	Yes (O)	Yes (O)	Yes (R)	Yes (R)	Yes (O)
No	Yes (R)	No	No	Yes (R)	Yes (R)	Yes (R)	No	Yes (R)	No
No	Yes (U)	Yes (U)	No	No	No	No	Yes (U)	No	Yes (U)
Yes (U)	Yes (U)	No	No	No	No	No	No	No	No
Yes (U)	Yes (U)	Yes (O)	Yes (R)	Yes (F)	Yes (FA)	Yes (O)	Yes (FA)	Yes (F)	Yes (R)
Yes (U)	Yes (U)	Yes (R)	No	Yes (FA)	Yes (FA)	No	Yes (R)	Yes (F)	Yes (O)
Yes (U)	Yes (U)	No	No	Yes (FA)	No	Yes (R)	No	Yes (R)	Yes (R)
Yes (U)	Yes (O)	No	No	Yes (U)	No	Yes (O)	No	Yes (O)	No
No	Yes (O)	No	Yes (O)	Yes (F)	No	Yes (F)	Yes (FA)	Yes (O)	No
Yes (U)	Yes (U)	No	No	Yes (O)	No	Yes (F)	No	No	No
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Yes (U)	Yes (O)	No	No	No	No	Yes (O)	Yes (R/O)	No	Yes (O)
Yes (U)	Yes (U)	Yes (U)	Yes (R)	Yes (U)	Yes (U)	Yes (F)	Yes (FA)	Yes (F)	Yes (F)
Yes (U)	Yes (U)	Yes (U)	Yes (U)	Yes (F)	Yes (R)	Yes (R)	Yes (U)	Yes (U)	Yes (R)
Unknown	Yes (U)	Unknown	Unknown	Unknown	Unknown	Unknown	Yes (U)	Yes (U)	Unknown
Yes (U)	Yes (U)	No	No	Yes (R)	Yes (O)	Yes (F)	Yes (F)	Yes (F)	No
Yes (U)	Yes (F)	Yes (O)	Yes (R)	Yes (R/O)	No	Yes (O)	Yes (O)	Yes (R)	Yes (R)
Yes (O)	Yes (FA)	Yes (F)	Unknown	No	Yes (O)	Yes (O)	Yes (O)	Yes (F)	No
Yes (U)	Yes (U)	Yes (O)	Yes (R)	Yes (O)	No	Yes (O)	Yes (O)	No	Yes (R)
Yes (U)	Yes (F)	Yes (FA)	Yes (R)	Yes (FA)	Yes (FA)	Yes (FA)	Yes (R)	Yes (F)	No
Yes (U)	Yes (U)	Yes (O)	Yes (R)	Yes (O)	Yes (R)	Yes (R)	Yes (F)	Yes (R)	Yes (R)
Yes (U)	Yes (F)	Yes (O)	No	Yes (O)	No	Yes (O/F)	Yes (F)	Yes (F)	Yes (F)
No	Yes (U)	Yes (O)	No	Yes (FA)	Yes (R/O)	Yes (R)	No	No	No
Yes (U)	Yes (U)	No	No	No	No	No	No	No	No
Yes (U)	Yes (U)	No	No	No	No	No	Yes (R)	Yes (R)	Yes (U)
Yes (F)	Yes (F)	Yes (U)	No	Yes (U)	No	Yes (O)	Yes (F)	Yes (R)	No
Yes (U)	Yes (U)	Yes (O)	Yes (R)	Yes (F)	Yes (R)	Yes (O)	Yes (O)	Yes (F)	Yes (O)
Yes (U)	Yes (U)	No	No	No	No	No	Yes (FA)	No	No
No	No	No	No	No	No	No	No	No	Yes (R)
Yes (O)	Yes (O)	Yes (O)	Yes (R)	Yes (F)	Yes (F)	Yes (F)	No	Yes (F)	No
Yes (U)	Yes (U)	Yes (R/O)	No	Yes (R)	No	Yes (U)	Yes (R)	No	Yes (U)
Yes (F)	Yes (F)	Yes (R)	No	Yes (R)	No	Yes (R)	Yes (F)	No	Yes (R)
Yes (U)	Yes (U)	No	No	No	No	Yes (O)	No	Yes (U)	No
Yes (F)	Yes (FA)	Yes (O)	No	No	No	No	Yes (FA)	Yes (FA)	Yes (FA)
Yes (F)	Yes (F)	Yes (R)	Yes (U)	Yes (R)	Yes (R)	Yes (F)	Yes (R)	Yes (F)	Yes (R)
Yes (F)	Yes (R)	No	No	Yes (R)	No	No	No	Unknown	Yes (U)
Yes (U)	Yes (U)	Yes (U)	No	No	No	No	Yes (U)	Yes (U)	No
Yes (F)	Yes (O)	Yes (F)	Yes (O)	Yes (R)	Yes (R)	Yes (FA)	Yes (R)	Yes (O)	Yes (R)
Yes (F)	Yes (U)	Yes (O)	Yes (O)	Yes (F)	Yes (F)	Yes (F)	No	Yes (FA)	Yes (R)
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Yes (U)	Yes (U)	Yes (R)	No	Yes (O)	No	Yes (FA)	Yes (R)	Yes (U)	Yes (O)

Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown; NA = Not Applicable

Table 6. Threats to sea turtles at sea (foraging and migration) in the Wider Caribbean Region.

Marine Ecoregions with Countries/Territories	Seagrass Degredation	Coral Reef Degredation	Fisheries Bycatch	Hunting/ Poaching	Pollution	Predators	Disease/ Parasites
Bahamian							
Bahamas	Yes (U)	Yes (U)	No	Yes (U)	Yes (U)	Yes (U)	Yes (U)
Turks & Caicos Islands (GB)	Yes (U)	Yes (U)	Yes (F)	Yes (F)	Yes (U)	Yes (U)	Yes (U)
Greater Antilles							
Cuba	No	Yes (U)	Yes (F)	Yes (F)	Yes (R)	Yes (U)	Yes (R)
Cayman Islands (GB)	Unknown	Yes (U)	Yes (O)	Yes (R)	Yes (R)	Yes (R)	Yes (R)
Jamaica	No	Yes (U)	Yes (U)	Yes (U)	Yes (U)	Unknown	No
Haiti	Yes (U)	Yes (U)	Yes (U)	Yes (U)	Yes (U)	No	Unknown
Dominican Republic	Yes (U)	Yes (U)	Yes (F)	Yes (F)	Yes (U)	Yes (U)	Yes (R)
Puerto Rico (US)	Yes (U)	Yes (U)	Yes (R)	Yes (O)	Yes (U)	Yes (U)	Yes (U)
Eastern Caribbean							
British Virgin Islands (GB)	Yes (U)	Yes (U)	Yes (R)	Yes (O)	Yes (U)	Yes (U)	Yes (U)
US Virgin Islands (US)	Yes (U)	Yes (U)	Yes (R)	Yes (R)	Yes (R)	Yes (U)	Yes (U)
Anguilla (GB)	Yes (O)	Yes (F)	Yes (R)	Yes (U)	Yes (R)	Yes (U)	Yes (U)
Sint Maarten (AN)	Yes (U)	Yes (U)	Yes (U)	Yes (U)	Yes (U)	No	Yes (R)
Saba (AN)	Yes (U)	Yes (U)	No	Yes (R)	Yes (U)	Unknown	Unknown
Sint Eustatius (AN)	Unknown	Yes (U)	No	No	Yes (U)	Yes (U)	No
Saint Kitts & Nevis	Yes (U)	Yes (U)	Yes (U)	Yes (F)	Yes (U)	Yes (U)	Yes (U)
Antigua & Barbuda	Yes (U)	Yes (U)	Yes (R)	Yes (U)	Yes (U)	Yes (U)	Yes (R)
Montserrat (GB)	Yes (U)	Yes (U)	Yes (R)	Yes (U)	Unknown	Yes (U)	Unknown
Guadeloupe (FR)	Yes (U)	Yes (U)	Yes (F)	Yes (R)	Yes (U)	Yes (U)	Yes (U)
Dominica	Yes (U)	Yes (U)	Yes (F)	Yes (F)	Yes (U)	Unknown	Unknown
Martinique (FR)	Yes (F)	Yes (F)	Yes (F)	Yes (O)	Yes (F)	Yes (U)	Yes (R)
Saint Lucia	Yes (U)	Yes (U)	Yes (R)	Yes (F)	Yes (U)	Yes (U)	Yes (R)
Barbados	Yes (U)	Yes (U)	Yes (U)	No	Yes (U)	No	Yes (R)
Saint Vincent & Grenadines	Yes (R)	Yes (R)	Yes (R)	Yes (O)	Yes (U)	Yes (U)	Unknown
Grenada	Yes (U)	Yes (U)	Yes (F)	Yes (F)	Yes (U)	Yes (O)	Yes (U)
Guianan							
French Guiana (FR)	No	No	Yes (F)	No	No	Yes (U)	No
Suriname	No	No	Yes (O)	No	Yes (U)	No	No
Guyana	No	No	Yes (F)	No	Unknown	Yes (U)	No
Southern Caribbean							
Trinidad & Tobago	Yes (U)	Yes (U)	Yes (F)	Yes (F)	Yes (U)	Yes (R)	No
Venezuela	Yes (U)	Yes (U)	Yes (F)	Yes (F)	Yes (U)	Yes (U)	Yes (U)
Bonaire (AN)	No	Yes (R)	Yes (R)	Yes (R)	Yes (U)	Yes (U)	Yes (U)
Curacao (AN)	No	No	Yes (U)	Yes (R)	Yes (U)	No	Yes (U)
Aruba (NL)	Yes (U)	Yes (U)	Yes (R)	No	Yes (O)	Unknown	Unknown
Southwestern Caribbean							
Colombia	Yes (U)	Yes (U)	Yes (U)	Yes (F)	Yes (U)	Yes (U)	No
Panama	Yes (U)	Yes (U)	Yes (U)	Yes (F)	Yes (F)	Yes (F)	Yes (O)
Costa Rica	Yes (U)	Yes (U)	Yes (R)	Yes (F)	Yes (U)	Yes (U)	Yes (F)
Nicaragua	Yes (F)	Yes (F)	Yes (F)	Yes (F)	Yes (U)	Yes (U)	Yes (O)
Western Caribbean, Gulf of Mexico and Florida							
Honduras	Yes (F)	Yes (F)	Yes (F)	Yes (R)	Yes (F)	Yes (U)	Yes (U)
Guatemala	Yes (U)	Yes (U)	Unknown	No	Yes (F)	Yes (U)	Unknown
Belize	Yes (U)	Yes (U)	Yes (U)	No	Yes (U)	Yes (U)	Yes (U)
Mexico	Yes (R)	Yes (U)	Yes (F)	Yes (O)	Yes (R)	Yes (U)	Yes (R)
USA	Yes (O)	Yes (F)	Yes (O)	Yes (R)	Yes (F)	Yes (U)	Yes (O)
Bermuda							
Bermuda (GB)	Yes (U)	Yes (R)	Yes (R)	No	Yes (U)	Yes (U)	Yes (U)
Brazilian							
Brazil	Unknown	Unknown	Yes (F)	Yes (O)	Yes (U)	Unknown	Yes (U)

Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown

Table 6. Threats to sea turtles at sea (foraging and migration) in the Wider Caribbean Region.

Harassment Due to Humans	Dredging	Marina & Dock Development	Boat/Personal Water Craft Collisions	Power Plant Entrapment	Oil & Gas Development	Entanglement	Offshore Artificial Lighting
No	Yes (O)	Yes (F)	Yes (R)	No	Yes (U)	Yes (R)	No
Yes (R)	Yes (U)	Yes (F)	Yes (O)	No	No	Yes (R)	No
Unknown	Yes (U)	Yes (U)	No	No	Yes (U)	Yes (U)	No
Yes (U)	No	No	Yes (R)	No	No	Yes (R)	No
No	No	No	No	No	No	Yes (U)	No
No	No	No	No	No	No	Yes (U)	No
Unknown	Yes (R)	Yes (FA)	Yes (R)	Yes (R)	Yes (R)	Yes (O)	No
Yes (F)	Yes (R)	Yes (F)	Yes (R)	No	No	Yes (F)	No
Yes (U)	Yes (O)	Yes (U)	Yes (R)	No	No	Yes (U)	No
Yes (U)	No	No	Yes (O)	No	No	Yes (U)	No
No	Yes (R)	Yes (U)	No	No	No	Yes (R)	No
Yes (R)	No	Yes (F)	Yes (U)	No	No	Yes (U)	No
Yes (O)	No	No	No	No	No	Yes (U)	No
No	No	No	Yes (R)	No	Yes (U)	No	Yes (U)
Yes (U)	Yes (R)	Yes (U)	Yes (R/O)	No	No	Yes (O)	No
Yes (U)	Yes (U)	Yes (R)	Yes (R)	No	Yes (U)	Yes (R)	Yes (R)
Unknown	Unknown	Unknown	Unknown	No	Unknown	Unknown	No
No	No	Yes (F)	No	No	Unknown	Yes (O)	No
Yes (U)	Yes (R)	No	Yes (R)	No	No	Yes (F)	No
Yes (U)	Unknown	Yes (FA)	Yes (O)	No	Yes (U)	Yes (F)	No
Yes (O)	No	Yes (U)	Yes (R)	No	No	Yes (R)	No
Yes (FA)	No	Yes (R)	Yes (R)	No	No	Yes (U)	No
Yes (O)	Yes (O)	Yes (O)	Yes (O)	No	No	Yes (R)	Yes (R)
Yes (F)	Yes (F)	Yes (F)	Yes (O)	No	No	Yes (O)	Yes (U)
No	No	No	Yes (R)	No	Yes (R)	Yes (O)	No
Yes (O)	No	No	No	No	No	Yes (O)	Yes (O)
Yes (R)	No	No	No	No	No	Yes (F)	No
No	No	No	Yes (R)	No	Yes (U)	Yes (F)	No
Yes (U)	Yes (U)	Yes (U)	Yes (U)	No	Yes (U)	Yes (O/F)	Yes (U)
No	No	Yes (U)	No	No	No	Yes (R)	No
No	No	No	No	No	No	No	No
Yes (U)	No	Yes (R)	Yes (O)	No	Yes (U)	Yes (R)	No
Yes (U)	No	No	Yes (R)	No	Unknown	Unknown	No
Yes (O)	No	Yes (R)	Yes (U)	No	Yes (O)	Yes (U)	No
Yes (U)	No	No	No	No	Yes (U)	Yes (R)	No
Yes (F)	No	Yes (FA)	No	No	Yes (U)	Yes (F)	No
Yes (O)	Yes (R)	Yes (R)	Yes (R)	Yes (R)	Yes (O)	Yes (U)	No
Yes (R)	Unknown	No	Yes (R)	No	No	Yes (F)	No
No	Yes (U)	No	No	No	No	Yes (U)	No
No	No	Yes (U)	Yes (R)	Yes (R)	Yes (U)	Yes (O)	Yes (U)
Yes (R/O)	Yes (O/F)	Yes (O/F)	Yes (O/F)	Yes (O)	Yes (O)	Yes (O)	Yes (O)
Yes (U)	Yes (U)	No	Yes (F)	Yes (R)	No	Yes (F)	Yes (R)
Yes (R)	Yes (R)	Unknown	Yes (R)	Yes (R)	Yes (U)	Yes (F)	No

Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown

Discussion and Recommendations

This assessment asks a deceptively simple question: *"Where do sea turtles nest in the Wider Caribbean Region?"* An accurate answer is critical to the recovery of depleted populations in that it relates directly to the setting of priorities for national and international conservation action, population monitoring and habitat protection, as well as to larger issues of coastal zone management and land use policy. Taking advantage of modern spatial analysis methods, and in collaboration with more than 120 Data Providers (Appendix I) and other experts, we have created the first regional maps of the distribution and abundance of the annual reproductive effort for all six species of Caribbean-nesting sea turtles.

Digital templates for collecting, organizing and representing data fundamental to conservation and management were developed to provide visual summaries of sea turtle presence (including both distribution and abundance), national protection policies, and a regional landscape of active threats. The process of developing these templates has stimulated considerable interest among Caribbean stakeholders in continuing to collaborate both to maintain the resulting databases and to use them to inform policy-making regarding the protection of critical habitat.

By collecting and collating information from field scientists, researchers, government officials, conservationists and other Data Providers, and conducting a thorough literature review, we identified areas and sources of high quality sea turtle habitat data, areas where existing information is outdated and/or inaccessible, and areas where data do not currently exist. Among the least accessible information are the geographic coordinates of coastal habitats, emphasizing the urgent need to collect baseline geospatial data on the distribution and status of important foraging habitat, including coral reef and seagrass environments.

In all, 1,311 discrete nesting sites (generally but not always coincident with natural beach boundaries, see Methods) were identified in the 43 nations and territories of the Wider Caribbean Region (WCR), inclusive of Bermuda to the north and Brazil to the south. Because some sites host nesting by multiple species, 2,535 species-specific sites were identified. In most countries the maps (see Appendix III) are deemed comprehensive, but major gaps are presumed to remain in nations (Bahamas, Dominican Republic, Haiti, St. Vincent and the Grenadines) where a national sea turtle survey has never been documented.

Our research has demonstrated that large nesting colonies are rare. Nesting grounds receiving more than 1,000 crawls per year range from 0.4% (hawksbill) to 7.0% (Kemp's ridley) of all known sites. For any species, the far majority (41%-61%, see Table 2) of nesting sites support fewer than 25 crawls per year, the equivalent of fewer than 10 reproductively active females.

Organized and consistent sea turtle population monitoring effort is still lacking in most areas and recent data (of any kind) are scarce in some jurisdictions. Two archipelagic States (Bahamas, St. Vincent and the Grenadines) and Hispaniola (Dominican Republic, Haiti) have never been completely assessed and nesting habitat data provided by local experts in these jurisdictions (as well as in Antigua and Barbuda, and St. Lucia) are, for the most part, more than a decade old. Known but unsurveyed (or inconsistently surveyed) nesting sites are marked by an "X" for "unknown abundance" in the database, identifying gaps that should be filled before a complete

landscape of critical habitat can be achieved, and before we can be assured that all major sites are included in integrated, inter-jurisdictional monitoring programs designed to characterize population trends over biologically relevant landscapes (remembering that sea turtles are migratory) and evaluate the success or failure of management investment.

It is also clear that while some nations are making exemplary progress in identifying and monitoring nesting stocks, others have barely begun and would benefit significantly from the development of standardized procedures manuals, peer-training, greater information exchange, and more consistent financial support. Of the 2,535 species-specific nesting sites identified in the 43 WCR nations and territories surveyed, 23% of these could not be categorized in the simplest terms of abundance (i.e. <25, 25-100, 100-500, 500-1,000, or >1,000 nesting crawls per year). The most noteworthy in this regard are the hawksbill and green turtles, where 33% and 24%, respectively, of known nesting sites are associated with unknown crawl abundances, providing valuable insight into data gaps and how much we still have to learn about habitat use by these species. International funding should seek to balance the undisputed value of continuing to support long-term population datasets, with the necessity of acquiring baseline data in countries (and for species) for which the least is known.

The majority (30/43 = 69.8%) of nations and territories in the Wider Caribbean Region fully protect locally occurring sea turtles, but the 'patchwork' approach is less than ideal for species, such as sea turtles, that are migratory at all life stages. To be effective, the legal framework protecting sea turtles should be consistent among range States; similarly, habitat protection policies should be geographically inclusive at the population level and embrace both nesting and foraging grounds in order to achieve conservation goals. That this is not presently the case carries consequences for individual turtles swimming between protected and unprotected jurisdictions, and, presumably, serves to diminish the effectiveness of moratoria and other conservation measures. Recent summaries of WCR sea turtle legislation are available in Fleming (2001), Chacón (2002), Reichart et al. (2003), Godley et al. (2004), and Bräutigam and Eckert (2006).

Legal fisheries typically mandate minimum size limits (by weight or shell length) – targeting large juveniles and adults in contradistinction to the best available science on population recovery. Frazer (1989) used the concept of reproductive value – a measure of the value to the population of an individual female turtle of a particular age – to emphasize the critical importance of ensuring that large turtles be protected, and noted that the regulatory framework in the WCR had been focusing sea turtle fisheries "incorrectly for over 350 years". More contemporary mathematical treatments (e.g. Crowder et al. 1994, Heppell et al. 1999, 2000, 2004) have only reinforced the conclusion that protecting large juvenile and adult turtles from exploitation is an essential component of any sustainable sea turtle management regime. While Caribbean fishery managers recognize that "understanding these [life-history] aspects is fundamental to the development of management programs" (*Santo Domingo Declaration* – Eckert and Abreu Grobois, 2001), the regulatory framework has been slow to respond.

Protection of critical habitat – nesting beaches, foraging grounds, migratory corridors – is less developed, although many of the beaches that support the region's largest remaining colonies are in managed or protected status (summarized by Eckert and Hemphill 2005). Protection at the nesting ground alone is not enough to ensure population survival, as was recently demonstrated when the world's largest leatherback nesting colony (located on the Pacific coast of Mexico, where nesting females have been protected since 1990) collapsed as a result of incidental capture and drowning in the distant gillnet fisheries of Peru and Chile (Eckert and Sarti 1997). Without first determining stock boundaries and establishing linkages between nest-

ing and foraging grounds, and then acting on this information in a policy context to create holistic management regimes, identifying and protecting important nesting sites may not be sufficient to ensure population survival.

The dataset can also be used to determine and analyze the range of threats potentially encountered by sea turtles while nesting, foraging and migrating throughout the region, and to generate a suite of index[13] nesting beach sites sufficient to monitor sea turtle populations at biologically relevant scales. Quantitative assessment and monitoring of threats at national and nesting beach scales is needed in order to determine whether current sea turtle management efforts and protection policies are measurably reducing threats to and protecting the habitat of sea turtles throughout the region. Creating a standardized regional framework and protocols for monitoring threats using sea turtles as a flagship species could also be used as a model for other managed species, including migratory species dependent on the success of inter-jurisdictional collaboration and investment.

With an aim to characterize the full range of risk factors, including those that result in the loss or degradation of critical habitat, we have constructed regionally inclusive threats matrices which, while general in nature, represent a first attempt to identify and rank the most serious potential obstacles to population recovery. The matrices broadly identify the presence or absence and relative frequency (Rare, Occasional, Frequent, Frequent in a particular Area; see Appendix II) of nesting threats in each jurisdiction.

With regard to nesting populations, more than 75% of Caribbean nations and territories acknowledge that beach erosion/accretion (and/or nest loss to other physical factors), artificial beachfront lighting, egg collection by humans, the killing of egg-bearing females, and pollution threaten the survival of sea turtles at their nesting grounds. Artificial lighting and exotic (or loss of native) vegetation would appear to be the most geographically pervasive threats, with nearly half (46% and 43%, respectively) of all countries describing them as “Frequent”.

With regard to factors potentially hindering population recovery at foraging grounds, more than 75% of Caribbean nations and territories cite pollution, fisheries bycatch, entanglement, coral reef and/or seagrass degradation, and losses to hunters, poachers and natural predators as threatening the survival of sea turtles at their foraging grounds or along migratory corridors. Marina and dock development and hunting/poaching would appear to be the most geographically pervasive threats, with 42% and 38% of all countries describing them as “Frequent”.

Conversely, mechanized beach cleaning, beach nourishment (beach rebuilding), offshore oil and gas exploration and development, offshore lighting, and power plant entrapment are cited as present (and posing a threat to sea turtles) in fewer than half of countries and territories and could be construed to be less important from a conservation investment perspective, at least on a regional scale. Fewer than 5% of countries describe at-sea predators, disease/parasites, oil and gas exploration and development, artificial offshore lighting, or power plant entrapment as a “Frequent” threat to sea turtles.

[13] According to Bräutigam and Eckert (2006), “characterizing a site, whether foraging or nesting, as an 'Index' site implies the consistent and long-term application of standardized population monitoring protocols to ensure the data are suitable for trend analysis. Survey boundaries are specifically set and adhered to from year to year, and the survey area is representative (i.e. it should attempt to represent a range of threat and protection levels, a variety of turtle life stages, and a range of turtle population densities). The emphasis of this protocol is on establishing index methods for measuring trends in relative abundance at fixed locations; therefore, the sampling strategies at each Index site should ideally be structured in a manner that allows inference to a larger area of interest.”

In summary, we achieved our objectives in generating the first standardized and geographically comprehensive spatial database of active sea turtle nesting beaches in the central western Atlantic Ocean. The data collected and assembled will allow for further research and analysis of sea turtle abundance (including population trends) and habitat use; for example, in conjunction with other datasets to determine areas of high biodiversity (e.g. through processes such as The Nature Conservancy's Ecoregional Planning) or areas in need of urgent protection.

Our hope is that the information collected during the project, and archived and displayed in the online database (http://seamap.env.duke.edu/), will be ever-improving, updated regularly by Data Providers in each country or territory, and used to establish conservation and management priorities, inform local and national land use decisions, and improve policy at national and regional levels. Through this project, all nations in the WCR have been and will continue to be encouraged to attain higher levels of data quality, completeness, and compatibility by increasing their efforts to identify and monitor nesting and foraging sites. Improvement in these areas will also strengthen implementation of regionally negotiated agreements aimed at sustainably managing shared marine resources; specifically, the Convention for the Protection and Development of the Wider Caribbean Region and the Inter-American Convention for the Protection and Conservation of Sea Turtles.

Future goals of the project are to research and incorporate seagrass and coral reef data to determine nationally and regionally significant foraging areas, thus identifying marine areas in need of management attention and contributing to the development of a network of population monitoring programs, including juvenile and adult age classes, at index sites. Similarly, there is a need to research and incorporate genetic data (cf. Bowen and Karl 1996, Encalada et al 1998, Díaz et al. 1999, Bass 1999, Dutton et al 1999, Bowen et al. 1997, 2005, 2006) into the database in order to: highlight and illustrate linkages between nesting and foraging grounds, create a dialogue on the need to ensure the survival both of large colonies and a representative landscape of genetic diversity present in widely distributed remnant stocks, and support efforts to harmonize management policies among range States.

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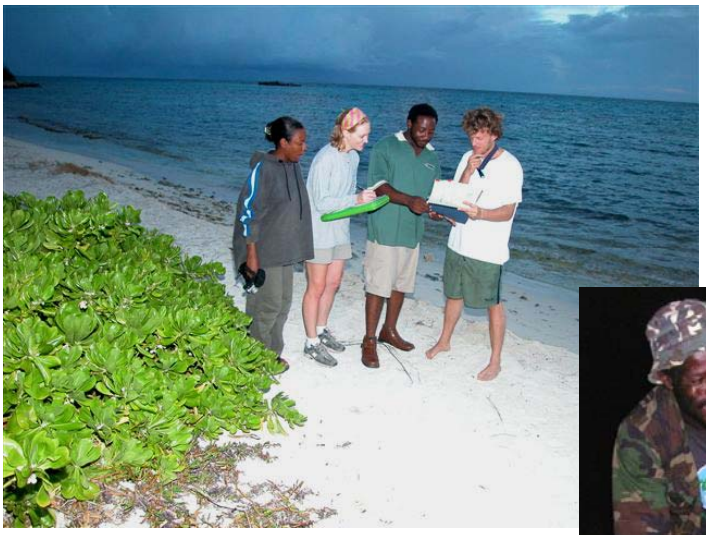

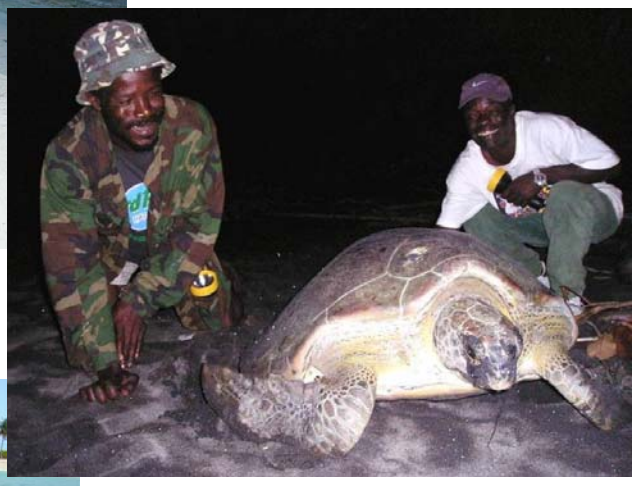

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APPENDIX II

Sea Turtle Threats Survey

Hawksbill shell bracelets from **Bocas del Toro, Panama** (*photo by* R. Merel)

Green turtles at market in **Puerto Cabezas, Nicaragua** (*photo by* Cynthia Lagueux, Wildlife Conservation Society)

Green turtle entangled in a fishing net off the coast of **Costa Rica** (*photo by* Didiher Chacón, WIDECAST)

2006 Sea Turtle Threats Survey

Country/Territory: _____
Contact: _____
Date/Time: _____

R = Rare**, O =** Occasional**, F =** Frequent**, FA =** Frequent in a certain Area**, U =** Unknown

Nesting Threats

Killing of nesting females by humans
How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

Killing of nesting females by predators
Which predator species? Invasive species?

How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

Nest loss to predators
Which predator species? Invasive species?

How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

Nest loss to abiotic factors
What factor? Ex. flood, erosion

Egg Collection (by humans)
How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

Harassment due to increased presence of humans
Ex. tourists discouraging nesting

Artificial lighting
How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

Pollution
What type of pollution – agriculture, petroleum/tar, sewage, industrial runoff, beach litter/debris? Are these pollutants rare, occasional, frequent, or frequent in a particular area?

Beach erosion/accretion
Where? When? Caused by storm events? How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

Beach armoring/stabilization structures
Where? How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

Beach nourishment
Where? How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

Recreation beach equipment and/or other obstacles
How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

Mechanized beach cleaning
How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

Beach vehicular use
How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

Sand mining
Where? How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

Exotic (or loss of native) vegetation
How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

Livestock (presence on the beach)
How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

Foraging/Migration Threats

Seagrass degradation
By what? Ex. Anchor damage, pollution, sedimentation. How extensive is the problem? Rare, occasional, frequent, or frequent in a particular area?

Coral reef degradation
By what? Ex. Anchor damage, pollution, sedimentation. How extensive is the problem? Rare, occasional, frequent, or frequent in a particular area?

Fisheries
Which fisheries? Ex. Trawl, purse seine, hook and line, gill net, pound net, long line, pot/trap, dynamite/blast, chemical, “nets” – undefined.

Are takes by fisheries: Rare, occasional, frequent, or frequent in a particular area?

Hunting/Poaching
How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

Pollution
What type of pollution – agriculture, petroleum (oil), sewage, industrial runoff, pollution (cruise liners/yachts), marine debris, “declining water quality” - undefined

Are these pollutants rare, occasional, frequent, or frequent in a particular area?

Predators
What species? How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

Disease/Parasites
Which diseases or parasites? How many cases have been seen (e.g. How big of a problem is this?) Rare, occasional, frequent, or frequent in a particular area?

Harassment due to increased human presence
Ex. Snorkelers, divers, increased boat traffic. How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

Dredging
How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

Marina and dock development
Where? How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

Boat/Personal Water Craft collisions
How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

Power Plant entrapment
How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

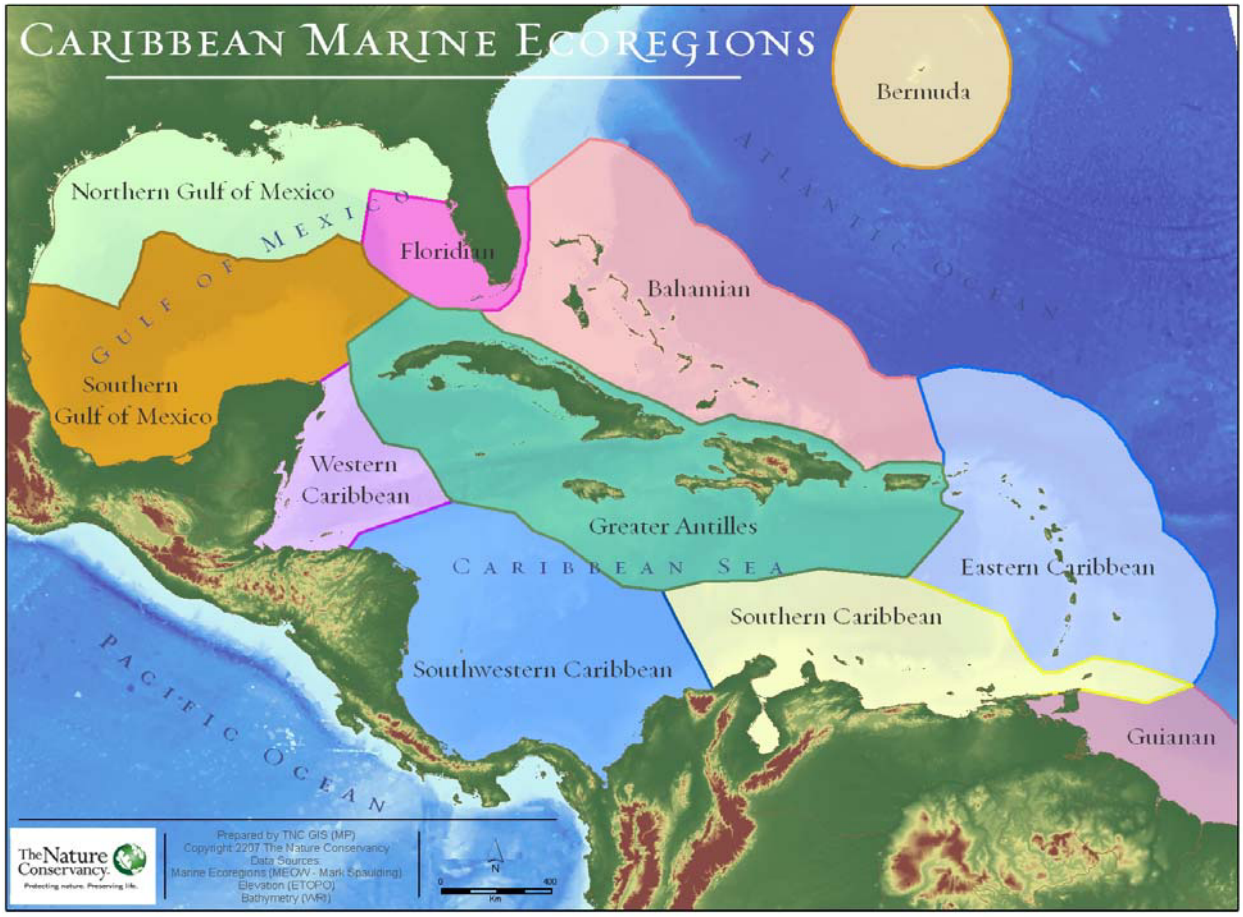
Oil and gas exploration, development, and transportation
Where? How often does this occur? Rare, occasional, frequent, or frequent in a particular area?
Entanglement (debris, abandoned gear etc.)
How often does this occur? Rare, occasional, frequent, or frequent in particular a particular area? In what do turtles become entangled?

Offshore artificial lighting
How often does this occur? Rare, occasional, frequent, or frequent in a particular area?

Other Comments

APPENDIX III

Wider Caribbean Region Sea Turtle Habitat National Reports



For ease of reference, the National Reports are presented in alphabetic order and then color-coded according to their Ecoregion (cf. Spalding et al. 2007). Brazil (not featured in Spalding et al. 2007), is color-coded in this volume as gray.

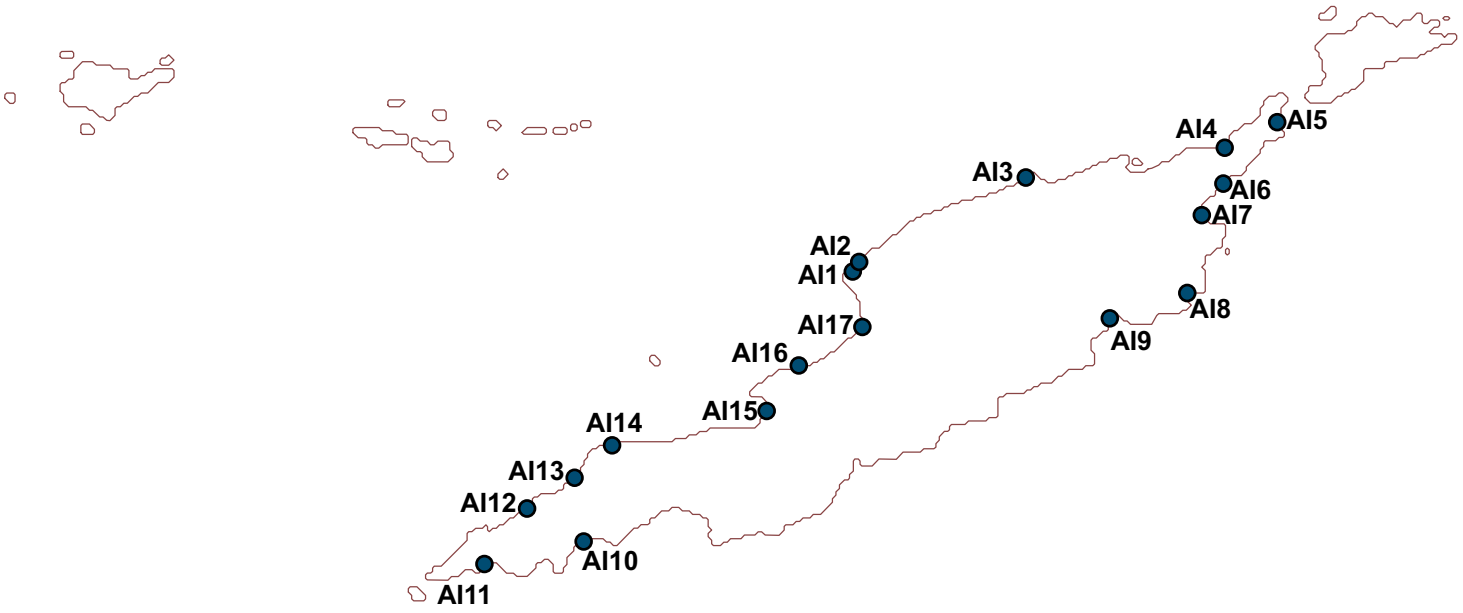
Anguilla Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	No
Moratorium (fixed period)	Yes (until 2020)
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	Yes
Area closures (MPA, park, reserve)	No
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	No
General public awareness of laws	Yes
Recent prosecutions or penalties	No
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females



Data Provider

James Gumbs

Department of Fisheries and Marine Resources

Kilometers

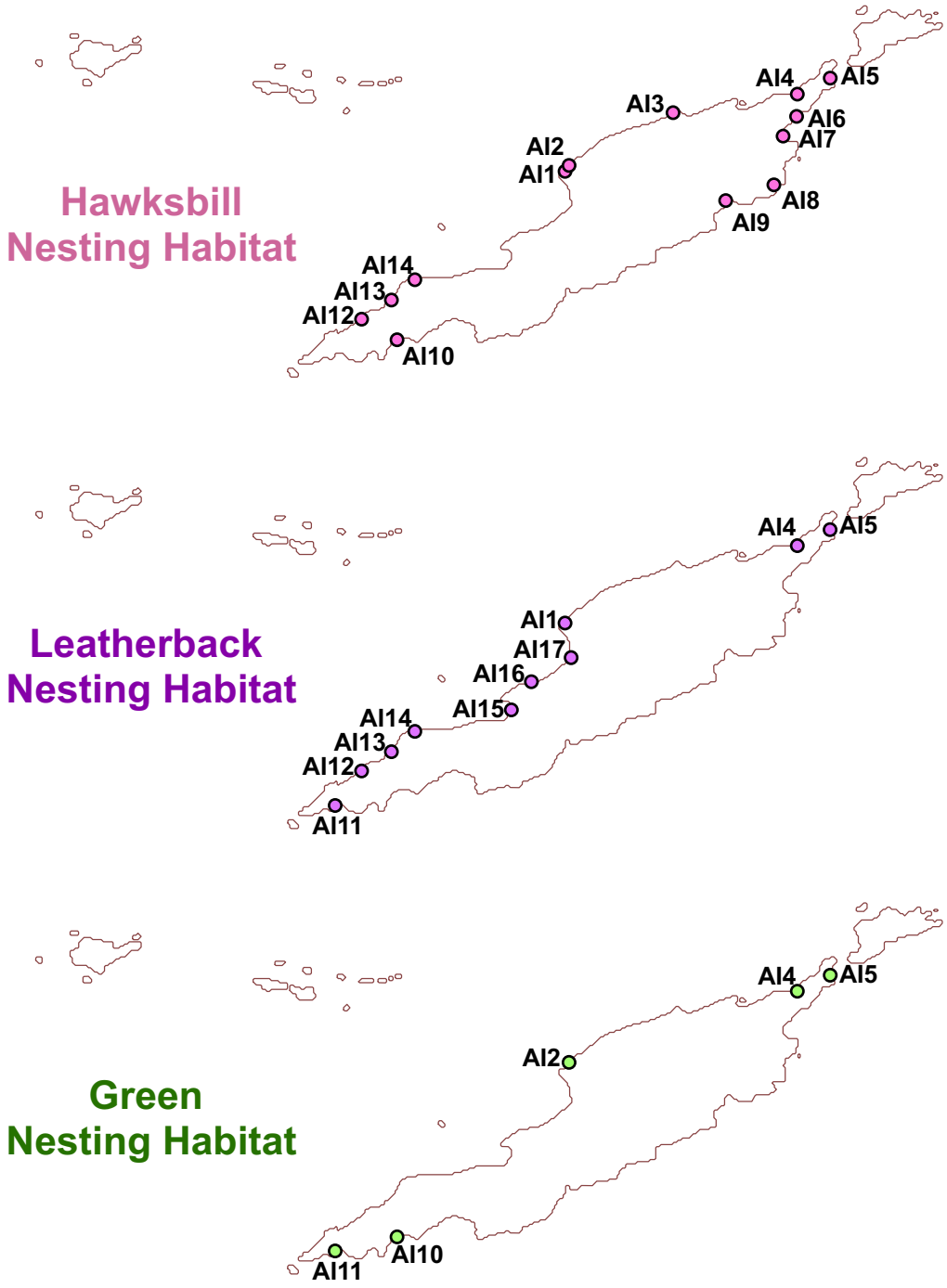
0 1.5 3 6 9 12

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

Anguilla Sea Turtle Habitat



Hawksbill Nesting Habitat

- <25 Crawls per year

Leatherback Nesting Habitat

- <25 Crawls per year

Green Nesting Habitat

- <25 Crawls per year

GSHHS Caribbean Shoreline

N

Kilometers

0 2 4 8 12 16

Anguilla Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	No	No evidence - but could happen rarely
Killing of Nesting Females by Predators	No	
Nest Loss to Predators	Yes (R)	Ghost crabs
Nest Loss to Abiotic Factors	Yes (O)	Erosion
Egg Collection by Humans	Yes (U)	
Harassment Due to Increased Human Presence	No	
Artificial Lighting	Yes (F)	
Pollution	No	
Beach Erosion/Accretion	Yes (O)	Caused by storms and natural beach movement
Beach Armouring/Stabilization Structures	No	
Beach Nourishment	Yes (O)	
Recreational Beach Equipment and/or Other Obstacles	Yes (F)	On hotel beaches
Mechanized Beach Cleaning	No	
Beach Vehicular Use	Yes (F)	
Sand Mining	Yes (FA)	One major commercially mined beach, R in other areas
Exotic (or Loss of Native) Vegetation	Yes (O)	Due to development
Livestock Presence on the Beach	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (O)	Hurricanes, anchor damage, eutrophication
Coral Reef Degradation	Yes (F)	Hurricanes, disease, anchor damage, eutrophication and fishing
Fisheries Bycatch	Yes (R)	Hook and line, long line, pot/trap and "nets" undefined
Hunting/Poaching	Yes (U)	
Pollution	Yes (R)	
Predators	Yes (U)	Sharks, birds, fish and crabs
Disease/Parasites	Yes (U)	
Harassment Due to Increased Human Presence	No	
Dredging	Yes (R)	Occurs with new development
Marina and Dock Development	Yes (U)	No marinas yet, but plans for new marinas
Boat/Personal Water Craft Collisions	No	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	No	
Entanglement	Yes (R)	
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Anguilla Sea Turtle Habitat

Beach Identification Codes with Beach Names			
AI1	Limestone Bay	AI10	Cove Bay
AI2	Blackgarden Bay	AI11	Shoal Bay West
AI3	Shoal Bay East	AI12	Barnes Bay
AI4	Captain's Bay	AI13	Meads Bay
AI5	Windward Point Bay	AI14	Long Bay
AI6	Junk's Hole	AI15	Road Bay
AI7	Savannah Bay	AI16	Katouche Bay
AI8	Mimi Bay	AI17	Crocus Bay
AI9	Sandy Hill		

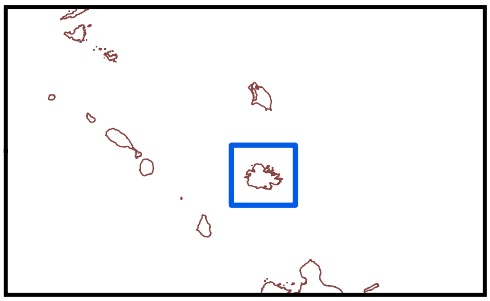
Antigua & Barbuda Sea Turtle Habitat

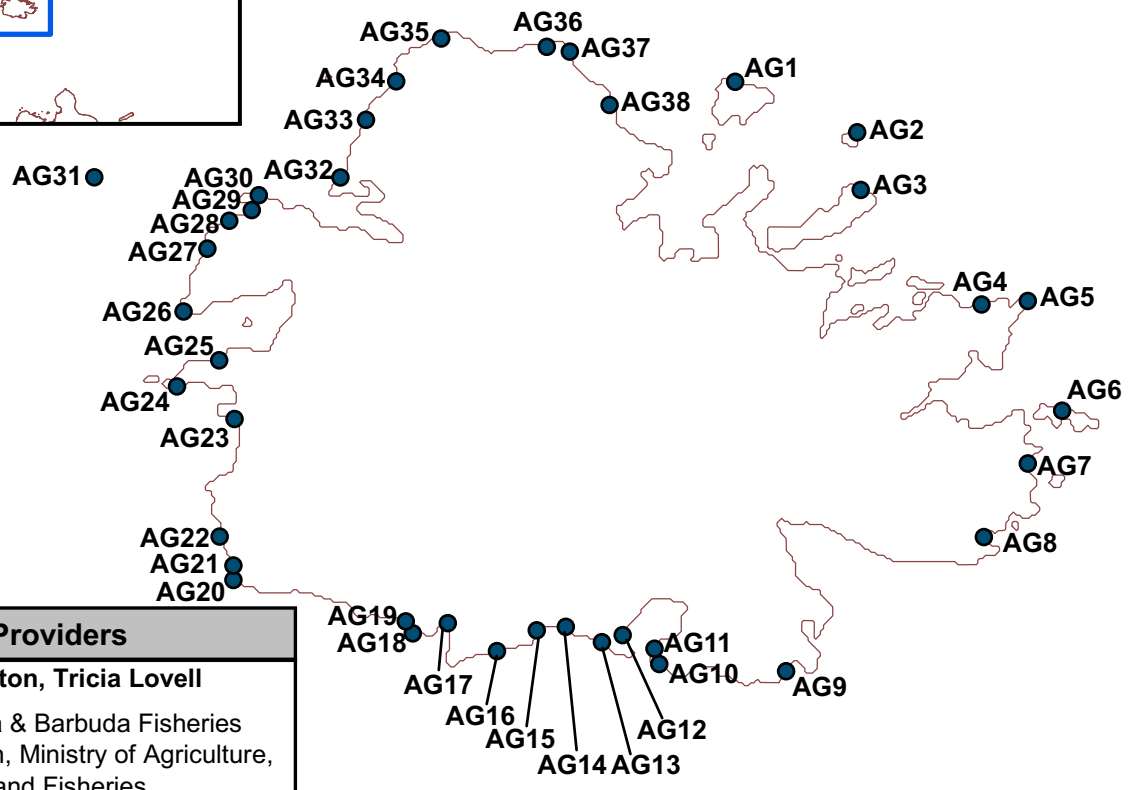
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	I
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	No
Moratorium (fixed period)	No
Prohibition(s) on take	E, N
Closed season	Yes
Minimum size limits	Yes
Maximum size limits	No
Annual quota	No
Permits/licenses required	Yes*
Gear restrictions	Yes**
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	No
Recent prosecutions or penalties	No
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; *Vessel license required to enter industry under new Fisheries Act; **For all fishing industry





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Jim Richardson, Peri Mason, Seth Stapleton

Jumby Bay Hawksbill Project

Kilometers

0 1.5 3 6 9 12

N

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

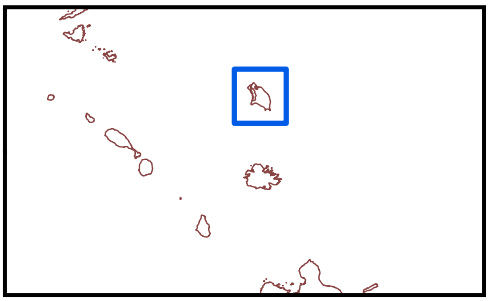
Antigua & Barbuda Sea Turtle Habitat

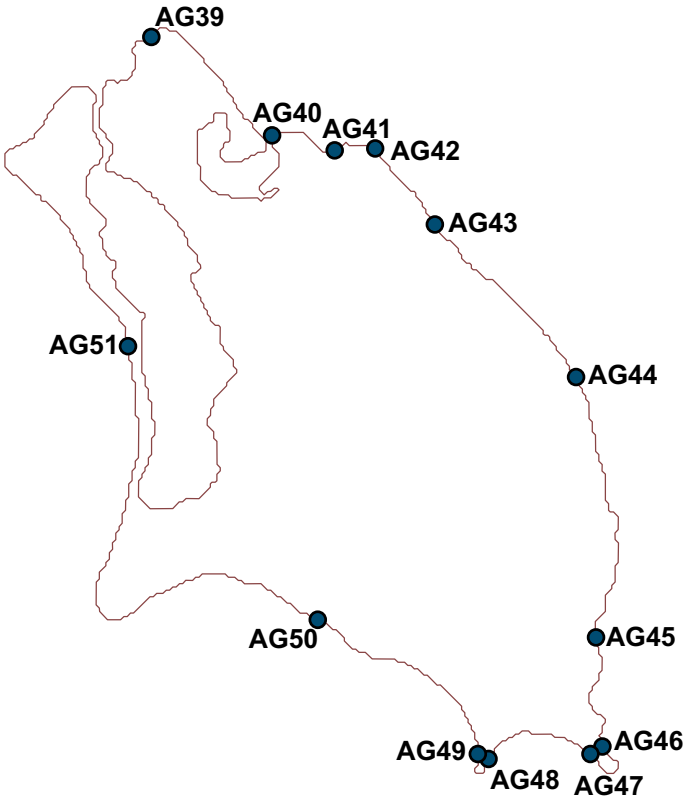
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	I
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	No
Moratorium (fixed period)	No
Prohibition(s) on take	E, N
Closed season	Yes
Minimum size limits	Yes
Maximum size limits	No
Annual quota	No
Permits/licenses required	Yes*
Gear restrictions	Yes**
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	No
Recent prosecutions or penalties	No
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; *Vessel license required to enter industry under new Fisheries Act; **For all fishing industry





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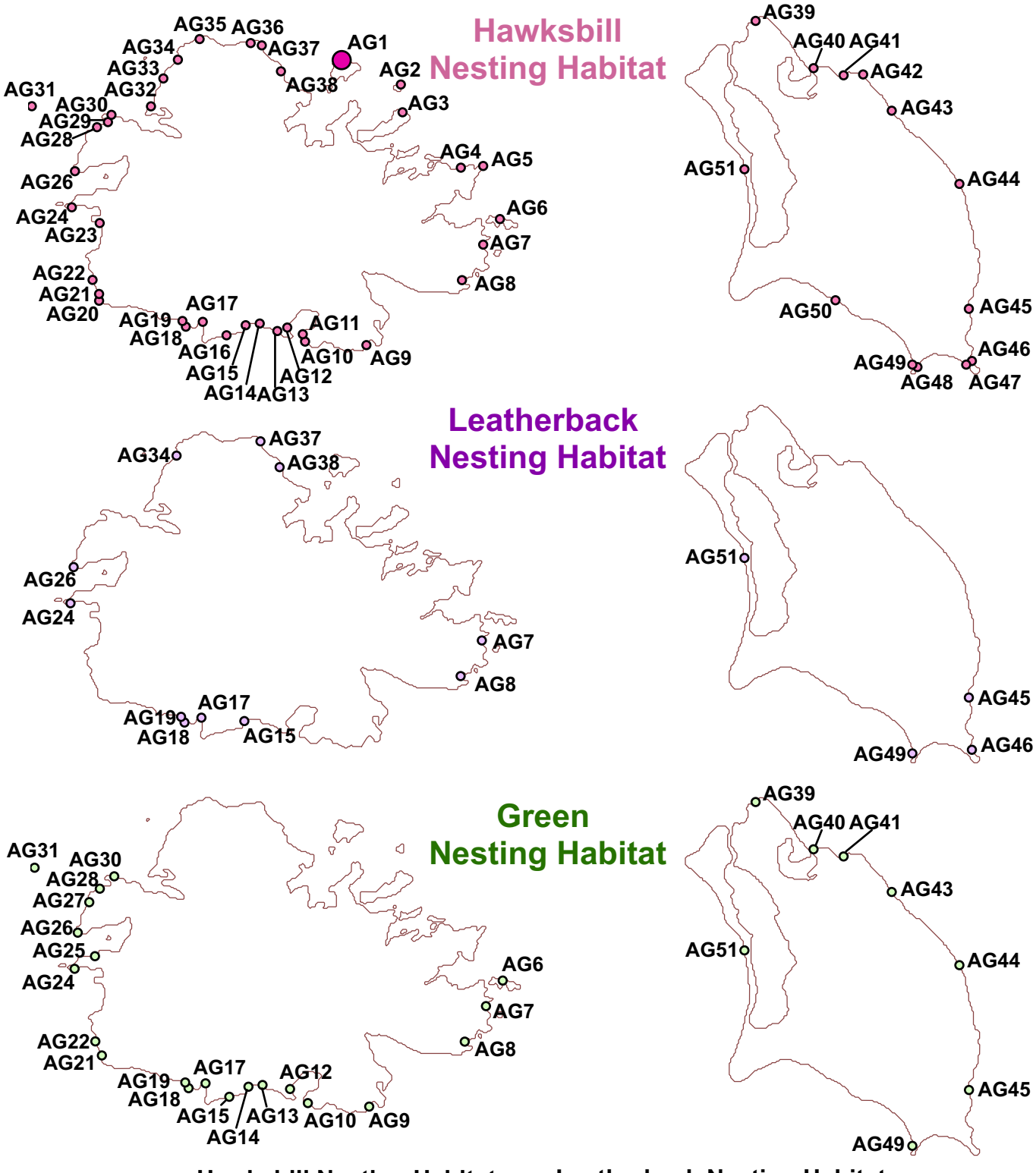
Kilometers
0 1.5 3 6 9 12

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

Antigua & Barbuda Sea Turtle Habitat



Antigua & Barbuda Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	No	
Killing of Nesting Females by Predators	No	
Nest Loss to Predators	Yes (U)	Mongoose and crabs
Nest Loss to Abiotic Factors	Yes (U)	Flood and erosion
Egg Collection by Humans	Yes (O)	
Harassment Due to Increased Human Presence	Yes (R)	
Artificial Lighting	Yes (F)	Major problem along the northwest coast of Antigua
Pollution	Yes (U)	Beach litter/debris
Beach Erosion/Accretion	Yes (U)	Caused by storms and natural beach movement
Beach Armouring/Stabilization Structures	Yes (U)	Along the northwest and southern coast of Antigua - none on Barbuda
Beach Nourishment	Yes (U)	On some resort beaches
Recreational Beach Equipment and/or Other Obstacles	Yes (F)	Especially around hotels
Mechanized Beach Cleaning	Yes (R)	On some resort beaches
Beach Vehicular Use	Yes (R)	Minimal due to barricades
Sand Mining	Yes (U)	Government controlled mining in Barbuda and some illegal activity in Antigua
Exotic (or Loss of Native) Vegetation	Yes (U)	Especially around hotels and development
Livestock Presence on the Beach	Yes (R)	Horseback riding - rarely other animals
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	Development, sedimentaion and anchor damage
Coral Reef Degradation	Yes (U)	Storms, ship groundings and anchor damage
Fisheries Bycatch	Yes (R)	Gillnets and "nets" undefined
Hunting/Poaching	Yes (U)	
Pollution	Yes (U)	Petroleum/tar, runoff (agriculture) and marine debris
Predators	Yes (U)	Sharks
Disease/Parasites	Yes (R)	
Harassment Due to Increased Human Presence	Yes (U)	On the south and west coasts of Antigua
Dredging	Yes (U)	Primarilly around harbors, not in Barbuda
Marina and Dock Development	Yes (R)	A few in Antigua, none in Barbuda
Boat/Personal Water Craft Collisions	Yes (R)	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	Yes (U)	Transportation
Entanglement	Yes (R)	
Offshore Artificial Lighting	Yes (R)	Offshore fuel dock
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Antigua & Barbuda Sea Turtle Habitat

Beach Identification Codes with Beach Names			
AG1	Jumby Bay - Pasture Bay Beach	AG27	Hawksbill Bay
AG2	Great Bird Island	AG28	Galley Bay
AG3	Guiana Island	AG29	Deep Bay
AG4	Long Bay	AG30	Hog John Bay
AG5	Devil's Bridge Beach	AG31	Sandy Island
AG6	Green Island	AG32	Ft. James Beach
AG7	Mill Reef Beaches	AG33	Runaway Bay
AG8	Half Moon Bay	AG34	Dickenson Bay
AG9	Indian Creek Beach	AG35	Soldier Bay
AG10	Windward Bay	AG36	White Sand Beach
AG11	Pigeon Point Beach	AG37	Jabberwock Beach
AG12	Dieppe Bay	AG38	Dutchman Bay
AG13	Turtle Bay	AG39	North Beach to Cobb Cove
AG14	Little Rendezvous Bay	AG40	Kid Island Beach
AG15	Big Rendezvous Bay	AG41	Fishing Creek Beach
AG16	Tuck's Beach	AG42	Hog Point to Sea View
AG17	Carlisle Bay	AG43	Two Feet Bay
AG18	Curtain Bluff Beach	AG44	Ghaut to Pigeon Cliff
AG19	Morris Bay	AG45	Pigeon Cliff to Griffen Point
AG20	Johnson's Point	AG46	Bleaky Bay Beaches
AG21	Darkwood Beach	AG47	Spanish Point Beach
AG22	Fryes Bay	AG48	Coco Point East
AG23	Jolly Beach/Lignumvitae Bay	AG49	Coco Point Beach
AG24	Pearn's Point Beaches	AG50	Coral Group Beaches
AG25	Hermitage Bay/TwoFoot Bay/Royal Bay	AG51	Continuous Beach from River to Billy Point
AG26	Five Islands Estate Beaches		

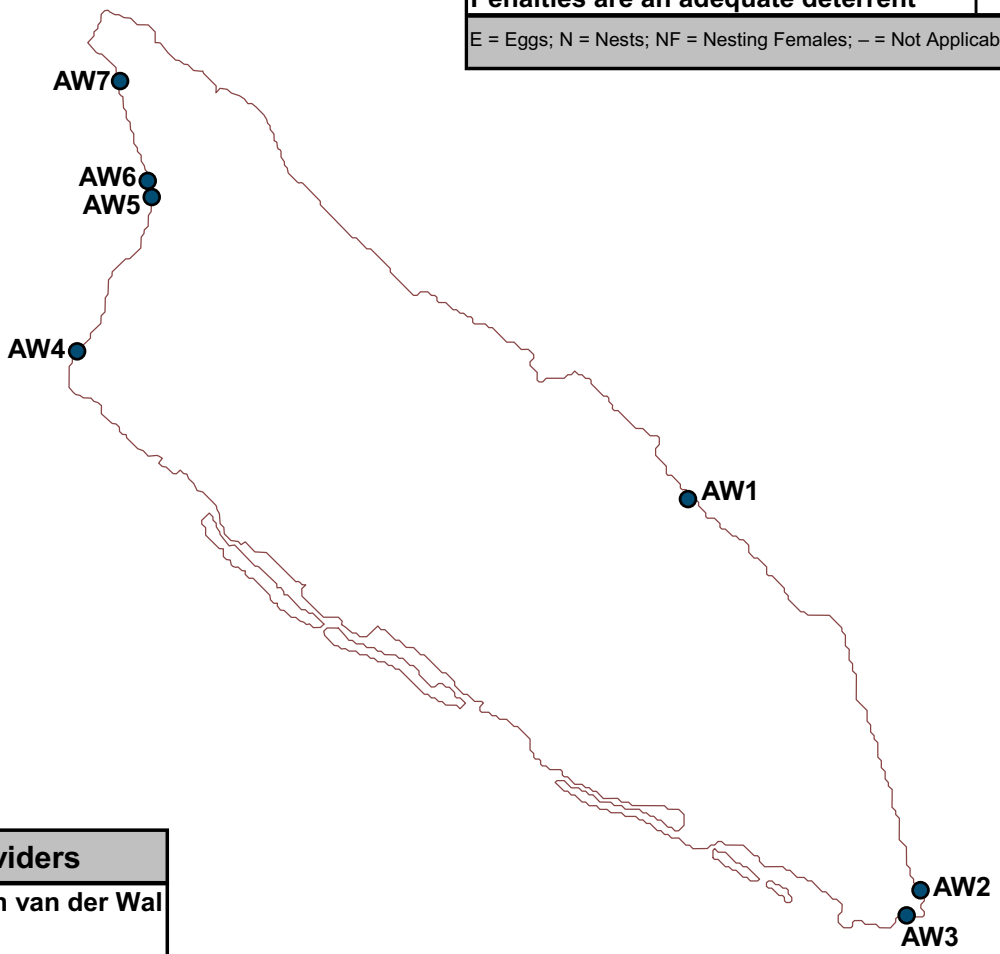
Aruba Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, IF
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	I

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	No
Area closures (MPA, park, reserve)	No
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	Yes
Recent prosecutions or penalties	Yes
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable



Data Providers

Richard and Edith van der Wal

Turtugaruba Foundation

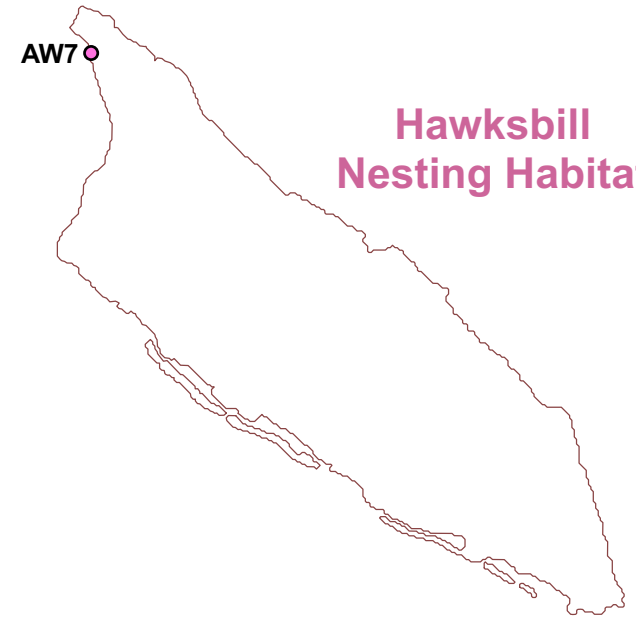
Kilometers
0 1.5 3 6 9 12

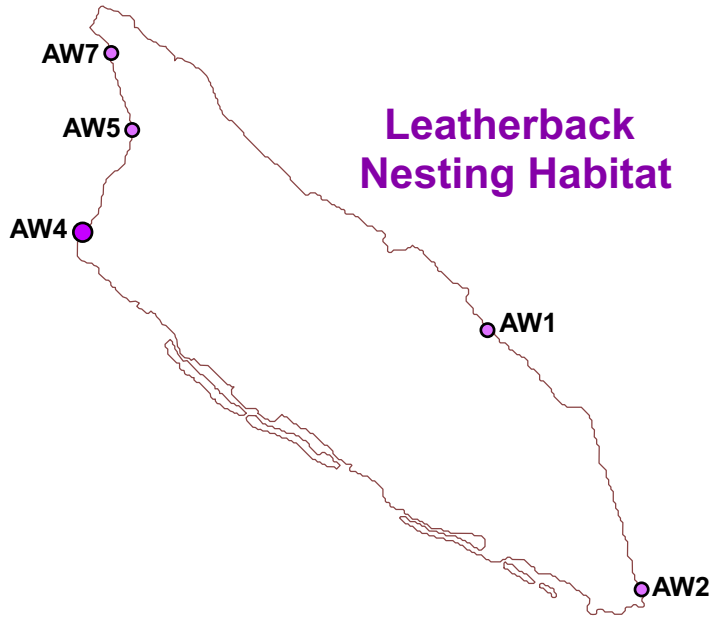
Sea Turtle Nesting Habitat

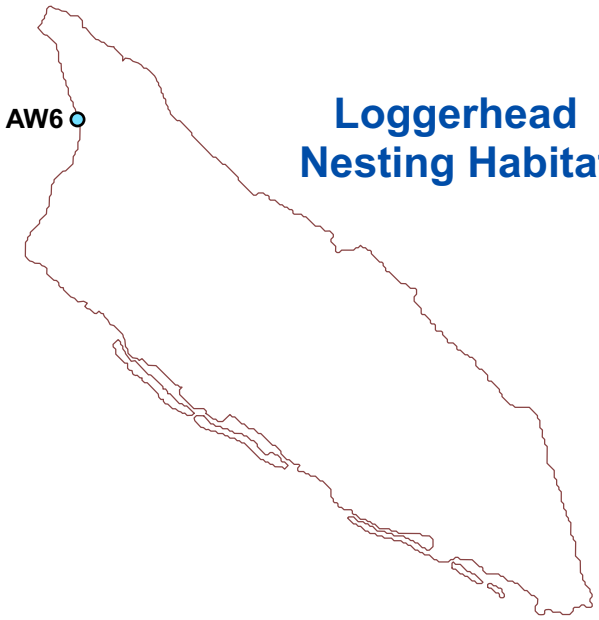
GSHHS Caribbean Shoreline

N

Aruba Sea Turtle Habitat







Hawksbill Nesting Habitat

- <25 Crawls per year

Green Nesting Habitat

- <25 Crawls per year

Leatherback Nesting Habitat

- <25 Crawls per year
- 25-100 Crawls per year

Loggerhead Nesting Habitat

- <25 Crawls per year

GSHHS Caribbean Shoreline

Kilometers
0 2 4 8 12 16

N

Aruba Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	No	
Killing of Nesting Females by Predators	No	
Nest Loss to Predators	Yes (R)	Crabs and worms
Nest Loss to Abiotic Factors	Yes (O)	Erosion and flood caused by storms and rain
Egg Collection by Humans	No	
Harassment Due to Increased Human Presence	Yes (R)	
Artificial Lighting	Yes (F)	Largest problem in Aruba
Pollution	Yes (O)	Beach litter/debris
Beach Erosion/Accretion	Yes (O)	Caused by storms and natural beach movement
Beach Armouring/Stabilization Structures	Yes (O)	
Beach Nourishment	Yes (R)	
Recreational Beach Equipment and/or Other Obstacles	Yes (F)	Especially on hotel beaches
Mechanized Beach Cleaning	Yes (F)	Increasing
Beach Vehicular Use	Yes (F)	On resorts and remote beaches
Sand Mining	No	
Exotic (or Loss of Native) Vegetation	Yes (F)	Concern for hawksbill sea turtles
Livestock Presence on the Beach	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	Anchor damage, pollution by oil refinery (little research)
Coral Reef Degradation	Yes (U)	Anchor damage, pollution by oil refinery (little research)
Fisheries Bycatch	Yes (R)	Hook and line, pot/trap and "nets" undefined
Hunting/Poaching	No	
Pollution	Yes (O)	Oil, sewage, cruise liner effluent and marine debris
Predators	Unknown	
Disease/Parasites	Unknown	
Harassment Due to Increased Human Presence	Yes (U)	
Dredging	No	
Marina and Dock Development	Yes (R)	
Boat/Personal Water Craft Collisions	Yes (O)	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	Yes (U)	Refinery - transportation, but no exploration
Entanglement	Yes (R)	Abandoned gear or lines
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Aruba Sea Turtle Habitat

Beach Identification Codes with Beach Names			
AW1	Dos Playa	AW5	Palm Beach
AW2	Boca Grandi	AW6	Fishermen's Huts
AW3	Pets Cemetary	AW7	Arashi Beach
AW4	Eagle		

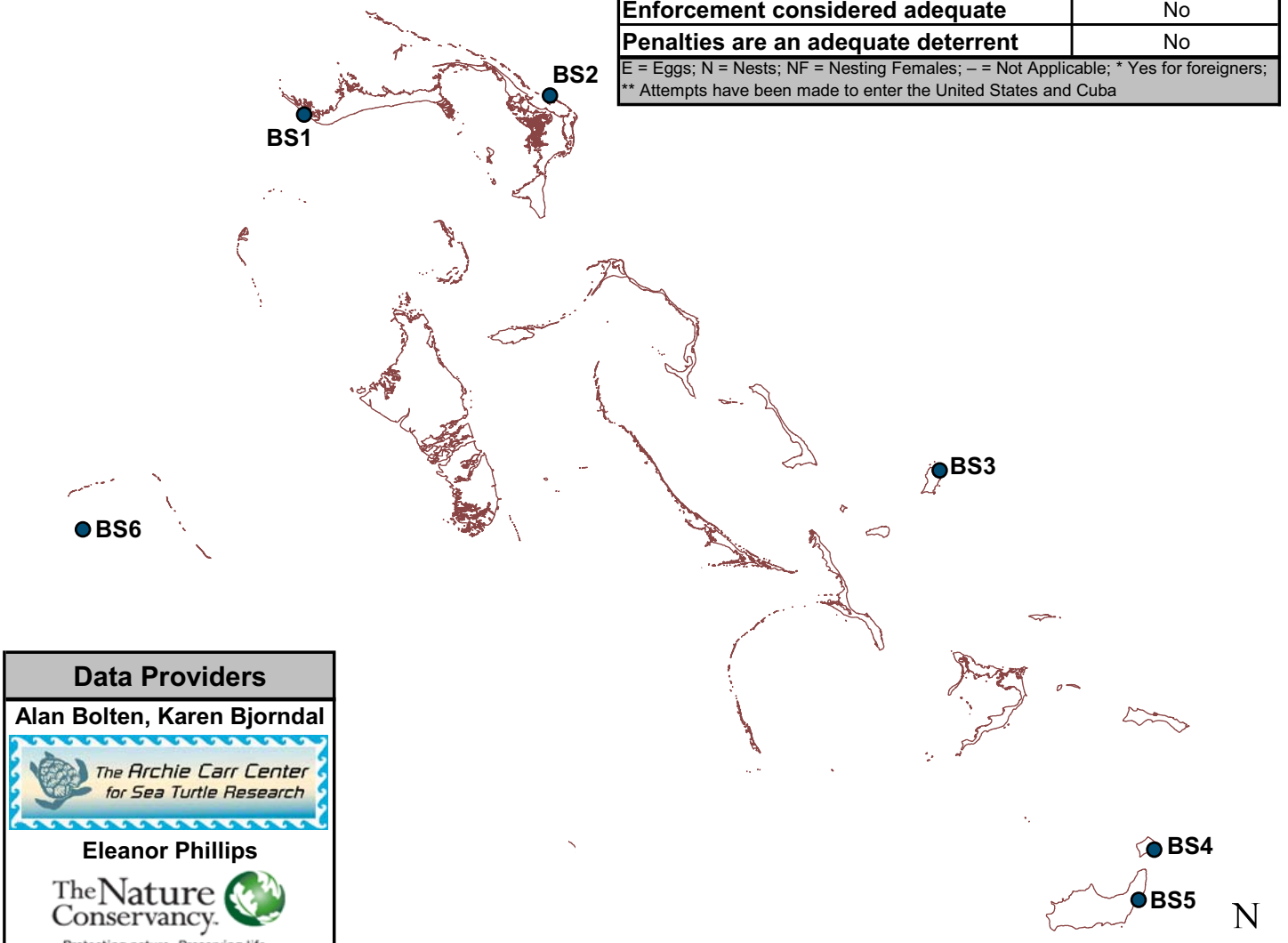
Bahamas Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	I

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	No
Moratorium (fixed period)	No
Prohibition(s) on take	E, NF, Hawksbill
Closed season	Yes
Minimum size limits	Yes
Maximum size limits	No
Annual quota	No
Permits/licenses required	No*
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes**
General public awareness of laws	No (Insufficient)
Recent prosecutions or penalties	Yes
Enforcement considered adequate	No
Penalties are an adequate deterrent	No

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * Yes for foreigners; ** Attempts have been made to enter the United States and Cuba



Data Providers

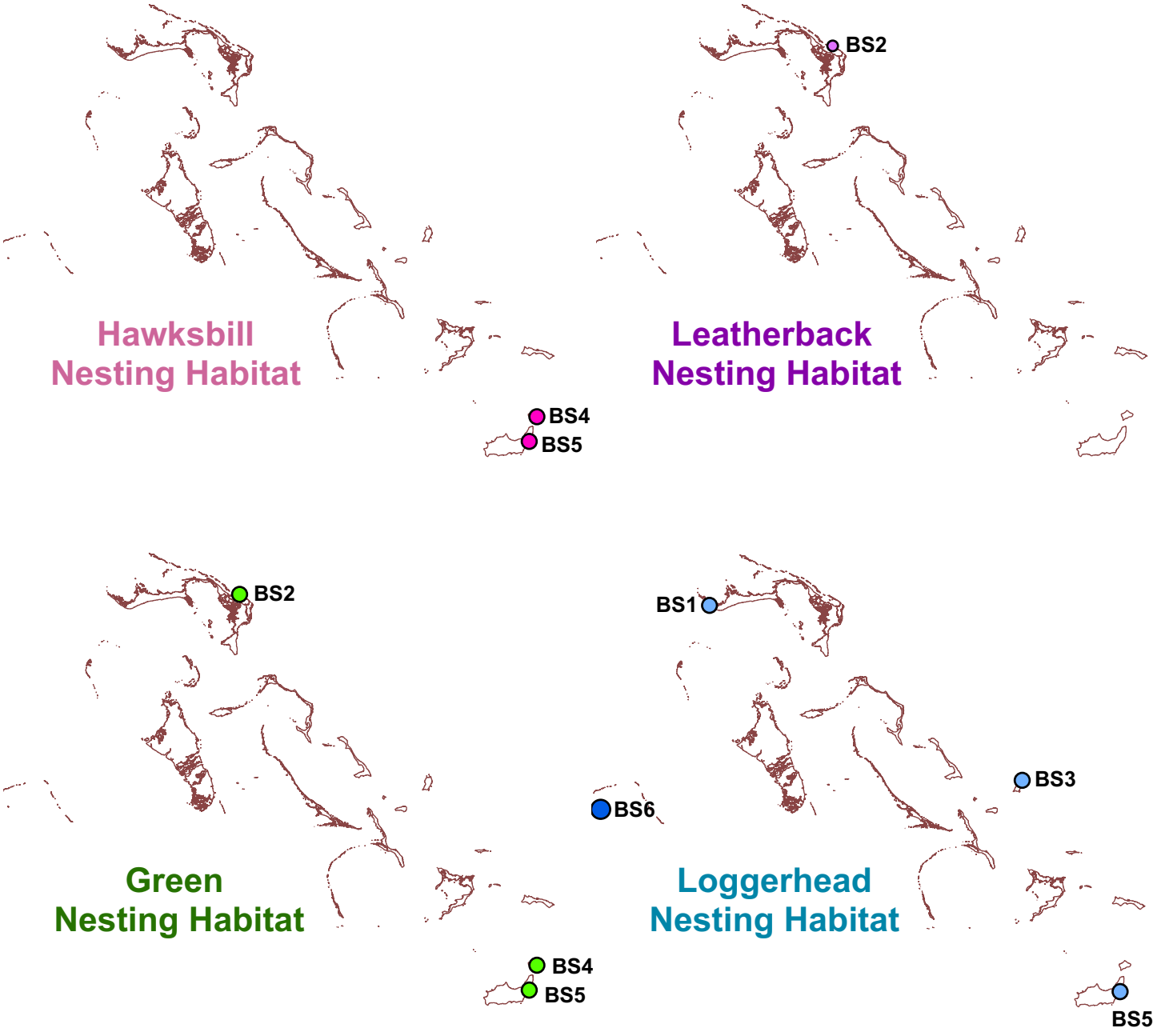
Alan Bolten, Karen Bjorndal

The Archie Carr Center for Sea Turtle Research

Eleanor Phillips

The Nature Conservancy
Protecting nature. Preserving life.

Bahamas Sea Turtle Habitat



Hawksbill Nesting Habitat

- 25-100 Crawls per year

Green Nesting Habitat

- 25-100 Crawls per year

Leatherback Nesting Habitat

- <25 Crawls per year

Loggerhead Nesting Habitat

- 25-100 Crawls per year
- 100-500 Crawls per year

GSHHS Caribbean Shoreline

Kilometers

0 70 140 280 420 560

N

Bahamas Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (R)	
Killing of Nesting Females by Predators	No	
Nest Loss to Predators	No	
Nest Loss to Abiotic Factors	Yes (U)	Erosion due to extreme high tides
Egg Collection by Humans	Yes (FA)	In Abaco and Eleuthra
Harassment Due to Increased Human Presence	No	
Artificial Lighting	Yes (R)	
Pollution	Yes (U)	Beach litter/debris
Beach Erosion/Accretion	Yes (U)	Erosion during storms
Beach Armouring/Stabilization Structures	Yes (FA)	Frequent in New Providence - smaller problem on outer islands
Beach Nourishment	No	
Recreational Beach Equipment and/or Other Obstacles	Yes (O)	
Mechanized Beach Cleaning	No	
Beach Vehicular Use	No	
Sand Mining	Yes (O)	
Exotic (or Loss of Native) Vegetation	Yes (U)	
Livestock Presence on the Beach	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	Limited scarring from ship groundings
Coral Reef Degradation	Yes (U)	Climate change
Fisheries Bycatch	No	
Hunting/Poaching	Yes (U)	During open season
Pollution	Yes (U)	"Declining water quality"
Predators	Yes (U)	Sharks
Disease/Parasites	Yes (U)	Fibropapillomas
Harassment Due to Increased Human Presence	No	
Dredging	Yes (O)	
Marina and Dock Development	Yes (F)	
Boat/Personal Water Craft Collisions	Yes (R)	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	Yes (U)	
Entanglement	Yes (R)	
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Bahamas Sea Turtle Habitat

Beach Identification Codes with Beach Names			
BS1	Grand Bahama	BS4	Little Inagua
BS2	Great Abaco (east coast and	BS5	Great Inagua
BS3	San Salvador	BS6	Cay Sal Bank

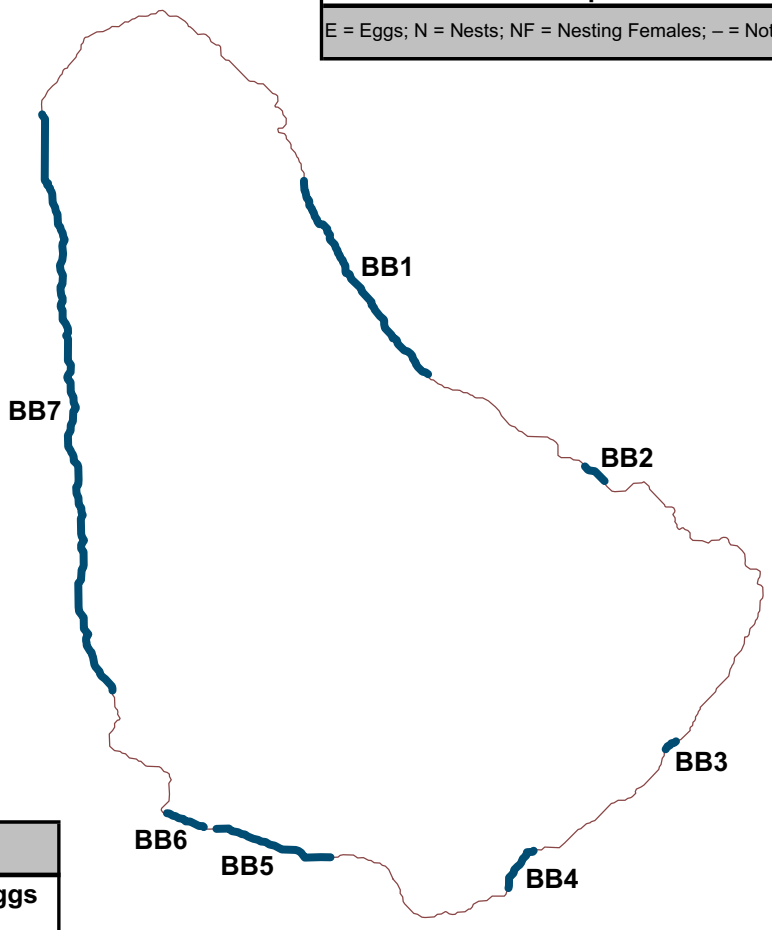
Barbados Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	I, F?
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	No
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	No
General public awareness of laws	Yes
Recent prosecutions or penalties	No
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable



Data Providers

Julia Horrocks, Jennifer Beggs

Barbados Sea Turtle Project

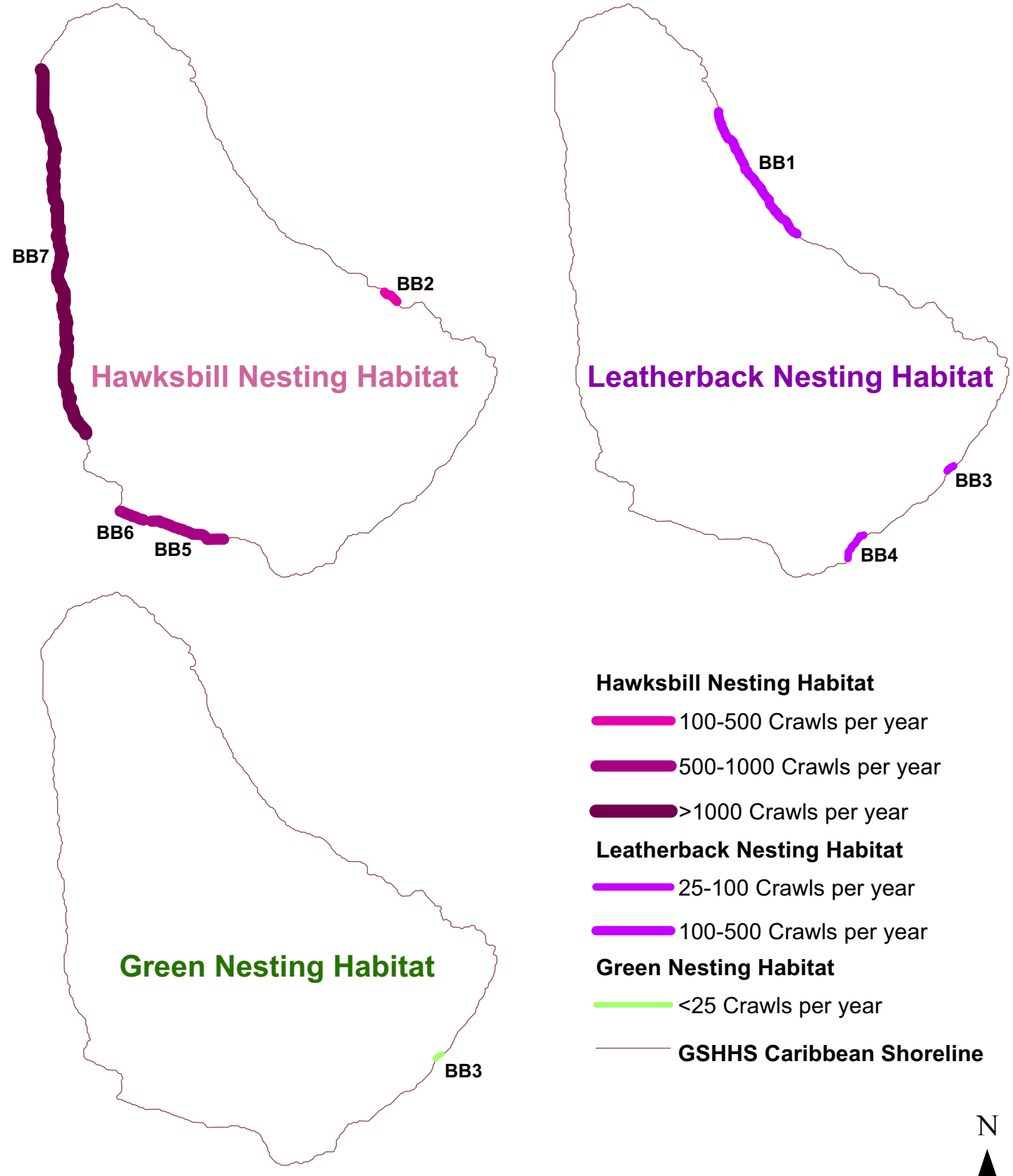
Kilometers
0 2 4 8 12 16

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

Barbados Sea Turtle Habitat



Barbados Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (O)	
Killing of Nesting Females by Predators	Yes (O)	Dogs - harassment also occasional
Nest Loss to Predators	Yes (O)	Mongoose, dogs and cats (rare)
Nest Loss to Abiotic Factors	Yes (F)	Flooding and erosion
Egg Collection by Humans	Yes (O)	
Harassment Due to Increased Human Presence	Yes (R)	
Artificial Lighting	Yes (F)	
Pollution	Yes (U)	Agriculture and beach litter/debris
Beach Erosion/Accretion	Yes (F)	Caused by storms, natural movement and structures
Beach Armouring/Stabilization Structures	Yes (FA)	
Beach Nourishment	Yes (R)	
Recreational Beach Equipment and/or Other Obstacles	Yes (FA)	
Mechanized Beach Cleaning	Yes (FA)	Not a widespread problem
Beach Vehicular Use	Yes (FA)	Not a widespread problem
Sand Mining	Yes (R)	
Exotic (or Loss of Native) Vegetation	Yes (F)	Loss of vegetation
Livestock Presence on the Beach	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	On west and south coasts, few patches left - anchor damage, pollution and sedimentation
Coral Reef Degradation	Yes (U)	Anchor damage, sedimentation, over-harvesting of herbivorous species and pollution
Fisheries Bycatch	Yes (U)	Hook and line, gillnet and pot/trap
Hunting/Poaching	No	
Pollution	Yes (U)	Agriculture, sewage and industrial runoff
Predators	No	
Disease/Parasites	Yes (R)	Fibropapillomas
Harassment Due to Increased Human Presence	Yes (FA)	Greens are attracted to areas where they are fed
Dredging	No	
Marina and Dock Development	Yes (R)	
Boat/Personal Water Craft Collisions	Yes (R)	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	No	
Entanglement	Yes (U)	Abandoned fishing gear
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Barbados Sea Turtle Habitat

Beach Identification Codes with Beach Names			
BB1	East Coast Beaches	BB5	South Coast Beaches
BB2	Bath Beach	BB6	Hilton Beach
BB3	Foul Bay	BB7	West Coast Beaches
BB4	Long Beach		

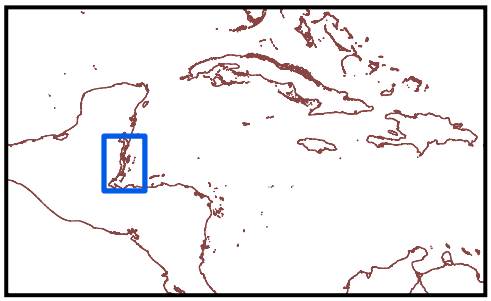
Belize Sea Turtle Habitat

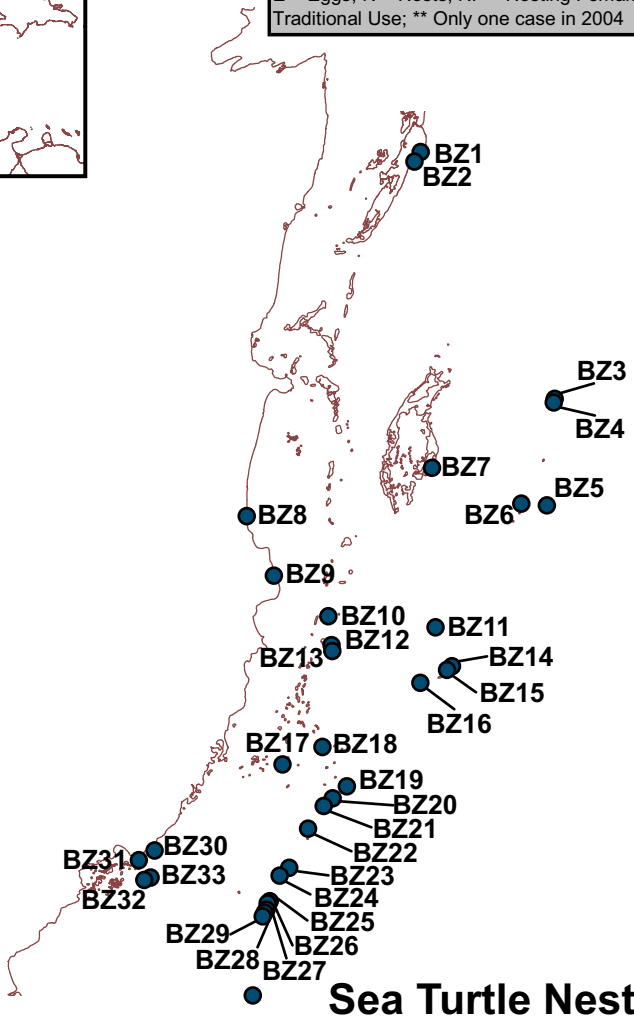
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	I
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A?
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes*
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	No
Minimum size limits	No
Maximum size limits	No
Annual quota	No
Permits/licenses required	Yes
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	No (Insufficient)
Recent prosecutions or penalties	Yes**
Enforcement considered adequate	No (Insufficient)
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * Except for Licensed Traditional Use; ** Only one case in 2004





Data Providers

Isaias Majil

Fisheries Department

Belize Audubon Society

Toledo Institute for Development and Environment

Wildlife Conservation Society

Friends of Nature

University of Belize

Kilometers

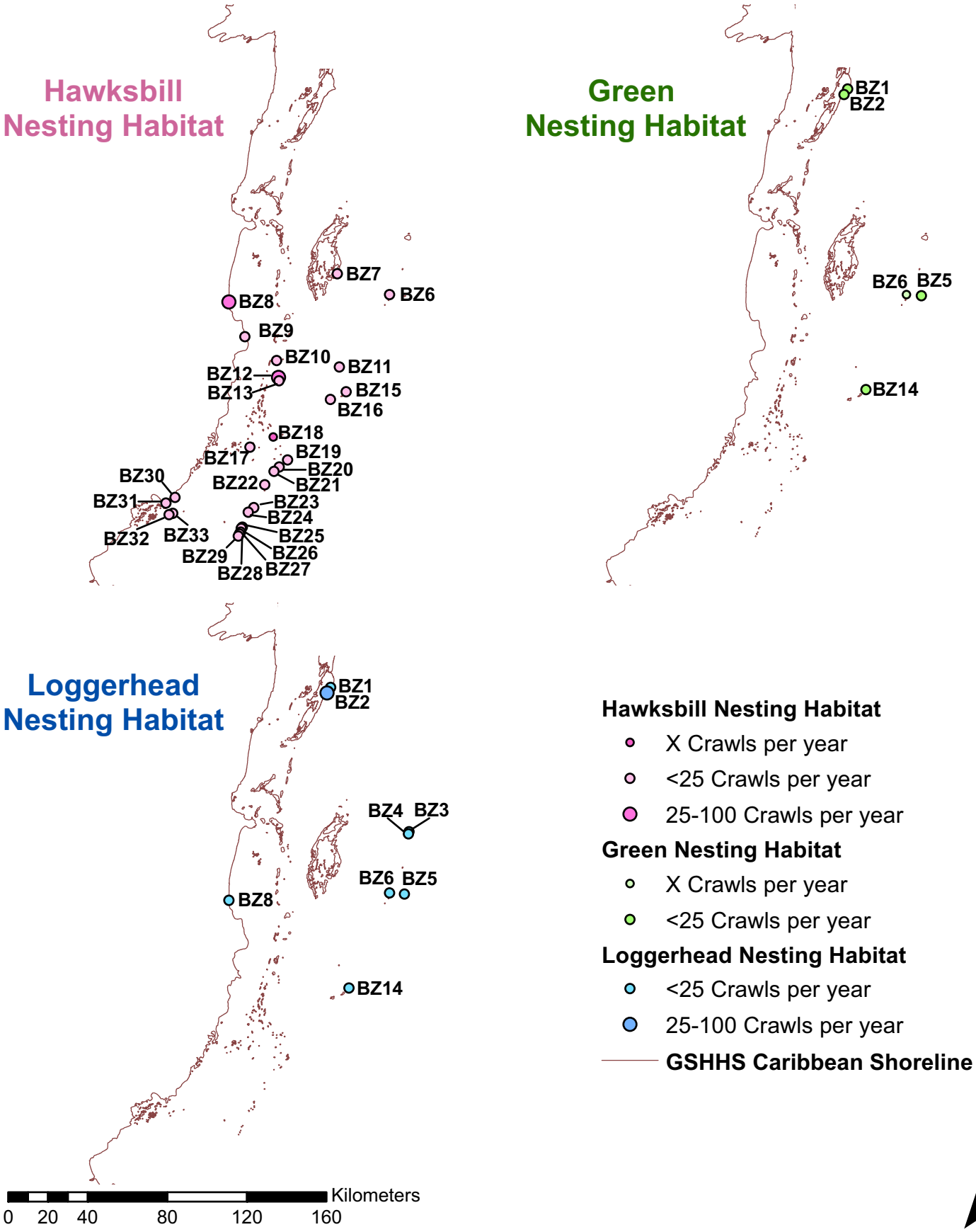
0 15 30 60 90 120

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

Belize Sea Turtle Habitat



Belize Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	No	
Killing of Nesting Females by Predators	Unknown	
Nest Loss to Predators	Yes (U)	
Nest Loss to Abiotic Factors	Yes (U)	Flooding and erosion
Egg Collection by Humans	No	
Harassment Due to Increased Human Presence	Yes (U)	
Artificial Lighting	Yes (U)	
Pollution	Yes (U)	Agriculture, sewage and beach litter/debris
Beach Erosion/Accretion	Yes (U)	Caused by storm events
Beach Armouring/Stabilization Structures	Yes (U)	
Beach Nourishment	No	
Recreational Beach Equipment and/or Other Obstacles	No	
Mechanized Beach Cleaning	No	
Beach Vehicular Use	No	
Sand Mining	Yes (U)	
Exotic (or Loss of Native) Vegetation	Yes (U)	
Livestock Presence on the Beach	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	Anchor damage
Coral Reef Degradation	Yes (U)	Anchor damage
Fisheries Bycatch	Yes (U)	Trawl, hook and line, long line, gillnet and pot/trap
Hunting/Poaching	No	
Pollution	Yes (U)	
Predators	Yes (U)	
Disease/Parasites	Yes (U)	Fibropapillomas
Harassment Due to Increased Human Presence	No	
Dredging	Yes (U)	
Marina and Dock Development	No	
Boat/Personal Water Craft Collisions	No	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	No	
Entanglement	Yes (U)	
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Belize Sea Turtle Habitat

Beach Identification Codes with Beach Names			
BZ1	Rock Point - Bacalar Chico Marine Reserve	BZ18	Gladden
BZ2	Robles Point - Bacalar Chico	BZ19	Silk
BZ3	Lighthouse - Sandbar	BZ20	Round Cay
BZ4	Lighthouse - North	BZ21	Pompion Cay
BZ5	Lighthouse - Half	BZ22	Ranguana
BZ6	Lighthouse - Long	BZ23	Red Rock - Sapodilla Cayes
BZ7	Turneffe - Calabas	BZ24	Tom Owen - Sapodilla Cayes
BZ8	Manatee Bar/Gales Point	BZ25	Northeast Cay - Sapodilla Cayes
BZ9	North Stann Creek	BZ26	Frank - Sapodilla Cayes
BZ10	Tobacco	BZ27	Nicholas - Sapodilla Cayes
BZ11	Glovers - Northeast	BZ28	Hunting - Sapodilla Cayes
BZ12	South Water Caye	BZ29	Lime - Sapodilla Cayes
BZ13	Carrie Bow	BZ30	Punta Negra
BZ14	Glovers - Long	BZ31	Punta Ycacos
BZ15	Glovers - Middle	BZ32	Middle Snake
BZ16	Glovers - Southwest	BZ33	West Snake
BZ17	Laughing Bird		

Bermuda Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	IN, IF
Green Turtle (*Chelonia mydas*)	IN, F
Leatherback Turtle (*Dermochelys coriacea*)	IF
Hawksbill Turtle (*Eretmochelys imbricata*)	F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	I
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	No
Reports of illegal trade internationally	No
General public awareness of laws	Yes
Recent prosecutions or penalties	No
Enforcement considered adequate	Yes
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable

Data Provider

Jennifer Gray

Bermuda Turtle Project

Kilometers

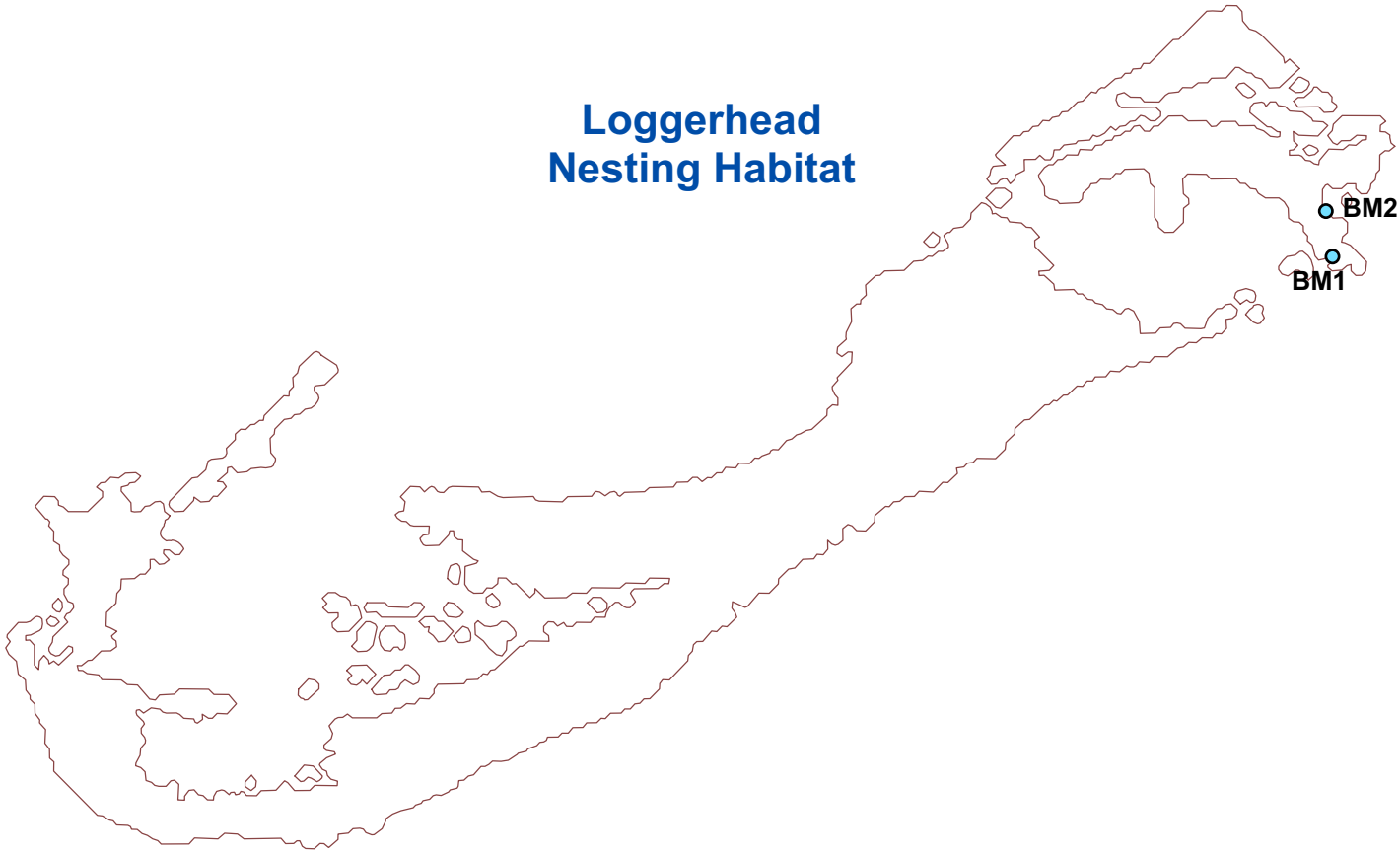
0 1.25 2.5 5 7.5 10

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

Bermuda Sea Turtle Habitat



Kilometers
0 1 2 4 6 8

Loggerhead Nesting Habitat
<25 Crawls per year
GSHHS Caribbean Shoreline

N

Bermuda Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	NA	Nesting on Bermuda is very infrequent
Killing of Nesting Females by Predators	NA	Nesting on Bermuda is very infrequent
Nest Loss to Predators	NA	Nesting on Bermuda is very infrequent
Nest Loss to Abiotic Factors	NA	Nesting on Bermuda is very infrequent
Egg Collection by Humans	NA	Nesting on Bermuda is very infrequent
Harassment Due to Increased Human Presence	NA	Nesting on Bermuda is very infrequent
Artificial Lighting	NA	Nesting on Bermuda is very infrequent
Pollution	NA	Nesting on Bermuda is very infrequent
Beach Erosion/Accretion	NA	Nesting on Bermuda is very infrequent
Beach Armouring/Stabilization Structures	NA	Nesting on Bermuda is very infrequent
Beach Nourishment	NA	Nesting on Bermuda is very infrequent
Recreational Beach Equipment and/or Other Obstacles	NA	Nesting on Bermuda is very infrequent
Mechanized Beach Cleaning	NA	Nesting on Bermuda is very infrequent
Beach Vehicular Use	NA	Nesting on Bermuda is very infrequent
Sand Mining	NA	Nesting on Bermuda is very infrequent
Exotic (or Loss of Native) Vegetation	NA	Nesting on Bermuda is very infrequent
Livestock Presence on the Beach	NA	Nesting on Bermuda is very infrequent
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown; NA = Not Applicable		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	Mooring scars, prop and anchor damage and offshore die offs
Coral Reef Degradation	Yes (R)	Sedimentation and ship groundings
Fisheries Bycatch	Yes (R)	Longline and shoreline fishers
Hunting/Poaching	No	
Pollution	Yes (U)	Marine debris (plastics)
Predators	Yes (U)	Sharks
Disease/Parasites	Yes (U)	Parasites
Harassment Due to Increased Human Presence	Yes(U)	
Dredging	Yes(U)	
Marina and Dock Development	No	
Boat/Personal Water Craft Collisions	Yes (F)	
Power Plant Entrapment	Yes (R)	
Oil and Gas Exploration, Development, Transportation	No	
Entanglement	Yes (F)	
Offshore Artificial Lighting	Yes (R)	Fishing lights (spots and sticks)
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Bermuda Sea Turtle Habitat

Beach Identification Codes with Beach Names			
BM1	Well Bay	BM2	Clearwater Beach

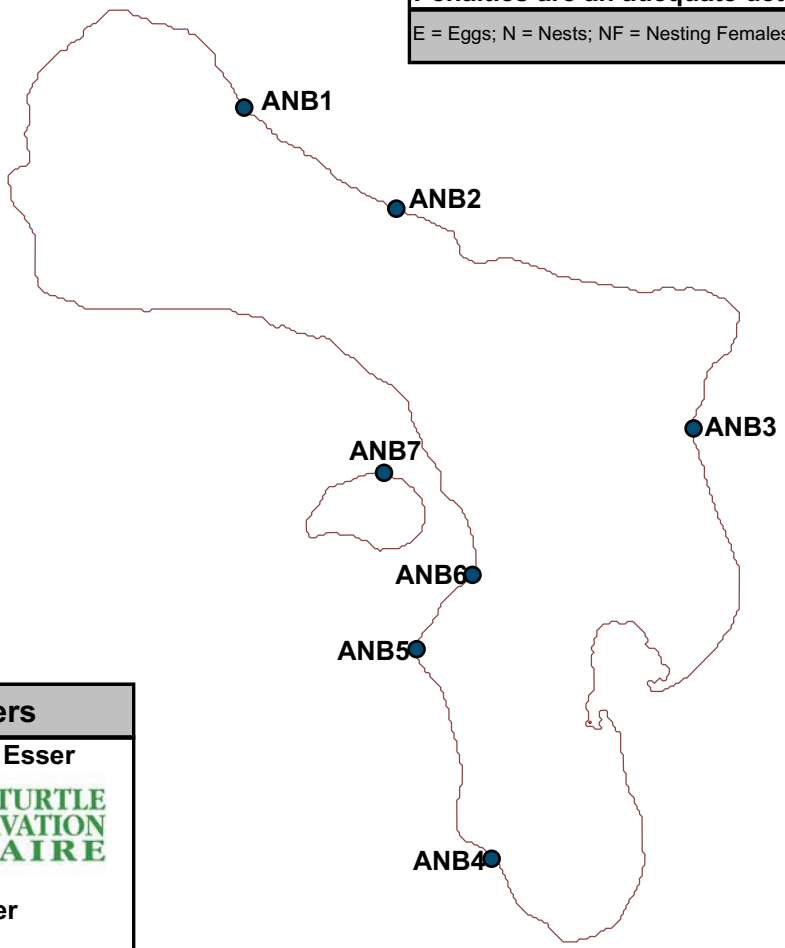
Bonaire Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	I
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	Yes
Gear restrictions	No
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	No
General public awareness of laws	No (Insufficient)
Recent prosecutions or penalties	No
Enforcement considered adequate	No (Insufficient)
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable



Data Providers

Mabel Nava, Imre Esser

SEA TURTLE CONSERVATION BONAIRE

Kalli De Meyer

DCNA Dutch Caribbean Nature Alliance

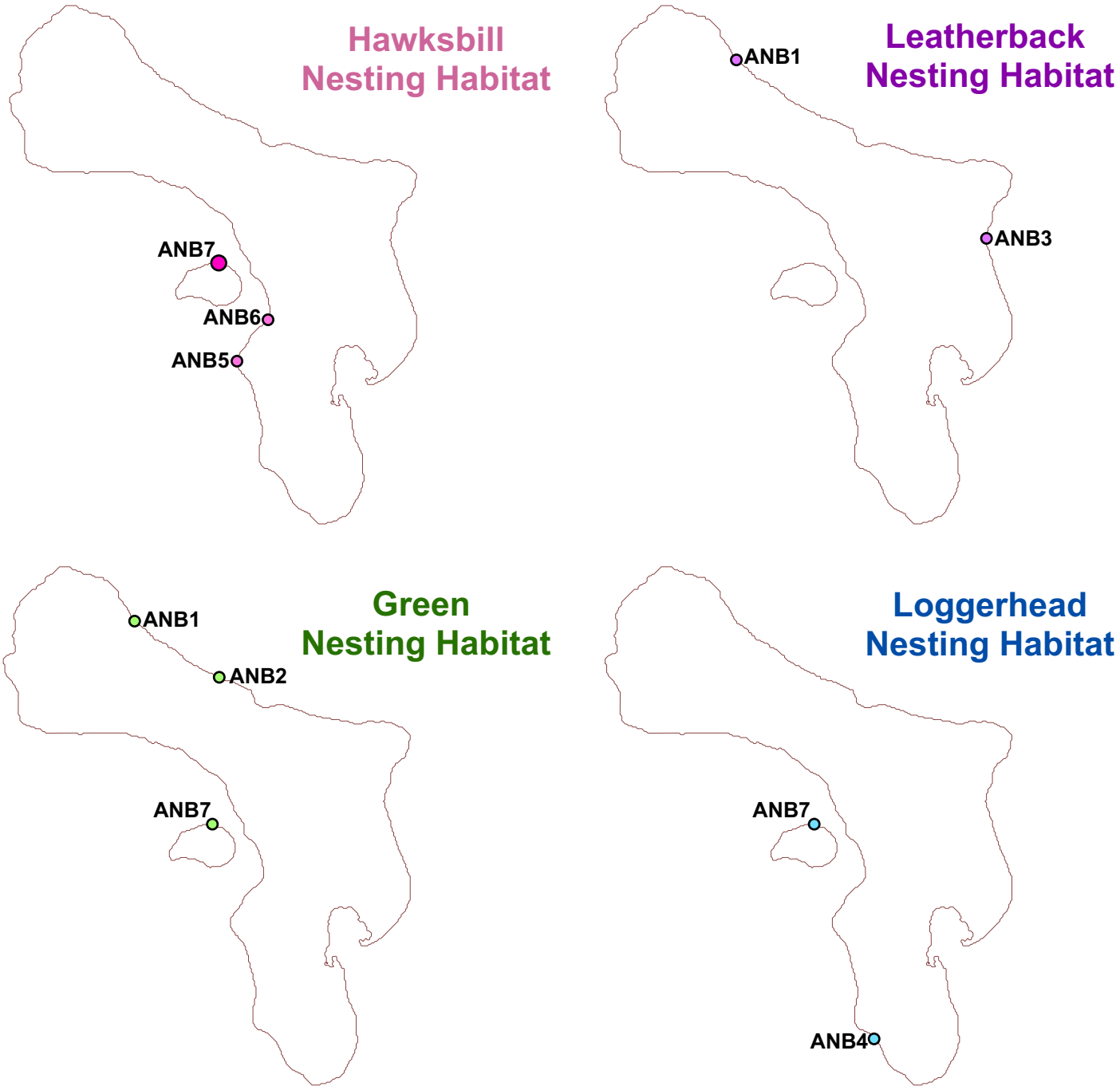
Kilometers
0 2 4 8 12 16

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

Bonaire Sea Turtle Habitat



Hawksbill Nesting Habitat

- <25 Crawls per year
- 25-100 Crawls per year

Green Nesting Habitat

- <25 Crawls per year

Leatherback Nesting Habitat

- <25 Crawls per year

Loggerhead Nesting Habitat

- <25 Crawls per year

GSHHS Caribbean Shoreline

Kilometers

0 2.5 5 10 15 20

N

Bonaire Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (R)	Very rare - one female killed in 2006
Killing of Nesting Females by Predators	No	
Nest Loss to Predators	No	
Nest Loss to Abiotic Factors	Yes (U)	Erosion caused by storm events
Egg Collection by Humans	No	
Harassment Due to Increased Human Presence	No	
Artificial Lighting	Yes (R)	Very recent problem (2006)
Pollution	Yes (U)	Beach litter/debris
Beach Erosion/Accretion	Yes (U)	Caused by storm events
Beach Armouring/Stabilization Structures	No	
Beach Nourishment	No	
Recreational Beach Equipment and/or Other Obstacles	No	
Mechanized Beach Cleaning	No	
Beach Vehicular Use	No	
Sand Mining	Yes (FA)	Onima; Lagun and Waski Kemba (destroyed)
Exotic (or Loss of Native) Vegetation	No	
Livestock Presence on the Beach	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	No	
Coral Reef Degradation	Yes (R)	Some (very little) degradation, disease and bleaching
Fisheries Bycatch	Yes (R)	Hook and line, long line and "nets" undefined
Hunting/Poaching	Yes (R)	
Pollution	Yes (U)	Sewage, cruise ship/yachts and marine debris
Predators	Yes (U)	Fish and birds
Disease/Parasites	Yes (U)	Fibropapillomas
Harassment Due to Increased Human Presence	No	
Dredging	No	
Marina and Dock Development	Yes (U)	One section on the west coast
Boat/Personal Water Craft Collisions	No	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	No	
Entanglement	Yes (R)	Fishing line
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Bonaire Sea Turtle Habitat

Beach Identification Codes with Beach Names			
ANB1	Playa Chikitu	ANB5	Light House Beach Resort
ANB2	Boca Onima	ANB6	Donkey Beach
ANB3	Lagun	ANB7	No Name Beach
ANB4	Fisherman's Huts		

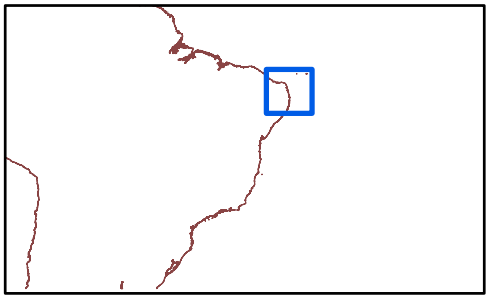
Brazil Sea Turtle Habitat
Rio Grande do Norte and Pernambuco

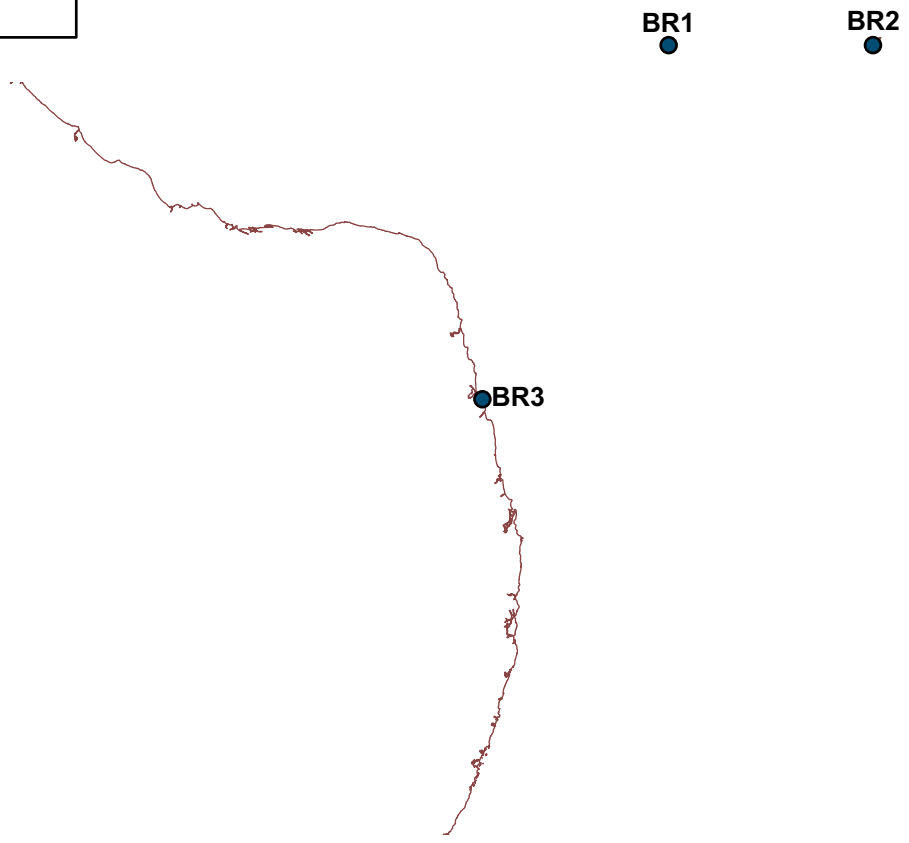
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N, F?
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	N, F

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	No
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes*
Reports of illegal trade internationally	No
General public awareness of laws	Yes
Recent prosecutions or penalties	No
Enforcement considered adequate	Yes
Penalties are an adequate deterrent	No (Insufficient)

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * Native Indian





Data Providers

Maria Marcovaldi, Luciano Soares, Alexandro Santos, Cláudio Belllini

Projeto TAMAR IBAMA

Kilometers
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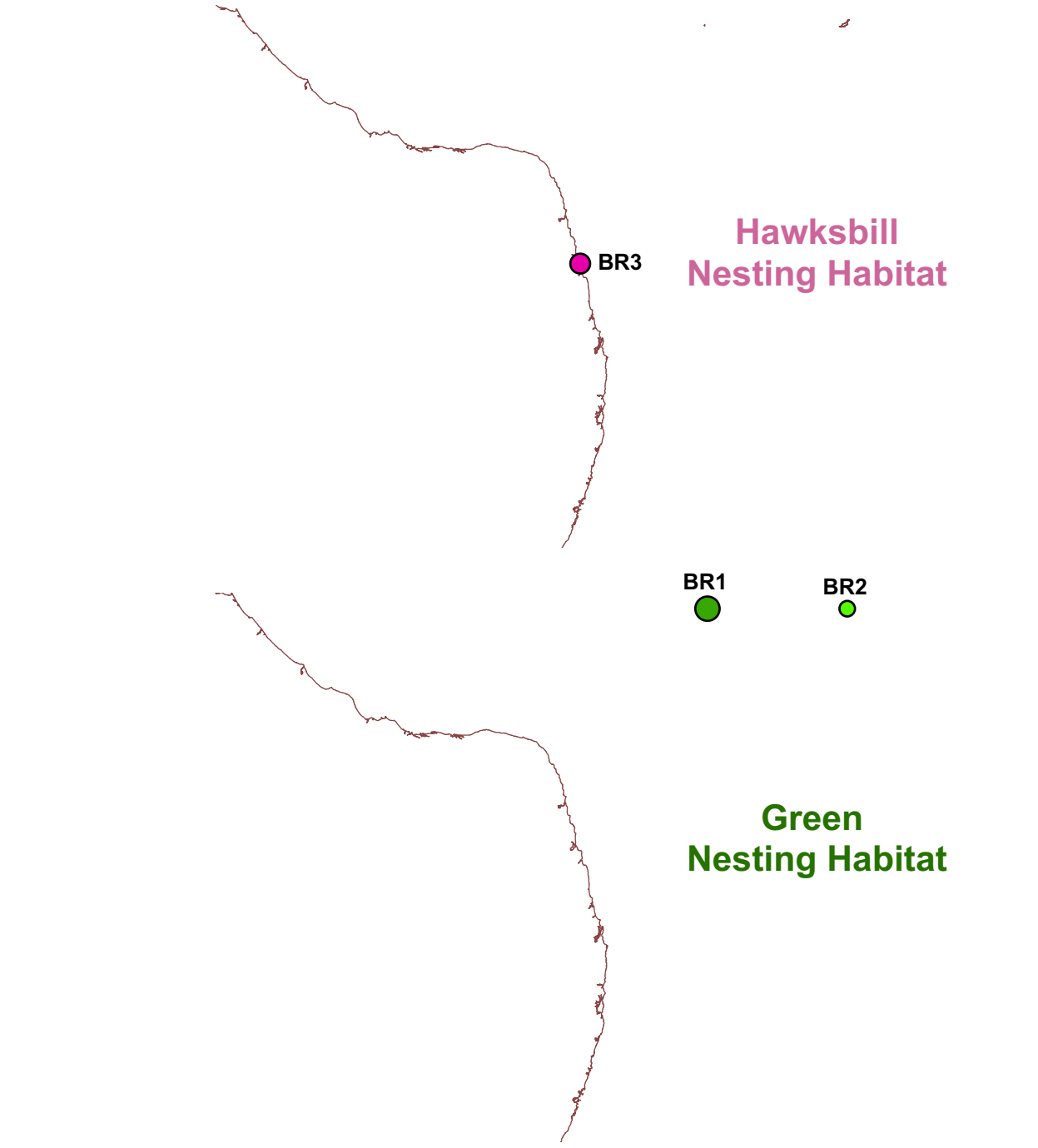
N

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

Brazil Sea Turtle Habitat
Rio Grande do Norte and Pernambuco



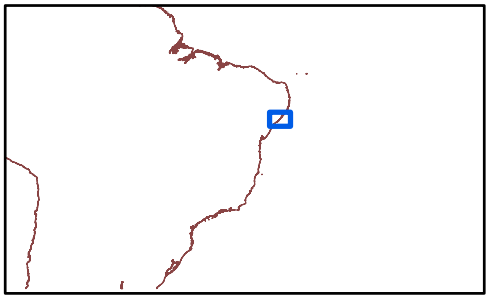
Brazil Sea Turtle Habitat
Sergipe

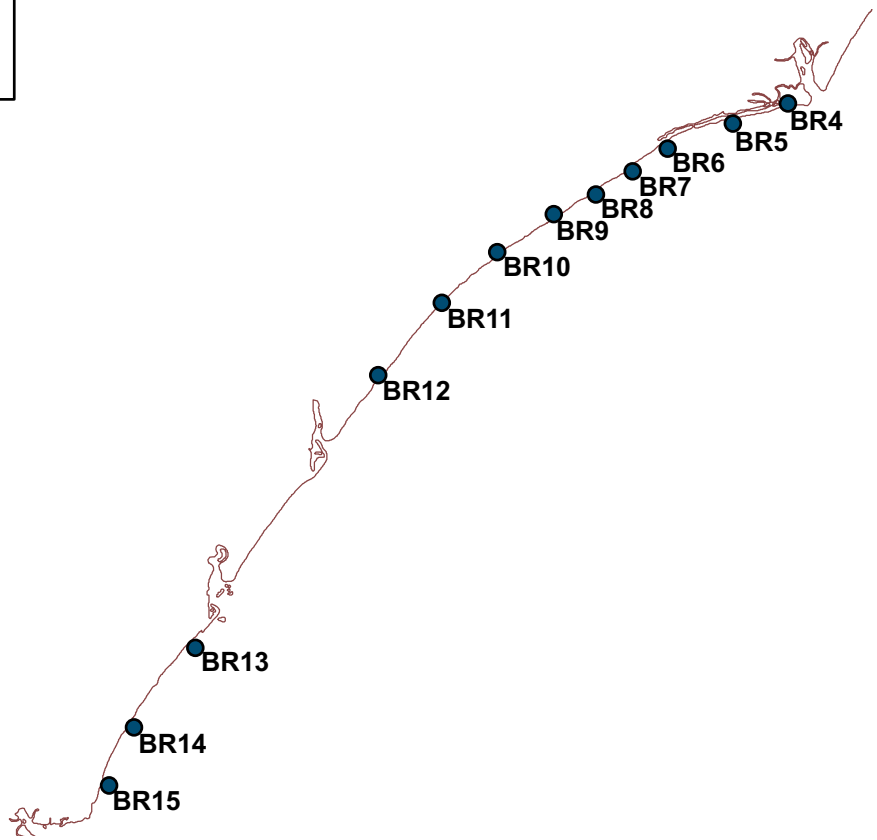
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N, F?
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	N, F

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	No
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes*
Reports of illegal trade internationally	No
General public awareness of laws	Yes
Recent prosecutions or penalties	No
Enforcement considered adequate	Yes
Penalties are an adequate deterrent	No (Insufficient)

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * Native Indian





Data Providers

Maria Marcovaldi, Luciano Soares, Alexandro Santos, Augusto Cesar Coelho Dias da Silva

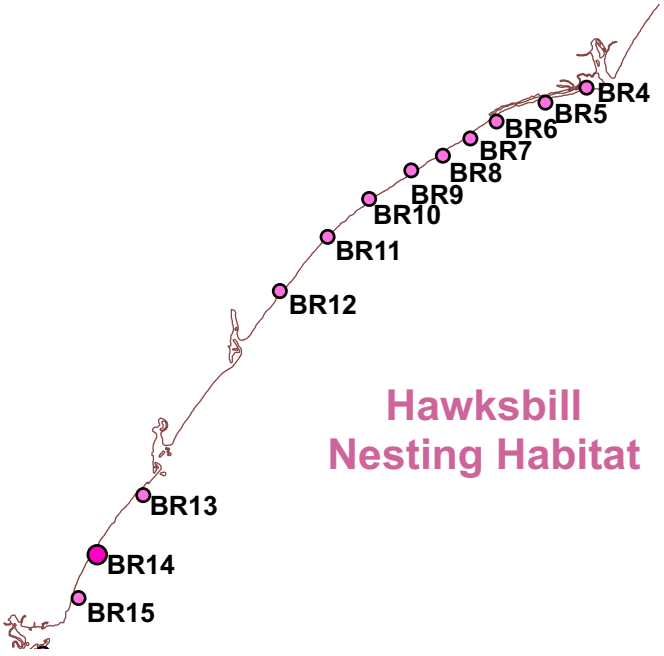
Projeto TAMAR IBAMA

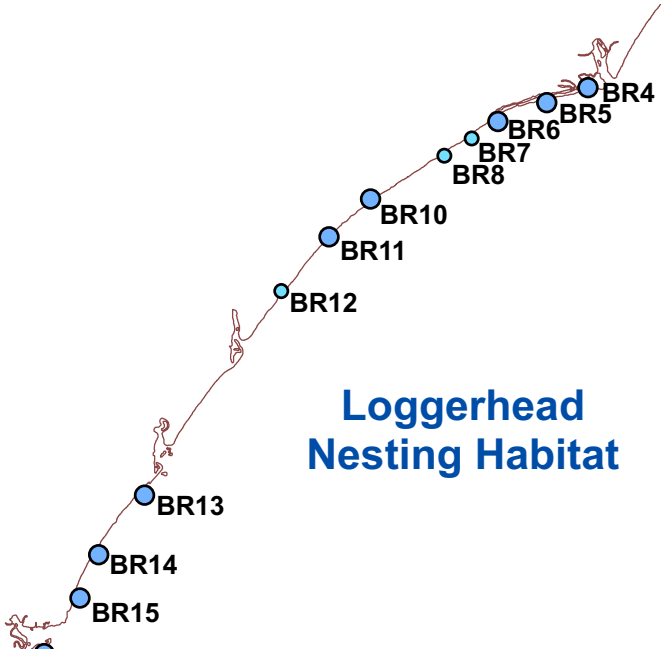
Kilometers
0 5 10 20 30 40

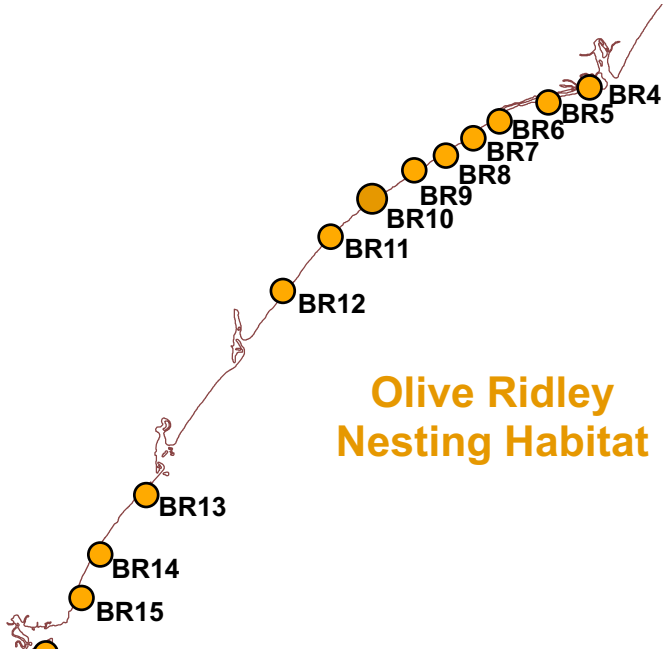
Sea Turtle Nesting Habitat
GSHHS Caribbean Shoreline

N

Brazil Sea Turtle Habitat
Sergipe





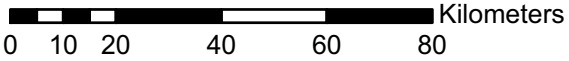


Hawksbill Nesting Habitat
- <25 Crawls per year
- 25-100 Crawls per year

Loggerhead Nesting Habitat
- <25 Crawls per year
- 25-100 Crawls per year

Olive Ridley Nesting Habitat
- 100-500 Crawls per year
- 500-1000 Crawls per year

GSHHS Caribbean Shoreline



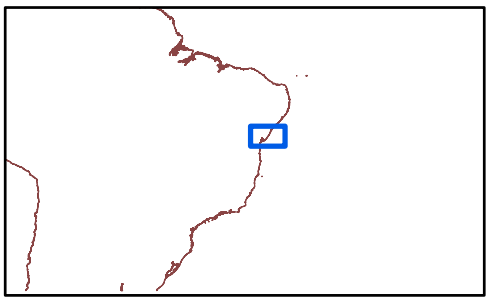
Brazil Sea Turtle Habitat
Bahia

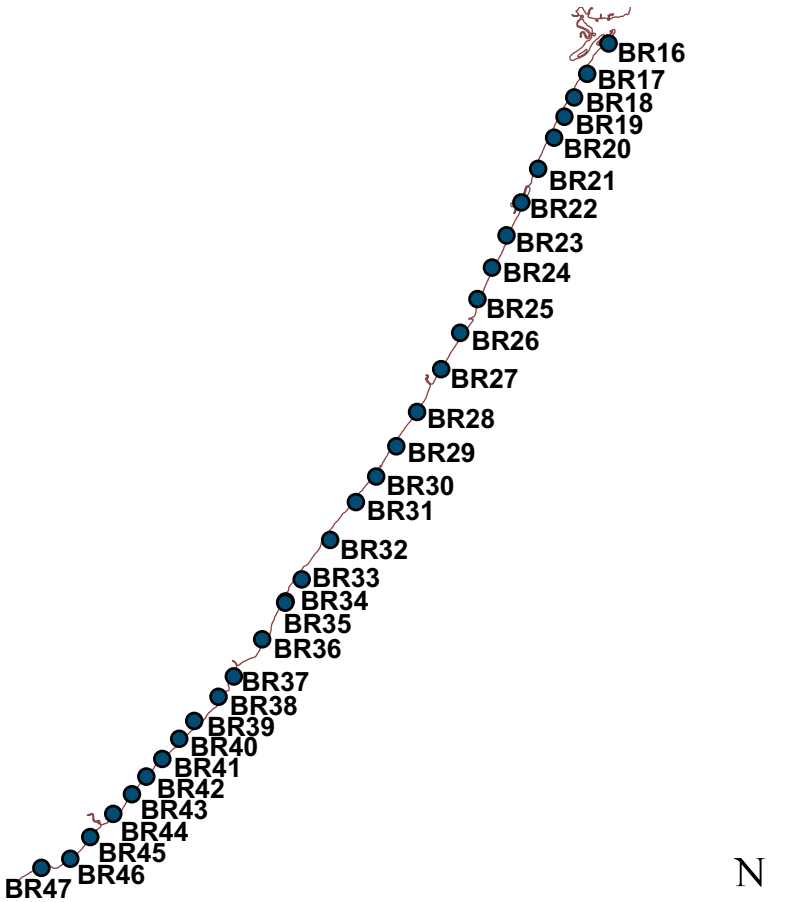
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N, F?
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	N, F

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	No
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes*
Reports of illegal trade internationally	No
General public awareness of laws	Yes
Recent prosecutions or penalties	No
Enforcement considered adequate	Yes
Penalties are an adequate deterrent	No (Insufficient)

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * Native Indian





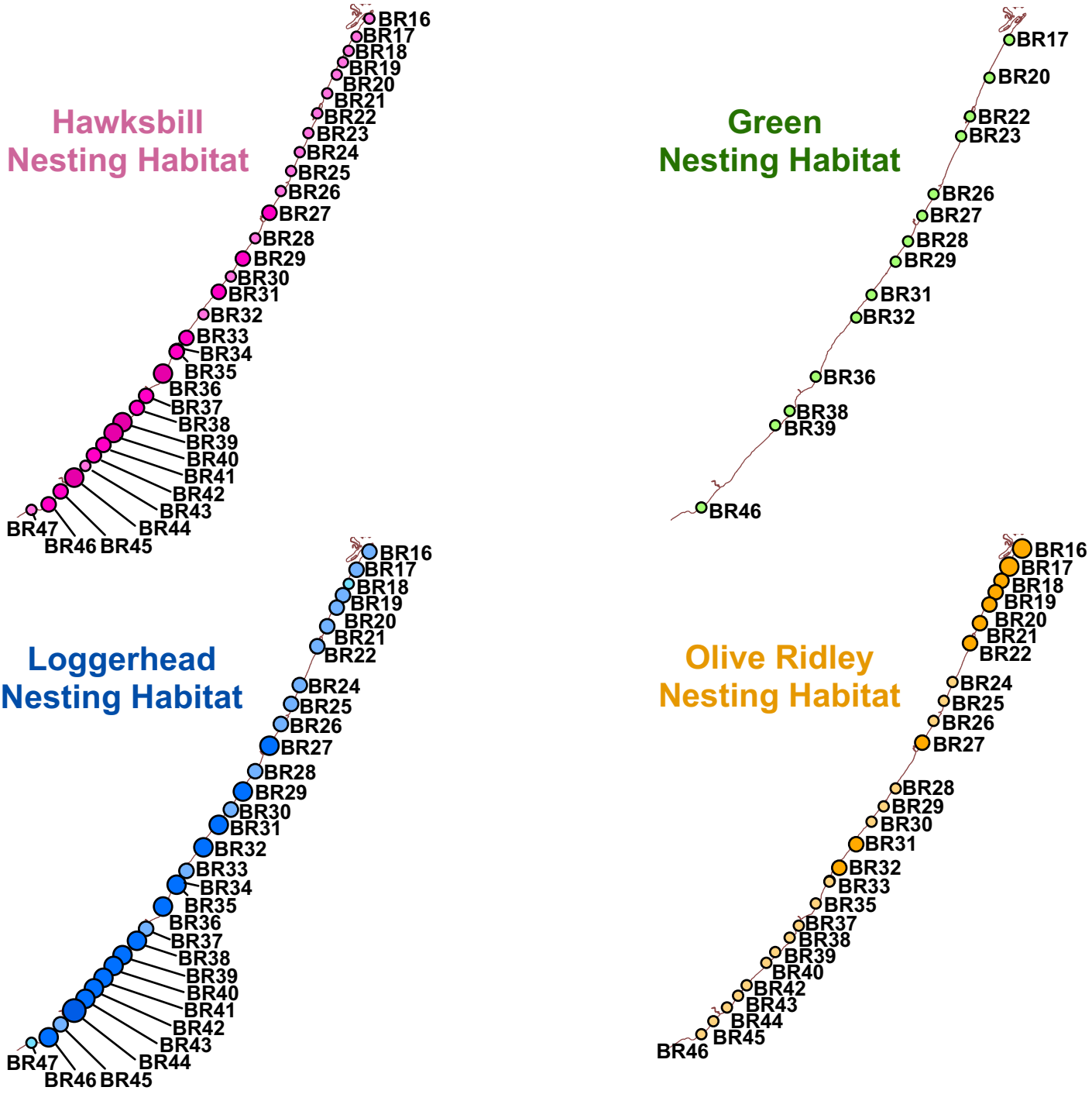
Data Providers

Maria Marcovaldi, Luciano Soares, Alexandro Santos, Gustave Lopez

Projeto TAMAR IBAMA

Kilometers
0 10 20 40 60 80

Brazil Sea Turtle Habitat
Bahia



Hawksbill Nesting Habitat

- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year

Loggerhead Nesting Habitat

- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year
- 500-1000 Crawls pe ryear

Green Nesting Habitat

- <25 Crawls per year

Olive Ridley Nesting Habitat

- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year

GSHHS Caribbean Shoreline

N

Kilometers

0 12.5 25 50 75 100

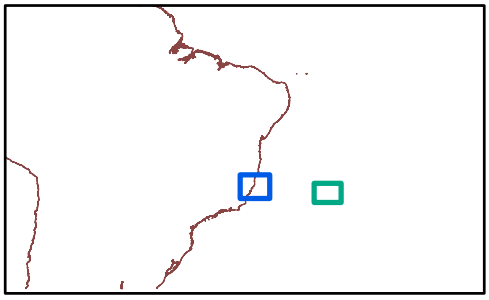
Brazil Sea Turtle Habitat
Espírito Santo

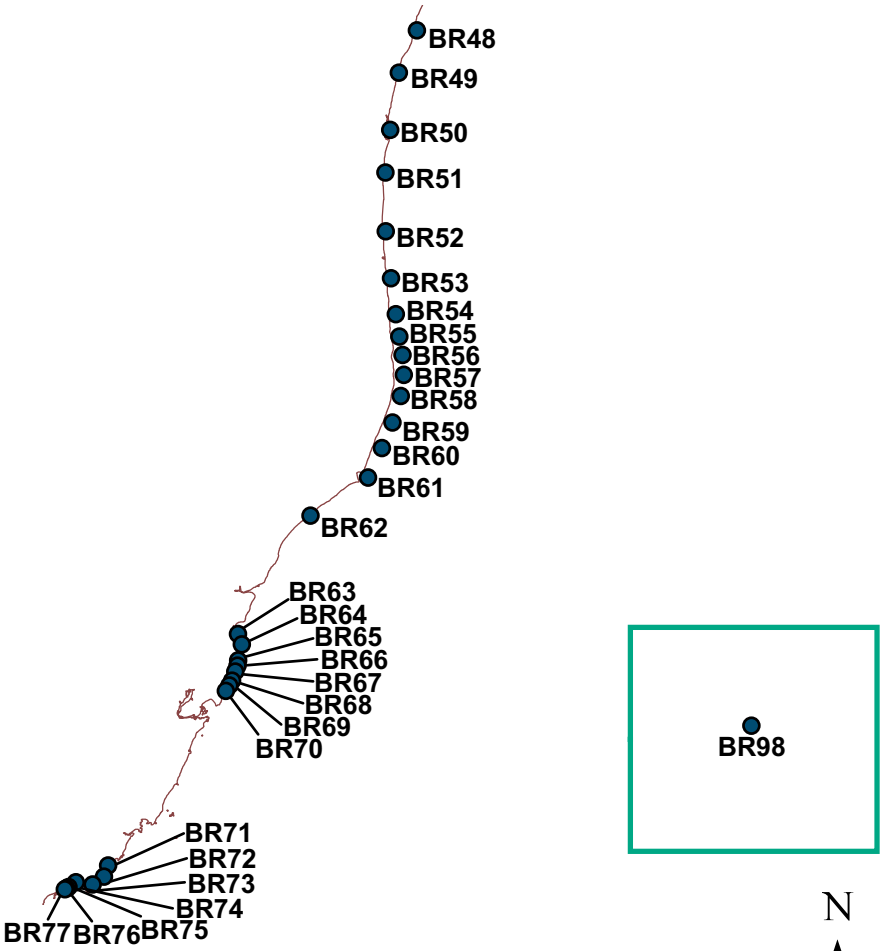
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N, F?
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	N, F

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	No
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes*
Reports of illegal trade internationally	No
General public awareness of laws	Yes
Recent prosecutions or penalties	No
Enforcement considered adequate	Yes
Penalties are an adequate deterrent	No (Insufficient)

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * Native Indian



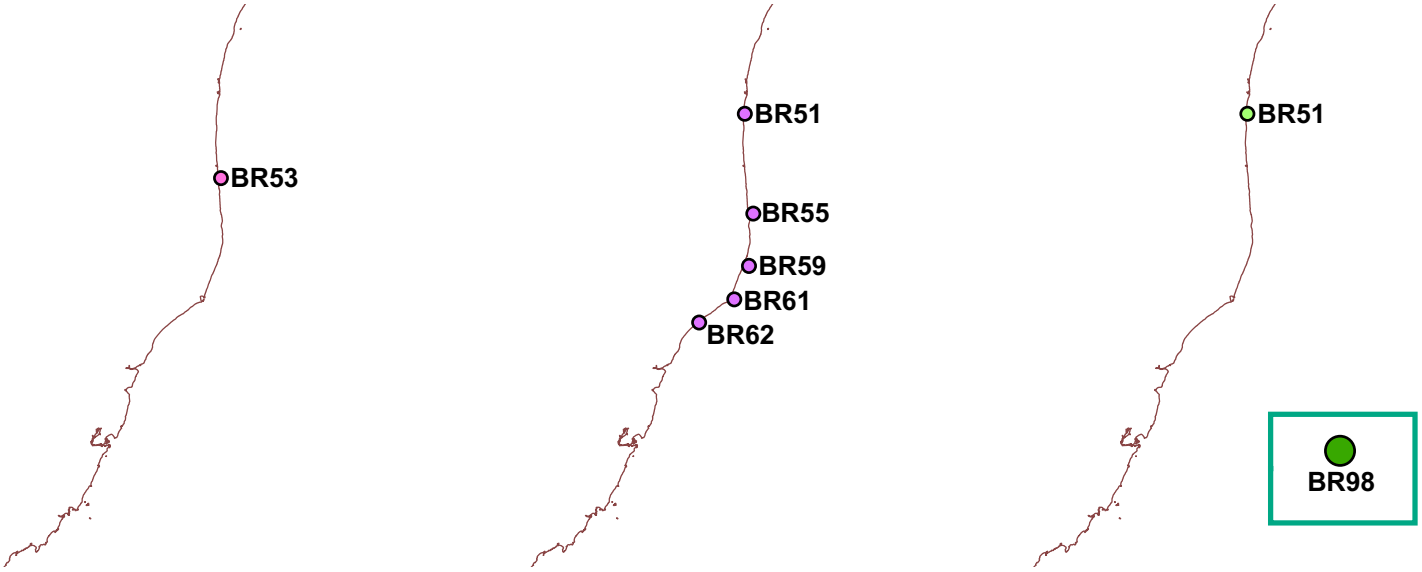


Data Providers

Maria Marcovaldi, Luciano Soares, Alexandro Santos, João Carlos Thomé

Projeto TAMAR IBAMA

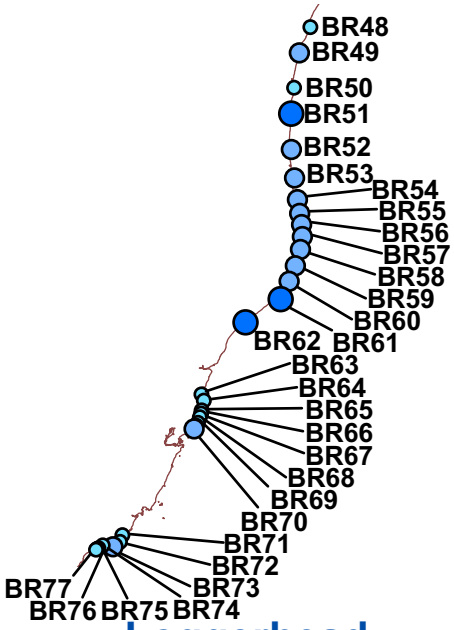
Brazil Sea Turtle Habitat
Espírito Santo



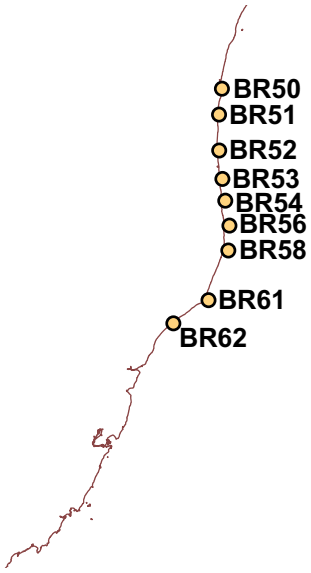
Hawksbill Nesting Habitat

Leatherback Nesting Habitat

Green Nesting Habitat



Loggerhead Nesting Habitat



Olive Ridley Nesting Habitat

Hawksbill Nesting Habitat
- <25 Crawls per year

Leatherback Nesting Habitat
- <25 Crawls per year

Loggerhead Nesting Habitat
- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year

Green Nesting Habitat
- <25 Crawls per year
- 500-1000 Crawls per year

Olive Ridley Nesting Habitat
- <25 Crawls per year

GSHHS Caribbean Shoreline

N

Kilometers
0 30 60 120 180 240

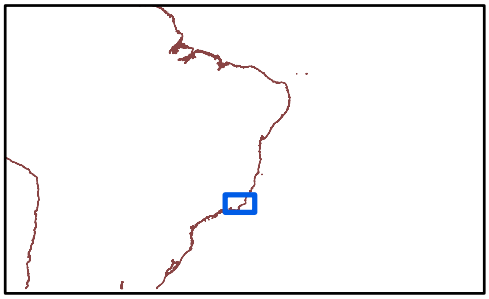
Brazil Sea Turtle Habitat
Rio de Janeiro

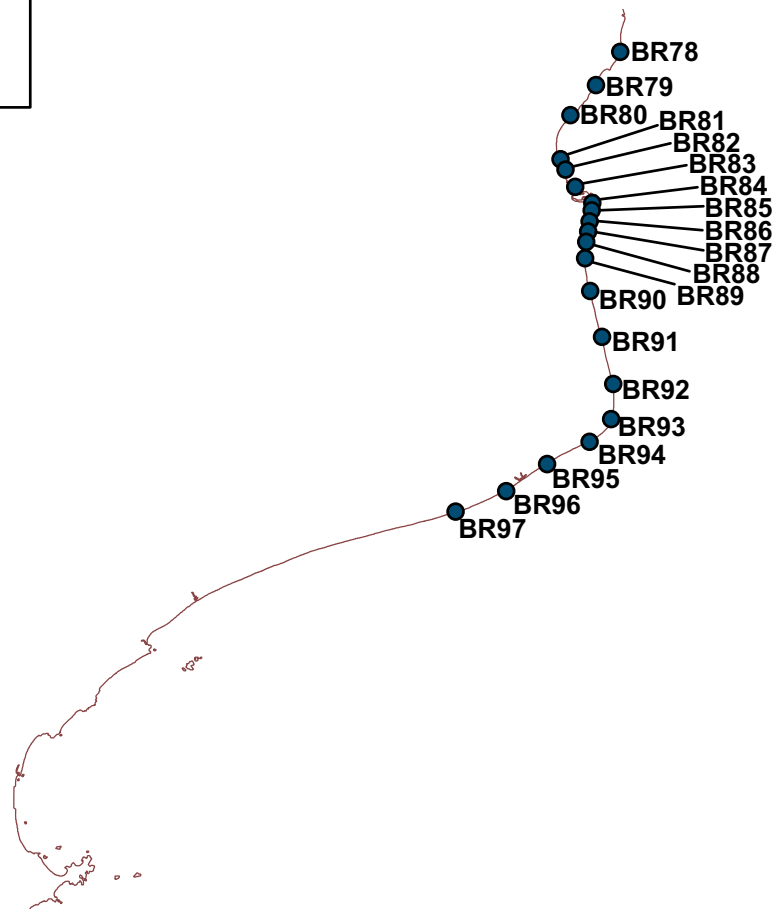
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N, F?
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	N, F

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	No
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes*
Reports of illegal trade internationally	No
General public awareness of laws	Yes
Recent prosecutions or penalties	No
Enforcement considered adequate	Yes
Penalties are an adequate deterrent	No (Insufficient)

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * Native Indian





Data Providers

Maria Marcovaldi, Luciano Soares, Alexandro Santos, Eron Paes e Lima

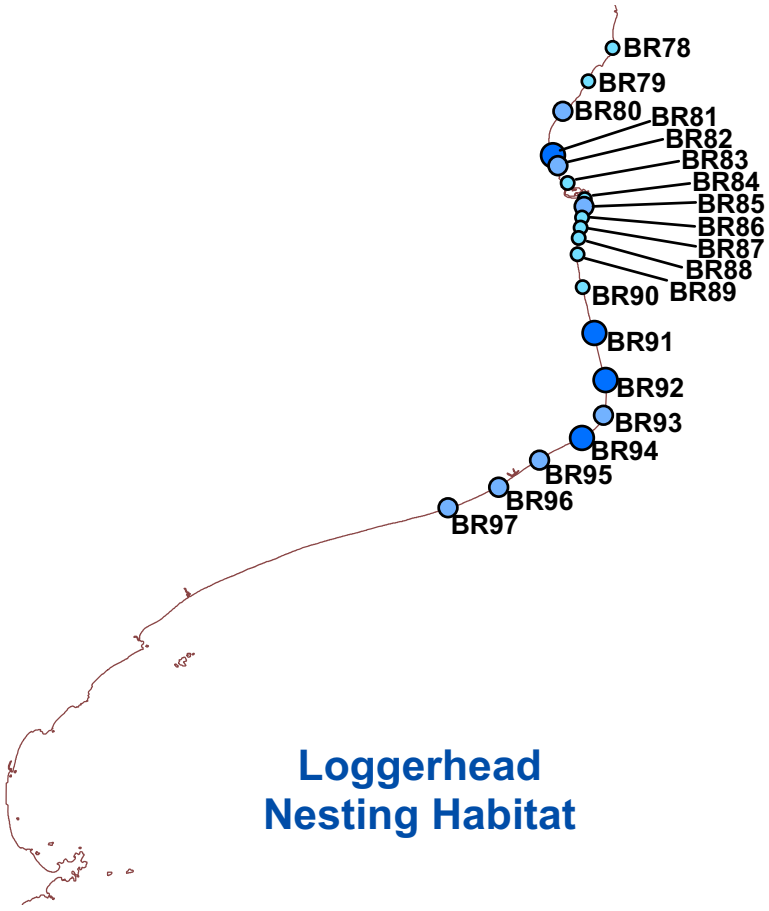
Projeto TAMAR IBAMA

Kilometers
0 10 20 40 60 80

Sea Turtle Nesting Habitat
GSHHS Caribbean Shoreline

N

Brazil Sea Turtle Habitat
Rio de Janeiro



Loggerhead Nesting Habitat

- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year
- **GSHHS Caribbean Shoreline**

N

0 10 20 40 60 80 Kilometers

Brazil Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (O)	In areas not monitored by Tamar
Killing of Nesting Females by Predators	Yes (R)	Dogs
Nest Loss to Predators	Yes (O)	Foxes, pigs and dogs
Nest Loss to Abiotic Factors	Yes (O)	Flood and erosion
Egg Collection by Humans	Yes (O)	
Harassment Due to Increased Human Presence	Yes (O)	Tourist encounters with nesting females
Artificial Lighting	Yes (FA)	
Pollution	Yes (U)	Sewage, garbage, tar and oil
Beach Erosion/Accretion	Yes (U)	Caused by natural events
Beach Armouring/Stabilization Structures	Yes (R)	
Beach Nourishment	No	
Recreational Beach Equipment and/or Other Obstacles	Yes (O)	Only in particular areas
Mechanized Beach Cleaning	No	
Beach Vehicular Use	Yes (FA)	
Sand Mining	Yes (R)	
Exotic (or Loss of Native) Vegetation	Yes (U)	Coconut palm trees - exotic, but present for the last 500 years
Livestock Presence on the Beach	Yes (O)	

Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Unknown	
Coral Reef Degradation	Unknown	
Fisheries Bycatch	Yes (F)	Gillnets, fix cages, trawls, floating cages, pelagic longline and pelagic drift nets
Hunting/Poaching	Yes (O)	In areas not monitored by Tamar
Pollution	Yes (U)	Petroleum, sewage and marine debris
Predators	Unknown	
Disease/Parasites	Yes (U)	Fibropapillomas
Harassment Due to Increased Human Presence	Yes (R)	
Dredging	Yes (R)	
Marina and Dock Development	Unknown	
Boat/Personal Water Craft Collisions	Yes (R)	
Power Plant Entrapment	Yes (R)	
Oil and Gas Exploration, Development, Transportation	Yes (U)	
Entanglement	Yes (F)	Fishing net debris
Offshore Artificial Lighting	No	

Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown

Brazil Sea Turtle Habitat

Beach Identification Codes with Beach Names			
BR1	Atol das Rocas	BR50	Conceicao da Barra
BR2	Fernando de Noronha	BR51	Guriri
BR3	Pipa	BR52	Barra Nova
BR4	Cabeço	BR53	Campo Grande
BR5	Funil	BR54	Barra Seca
BR6	Pta dos Mangues	BR55	Pontal do Ipiranga
BR7	Tigre	BR56	Ipiranga
BR8	Santa Isabel	BR57	Ipiranguinha
BR9	Lagoa Redonda	BR58	Degredo
BR10	Pirambu	BR59	Cacimbas
BR11	Rato	BR60	Monsaras
BR12	Barra dos Coqueiros	BR61	Povoação
BR13	Caueira	BR62	Comboios
BR14	Abais	BR63	Nova Almeida
BR15	Boa Viagem	BR64	Costa Bela
BR16	Mangue Seco	BR65	Jacareipe
BR17	Coqueiro	BR66	Baleia
BR18	Dunas	BR67	Manguinhos
BR19	Vapor	BR68	Bicanga
BR20	Lote	BR69	Carapebus
BR21	Costa Azul	BR70	Praia Mole
BR22	Siribinha	BR71	Mae Ba
BR23	Poças	BR72	Alem
BR24	Corre Nú	BR73	Guanabara
BR25	Barra de Itariri	BR74	Balaco
BR26	Salinas	BR75	Santa Helena
BR27	Ribeiro	BR76	Costa Azul
BR28	Baixios	BR77	Areia Preta
BR29	Mamucabo	BR78	Tatagiba
BR30	Subaúma	BR79	Barrinha
BR31	Massarandupió	BR80	Praia do Sonho
BR32	Porto Sauípe	BR81	Gargau
BR33	Santo Antonio	BR82	Praia do Sul
BR34	Sauípe	BR83	Convivencia
BR35	Imbassaí	BR84	Pontal
BR36	Praia do Forte	BR85	Atafona
BR37	Itacimirim	BR86	Balneario
BR38	Guarajuba	BR87	Chapeu do Sol
BR39	Jacuípe	BR88	Grussai
BR40	Berta	BR89	Iquipari
BR41	Arembepe	BR90	Caminho das Conchas
BR42	Santa Maria	BR91	Aþú
BR43	Jauá	BR92	Maria Rosa
BR44	Busca Vida	BR93	Farolzinho
BR45	Buraquinho	BR94	Farol
BR46	Itapuã	BR95	Barra do Furado
BR47	Salvador	BR96	São Miguel
BR48	Praia 2	BR97	Flexeira
BR49	Itaúnas	BR98	Ilha da Trindade

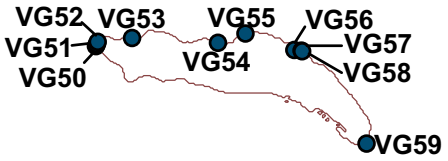
British Virgin Islands Sea Turtle Habitat

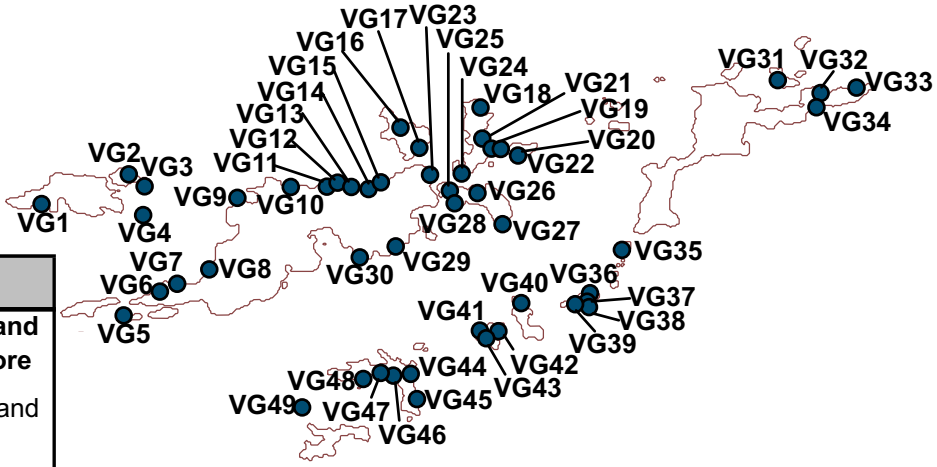
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	IN, IF
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	No
Moratorium (fixed period)	Yes (Leatherback & Loggerhead)
Prohibition(s) on take	E, Leatherback, Loggerhead
Closed season	Yes
Minimum size limits	Yes
Maximum size limits	No
Annual quota	No
Permits/licenses required	Yes
Gear restrictions	Yes*
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes**
General public awareness of laws	Yes
Recent prosecutions or penalties	Yes***
Enforcement considered adequate	No
Penalties are an adequate deterrent	No

E = Eggs; N = Nests; NF = Nesting Females; * For sea turtle direct take, not for other fisheries; ** Generally from BVI to USVI; *** Pending court trial (2006)





Data Providers

Mervin Hastings, Bertrand Lettsome, Shannon Gore

Conservation and Fisheries Department

Kilometers

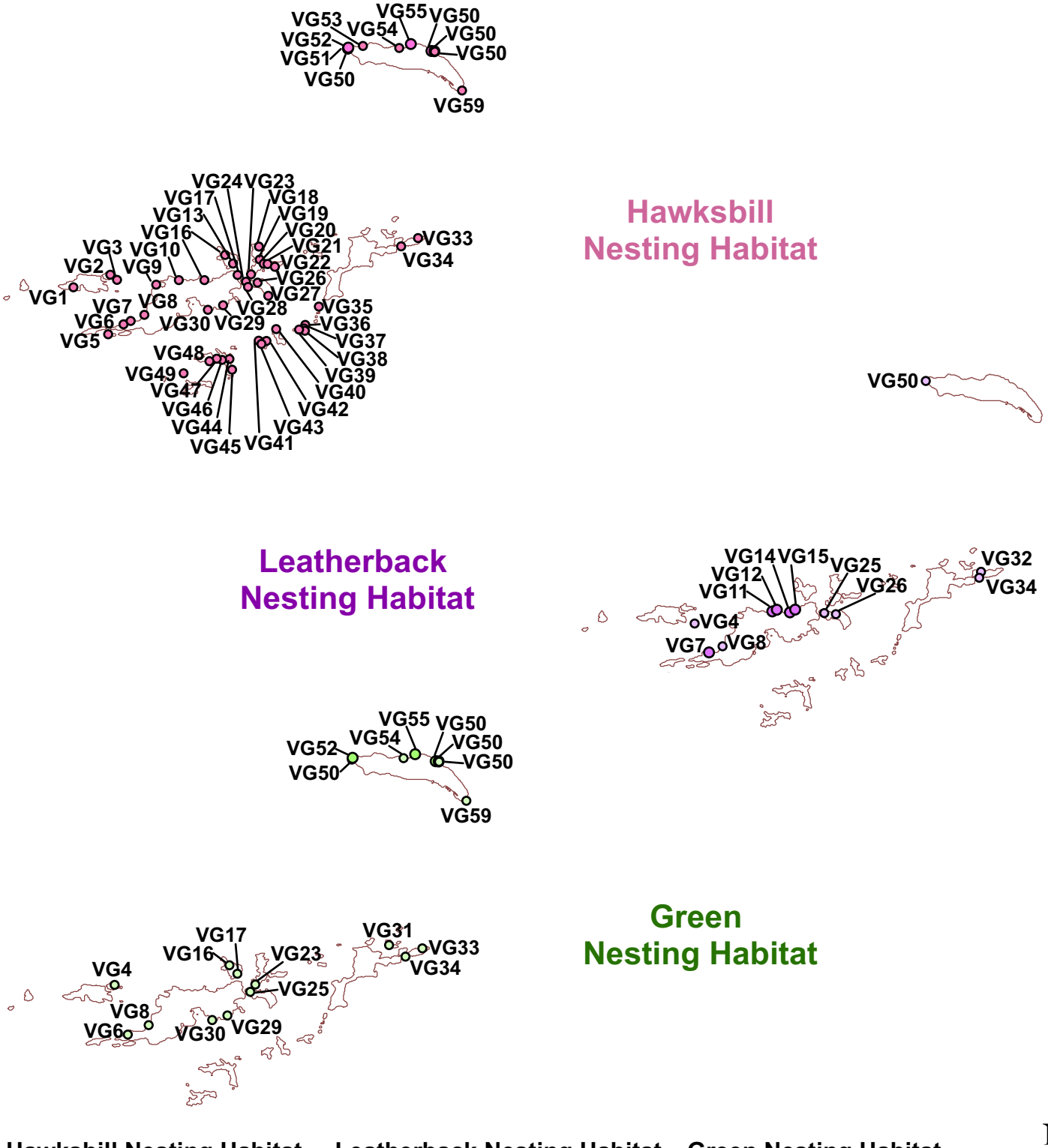
0 3 6 12 18 24

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

British Virgin Islands Sea Turtle Habitat



British Virgin Islands Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (R)	
Killing of Nesting Females by Predators	No	
Nest Loss to Predators	Yes (R)	Birds
Nest Loss to Abiotic Factors	Yes (U)	Erosion
Egg Collection by Humans	Yes (R)	
Harassment Due to Increased Human Presence	Yes (FA)	
Artificial Lighting	Yes (U)	
Pollution	Yes (U)	Beach litter/debris
Beach Erosion/Accretion	Yes (U)	
Beach Armouring/Stabilization Structures	No	
Beach Nourishment	No	
Recreational Beach Equipment and/or Other Obstacles	Yes (FA)	
Mechanized Beach Cleaning	No	
Beach Vehicular Use	Yes (R)	
Sand Mining	No	
Exotic (or Loss of Native) Vegetation	Yes (R)	
Livestock Presence on the Beach	Yes (R)	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	Sedimentation
Coral Reef Degradation	Yes (U)	
Fisheries Bycatch	Yes (R)	Long line, chemical and pot/trap
Hunting/Poaching	Yes (O)	During open and closed seasons
Pollution	Yes (U)	Agriculture, sewage, cruise ships/yachts, industrial runoff and marine debris
Predators	Yes (U)	Sharks and fish
Disease/Parasites	Yes (U)	Fibropapillomas
Harassment Due to Increased Human Presence	Yes (U)	
Dredging	Yes (O)	
Marina and Dock Development	Yes (U)	Plans for more development
Boat/Personal Water Craft Collisions	Yes (R)	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	No	
Entanglement	Yes (U)	Gear and pots
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

British Virgin Islands Sea Turtle Habitat

Beach Identification Codes with Beach Names			
VG1	White Bay - Jost Van Dyke	VG31	Optuntia Point - Prickly Pear
VG2	Crawl Beach - Little Jost Van	VG32	Deep Bay - Virgin Gorda
VG3	Sandy Spit Beach - Sandy Spit	VG33	Oil Nut Bay - Virgin Gorda
VG4	Sandy Cay Beach - Sandy Cay	VG34	Bercher's Bay - Virgin Gorda
VG5	Northwest Coast - Little Thatch Island	VG35	North Lee Bay - Fallen Jerusalem
VG6	Smuggler's Cove - Tortola	VG36	Grape Tree Landing - Ginger Island
VG7	Long Bay-Belmont - Tortola	VG37	The Sound Beach - Ginger Island
VG8	Capoon's Bay - Tortola	VG38	Wedego Bay - Ginger Island
VG9	Brewer's Bay - Tortola	VG39	South Bay - Ginger Island
VG10	Larmer's Bay - Tortola	VG40	Coral Bay - Cooper Island
VG11	Trunk Bay - Tortola	VG41	Salt Island Bay - Salt Island
VG12	Rogues Bay - Tortola	VG42	Sound Beach - Salt Island
VG13	Cooten Bay - Tortola	VG43	South Bay - Salt Island
VG14	Josiah's Bay - Tortola	VG44	Big Reef Bay - Peter Island
VG15	Lambert Beach - Tortola	VG45	Little Reef Bay - Peter Island
VG16	North Beach - Guana Island	VG46	White Bay - Peter Island
VG17	Dig-a-Low Beach - Guana Island	VG47	Sand Pierre Bay - Peter Island
VG18	North Bay - Great Camanoe	VG48	West of Key Point - Peter Island
VG19	Cam Bay - Great Camanoe	VG49	Pelican Island
VG20	West End Beaches - Scrub Island	VG50	West End - Anegada
VG21	North Bay - Scrub Island	VG51	Ruffling Point - Anegada
VG22	West South Beach - Scrub Island	VG52	Northwest Point - Anegada
VG23	East End/South Bay - Little Camanoe	VG53	Cow Wreck Bay - Anegada
VG24	Lloyd's Beach - Tortola	VG54	Windlass - Anegada
VG25	Long Bay - Beef Island	VG55	Soldier Wash - Anegada
VG26	Trellis Bay - Beef Island	VG56	Anegada
VG27	Bluff Bay - Beef Island	VG57	Anegada
VG28	Well Bay - Beef Island	VG58	Loblolly Bay - Anegada
VG29	Halfmoon Bay - Tortola	VG59	East Point - Anegada
VG30	Sophie Bay - Tortola		

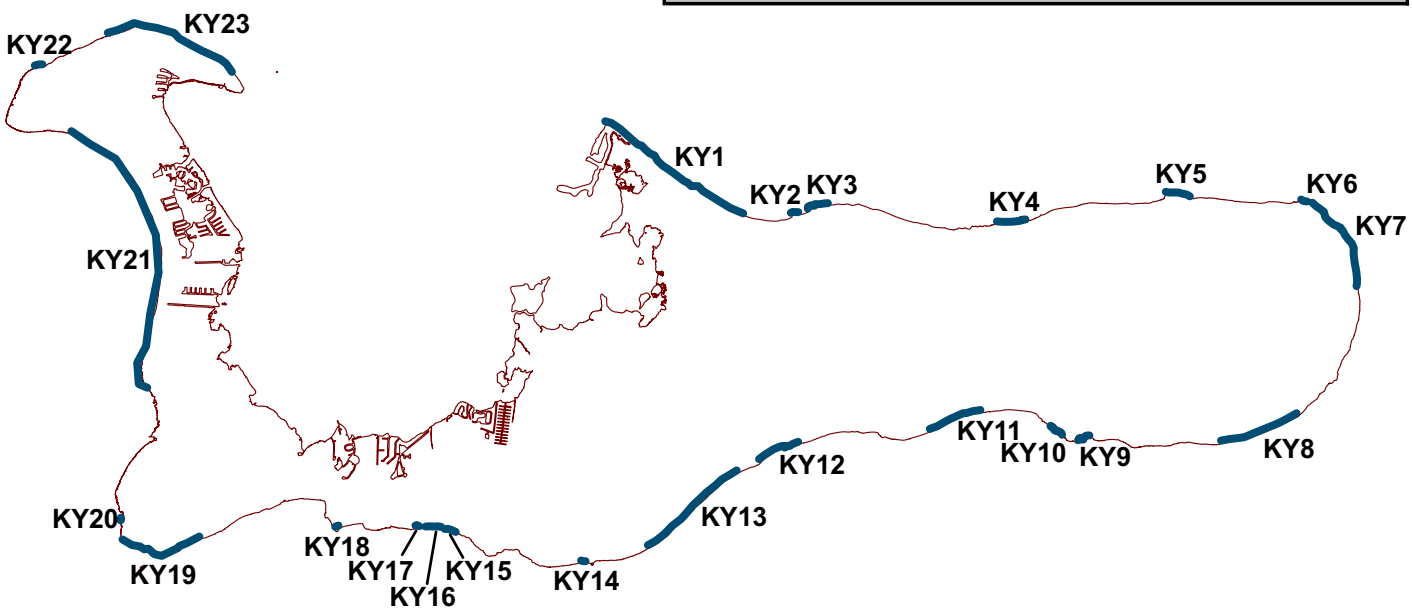
Cayman Islands Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, IF
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	A
Hawksbill Turtle (*Eretmochelys imbricata*)	F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	No*
Moratorium (fixed period)	No
Prohibition(s) on take	E, N, NF
Closed season	Yes
Minimum size limits	No
Maximum size limits	Yes
Annual quota	Yes
Permits/licenses required	Yes
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	No
General public awareness of laws	Yes
Recent prosecutions or penalties	Yes
Enforcement considered adequate	Yes
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * Traditional harvest



Data Providers

Gina Ebanks-Petrie, Janice Blumenthal, Joni Solomon

Department of Environment

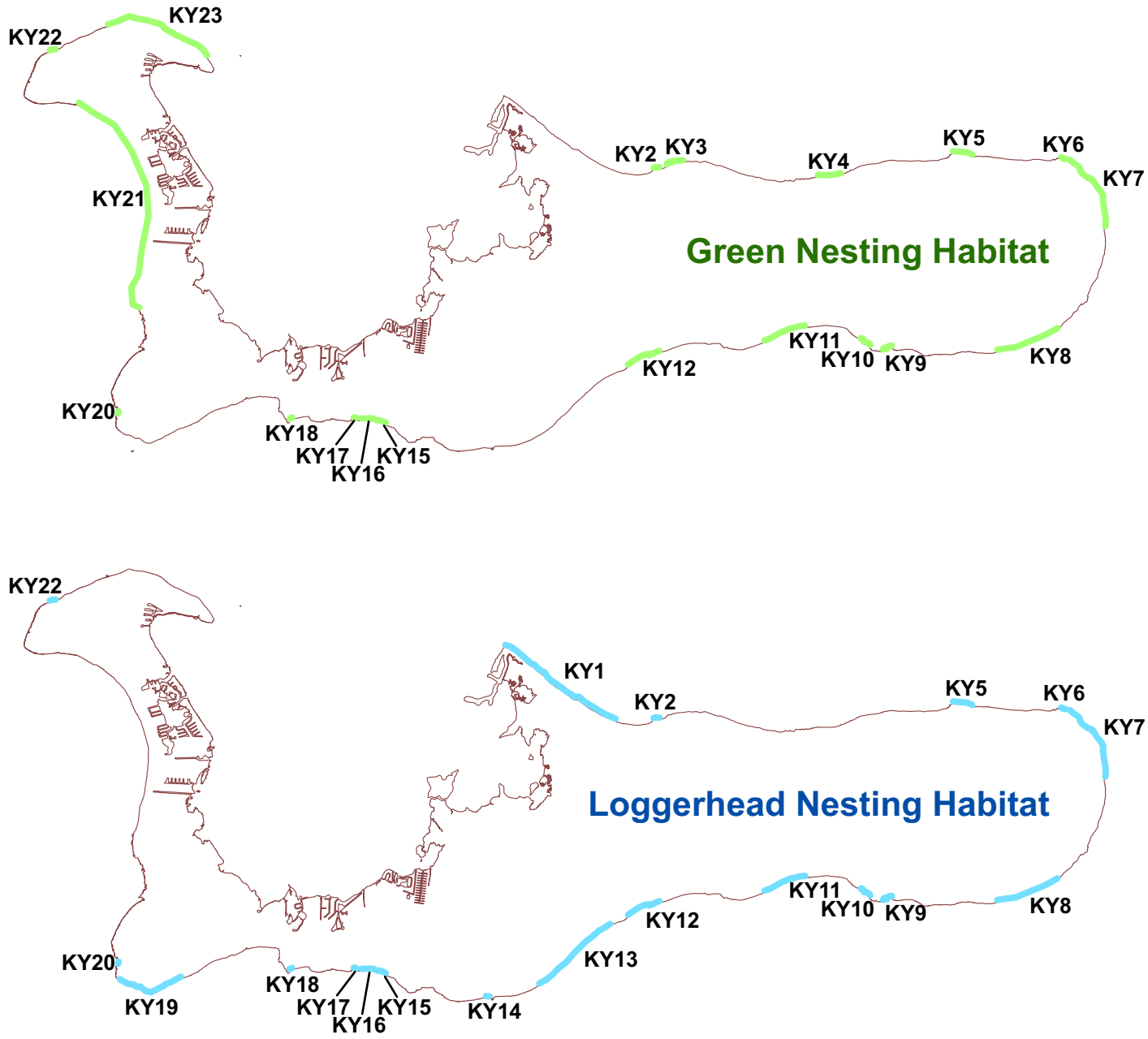
Kilometers
0 1 2 4 6 8

Sea Turtle Nesting Habitat

Cayman Islands Shoreline

N

Cayman Islands Sea Turtle Habitat



Cayman Islands Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (R)	
Killing of Nesting Females by Predators	No	
Nest Loss to Predators	No	
Nest Loss to Abiotic Factors	Yes (R)	Erosion (<10 nests/year)
Egg Collection by Humans	Yes (R)	
Harassment Due to Increased Human Presence	Yes (R)	
Artificial Lighting	Yes (O)	
Pollution	No	
Beach Erosion/Accretion	Yes (R)	Beach Erosion caused by storm events
Beach Armouring/Stabilization Structures	No	
Beach Nourishment	No	
Recreational Beach Equipment and/or Other Obstacles	Yes (R)	
Mechanized Beach Cleaning	Yes (R)	
Beach Vehicular Use	Yes (R)	
Sand Mining	No	
Exotic (or Loss of Native) Vegetation	Yes (R)	
Livestock Presence on the Beach	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Unknown	
Coral Reef Degradation	Yes (U)	Anchor damage, sedimentation, declining water quality
Fisheries Bycatch	Yes (O)	Hook and line and pot/trap
Hunting/Poaching	Yes (R)	
Pollution	Yes (R)	Marine debris
Predators	Yes (R)	Sharks
Disease/Parasites	Yes (R)	Fibropapillomas
Harassment Due to Increased Human Presence	Yes (U)	
Dredging	No	
Marina and Dock Development	No	
Boat/Personal Water Craft Collisions	Yes (R)	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	No	
Entanglement	Yes (R)	
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

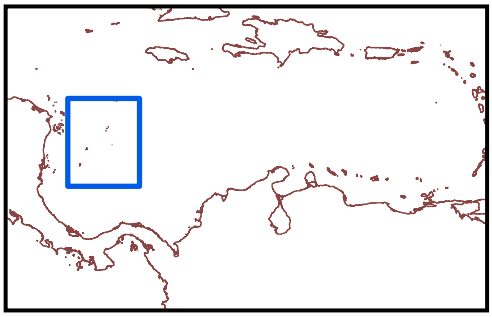
Cayman Islands Sea Turtle Habitat

Beach Identification Codes with Beach Names			
KY1	Rum Point	KY13	Bodden Town
KY2	Miller's Beach	KY14	Beach Bay
KY3	Chrisholm Road	KY15	Bat Cave Beach
KY4	Little Spotts	KY16	Spots Beach
KY5	Barefoot Gardens	KY17	Spots Dock
KY6	Spotters Way	KY18	Prospect Point
KY7	Morrits Tortuga	KY19	South Sound
KY8	East End	KY20	SS808
KY9	Half Moon Bay	KY21	Seven Mile Beach
KY10	Cottage	KY22	Sand Hole Road
KY11	Frank Sound	KY23	Barkers
KY12	Pease Bay		

Colombia Sea Turtle Habitat

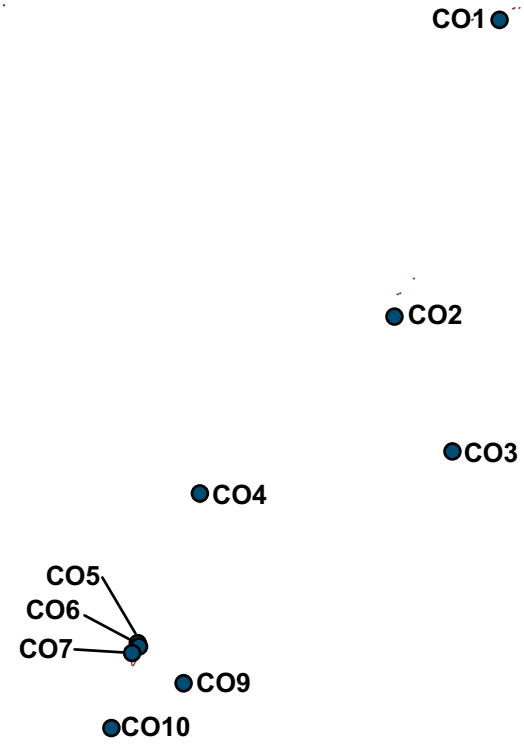
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N, F?
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	I

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent



National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes*
Moratorium (fixed period)	–
Prohibition(s) on take	Hawksbill
Closed season	No
Minimum size limits	No
Maximum size limits	No
Annual quota	No
Permits/licenses required	No
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	No
Recent prosecutions or penalties	Unknown
Enforcement considered adequate	No
Penalties are an adequate deterrent	Unknown

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * Except for Subsistence Take



Data Providers

Elizabeth Taylor,
Zunilda Baldonado

coralina

Claudia Ceballos

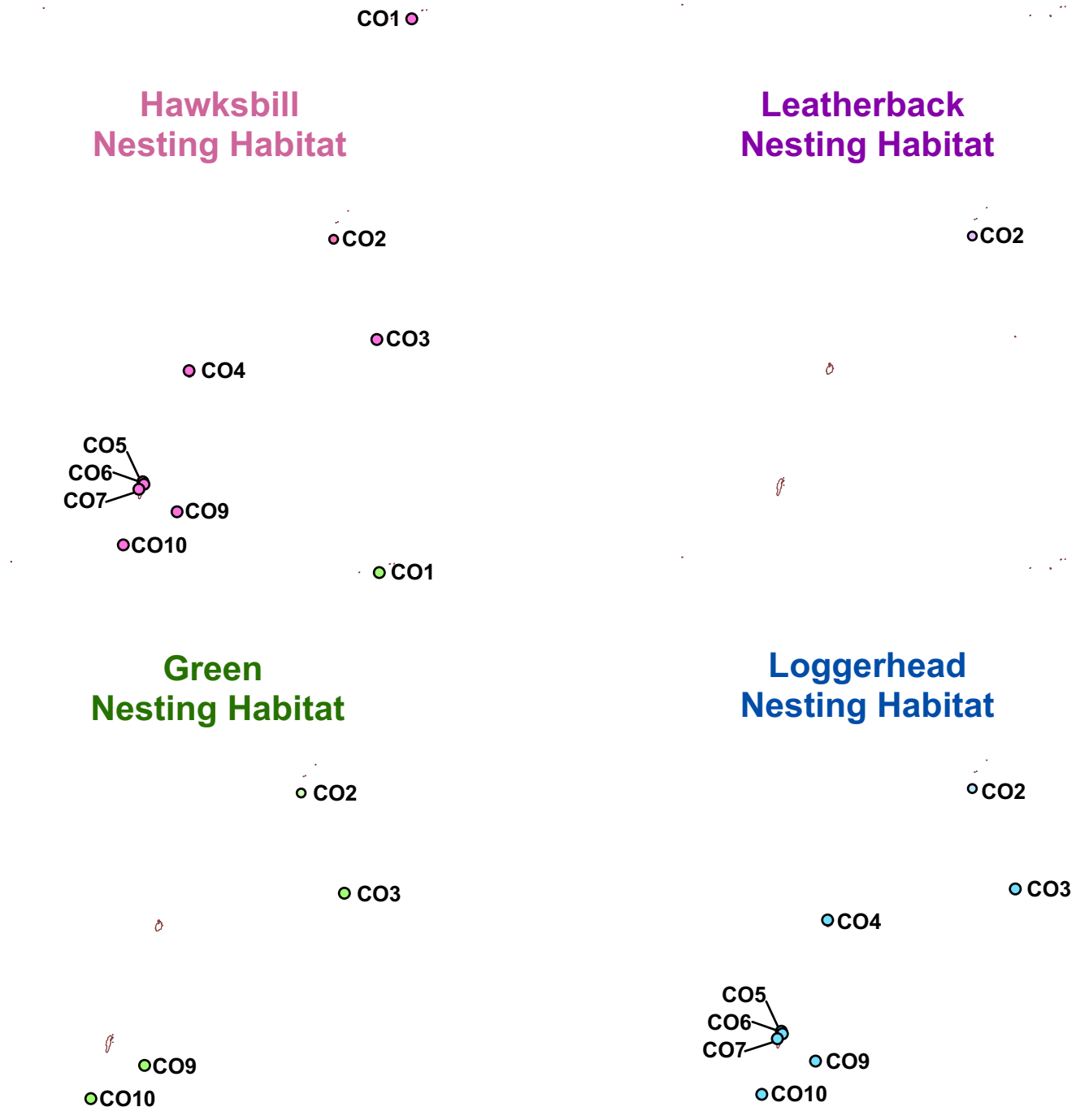
Instituto de Investigaciones Marinas y Costeras José Benito Vives de Andréis

Kilometers
0 30 60 120 180 240

- **Sea Turtle Nesting Habitat**
- **GSHHS Caribbean Shoreline**

N

Colombia Sea Turtle Habitat



Hawksbill Nesting Habitat

- X Crawls per year
- <25 Crawls per year

Green Nesting Habitat

- X Crawls per year
- <25 Crawls per year

Leatherback Nesting Habitat

- X Crawls per year

Loggerhead Nesting Habitat

- X Crawls per year
- <25 Crawls per year

GSHHS Caribbean Shoreline

Kilometers

0 35 70 140 210 280

N

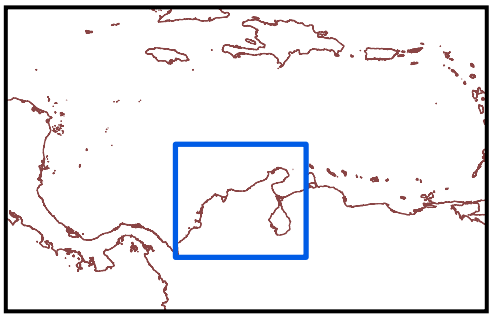
Colombia Sea Turtle Habitat

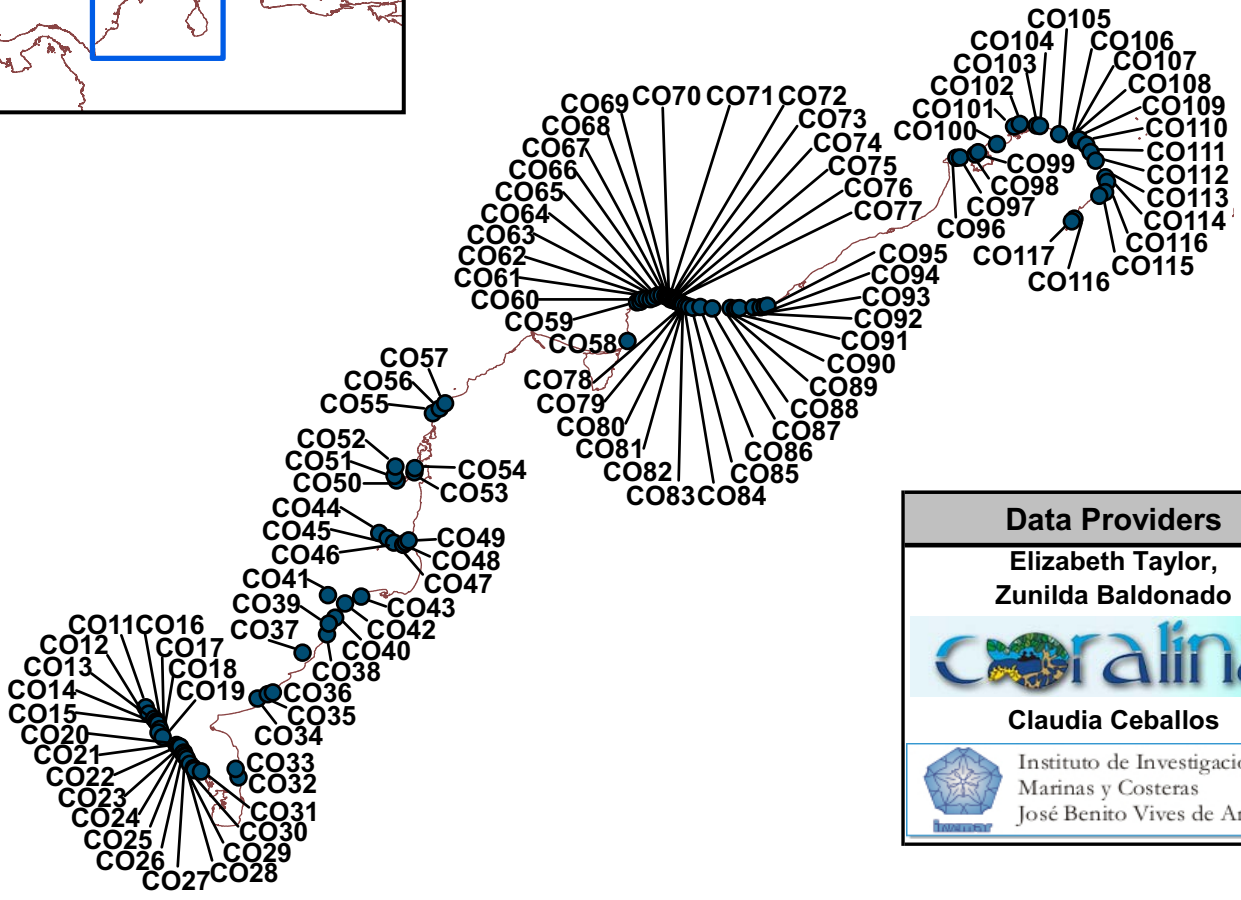
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N, F?
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	I

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes*
Moratorium (fixed period)	–
Prohibition(s) on take	Hawksbill
Closed season	No
Minimum size limits	No
Maximum size limits	No
Annual quota	No
Permits/licenses required	No
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	No
Recent prosecutions or penalties	Unknown
Enforcement considered adequate	No
Penalties are an adequate deterrent	Unknown

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * Except for Subsistence Take





Data Providers

Elizabeth Taylor, Zunilda Baldonado

coralina

Claudia Ceballos

Instituto de Investigaciones Marinas y Costeras José Benito Vives de Andréis

N

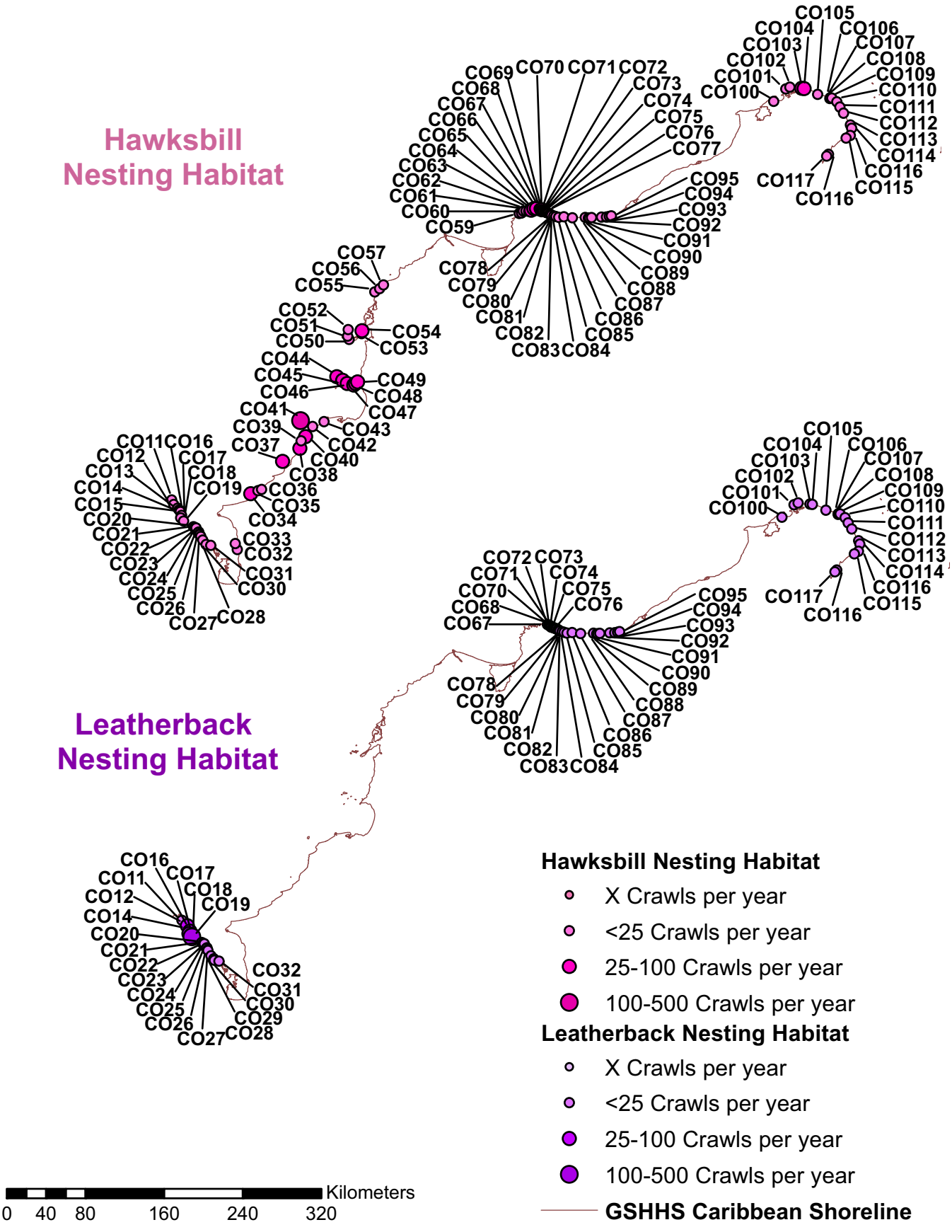
Kilometers

0 40 80 160 240 320

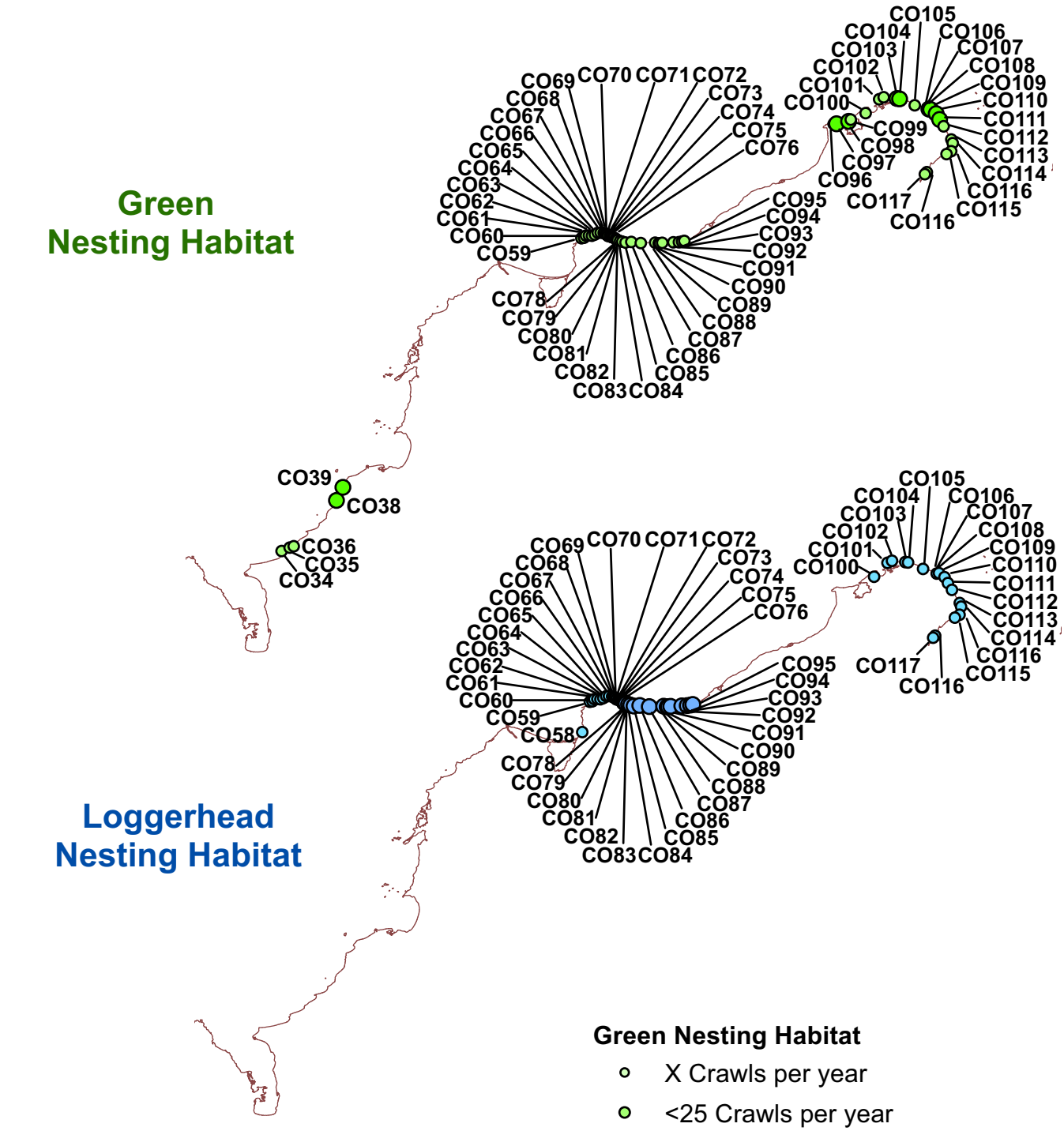
● **Sea Turtle Nesting Habitat**

— **GSHHS Caribbean Shoreline**

Colombia Sea Turtle Habitat



Colombia Sea Turtle Habitat



Colombia Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (R/O)	
Killing of Nesting Females by Predators	Yes (R)	Dogs in Archipelago
Nest Loss to Predators	Yes (R/O)	
Nest Loss to Abiotic Factors	Yes (U)	Erosion
Egg Collection by Humans	Yes (F)	
Harassment Due to Increased Human Presence	No	
Artificial Lighting	Yes (R/O)	
Pollution	Yes (U)	Agriculture, sewage, industrial runoff, beach litter/debris
Beach Erosion/Accretion	Yes (U)	Erosion
Beach Armouring/Stabilization Structures	Yes (R/O)	
Beach Nourishment	No	
Recreational Beach Equipment and/or Other Obstacles	Yes (R)	
Mechanized Beach Cleaning	No	
Beach Vehicular Use	Yes (U)	
Sand Mining	Yes (R)	Frequent in Cispata - Damquiel
Exotic (or Loss of Native) Vegetation	No	
Livestock Presence on the Beach	Yes (U)	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	
Coral Reef Degradation	Yes (U)	
Fisheries Bycatch	Yes (U)	
Hunting/Poaching	Yes (F)	
Pollution	Yes (U)	Marine debris
Predators	Yes (U)	
Disease/Parasites	No	
Harassment Due to Increased Human Presence	Yes (U)	
Dredging	No	
Marina and Dock Development	No	
Boat/Personal Water Craft Collisions	Yes (R)	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	Unknown	
Entanglement	Unknown	
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Colombia Sea Turtle Habitat

Beach Identification Codes with Beach Names			
CO1	Cayo Serranilla	CO62	Gairaca
CO2	Serrana	CO63	Neguanje
CO3	Cayo Roncador	CO64	Cinto
CO4	Providencia	CO65	Guachaquita
CO5	Johnny Cay	CO66	Palamarito
CO6	Sprat Bay	CO67	El Medio
CO7	Rocky Cay	CO68	Boca del Saco
CO8	Sound Bay	CO69	Playa Brava
CO9	Courtown	CO70	El Cabo
CO10	Albuquerque	CO71	Arrecifes
CO11	Zapsurro	CO72	Gumarra
CO12	Capurgana	CO73	Montanita
CO13	Bahia Rufino	CO74	Rinconcito
CO14	Playa Amarilla	CO75	Piscinita
CO15	Bahia Pinorroa	CO76	Canaveral
CO16	Soledad	CO77	Castilletes
CO17	Acandi	CO78	Cuchicampo
CO18	Chilingos	CO79	Naranjo
CO19	Playona	CO80	Mata de Platano
CO20	Goleta	CO81	Mendiguaca
CO21	Playeta	CO82	Guachaca
CO22	Bolita	CO83	Valencia
CO23	Playa Sardi	CO84	Buritaca
CO24	Trigana	CO85	Don Diego
CO25	San Pacho	CO86	Quintana
CO26	Rio Ciego	CO87	Los Achotes
CO27	Villa Claret	CO88	Palomino
CO28	Titumate	CO89	San Salvador
CO29	La Candelaria	CO90	Playa Larga
CO30	Moreno	CO91	Rio Ancho
CO31	Tarena	CO92	Corelca
CO32	Pta La Desgracia	CO93	Cano Lagarto
CO33	Punta Caiman	CO94	El Sequion
CO34	Damaquiel	CO95	Dibulla
CO35	Uvero	CO96	Boca del Apure
CO36	San Juan de Uraba	CO97	Jarrajarraru
CO37	Isla Tortuguilla	CO98	Media Luna
CO38	Rio Cedro	CO99	Los Cocos
CO39	Monitos	CO100	Pusheo
CO40	La Playeta, I. Baru	CO101	Bahia Hondita
CO41	Isla Fuerte	CO102	Punta Gallinas
CO42	Los Venados	CO103	Taroa
CO43	Los Tinajones	CO104	Taroita
CO44	Isla Tintipan	CO105	Punta Huayapain
CO45	Isla Mangle	CO106	Punta Estrella
CO46	Isla Palma	CO107	Cabo Falso
CO47	Punta Seca	CO108	Neimao
CO48	Balsilla	CO109	Puerto Lodo
CO49	Majagual	CO110	Chichibacoa
CO50	Isla Arena	CO111	Santa Cruz
CO51	Isla Rosario	CO112	Playa Rocosa
CO52	Isla Tesoro	CO113	Punta Espada
CO53	La Cieba, I. Baru	CO114	Parajimaru
CO54	Pl. Blanca, I. Baru	CO115	Puerto Ingles
CO55	Punta Canoa	CO116	Puerto Lopez
CO56	Arroyo de Piedra	CO117	Punta Castilletes
CO57	Bocacanoa	CO118	Cabo Tiburon
CO58	Drumond - Papare	CO119	Maasimay
CO59	Bonito Gordo	CO120	Nazareth
CO60	Concha	CO121	Nueva York
CO61	Chengue	CO122	Pt. Caliente - Playeta

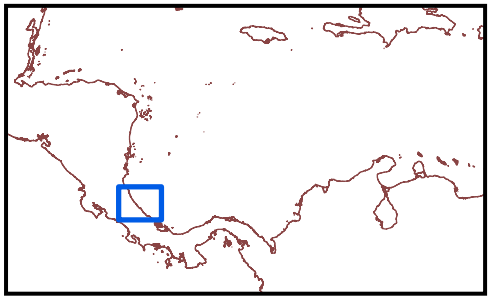
Costa Rica Sea Turtle Habitat

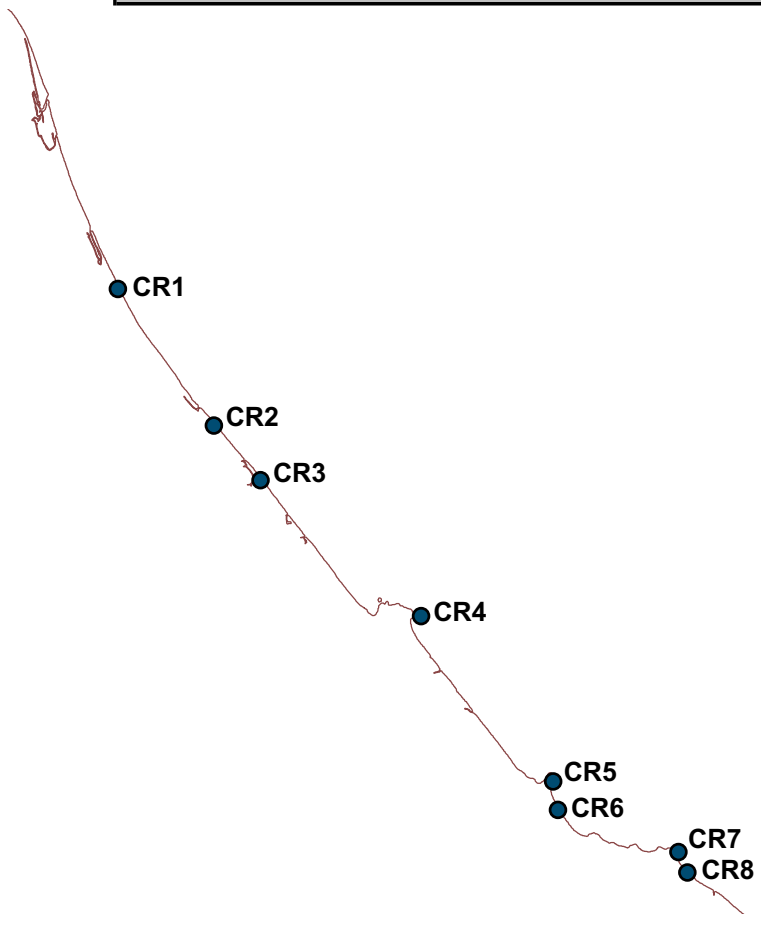
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes*
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	No
Recent prosecutions or penalties	Yes
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * Except for eggs at Ostinal





Data Providers

Didiher Chacon Chaverri

Asociación ANAI

Caribbean Conservation Corporation

Estación Las Tortugas

La Tortugas Feliz

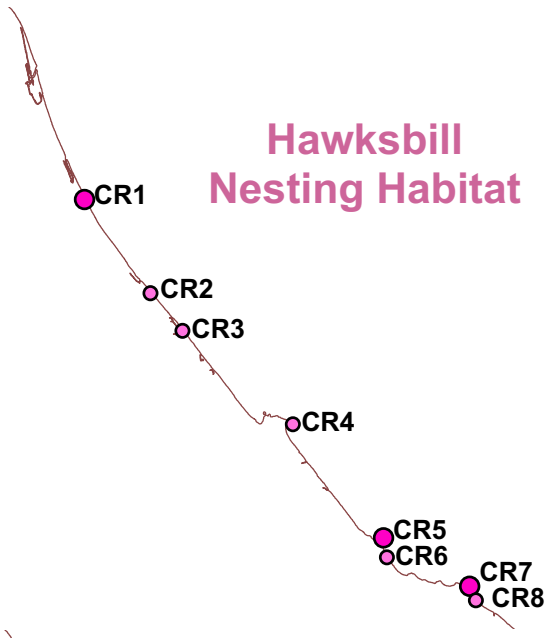
ASTOP

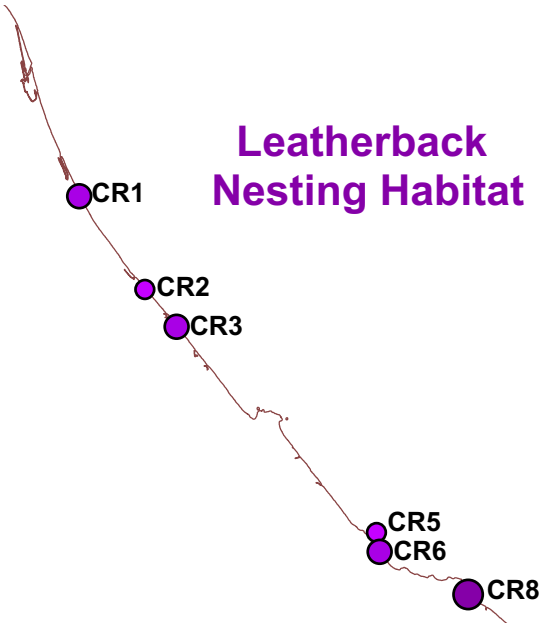
Kilometers
0 10 20 40 60 80

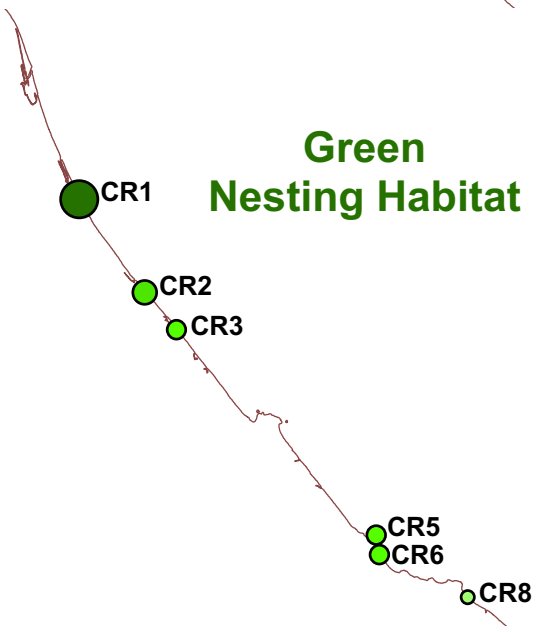
Sea Turtle Nesting Habitat

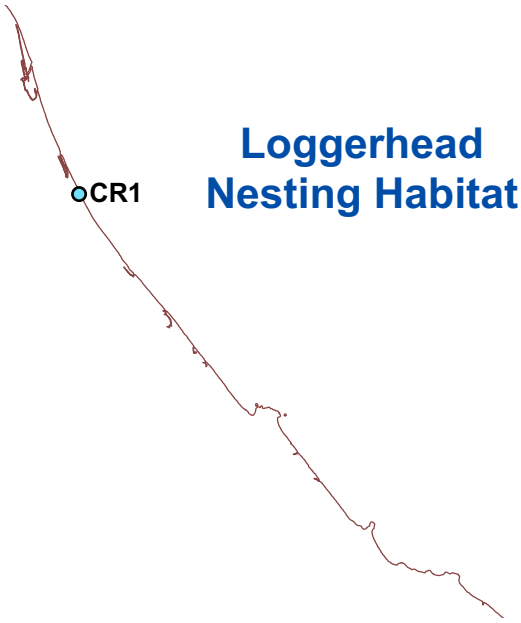
GSHHS Caribbean Shoreline

Costa Rica Sea Turtle Habitat









Hawksbill Nesting Habitat
- <25 Crawls per year
- 25-100 Crawls per year

Green Nesting Habitat
- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year
- >1000 Crawls per year

Leatherback Nesting Habitat
- 25-100 Crawls per year
- 100-500 Crawls per year
- 500-1000 Crawls per year

Loggerhead Nesting Habitat
- <25 Crawls per year

GSHHS Caribbean Shoreline

N

0 12.5 25 50 75 100 Kilometers

Costa Rica Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (F)	
Killing of Nesting Females by Predators	Yes (F)	Jaguars
Nest Loss to Predators	Yes (U)	
Nest Loss to Abiotic Factors	Yes (U)	Erosion <1% in Gandoca and 5-10% in Negra
Egg Collection by Humans	Yes (F)	Some places 100% loss, others <1% (ex. Gandoca)
Harassment Due to Increased Human Presence	No	
Artificial Lighting	No	
Pollution	Yes (U)	Sewage, runoff and beach litter/debris
Beach Erosion/Accretion	Yes (U)	Erosion
Beach Armouring/Stabilization Structures	No	
Beach Nourishment	No	
Recreational Beach Equipment and/or Other Obstacles	No	
Mechanized Beach Cleaning	No	
Beach Vehicular Use	Yes (O)	
Sand Mining	No	
Exotic (or Loss of Native) Vegetation	Yes (U)	Deforestation causes tree litter and debris on beaches inhibiting access by females
Livestock Presence on the Beach	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	Sedimentation is frequent due to deforestation
Coral Reef Degradation	Yes (U)	Pollution and sedimentation
Fisheries Bycatch	Yes (R)	Gillnet
Hunting/Poaching	Yes (F)	
Pollution	Yes (U)	Sewage, marine debris and agricultural runoff
Predators	Yes (U)	Sharks
Disease/Parasites	Yes (F)	30% of Greens caught in the in-water study have fibropapillomas
Harassment Due to Increased Human Presence	Yes (U)	
Dredging	No	
Marina and Dock Development	No	
Boat/Personal Water Craft Collisions	No	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	Yes (U)	
Entanglement	Yes (R)	Caught in gillnets
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Costa Rica Sea Turtle Habitat

Beach Identification Codes with Beach Names			
CR1	Tortuguero	CR5	Cahuita
CR2	Parismina	CR6	Negra
CR3	Pacuare	CR7	Erlin
CR4	Isla Uvita	CR8	Gandoca

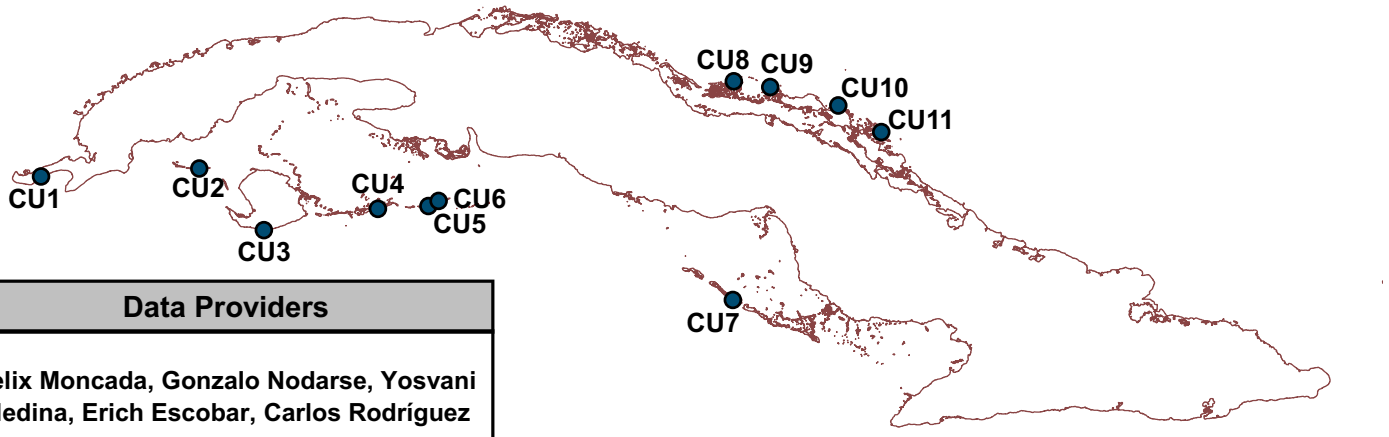
Cuba Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	IN, IF
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	I

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes*
Moratorium (fixed period)	–
Prohibition(s) on take	E, N, NF
Closed season	Yes
Minimum size limits	Yes
Maximum size limits	No
Annual quota	Yes
Permits/licenses required	Yes
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	No
General public awareness of laws	Yes
Recent prosecutions or penalties	Yes
Enforcement considered adequate	Yes
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * Except for Traditional Use



Data Providers

Felix Moncada, Gonzalo Nodarse, Yosvani Medina, Erich Escobar, Carlos Rodríguez
Centro de Investigaciones Pesqueras, Ministerio de la Industria Pesquera

Julia Azanza Ricardo
Universidad de La Habana; Centro de Investigaciones Marinas

Rubén Blanco
Ministerio de Ciencia, Tecnología y Medio Ambiente, Isla de la

Fernando Hernandez
Empresa Nacional para la conservación de la Flora y Fauna

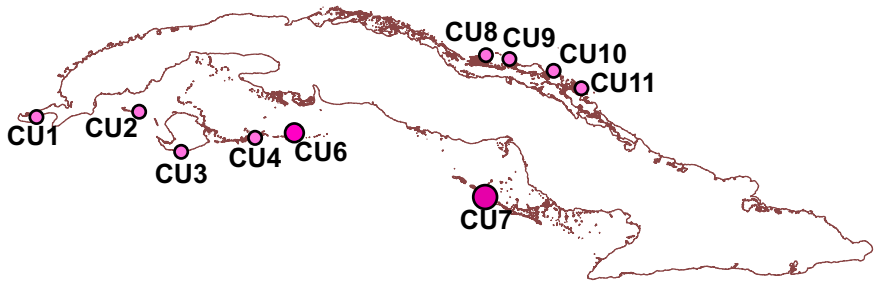
Kilometers
0 50 100 200 300 400

Sea Turtle Nesting Habitat
GSHHS Caribbean Shoreline

N

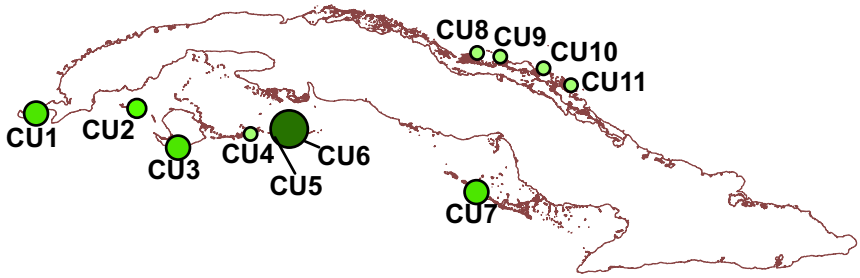
Cuba Sea Turtle Habitat

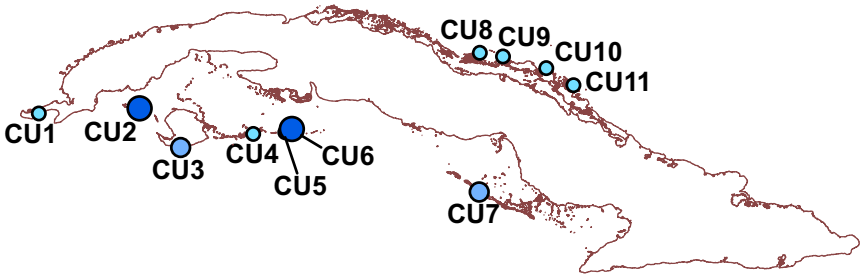
Hawksbill Nesting Habitat



Leatherback Nesting Habitat

Green Nesting Habitat





Loggerhead Nesting Habitat

Hawksbill Nesting Habitat

- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year

Green Nesting Habitat

- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year
- >1000 Crawls per year

Leatherback Nesting Habitat

- <25 Crawls per year

Loggerhead Nesting Habitat

- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year

GSHHS Caribbean Shoreline

N

Kilometers

0 80 160 320 480 640

Cuba Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (O)	More frequent on mainland
Killing of Nesting Females by Predators	No	
Nest Loss to Predators	Yes (O)	Pigs and dogs
Nest Loss to Abiotic Factors	Yes (U)	Flood
Egg Collection by Humans	Yes (O)	
Harassment Due to Increased Human Presence	Yes (O)	
Artificial Lighting	Yes (O)	
Pollution	Yes (U)	Petroleum/tar, sewage and industrial runoff
Beach Erosion/Accretion	Yes (U)	Erosion and accretion
Beach Armouring/Stabilization Structures	Unknown	
Beach Nourishment	Yes (FA)	In Varandero and Mantanzas
Recreational Beach Equipment and/or Other Obstacles	Yes (FA)	In tourist areas
Mechanized Beach Cleaning	Yes (O)	In tourist areas
Beach Vehicular Use	Yes (O)	In tourist areas
Sand Mining	Yes (R)	Near Varandero
Exotic (or Loss of Native) Vegetation	Yes (R)	
Livestock Presence on the Beach	Yes (O)	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	No	
Coral Reef Degradation	Yes (U)	Anchor damage, other unknown
Fisheries Bycatch	Yes (F)	Trawl, gillnet, pound net and pot/trap
Hunting/Poaching	Yes (F)	
Pollution	Yes (R)	Petroleum/tar, sewage and industrial runoff
Predators	Yes (U)	
Disease/Parasites	Yes (R)	
Harassment Due to Increased Human Presence	Unknown	
Dredging	Yes (U)	
Marina and Dock Development	Yes (U)	
Boat/Personal Water Craft Collisions	No	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	Yes (U)	
Entanglement	Yes (U)	
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Cuba Sea Turtle Habitat

Beach Identification Codes with Beach Names			
CU1	Peninsula de Guanahacabibes	CU7	Cayería de Doce Leguas
CU2	Cayería de San Felipe	CU8	Cayo Santa Maria
CU3	Guanal, Isle of Pines	CU9	Cayo Guillermo
CU4	Cayo Campo	CU10	Cayo Peredon Grande - Cayo
CU5	Cayo Rosario	CU11	Cayo Fragosa
CU6	Cayo Largo del Sur		

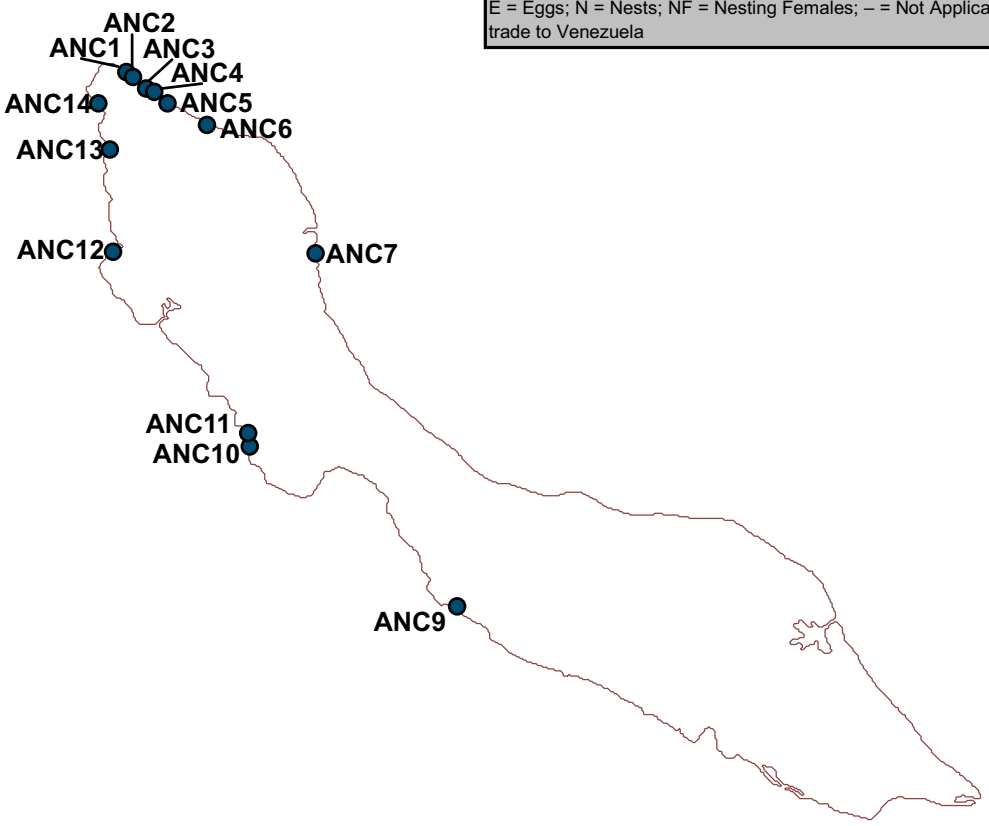
Curaçao Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N, IF
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	I

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

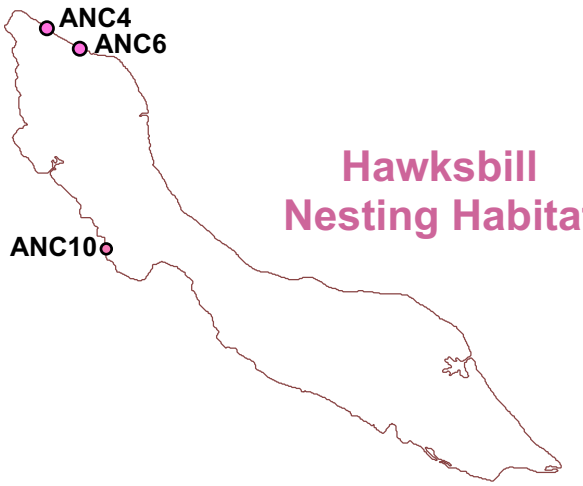
National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	No
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Unknown*
General public awareness of laws	Yes
Recent prosecutions or penalties	No
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes

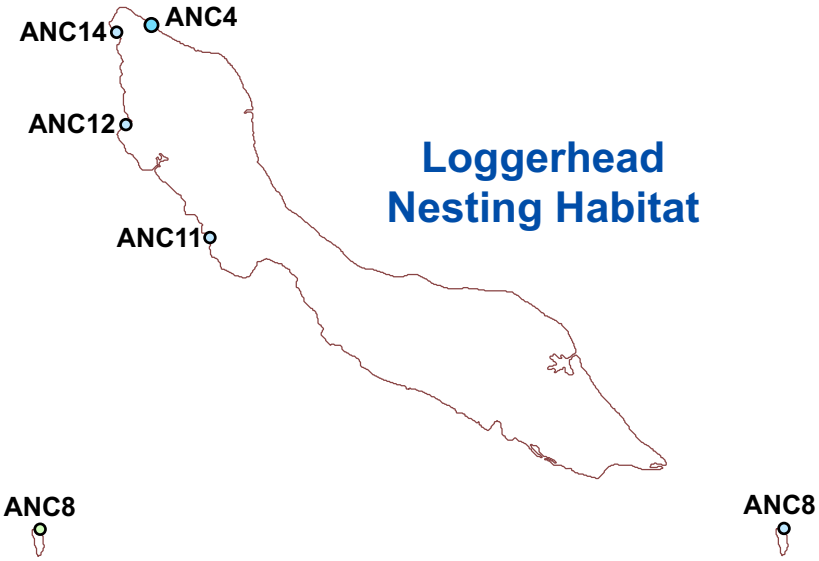
E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * Some suspected trade to Venezuela



Data Provider
Brian Leysner Caribbean Research and Management of Biodiversity Foundation

Curaçao Sea Turtle Habitat





Hawksbill Nesting Habitat
- X Crawls per year
- <25 Crawls per year

Leatherback Nesting Habitat
- X Crawls per year

Green Nesting Habitat
- X Crawls per year
- <25 Crawls per year

Loggerhead Nesting Habitat
- X Crawls per year
- <25 Crawls per year

GSHHS Caribbean Shoreline

Kilometers
0 4.5 9 18 27 36

N

Curaçao Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	No	
Killing of Nesting Females by Predators	No	
Nest Loss to Predators	No	
Nest Loss to Abiotic Factors	No	
Egg Collection by Humans	No	
Harassment Due to Increased Human Presence	No	
Artificial Lighting	No	
Pollution	No	
Beach Erosion/Accretion	No	
Beach Armouring/Stabilization Structures	No	
Beach Nourishment	No	
Recreational Beach Equipment and/or Other Obstacles	No	
Mechanized Beach Cleaning	No	
Beach Vehicular Use	No	
Sand Mining	No	
Exotic (or Loss of Native) Vegetation	No	
Livestock Presence on the Beach	Yes (R)	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	No	
Coral Reef Degradation	No	
Fisheries Bycatch	Yes (U)	Hook and line
Hunting/Poaching	Yes (R)	
Pollution	Yes (U)	Minimal
Predators	No	
Disease/Parasites	Yes (U)	Fibropapillomas
Harassment Due to Increased Human Presence	No	
Dredging	No	
Marina and Dock Development	No	
Boat/Personal Water Craft Collisions	No	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	No	
Entanglement	No	
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Curaçao Sea Turtle Habitat

Beach Identification Codes with Beach Names			
ANC1	Un Boka	ANC8	North Beach - Klein Curacao
ANC2	Dos Boka	ANC9	Blauwbaai
ANC3	Boka Djego	ANC10	Daaibooi
ANC4	Boka Mansalina	ANC11	Porto Marie
ANC5	Boka Kortalein	ANC12	Santu Pretu
ANC6	Boka Braun	ANC13	Groot Knip
ANC7	Boka Bergantin	ANC14	Playa Kalki

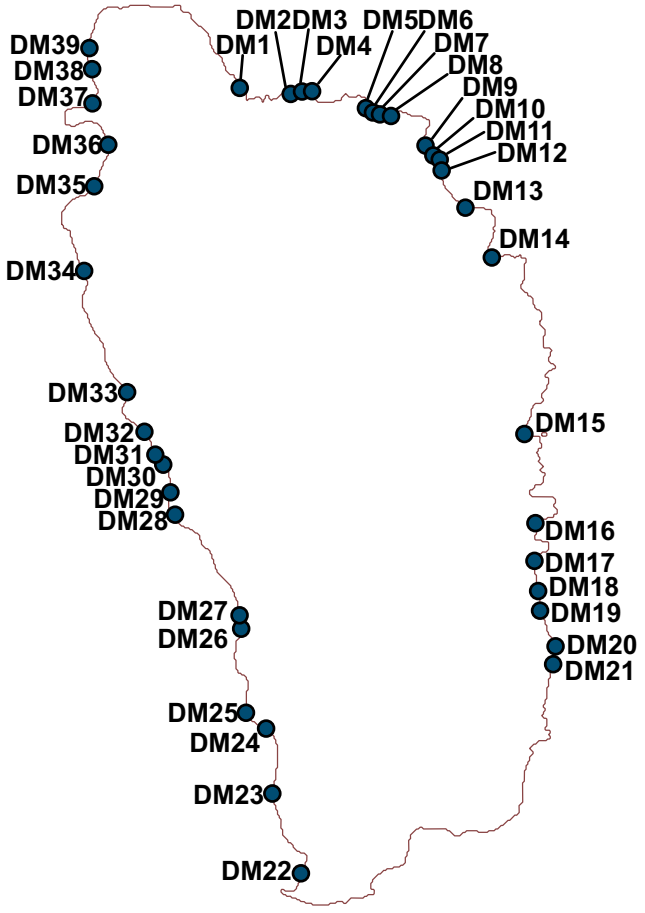
Dominica Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	I
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	No
Moratorium (fixed period)	No
Prohibition(s) on take	E, N, NF
Closed season	Yes
Minimum size limits	Yes
Maximum size limits	No
Annual quota	No
Permits/licenses required	No
Gear restrictions	No
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	Yes
Recent prosecutions or penalties	Yes
Enforcement considered adequate	No
Penalties are an adequate deterrent	No

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable



Data Providers

Seth Stapleton, Rowan Byrne

Rosalie Sea Turtle Initiative

Stephen Durand

Foresty, Fish and Parks Division

Kilometers

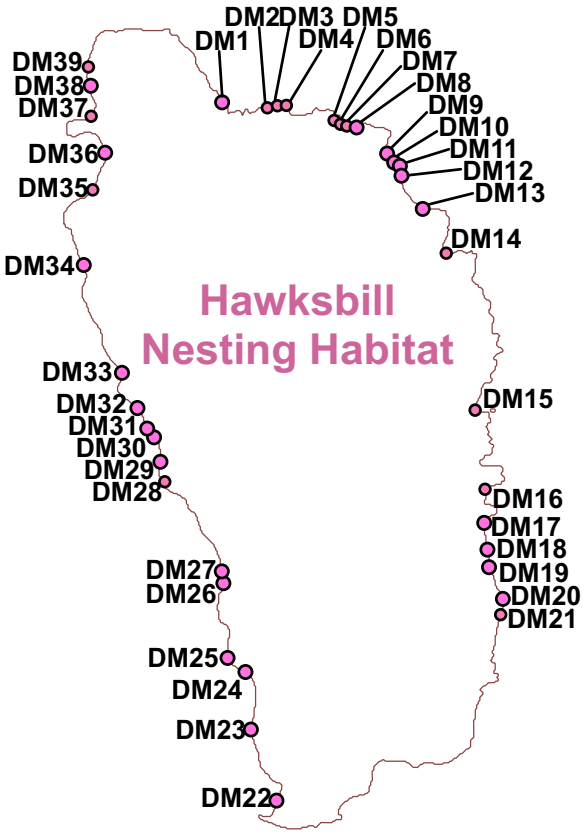
0 3 6 12 18 24

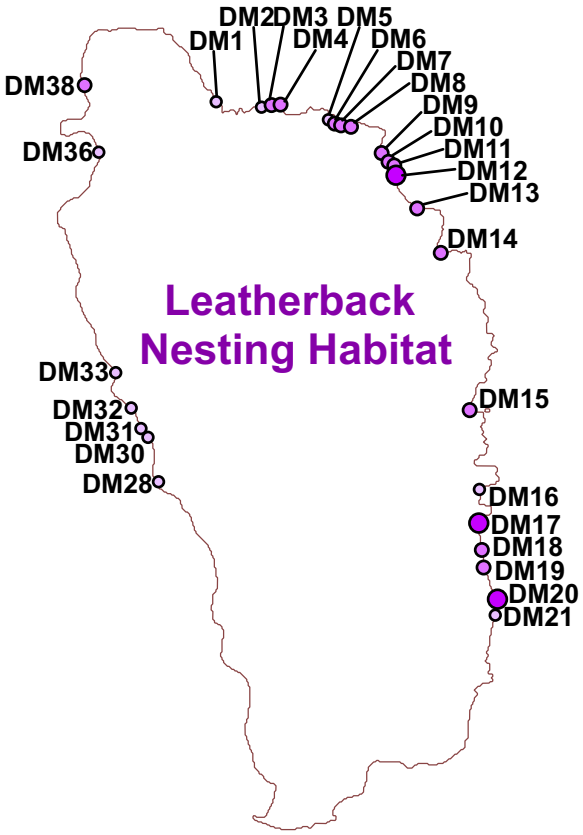
Sea Turtle Nesting Habitat

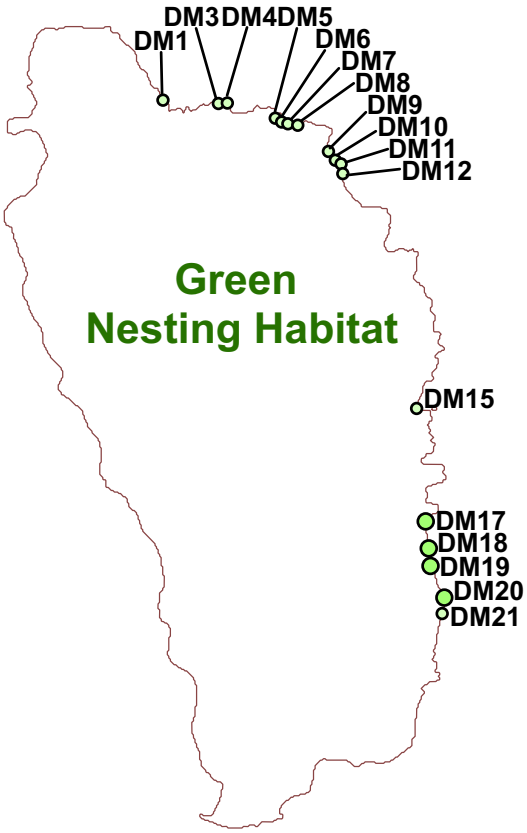
GSHHS Caribbean Shoreline

N

Dominica Sea Turtle Habitat







Hawksbill Nesting Habitat

- X Crawls per year
- <25 Crawls per year

Leatherback Nesting Habitat

- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year

Green Nesting Habitat

- X Crawls per year
- <25 Crawls per year

GSHHS Caribbean Shoreline

Kilometers

0 3 6 12 18 24

N

Dominica Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (F)	Frequent on north coast and west coast
Killing of Nesting Females by Predators	Yes (R)	
Nest Loss to Predators	Yes (O)	Dogs, crabs and herons (frequent near urban areas)
Nest Loss to Abiotic Factors	Yes (F)	Major problem especially on northeast and southwest coasts
Egg Collection by Humans	Yes (F)	Occurs on all coasts (less frequent in the southeast)
Harassment Due to Increased Human Presence	Yes (F)	Frequent on the north and southeast coasts
Artificial Lighting	Yes (O)	Traffic lights and construction of new airport facilities
Pollution	Yes (U)	Agriculture, beach litter/debris
Beach Erosion/Accretion	Yes (F)	Erosion - major problem caused by sand mining and natural erosion; sedimentation - problem at Londonderry and airport construction at Melville Hall
Beach Armouring/Stabilization Structures	Yes (O)	Coulibistrie, near Roseau and Colihaut
Beach Nourishment	Yes (R)	
Recreational Beach Equipment and/or Other Obstacles	Yes (R/O)	Occasional on the west coast, rare on the east coast
Mechanized Beach Cleaning	No	
Beach Vehicular Use	Yes (O)	
Sand Mining	Yes (O)	Illegal, but occurs on the north and west coasts
Exotic (or Loss of Native) Vegetation	Yes (R)	
Livestock Presence on the Beach	Yes (R)	

Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	West coast loss due to sedimentation and eutrophication; seagrass rare on east coast
Coral Reef Degradation	Yes (U)	Bleaching, runoff, sedimentation, debris and fish pots
Fisheries Bycatch	Yes (F)	Gillnet (frequent in the southwest)
Hunting/Poaching	Yes (F)	
Pollution	Yes (U)	Agriculture, marine debris and sedimentation
Predators	Unknown	Sharks
Disease/Parasites	Unknown	
Harassment Due to Increased Human Presence	Yes (U)	
Dredging	Yes (R)	On the west coast
Marina and Dock Development	No	
Boat/Personal Water Craft Collisions	Yes (R)	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	No	
Entanglement	Yes (F)	In active and abandoned gillnets and pots
Offshore Artificial Lighting	No	

Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown

Dominica Sea Turtle Habitat

Beach Identification Codes with Beach Names			
DM1	Thibaud	DM21	Plaisance Bay
DM2	Batibou	DM22	Soufriere Bay/ Scotts Head
DM3	Swaier	DM23	Point Michael
DM4	Hampstead	DM24	New Town
DM5	Hodges Bay	DM25	Roseau
DM6	L'anse Noir	DM26	Canefield Airport
DM7	L'anse Tortue	DM27	Massacre
DM8	Woodford Hill Bay	DM28	Layou
DM9	Big Bottom	DM29	Saint Joseph
DM10	Walker's Rest Bay	DM30	Mero
DM11	Jimmy's Bay	DM31	Macoucherie
DM12	Londonderry Bay (Cabana)	DM32	Salisbury
DM13	Marigot	DM33	Batalie
DM14	Pagua Bay (Hatten Garden)	DM34	Dublanc
DM15	St. David Bay (Castle Bruce)	DM35	Coconut Beach
DM16	Petite Soufriere Bay	DM36	Prince Rupert Bay/Portsmouth
DM17	Rosalie Bay	DM37	Douglas Bay
DM18	Ravine Cyrique	DM38	Toucari
DM19	Secret Beach	DM39	Cottage Bay
DM20	La Plaine/Point Girand		

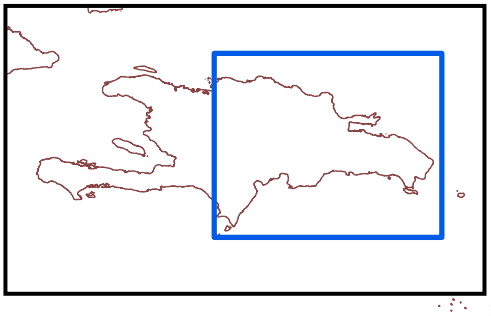
Dominican Republic Sea Turtle Habitat

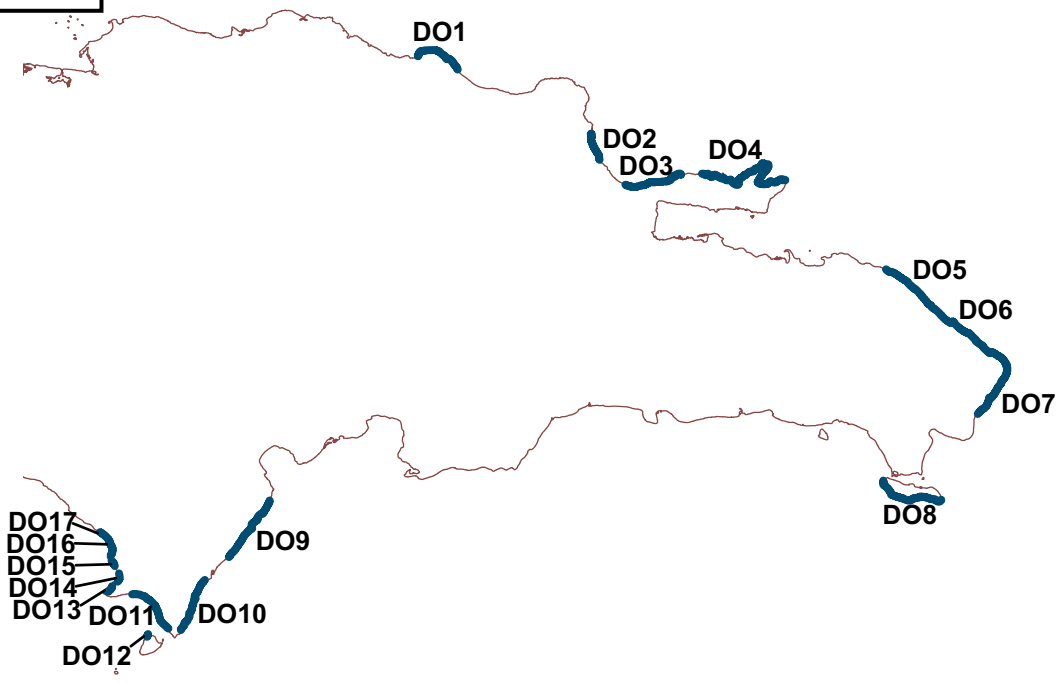
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, I
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	No
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	No
Recent prosecutions or penalties	No
Enforcement considered adequate	No
Penalties are an adequate deterrent	No

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable





Data Providers

Yolanda Leon, Jesus Tomas

Grupo Jaragua Inc.

Instituto Tecnológico de Santo Domingo

University of Valencia

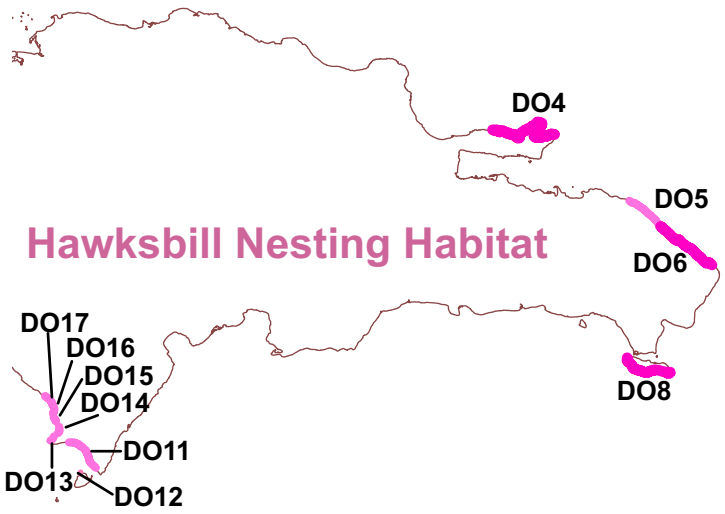
Kilometers
0 15 30 60 90 120

Sea Turtle Nesting Habitat

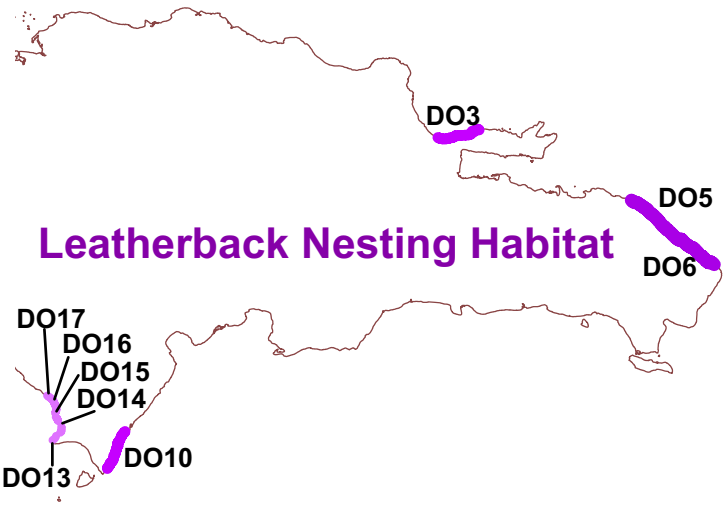
GSHHS Caribbean Shoreline

N

Dominican Republic Sea Turtle Habitat



Hawksbill Nesting Habitat



Leatherback Nesting Habitat

Green Nesting Habitat

Loggerhead Nesting Habitat

Hawksbill Nesting Habitat
- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year

Green Nesting Habitat
- <25 Crawls per year
- 25-100 Crawls per year

Leatherback Nesting Habitat
- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year

Loggerhead Nesting Habitat
- <25 Crawls per year

- **GSHHS Caribbean Shoreline**

Kilometers
0 30 60 120 180 240

N

Dominican Republic Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (O)	
Killing of Nesting Females by Predators	Yes (R)	
Nest Loss to Predators	Unknown	
Nest Loss to Abiotic Factors	Unknown	
Egg Collection by Humans	Yes (U)	
Harassment Due to Increased Human Presence	No	
Artificial Lighting	Unknown	
Pollution	Yes (U)	Beach litter/debris
Beach Erosion/Accretion	Yes (U)	Erosion
Beach Armouring/Stabilization Structures	Yes (O)	
Beach Nourishment	Yes (R)	Future project to nourish three tourist beaches
Recreational Beach Equipment and/or Other Obstacles	Yes (F)	Mostly beach chairs on hotel beaches
Mechanized Beach Cleaning	Yes (FA)	On resort beaches
Beach Vehicular Use	Yes (O)	
Sand Mining	Yes (FA)	Macao, Salinas Dunes National Park
Exotic (or Loss of Native) Vegetation	Yes (F)	Most shoreline vegetation has been replaced by coconut groves
Livestock Presence on the Beach	Yes (R)	Goats, horses and mules
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	Pollution and removal by development
Coral Reef Degradation	Yes (U)	Pollution, sedimentation, coral bleaching and disease
Fisheries Bycatch	Yes (F)	Purse seine, gillnet, pot/trap and hookah diving
Hunting/Poaching	Yes (F)	
Pollution	Yes (U)	Sewage and marine debris
Predators	Yes (U)	Sharks
Disease/Parasites	Yes (R)	Fibropapillomas
Harassment Due to Increased Human Presence	Unknown	
Dredging	Yes (R)	Boca Chica
Marina and Dock Development	Yes (FA)	New marinas on east and northern coasts
Boat/Personal Water Craft Collisions	Yes (R)	
Power Plant Entrapment	Yes (R)	
Oil and Gas Exploration, Development, Transportation	Yes (R)	
Entanglement	Yes (O)	Monofilament lines and nets
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Dominican Republic Sea Turtle Habitat

Beach Identification Codes with Beach Names			
DO1	Sosúa-Boca del Yásica	DO10	Playas de Oviedo (San Luis, Mosquea, Inglesa)
DO2	Nagua - Gran Estero	DO11	Cabo Beata - Cabo Falso
DO3	Boca del Estero - Las Terrenas	DO12	Isla Beata
DO4	Playa Las Terrenas - Cabo Samaná	DO13	Playas de Pedernales - Lanza Zó
DO5	Playa Nisibon - Boca del Maimon	DO14	Playas de Pedernales - Bahía de las Aguilas
DO6	Playa Macao - Cabeza de Toro	DO15	Playas de Pedernales - La Cueva
DO7	Boca del Maimon - Boca del Río Anamuya	DO16	Playas de Pedernales - Cabo Rojo
DO8	Isla Saona	DO17	Playas de Pedernales - Bucán Yé
DO9	Los Arroyos - Enriquillo		

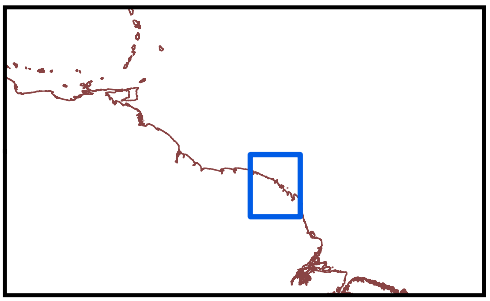
French Guiana Sea Turtle Habitat

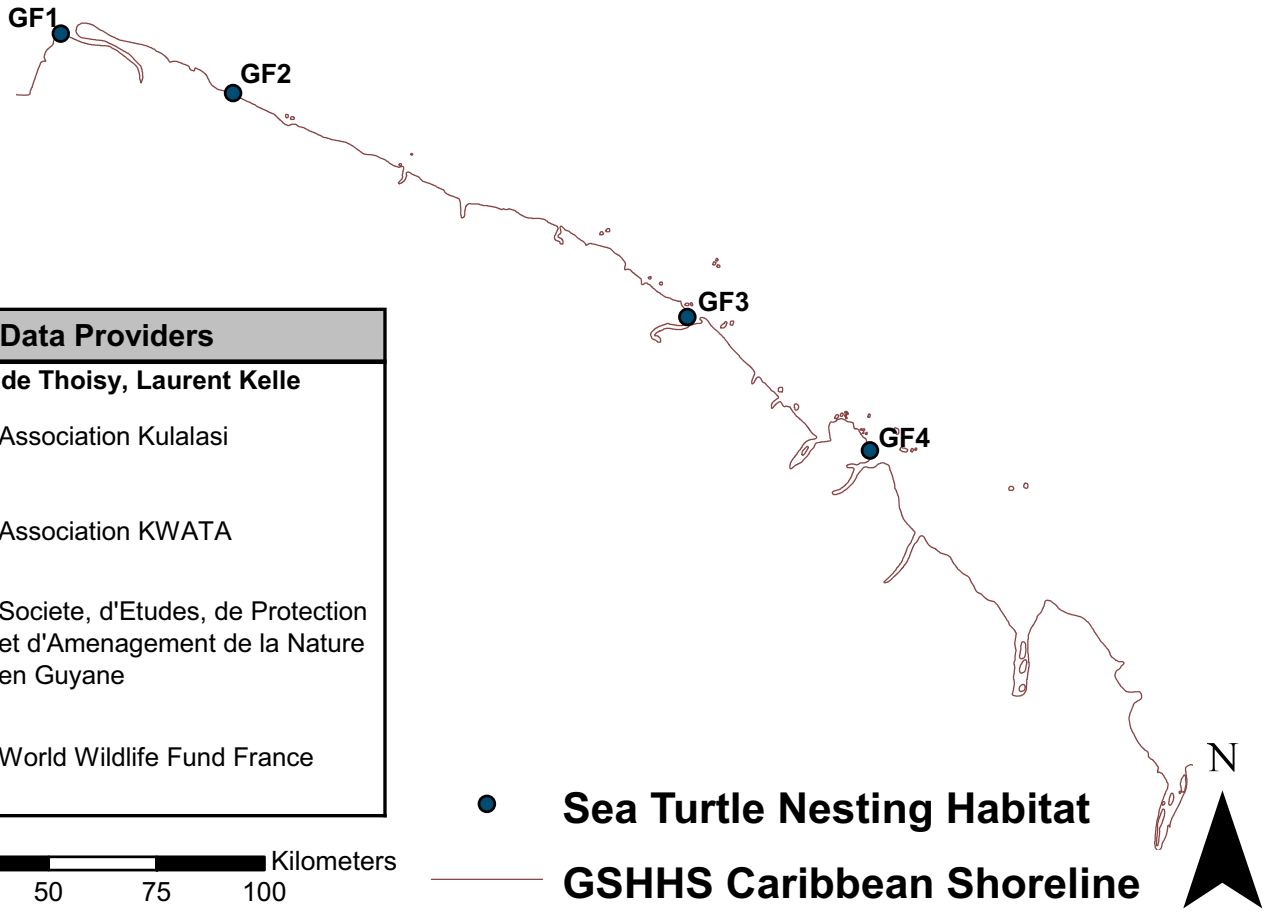
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	I
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	IN
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	N

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	No
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	Yes
Recent prosecutions or penalties	Yes
Enforcement considered adequate	No (Insufficient)
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable





Data Providers

Benoit de Thoisy, Laurent Kelle

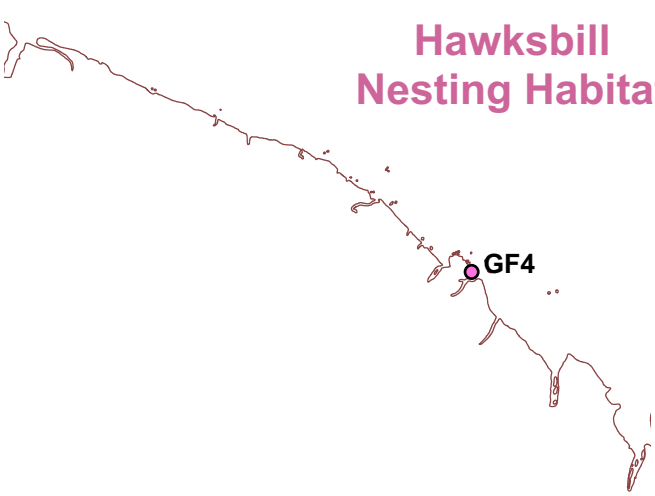
Association Kulalasi

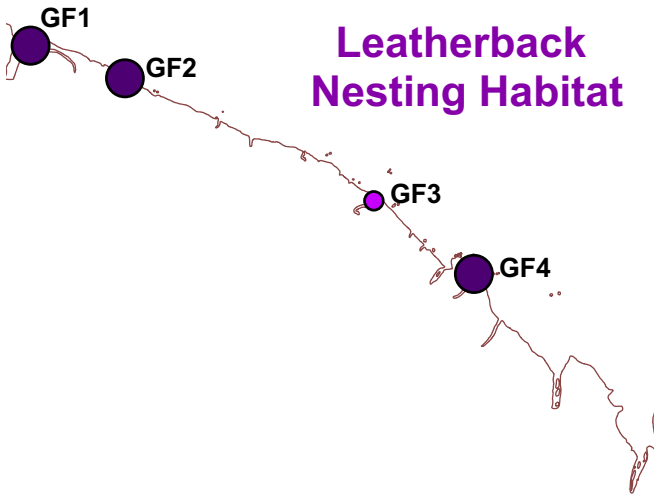
Association KWATA

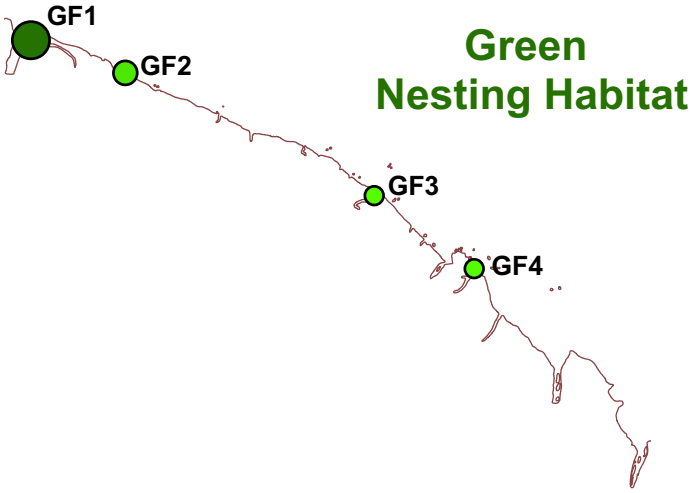
Societe, d'Etudes, de Protection et d'Amenagement de la Nature en Guyane

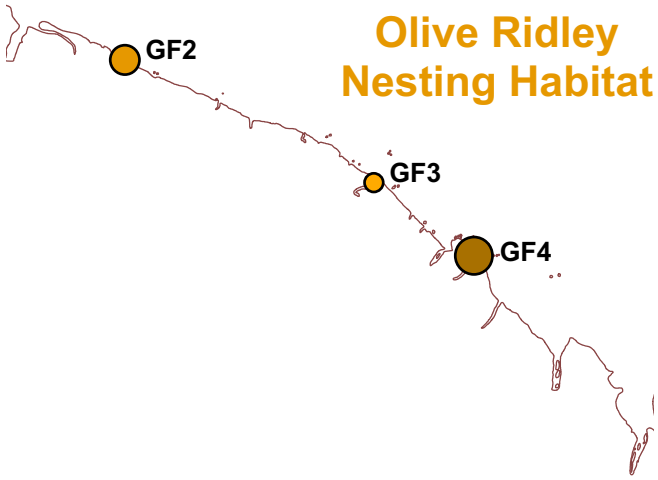
World Wildlife Fund France

French Guiana Sea Turtle Habitat









Hawksbill Nesting Habitat
- <25 Crawls per year

Green Nesting Habitat
- 25-100 Crawls per year
- 100-500 Crawls per year
- >1000 Crawls per year

Leatherback Nesting Habitat
- 25-100 Crawls per year
- >1000 Crawls per year

Olive Ridley Nesting Habitat
- 25-100 Crawls per year
- 500-1000 Crawls per year
- >1000 Crawls per year

GSHHS Caribbean Shoreline

Kilometers
0 20 40 80 120 160

N

French Guiana Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (R)	Olive Ridleys every year around Cayenne
Killing of Nesting Females by Predators	Yes (O)	Jaguars and stray dogs
Nest Loss to Predators	Yes (O)	Dogs, mole crickets and racoons
Nest Loss to Abiotic Factors	Yes (F)	Erosion
Egg Collection by Humans	Yes (R/O)	East coast - rare, west coast - occasional
Harassment Due to Increased Human Presence	Yes (O)	In Awala Yalimapo
Artificial Lighting	Yes (FA)	Frequent in Cayenne, Occasional in Awala Yalimapo
Pollution	No	
Beach Erosion/Accretion	Yes (U)	Due to natural events
Beach Armouring/Stabilization Structures	Yes (O)	In Cayenne
Beach Nourishment	No	
Recreational Beach Equipment and/or Other Obstacles	Yes (FA)	In Cayenne
Mechanized Beach Cleaning	Yes (R/O)	In Cayenne
Beach Vehicular Use	Yes (R)	In Cayenne and Awala Yalimapo
Sand Mining	No	
Exotic (or Loss of Native) Vegetation	No	
Livestock Presence on the Beach	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	No	
Coral Reef Degradation	No	
Fisheries Bycatch	Yes (F)	Trawl, gillnet and long line
Hunting/Poaching	No	
Pollution	No	
Predators	Yes (U)	Sharks
Disease/Parasites	No	
Harassment Due to Increased Human Presence	No	
Dredging	No	
Marina and Dock Development	No	
Boat/Personal Water Craft Collisions	Yes (R)	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	Yes (R)	Exploration
Entanglement	Yes (O)	Leatherbacks
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

French Guiana Sea Turtle Habitat

Beach Identification Codes with Beach Names			
GF1	Awala Yalimapo	GF3	Kourou, Karouabo Beach
GF2	Pointe Isere, Farez, Irakumpapi, Organabo	GF4	Cayenne, Montjoly

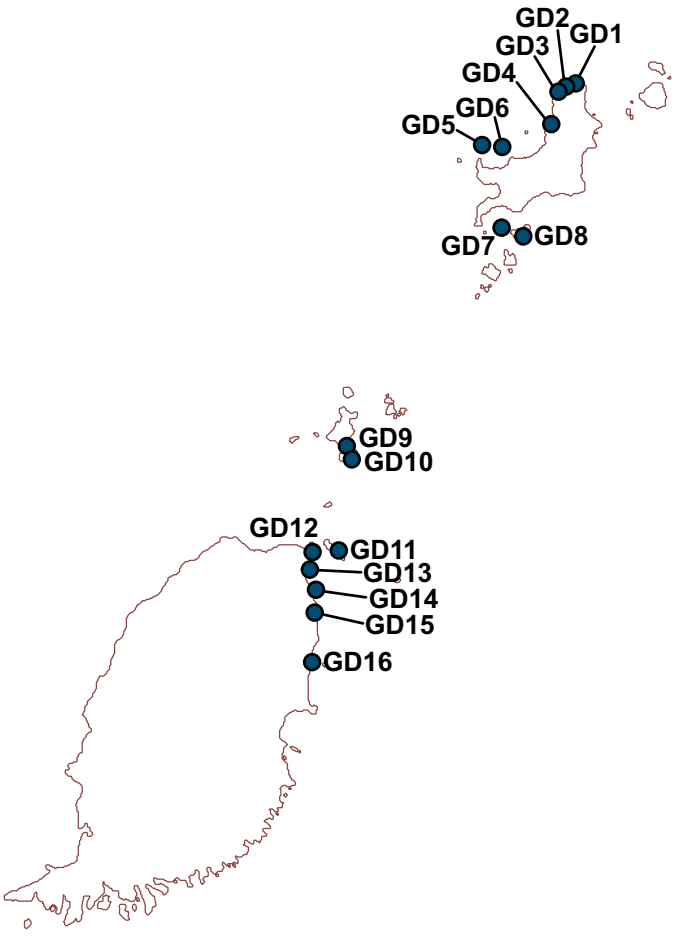
Grenada Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	F
Green Turtle (*Chelonia mydas*)	F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	I

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	No
Moratorium (fixed period)	No
Prohibition(s) on take	E, N, NF Leatherback
Closed season	Yes
Minimum size limits	Yes
Maximum size limits	No
Annual quota	No
Permits/licenses required	Yes
Gear restrictions	Yes
Area closures (MPA, park, reserve)	No
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	Yes
Recent prosecutions or penalties	No
Enforcement considered adequate	No
Penalties are an adequate deterrent	Unknown

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * Fishing permit required



Data Providers

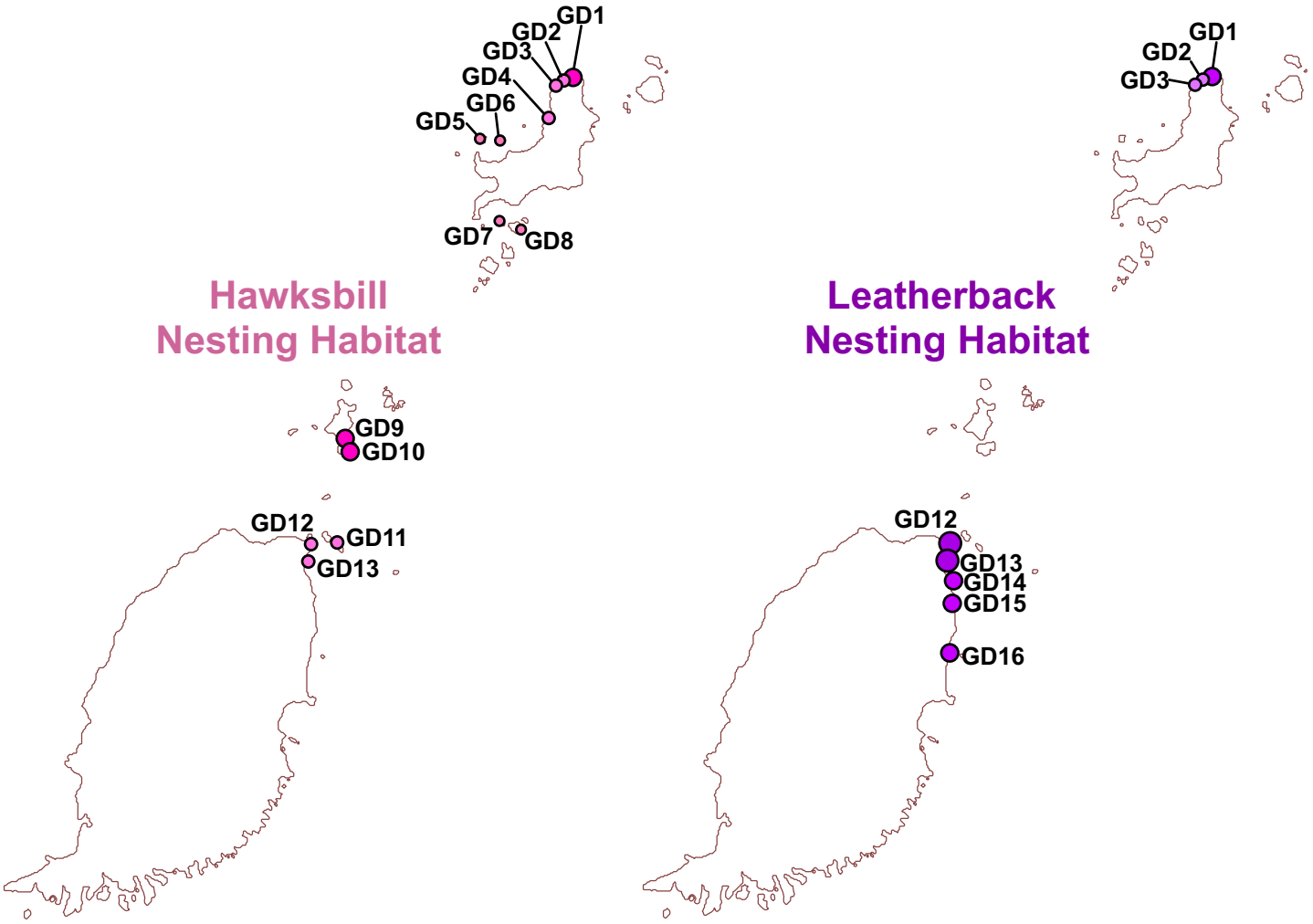
Carl Lloyd, Rebecca King

Ocean Spirits

Marina Fastigi, Gregg Moore

Yachting Without Frontiers Kido Foundation

Grenada Sea Turtle Habitat



Hawksbill Nesting Habitat

- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year

Leatherback Nesting Habitat

- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year

GSHHS Caribbean Shoreline

N

Kilometers

0 3.5 7 14 21 28

Grenada Sea Turtle Habitat

Threats to Sea Turtles - Nesting				
	Grenada	**Grenada**	**Carriacou**	**Carriacou**
Killing of Nesting Females by Humans	Yes (O)		Yes (F)	Central and southern coasts; offshore islets
Killing of Nesting Females by Predators	No	Harassment occurs very rarely	No	
Nest Loss to Predators	Yes (U)	Crabs and dogs	Yes (O)	Crabs, opossums, pigs
Nest Loss to Abiotic Factors	Yes (U)	Flood and erosion	Yes (U)	Flood and erosion
Egg Collection by Humans	Yes (F)		Yes (F)	Central and southern coasts; offshore islets
Harassment Due to Increased Human Presence	No		Yes (U)	Tourists, yachts and fishermen
Artificial Lighting	No		Yes (FA)	Central and southern coasts
Pollution	Yes (U)	Runoff, development and beach litter/debris	Yes (U)	Sewage, beach litter/debris and oil
Beach Erosion/Accretion	Yes (U)	Erosion caused by natural beach movement and storms	Yes (F)	Due to coastal development, sand mining, storms
Beach Armouring/Stabilization Structures	No		Yes (O)	After hurricanes and storms
Beach Nourishment	No		No	
Recreational Beach Equipment and/or Other Obstacles	No		Yes (O)	In developing areas
Mechanized Beach Cleaning	No		No	
Beach Vehicular Use	Yes (O)		Yes (F)	For sand mining
Sand Mining	Yes (U)	River Antoine to Conference	Yes (F)	
Exotic (or Loss of Native) Vegetation	No	Except for golf course development on Levera Beach	Yes (F)	Due to development
Livestock Presence on the Beach	No		Yes (F)	

Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown

Threats to Sea Turtles - Foraging/Migration				
	Grenada	**Grenada**	**Carriacou**	**Carriacou**
Seagrass Degradation	Yes (U)	Anchor damage, pollution and sedimentation	Yes (U)	Anchor damage, pollution, sedimentation, runoff - extensive damage
Coral Reef Degradation	Yes (U)	Anchor damage and sedimentation	Yes (U)	Anchor damage, sedimentation, pollution, bleaching - extensive damage
Fisheries Bycatch	Yes (U)	Gillnets and "nets" undefined	Yes (F)	Trawl, purse seine, hook and line, pot/trap, gill net, long line
Hunting/Poaching	Yes (F)		Yes (F)	
Pollution	Yes (U)	Development, runoff, cruise ships/yachts and marine debris	Yes (U)	Agriculture, sewage, industrial runoff, marine debris
Predators	Yes (U)	Sharks	Yes (O)	Sharks
Disease/Parasites	Yes (U)	Fibropapillomas	Yes (U)	Barnacles
Harassment Due to Increased Human Presence	No		Yes (F)	Boats
Dredging	Yes (U)	When building marinas	Yes (F)	For development
Marina and Dock Development	Yes (U)	Southern coast	Yes (F)	
Boat/Personal Water Craft Collisions	No		Yes (O)	
Power Plant Entrapment	No		No	
Oil and Gas Exploration, Development, Transportation	No		No	
Entanglement	Yes (U)	Fishing gear	Yes (O)	Nets
Offshore Artificial Lighting	No		Yes (U)	Boating traffic

Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown

Grenada Sea Turtle Habitat

Beach Identification Codes with Beach Names			
GD1	Petite Carenage	GD9	Isle de Rhonde
GD2	Big Field	GD10	Caille Island
GD3	Anse La Roche	GD11	Sandy Island
GD4	Sparrow Bay, Craigston, Tom's bay, McIntosh bay	GD12	Levera Beach
GD5	Mabouya Island	GD13	Bathway Beach
GD6	Sandy Island - Carriacou	GD14	Savan Suaze
GD7	White Island	GD15	River Antione
GD8	Saline Island	GD16	Conference

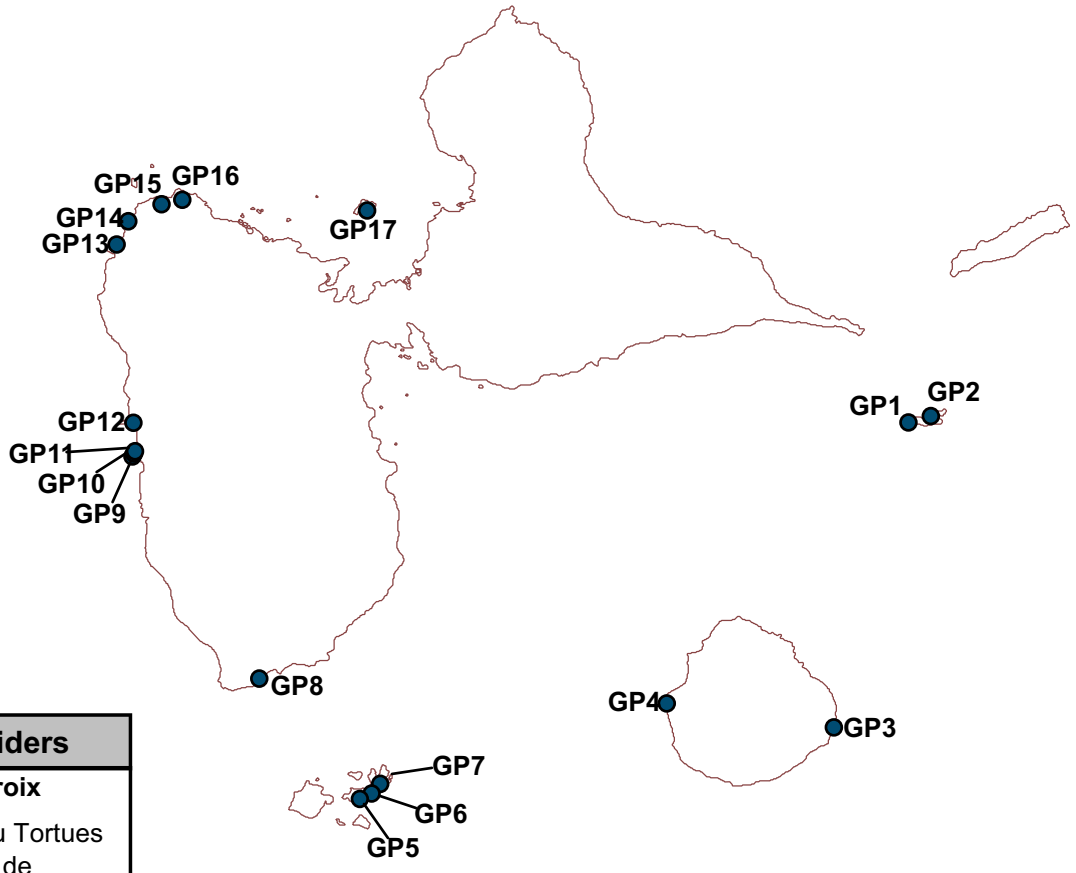
Guadeloupe Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N, IF
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	I

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	No
General public awareness of laws	Yes
Recent prosecutions or penalties	Yes
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable



Data Providers

Eric Delcroix

Réseau Tortues Marine de Guadeloupe

Kilometers

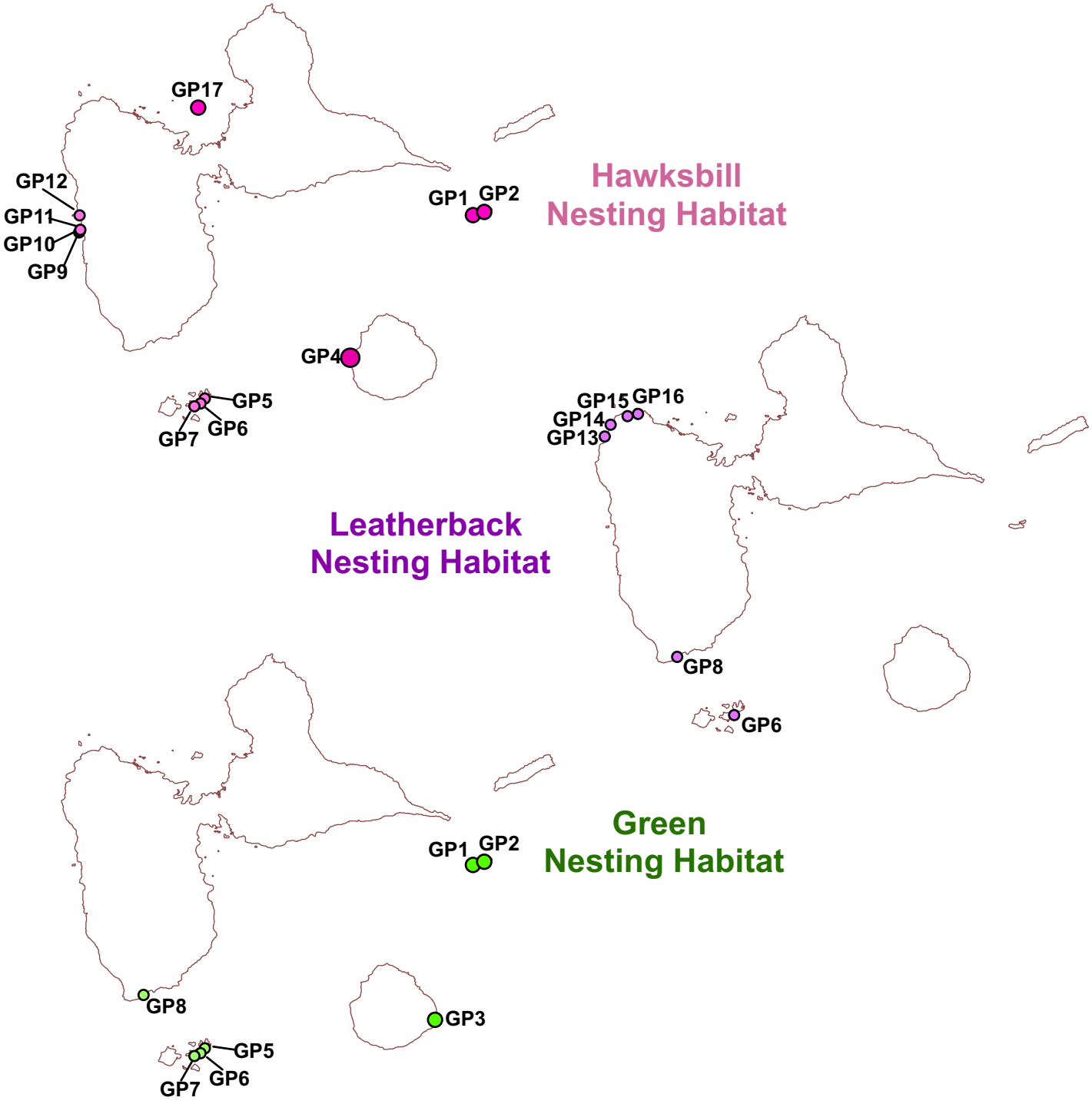
0 5 10 20 30 40

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

Guadeloupe Sea Turtle Habitat



Hawksbill Nesting Habitat

- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year

Leatherback Nesting Habitat

- <25 Crawls per year

Green Nesting Habitat

- <25 Crawls per year
- 25-100 Crawls per year

GSHHS Caribbean Shoreline

Kilometers
0 5 10 20 30 40

N

Guadeloupe Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (R)	
Killing of Nesting Females by Predators	Yes (R)	Dogs
Nest Loss to Predators	Yes (R)	Mongoose and dogs
Nest Loss to Abiotic Factors	Yes (R)	
Egg Collection by Humans	Yes (R)	
Harassment Due to Increased Human Presence	No	
Artificial Lighting	Yes (F)	Increasing
Pollution	Yes (U)	Beach litter/debris
Beach Erosion/Accretion	Yes (U)	
Beach Armouring/Stabilization Structures	No	
Beach Nourishment	No	
Recreational Beach Equipment and/or Other Obstacles	Yes (R)	Frequent on a few beaches that are not nesting beaches
Mechanized Beach Cleaning	Yes (O)	Frequent on tourist beaches
Beach Vehicular Use	Yes (F)	
Sand Mining	Yes (F)	Decreasing
Exotic (or Loss of Native) Vegetation	Yes (F)	Loss of natural vegetation
Livestock Presence on the Beach	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	Anchor damage, others unknown
Coral Reef Degradation	Yes (U)	Anchor damage, others unknown
Fisheries Bycatch	Yes (F)	Purse seine, hook and line, gillnet, pot/trap and trammel net
Hunting/Poaching	Yes (R)	
Pollution	Yes (U)	Agriculture, cruise ships/yachts and marine debris
Predators	Yes (U)	
Disease/Parasites	Yes (U)	
Harassment Due to Increased Human Presence	No	
Dredging	No	
Marina and Dock Development	Yes (F)	
Boat/Personal Water Craft Collisions	No	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	Unknown	
Entanglement	Yes (O)	Discarded gear and line
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Guadeloupe Sea Turtle Habitat

Beach Identification Codes with Beach Names			
GP1	Beaches of Petite Terre - Island 1	GP10	Galets Rouges
GP2	Beaches of Petite Terre - Island 2	GP11	Anse à Sable
GP3	Les Galets de Marie-Galante	GP12	Malendure
GP4	Trois-Ilets & Folle Anse de Marie-Galante	GP13	Grande Anse
GP5	Pompierre	GP14	Anse de la Perle
GP6	Grande Anse Terre-de-Haut des Saintes	GP15	Plage de Cluny
GP7	Anse Figuier	GP16	Anse Nogent
GP8	Grande Anse Trois-Rivières	GP17	Plage du Four à Chaud
GP9	Machette		

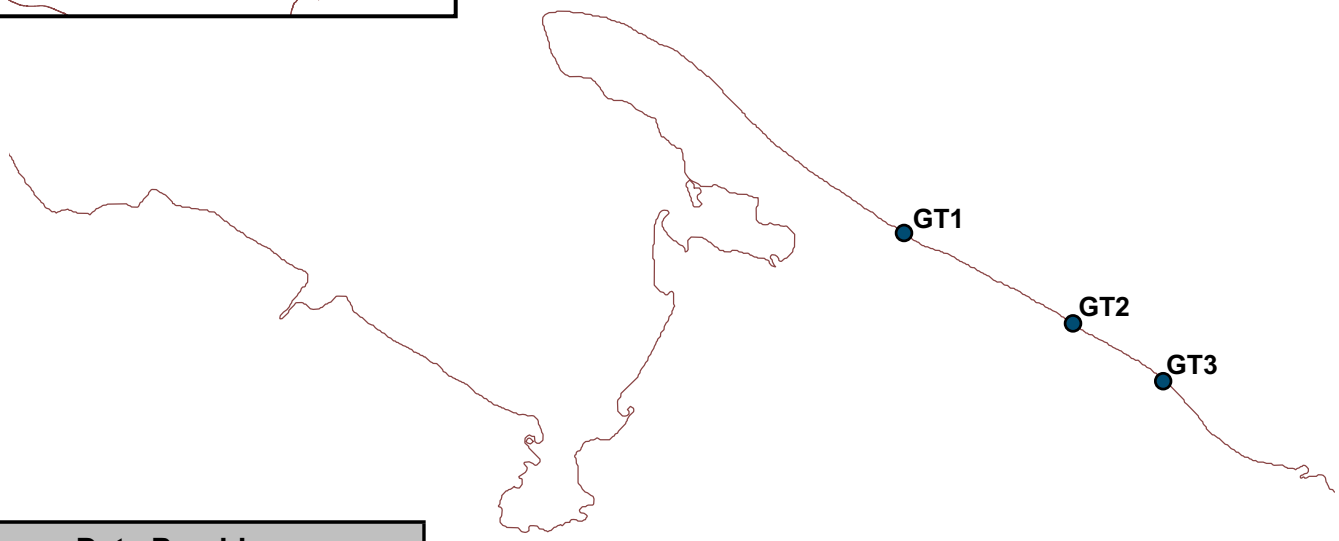
Guatemala Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes*
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	No
Minimum size limits	No
Maximum size limits	No
Annual quota	No
Permits/licenses required	Yes**
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	No
Recent prosecutions or penalties	Yes
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * Except eggs; ** For receipt



Data Providers

Ana Beatriz Rivas Chacon, Anabella Barrios

Fundación Mario Dary Rivera

Consejo Nacional de Areas Protegidas de Guatemala

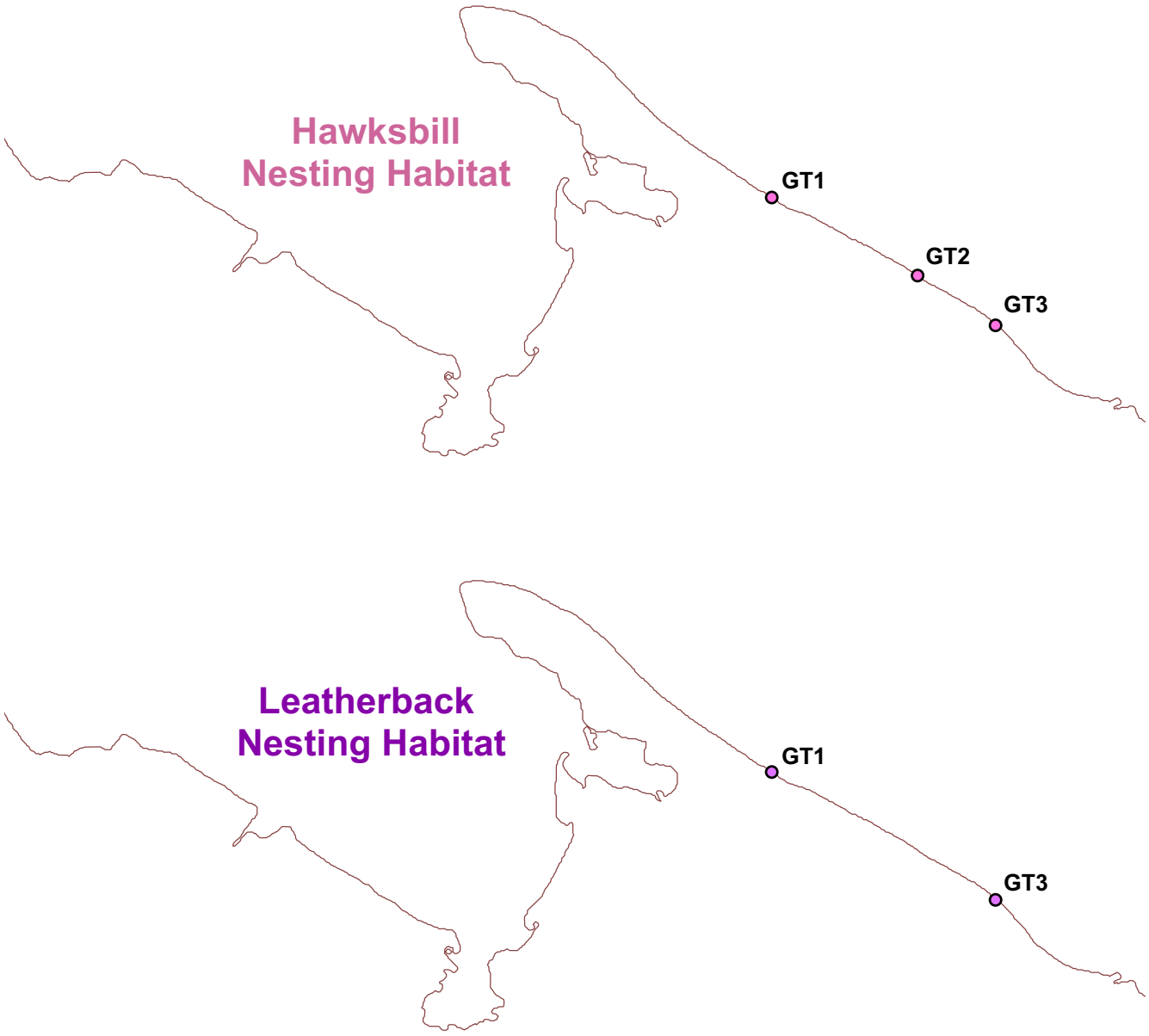
Kilometers
0 3 6 12 18 24

● Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

Guatemala Sea Turtle Habitat



Hawksbill Nesting Habitat

- <25 Crawls per year

Leatherback Nesting Habitat

- <25 Crawls per year

GSHHS Caribbean Shoreline

N

0 3 6 12 18 24 Kilometers

Guatemala Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (R)	Very rare inside protected area
Killing of Nesting Females by Predators	No	
Nest Loss to Predators	Yes (O)	Racoons and crabs
Nest Loss to Abiotic Factors	Yes (O)	Flood and Erosion
Egg Collection by Humans	Yes (F)	
Harassment Due to Increased Human Presence	Yes (O)	By egg collectors carrying flashlights
Artificial Lighting	Yes (R)	
Pollution	Yes (F)	Beach littler
Beach Erosion/Accretion	Yes (R)	
Beach Armouring/Stabilization Structures	No	
Beach Nourishment	No	
Recreational Beach Equipment and/or Other Obstacles	Yes (R)	
Mechanized Beach Cleaning	No	
Beach Vehicular Use	No	
Sand Mining	No	
Exotic (or Loss of Native) Vegetation	Unknown	
Livestock Presence on the Beach	Yes (U)	Horses
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	Anchor damage
Coral Reef Degradation	Yes (U)	Pollution and sedimentation
Fisheries Bycatch	Unknown	
Hunting/Poaching	No	
Pollution	Yes (F)	Marine debris and runoff from Motagua River
Predators	Yes (U)	
Disease/Parasites	Unknown	
Harassment Due to Increased Human Presence	Yes (R)	
Dredging	Unknown	
Marina and Dock Development	No	
Boat/Personal Water Craft Collisions	Yes (R)	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	No	
Entanglement	Yes (F)	
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Guatemala Sea Turtle Habitat

Beach Identification Codes with Beach Names			
GT1	San Francisco del Mar	GT3	Estero Guinea - Montagua
GT2	Jaloa		

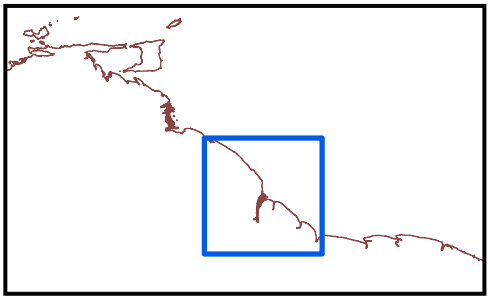
Guyana Sea Turtle Habitat

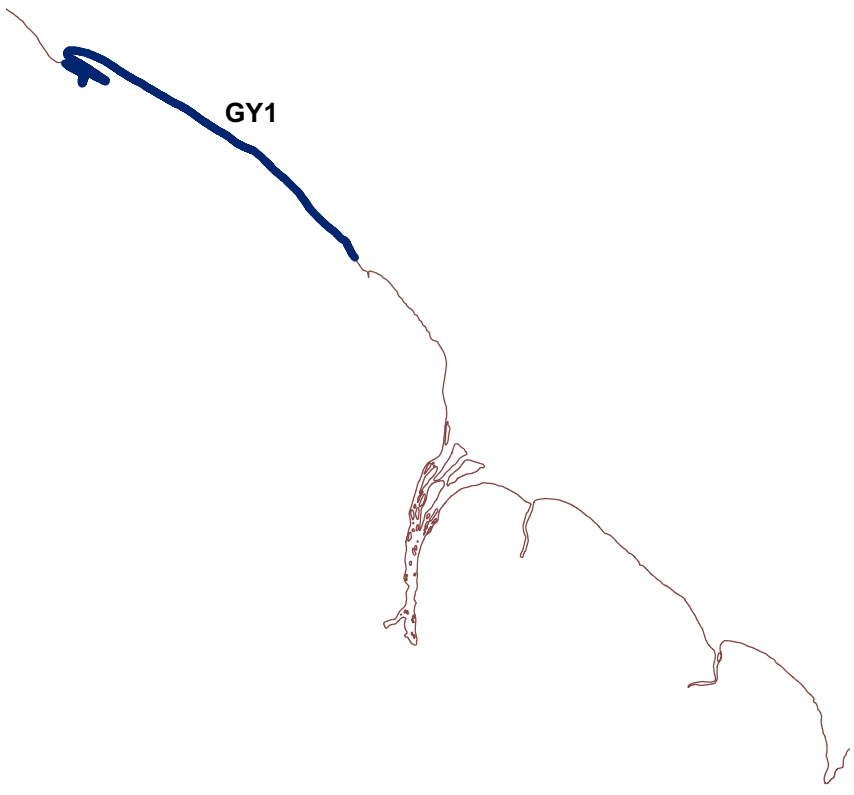
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	I
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	I

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	Yes
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Unknown
Reports of illegal trade internationally	Unknown
General public awareness of laws	No (Insufficient)
Recent prosecutions or penalties	Unknown
Enforcement considered adequate	No
Penalties are an adequate deterrent	Unknown

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable





Data Providers

Michelle Kalamandeen, Peter Pritchard, Annette Arjoon

Guyana Marine Turtle Conservation Society

Kilometers
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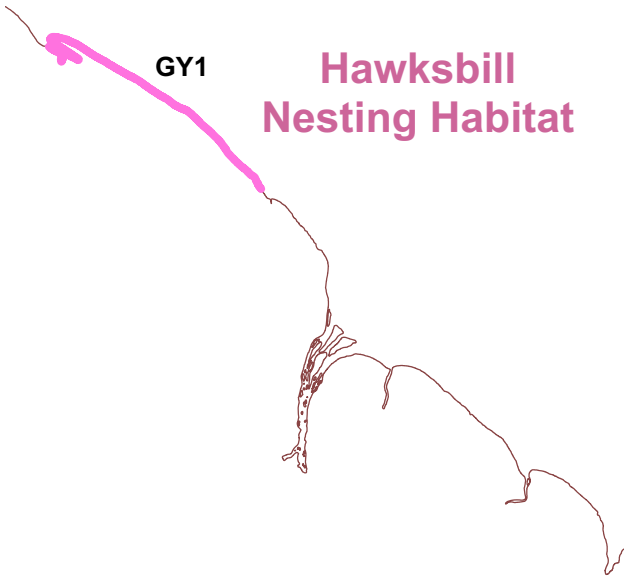
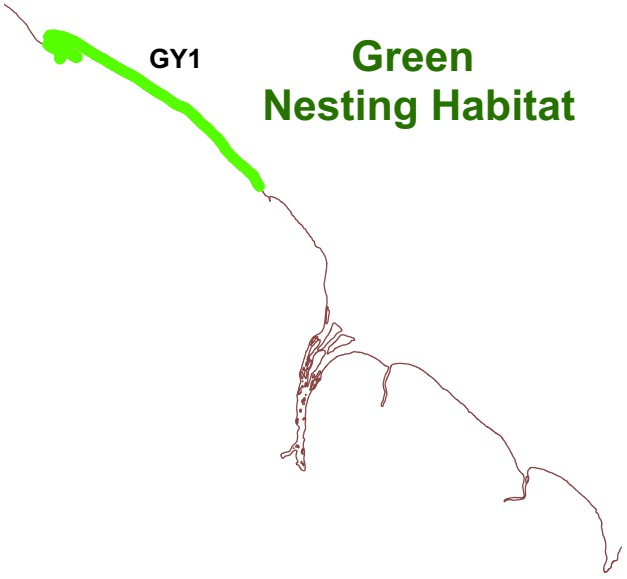
Sea Turtle Nesting Habitat

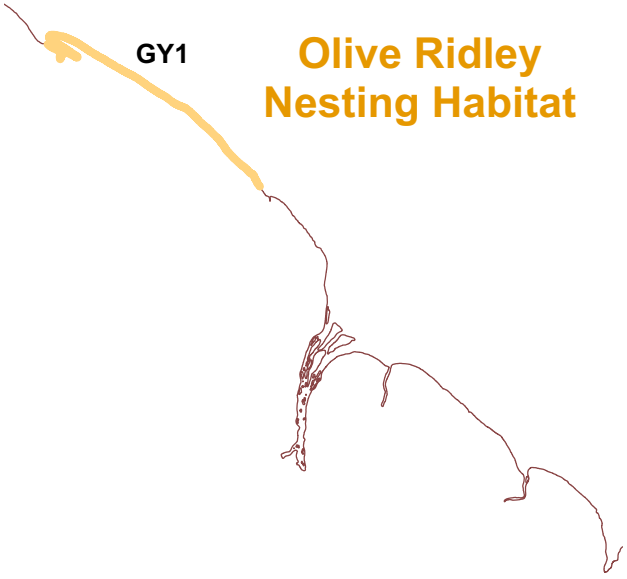
GSHHS Caribbean Shoreline

N

Guyana Sea Turtle Habitat







Hawksbill Nesting Habitat
<25 Crawls per year

Leatherback Nesting Habitat
500-1000 Crawls per year

Green Nesting Habitat
25-100 Crawls per year

Olive Ridley Nesting Habitat
<25 Crawls per year

GSHHS Caribbean Shoreline

Kilometers
0 30 60 120 180 240

N

Guyana Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (F)	
Killing of Nesting Females by Predators	No	
Nest Loss to Predators	Yes (R)	Dogs, jaguars, racoons and birds
Nest Loss to Abiotic Factors	Yes (F)	Erosion
Egg Collection by Humans	Yes (F)	
Harassment Due to Increased Human Presence	Yes (R)	
Artificial Lighting	Yes (R)	
Pollution	Yes (U)	Beach litter/debris
Beach Erosion/Accretion	Yes (U)	Erosion due to natural beach movement
Beach Armouring/Stabilization Structures	No	
Beach Nourishment	No	
Recreational Beach Equipment and/or Other Obstacles	No	
Mechanized Beach Cleaning	No	
Beach Vehicular Use	No	
Sand Mining	Yes (R)	Small scale shell mining (shell beaches, not sand)
Exotic (or Loss of Native) Vegetation	Yes (R)	
Livestock Presence on the Beach	Yes (U)	Almond beach - Chicken and goats
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	No	
Coral Reef Degradation	No	
Fisheries Bycatch	Yes (F)	Trawls, hook and line, seines and pot/traps
Hunting/Poaching	No	
Pollution	Unknown	
Predators	Yes (U)	Sharks and fish
Disease/Parasites	No	
Harassment Due to Increased Human Presence	Yes (R)	
Dredging	No	
Marina and Dock Development	No	
Boat/Personal Water Craft Collisions	No	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	No	
Entanglement	Yes (F)	Fishing gear
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Guyana Sea Turtle Habitat

Beach Identification Codes with Beach Names	
GY1	Luri, Almond and Tiger Beaches

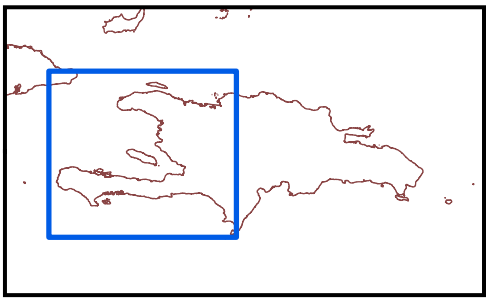
Haiti Sea Turtle Habitat

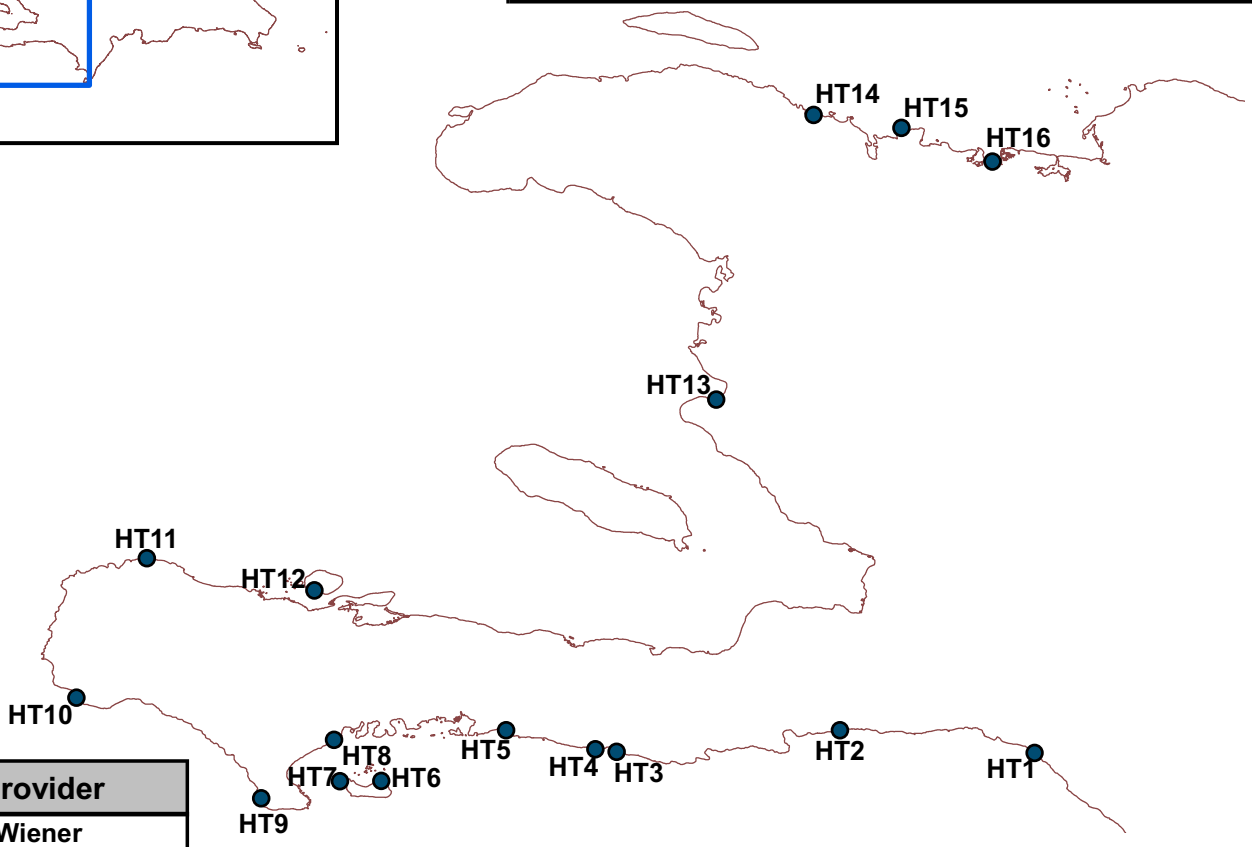
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N, F?
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	No
Moratorium (fixed period)	No
Prohibition(s) on take	E, NF
Closed season	Yes
Minimum size limits	No
Maximum size limits	No
Annual quota	No
Permits/licenses required	Yes
Gear restrictions	No
Area closures (MPA, park, reserve)	No
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	No
General public awareness of laws	No
Recent prosecutions or penalties	No
Enforcement considered adequate	No
Penalties are an adequate deterrent	No

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable





Data Provider

Jean Wiener

Fondation pour la Protection de la Biodiversité Marine

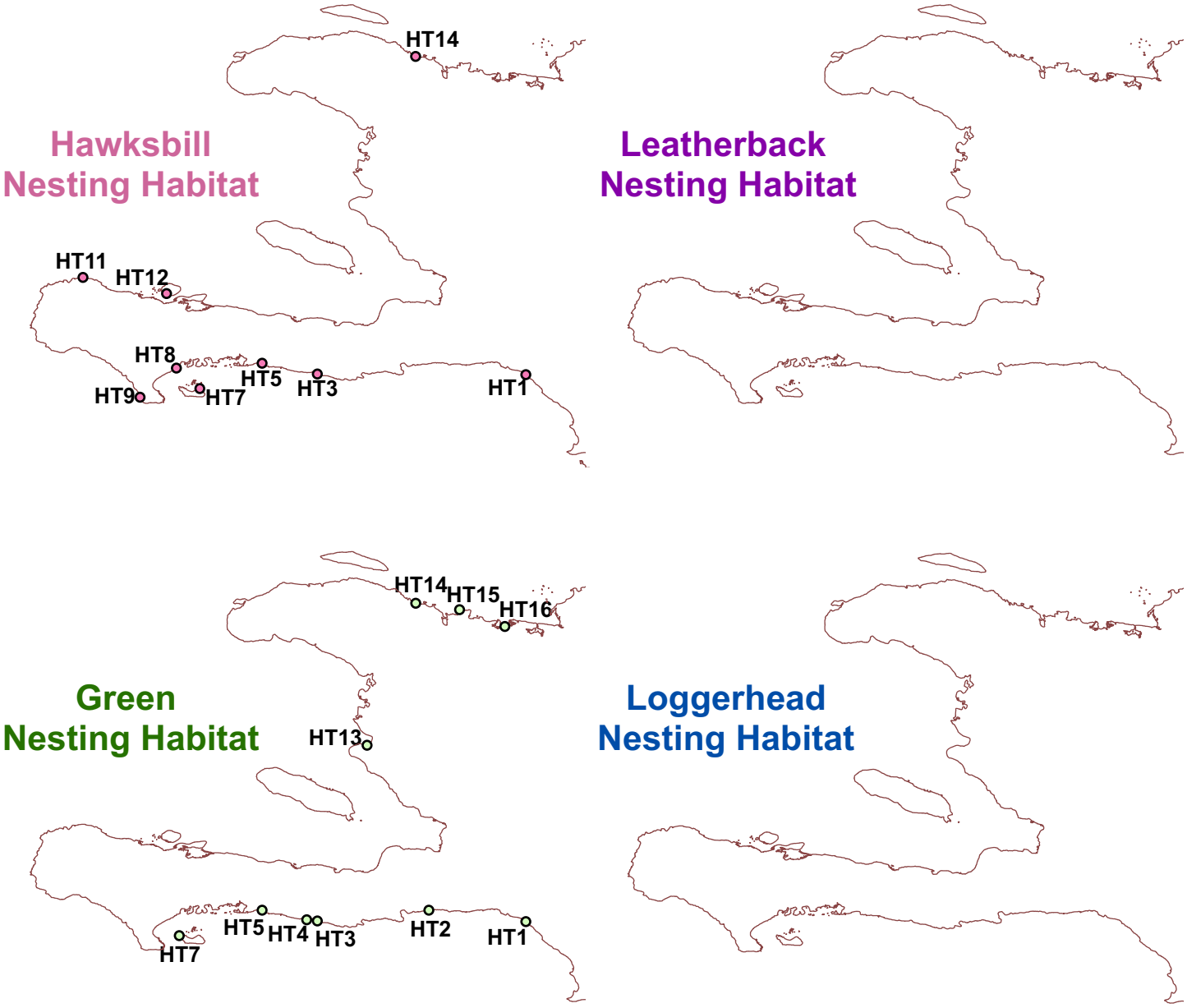
Kilometers
0 15 30 60 90 120

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

Haiti Sea Turtle Habitat



Haiti Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (U)	Thought to be frequent
Killing of Nesting Females by Predators	No	Harassment by dogs is rare
Nest Loss to Predators	No	
Nest Loss to Abiotic Factors	Yes (R)	
Egg Collection by Humans	Yes (F)	
Harassment Due to Increased Human Presence	No	
Artificial Lighting	No	
Pollution	Yes (U)	Beach litter/debris
Beach Erosion/Accretion	Yes (U)	Caused by storms and natural beach movement
Beach Armouring/Stabilization Structures	No	
Beach Nourishment	No	
Recreational Beach Equipment and/or Other Obstacles	No	
Mechanized Beach Cleaning	No	
Beach Vehicular Use	No	
Sand Mining	No	
Exotic (or Loss of Native) Vegetation	No	
Livestock Presence on the Beach	No	

Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	Pollution near developed areas
Coral Reef Degradation	Yes (U)	Pollution near developed areas
Fisheries Bycatch	Yes (U)	Hook and line, pot/trap and "nets" undefined
Hunting/Poaching	Yes (U)	Kept if caught as bycatch - no sea turtle fishery
Pollution	Yes (U)	"Declining water quality", marine debris and sewage
Predators	No	
Disease/Parasites	Unknown	
Harassment Due to Increased Human Presence	No	
Dredging	No	
Marina and Dock Development	No	
Boat/Personal Water Craft Collisions	No	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	No	
Entanglement	Yes (U)	Marine debris
Offshore Artificial Lighting	No	

Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown

Haiti Sea Turtle Habitat

Beach Identification Codes with Beach Names			
HT1	Anse Pitres to Belle-Anse	HT10	Tiburon
HT2	Cayes Jacmel to Raymond	HT11	Anse d'Azur
HT3	Mayette to Cotes de Fer	HT12	Gonavele Caymite
HT4	Cotes de Fer to Mouillage	HT13	Freycinau
HT5	Laborieux to Pointe de Tois Lataniers	HT14	Anse a Chou Chou
HT6	Ile-a-Vache at Point de l'Est	HT15	Fond Larange
HT7	Ile-a-Vache at Point Daimant	HT16	Baie de Caracol
HT8	Les Cayes to St. Jean	HT17	Anse du Diable
HT9	Pointe a Gravois to Port Salut	HT18	Petit Anse

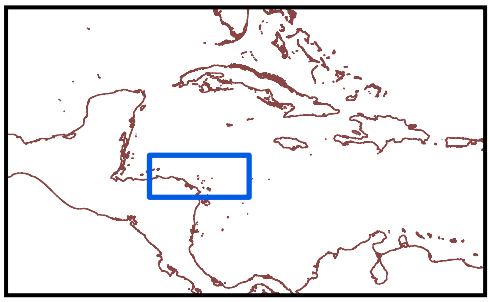
Honduras Sea Turtle Habitat

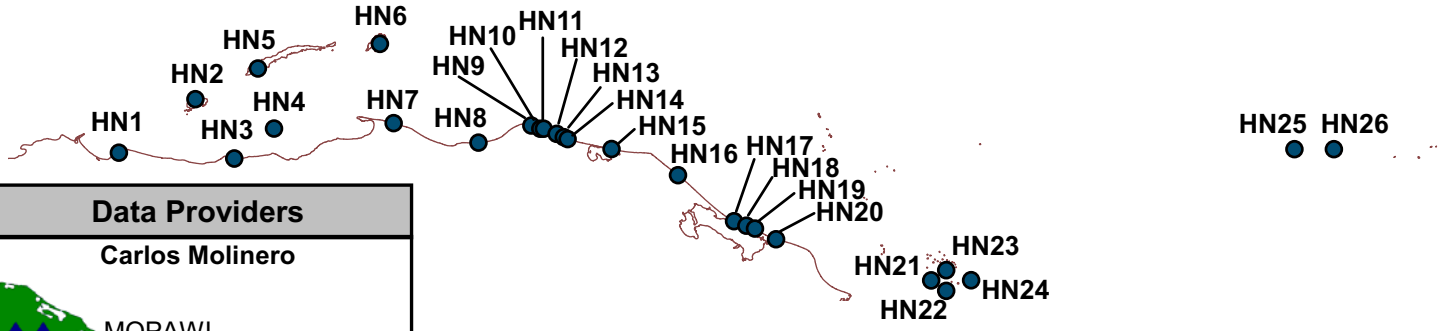
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes*
Moratorium (fixed period)	–
Prohibition(s) on take	No
Closed season	No
Minimum size limits	No
Maximum size limits	No
Annual quota	No
Permits/licenses required	No
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	No
Recent prosecutions or penalties	Unknown
Enforcement considered adequate	No
Penalties are an adequate deterrent	Unknown

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * Except for Indigenous Take





Data Providers

Carlos Molinero

MOPAWI

Lidia Salinas

Sandy Bay - West End Marine Park

Marcio Aronne

ECOVITA

Michelle Fernandez

Unidad Municipal Ambiental De Utila

Rafael Gutierrez, Teodora Casildo, Gerson Martinez

Kilometers

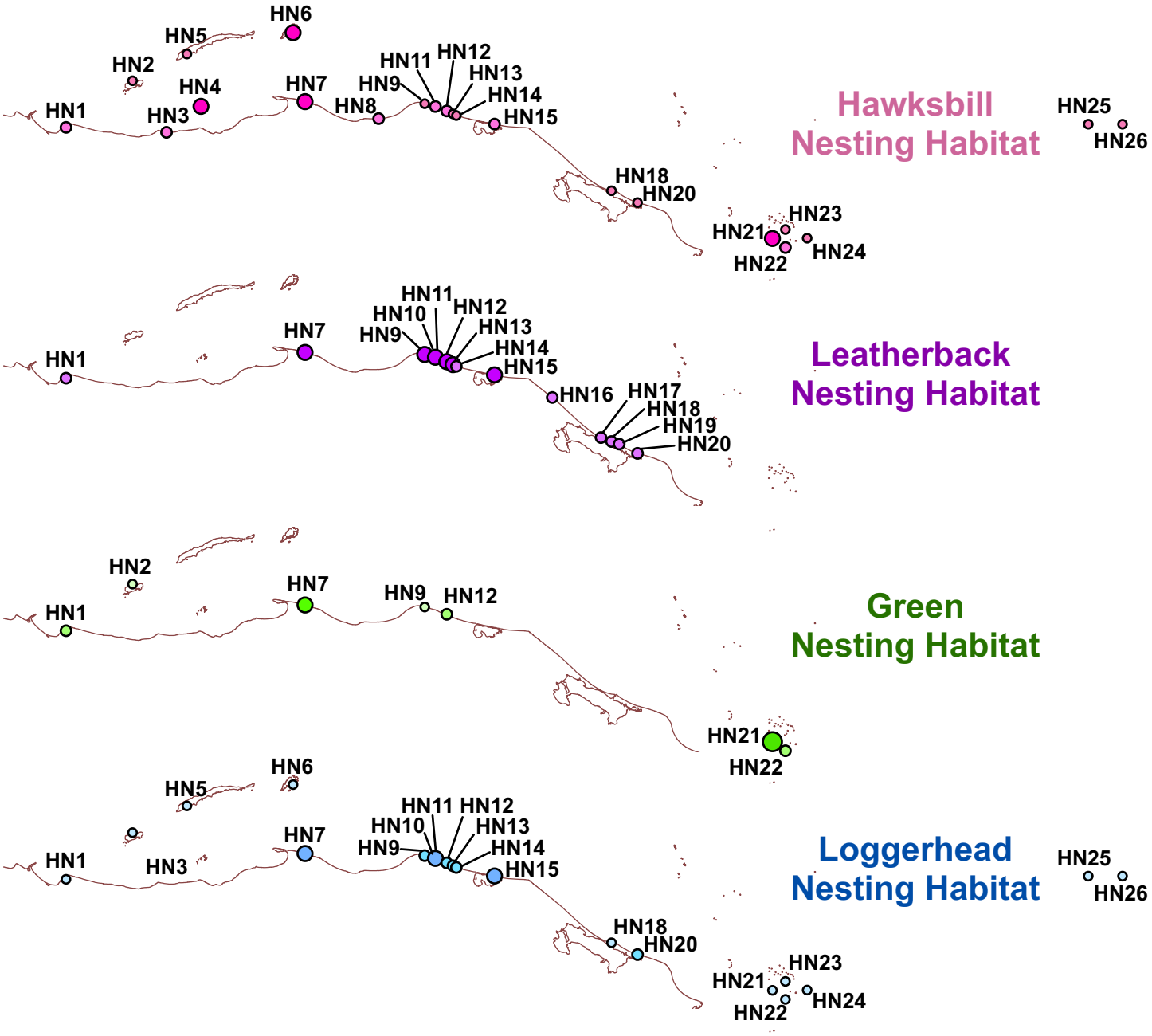
0 35 70 140 210 280

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

Honduras Sea Turtle Habitat



Hawksbill Nesting Habitat
- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year

Leatherback Nesting Habitat
- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year

Green Nesting Habitat
- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year

Loggerhead Nesting Habitat
- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year

GSHHS Caribbean Shoreline

Kilometers
0 35 70 140 210 280

N

Honduras Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (R)	
Killing of Nesting Females by Predators	Yes (U)	
Nest Loss to Predators	Yes (F)	Feral dogs, pigs, cats; Playa de Mokabila in Brus Laguna
Nest Loss to Abiotic Factors	Yes (U)	
Egg Collection by Humans	Yes (U)	La Barra del Rio Monague to la Barra de Rio Aguan; Leatherbacks are particularly declining
Harassment Due to Increased Human Presence	Yes (F)	
Artificial Lighting	Yes (FA)	Ceiba to Sambo Creek
Pollution	Yes (F)	Agriculture, sewage and beach litter/debris
Beach Erosion/Accretion	Yes (F)	Due to loss of vegetation and storms
Beach Armouring/Stabilization Structures	Yes (R)	
Beach Nourishment	Yes (U)	
Recreational Beach Equipment and/or Other Obstacles	Yes (R)	
Mechanized Beach Cleaning	Yes (R)	
Beach Vehicular Use	Yes (F)	Increases during rainy season due to the poor state of roads in coastal communities
Sand Mining	Yes (R)	
Exotic (or Loss of Native) Vegetation	Yes (F)	Cocotero has been eliminated by disease
Livestock Presence on the Beach	Yes (R)	Cattle graze on beaches
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (F)	Development, beach nourishment and sedimentation
Coral Reef Degradation	Yes (F)	Sedimentation and fishing
Fisheries Bycatch	Yes (F)	Artisinal fisheries
Hunting/Poaching	Yes (R)	
Pollution	Yes (F)	Sewage, marine debris, deforestation (runoff)
Predators	Yes (U)	
Disease/Parasites	Yes (U)	
Harassment Due to Increased Human Presence	Yes (O)	
Dredging	Yes (R)	
Marina and Dock Development	Yes (R)	
Boat/Personal Water Craft Collisions	Yes (R)	Almost no reports
Power Plant Entrapment	Yes (R)	
Oil and Gas Exploration, Development, Transportation	Yes (O)	One installation in Bahia de Omoa
Entanglement	Yes (U)	
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Honduras Sea Turtle Habitat

Beach Identification Codes with Beach Names			
HN1	Bahia de Tela	HN16	Barra de Tabakunta
HN2	Isla de Utila	HN17	Yahurabila
HN3	La Ceiba Cayo Chachahuate	HN18	Barra Catarasca
HN4	Cayos Cochinos	HN19	Prunnitara
HN5	Roatan	HN20	Cauquira
HN6	Guanaja	HN21	Cayo Bobel
HN7	Punta Castilla	HN22	Cayo Port Royal or Tortuga
HN8	Sangre Laya	HN23	Cayo Sabana
HN9	Tocamacho	HN24	Cayo Sur
HN10	Batalla	HN25	Cayo Bogas
HN11	Cabo Camaron - La Barra	HN26	Cayos Vivorillos
HN12	Plaplaya	HN27	Barra Patuka
HN13	Ibans	HN28	Kury
HN14	Cocobila	HN29	Belén
HN15	Brus Laguna		

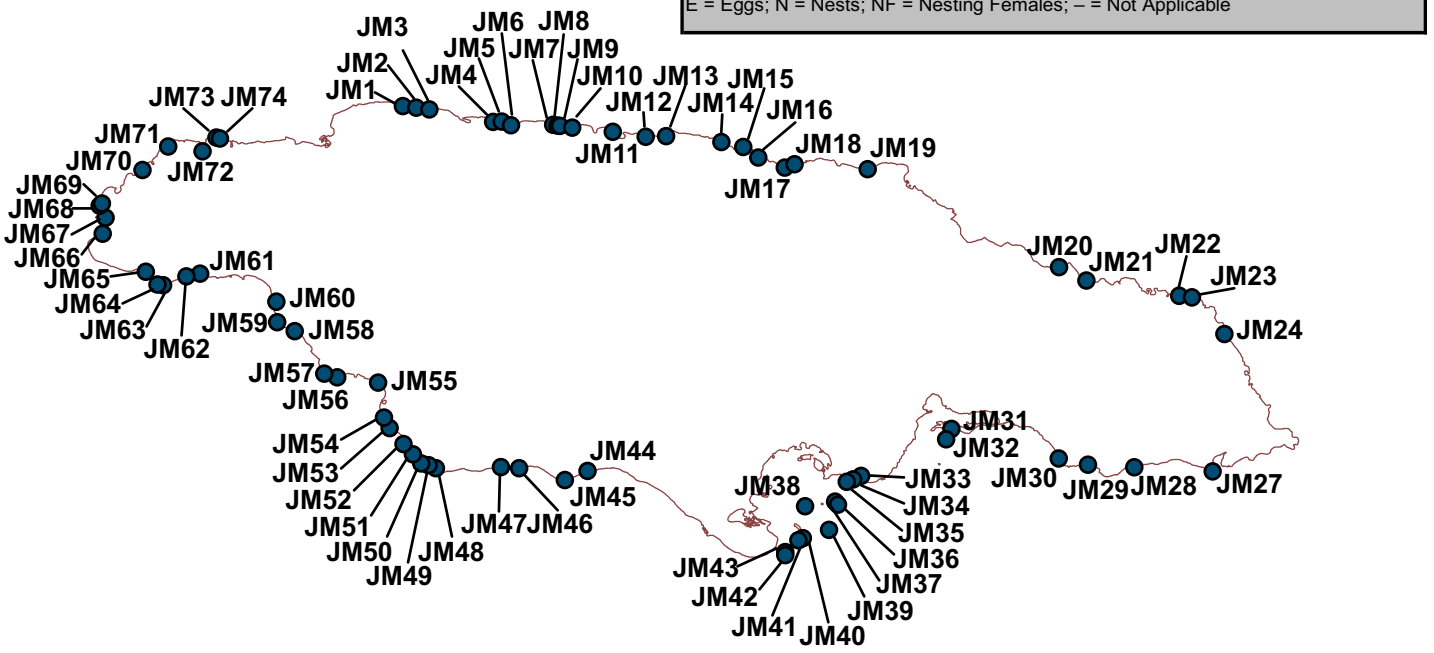
Jamaica Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, IF
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A?
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	No
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	No
General public awareness of laws	Yes
Recent prosecutions or penalties	Yes
Enforcement considered adequate	No
Penalties are an adequate deterrent	No

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable



Data Providers
Andrea Donaldson, Rhema Bjorkland
National Environment and Planning Agency and Sea Turtle Recovery Network

Sea Turtle Nesting Habitat

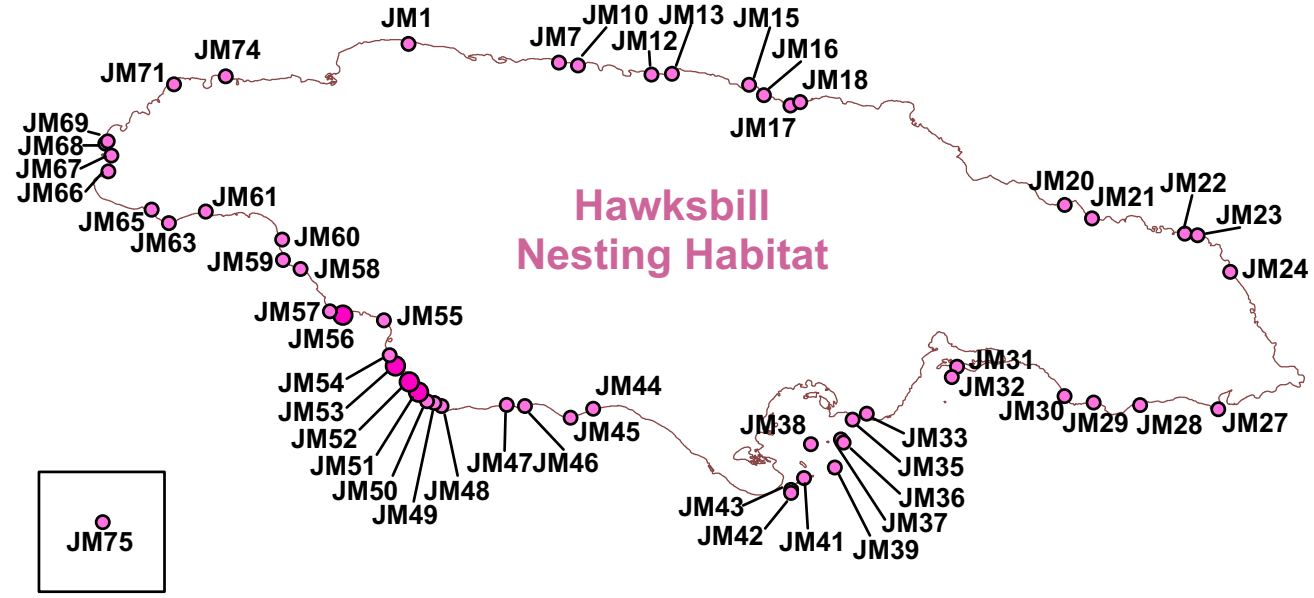
GSHHS Caribbean Shoreline

Kilometers

0 10 20 40 60 80

N

Jamaica Sea Turtle Habitat



Hawksbill Nesting Habitat

- <25 Crawls per year
- 25-100 Crawls per year

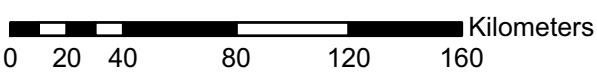
Leatherback Nesting Habitat

- X Crawls per year

Green Nesting Habitat

- X Crawls per year
- <25 Crawls per year

GSHHS Caribbean Shoreline



Jamaica Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (F)	
Killing of Nesting Females by Predators	No	Harassment by dogs
Nest Loss to Predators	Yes (U)	Wild boats, mongoose, rats and dogs
Nest Loss to Abiotic Factors	Yes (U)	Flood and erosion
Egg Collection by Humans	Yes (F)	
Harassment Due to Increased Human Presence	No	
Artificial Lighting	Yes (FA)	
Pollution	No	
Beach Erosion/Accretion	Yes (U)	Caused by storms and natural beach movement
Beach Armouring/Stabilization Structures	Yes (U)	
Beach Nourishment	No	
Recreational Beach Equipment and/or Other Obstacles	No	
Mechanized Beach Cleaning	No	
Beach Vehicular Use	No	
Sand Mining	Yes (U)	
Exotic (or Loss of Native) Vegetation	No	
Livestock Presence on the Beach	Yes (U)	Horse racing on the beach
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	No	
Coral Reef Degradation	Yes (U)	Pollution and sedimentation
Fisheries Bycatch	Yes (U)	Dynamite/blast and "nets" undefined - takes are increasing
Hunting/Poaching	Yes (U)	
Pollution	Yes (U)	Runoff, sewage, agriculture, solid waste and siltation
Predators	Unknown	
Disease/Parasites	No	
Harassment Due to Increased Human Presence	No	
Dredging	No	
Marina and Dock Development	No	
Boat/Personal Water Craft Collisions	No	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	No	
Entanglement	Yes (U)	Nets
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Jamaica Sea Turtle Habitat

Beach Identification Codes with Beach Names			
JM1	Success Beach	JM42	Little Portland Cay
JM2	Lily's Point	JM43	Big Portland Cay
JM3	Sea Castle Hotel	JM44	Gut's River
JM4	Bush Cay	JM45	Old Woman's Point
JM5	Florida Beach	JM46	Alligator Pond (east of Port Kaiser)
JM6	Burwood	JM47	Tryall Beach
JM7	Silver Sands	JM48	Great Bay
JM8	Harmony Beach	JM49	Hope Wharf
JM9	East of Harmony Beach	JM50	Calabash Bay
JM10	Braco Beach	JM51	Billy's Bay
JM11	Hogsty Beach	JM52	Merriman's Point
JM12	Pear Tree Bottom	JM53	Thatchfield
JM13	Runaway Bay	JM54	Parottee
JM14	Priory, Ocean Line	JM55	Black River
JM15	Drax Hall Beach	JM56	Galleon Harbour
JM16	Mammee Bay	JM57	Luana Beach
JM17	Shaw Park	JM58	Auchindown
JM18	Prospect Beach	JM59	Crab Pond Point
JM19	Golden Seas/Oracabessa	JM60	Bluefields
JM20	Orange Bay	JM61	Robin's Point
JM21	Hope Bay Beach	JM62	Between Broughton and Savanna la Mar
JM22	Frenchman's Cove	JM63	St. John's Point
JM23	Fairy Hill	JM64	Salmon Point
JM24	Long Bay	JM65	Little Bay
JM25	Rocky Cay	JM66	Sandy Bay
JM26	Southeast Morant Cay	JM67	Long Bay 2
JM27	Prospect	JM68	Booby Cay (Negril)
JM28	White Horses (west of Little Pedro Bay)	JM69	Bloody Bay (Negril)
JM29	Yallah	JM70	Neggro Cove
JM30	Cow Bay	JM71	Lance's Bay
JM31	Palsadoes/Port Royal	JM72	East Lucea Cove/Johnson's Beach
JM32	Lime Cay	JM73	Anglin's Cove
JM33	Manatee Bay	JM74	Paradise
JM34	Coquar Bay	JM75	Southwest Cay (Pedro Bank)
JM35	Needles Cay	JM76	Alligator Pond - Cay
JM36	Little Pelican Cay	JM77	Doctor Wood
JM37	Big Pelican Cay	JM78	Golden Head Beach
JM38	Pigeon Island	JM79	Ladder Bay
JM39	Bare Bush Cay	JM80	Meagre Bay
JM40	Little Half Moon Cay	JM81	Sand Bank Cay
JM41	Big Half Moon Cay	JM82	Sand Cay

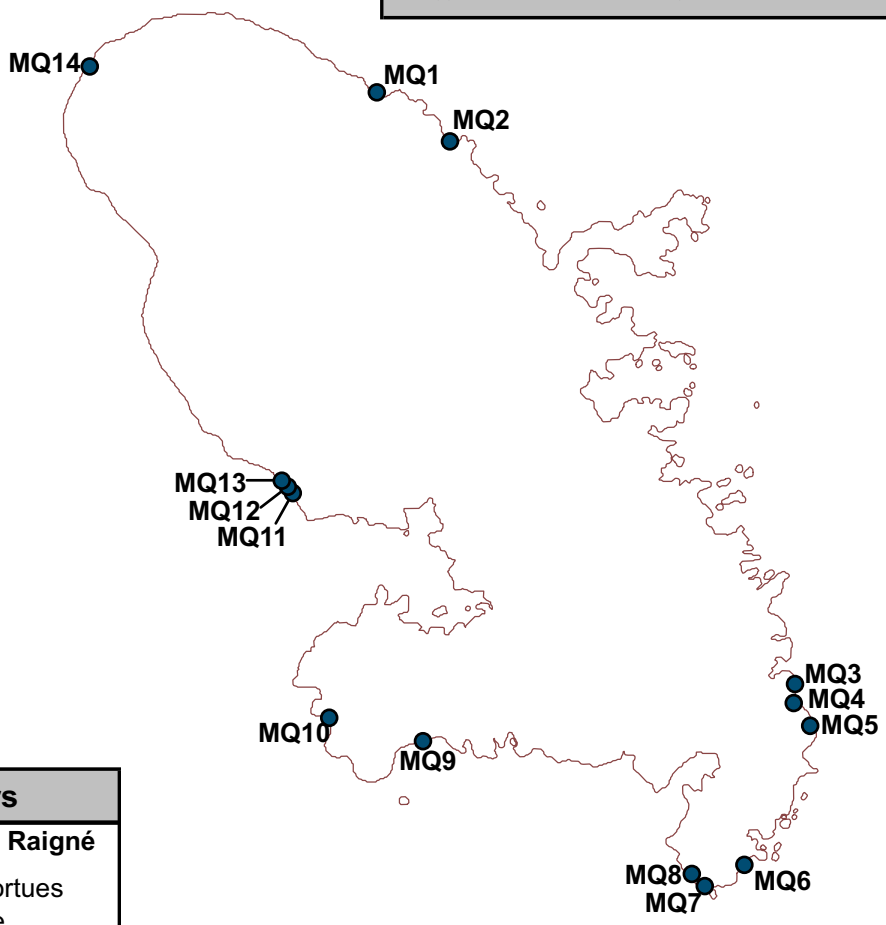
Martinique Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	F
Green Turtle (*Chelonia mydas*)	IN, F
Leatherback Turtle (*Dermochelys coriacea*)	N, F?
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	I

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	No
Area closures (MPA, park, reserve)	No
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Unknown
General public awareness of laws	Yes
Recent prosecutions or penalties	Yes
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable



Data Providers

Claire Cayol, Séverine Raigné

Réseau Tortues Marines de Maritnique

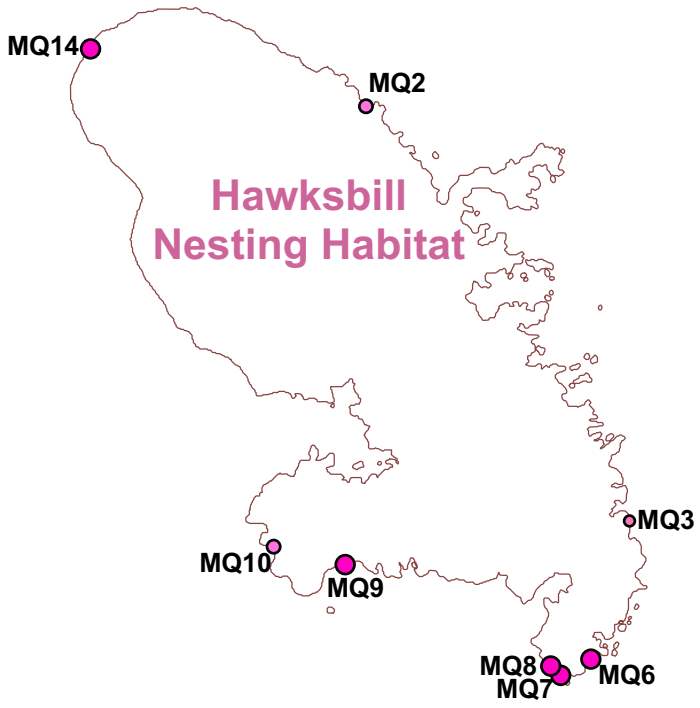
Kilometers
0 3.5 7 14 21 28

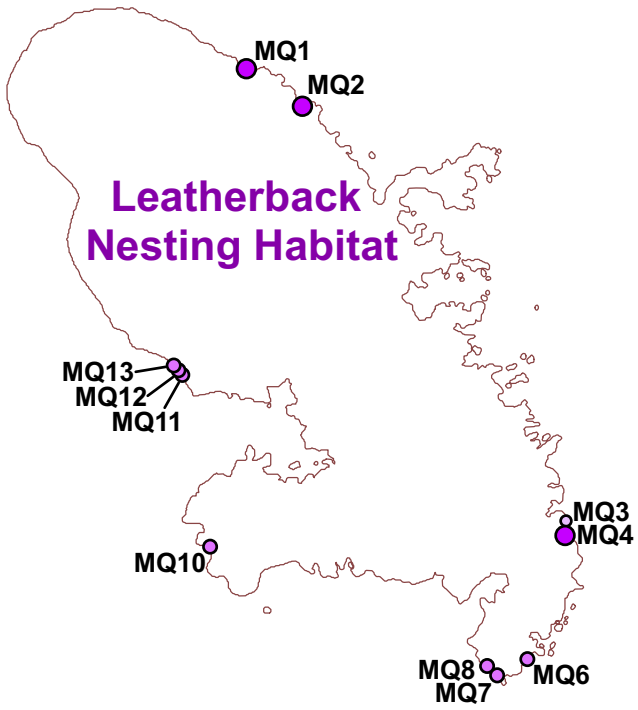
Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

Martinique Sea Turtle Habitat





Hawksbill Nesting Habitat

- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year

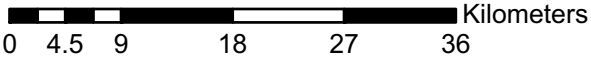
Leatherback Nesting Habitat

- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year

Green Nesting Habitat

- <25 Crawls per year

GSHHS Caribbean Shoreline



Martinique Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (O)	
Killing of Nesting Females by Predators	No	
Nest Loss to Predators	Yes (O)	
Nest Loss to Abiotic Factors	Yes (FA)	
Egg Collection by Humans	Yes (O)	
Harassment Due to Increased Human Presence	Yes (O)	
Artificial Lighting	Yes (F)	
Pollution	Yes (O)	Beach litter/debris and agriculture
Beach Erosion/Accretion	Yes (FA)	
Beach Armouring/Stabilization Structures	Yes (F)	
Beach Nourishment	Unknown	
Recreational Beach Equipment and/or Other Obstacles	No	
Mechanized Beach Cleaning	Yes (O)	
Beach Vehicular Use	Yes (O)	
Sand Mining	Yes (O)	Not a widespread problem
Exotic (or Loss of Native) Vegetation	Yes (F)	
Livestock Presence on the Beach	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (F)	
Coral Reef Degradation	Yes (F)	
Fisheries Bycatch	Yes (F)	
Hunting/Poaching	Yes (O)	
Pollution	Yes (F)	Agriculture, cruise ships/yachts and marine debris
Predators	Yes (U)	
Disease/Parasites	Yes (R)	Fibropapillomas
Harassment Due to Increased Human Presence	Yes (U)	
Dredging	Unknown	
Marina and Dock Development	Yes (FA)	
Boat/Personal Water Craft Collisions	Yes (O)	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	Yes (U)	
Entanglement	Yes (F)	
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Martinique Sea Turtle Habitat

Beach Identification Codes with Beach Names			
MQ1	Lorrain	MQ8	Grande Anse des Salines
MQ2	Anse Charpentier	MQ9	Diamant
MQ3	Petite Anse Macabou	MQ10	Anse d'arlet
MQ4	Grande Anse Macabou	MQ11	Madiana
MQ5	Anse Grosse Roche	MQ12	Anse Madame
MQ6	Anse Trabaud	MQ13	Anse Collat
MQ7	Grande Terre/ Anse à Prune/Grande Anse Salines	MQ14	Anse Lévrier/Anse à Voile

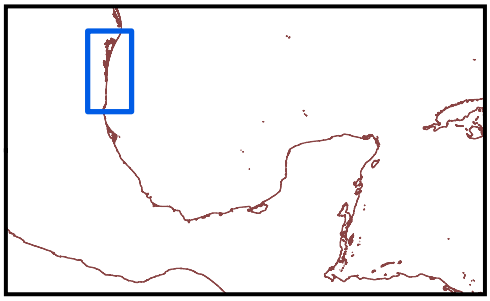
Mexico Sea Turtle Habitat
Tamaulipas

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N, F
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	N, F
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	Yes
Recent prosecutions or penalties	No
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable



Data Providers

National Data Coordinator:
F. Alberto Abreu Grobois

Banco de Información sobre Tortugas Marinas

Instituto de Ciencias del Mar y Limnologia - UNAM

Patrick Burchfield, Luis Jaime Peña

Gladys Porter Zoo

Comision Nacional de Areas Naturales Protegidas

Secretaría De Medio Ambiente Y Recursos Naturales

US National Marine Fisheries Service

US Fish & Wildlife Service

Texas Parks and Wildlife Department

Instituto Nacional de la Pesca

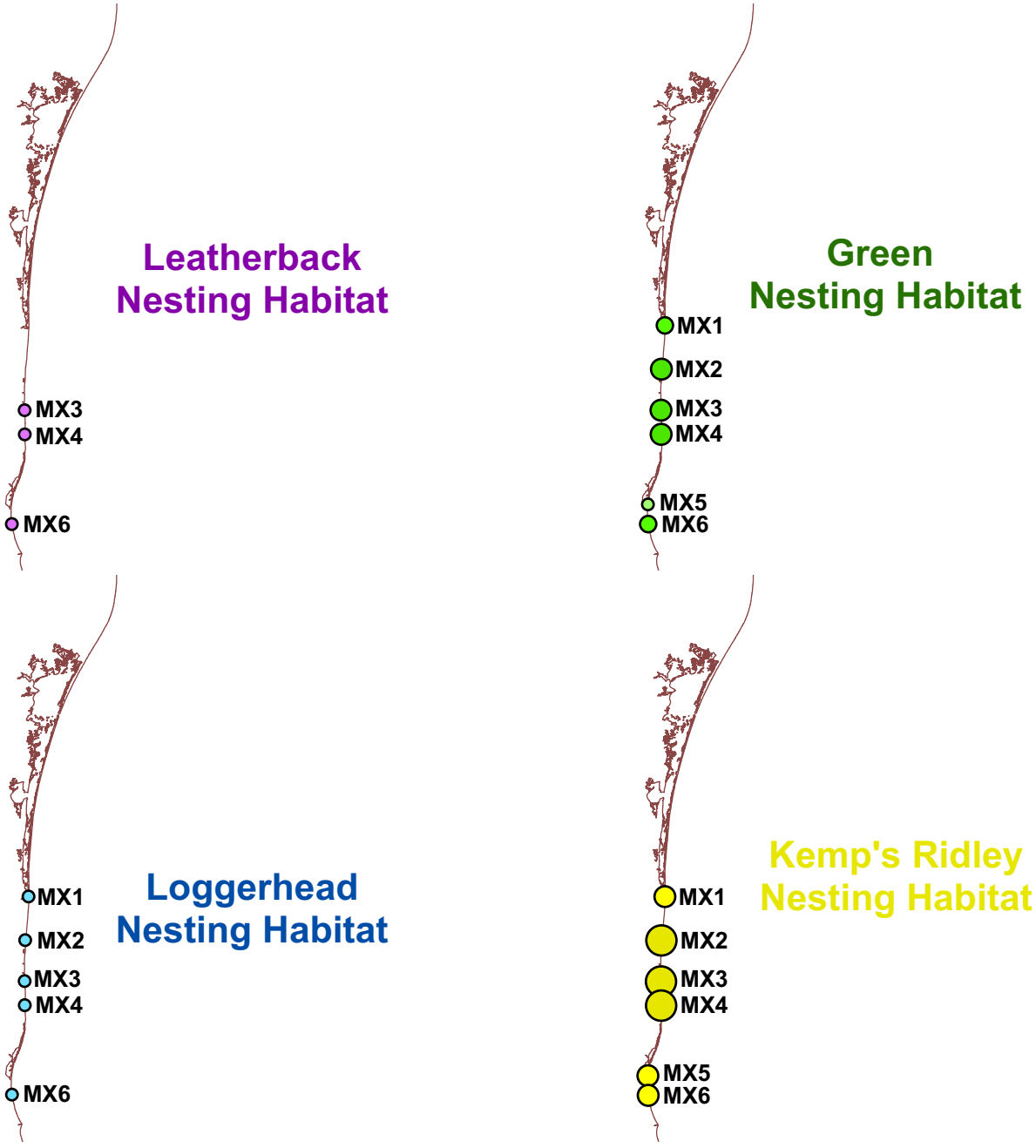
Kilometers
0 25 50 100 150 200

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

Mexico Sea Turtle Habitat
Tamaulipas



Leatherback Nesting Habitat

- <25 Crawls per year

Green Nesting Habitat

- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year

Loggerhead Nesting Habitat

- <25 Crawls per year

Kemp's Ridley Nesting Habitat

- 100-500 Crawls per year
- >1000 Crawls per year

GSHHS Caribbean Shoreline

0 35 70 140 210 280 Kilometers

N

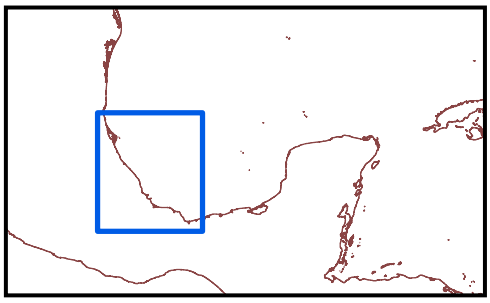
Mexico Sea Turtle Habitat
Veracruz

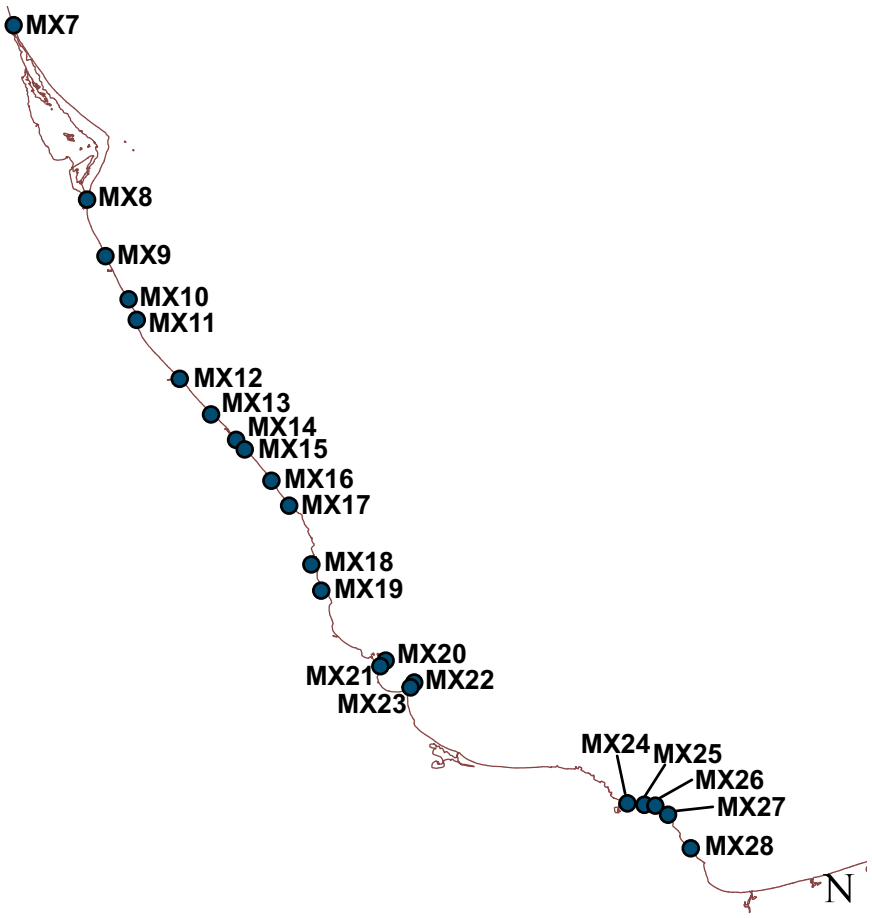
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N, F
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	N, F
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	Yes
Recent prosecutions or penalties	No
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable





Data Providers

National Data Coordinator:
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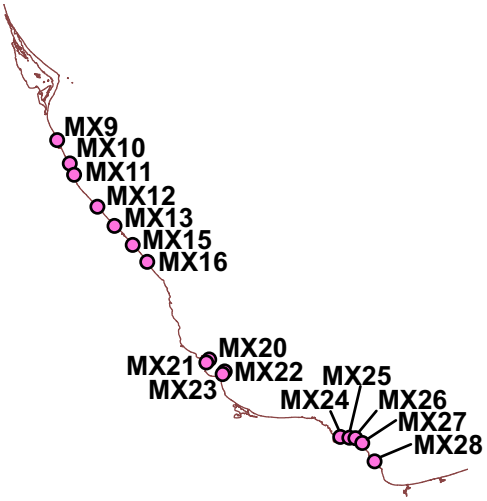
Instituto de Ciencias del Mar y Limnologia - UNAM

Laura Sarti

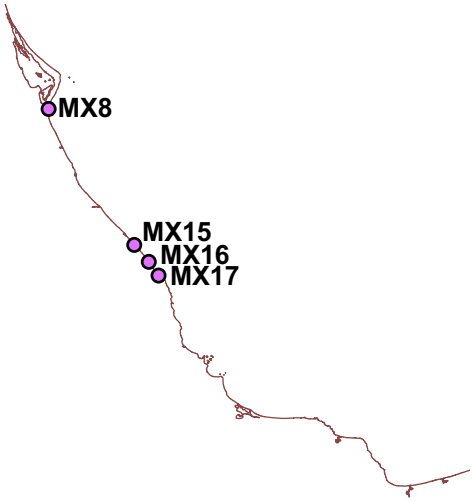
Comision Nacional de Areas Naturales Protegidas

Kilometers
0 25 50 100 150 200

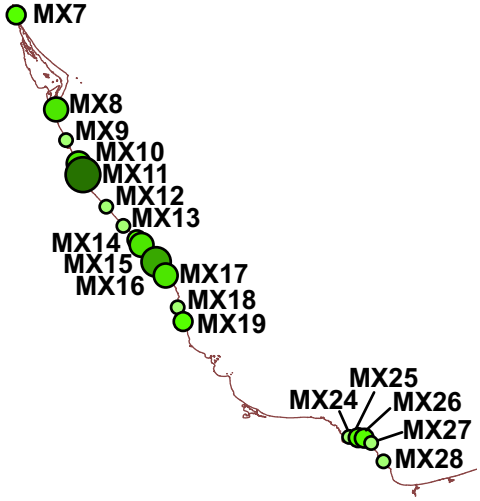
Mexico Sea Turtle Habitat
Veracruz



Hawksbill Nesting Habitat

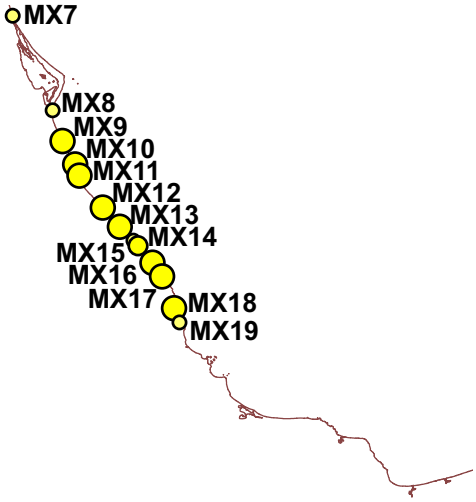


Leatherback Nesting Habitat



Green Nesting Habitat

Loggerhead Nesting Habitat



Kemp's Ridley Nesting Habitat

Hawksbill Nesting Habitat
- <25 Crawls per year

Leatherback Nesting Habitat
- <25 Crawls per year

Loggerhead Nesting Habitat
- <25 Crawls per year

Green Nesting Habitat
- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year
- 500-1000 Crawls per year
- >1000 Crawls per year

Kemp's Ridley Nesting Habitat
- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year

GSHHS Caribbean Shoreline

N

Kilometers
0 50 100 200 300 400

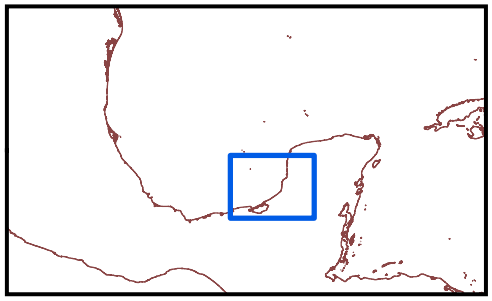
Mexico Sea Turtle Habitat
Campeche

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N, F
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	N, F
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	Yes
Recent prosecutions or penalties	No
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable



Data Providers

National Data Coordinator:
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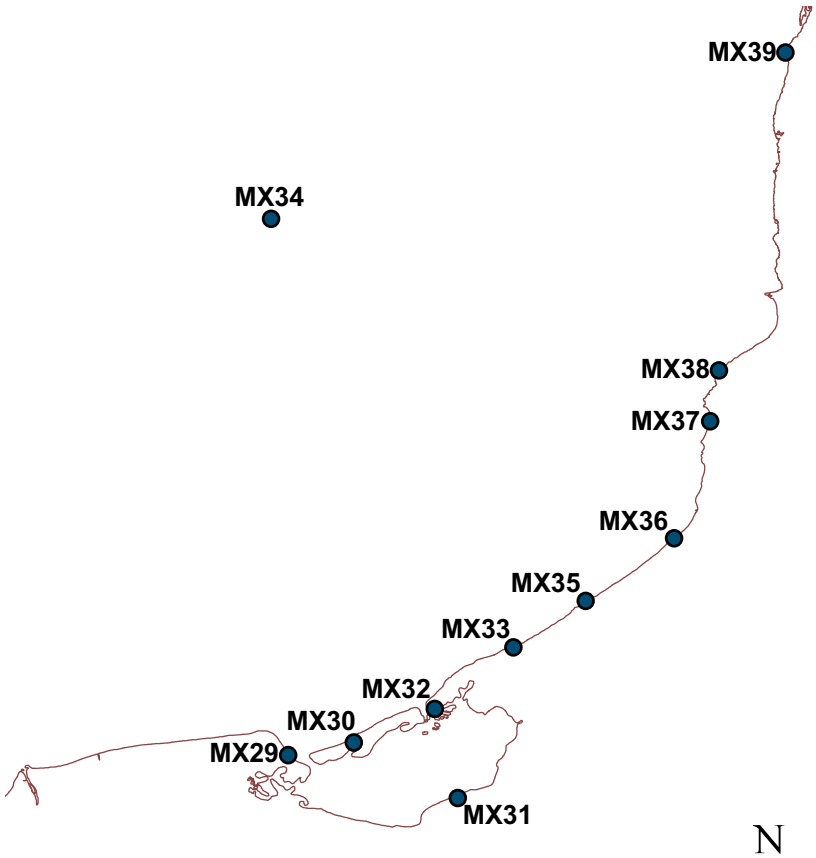
Instituto de Ciencias del Mar y Limnologia - UNAM

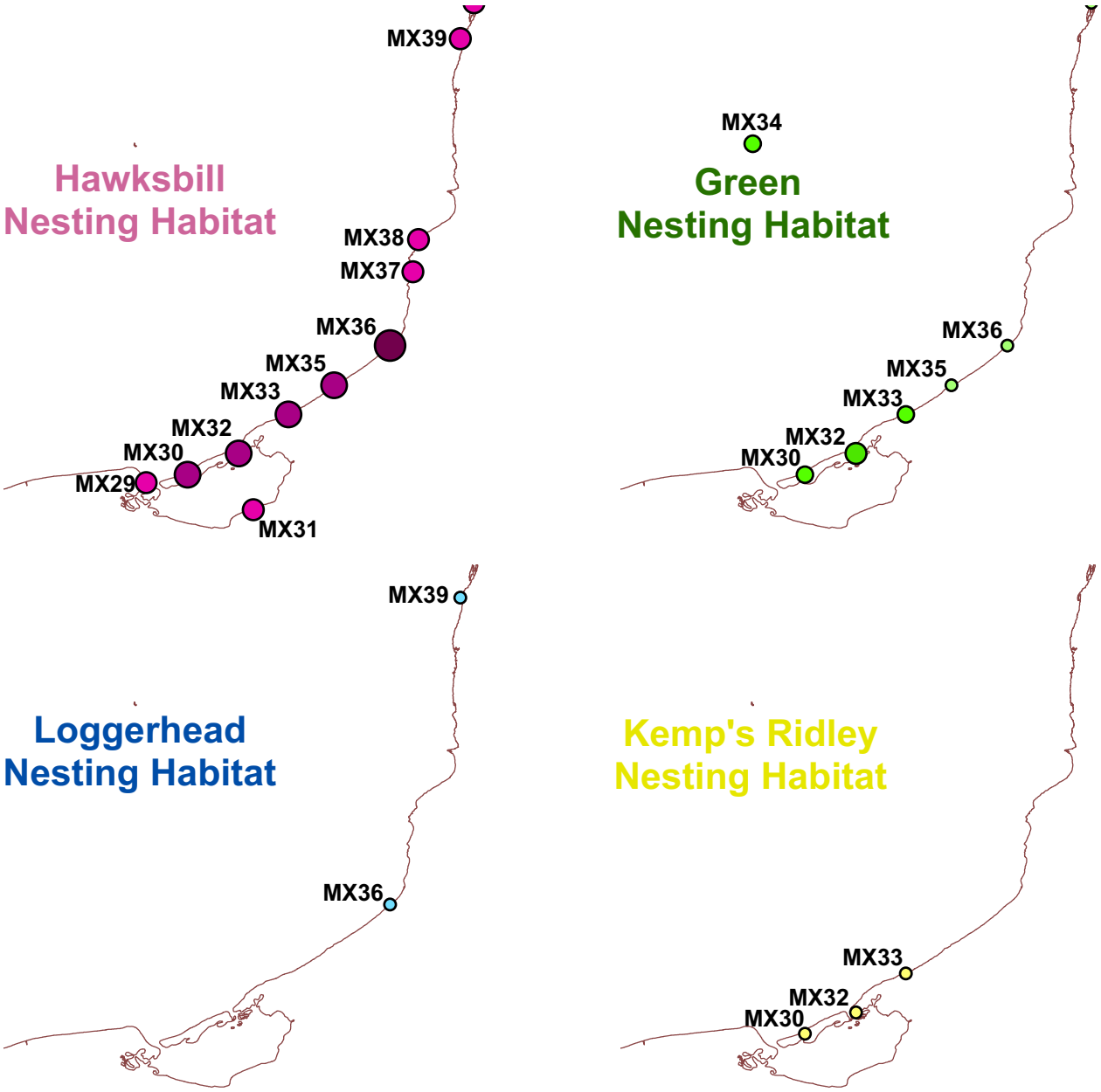
Vicente Guzmán Hernández

Laguna de Terminos Area de Proteccion de Flora y Fauna

Comision Nacional de Areas Naturales Protegidas



Mexico Sea Turtle Habitat
Campeche



Hawksbill Nesting Habitat

- 100-500 Crawls per year
- 500-1000 Crawls per year
- >1000 Crawls per year

Loggerhead Nesting Habitat

- <25 Crawls per year

Green Nesting Habitat

- <25 Crawls per year
- 100-500 Crawls per year
- 500-1000 Crawls per year

Kemp's Ridley Nesting Habitat

- <25 Crawls per year

GSHHS Caribbean Shoreline

Kilometers
0 25 50 100 150 200

N

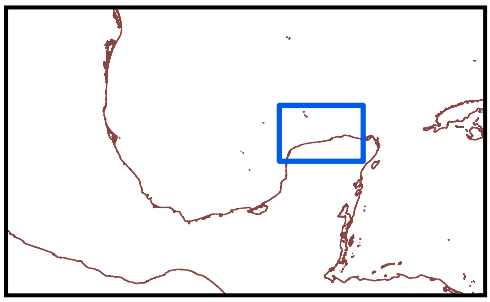
Mexico Sea Turtle Habitat
Yucatan

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N, F
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	N, F
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	Yes
Recent prosecutions or penalties	No
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable



Data Providers

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Eduardo Cuevas

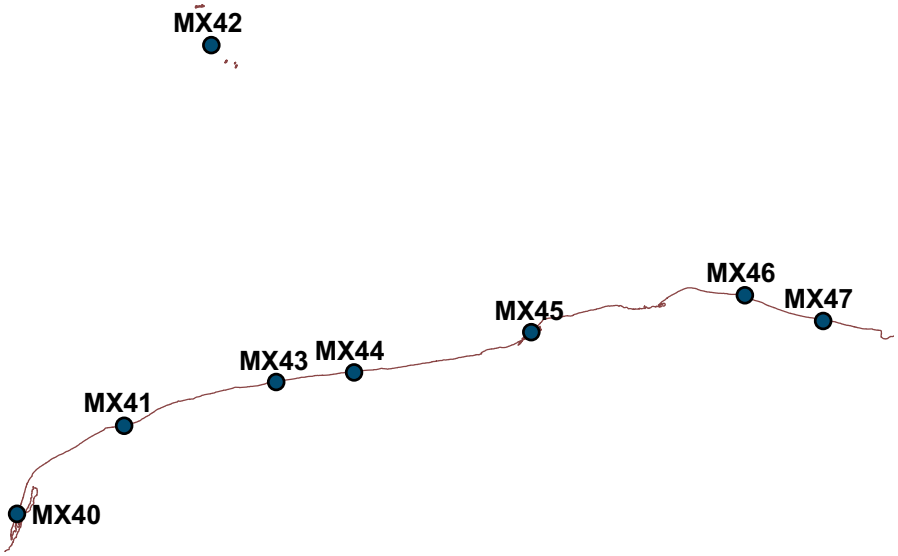
Pronatura-Peninsula de Yucatan

Augusto Segoviam

Yucatan Secretaría de Ecología

René Kantún

Comision Nacional de Areas Naturales Protegidas



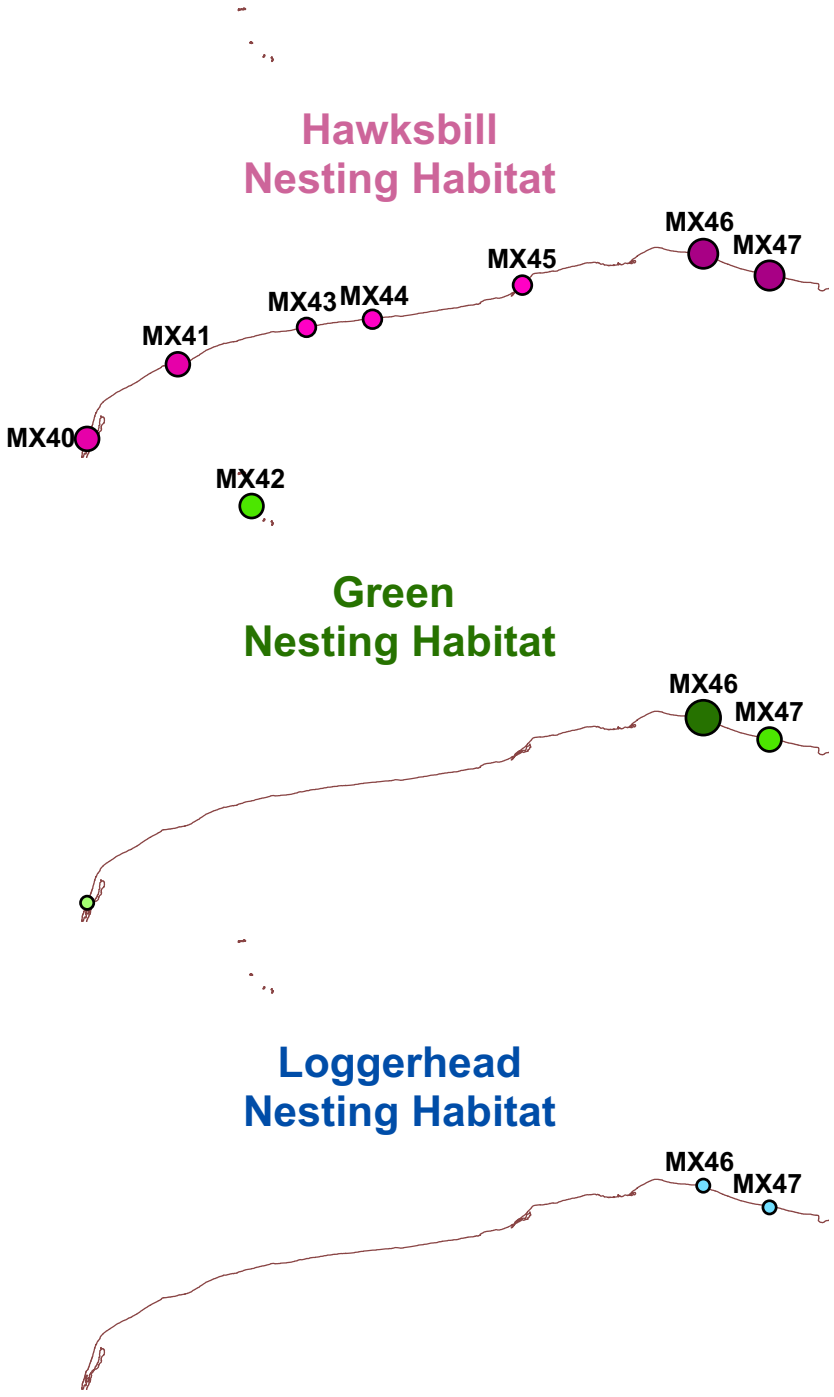
Kilometers
0 20 40 80 120 160

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

Mexico Sea Turtle Habitat
Yucatan



Hawksbill Nesting Habitat
- 25-100 Crawls per year
- 100-500 Crawls per year
- 500-1000 Crawls per year

Green Nesting Habitat
- <25 Crawls per year
- 100-500 Crawls per year
- >1000 Crawls per year

Loggerhead Nesting Habitat
- <25 Crawls per year

GSHHS Caribbean Shoreline

N

Kilometers
0 25 50 100 150 200

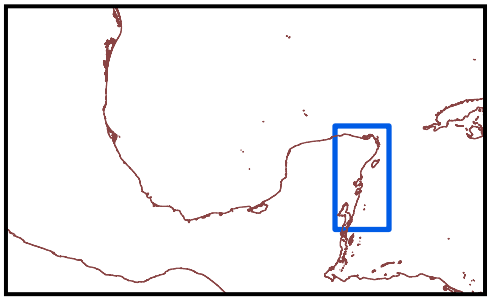
Mexico Sea Turtle Habitat
Quintana Roo

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N, F
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	N, F
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	Yes
Recent prosecutions or penalties	No
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable



Data Providers

National Data Coordinator:
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Banco de Información sobre Tortugas Marinas

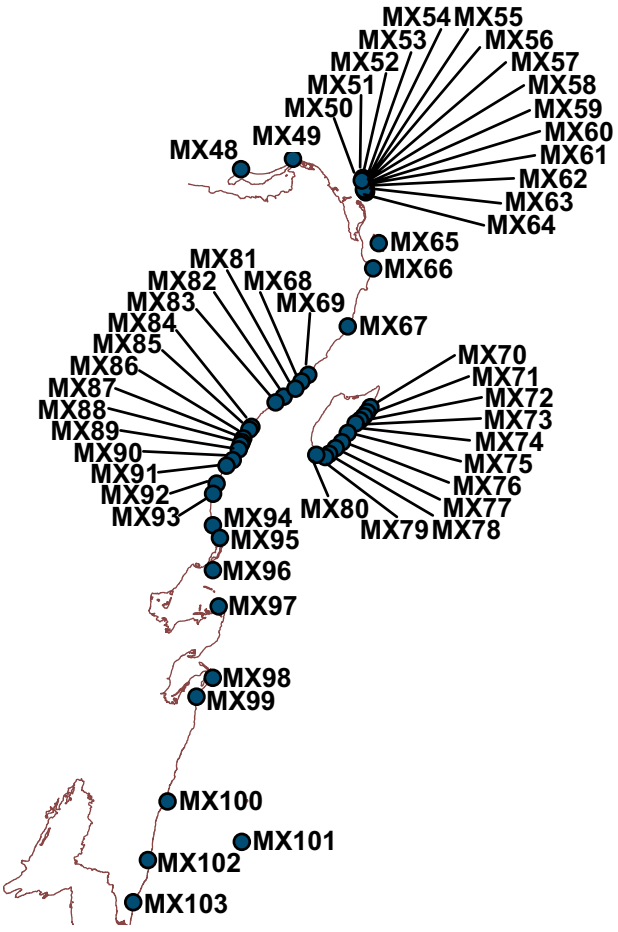
Instituto de Ciencias del Mar y Limnologia - UNAM

Alejandro Arenas, Iñaky Iturbe, Roberto Herrera

Flora Fauna Y Cultura De Mexico, A. C.

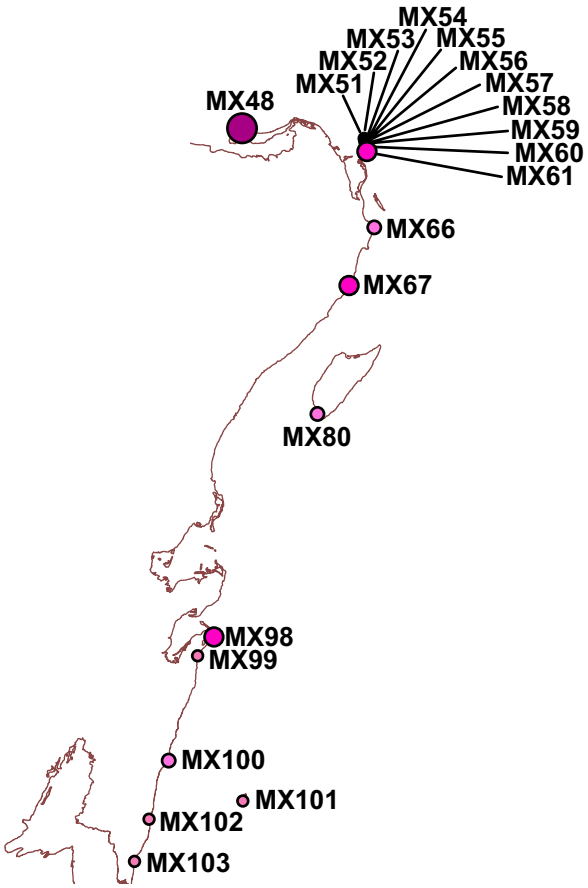
Eduardo Cuevas

Pronatura-Peninsula de Yucatan

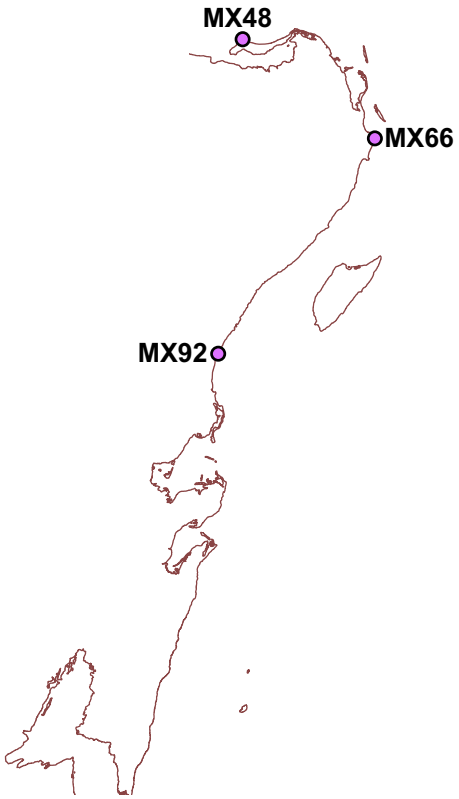


Kilometers
0 25 50 100 150 200

Mexico Sea Turtle Habitat
Quintana Roo



Hawksbill
Nesting Habitat



Leatherback
Nesting Habitat

Hawksbill Nesting Habitat

- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year
- 500-1000 Crawls per year

Leatherback Nesting Habitat

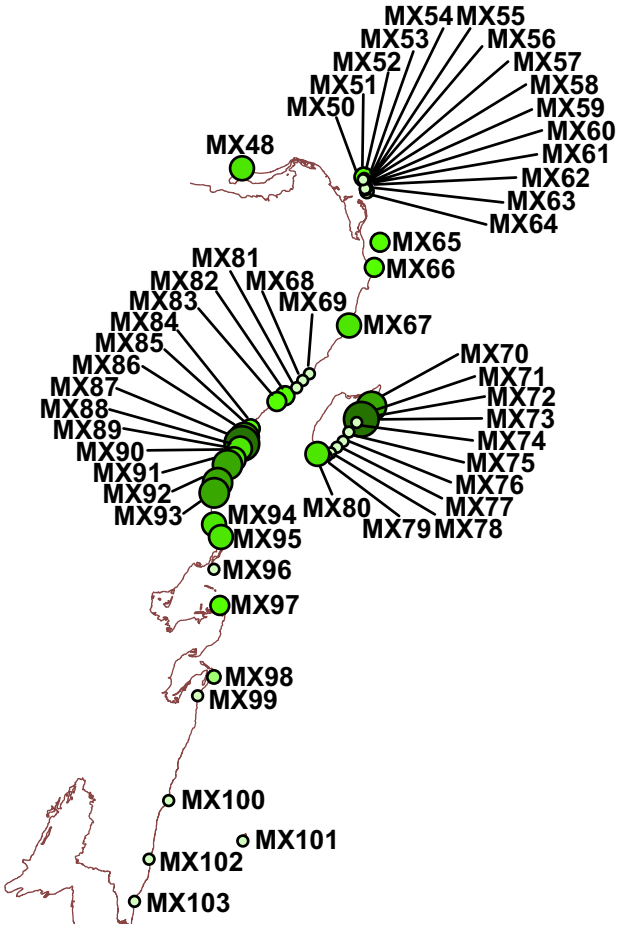
- <25 Crawls per year

GSHHS Caribbean Shoreline

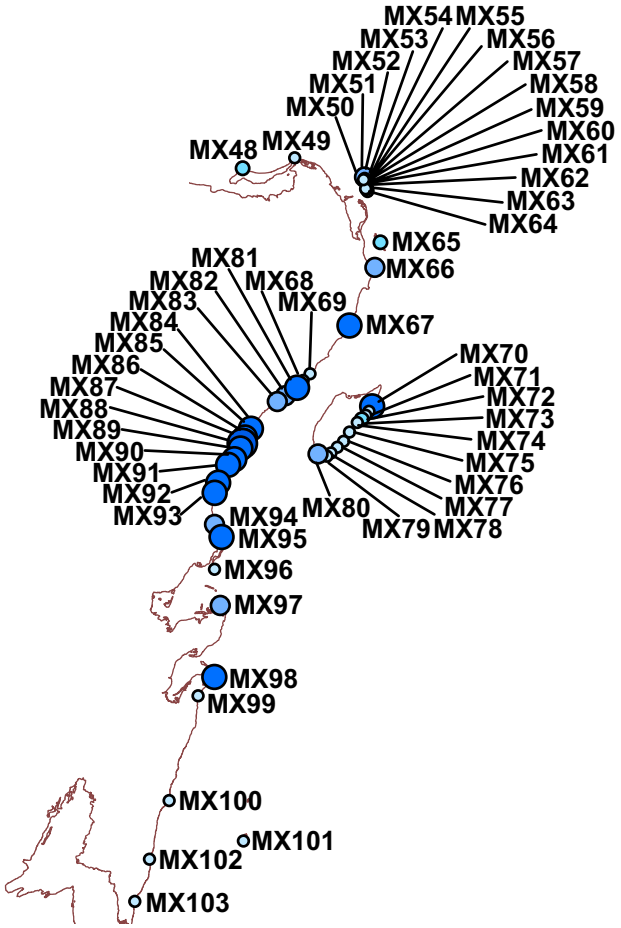
Kilometers
0 25 50 100 150 200

N

Mexico Sea Turtle Habitat
Quintana Roo



Green Nesting Habitat



Loggerhead Nesting Habitat

Green Nesting Habitat

- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year
- 500-1000 Crawls per year
- >1000 Crawls per year

Loggerhead Nesting Habitat

- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year
- 500-1000 Crawls per year

GSHHS Caribbean Shoreline

Kilometers
0 25 50 100 150 200

N

Mexico Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (O)	
Killing of Nesting Females by Predators	No	
Nest Loss to Predators	Yes (F)	Racoons, foxes, badgers, dogs (especially near towns)
Nest Loss to Abiotic Factors	Yes (O)	Erosion and flooding
Egg Collection by Humans	Yes (O)	Near beach towns and by fishermen in isolated areas
Harassment Due to Increased Human Presence	Yes (R)	In areas with tourism
Artificial Lighting	Yes (F)	Hotels, houses in town and street lights
Pollution	Yes (F)	Runoff (agricultural pesticides and herbicides), beach litter/debris and sewage
Beach Erosion/Accretion	Yes (O)	Erosion caused by storms and natural beach movement
Beach Armouring/Stabilization Structures	Yes (F)	Docks and stabilization/protection structures
Beach Nourishment	Yes (O)	In tourist areas and to protect roads
Recreational Beach Equipment and/or Other Obstacles	Yes (R)	In areas with tourism
Mechanized Beach Cleaning	Yes (R)	In areas with tourism
Beach Vehicular Use	Yes (FA)	Private ATVs, trucks, 4x4 and navy/soldier patrolling vehicles
Sand Mining	Yes (R)	
Exotic (or Loss of Native) Vegetation	Yes (O)	Due to development
Livestock Presence on the Beach	Yes (R)	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (R)	Due to development and accretion in estuarine zones
Coral Reef Degradation	Yes (U)	Sewage, pollution and anchor damage (low)
Fisheries Bycatch	Yes (F)	Longlines, trawls, gillnets and "nets" undefined
Hunting/Poaching	Yes (O)	Especially in well known fishing grounds
Pollution	Yes (R)	Petroleum/tar, sewage, agricultural runoff, marine debris
Predators	Yes (U)	Sharks
Disease/Parasites	Yes (R)	Fibropapillomas seen in green turtles in Lechuguillas
Harassment Due to Increased Human Presence	No	
Dredging	No	
Marina and Dock Development	Yes (U)	
Boat/Personal Water Craft Collisions	Yes (R)	
Power Plant Entrapment	Yes (R)	In Laguna Verde and Tuxpan; turtles trapped in intake areas
Oil and Gas Exploration, Development, Transportation	Yes (U)	Exploration and extraction occurs off the coast
Entanglement	Yes (O)	Abandoned gear
Offshore Artificial Lighting	Yes (U)	Oil platforms
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Mexico Sea Turtle Habitat

Beach Identification Codes with Beach Names			
MX1	La Pesca	MX53	Pajarera Norte
MX2	Tepehuajes - Ostional	MX54	Pajaros
MX3	Rancho Nuevo	MX55	Puerto Viejo
MX4	Playa Dos - Barra del Tordo	MX56	De la Cruz
MX5	Miramar	MX57	Ixmapoit
MX6	Altamira	MX58	Campismo
MX7	Paraiso Escondido	MX59	Pajarera Sur
MX8	Cabo Rojo	MX60	Aguadas del Sur
MX9	Barra de Galindo	MX61	Isla Contoy
MX10	Bahia de Cochinos - Villamar	MX62	Lagunade Garzas
MX11	Farallon - Cazones	MX63	Tortugas
MX12	Boca de Lima-Barra Tecolutla	MX64	L. Muerta
MX13	Vida Milenaria	MX65	Isla Mujeres
MX14	El Callejon del Pajaro y Cangrejo	MX66	Isla Cancun
MX15	Marcelino Yepez	MX67	Nizuc - Pt. Morelos
MX16	Lechuguillas - El Llano	MX68	Chenyuyu
MX17	Santander	MX69	Fatima
MX18	Central Nucleoelectrica Laguna Verde	MX70	Mezcalitos
MX19	Chachalacas	MX71	Punta Moreno
MX20	Isla Verde	MX72	Fidecaribe
MX21	Isla Sacrificios	MX73	Chen-Rio
MX22	Isla Enmedio	MX74	San Martin
MX23	Isla Salmedina	MX75	Chiqueros
MX24	Capulteotl	MX76	Bosh
MX25	El Salado	MX77	Cinco Puertas
MX26	Arrecifes	MX78	Mirador
MX27	Zapotitlan	MX79	Celarain
MX28	Peña Hermosa	MX80	Punta Sur
MX29	Xicalango - Victoria	MX81	Punta Venado
MX30	Isla del Carmen	MX82	Paamul
MX31	Chacahito	MX83	Xpu-ha
MX32	Isla Aguada	MX84	Kantenah
MX33	Sabancuy	MX85	Akumal
MX34	Cayo Arcas	MX86	Aventuras-DIF
MX35	Chenkan	MX87	Chemuyil
MX36	Punta Xen	MX88	Xcacel
MX37	Ensenada Xpicob	MX89	Xel-ha
MX38	San Lorenzo	MX90	Punta Cadena
MX39	Isla Arena	MX91	Tankah
MX40	Celestún	MX92	Kanzul
MX41	El Palmar	MX93	Cahpechen
MX42	Arrecife Alacranes	MX94	Yu-Yum
MX43	Las Coloradas	MX95	San Juan
MX44	Progreso	MX96	Punta Allen
MX45	Telchac Puerto	MX97	Punta Pajaros
MX46	Dzilam Bravo	MX98	Punta Herrero
MX47	El Cuyo	MX99	Reserva Sur
MX48	Holbox	MX100	Majahual
MX49	Cabo Catoche	MX101	Puerto Angel
MX50	Del Faro	MX102	Herradura
MX51	Cocos	MX103	Xcalak
MX52	Dunas del Norte		

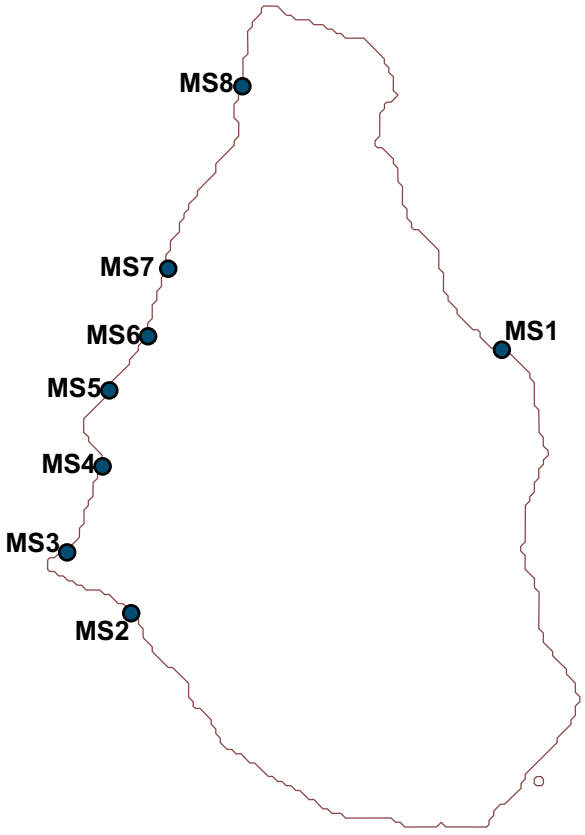
Montserrat Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	IN, F?
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	IN, F?
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	No
Moratorium (fixed period)	No
Prohibition(s) on take	No
Closed season	Yes
Minimum size limits	Yes
Maximum size limits	No
Annual quota	No
Permits/licenses required	No
Gear restrictions	No
Area closures (MPA, park, reserve)	No
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	Yes
Recent prosecutions or penalties	Unknown
Enforcement considered adequate	No
Penalties are an adequate deterrent	No

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable



Data Provider

John Jeffers

Ministry of Agriculture, Trade and Environment

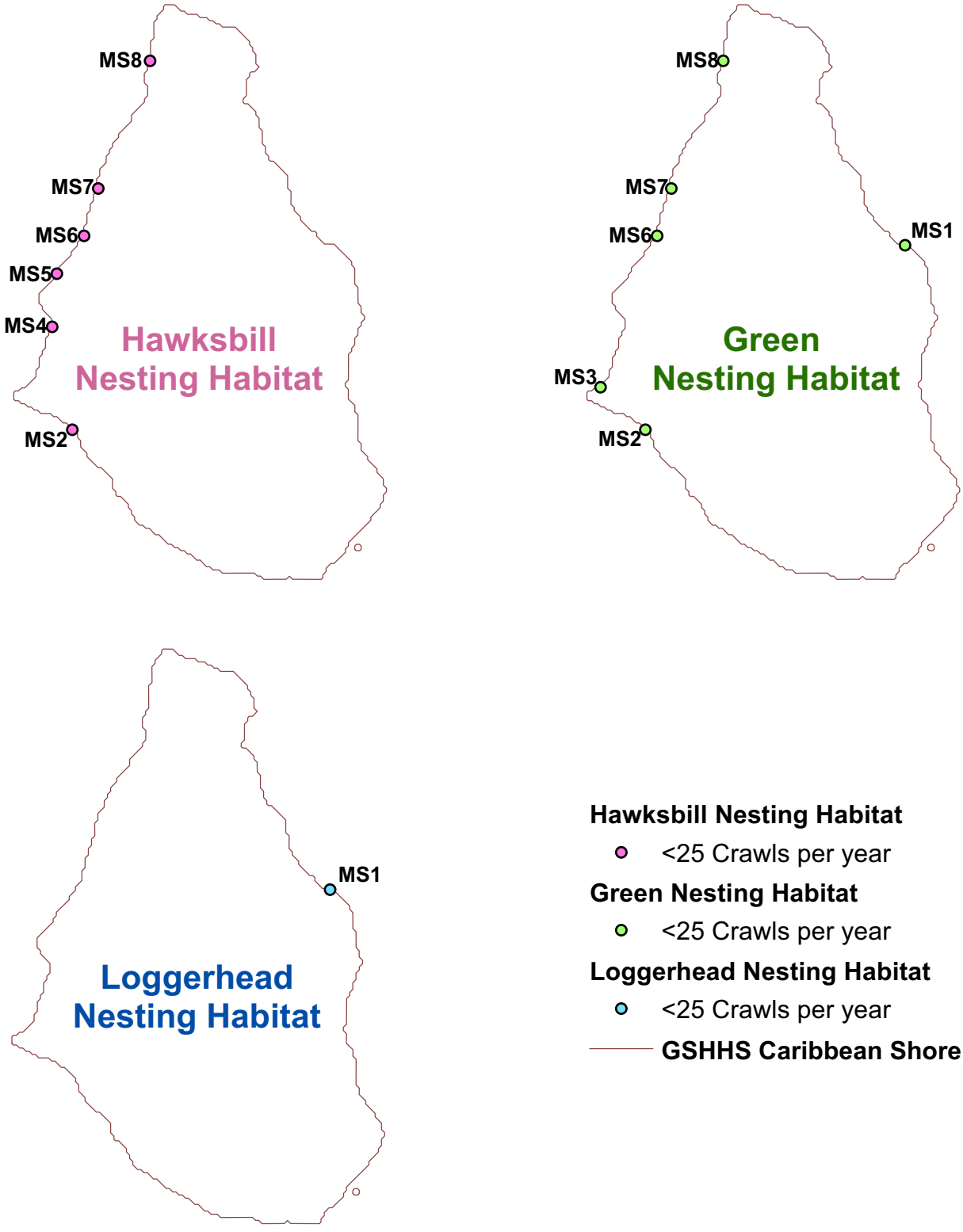
0 1 2 4 6 8 Kilometers

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

Montserrat Sea Turtle Habitat



Montserrat Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (R)	
Killing of Nesting Females by Predators	No	
Nest Loss to Predators	Yes (U)	Dogs and pigs
Nest Loss to Abiotic Factors	Yes (U)	Erosion
Egg Collection by Humans	Yes (U)	
Harassment Due to Increased Human Presence	Unknown	
Artificial Lighting	Unknown	
Pollution	Unknown	
Beach Erosion/Accretion	Yes (U)	
Beach Armouring/Stabilization Structures	Unknown	
Beach Nourishment	Unknown	
Recreational Beach Equipment and/or Other Obstacles	Unknown	
Mechanized Beach Cleaning	Unknown	
Beach Vehicular Use	Unknown	
Sand Mining	Yes (U)	
Exotic (or Loss of Native) Vegetation	Yes (U)	
Livestock Presence on the Beach	Unknown	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	Anchor damage, others unknown
Coral Reef Degradation	Yes (U)	Anchor damage, sedimentation, others unknown
Fisheries Bycatch	Yes (R)	Artisanal fishing; gillnet, seine, fish trap and garnet
Hunting/Poaching	Yes (U)	
Pollution	Unknown	
Predators	Yes (U)	
Disease/Parasites	Unknown	
Harassment Due to Increased Human Presence	Unknown	
Dredging	Unknown	
Marina and Dock Development	Unknown	
Boat/Personal Water Craft Collisions	Unknown	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	Unknown	
Entanglement	Unknown	
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Montserrat Sea Turtle Habitat

Beach Identification Codes with Beach Names			
MS1	Trant's Bay/Farm Bay	MS5	Lime Kiln Bay
MS2	Hot Water Pond/Sugar	MS6	Woodlands Beach
MS3	Fox's Bay/Bransby Point	MS7	Bunkum Bay
MS4	Old Road Bay/Iles Bay	MS8	Rendez-vous Bay

Nicaragua Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N, IF*
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; A = Absent; * In-water presence, foraging status unknown

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes*
Moratorium (fixed period)	–
Prohibition(s) on take	No
Closed season	Yes
Minimum size limits	No
Maximum size limits	No
Annual quota	No
Permits/licenses required	No
Gear restrictions	Yes
Area closures (MPA, park, reserve)	No
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	Yes
Recent prosecutions or penalties	Yes
Enforcement considered adequate	No
Penalties are an adequate deterrent	No

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * All species protected except for the green sea turtle

Data Providers

Cathi Campbell, Cynthia Lagueux

Wildlife Conservation Society

Kilometers

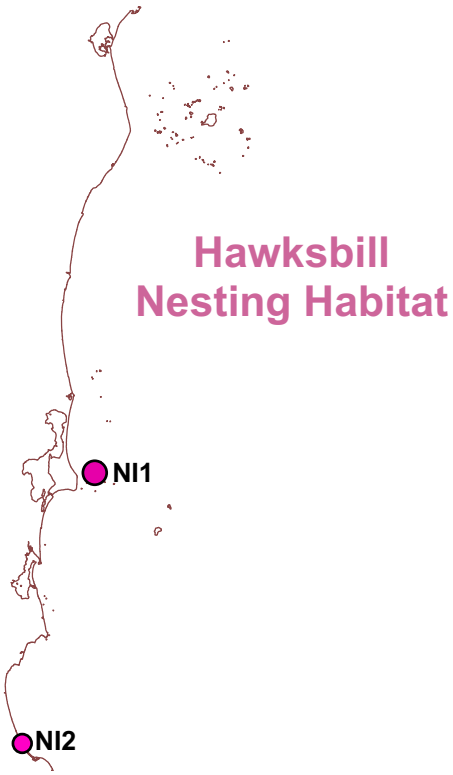
0 25 50 100 150 200

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

Nicaragua Sea Turtle Habitat



Hawksbill Nesting Habitat

- 25-100 Crawls per year
- 100-500 Crawls per year

Leatherback Nesting Habitat

- 25-100 Crawls per year

Green Nesting Habitat

- <25 Crawls per year

GSHHS Caribbean Shoreline

Kilometers
0 30 60 120 180 240

N

Nicaragua Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (O)	
Killing of Nesting Females by Predators	No	Harassment by dogs
Nest Loss to Predators	Yes (O)	Dogs, rats and crabs
Nest Loss to Abiotic Factors	Yes (O)	Erosion and water inundation
Egg Collection by Humans	Yes (F)	
Harassment Due to Increased Human Presence	Yes (O)	
Artificial Lighting	Yes (FA)	Pearl Cays
Pollution	Yes (F)	Beach litter/debris, sewage, petroleum/tar and pesticides
Beach Erosion/Accretion	Yes (FA)	Pearl Cays
Beach Armouring/Stabilization Structures	Yes (O)	Pearl Cays
Beach Nourishment	No	
Recreational Beach Equipment and/or Other Obstacles	No	
Mechanized Beach Cleaning	No	
Beach Vehicular Use	No	
Sand Mining	Yes (FA)	Pearl Cays
Exotic (or Loss of Native) Vegetation	Yes (FA)	Pearl Cays
Livestock Presence on the Beach	Yes (FA)	Pearl Cays - pigs
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (F)	Anchor damage, sedimentation and fisheries impacts
Coral Reef Degradation	Yes (F)	Anchor damage, sedimentation, fisheries impacts and hurricanes
Fisheries Bycatch	Yes (F)	Pot/trap, gillnet, trawl and long line
Hunting/Poaching	Yes (F)	
Pollution	Yes (U)	Sewage, petroleum/tar, marine debris, runoff and "decreased water quality"
Predators	Yes (U)	Sharks
Disease/Parasites	Yes (O)	Fibropapillomas in greens
Harassment Due to Increased Human Presence	Yes (F)	
Dredging	No	
Marina and Dock Development	Yes (FA)	Pearl Cays
Boat/Personal Water Craft Collisions	No	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	Yes (U)	
Entanglement	Yes (F)	Fishing gear
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Nicaragua Sea Turtle Habitat

Beach Identification Codes with Beach Names			
NI1	Pearl Cays	NI2	El Cocal

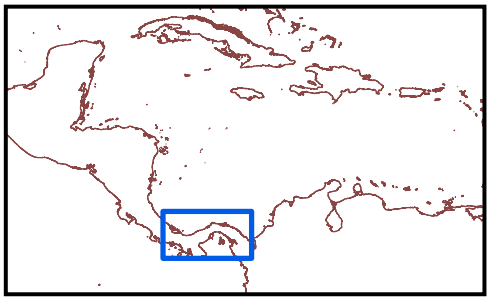
Panama Sea Turtle Habitat

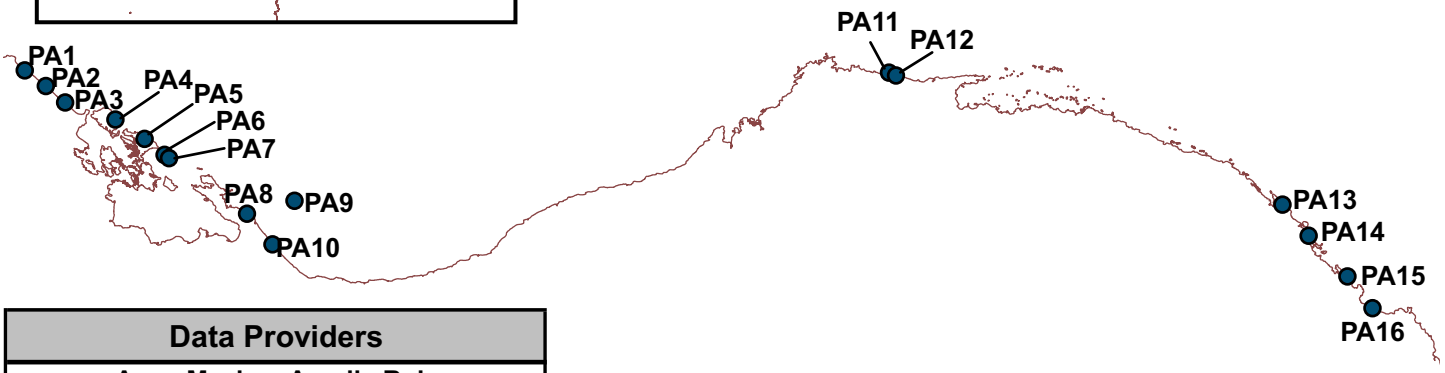
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	IN, F
Green Turtle (*Chelonia mydas*)	IN, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	Yes
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	No
Recent prosecutions or penalties	Yes
Enforcement considered adequate	No
Penalties are an adequate deterrent	No

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable





Data Providers

Anne Meylan, Argelis Ruiz

Florida Fish and Wildlife Conservation Commission - Fish and Wildlife Research Institute

Smithsonian Tropical Research Institute

Caribbean Conservation Corporation

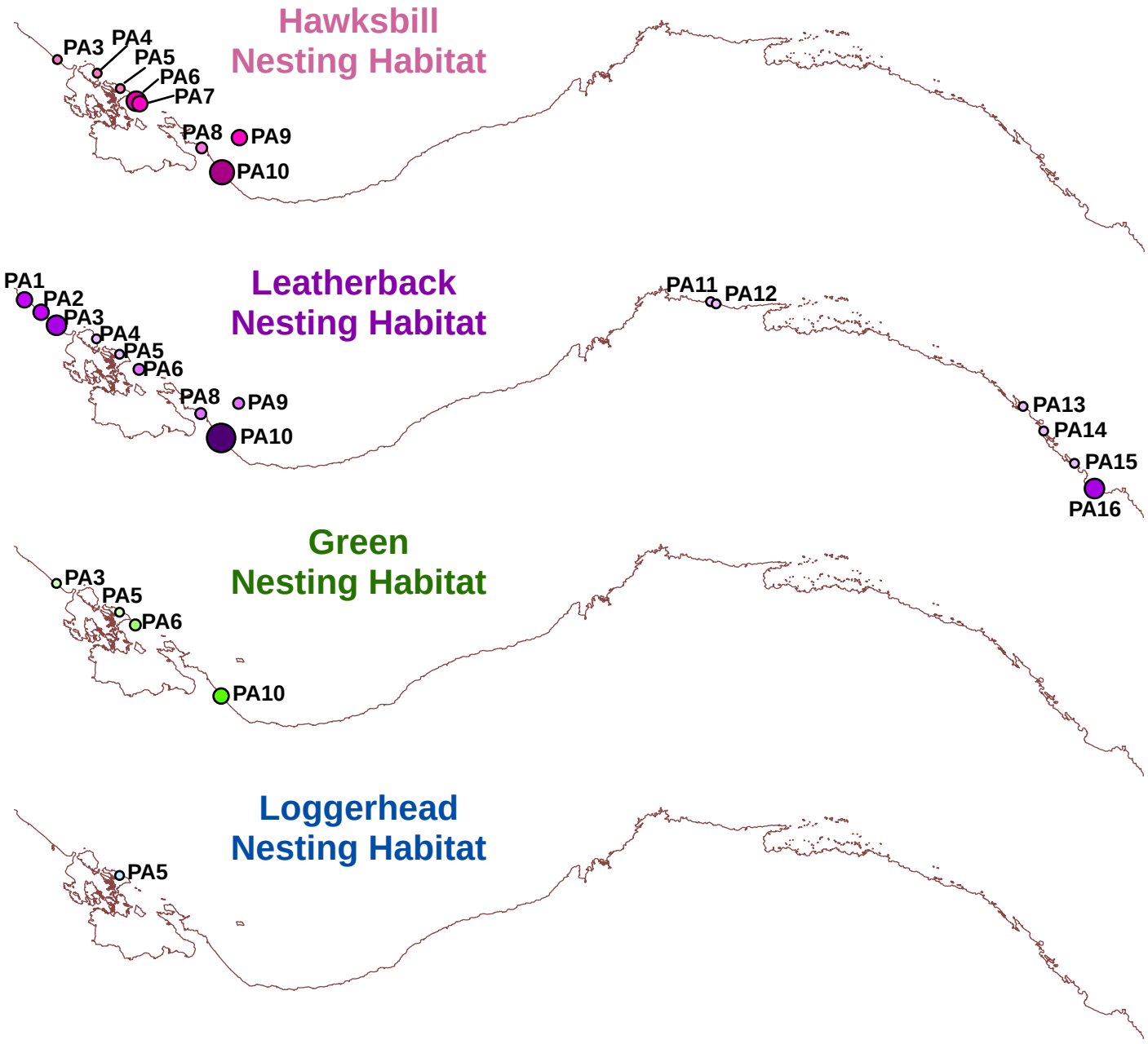
Wildlife Conservation Society

Kilometers
0 25 50 100 150 200

- **Sea Turtle Nesting Habitat**
- **GSHHS Caribbean Shoreline**

N

Panama Sea Turtle Habitat



Hawksbill Nesting Habitat

- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year
- 500-1000 Crawls pyer year

Leatherback Nesting Habitat

- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year
- >1000 Crawls per year

Green Nesting Habitat

- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year

Loggerhead Nesting Habitat

- X Crawls per year

GSHHS Caribbean Shoreline

N

Kilometers

0 25 50 100 150 200

Panama Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (O)	
Killing of Nesting Females by Predators	No	Harassment by dogs may occur
Nest Loss to Predators	Yes (F)	Dogs, crabs
Nest Loss to Abiotic Factors	Yes (F)	Flood and erosion
Egg Collection by Humans	Yes (F)	Especially on beaches that are not monitored
Harassment Due to Increased Human Presence	Yes (F)	
Artificial Lighting	Yes (O)	Increasing
Pollution	Yes (F)	Beach litter/debris
Beach Erosion/Accretion	Yes (F)	Caused by storms and natural beach movement
Beach Armouring/Stabilization Structures	Yes (R)	
Beach Nourishment	No	
Recreational Beach Equipment and/or Other Obstacles	Yes (R)	
Mechanized Beach Cleaning	No	
Beach Vehicular Use	Yes (R)	
Sand Mining	Yes (F)	
Exotic (or Loss of Native) Vegetation	No	
Livestock Presence on the Beach	Yes (R)	

Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	Anchor damage, sewage, runoff and siltation
Coral Reef Degradation	Yes (U)	Anchor damage, bleaching and sedimentation
Fisheries Bycatch	Yes (U)	No monitoring of small Caribbean fisheries
Hunting/Poaching	Yes (F)	
Pollution	Yes (F)	Runoff, oil spills, marine debris and cruise ship/yacht pollution
Predators	Yes (F)	Sharks
Disease/Parasites	Yes (O)	Fibropapillomas
Harassment Due to Increased Human Presence	Yes (O)	
Dredging	No	
Marina and Dock Development	Yes (R)	
Boat/Personal Water Craft Collisions	Yes (U)	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	Yes (O)	Transportation and pipeline terminal
Entanglement	Yes (U)	
Offshore Artificial Lighting	No	

Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown

Panama Sea Turtle Habitat

Beach Identification Codes with Beach Names			
PA1	Sixaola	PA14	Punta Sasardi
PA2	San San	PA15	Carreto
PA3	Soropta	PA16	Playa Pito
PA4	Playa Bluff/ Flores Beach - Isla Colon	PA17	Isla de Cana Blanca - Waikin Cay)
PA5	Playa Large - Bastimentos	PA18	Masucum or Portogandi
PA6	Small Zapatilla Cay	PA19	Beach east of Napakanti Tiwar
PA7	Big Zapatilla Cay	PA20	Bahia Aglatomate
PA8	Red Beach	PA21	Punta Blancheta
PA9	Escudo de Veragas	PA22	Playa Colorada
PA10	Playa Chiriqui	PA23	Rio Carti Grande
PA11	Cuango	PA24	Playa de Rio Playan Grande
PA12	Playa Chiquita	PA25	Rio Pitgandi
PA13	Napakanti or Navagandi		

Puerto Rico Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	I
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N, F
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	I

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	Yes*
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes**
General public awareness of laws	Yes
Recent prosecutions or penalties	Yes
Enforcement considered adequate	No
Penalties are an adequate deterrent	No

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * For incidental take in fisheries; ** From tourists returning from other countries

Data Providers

Carlos Diez, Hector Horta

Departamento De Recursos Naturales Y Ambientales

Lesbia Montero

Sea Grant - Universidad de Puerto Rico

Kilometers

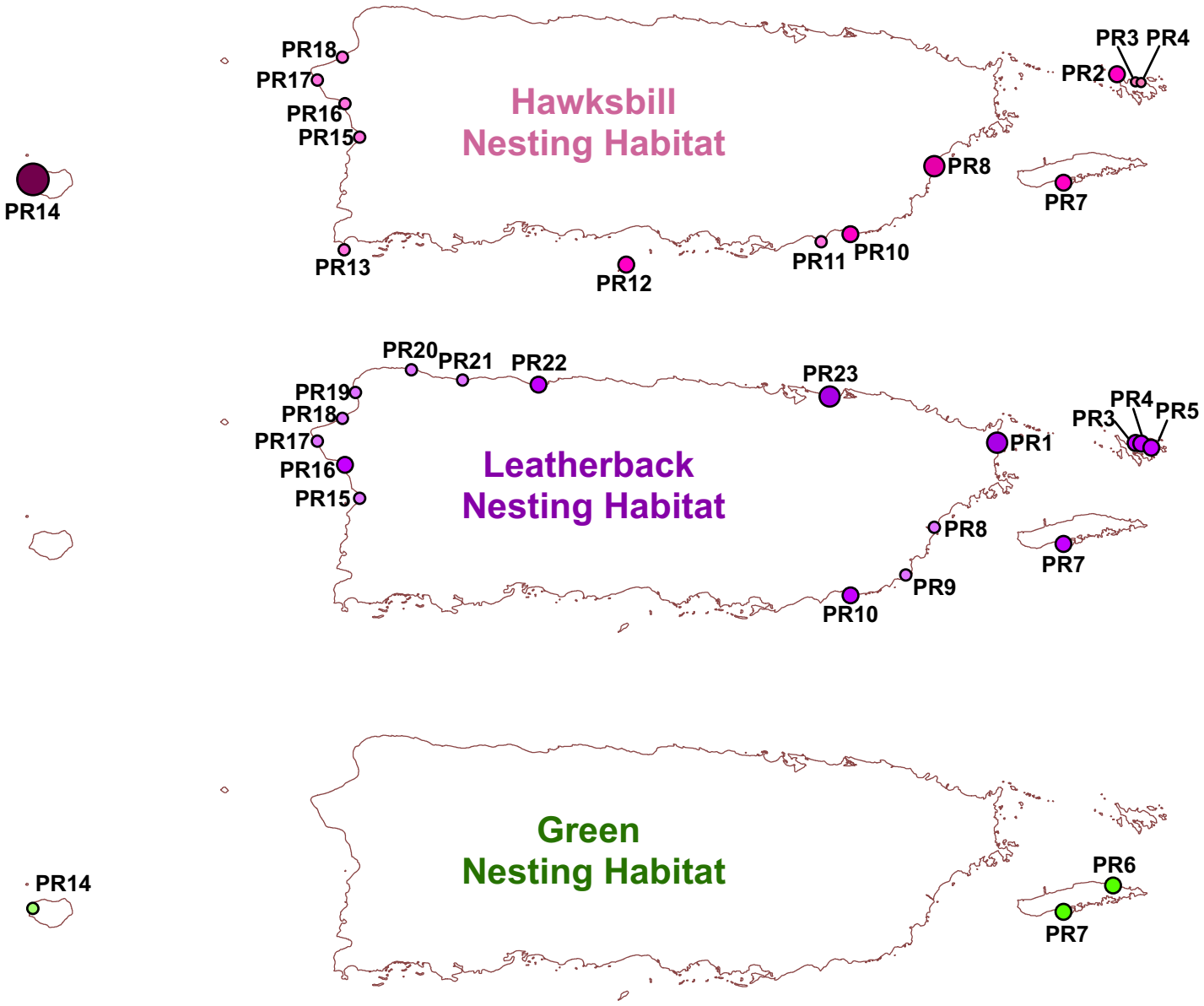
0 12.5 25 50 75 100

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

Puerto Rico Sea Turtle Habitat



Hawksbill Nesting Habitat

- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year
- >1000 Crawls per year

Leatherback Nesting Habitat

- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year

Green Nesting Habitat

- <25 Crawls per year
- 25-100 Crawls per year

GSHHS Caribbean Shoreline

Kilometers

0 12.5 25 50 75 100

N

Puerto Rico Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (O)	
Killing of Nesting Females by Predators	No	
Nest Loss to Predators	Yes (F)	Mongoose and cats
Nest Loss to Abiotic Factors	Yes (U)	Flood and erosion
Egg Collection by Humans	Yes (O)	
Harassment Due to Increased Human Presence	Yes (R)	On Culebra - frequent only during holidays
Artificial Lighting	Yes (F)	
Pollution	Yes (U)	Sewage
Beach Erosion/Accretion	Yes (U)	Caused by storms and natural beach movement
Beach Armouring/Stabilization Structures	Yes (R)	
Beach Nourishment	No	
Recreational Beach Equipment and/or Other Obstacles	Yes (FA)	In resort areas
Mechanized Beach Cleaning	Yes (FA)	In resort areas
Beach Vehicular Use	No	
Sand Mining	Yes (R)	
Exotic (or Loss of Native) Vegetation	Yes (F)	
Livestock Presence on the Beach	Yes (O)	Cattle
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	Anchor damage and sedimentation
Coral Reef Degradation	Yes (U)	Anchor damage and sedimentation
Fisheries Bycatch	Yes (R)	Hook and line
Hunting/Poaching	Yes (O)	
Pollution	Yes (U)	Sewage and agriculture
Predators	Yes (U)	Sharks
Disease/Parasites	Yes (U)	Fibropapillomas - frequent around Culebra
Harassment Due to Increased Human Presence	Yes (F)	
Dredging	Yes (R)	
Marina and Dock Development	Yes (F)	
Boat/Personal Water Craft Collisions	Yes (R)	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	No	
Entanglement	Yes (F)	Monofilament lines
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Puerto Rico Sea Turtle Habitat

Beach Identification Codes with Beach Names			
PR1	Paulinas, San Miguel, Convento	PR13	Cabo Rojo
PR2	Culebra Archipealgo Inclusive	PR14	Mona Island
PR3	Ressaca - Culebra	PR15	Mayaguez
PR4	Brava - Culebra	PR16	Anasco
PR5	Zoni - Culebra	PR17	Rincon
PR6	Shooting Range	PR18	Aguada
PR7	Vieques	PR19	Aguadilla
PR8	Humacao	PR20	Isabella
PR9	Yabucoa	PR21	Quebradillas
PR10	Maunabo	PR22	Islote Arecibo
PR11	Patillas	PR23	Pinones
PR12	Caja de Muerto		

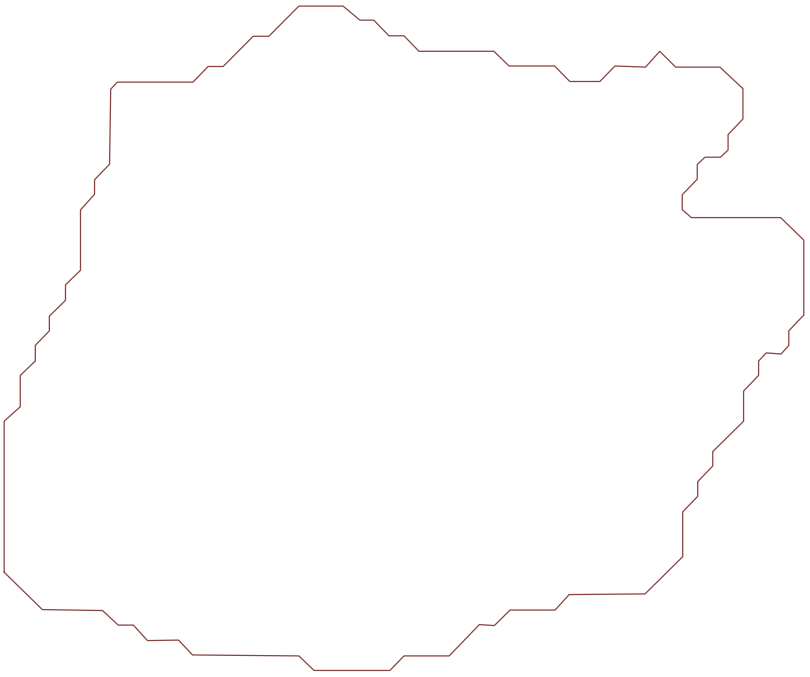
Saba Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	I
Green Turtle (*Chelonia mydas*)	IN, F
Leatherback Turtle (*Dermochelys coriacea*)	I
Hawksbill Turtle (*Eretmochelys imbricata*)	IN, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	No
Reports of illegal trade internationally	No
General public awareness of laws	Yes
Recent prosecutions or penalties	No
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable



Data Providers

Jan den Dulk, Susan Hurrell

Saba Conservation Foundation, Saba Marine Park

Kilometers
0 0.35 0.7 1.4 2.1 2.8

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

Saba Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	NA	No known sea turtle nesting in Saba
Killing of Nesting Females by Predators	NA	No known sea turtle nesting in Saba
Nest Loss to Predators	NA	No known sea turtle nesting in Saba
Nest Loss to Abiotic Factors	NA	No known sea turtle nesting in Saba
Egg Collection by Humans	NA	No known sea turtle nesting in Saba
Harassment Due to Increased Human Presence	NA	No known sea turtle nesting in Saba
Artificial Lighting	NA	No known sea turtle nesting in Saba
Pollution	NA	No known sea turtle nesting in Saba
Beach Erosion/Accretion	NA	No known sea turtle nesting in Saba
Beach Armouring/Stabilization Structures	NA	No known sea turtle nesting in Saba
Beach Nourishment	NA	No known sea turtle nesting in Saba
Recreational Beach Equipment and/or Other Obstacles	NA	No known sea turtle nesting in Saba
Mechanized Beach Cleaning	NA	No known sea turtle nesting in Saba
Beach Vehicular Use	NA	No known sea turtle nesting in Saba
Sand Mining	NA	No known sea turtle nesting in Saba
Exotic (or Loss of Native) Vegetation	NA	No known sea turtle nesting in Saba
Livestock Presence on the Beach	NA	No known sea turtle nesting in Saba

Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown; NA = Not Applicable

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	Improving - damage caused by hurricane
Coral Reef Degradation	Yes (U)	Bleaching, hurricanes, sedimentation
Fisheries Bycatch	No	
Hunting/Poaching	Yes (R)	
Pollution	Yes (U)	Marine debris and petroleum
Predators	Unknown	
Disease/Parasites	Unknown	
Harassment Due to Increased Human Presence	Yes (O)	
Dredging	No	
Marina and Dock Development	No	
Boat/Personal Water Craft Collisions	No	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	No	
Entanglement	Yes (U)	Nets and plastic bags
Offshore Artificial Lighting	No	

Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown

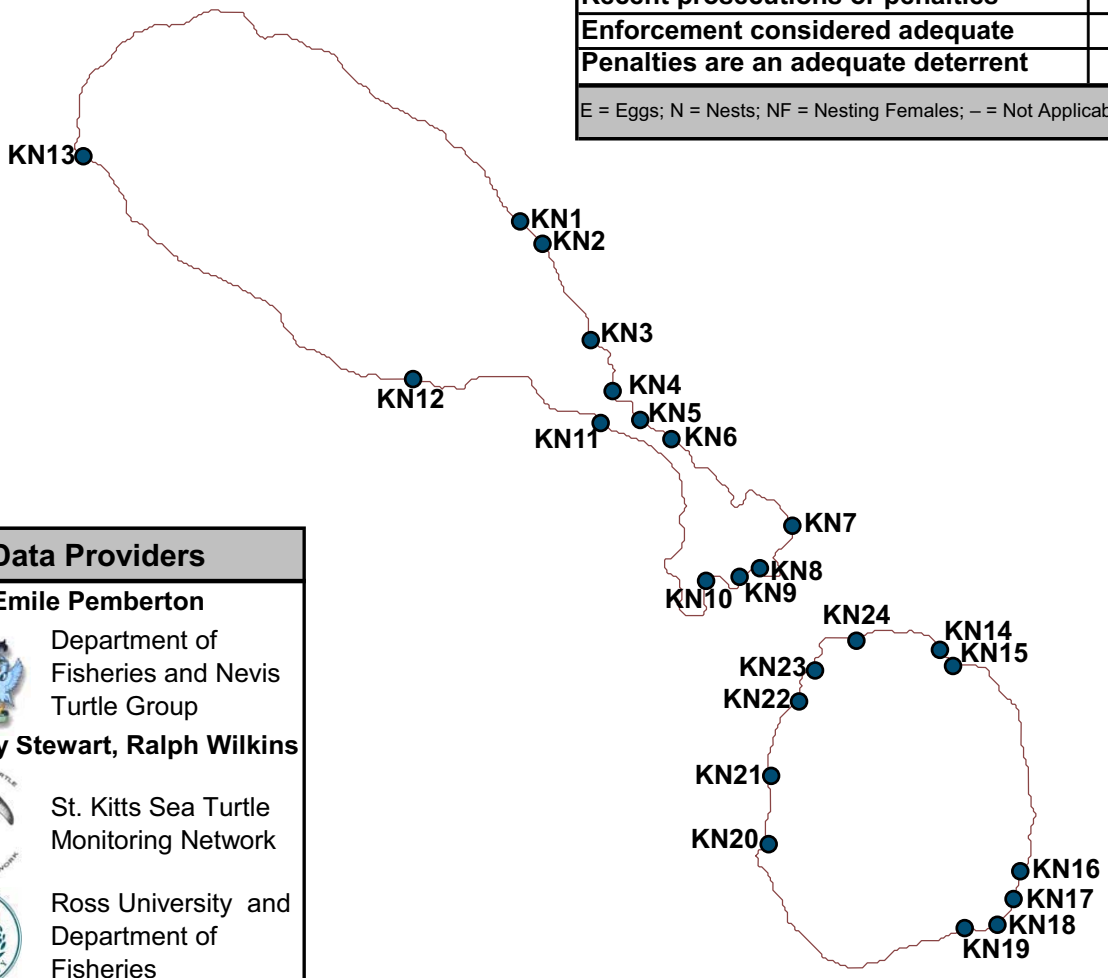
Saint Kitts & Nevis Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	I
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	No
Moratorium (fixed period)	No
Prohibition(s) on take	E, N, NF
Closed season	Yes
Minimum size limits	Yes
Maximum size limits	No
Annual quota	No
Permits/licenses required	No
Gear restrictions	Yes
Area closures (MPA, park, reserve)	No
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	Yes
Recent prosecutions or penalties	Unknown
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable



Data Providers

Emile Pemberton

Department of Fisheries and Nevis Turtle Group

Kimberly Stewart, Ralph Wilkins

St. Kitts Sea Turtle Monitoring Network

Ross University and Department of Fisheries

Kate Orchard

St. Christopher Heritage Society

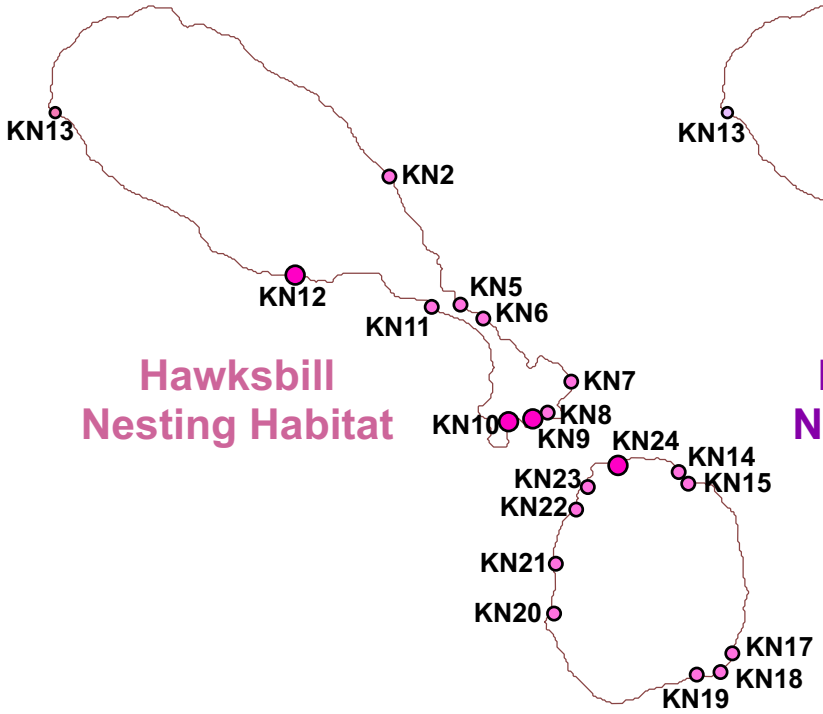
Kilometers
0 2 4 8 12 16

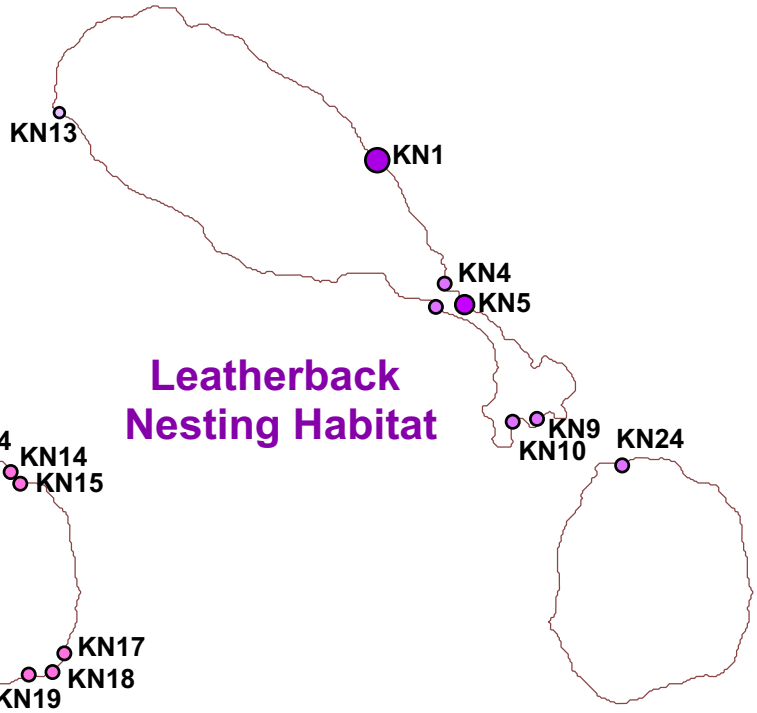
Sea Turtle Nesting Habitat

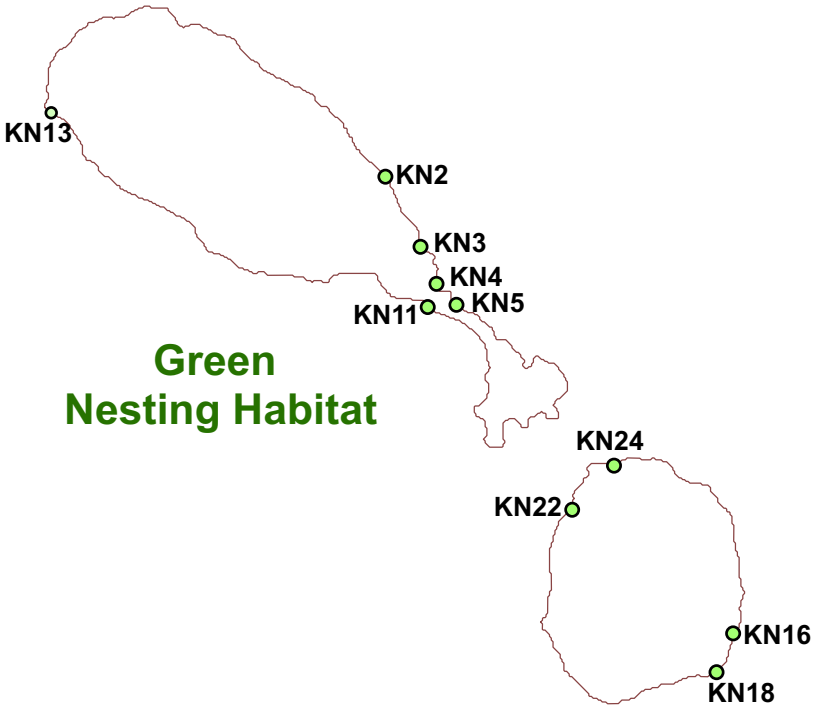
GSHHS Caribbean Shoreline

N

Saint Kitts & Nevis Sea Turtle Habitat







Hawksbill Nesting Habitat
- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year

Leatherback Nesting Habitat
- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year

Green Nesting Habitat
- X Crawls per year
- <25 Crawls per year

GSHHS Caribbean Shoreline

N

Kilometers
0 2.5 5 10 15 20

Saint Kitts and Nevis Sea Turtle Habitat

Threats to Sea Turtles - Nesting				
	St. Kitts	St. Kitts	Nevis	Nevis
Killing of Nesting Females by Humans	No		Yes (R)	
Killing of Nesting Females by Predators	No		No	
Nest Loss to Predators	Yes (O)	Mongoose	Yes (U)	Fire ants, mongoose and dogs
Nest Loss to Abiotic Factors	Yes (U)	Erosion	Yes (U)	Flood and erosion
Egg Collection by Humans	Yes (R)	On unmonitored beaches	Yes (O)	
Harassment Due to Increased Human Presence	Yes (U)	On North Friars	Yes (U)	
Artificial Lighting	Yes (U)		Yes (U)	
Pollution	Yes (U)	Beach litter/debris	Yes (U)	Sewage, beach litter/debris and tar
Beach Erosion/Accretion	Yes (U)	Erosion due to high tides	Yes (U)	Due to storms
Beach Armouring/Stabilization Structures	Yes (U)	Mariott Beach	Yes (U)	
Beach Nourishment	No		Yes (R)	
Recreational Beach Equipment and/or Other Obstacles	No		Yes (U)	Not on index beaches
Mechanized Beach Cleaning	No		Yes (U)	
Beach Vehicular Use	Yes (O)		Yes (F)	
Sand Mining	Yes (FA)	Two areas	Yes (U)	On southeast coast
Exotic (or Loss of Native) Vegetation	Yes (U)	Due to development	Yes (F)	Due to development
Livestock Presence on the Beach	Yes (O)		Yes (F)	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown				

Threats to Sea Turtles - Foraging/Migration				
	St. Kitts	St. Kitts	Nevis	Nevis
Seagrass Degradation	Unknown		Yes (U)	Anchor damage and pollution
Coral Reef Degradation	Yes (U)	Sedimentation	Yes (U)	Anchor damage, effluent and pollution
Fisheries Bycatch	Yes (U)		Yes (U)	
Hunting/Poaching	Yes (U)		Yes (F)	
Pollution	Yes (U)		Yes (U)	Agriculture, sewage, industrial runoff
Predators	Yes (U)	Sharks and birds	Yes (U)	Sharks
Disease/Parasites	No		Yes (U)	Fibropapillomas
Harassment Due to Increased Human Presence	No		Yes (U)	Riding and boat strikes
Dredging	Unknown		Yes (R)	
Marina and Dock Development	No		Yes (U)	
Boat/Personal Water Craft Collisions	No		Yes (R/O)	
Power Plant Entrapment	No		No	
Oil and Gas Exploration, Development, Transportation	No		No	
Entanglement	No		Yes (O)	
Offshore Artificial Lighting	No		No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown				

Saint Kitts and Nevis Sea Turtle Habitat

Beach Identification Codes with Beach Names			
KN1	Cayon to Key	KN13	Belle Tete
KN2	Conaree	KN14	Beach Land
KN3	Halfmoon Bay	KN15	Long Haul Bay
KN4	North Frigate	KN16	White Bay
KN5	North Friars	KN17	Black Bay
KN6	Turtle Bay	KN18	Dog Bay
KN7	Mosquito	KN19	Garling Bay
KN8	Cockleshell	KN20	Gallows Bay
KN9	Banana	KN21	Pinney's Beach
KN10	Majors	KN22	Cades Bay
KN11	South Friars	KN23	Jones Bay
KN12	Camps	KN24	Sea Haven (Lovers) Beach

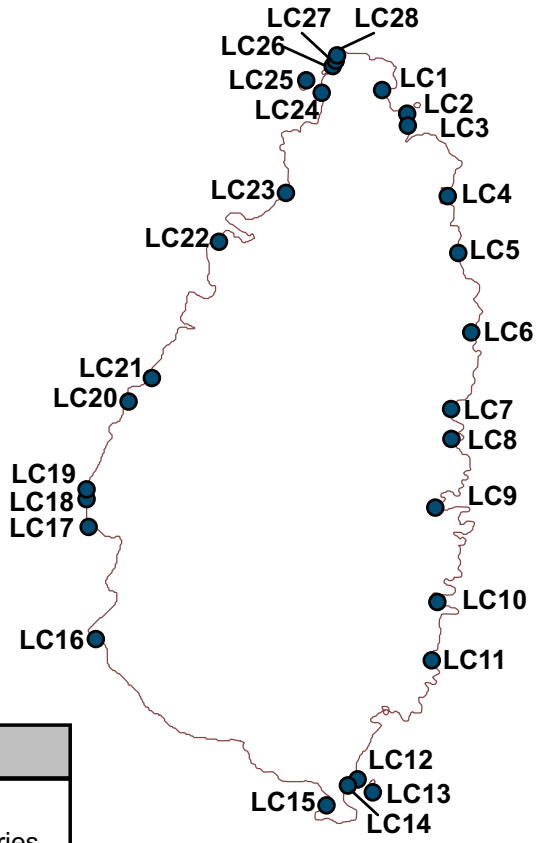
Saint Lucia Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	I
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	No
Moratorium (fixed period)	No*
Prohibition(s) on take	E, N, NF
Closed season	Yes
Minimum size limits	Yes
Maximum size limits	No
Annual quota	No
Permits/licenses required	No
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes**
General public awareness of laws	Yes
Recent prosecutions or penalties	Yes
Enforcement considered adequate	No
Penalties are an adequate deterrent	No

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * A Moratorium did exist from 1996 - 2004; ** Rare



Data Provider

Dawn Pierre-Nathoniel

Department of Fisheries, Ministry of Agriculture, Forestry and Fisheries

Kilometers

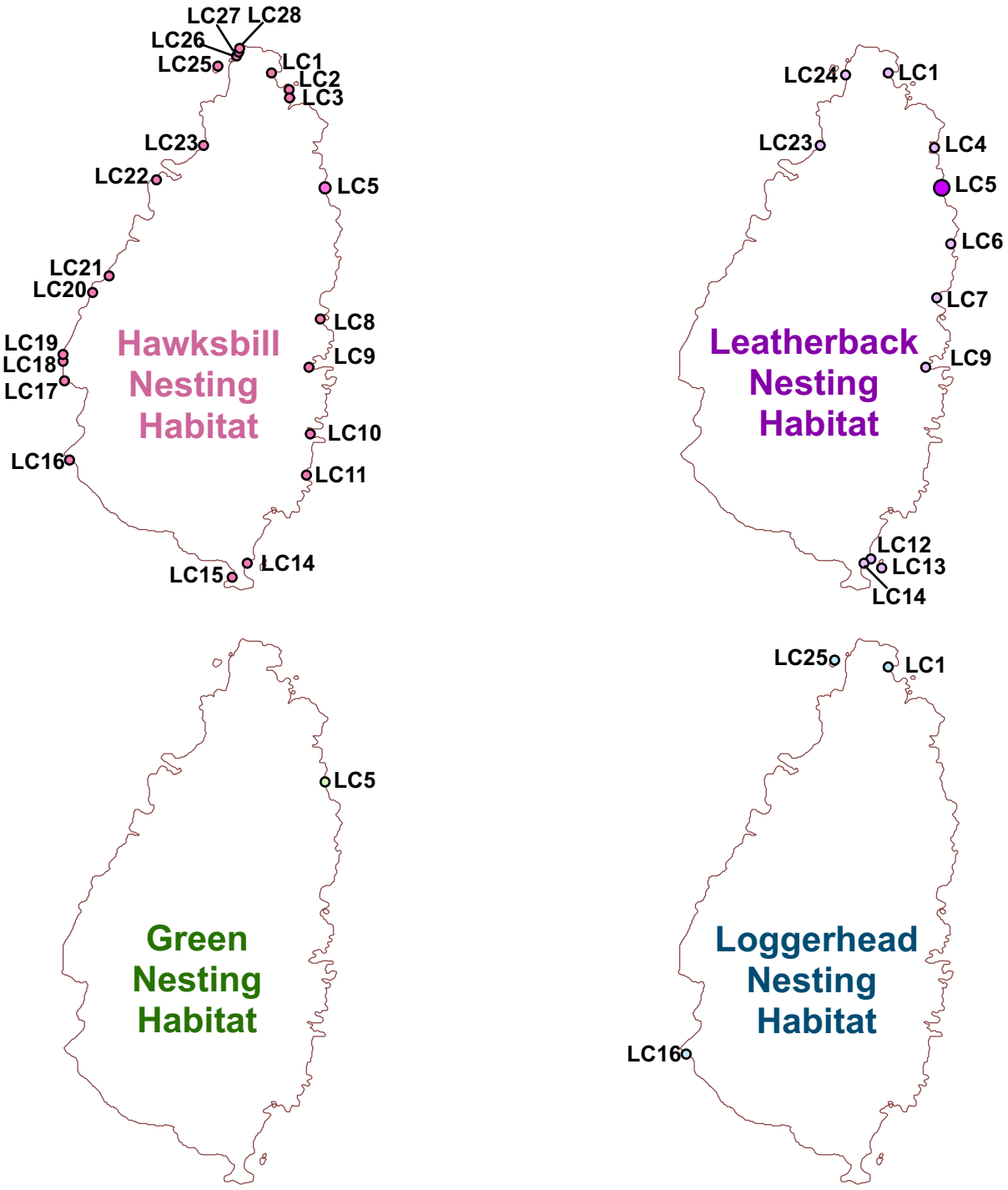
0 3 6 12 18 24

N

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

Saint Lucia Sea Turtle Habitat



Hawksbill Nesting Habitat

- X Crawls per year
- <25 Crawls per year

Green Nesting Habitat

- X Crawls per year

Leatherback Nesting Habitat

- X Crawls per year
- 25-100 Crawls per year

Loggerhead Nesting Habitat

- X Crawls per year

GSHHS Caribbean Shoreline

0 3.75 7.5 15 22.5 30 Kilometers

N

Saint Lucia Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (F)	Increasing especially on Grande Anse Beach
Killing of Nesting Females by Predators	Yes (R)	
Nest Loss to Predators	Yes (O)	
Nest Loss to Abiotic Factors	Yes (O)	Flood and erosion
Egg Collection by Humans	Yes (O)	
Harassment Due to Increased Human Presence	Yes (O)	
Artificial Lighting	Yes (O)	Frequent on the Northwest Coast
Pollution	Yes (U)	Siltation/runoff
Beach Erosion/Accretion	Yes (U)	Caused by storms and natural beach movement - also due to sand mining
Beach Armouring/Stabilization Structures	Yes (O)	
Beach Nourishment	Yes (R)	
Recreational Beach Equipment and/or Other Obstacles	Yes (O)	
Mechanized Beach Cleaning	No	
Beach Vehicular Use	Yes (O)	
Sand Mining	Yes (O)	
Exotic (or Loss of Native) Vegetation	No	
Livestock Presence on the Beach	Yes (R)	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	
Coral Reef Degradation	Yes (U)	Bleaching and siltation
Fisheries Bycatch	Yes (R)	
Hunting/Poaching	Yes (F)	During the open season; occasional out of season
Pollution	Yes (U)	Marine debris, siltation, sewage and runoff
Predators	Yes (U)	Sharks
Disease/Parasites	Yes (R)	
Harassment Due to Increased Human Presence	Yes (O)	
Dredging	No	
Marina and Dock Development	Yes (U)	Increasing
Boat/Personal Water Craft Collisions	Yes (R)	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	No	
Entanglement	Yes (R)	
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Saint Lucia Sea Turtle Habitat

Beach Identification Codes with Beach Names			
LC1	Cas-en-Bas	LC15	Vieux Fort
LC2	Anse Commerette	LC16	Anse L'Ivrogne
LC3	Anse Lapins	LC17	Anse Chastanet
LC4	Marquis Bay	LC18	Anse Mamin
LC5	Playa Grande Anse	LC19	Anse Jambon
LC6	Anse Louvette	LC20	Anse Cochon
LC7	Fond d'Or	LC21	Anse Galet
LC8	Dennery	LC22	La Toc
LC9	Praslin Bay	LC23	Vigie Beach
LC10	Anse Micoud	LC24	Reduit Beach
LC11	Anse Ger	LC25	Pigeon Island
LC12	Point Sable	LC26	Anse Becune
LC13	Maria Island	LC27	Cariblue
LC14	Anse de Sables	LC28	Saline Point

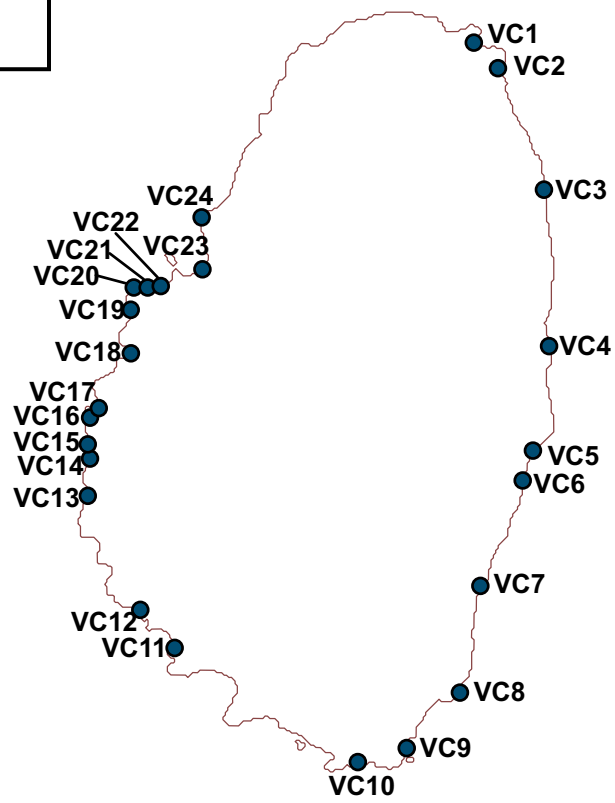
Saint Vincent & the Grenadines Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	I
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	No
Moratorium (fixed period)	No
Prohibition(s) on take	E, N
Closed season	Yes
Minimum size limits	Yes
Maximum size limits	No
Annual quota	No
Permits/licenses required	No
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	Yes
Recent prosecutions or penalties	Unknown
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable



Data Provider

Lucine Edwards

Fisheries Division - Ministry of Agriculture and Labour

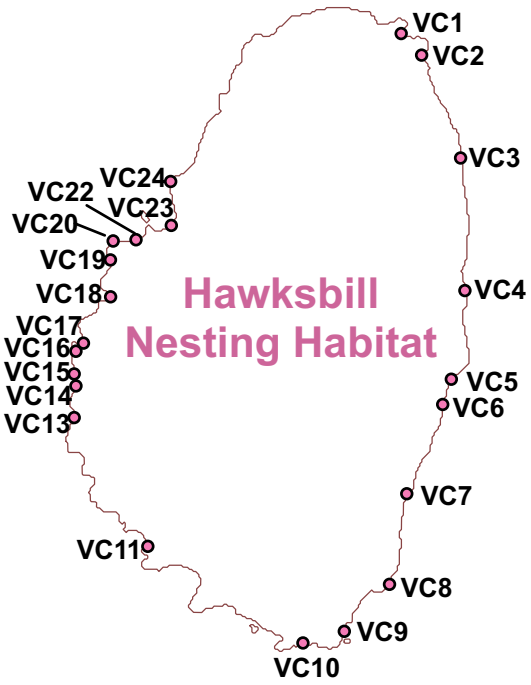
Sea Turtle Nesting Habitat

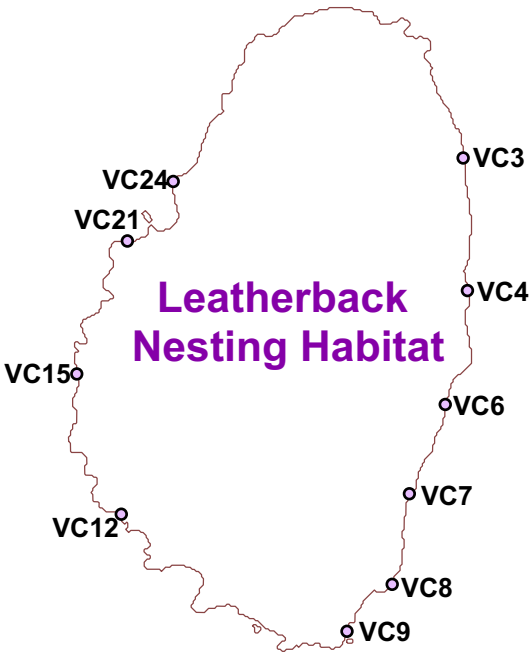
GSHHS Caribbean Shoreline

N

0 2 4 8 12 16 Kilometers

Saint Vincent & the Grenadines Sea Turtle Habitat





Hawksbill Nesting Habitat

X Crawls per year

Green Nesting Habitat

X Crawls per year

Leatherback Nesting Habitat

X Crawls per year

Loggerhead Nesting Habitat

X Crawls per year

GSHHS Caribbean Shoreline

Kilometers

0 2.5 5 10 15 20

N

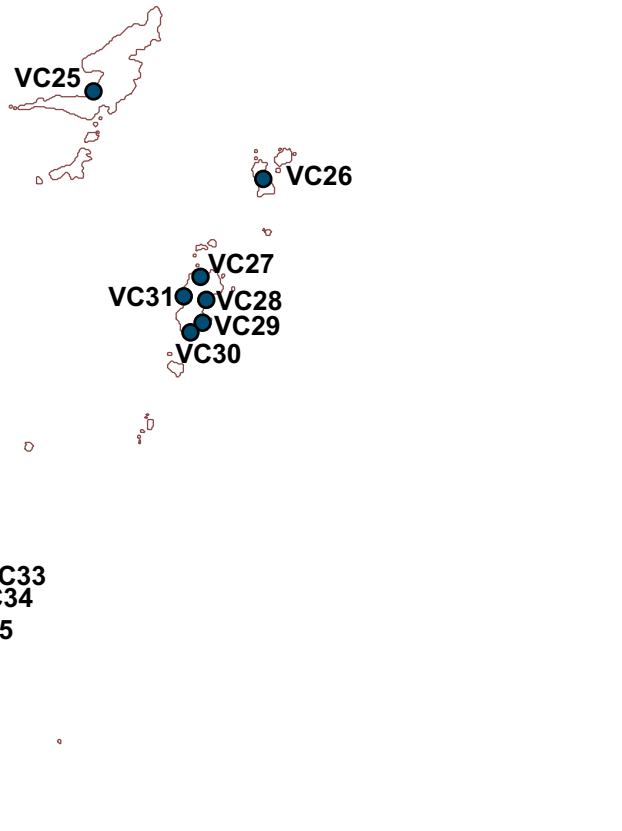
Saint Vincent & the Grenadines Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	I
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	No
Moratorium (fixed period)	No
Prohibition(s) on take	E, N
Closed season	Yes
Minimum size limits	Yes
Maximum size limits	No
Annual quota	No
Permits/licenses required	No
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	Yes
Recent prosecutions or penalties	Unknown
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable

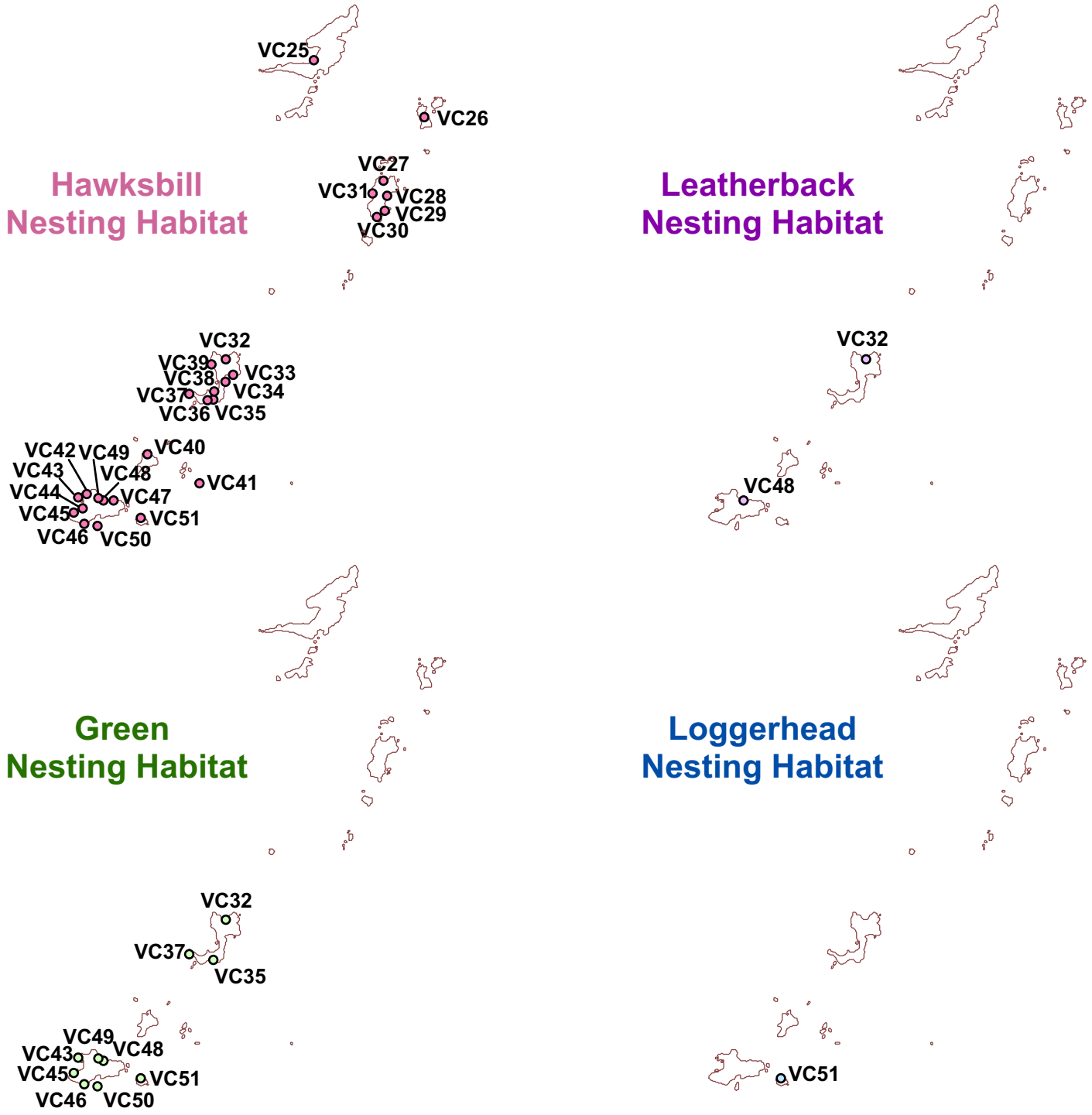


Data Provider

Lucine Edwards

Fisheries Division - Ministry of Agriculture and Labour

Saint Vincent & the Grenadines Sea Turtle Habitat



Saint Vincent & the Grenadines Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (O)	
Killing of Nesting Females by Predators	Unknown	
Nest Loss to Predators	Yes (U)	
Nest Loss to Abiotic Factors	Yes (U)	Erosion
Egg Collection by Humans	Yes (FA)	
Harassment Due to Increased Human Presence	Unknown	
Artificial Lighting	Yes (O)	
Pollution	Yes (U)	Agriculture, petroleum/tar, sewage, runoff and beach litter/debris
Beach Erosion/Accretion	Yes (U)	Nationwide erosion problems
Beach Armouring/Stabilization Structures	Yes (O)	
Beach Nourishment	Yes (R)	
Recreational Beach Equipment and/or Other Obstacles	Yes (O)	
Mechanized Beach Cleaning	Yes (R)	
Beach Vehicular Use	Yes (R)	
Sand Mining	Yes (F)	
Exotic (or Loss of Native) Vegetation	Yes (R)	
Livestock Presence on the Beach	Yes (R)	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (R)	Anchor damage, pollution and sedimentation - limited degradation associated with hotel development
Coral Reef Degradation	Yes (R)	Anchor damage, pollution and sedimentation
Fisheries Bycatch	Yes (R)	Long line, hook and line and pot/trap
Hunting/Poaching	Yes (O)	
Pollution	Yes (U)	Agriculture, sewage, industrial runoff, petroleum, pollution and marine debris
Predators	Yes (U)	Sharks
Disease/Parasites	Unknown	
Harassment Due to Increased Human Presence	Yes (O)	
Dredging	Yes (O)	
Marina and Dock Development	Yes (O)	
Boat/Personal Water Craft Collisions	Yes (O)	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	No	
Entanglement	Yes (R)	
Offshore Artificial Lighting	Yes (R)	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Saint Vincent & the Grenadines Sea Turtle Habitat

Beach Identification Codes with Beach Names			
VC1	Sandy Bay	VC27	L'Ansecoy - Mustique
VC2	Orange Hill Bay	VC28	Macaroni - Mustique
VC3	Georgetown Bay	VC29	Pasture Bay - Mustique
VC4	Colonarie Bay	VC30	Obsidian Bay - Mustique
VC5	North Union Bay	VC31	Plantain - Mustique
VC6	Biabou Bay	VC32	Mahault Bay - Canouan
VC7	Mount Pleasant Beach	VC33	Carenage Bay - Canouan
VC8	Stubbs Bay	VC34	Windward Bay - Canouan
VC9	Brighton Bay	VC35	Friendship Bay - Canouan
VC10	Cablehut Bay	VC36	Dallis Bay - Canouan
VC11	Lowman's Bay	VC37	South Glossy Bay - Canouan
VC12	Clare Valley	VC38	Grand Bay Beach - Canouan
VC13	Mount Wynne Bay	VC39	L'Anse Guyac Beach - Canouan
VC14	Peter's Hope Bay	VC40	Saltwhistle - Mayreau
VC15	Barrouallie	VC41	Petite Tobac - Tobago Cays
VC16	Kerton's Bay	VC42	Bloody Bay - Union Island
VC17	Wallilabou Bay	VC43	Raffal - Union Island
VC18	Cumberland Bay	VC44	Chatham Bay - Union Island
VC19	Troumaca Bay	VC45	Campbell - Union Island
VC20	Rose Bank	VC46	Miss Irene - Union Island
VC21	Dark View	VC47	Big Sand Beach - Union Island
VC22	Petite Bordel Bay	VC48	Richmond Beach - Union Island
VC23	Chateaubelair Bay	VC49	Spring Beach - Union Island
VC24	Richmond Beach	VC50	Unnamed - Frigate Island
VC25	Princess Margaret Beach - Bequia	VC51	Unnamed - Palm or Prune Island
VC26	North Bay - Baliceaux		

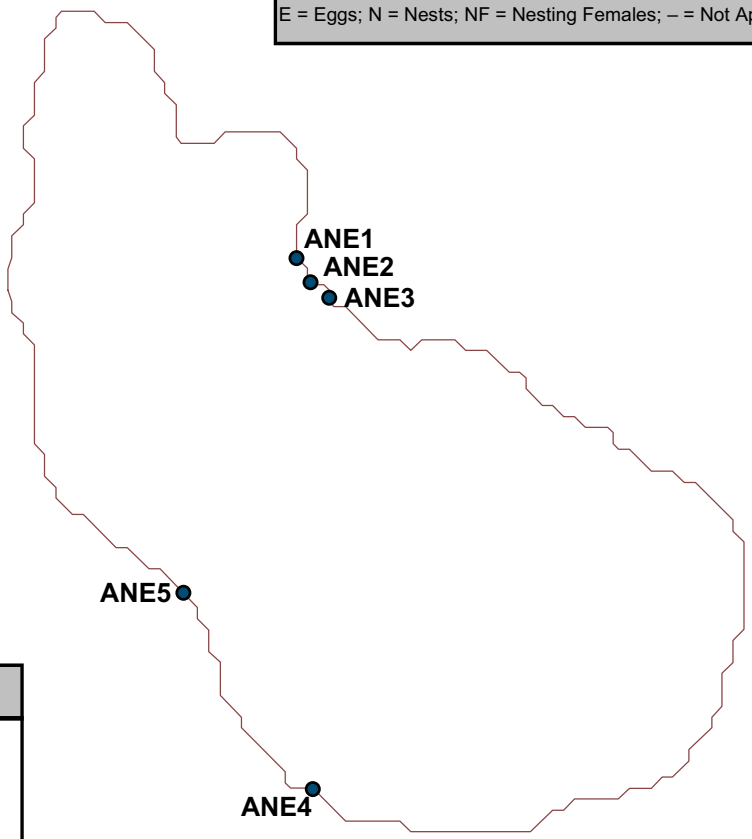
Sint Eustatius Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	IN
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	No
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	No
General public awareness of laws	Yes
Recent prosecutions or penalties	No
Enforcement considered adequate	Yes
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable



Data Providers

Nicole Esteban, Arturo Herrera, Emma Harrison

Sint Eustatius National Parks Foundation

Sint Eustatius Turtle Programme

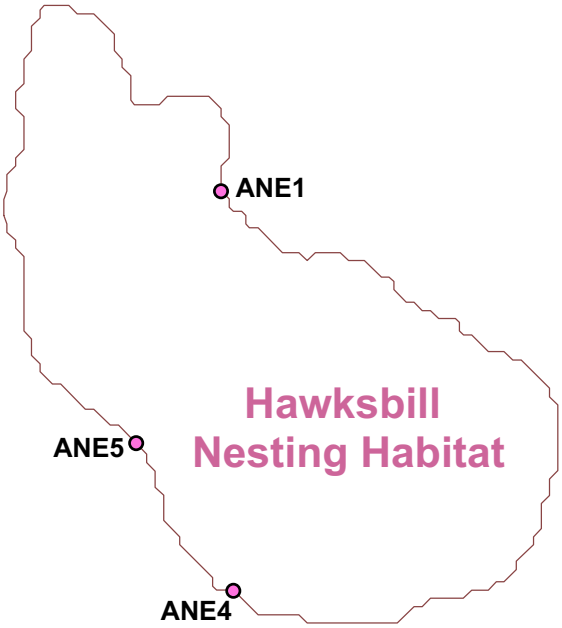
Kilometers
0 0.45 0.9 1.8 2.7 3.6

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

Sint Eustatius Sea Turtle Habitat



Hawksbill Nesting Habitat

- <25 Crawls per year

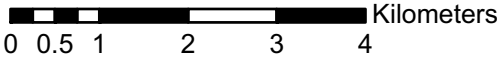
Leatherback Nesting Habitat

- <25 Crawls per year

Green Nesting Habitat

- <25 Crawls per year
- 25-100 Crawls per year

GSHHS Caribbean Shoreline



Sint Eustatius Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	No	
Killing of Nesting Females by Predators	No	
Nest Loss to Predators	No	
Nest Loss to Abiotic Factors	Yes (U)	Flood and erosion
Egg Collection by Humans	No	
Harassment Due to Increased Human Presence	No	
Artificial Lighting	Yes (R)	One establishment on Zeelandia Beach
Pollution	Yes (U)	Beach litter/debris
Beach Erosion/Accretion	Yes (O)	Caused by storms and natural beach movement
Beach Armouring/Stabilization Structures	No	
Beach Nourishment	No	
Recreational Beach Equipment and/or Other Obstacles	No	
Mechanized Beach Cleaning	No	
Beach Vehicular Use	Yes (O)	On Zeelandia Beach
Sand Mining	Yes (R/O)	Occurs small scale; recently large scale due to loss of imported sand
Exotic (or Loss of Native) Vegetation	No	
Livestock Presence on the Beach	Yes (O)	Cows and donkeys
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Unknown	
Coral Reef Degradation	Yes (U)	Coral bleaching, others unknown
Fisheries Bycatch	No	
Hunting/Poaching	No	
Pollution	Yes (U)	Marine debris
Predators	Yes (U)	Sharks
Disease/Parasites	No	
Harassment Due to Increased Human Presence	No	
Dredging	No	
Marina and Dock Development	No	Future plans for marina development
Boat/Personal Water Craft Collisions	Yes (R)	One green sea turtle strike in December (2006)
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	Yes (U)	Transportation
Entanglement	No	
Offshore Artificial Lighting	Yes (U)	From ships using oil terminal facilities
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Sint Eustatius Sea Turtle Habitat

Beach Identification Codes with Beach Names			
ANE1	Zeelandia Beach	ANE4	Kay Bay
ANE2	Turtle Beach	ANE5	Oranje Bay
ANE3	Lynch Bay		

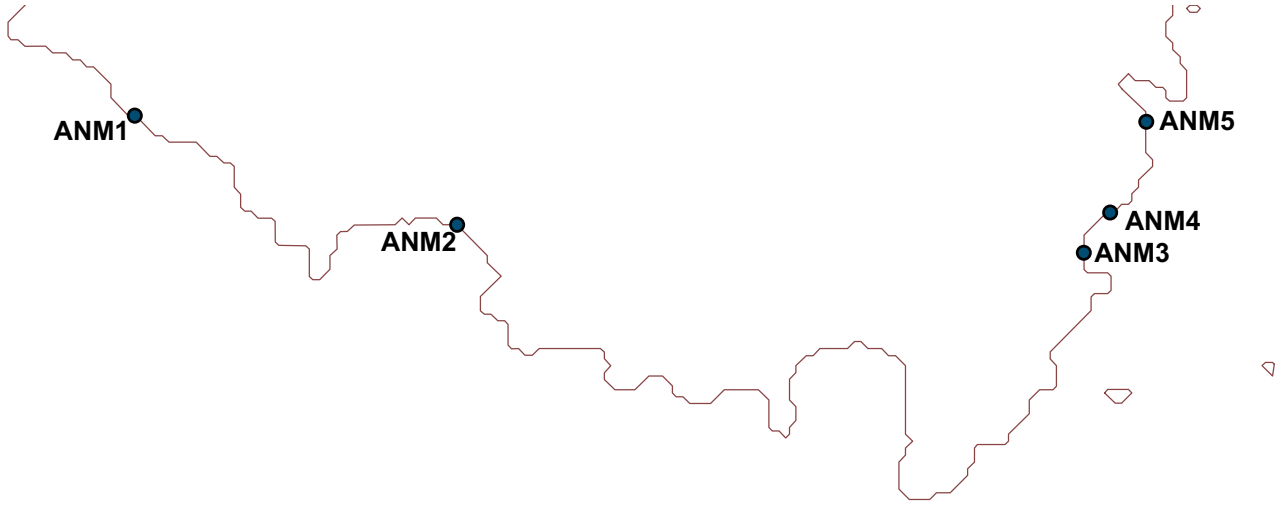
Sint Maarten Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	I
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	No
Area closures (MPA, park, reserve)	No*
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	No
Recent prosecutions or penalties	Yes
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * Marine Park Management Plan waiting for government approval



Data Providers

Nature Foundation Sint Maarten

Dominique Vissenberg, Beverly May Nisbeth

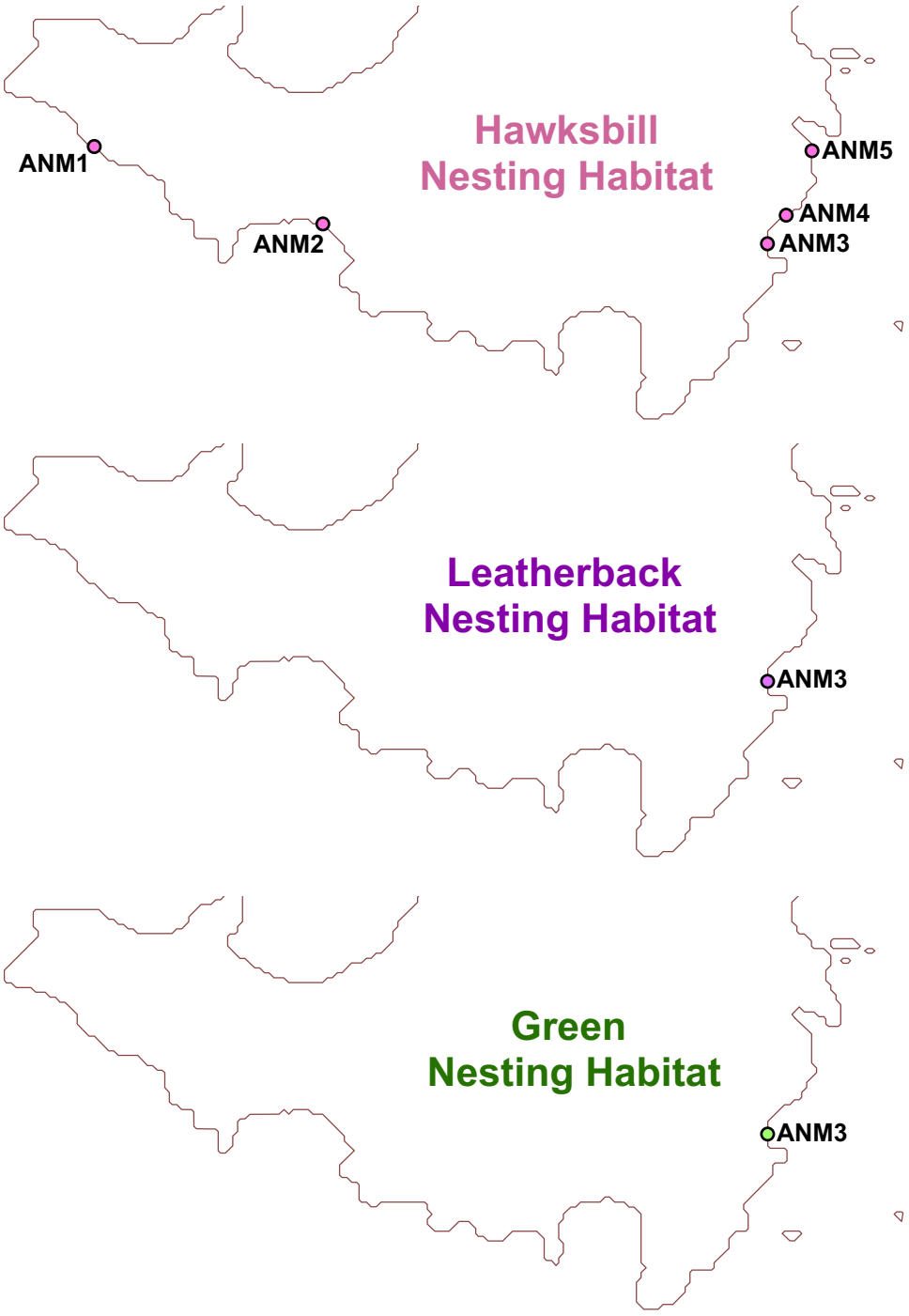
Kilometers
0 0.45 0.9 1.8 2.7 3.6

● **Sea Turtle Nesting Habitat**

GSHHS Caribbean Shoreline

N

Sint Maarten Sea Turtle Habitat



Hawksbill Nesting Habitat
- <25 Crawls per year

Leatherback Nesting Habitat
- <25 Crawls per year

Green Nesting Habitat
- <25 Crawls per year

GSHHS Caribbean Shoreline

Kilometers
0 1 2 4 6 8

N

Sint Maarten Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (R)	
Killing of Nesting Females by Predators	No	Harassment by dogs is rare
Nest Loss to Predators	No	
Nest Loss to Abiotic Factors	Yes (U)	Flood and erosion
Egg Collection by Humans	No	
Harassment Due to Increased Human Presence	Yes (FA)	On the southwestern coast
Artificial Lighting	Yes (F)	
Pollution	Yes (U)	Beach litter/debris
Beach Erosion/Accretion	Yes (U)	Caused by storms and natural beach movement
Beach Armouring/Stabilization Structures	No	
Beach Nourishment	No	
Recreational Beach Equipment and/or Other Obstacles	Yes (O)	
Mechanized Beach Cleaning	No	
Beach Vehicular Use	Yes (F)	
Sand Mining	No	
Exotic (or Loss of Native) Vegetation	No	
Livestock Presence on the Beach	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	Anchor damage, runoff and pollution
Coral Reef Degradation	Yes (U)	Anchor damage, runoff and pollution
Fisheries Bycatch	Yes (U)	Gillnet
Hunting/Poaching	Yes (U)	
Pollution	Yes (U)	Petroleum, sewage, cruise ships/yachts and marine debris
Predators	No	
Disease/Parasites	Yes (R)	Fibropapillomas
Harassment Due to Increased Human Presence	Yes (R)	
Dredging	No	
Marina and Dock Development	Yes (F)	
Boat/Personal Water Craft Collisions	Yes (U)	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	No	
Entanglement	Yes (U)	
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Sint Maarten Sea Turtle Habitat

Beach Identification Codes with Beach Names			
ANM1	Cupecoy Beach	ANM4	Gibbs Bay
ANM2	Simpson Bay	ANM5	Dawn Beach
ANM3	Guana Bay Beach		

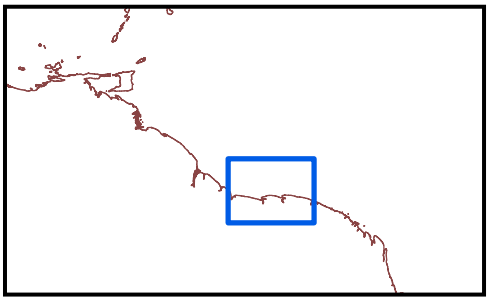
Suriname Sea Turtle Habitat

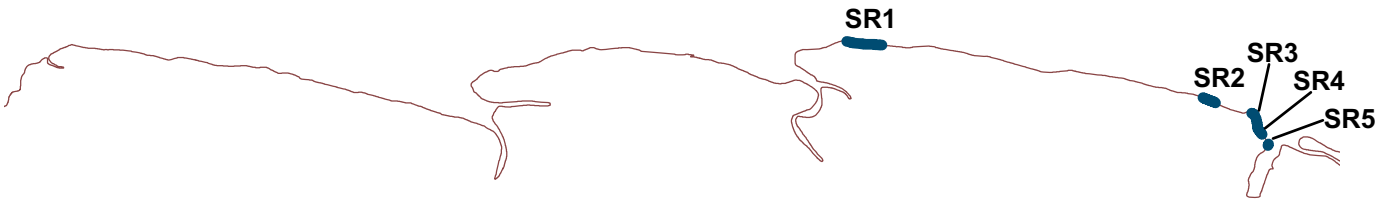
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	IF
Green Turtle (*Chelonia mydas*)	N
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	N, F

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes*
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	No
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	No
General public awareness of laws	Yes
Recent prosecutions or penalties	Yes**
Enforcement considered adequate	No
Penalties are an adequate deterrent	No

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * Except for traditional harvest;** Limited





Data Providers

Maartje Hilterman, Edo Goverse

IUCN National Committee of the Netherlands

STINASU Foundation for Nature Conservation in Suriname

Kilometers
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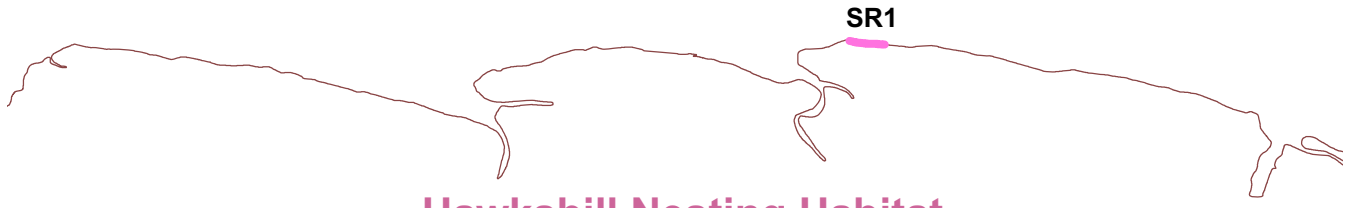
Sea Turtle Nesting Habitat

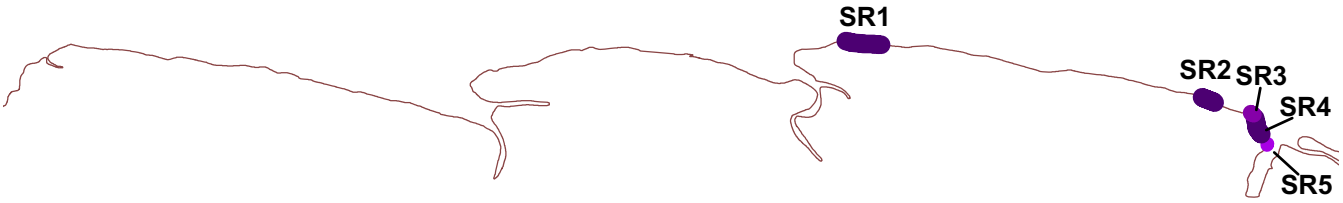
GSHHS Caribbean Shoreline

N

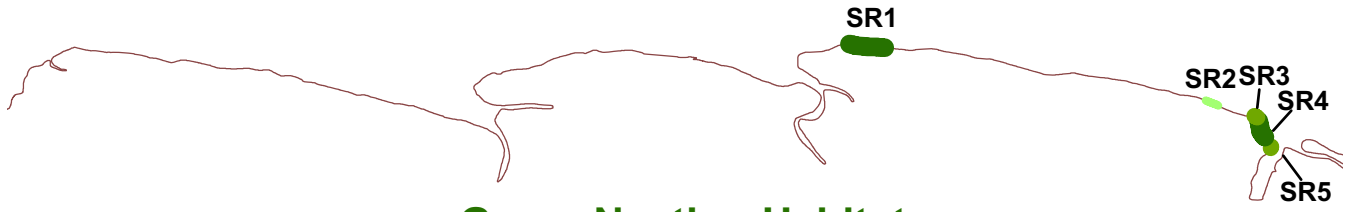
Suriname Sea Turtle Habitat



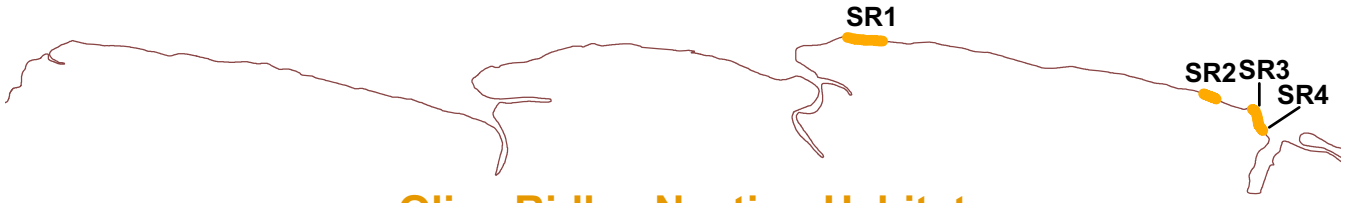
Hawksbill Nesting Habitat



Leatherback Nesting Habitat



Green Nesting Habitat



Olive Ridley Nesting Habitat

Hawksbill Nesting Habitat
- <25 Crawls per year

Leatherback Nesting Habitat
- 100-500 Crawls per year
- 500-1000 Crawls per year
- >1000 Crawls per year

Green Nesting Habitat
- <25 Crawls per year
- 500-1000 Crawls per year
- >1000 Crawls per year

Olive Ridley Nesting Habitat
- 25-100 Crawls per year

GSHHS Caribbean Shoreline

0 15 30 60 90 120 Kilometers

N

Suriname Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	No	
Killing of Nesting Females by Predators	Unknown	
Nest Loss to Predators	Yes (U)	
Nest Loss to Abiotic Factors	Yes (U)	
Egg Collection by Humans	Yes (U)	
Harassment Due to Increased Human Presence	Yes (O)	
Artificial Lighting	Yes (U)	
Pollution	Yes (U)	Beach litter/debris
Beach Erosion/Accretion	Yes (U)	
Beach Armouring/Stabilization Structures	No	
Beach Nourishment	No	
Recreational Beach Equipment and/or Other Obstacles	No	
Mechanized Beach Cleaning	No	
Beach Vehicular Use	No	
Sand Mining	No	Occurs outside nesting areas
Exotic (or Loss of Native) Vegetation	No	
Livestock Presence on the Beach	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	No	
Coral Reef Degradation	No	
Fisheries Bycatch	Yes (O)	Trawl, hook and line, gillnet, long line and "nets" undefined
Hunting/Poaching	No	
Pollution	Yes (U)	Marine debris
Predators	No	
Disease/Parasites	No	
Harassment Due to Increased Human Presence	Yes (O)	
Dredging	No	
Marina and Dock Development	No	
Boat/Personal Water Craft Collisions	No	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	No	Oil drilling is planned offshore
Entanglement	Yes (O)	
Offshore Artificial Lighting	Yes (O)	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Suriname Sea Turtle Habitat

Beach Identification Codes with Beach Names			
SR1	Matapica	SR4	Babunsanti
SR2	Samsambo/Kolukumbo	SR5	Alusiaka
SR3	Thomas/Eilanti		

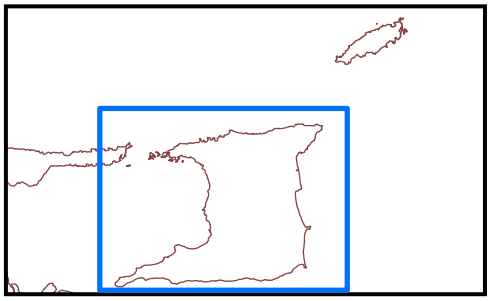
Trinidad & Tobago Sea Turtle Habitat

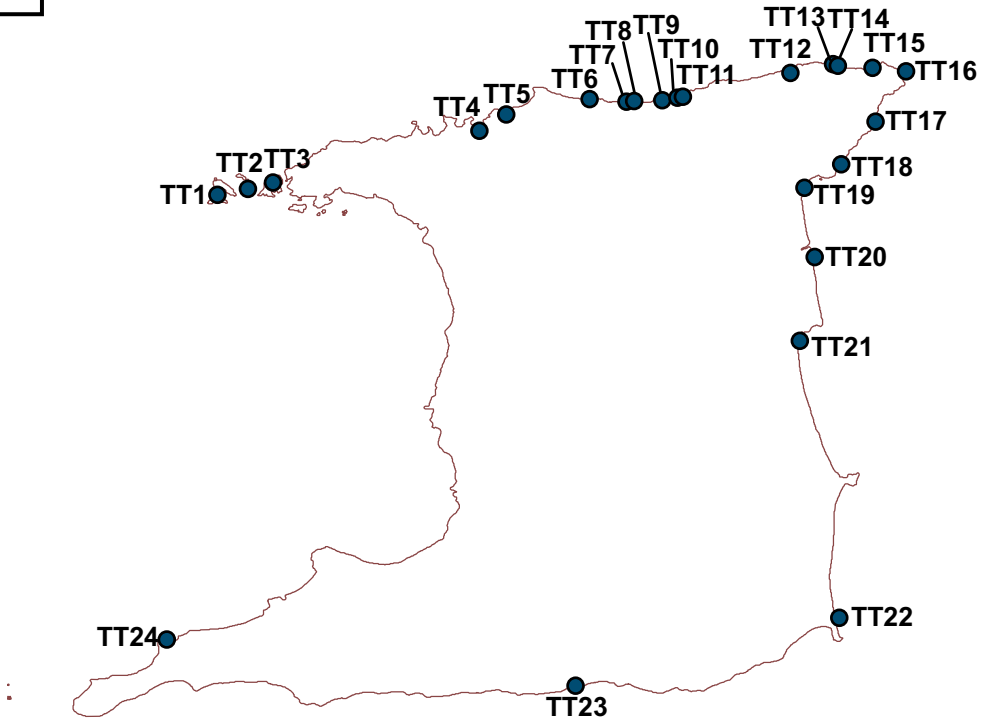
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	I
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N, F
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	IN, IF

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	No
Moratorium (fixed period)	No
Prohibition(s) on take	E
Closed season	Yes
Minimum size limits	No
Maximum size limits	No
Annual quota	No
Permits/licenses required	No
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	No
Recent prosecutions or penalties	Yes
Enforcement considered adequate	No (Insufficient)
Penalties are an adequate deterrent	No

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable





Data Providers

Stephen Poon

Wildlife Section - Forestry Division

Dennis Sammy

Nature Seekers – Be a nature seeker and help preserve wildlife

TocoFoundation

Grande Riviere Nature Tour Guide Association

Fishing Pond Turtle Conservation Group

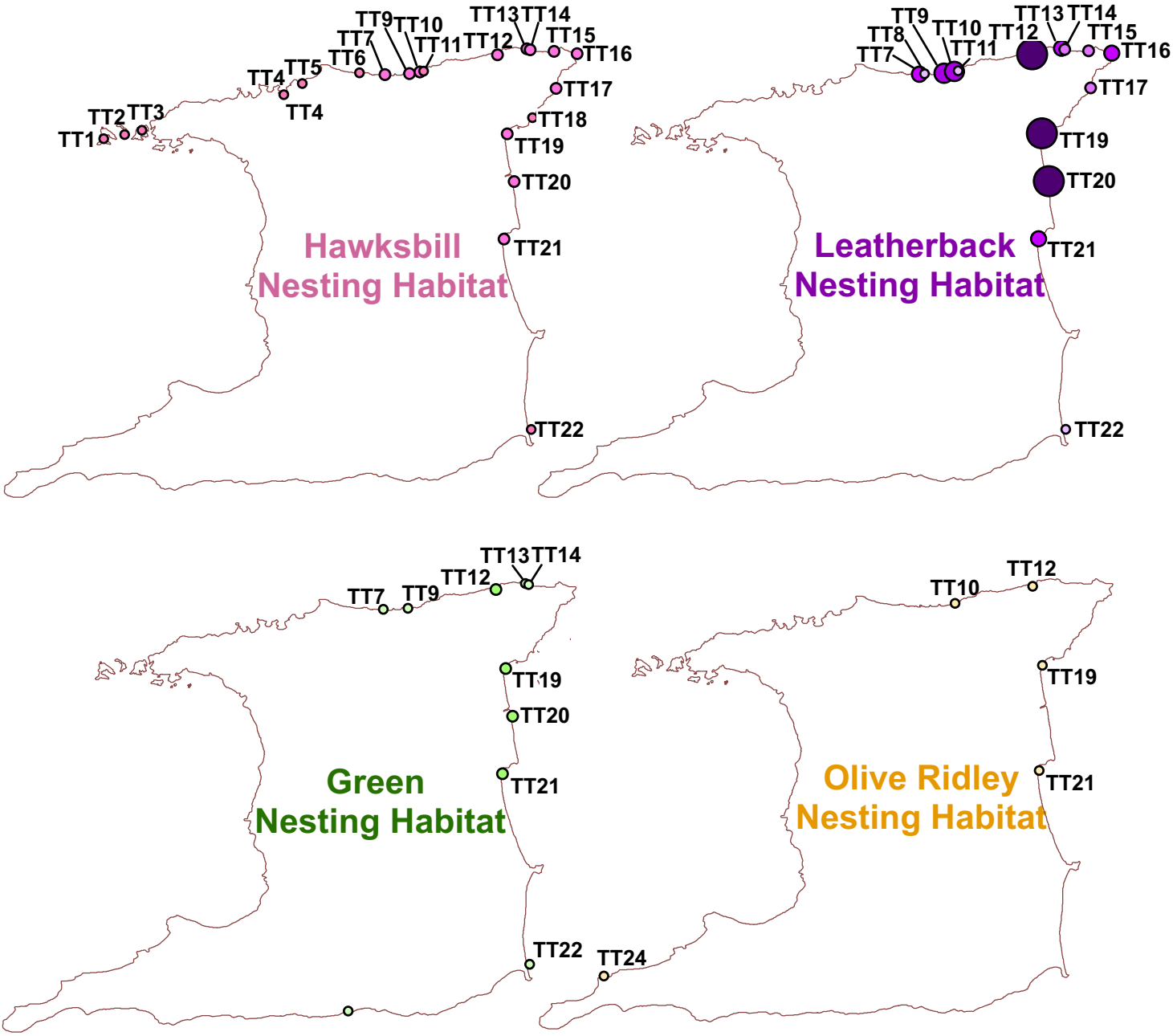
Pawi Sports Culture & Eco Club

Nariva Environmental Trust

Kilometers

0 5 10 20 30 40

Trinidad & Tobago Sea Turtle Habitat



Green Nesting Habitat

- X Crawls per year
- <25 Crawls per year

Hawksbill Nesting Habitat

- X Crawls per year
- <25 Crawls per year

Leatherback Nesting Habitat

- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year
- >1000 Crawls per year

Olive Ridley Nesting Habitat

- X Crawls per year

GSHHS Caribbean Shoreline

N

0 5 10 20 30 40 Kilometers

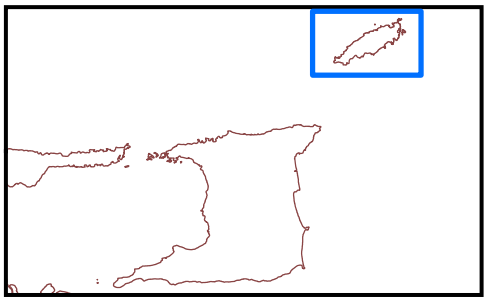
Trinidad & Tobago Sea Turtle Habitat

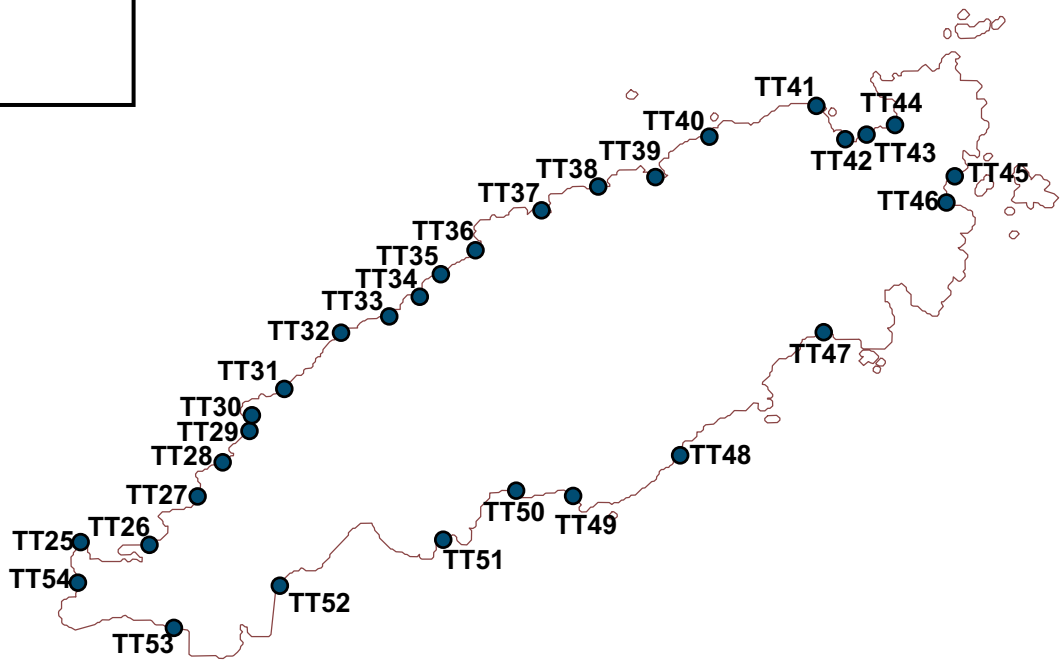
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	I
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N, F
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	IN, IF

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	No
Moratorium (fixed period)	No
Prohibition(s) on take	E
Closed season	Yes
Minimum size limits	No
Maximum size limits	No
Annual quota	No
Permits/licenses required	No
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	No
Recent prosecutions or penalties	Yes
Enforcement considered adequate	No (Insufficient)
Penalties are an adequate deterrent	No

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable





Data Providers

Tanya Clovis, Heather Yeates, Pat Turpin, Wilson

Save Our Sea Turtles

Kilometers

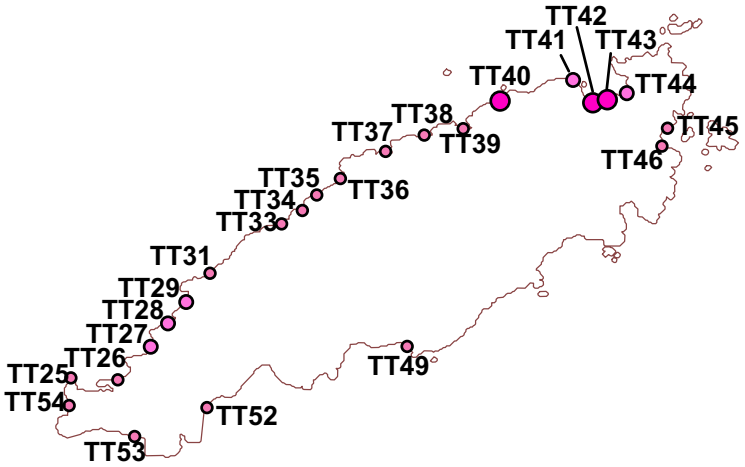
0 2 4 8 12 16

● **Sea Turtle Nesting Habitat**

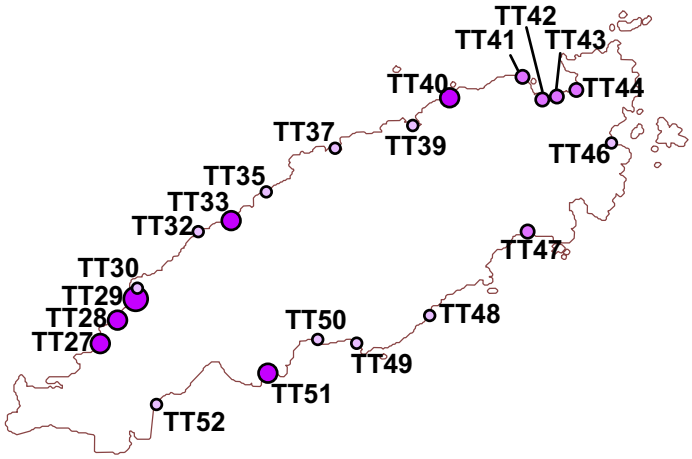
GSHHS Caribbean Shoreline

N

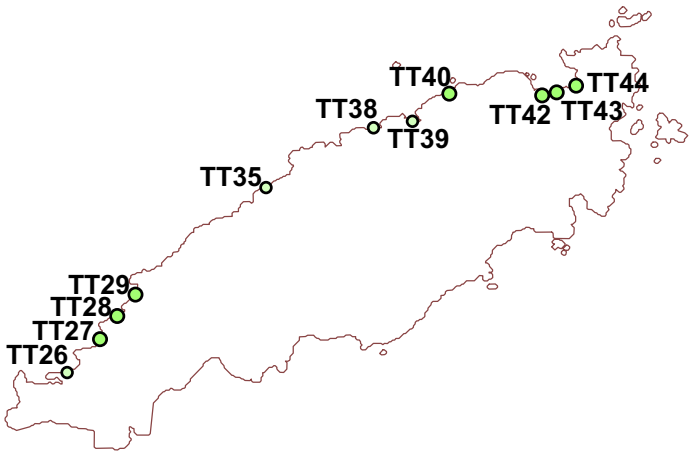
Trinidad & Tobago Sea Turtle Habitat



Hawksbill Nesting Habitat



Leatherback Nesting Habitat



Green Nesting Habitat

Hawksbill Nesting Habitat
- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year

Leatherback Nesting Habitat
- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year

Green Nesting Habitat
- X Crawls per year
- <25 Crawls per year
- **GSHHS Caribbean Shoreline**

N

Kilometers

0 3 6 12 18 24

Trinidad & Tobago Sea Turtle Habitat

Threats to Sea Turtles - Nesting

	Trinidad	Trinidad	Tobago	Tobago
Killing of Nesting Females by Humans	Yes (F)	Decreasing	Yes (O/F)	Occasional on index beaches, frequent in other areas
Killing of Nesting Females by Predators	No		No	
Nest Loss to Predators	Yes (R)	Dogs on Grand Riviere	Yes (U)	Harassment by dogs rare
Nest Loss to Abiotic Factors	Yes (F)	Flood and erosion	Yes (U)	Flood and erosion
Egg Collection by Humans	Yes (O)		Yes (O)	
Harassment Due to Increased Human Presence	No		Yes (O)	
Artificial Lighting	Yes (R)	Only on Grand Riviere	Yes (F)	
Pollution	Yes (F)	Beach litter/debris	Yes (U)	Beach litter/debris, runoff, sewage and agriculture
Beach Erosion/Accretion	Yes (F)		Yes (U)	Caused by storms and natural beach movement
Beach Armouring/Stabilization Structures	No		Yes (U)	
Beach Nourishment	No		No	
Recreational Beach Equipment and/or Other Obstacles	No		Yes (U)	On hotel beaches and some fishing village beaches during storms
Mechanized Beach Cleaning	No		No	
Beach Vehicular Use	No		Yes (O)	
Sand Mining	No		Yes (F)	
Exotic (or Loss of Native) Vegetation	No		Yes (R)	
Livestock Presence on the Beach	No		No	

Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown

Threats to Sea Turtles - Foraging/Migration

	Trinidad	Trinidad	Tobago	Tobago
Seagrass Degradation	No		Yes (U)	Sedimentation, polltion, anchor damage
Coral Reef Degradation	No		Yes (U)	Sedimentation, polltion, anchor damage and physical damage
Fisheries Bycatch	Yes (F)	Gillnet and trawls	Yes (O)	Pot/trap, long line and "nets" undefined
Hunting/Poaching	Yes (F)		Yes (O)	During the open season
Pollution	No		Yes (U)	Agriculture, sewage, runoff, marine debris
Predators	Yes (U)	Sharks and fish	Yes (R)	Sharks
Disease/Parasites	No		No	
Harassment Due to Increased Human Presence	No		No	
Dredging	No		No	
Marina and Dock Development	No		No	Plans for development
Boat/Personal Water Craft Collisions	No		Yes (R)	
Power Plant Entrapment	No		No	
Oil and Gas Exploration, Development, Transportation	No		Yes (U)	Exploration just beginning
Entanglement	Yes (F)	Fishing gear	Yes (R)	Lines and abandoned gear
Offshore Artificial Lighting	No		No	

Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown

Trinidad & Tobago Sea Turtle Habitat

Beach Identification Codes with Beach Names			
TT1	Chacachacare	TT28	Grafton Beach (Stone Haven Bay)
TT2	Huevos Island	TT29	Turtle Beach (Great Courland Bay)
TT3	Monos Islands	TT30	Back Bay (Plymouth)
TT4	Maracas Bay	TT31	Arnos Vale
TT5	Las Cuevas Bay	TT32	Culloden Bay
TT6	Blanchisseuse Bay	TT33	King Peters Back Bay (Cotton Bay)
TT7	Paria Bay	TT34	Gordon Bay
TT8	Murphy Bay	TT35	Celery Bay
TT9	Grand Tacaribe	TT36	Emerald Bay - Castara Bay
TT10	Madamas Beach	TT37	Englishmen's Bay
TT11	Cachipa	TT38	Parlatuvier Beach (Erasmus Cove)
TT12	Grand Riviere	TT39	Bloody Bay
TT13	Sans Souci	TT40	L'Anse Fourmi Beach
TT14	Big Bay	TT41	Man O War
TT15	Mission Bay	TT42	Hermitage
TT16	Toco Bay	TT43	Cambleton
TT17	No Head Beach	TT44	Pirate's Bay (Charlotteville)
TT18	Balandra Bay	TT45	Anse Bateau
TT19	Matura Beach	TT46	Speyside
TT20	Fishing Pond	TT47	Roxborough Beach
TT21	Manzanilla Beach - Cocos Bay	TT48	Goldsborough Beach
TT22	Mayaro Bay	TT49	Barbados Bay
TT23	Moruga	TT50	John Dial Beach (Hope)
TT24	Cedros - Granville Beach	TT51	Minister Bay -Bacolet
TT25	Pigeon Point	TT52	Little Rockley Bay
TT26	Buccoo Bay	TT53	Kilygwyn Bay
TT27	Rocky Point (Mt. Irvine Back Bay)	TT54	Swallows Bay - Milford Bay

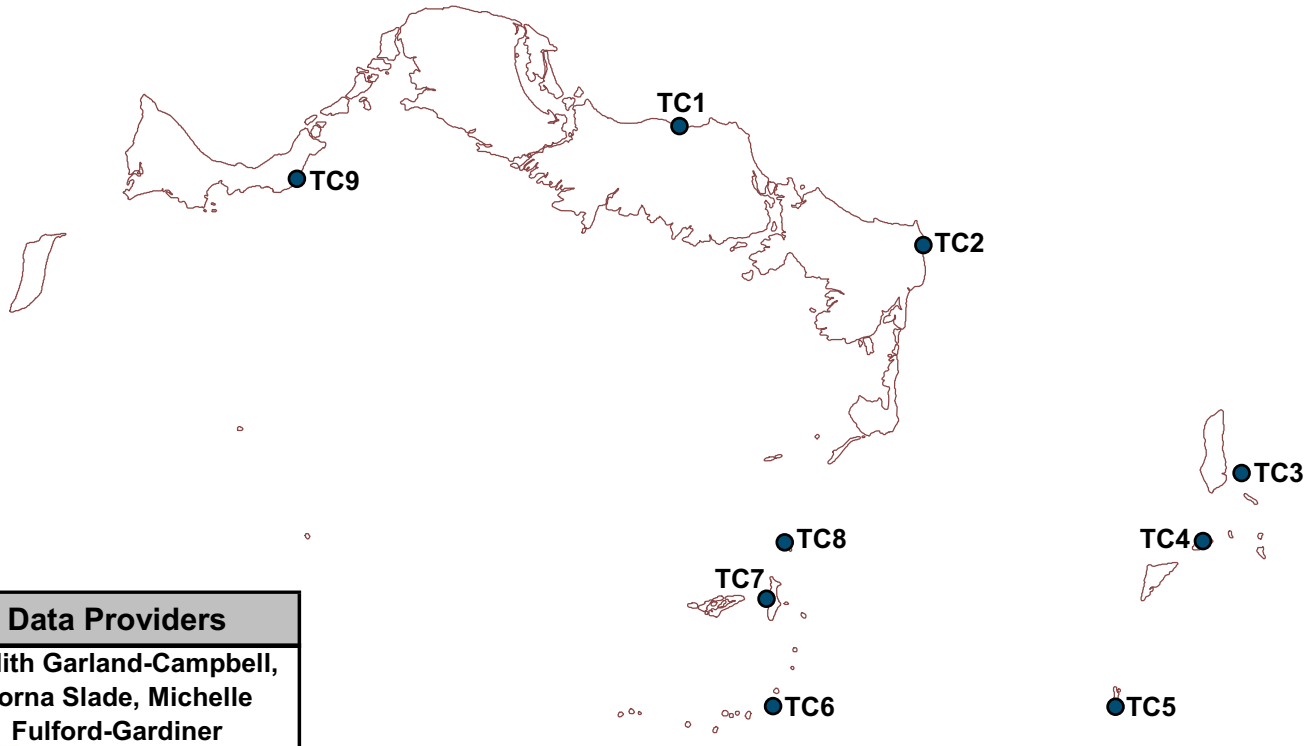
Turks & Caicos Sea Turtle Habitat

Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, IF
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	I
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A?
Olive Ridley Turtle (*Lepidochelys olivacea*)	A?

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	No
Moratorium (fixed period)	No
Prohibition(s) on take	E, N, NF
Closed season	No
Minimum size limits	Yes
Maximum size limits	No
Annual quota	No
Permits/licenses required	No
Gear restrictions	No
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	No
Recent prosecutions or penalties	No
Enforcement considered adequate	No
Penalties are an adequate deterrent	Unknown

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable



Data Providers

Judith Garland-Campbell, Lorna Slade, Michelle Fulford-Gardiner

Department of Environment and Coastal Resources

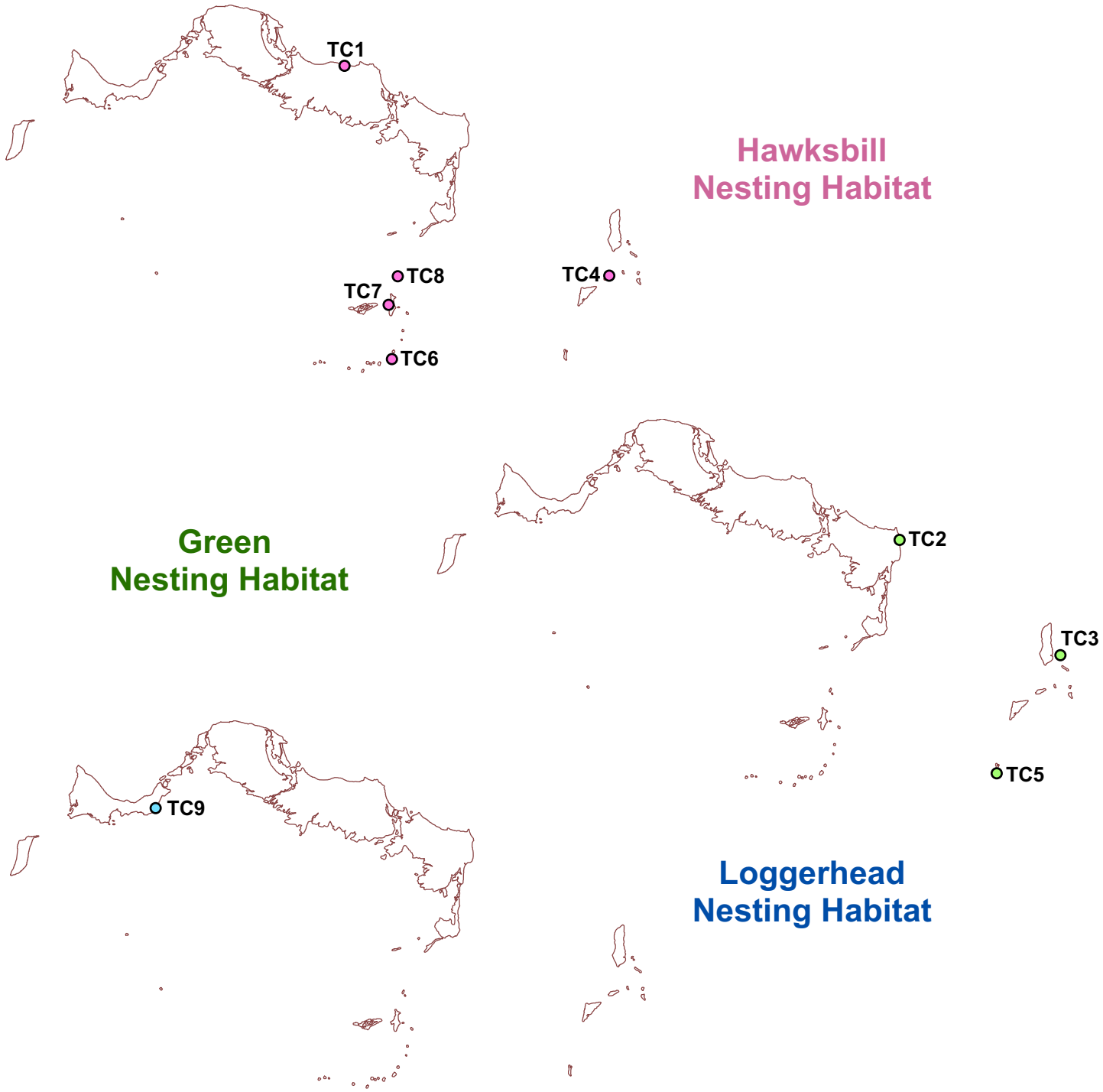
Kilometers
0 5 10 20 30 40

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

Turks & Caicos Sea Turtle Habitat



Hawksbill Nesting Habitat
- <25 Crawls per year

Green Nesting Habitat
- <25 Crawls per year

Loggerhead Nesting Habitat
- <25 Crawls per year

GSHHS Caribbean Shoreline

Kilometers
0 10 20 40 60 80

N

Turks & Caicos Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (R)	
Killing of Nesting Females by Predators	No	
Nest Loss to Predators	No	
Nest Loss to Abiotic Factors	Yes (U)	Due to large tides
Egg Collection by Humans	Yes (R)	Fish Cay
Harassment Due to Increased Human Presence	No	
Artificial Lighting	No	
Pollution	No	
Beach Erosion/Accretion	No	
Beach Armouring/Stabilization Structures	No	Occurs, but not on nesting beaches
Beach Nourishment	No	Occurs, but not on nesting beaches
Recreational Beach Equipment and/or Other Obstacles	No	Occurs, but not on nesting beaches
Mechanized Beach Cleaning	No	Occurs, but not on nesting beaches
Beach Vehicular Use	No	Occurs, but not on nesting beaches
Sand Mining	No	Occurs, but not on nesting beaches
Exotic (or Loss of Native) Vegetation	No	Occurs, but not on nesting beaches
Livestock Presence on the Beach	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	Pollution, anchor damage, dredging, sandmining, and marina construction
Coral Reef Degradation	Yes (U)	Pollution (high nutrient loads), anchor damage, and ship groundings
Fisheries Bycatch	Yes (F)	Hook and line and gillnet
Hunting/Poaching	Yes (F)	
Pollution	Yes (U)	Declining water quality and marina, sewage and conch farm runoff
Predators	Yes (U)	Sharks
Disease/Parasites	Yes (U)	Fibropapillomas
Harassment Due to Increased Human Presence	Yes (R)	Providenciales
Dredging	Yes (U)	Becoming more common with development
Marina and Dock Development	Yes (F)	
Boat/Personal Water Craft Collisions	Yes (O)	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	No	
Entanglement	Yes (R)	
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Turks & Caicos Sea Turtle Habitat

Beach Identification Codes with Beach Names			
TC1	Bambarra Beach	TC6	Bush Cay
TC2	Long Bay - East Caicos	TC7	Big Ambergris Cay
TC3	Gibbs Cay	TC8	Fish Cay
TC4	Cotton Cay	TC9	Long Bay - Providenciales
TC5	Big Sand Cay		

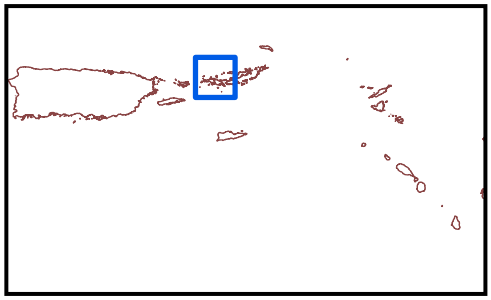
US Virgin Islands Sea Turtle Habitat

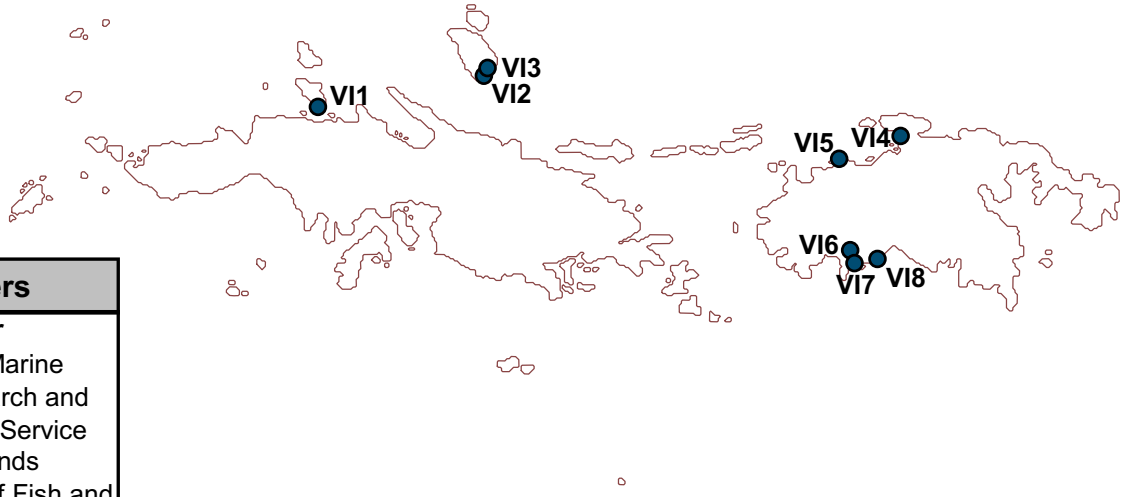
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	I
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	Yes*
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes**
General public awareness of laws	Yes
Recent prosecutions or penalties	Yes
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes***

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * For incidental take in fisheries; ** Between USVI and BVI; *** Penalties generally not given or enforced





Data Providers

Steve Garner
West Indies Marine Animal Research and Conservation Service

US Virgin Islands Department of Fish and Wildlife

The Nature Conservancy
Protecting nature. Preserving life.

Rafe Boulon, Zandy Hillis-Starr
US National Parks Service

Kilometers
0 2.5 5 10 15 20

Sea Turtle Nesting Habitat
GSHHS Caribbean Shoreline

N

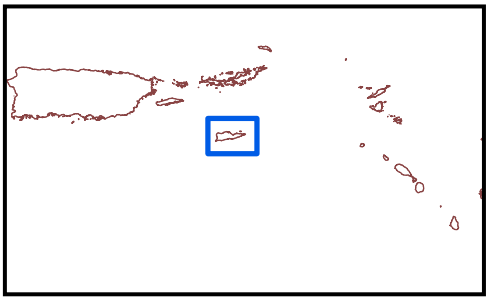
US Virgin Islands Sea Turtle Habitat

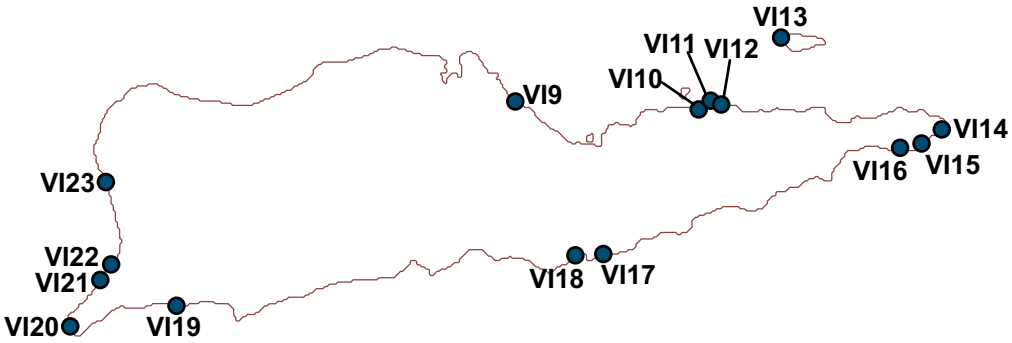
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	I
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	Yes*
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes**
General public awareness of laws	Yes
Recent prosecutions or penalties	Yes
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes***

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * For incidental take in fisheries; ** Between USVI and BVI; *** Penalties generally not given or enforced





Data Providers

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West Indies Marine Animal Research and Conservation Service

US Virgin Islands Department of Fish and Wildlife

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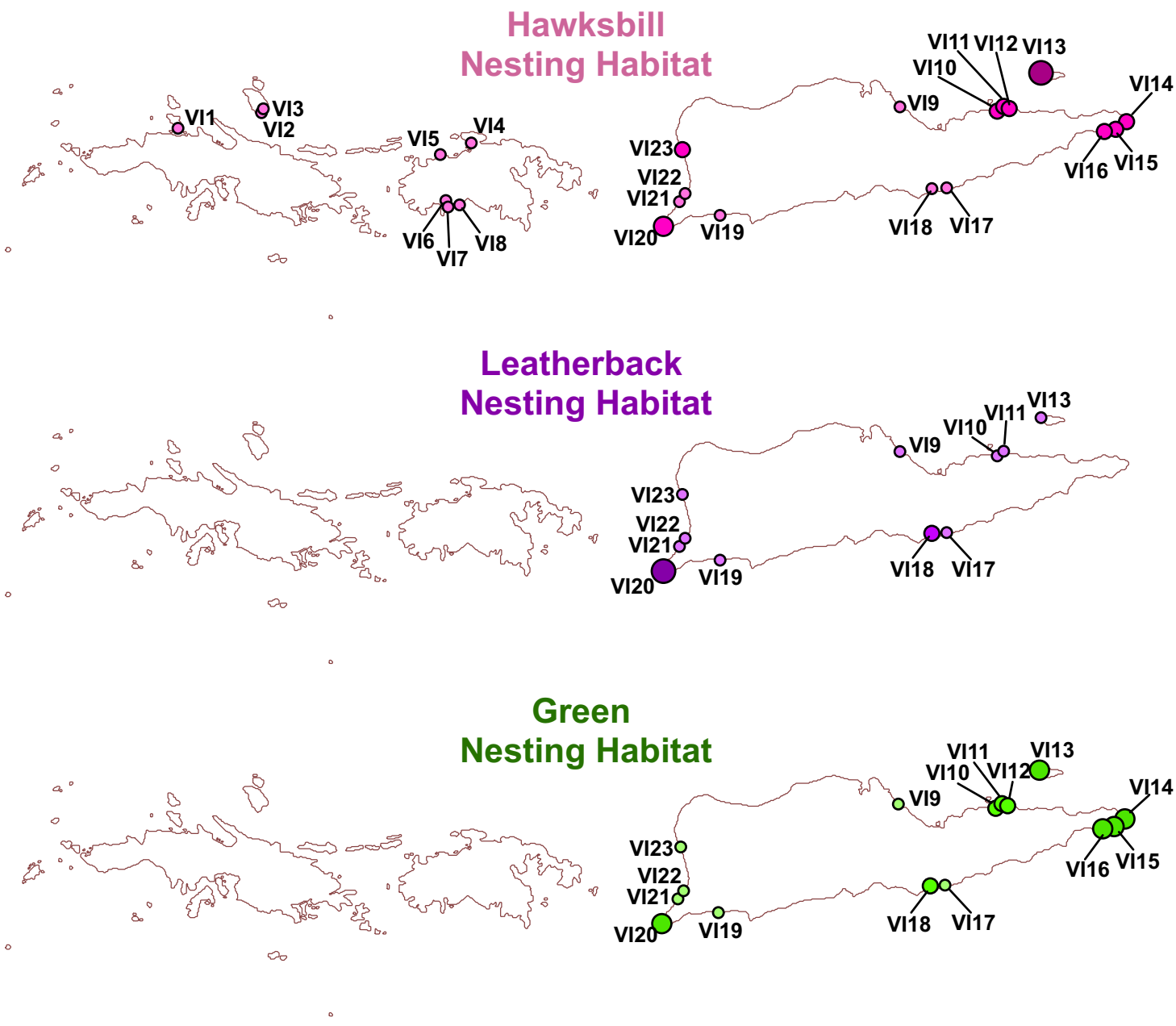
Rafe Boulon, Zandy Hillis-Starr
US National Parks Service

Kilometers
0 2.5 5 10 15 20

● Sea Turtle Nesting Habitat
GSHHS Caribbean Shoreline

N

US Virgin Islands Sea Turtle Habitat



Kilometers
0 3.75 7.5 15 22.5 30

Kilometers
0 3.5 7 14 21 28

N

Hawksbill Nesting Habitat
- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year
- 500-1000 Crawls per year

Leatherback Nesting Habitat
- <25 Crawls per year
- 25-100 Crawls per year
- 500-1000 Crawls per year

Green Nesting Habitat
- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year

GSHHS Caribbean Shoreline

US Virgin Islands Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (R)	
Killing of Nesting Females by Predators	Yes (O)	
Nest Loss to Predators	Yes (O)	Mongoose, dogs, cats, night herons, frigate birds, ghost crabs
Nest Loss to Abiotic Factors	Yes (O)	Flood and erosion (Manchenil and Sandy Point)
Egg Collection by Humans	Yes (O)	
Harassment Due to Increased Human Presence	Yes (R)	
Artificial Lighting	Yes (F)	
Pollution	Yes (U)	Beach litter/debris and sunscreen?
Beach Erosion/Accretion	Yes (O)	Caused by storms and natural beach movement
Beach Armouring/Stabilization Structures	No	
Beach Nourishment	No	Future nourishment plans exist
Recreational Beach Equipment and/or Other Obstacles	Yes (U)	Not in protected areas
Mechanized Beach Cleaning	No	
Beach Vehicular Use	Yes (O)	
Sand Mining	No	
Exotic (or Loss of Native) Vegetation	Yes (O)	
Livestock Presence on the Beach	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	Anchor damage, pollution and sedimentation
Coral Reef Degradation	Yes (U)	Anchor damage, pollution and sedimentation
Fisheries Bycatch	Yes (R)	
Hunting/Poaching	Yes (R)	
Pollution	Yes (R)	Runoff
Predators	Yes (U)	Sharks and fish
Disease/Parasites	Yes (U)	Fibropapillomas
Harassment Due to Increased Human Presence	Yes (U)	
Dredging	No	
Marina and Dock Development	No	Future development plans exist
Boat/Personal Water Craft Collisions	Yes (O)	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	No	
Entanglement	Yes (U)	Abandoned gear
Offshore Artificial Lighting	No	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

US Virgin Islands Sea Turtle Habitat

Beach Identification Codes with Beach Names			
VI1	Inner Brass	VI13	Buck Island Reef National Monument
VI2	Hans Lollik East	VI14	East End Bay
VI3	Hans Lollik Tamarind Beach	VI15	Isaac's Bay
VI4	Windswept	VI16	Jack's Bay
VI5	Francis Bay	VI17	Halfpenny
VI6	Genti	VI18	Manchenil
VI7	Cocolobo	VI19	Good Hope
VI8	Western Reef	VI20	Sandy Point National Wildlife Refuge
VI9	Pelican Cove	VI21	Stony Ground
VI10	Southgate Pond	VI22	Second Target
VI11	Prune Bay	VI23	Sprat Hall
VI12	Coakley Bay		

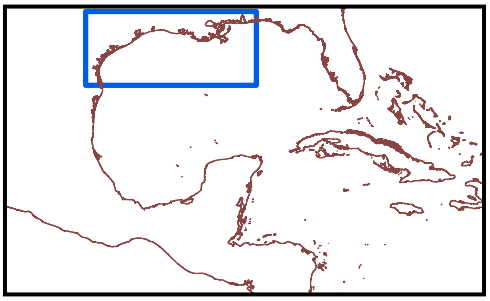
United States Sea Turtle Habitat
Texas, Louisiana, Mississippi & Alabama

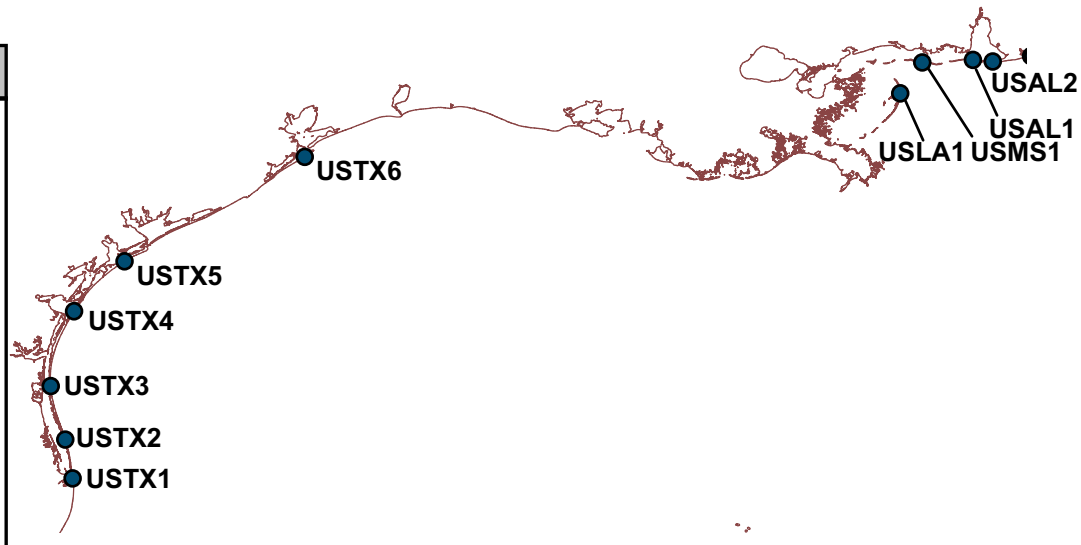
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	F
Hawksbill Turtle (*Eretmochelys imbricata*)	IN, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	N, F
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	No
Reports of illegal trade internationally	No
General public awareness of laws	Yes
Recent prosecutions or penalties	No
Enforcement considered adequate	Yes
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable





Data Providers

Donna Shaver

National Parks Service

Sandra MacPherson

US Fish and Wildlife Service

National Oceanic & Atmospheric Administration

University of Texas

Texas A&M - Galveston

Sea Turtle, Inc.

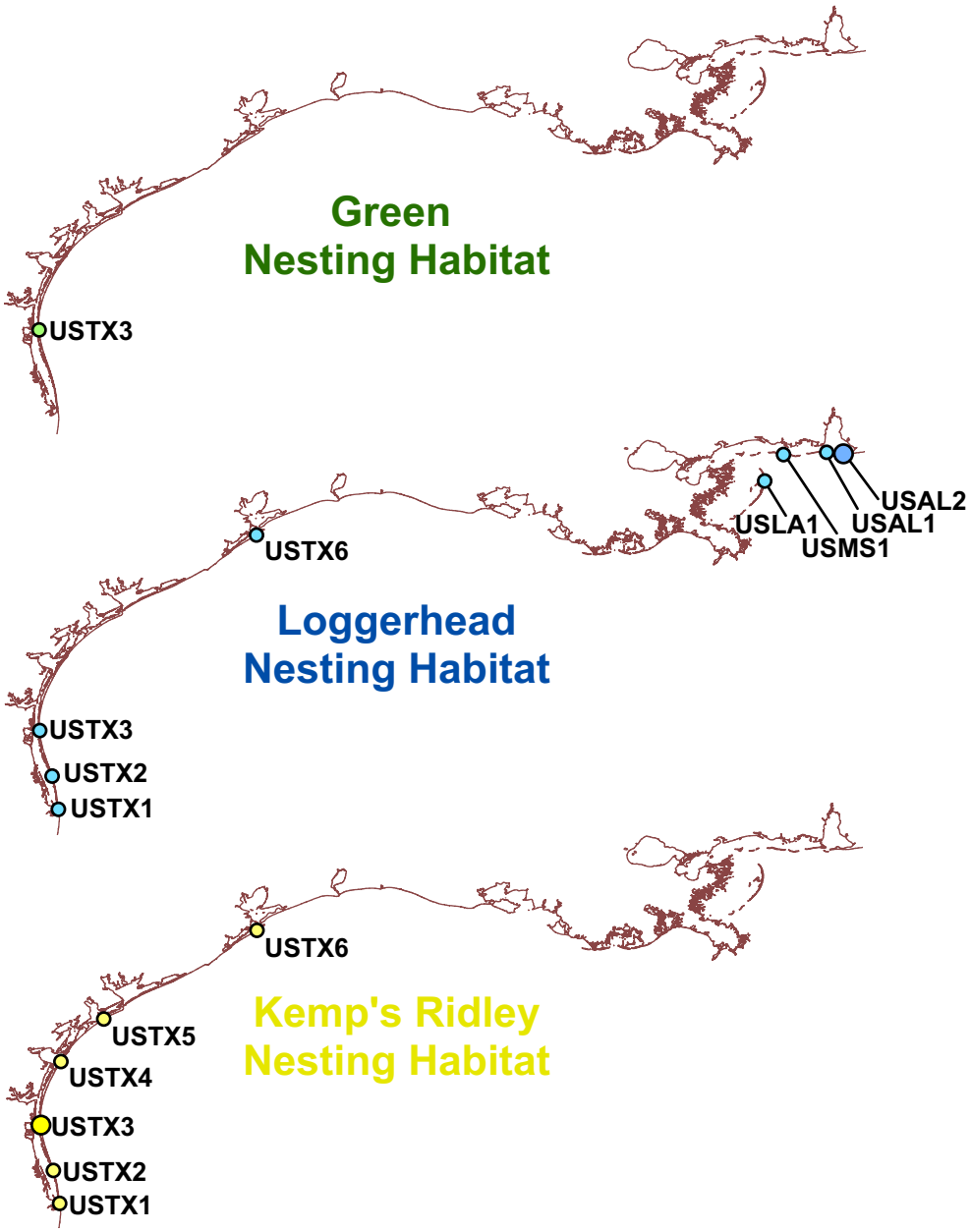
Kilometers
0 62.5 125 250 375 500

Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

United States Sea Turtle Habitat
Texas, Louisiana, Mississippi & Alabama



Green Nesting Habitat
- <25 Crawls per year

Loggerhead Nesting Habitat
- <25 Crawls per year
- 25-100 Crawls per year

Kemp's Ridley Nesting Habitat
- <25 Crawls per year
- 25-100 Crawls peryear

GSHHS Caribbean Shoreline

N

Kilometers
0 70 140 280 420 560

United States Sea Turtle Habitat
Texas, Louisiana, Mississippi & Alabama

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (R)	One case - accidental, two cases - visitors attempted to take nesting female but left when deterred by other visitors
Killing of Nesting Females by Predators	No	
Nest Loss to Predators	Yes (O)	Ghost crabs, coyotes, racoons, badgers and fire ants (invasive)
Nest Loss to Abiotic Factors	Yes (U)	High tides
Egg Collection by Humans	Yes (R)	
Harassment Due to Increased Human Presence	Yes (R)	
Artificial Lighting	Yes (R)	
Pollution	Yes (U)	Beach litter/debris
Beach Erosion/Accretion	Yes (U)	Erosion on Galveston Island; in front of seawalls (North and South Padre Island) and jetties
Beach Armouring/Stabilization Structures	Yes (R)	Nesting is occurring in front of sea walls
Beach Nourishment	Yes (R)	Galveston Island and elsewhere in front of seawalls, homes, development and on the north side of jetties
Recreational Beach Equipment and/or Other Obstacles	Yes (U)	Rare in some areas, frequent in others; turtles seem to get around these obstacles
Mechanized Beach Cleaning	Yes (FA)	In developed areas
Beach Vehicular Use	Yes (F)	
Sand Mining	No	
Exotic (or Loss of Native) Vegetation	No	
Livestock Presence on the Beach	No	
R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown frequency		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (R)	
Coral Reef Degradation	NA	No coral reefs present
Fisheries Bycatch	Yes (O)	Trawls (O), hook and line (O), gillnets (R - illegal in TX)
Hunting/Poaching	Unknown	
Pollution	Yes (U)	Marine debris
Predators	Yes (U)	Sharks
Disease/Parasites	No	
Harassment Due to Increased Human Presence	Yes (R)	Due to boat traffic
Dredging	Yes (O)	In jetty areas and bays
Marina and Dock Development	Yes (O)	
Boat/Personal Water Craft Collisions	Yes (O)	
Power Plant Entrapment	Yes (R)	
Oil and Gas Exploration, Development, Transportation	Yes (O)	
Entanglement	Yes (R)	Entangled in rope, fishing line and marine debris
Offshore Artificial Lighting	Yes (O)	
R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown frequency		

United States Sea Turtle Habitat
Texas, Louisiana, Mississippi & Alabama

Beach Identification Codes with Beach Names			
USTX1	Boca Chica Beach	USTX6	Upper Texas Coast
USTX2	South Padre Island	USLA1	Breton National Wildlife Refuge
USTX3	North Padre Island	USMS1	Gulf Islands National Seashore
USTX4	Mustang Island	USAL1	Dauphin Island
USTX5	Matagorda Island	USAL2	Bon Secour National Wildlife Refuge

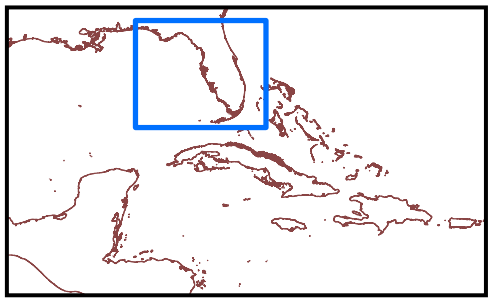
United States Sea Turtle Habitat
Florida

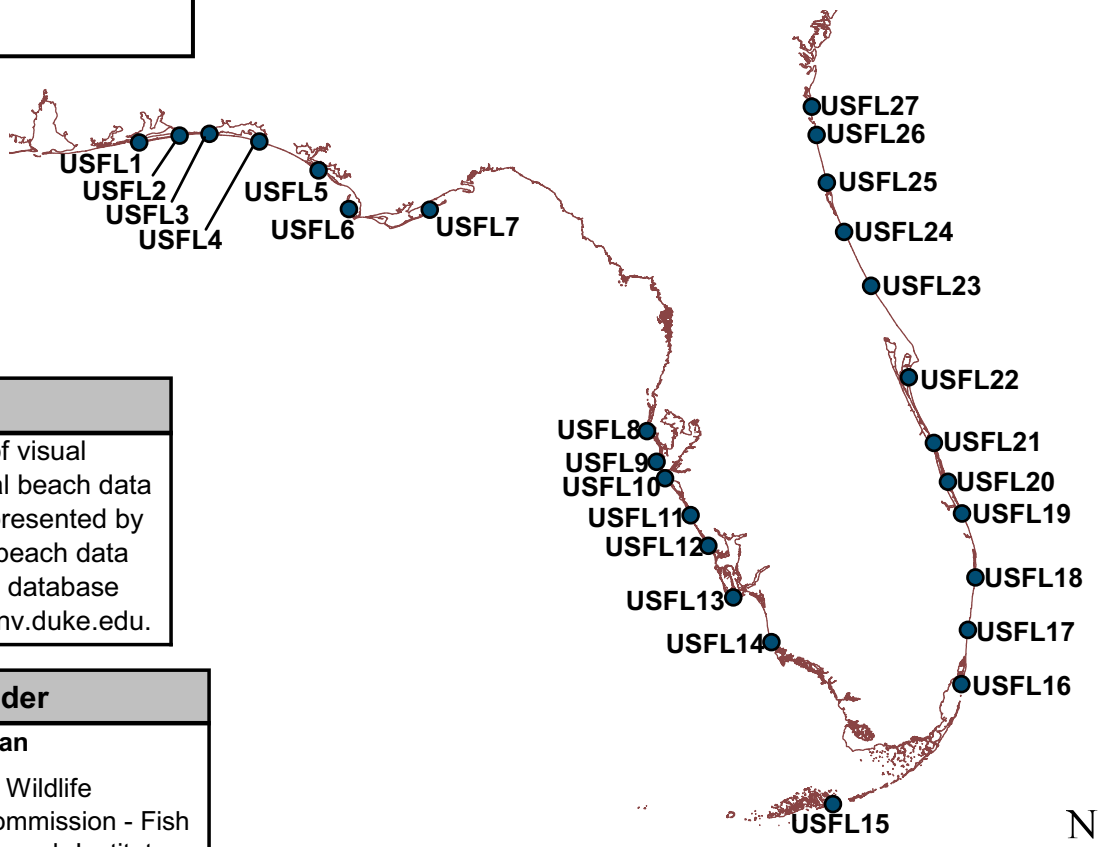
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N, F
Hawksbill Turtle (*Eretmochelys imbricata*)	IN, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	IN, F
Olive Ridley Turtle (*Lepidochelys olivacea*)	I

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	Yes*
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	No
Reports of illegal trade internationally	No
General public awareness of laws	Yes
Recent prosecutions or penalties	No
Enforcement considered adequate	Yes
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable; * For research, management and construction activities on nesting beaches





Note

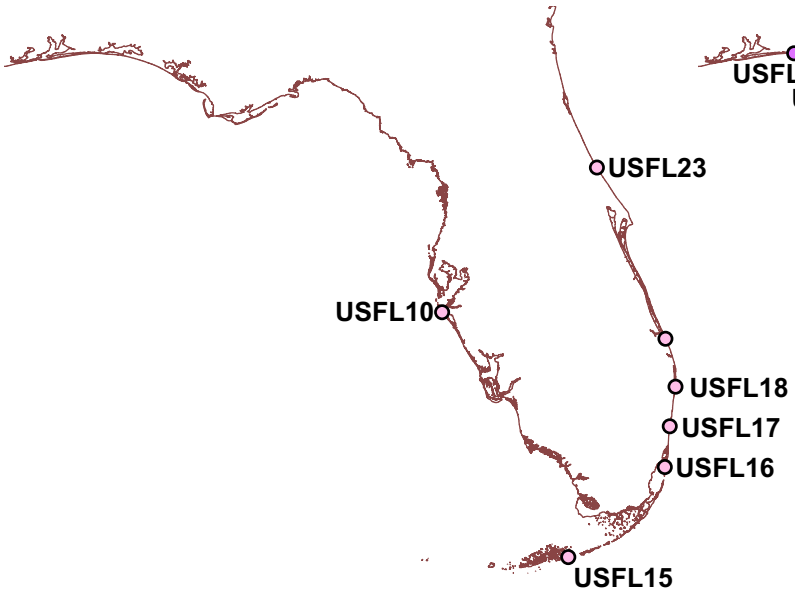
For the purposes of visual representation, individual beach data are aggregated and represented by county. For individual beach data please access the full database through http://seamap.env.duke.edu.

Data Provider

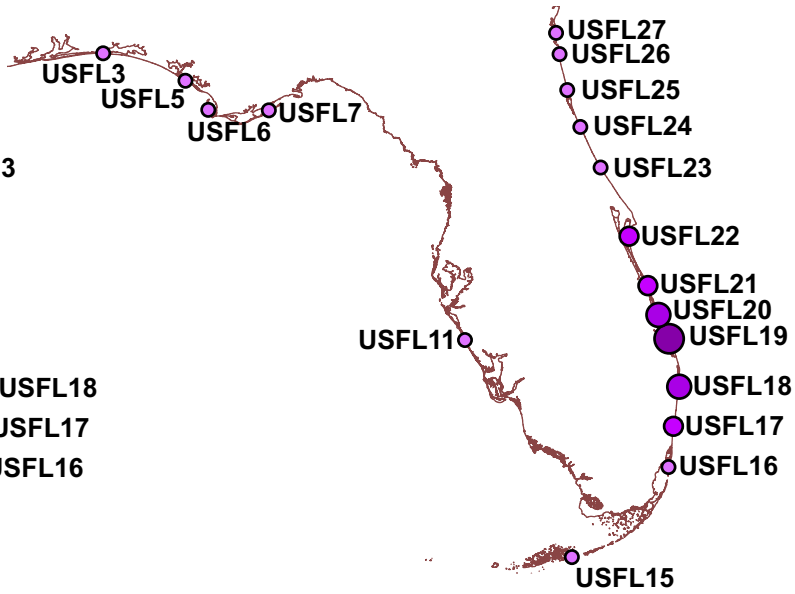
Anne Meylan

Florida Fish and Wildlife Conservation Commission - Fish and Wildlife Research Institute

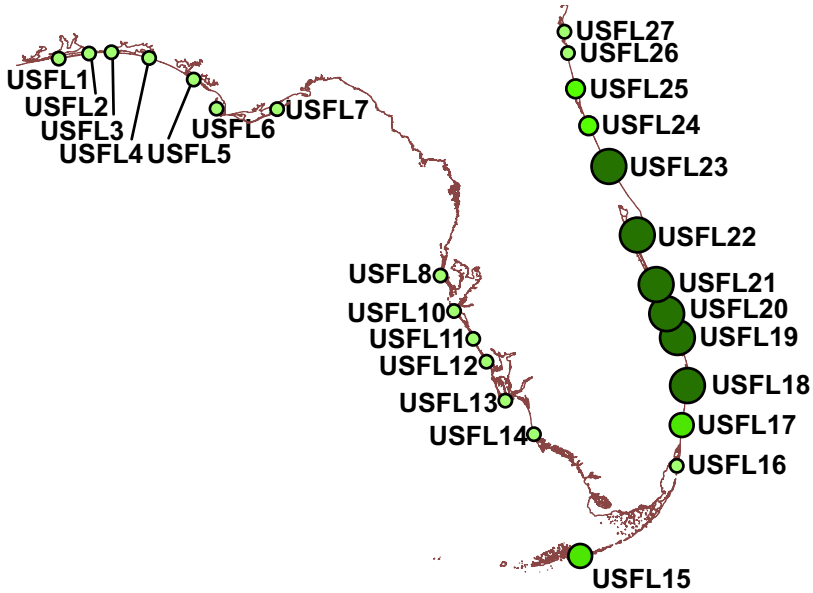
United States Sea Turtle Habitat
Florida



Hawksbill Nesting Habitat



Leatherback Nesting Habitat



Green Nesting Habitat

Hawksbill Nesting Habitat
- <25 Crawls per year

Leatherback Nesting Habitat
- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year
- 500-1000 Crawls per year

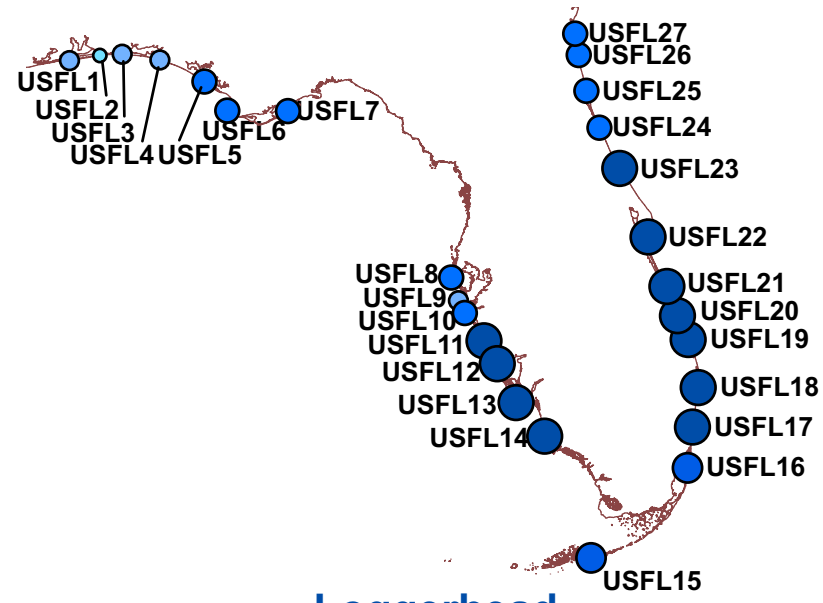
Green Nesting Habitat
- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year
- >1000 Crawls per year

GSHHS Caribbean Shoreline

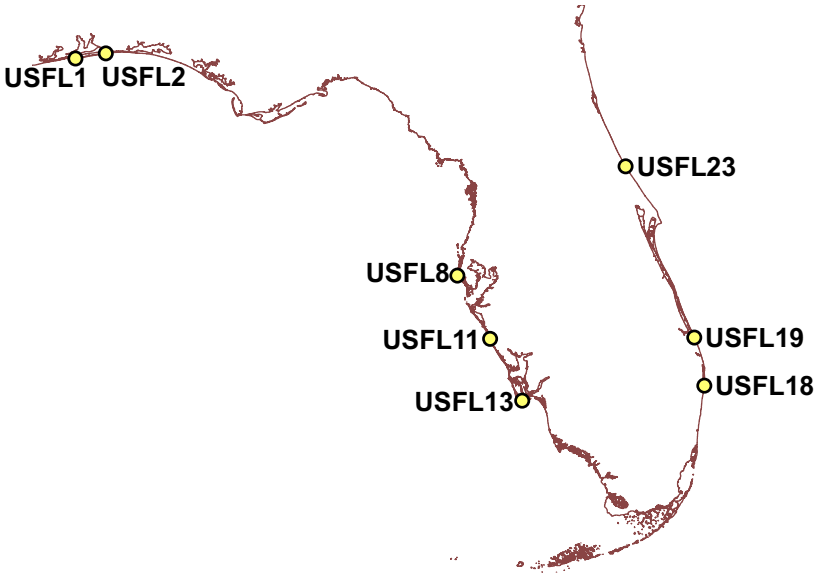
N

Kilometers
0 70 140 280 420 560

United States Sea Turtle Habitat
Florida



Loggerhead Nesting Habitat



Kemp's Ridley Nesting Habitat

Kemp's Ridley Nesting Habitat

- <25 Crawls per year
- GSHHS Caribbean Shoreline

Loggerhead Nesting Habitat

- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year
- 500-1000 Crawls per year
- >1000 Crawls per year

0 70 140 280 420 560 Kilometers

N

United States Sea Turtle Habitat Florida

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (R)	
Killing of Nesting Females by Predators	Yes (R)	
Nest Loss to Predators	Yes (F)	Racoon, bobcat, coyote, armadillo, fox, crabs and ants
Nest Loss to Abiotic Factors	Yes (F)	Erosion, tidal inundation and accretion
Egg Collection by Humans	Yes (R)	Confined to limited areas
Harassment Due to Increased Human Presence	Yes (O)	Mostly due to unguided turtle walks
Artificial Lighting	Yes (F)	Widespread
Pollution	Yes (F)	Tar in some areas, beach litter/debris widespread
Beach Erosion/Accretion	Yes (U)	Erosion in many regions - most cases are in highly developed areas
Beach Armouring/Stabilization Structures	Yes (F)	Present in most coastal counties
Beach Nourishment	Yes (F)	Widespread
Recreational Beach Equipment and/or Other Obstacles	Yes (F)	Some counties have ordinances requiring the removal of obstacles at night during nesting season
Mechanized Beach Cleaning	Yes (F)	Daily in many areas and regulated to occur after nesting surveys completed.
Beach Vehicular Use	Yes (O/F)	Limited areas open to public use; widespread access for official use
Sand Mining	No	
Exotic (or Loss of Native) Vegetation	Yes (F)	More common in southern Florida than elsewhere in state
Livestock Presence on the Beach	Yes (R)	Horseback riding in limited areas
R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown frequency		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (F)	Anchor damage, vessel groundings, propeller damage, sedimentation and pollution
Coral Reef Degradation	Yes (F)	Anchor damage, vessel groundings, propeller damage, bleaching, sedimentation, human recreation impacts and pollution
Fisheries Bycatch	Yes (U)	Trawl, hook and line, pot/trap, nets, longlines in adjacent waters
Hunting/Poaching	Yes (R)	
Pollution	Yes (F)	Agriculture, petroleum, sewage, industrial runoff, pollution and marine debris
Predators	Yes (U)	Sharks, other fishes (on hatchlings)
Disease/Parasites	Yes (F)	Fibropapillomas, epizootics due to unknown causes, trematodes
Harassment Due to Increased Human Presence	Yes (F)	Boat/personal water craft traffic
Dredging	Yes (F)	Associated with channel maintenance and nourishment
Marina and Dock Development	Yes (F)	Increased boat traffic, loss of habitat
Boat/Personal Water Craft Collisions	Yes (F)	Most common identifiable anomaly in stranded animals
Power Plant Entrapment	Yes (F)	Most turtles released alive due to monitoring requirements
Oil and Gas Exploration, Development, Transportation	Yes (U)	Oil tanker traffic, ballast water flushing and pipeline installation; no nearshore drilling
Entanglement	Yes (F)	Monofilament line, trap line. rope and netting
Offshore Artificial Lighting	Yes (O)	Especially associated with dredging operations
R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown frequency		

United States Sea Turtle Habitat
Florida

Beach Identification Codes with Beach Names			
USFL1	Escambia	USFL15	Monroe
USFL2	Santa Rosa	USFL16	Miami-Dade
USFL3	Okaloosa	USFL17	Broward
USFL4	Walton	USFL18	Palm Beach
USFL5	Bay	USFL19	Martin
USFL6	Gulf	USFL20	St. Lucie
USFL7	Franklin	USFL21	Indian River
USFL8	Pinellas	USFL22	Brevard
USFL9	Hillsborough	USFL23	Volusia
USFL10	Manatee	USFL24	Flagler
USFL11	Sarasota	USFL25	St. Johns
USFL12	Charlotte	USFL26	Duval
USFL13	Lee	USFL27	Nassau
USFL14	Collier		

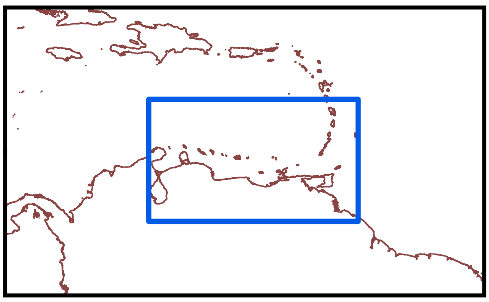
Venezuela Sea Turtle Habitat

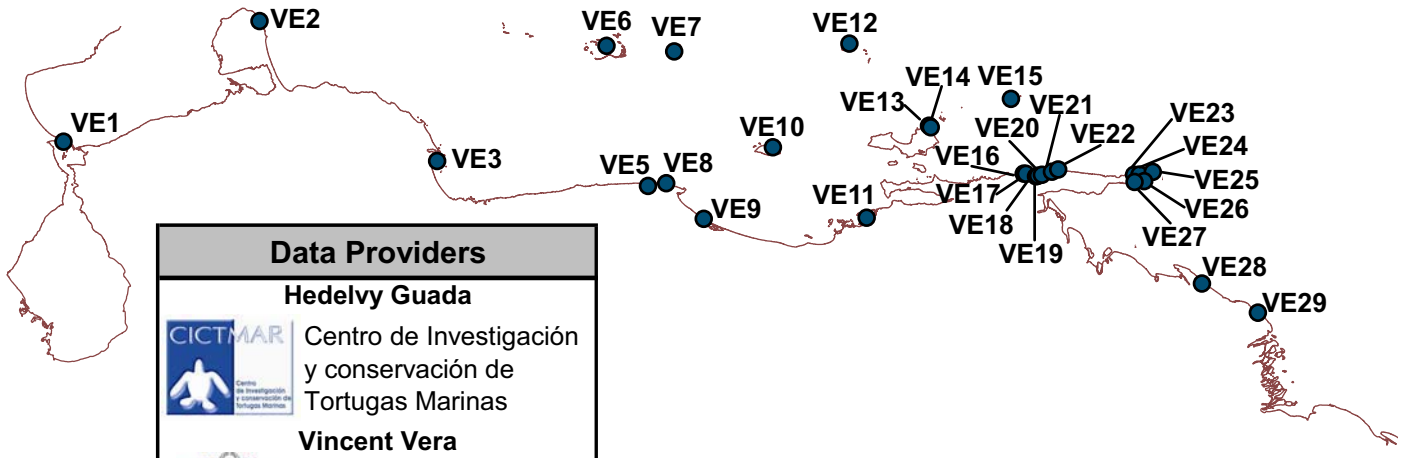
Sea Turtle Presence	
Loggerhead Turtle (*Caretta caretta*)	N, F
Green Turtle (*Chelonia mydas*)	N, F
Leatherback Turtle (*Dermochelys coriacea*)	N, F
Hawksbill Turtle (*Eretmochelys imbricata*)	N, F
Kemp's Ridley Turtle (*Lepidochelys kempii*)	A
Olive Ridley Turtle (*Lepidochelys olivacea*)	A

N = Nesting; F = Foraging; IN = Infrequent Nesting; IF = Infrequent Foraging; I = Infrequent (further detail unavailable); A = Absent

National Policy for the Protection of Sea Turtles	
Complete (indefinite) protection	Yes
Moratorium (fixed period)	–
Prohibition(s) on take	–
Closed season	–
Minimum size limits	–
Maximum size limits	–
Annual quota	–
Permits/licenses required	–
Gear restrictions	Yes
Area closures (MPA, park, reserve)	Yes
Reports of exploitation/sale nationally	Yes
Reports of illegal trade internationally	Yes
General public awareness of laws	No
Recent prosecutions or penalties	Yes
Enforcement considered adequate	No
Penalties are an adequate deterrent	Yes

E = Eggs; N = Nests; NF = Nesting Females; – = Not Applicable





Data Providers

Hedelvy Guada

Centro de Investigación y conservación de Tortugas Marinas

Vincent Vera

Oficina Nacional de Diversidad Biológica

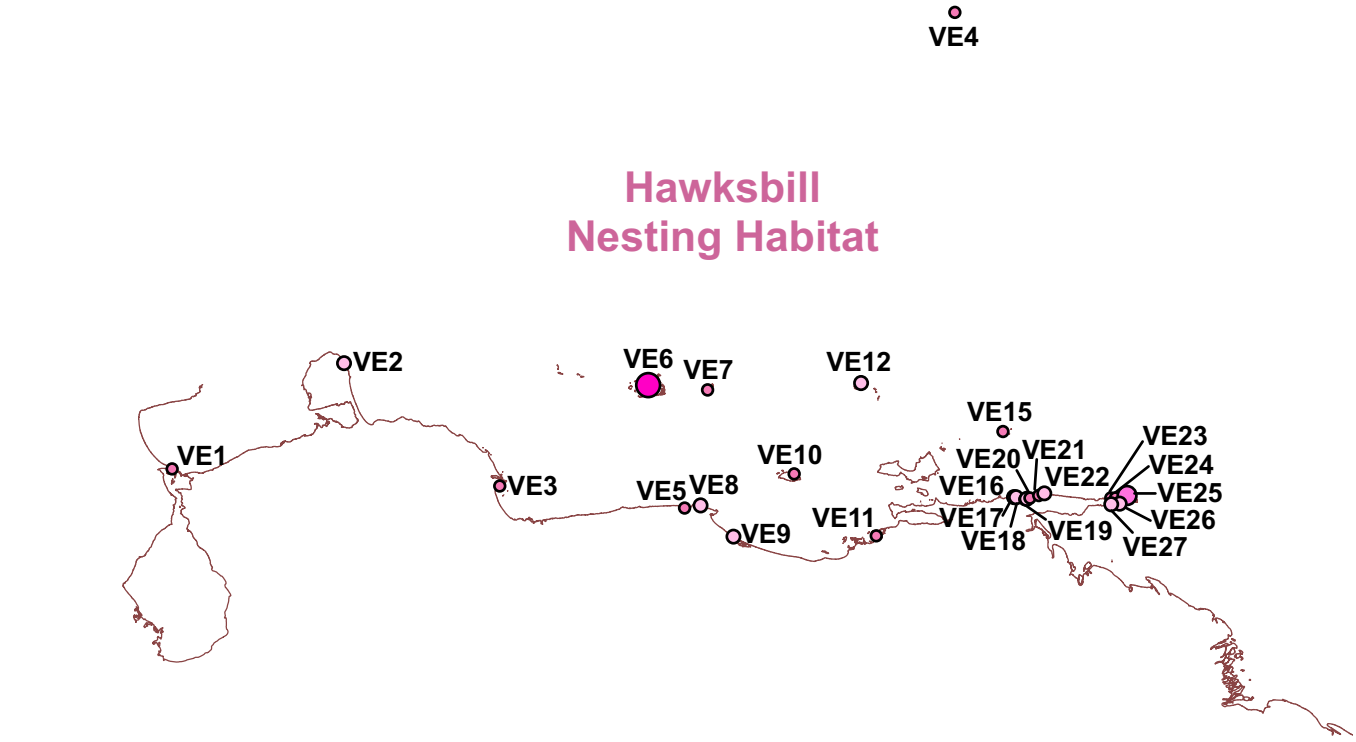
Kilometers
0 55 110 220 330 440

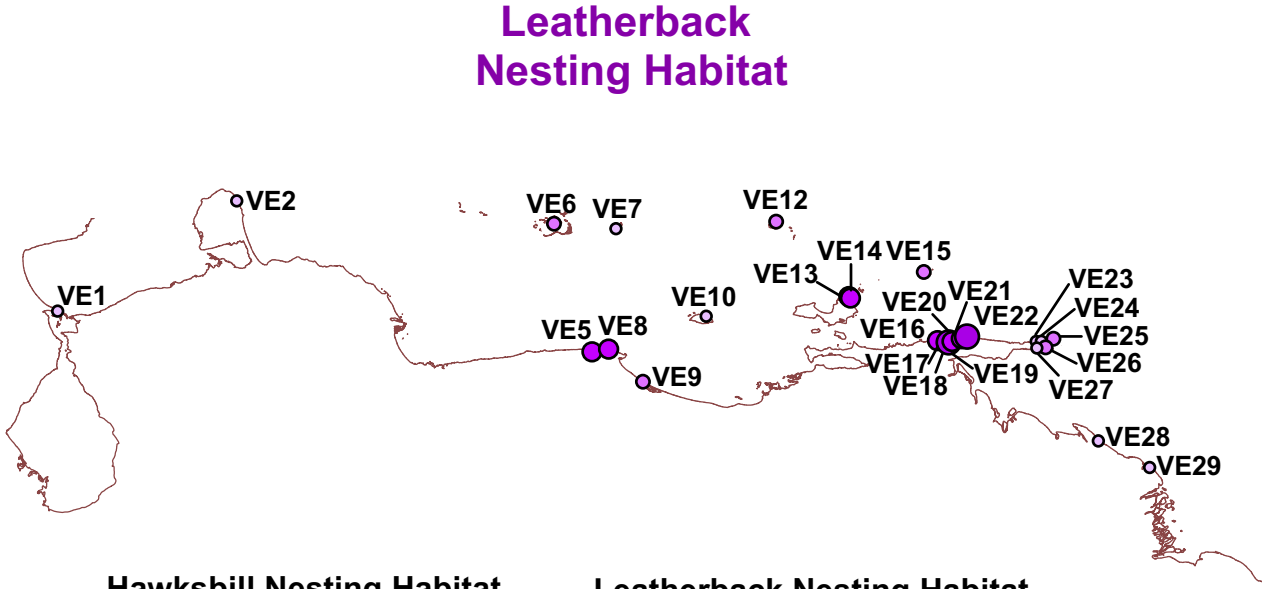
Sea Turtle Nesting Habitat

GSHHS Caribbean Shoreline

N

Venezuela Sea Turtle Habitat





Hawksbill Nesting Habitat

- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year

Leatherback Nesting Habitat

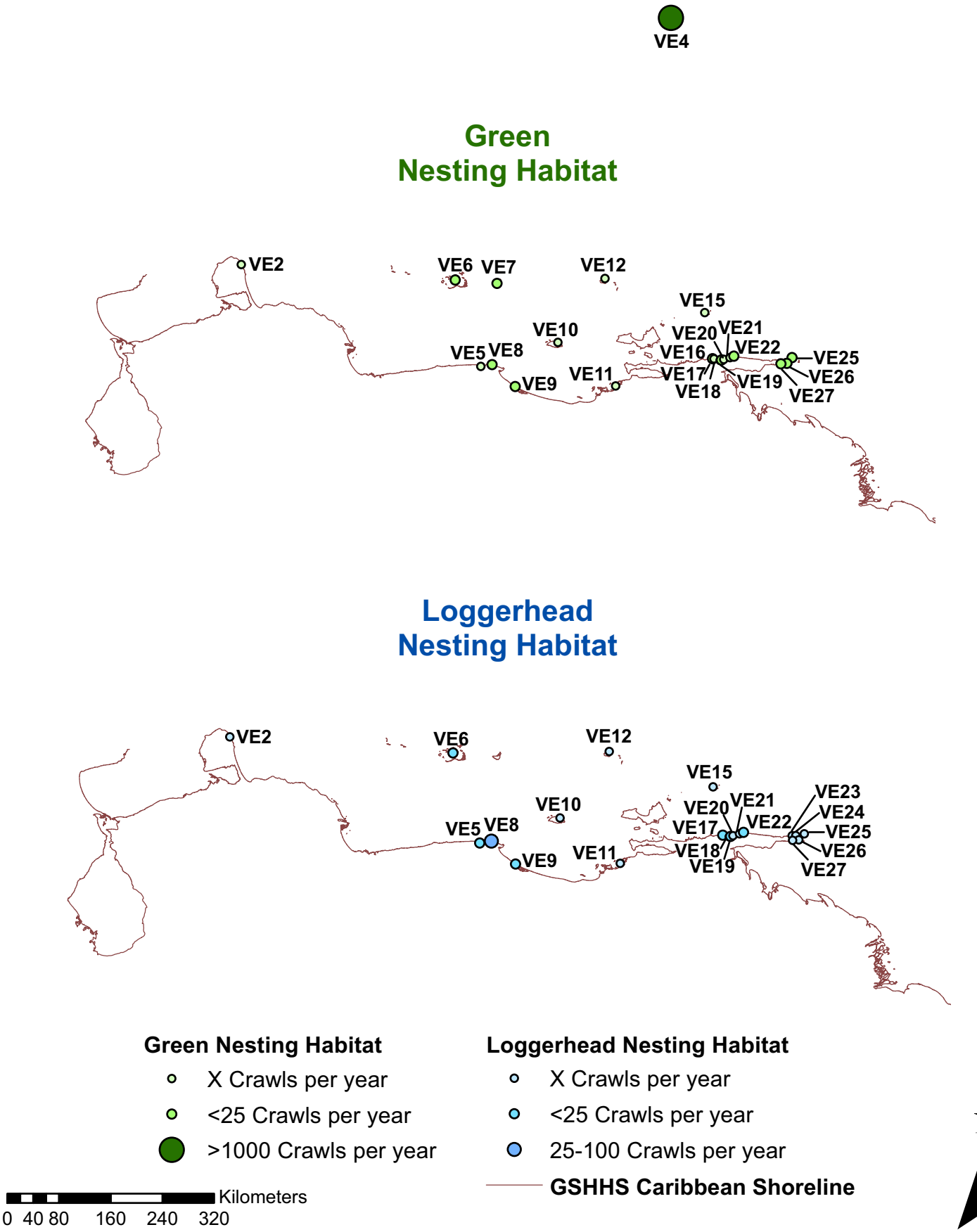
- X Crawls per year
- <25 Crawls per year
- 25-100 Crawls per year
- 100-500 Crawls per year

GSHHS Caribbean Shoreline

Kilometers
0 40 80 160 240 320

N

Venezuela Sea Turtle Habitat



Venezuela Sea Turtle Habitat

Threats to Sea Turtles - Nesting		
Killing of Nesting Females by Humans	Yes (F)	
Killing of Nesting Females by Predators	Yes (O/F)	Jaguars
Nest Loss to Predators	Yes (F)	Racoons, dogs and pigs
Nest Loss to Abiotic Factors	Yes (U)	Erosion
Egg Collection by Humans	Yes (F)	
Harassment Due to Increased Human Presence	Yes (R)	During holidays
Artificial Lighting	Yes (U)	
Pollution	Yes (U)	Petroleum/tar and beach litter/debris
Beach Erosion/Accretion	Yes (U)	Caused by storms
Beach Armouring/Stabilization Structures	Yes (O)	
Beach Nourishment	Yes (R)	
Recreational Beach Equipment and/or Other Obstacles	Yes (F)	On tourist beaches (Isla de Margarita)
Mechanized Beach Cleaning	Yes (R)	Only on Isla de Margarita
Beach Vehicular Use	Yes (O)	Intense in some areas (Miranda and Sucre States)
Sand Mining	Yes (O)	
Exotic (or Loss of Native) Vegetation	Yes (F)	On tourist beaches
Livestock Presence on the Beach	Yes (O)	Pigs on Peninsula de Paria
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Threats to Sea Turtles - Foraging/Migration		
Seagrass Degradation	Yes (U)	Sedimentation and anchor damage - little research
Coral Reef Degradation	Yes (U)	Sedimentation and anchor damage - little research
Fisheries Bycatch	Yes (F)	Gillnet, trawl, long line and pot/trap
Hunting/Poaching	Yes (F)	
Pollution	Yes (U)	Agriculture, petroleum, sewage, industrial runoff and marine debris
Predators	Yes (U)	Sharks
Disease/Parasites	Yes (U)	Fibropapillomas
Harassment Due to Increased Human Presence	Yes (U)	
Dredging	Yes (U)	
Marina and Dock Development	Yes (U)	Plans for development
Boat/Personal Water Craft Collisions	Yes (U)	
Power Plant Entrapment	No	
Oil and Gas Exploration, Development, Transportation	Yes (U)	Plans in coming years
Entanglement	Yes (O/F)	
Offshore Artificial Lighting	Yes (U)	
Occurrence Frequency: R = Rare; O = Occasional; F = Frequent; FA = Frequent in one area; U = Unknown		

Venezuela Sea Turtle Habitat

Beach Identification Codes with Beach Names			
VE1	Isla Zapara	VE16	Mapurite
VE2	Peninsula de Paraguana, Estado Falcon	VE17	Puy Puy
VE3	Golfo Triste	VE18	Cangua
VE4	Refugio de Fauna Silvestre Isla de Aves	VE19	Querepare, North Peninsula de Paria, Estado Sucre
VE5	La Sabana y Varias playas del Estado Vargas	VE20	San Juan de las Galdonas
VE6	Parque Nacional Archipielago Los Roques	VE21	El Guamo
VE7	La Orchila	VE22	Cipara, North Peninsula de Paria, Estado Sucre
VE8	Varias playas del Estado Miranda: El Banquito, entre otras	VE23	Pargo, Parque Nacional Peninsula de Paria
VE9	Parque Nacional Laguna de Tacarigua	VE24	Uquire, Parque Nacional Peninsula de Paria
VE10	La Tortuga	VE25	Extremo sureste del Parque Nacional Peninsula de Paria, Estado Sucre
VE11	Parque Nacional Mochima	VE26	Macurito
VE12	La Blanquilla	VE27	Otras playas extremo sureste Peninsula de Paria
VE13	El Agua, Isla de Margarita	VE28	Parque Nacional Delta del Orinoco
VE14	Parguito, Isla de Margarita	VE29	Isla Tobejuba, Reserve de Biosfera Delta del Orinoco
VE15	Los Testigos Archipelago		

WIDECAST

Wider Caribbean Sea Turtle Conservation Network

"Working together to build a future where all inhabitants of the Wider Caribbean Region, human and sea turtle alike, can live together in balance."

The Wider Caribbean Sea Turtle Conservation Network (WIDECAST) is a regional coalition of experts and a Partner Organization to the U.N. Environment Programme's Caribbean Environment Programme. WIDECAST was founded in 1981 in response to a recommendation by the IUCN/CCA *Meeting of Non-Governmental Caribbean Organizations on Living Resources Conservation for Sustainable Development in the Wider Caribbean* (Santo Domingo, 26-29 August 1981) that a "Wider Caribbean Sea Turtle Recovery Action Plan should be prepared ... consistent with the Action Plan for the Caribbean Environment Programme."

WIDECAST's vision for achieving a regional recovery action plan has focused on bringing the best available science to bear on sea turtle management and conservation, empowering people to make effective use of that science in the policy-making process, and providing a mechanism and a framework for cooperation within and among nations. By involving stakeholders at all levels and encouraging policy-oriented research, WIDECAST puts science to practical use in conserving biodiversity and advocates for grassroots involvement in decision-making and project leadership.

Emphasizing initiatives that strengthen capacity within participating countries and institutions, the network develops and replicates pilot projects, provides technical assistance, enables coordination in the collection, sharing and use of information and data, and promotes strong linkages between science, policy, and public participation in the design and implementation of conservation actions. Working closely with local communities and resource managers, the network has also developed standard management guidelines and criteria that emphasize best practices and sustainability, ensuring that current utilization practices, whether consumptive or non-consumptive, do not undermine sea turtle survival over the long term.

With Country Coordinators in more than 40 Caribbean nations and territories, WIDECAST is uniquely able to facilitate complementary conservation action across range States, strengthening and harmonizing legislation, encouraging community involvement, and raising public awareness of the endangered status of the region's six species of migratory sea turtles. As a result, most Caribbean nations have adopted a national sea turtle management plan, poaching and illegal product sales have been reduced or eliminated at key sites, many of the region's largest breeding colonies are monitored on an annual basis, alternative livelihood models are increasingly available for rural areas, and citizens are mobilized in support of conservation action. You can join us! Visit www.widecast.org for more information.

WWW.WIDECAST.ORG