



**INTER-AMERICAN CONVENTION FOR THE
PROTECTION AND CONSERVATION OF SEA
TURTLES**

IAC Index Nesting Beach Data Analysis (2009-2020)

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Inter-American Convention for the Protection and Conservation of Sea Turtles

IAC Index nesting beach data analysis (2009-2020)

CIT-CC18-2021-Tec.19

Prepared by:
Luz Helena Rodríguez and Jeffrey A. Seminoff

IAC Secretariat • Virginia, USA

This report is intended to provide the IAC Member Countries with a view of the index nesting beach data that has been provided as per the adopted IAC protocols for reporting nesting beach abundance information. The first version of this report was prepared by Dr. Jeffrey A. Seminoff delegate of the United States to the IAC Scientific Committee and his research assistant Mr. Matthew Steinwurtzel in 2014. It has been established by the IAC Scientific Committee that this document is to be updated every five years, and it was last updated in 2018 by Ms. Luz Helena Rodríguez, IAC technical assistant with help of Dr. Jeffrey Seminoff. However, per the request from COP 10.1 (2021) this interim update was completed in 2021. The following 5-year update will be in 2023 and presented to the COP11. The report is included in the IAC Technical Document series CIT-CC18-2021-Tec.19

Introduction

During the 9th Meeting of the IAC Scientific Committee Meeting in Buenos Aires, Argentina, the IAC Scientific Committee Working Group on Nesting Trend Analysis reported the results of a study to examine the value of IAC Annual Report data for monitoring changes in nesting abundance for sea turtles in the IAC countries (Document CIT-CC10-2013-Tec.5; Selecting Index Nesting Beaches in the IAC Region and Data Collection Guidelines). The goals of this report were 1) to explain why the IAC Scientific Team recommends the use of real numbers instead of ranges for tracking or monitoring long-term changes in nesting abundance, 2) to describe the advantages and disadvantages of reporting only for nesting index sites rather than all sites in a country, and 3) to develop guidelines for determining which nesting beaches should be considered index sites within IAC countries. Based on this report, the IAC Scientific Committee agreed that for future IAC Country Annual Reports, each country will report real nesting numbers (versus ranges in numbers) and will provide this information for species-specific index nesting beaches in each country. During the 10th Meeting of the IAC Scientific Committee Meeting in Tegucigalpa, Honduras, the IAC Index Beach Working Group reported the results of a study to examine the value of IAC Annual Report data for monitoring changes in nesting abundance for sea turtles in the IAC Member Countries. During the meeting, each Scientific Committee Member was asked to provide a summary of the proposed index sites for each sea turtle species nesting in their country. At the 11th meeting of the IAC Scientific Committee, the first report was prepared with the goal that this report will be updated every five years. In line with this plan, the report was updated as part of the activities of the 15th meeting of the Scientific Committee. Highlighting the importance and usefulness of this information, the 10th IAC Conference of Parties requested a preliminary update to be presented at the second part of the COP10 in 2022, therefore this update was included in the activities for the 18th meeting of the Scientific Committee. The current document summarizes all nesting data provided so far and provides a country-by-country and a species-by-species account of how nesting abundance has changed over the last 11 years (2009-2020). This update includes information reported in the 2021 and earlier IAC Annual Reports or until the last nesting season

reported by each country. To carry out the update of this document the authors take into account the beginning and the end of the nesting season per sea turtle species at each index nesting beach reported.

It is acknowledged that 2020 was an anomalous year, as some of the index beaches remained closed due to Covid 19 Pandemic restrictions preventing their monitoring.

We recognize that 11 years of nesting abundance data is insufficient for determining population trends, but by continuing with this reporting strategy we expect that more years of data will eventually allow for a strong understanding of sea turtle population trends.

Note: This document has been updated in October 2019 to reflect new information collected for annual nest counts at the Quinta Playa Nesting Beach in Galapagos, Ecuador

Nesting Beach Data Reported To Date

The countries that have provided information herein include Belize, Brazil, the Caribbean Netherlands, Costa Rica, Ecuador, Guatemala, Honduras, Mexico, the United States, and Venezuela. The list of index sites approved by IAC Countries can be found in the [IAC website](#). The specific index sites for each country/species for this report are listed in Table 1.

Due to monitoring constraints or changes in methodology, Mexico has requested removing the following beaches as index beaches: Mexiquillo (reported in 2009-2018); Chenkan, Camp (reported in 2009-2019); Platanitos (reported in 2009-2019); Mismaloya (reported in 2009-2019); and Maruata, for this reason, this will be the last report including them. Also, Mexico has requested grouping all Quintana Roo beaches as Xcacel, Chemuyil, Xel Ha, Aventuras DIF (Previously Puerto Aventuras), Q. Roo.

Ecuador reported nesting of *Dermochelys coriacea* (5 nests in total) in San Lorenzo, La Botada and Playita (Machalilla) in 2021, which is exceptional since there are no previous records reported. Graphs of the trends of *Eretmochelys imbricata* in Playita were also included with data from the 2017-2018 season, and of *Lepidochelys olivacea* in San Lorenzo and La Botada, with data from 2012. The name of Playa Chocolatera was replaced by Playa Punta Brava.

Additionally, this is the first report that includes data from index beaches in Honduras, as the information just became available this year to IAC.

Table 1. Summary of Index Nesting Beach data provided by IAC countries in their Annual Reports. DC = *Dermochelys coriacea*, CM = *Chelonia mydas*, LO = *Lepidochelys olivacea*, LK = *Lepidochelys kempii*, CC = *Caretta caretta*, EI = *Eretmochelys imbricata*.

Name of beach	DC	CM	EI	CC	LO	LK
Belize (2)						
Gales Point			x			
Bacalar Chico Marine Reserve		x		x		
Brazil (12)						
Comboios	x			x		
Povoação	x			x		
Interlagos (Previously Busca vida and Santa Maria)			x	x		
Guarajuba (Previously Barra de Jacuibe, Guarajuba and Itacimirim)			x	x		
Praia do Forte			x	x		
Farol (Previously Barra do Furado, Farol, Farolzinho, Maria Rosa)				x		
Berta			x			
Pipa			x			
Mangue Seco					x	
Coquieros					x	
Pirambu					x	
Trindade Island		x				
Caribbean Netherlands (3)						
Klein Bonaire, Bonaire		x	x	x		
Zeelandia, St. Eustatius	x	x				
Playa Chikitu, Bonaire		x				
Costa Rica- Pacific (9)						
Isla Murcielago		x				
Nancite					x	
Naranjo		x			x	
Cabuyal		x				
Nombre de Jesus		x				

Name of beach	DC	CM	EI	CC	LO	LK
Punta Pargos		x				
Playa Grande		x				
Ostional					x	
Hermosa					x	
Costa Rica – Atlantic (4)						
Tortuguero	x	x				
Pacuare Norte	x					
Mondonguillo	x					
Cahuita			x			
Ecuador (9)						
San Lorenzo		x			x	
La Botada	x	x			x	
Playa Punta Brava (Antes Chocolatera)		x			x	
Playa Tres Cruces		x			x	
PlayaMar Bravo		x			x	
Playita (Machalilla)		x	x		x	
Quinta Playa (Galapagos)		x				
Barahona (Galapagos)		x				
Las Bachas (Galapagos)		x				
Guatemala (2)						
Hawai	x				x	
La Barrona					x	
Honduras – Atlantic (3)						
Plaplaya	x					
Pumpkin Hill, Utila			x			
Cayos Cochinos			x			
Honduras – Pacific (2)						
Punta Ratón					x	
El Venado					x	
Mexico – Atlantic (8)						
Rancho Nuevo, Tamps		x		x		x
Barra del Tordo, Tamps		x		x		x
Altamira, Tamps		x		x		x
Mirama, Tamps						x
Lechuguillas, Ver		x	x			x
Isla Aguada Camp		x	x			x

Name of beach	DC	CM	EI	CC	LO	LK
Las Coloradas/Rio Lagartos, Yuc		x	x	x		
Xcacel, Chemuyil, Xel Ha; Aventuras DIF (Previously Puerto Aventuras), Q. Roo		x		x		
Mexico – Pacific (8)						
El Verde, Sin	x				x	
Nuevo Vallarta, Nay					x	
Chalacatepec, Jal					x	
Tierra Colorada, Gro	x	x			x	
Cahuitan, Oax	x					
Escobilla, Oax	x				x	
Barra de la Cruz, Oax	x	x			x	
Colola, Mich		x				
United States – Atlantic (7)						
Culebra Island, Puerto Rico	x					
Vieques Island, Puerto Rico	x	x	x			
Mona Island, Puerto Rico			x			
Buck Island National Mon.	x	x				
Sandy Point NWR, Virgin Is.	x	x	x			
Florida Index Beaches	x	x		x		
Texas (South Padre Island)						x
United States – Pacific (2)						
French Frigate Shoals (HI)		x				
Hawaii			x			
Venezuela (13)						
Querepare	x			x		
Cipara	x	x		x		
Macuro	x	x	x			
La Caracola (Edo. Nueva Espa.)	x					

Name of beach	DC	CM	EI	CC	LO	LK
Hotel Dunes (Edo. Nueva/Esp.)			x			
Cardon Beach (Edo. Nueva Es.)			x			
Parguito Beach (Edo. Nueva Es.)			x	x		
Hotel Portofino (Edo. Nueva Es)			x			
Beaches between Moron and Yzacuy			x	x		
RFS Isla de Aves		x	x			
Playa El Agua	x					
Playa El Humo	x					
Playa La Zaragoza	x					

Summary and Recommendations

The goal of this report is to provide information on nesting beach abundance for all IAC countries that host sea turtle nesting activity and hence offer the IAC Parties information on the conservation status of sea turtles in the IAC Region based on the data submitted annually by the Convention member countries. However, of the 13 total countries with nesting, data from only ten countries are included in this report. These data reflect nesting abundance for six sea turtle species that are distributed among 84 index nesting sites for which data were submitted. Graphical summaries of the data are provided by country, nesting beach, and species (Pages 11-38). Based on our preliminary analyses, we have developed a set of recommendations that we believe will help ensure that the IAC is best suited to recognize when changes in nesting abundance occur within the region that may have major conservation implications.

Recommendations

1. The IAC Scientific Committee recommends that IAC Countries provide real number data rather than ranges for nesting beach abundance, as this is the best way to evaluate changes in population status. The IAC Secretariat should continue to encourage IAC countries to do so when filling out the information in the IAC Annual Report.
2. The IAC Secretariat should encourage each country to provide the methodology for how they arrived at their nesting abundance values. This may include a short description of how they collected data each year and if so, what changes in their techniques have taken place since the previous data report. In addition, it is encouraged that information is provided regarding the beginning, end, and peak months of the nesting season for each species at each beach. Any changes in monitoring effort at the beaches should be reported at the time that data are provided to IAC.
3. The IAC Scientific Committee recommends that countries report numbers of observed females or number of clutches, as these are the two most reliable data forms. Other data types such as estimated females or emergence/track counts based on incomplete survey effort should be avoided. See IAC Document [CIT-CC10-2013-Tec.5](#) for more information.
4. The IAC Scientific Committee recommends that countries maintain consistency in the [index nesting beaches](#) for which data are reported each year. See IAC Document [CIT-CC10-2013-Tec.5](#) for more information on how to select sea turtle index beaches. **IAC countries should report any changes to their list of index beaches to the IAC Secretariat to be noted in this report.**

5. The IAC Secretariat encourages all countries to provide data for all index beaches for each year. Provision of partial data or abundance counts that do not have a standardized collection technique should be avoided. See IAC Document [CIT-CC10-2013-Tec.5](#) for more information. When no data or only partial data are provided for any given index site, the Reporting Countries should provide a clear explanation for why all data were not provided.
6. The IAC Scientific Committee recommends that an update to this Index Nesting Beach Report is prepared every 5 years, with a final report submitted upon completion to the IAC Consultative Committee and the Conference of the Parties. The next 5-year report is scheduled for 2023.
7. The IAC Scientific Committee recommends that the trend of green turtles in Galapagos (Ecuador), Isla Aves (Venezuela) and Tortuguero (Costa Rica) are observed closely, along with the conditions in foraging areas.
8. The IAC Scientific Committee recommends including a data field in the IAC Annual Report Part V nesting information, where countries clearly indicate the year when the nesting season started and finished.

Analysis of Nesting Trends

Common Name: Leatherback

Scientific Name: *Dermochelys coriacea*

IUCN Red List Categories:

Global: Vulnerable

East Pacific: Critically Endangered

Northeast Indian: Data Deficient

Northwest Atlantic: Least Concern

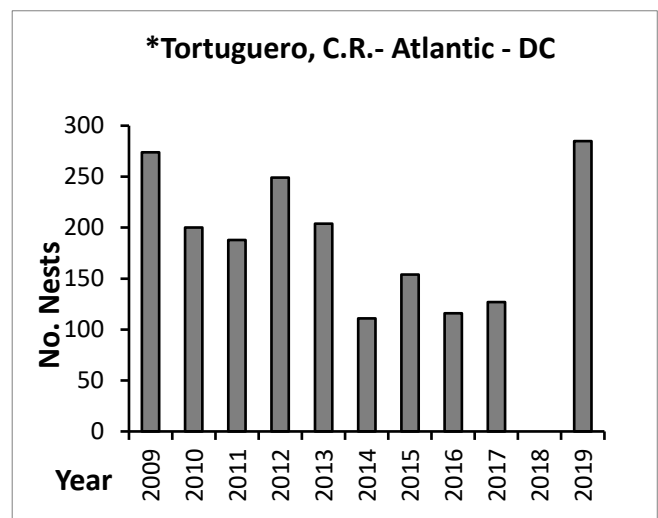
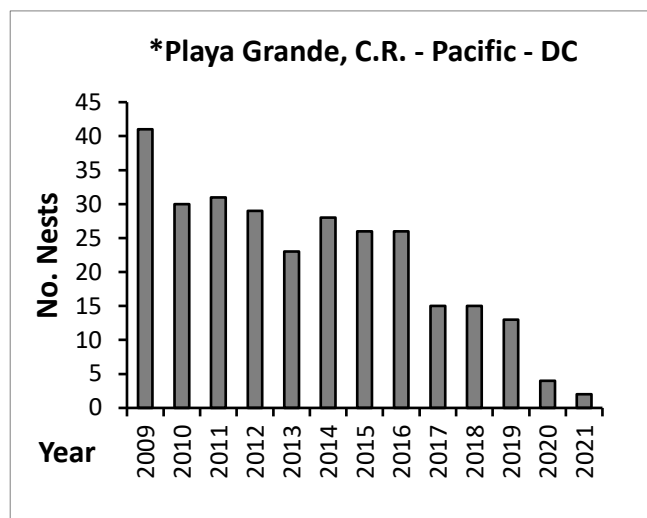
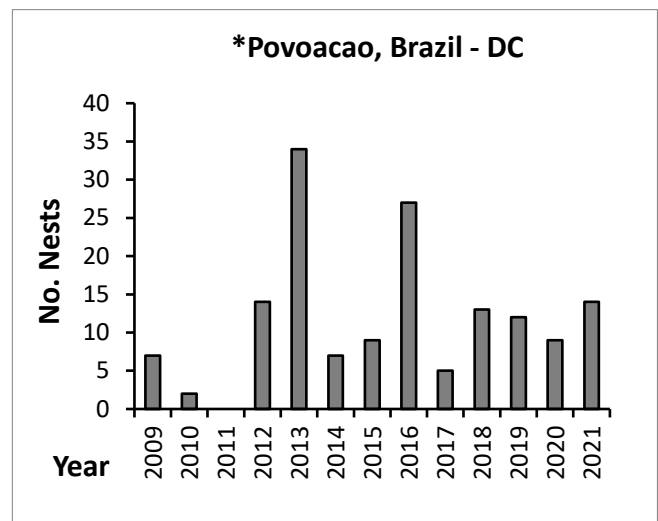
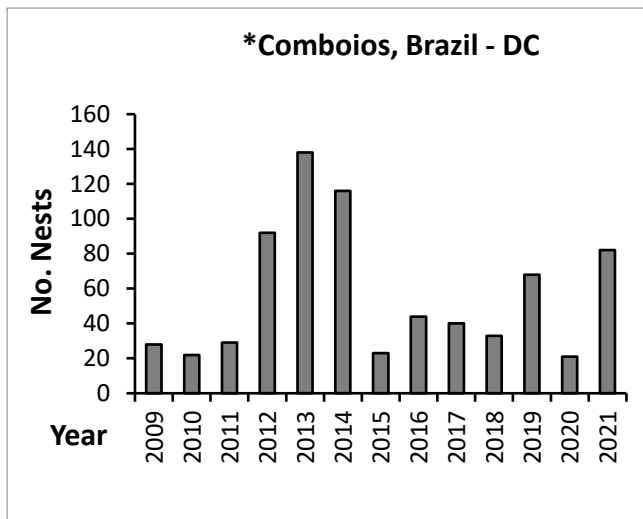
Southeast Atlantic: Data Deficient

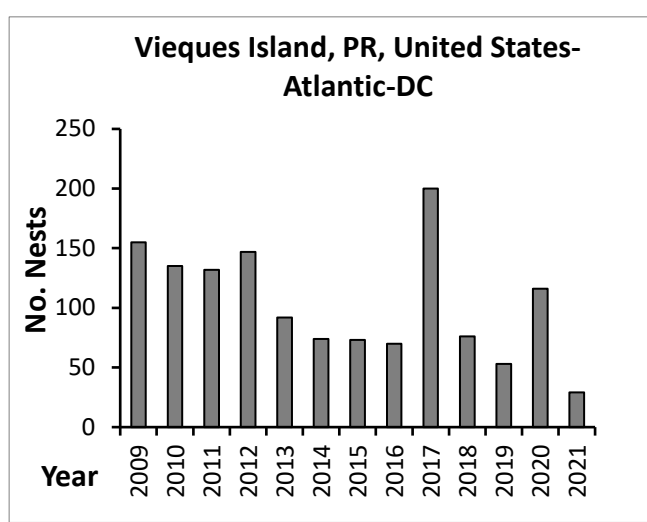
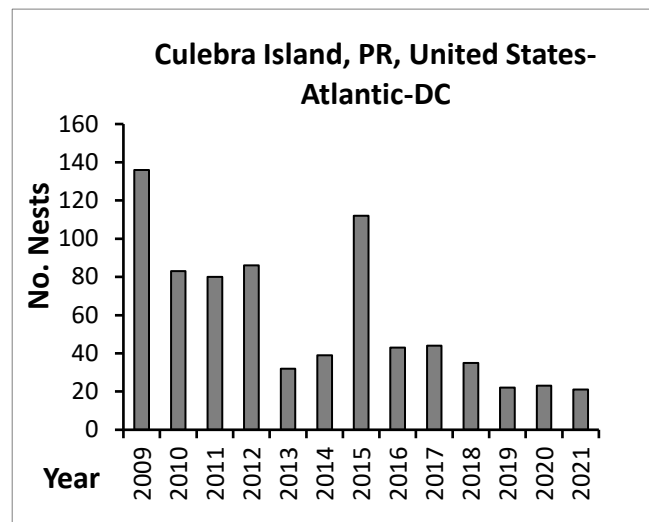
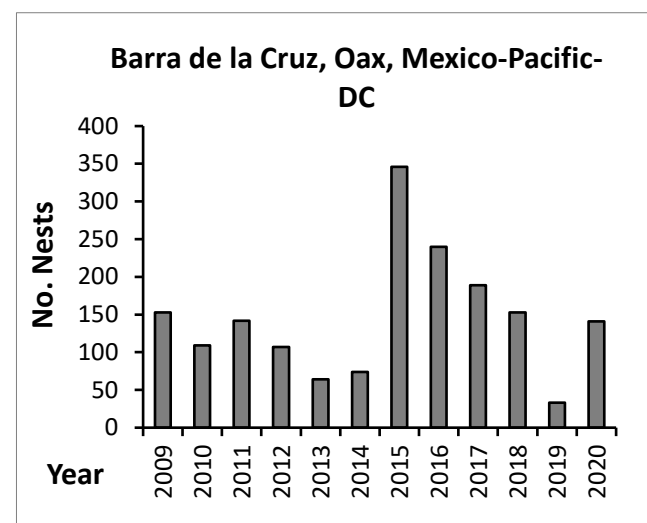
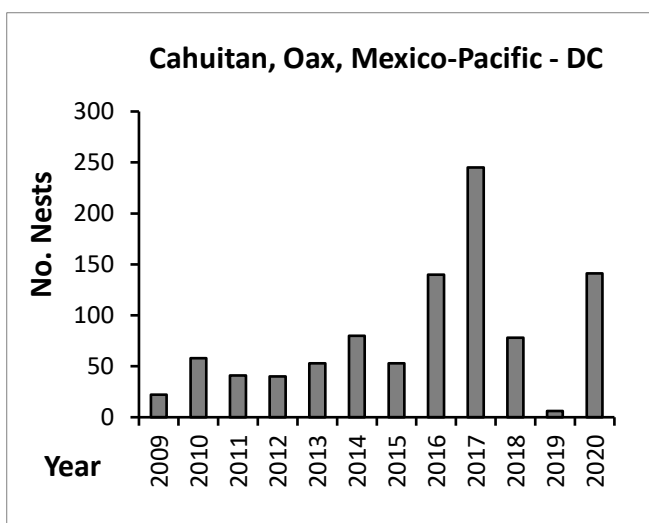
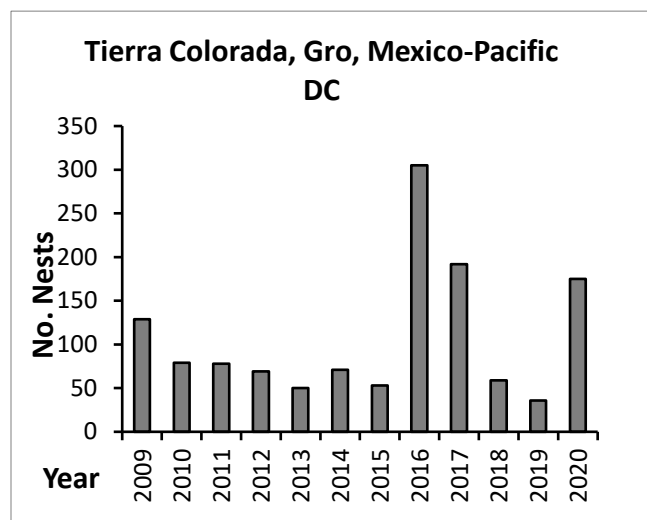
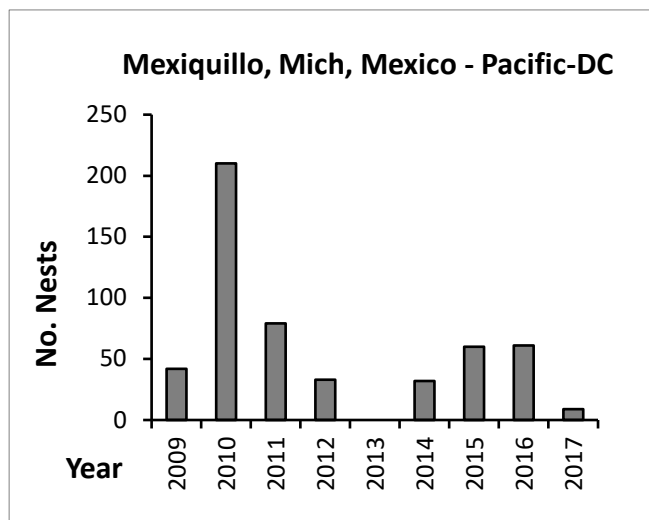
Southwest Atlantic: Critically Endangered

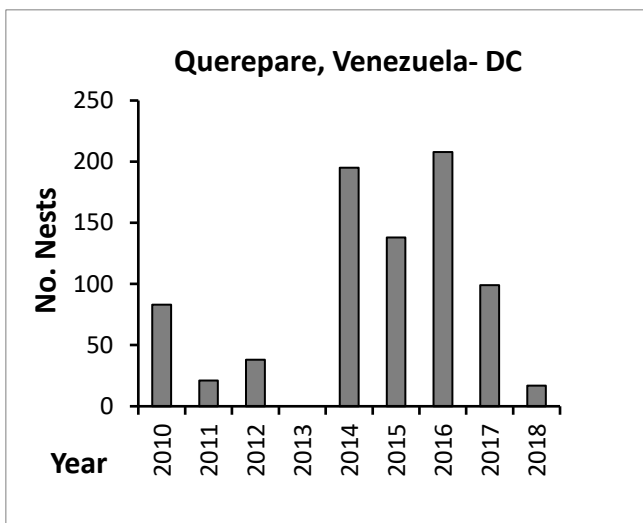
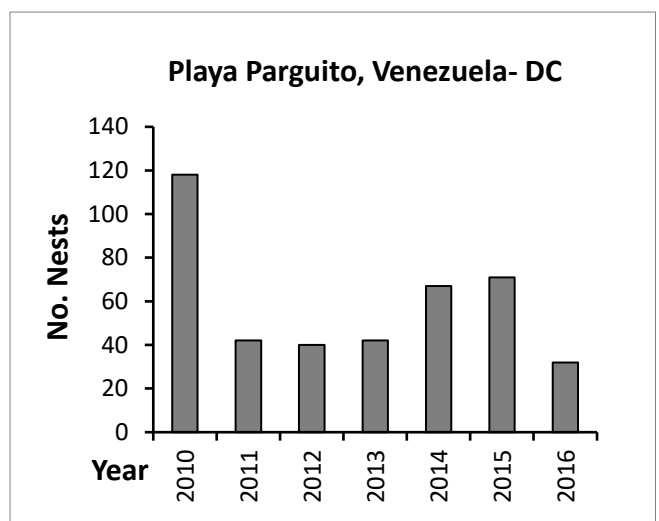
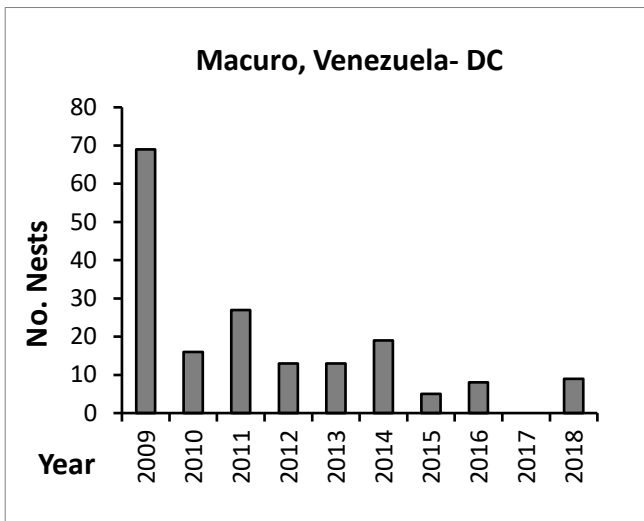
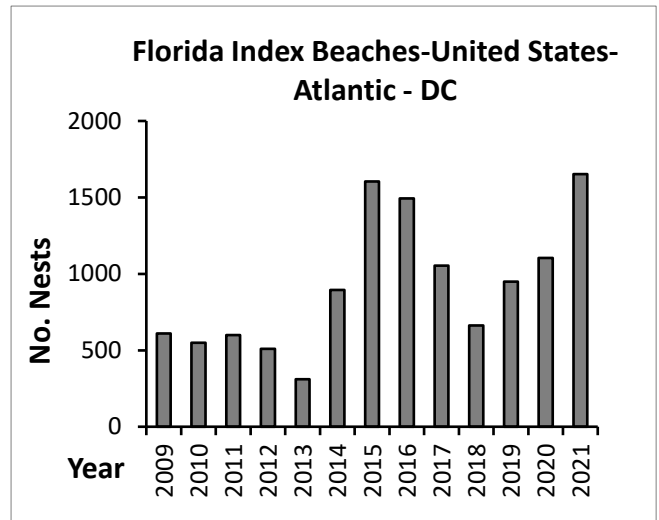
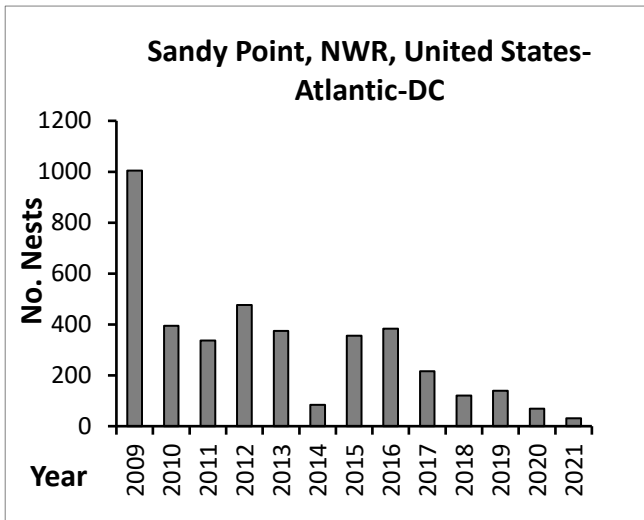
Southwest Indian: Critically Endangered

West Pacific: Critically Endangered

**Beaches monitoring impacted by COVID-19 pandemic restrictions in 2020-2021*







Common Name: Green Turtle

Scientific Name: *Chelonia mydas*

IUCN Red List Categories:

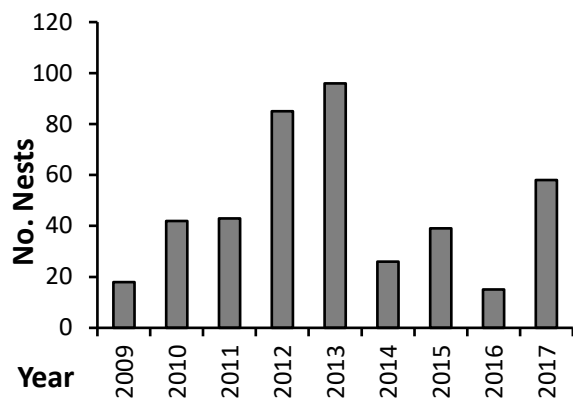
Global: Endangered

Hawaiian Subpopulation: Least Concern

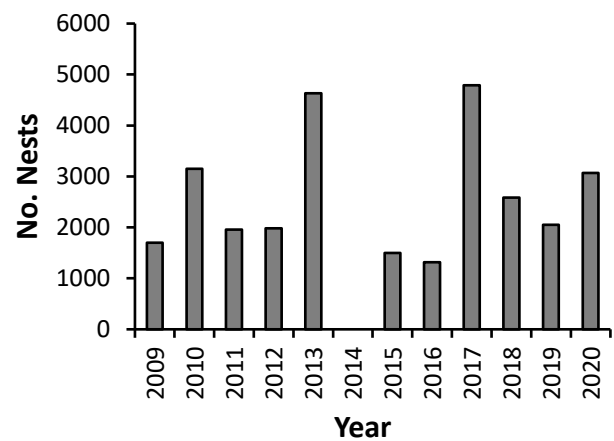
**Beaches monitoring impacted by COVID-19 restrictions in 2020-2021*



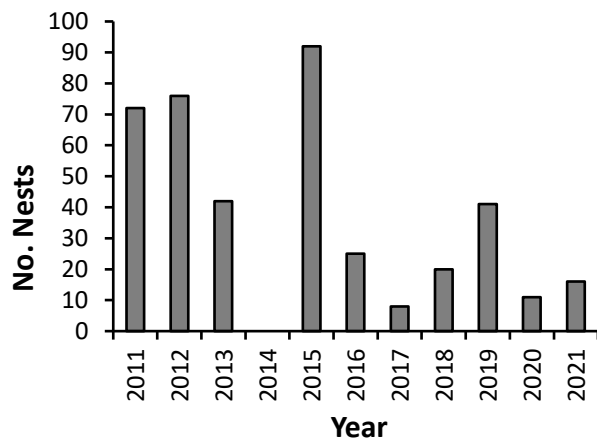
Bacalar Chico MR, Belize - CM



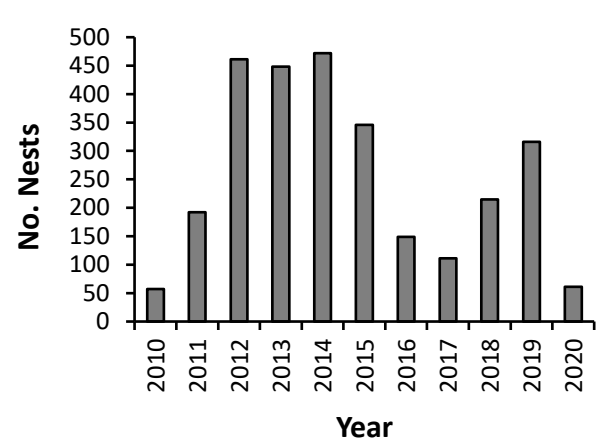
***Trindade Island, Brazil**

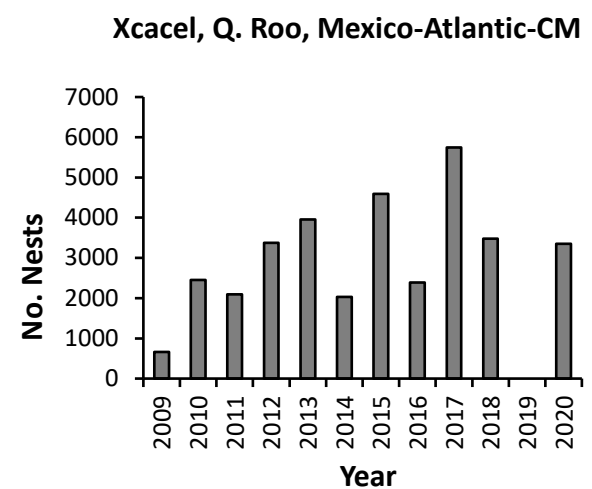
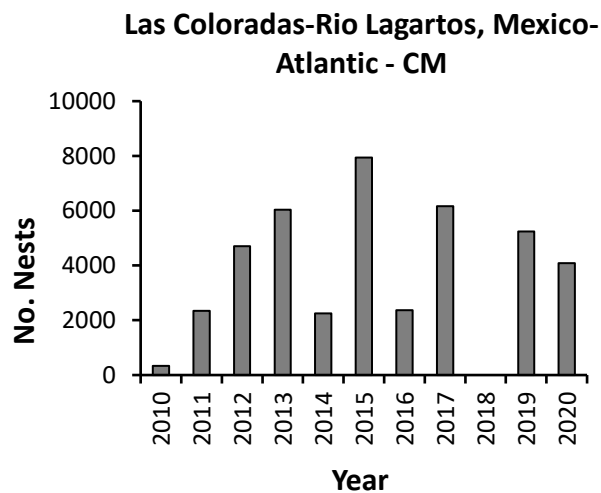
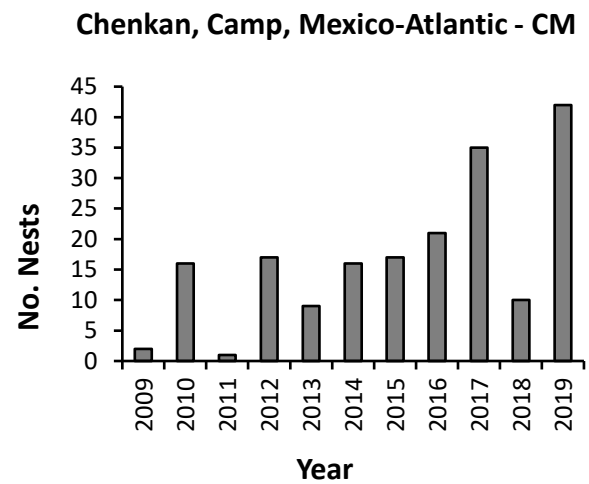
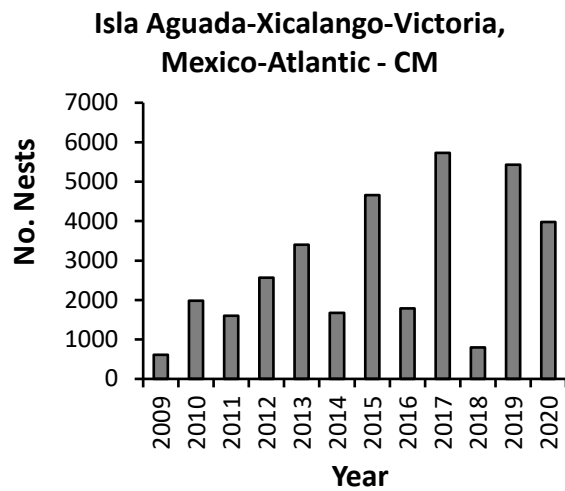
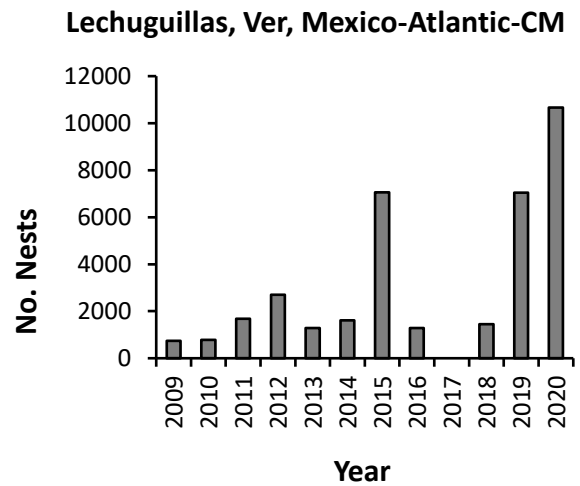
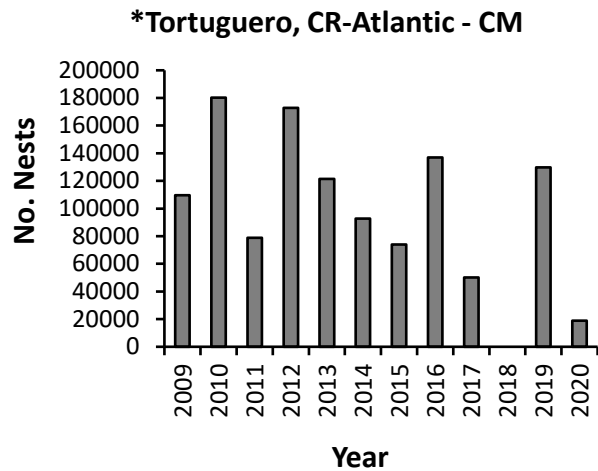


Cabuyal, CR-Pacific - CM

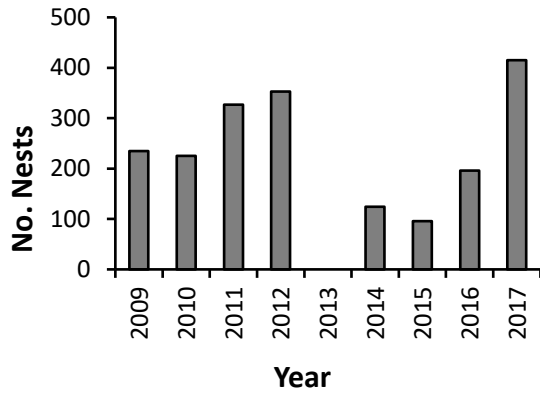


***Nombre de Jesus, CR-Pacific**

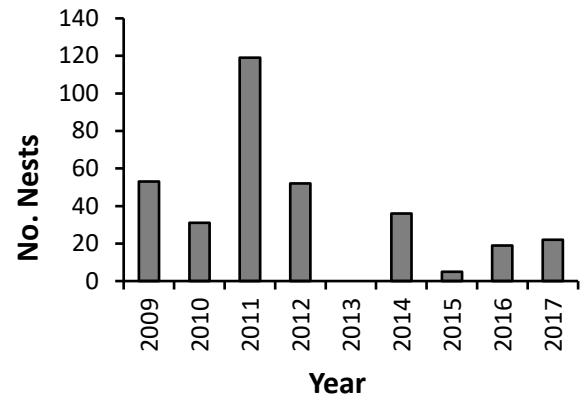




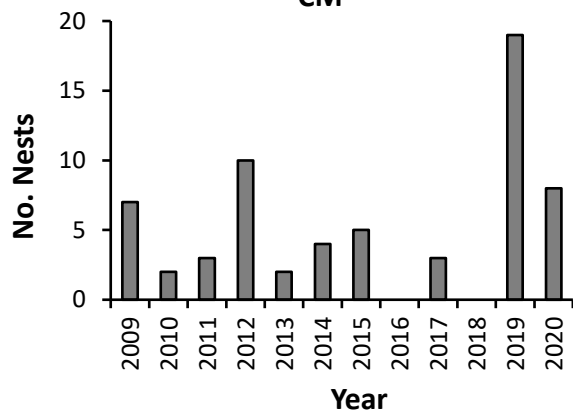
Chemuyil Q. Roo, Mexico-Atlantic - CM



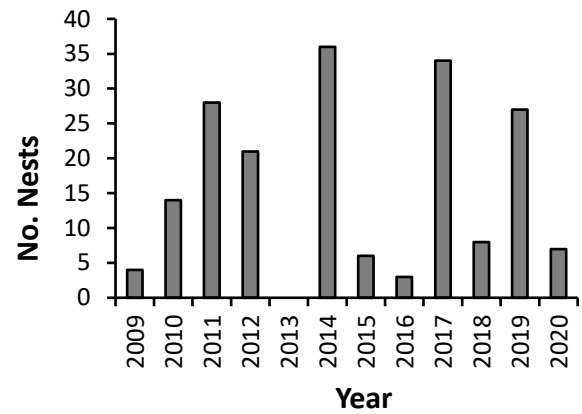
Mexiquillo, Mich, Mexico-Pacific - CM



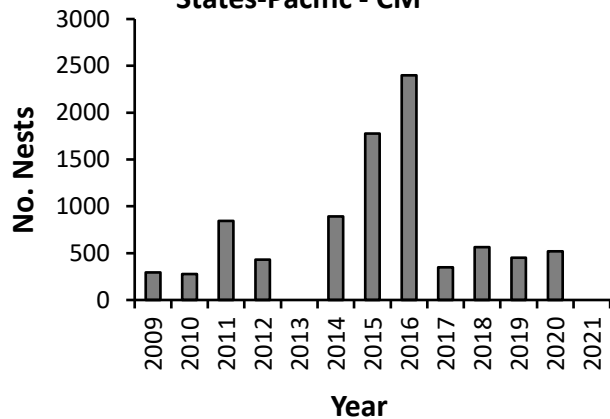
Tierra, Colorada, Gro, Mexico-Pacific CM



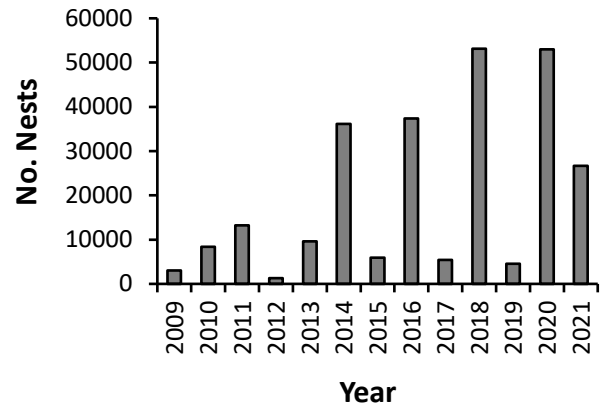
Barra de la Cruz, Oax, Mexico-Pacific - CM

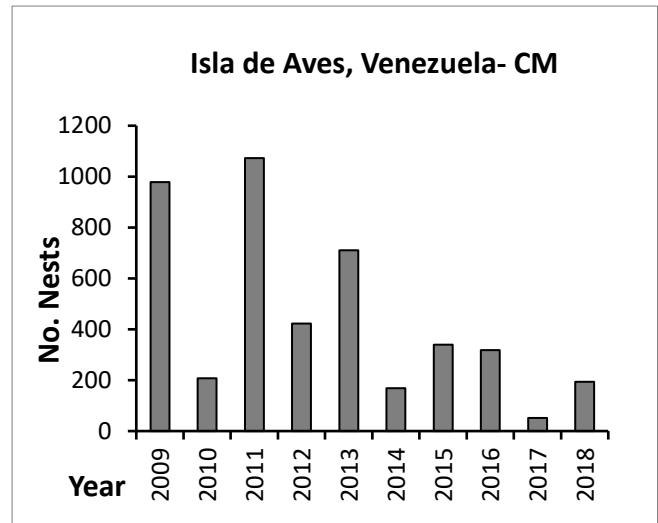
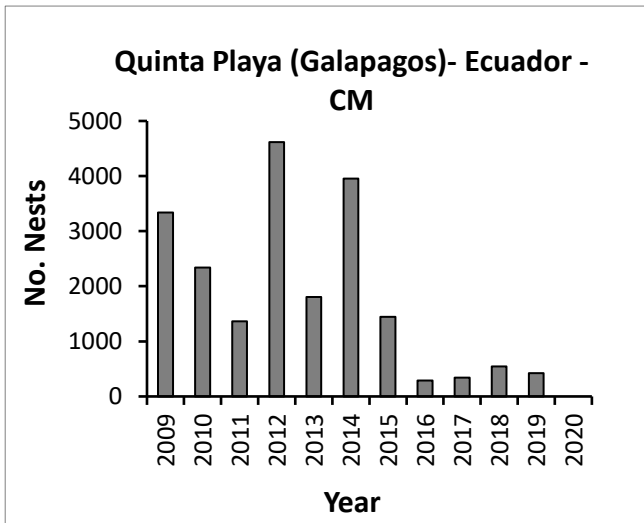


***French Frigate Shoals, United States-Pacific - CM**



Florida Index Beaches, United States-Atlantic - CM





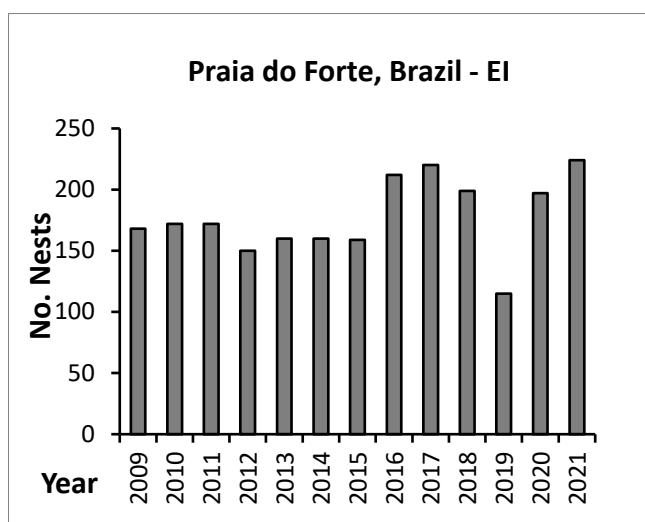
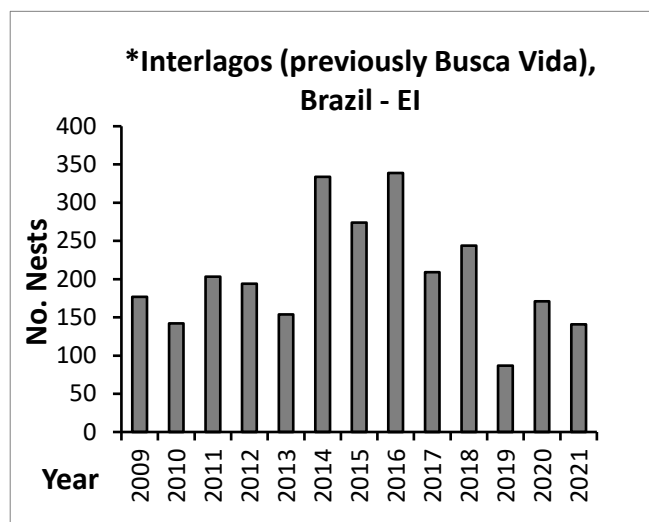
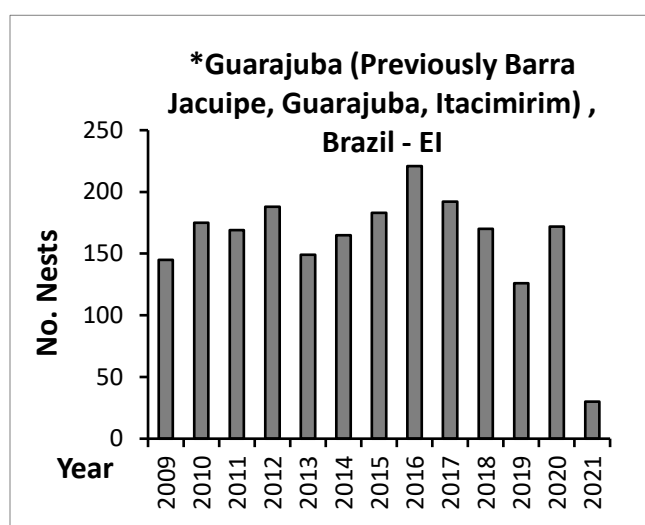
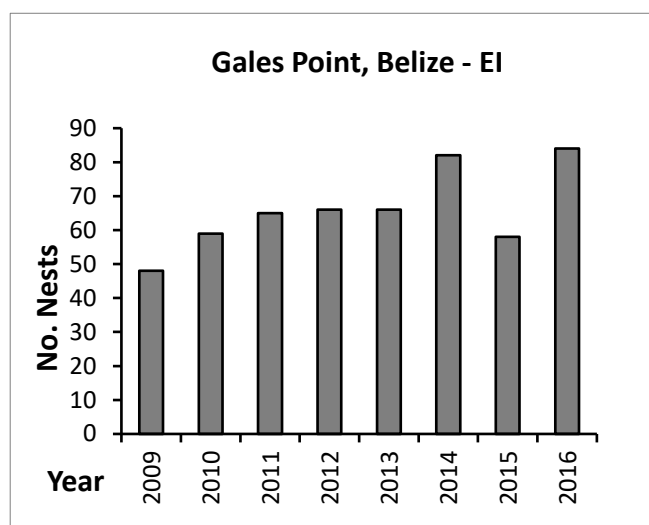
Common Name: Hawksbill Turtle

Scientific Name: *Eretmochelys imbricata*

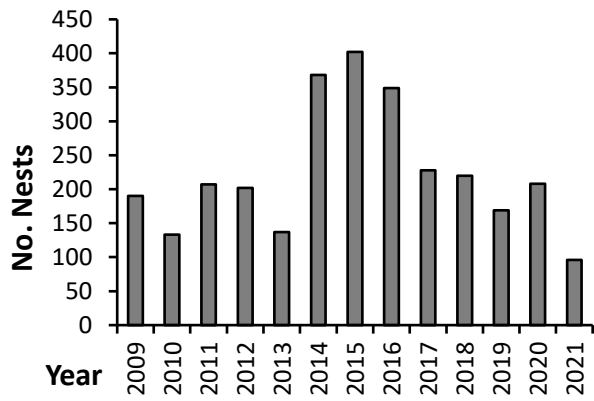
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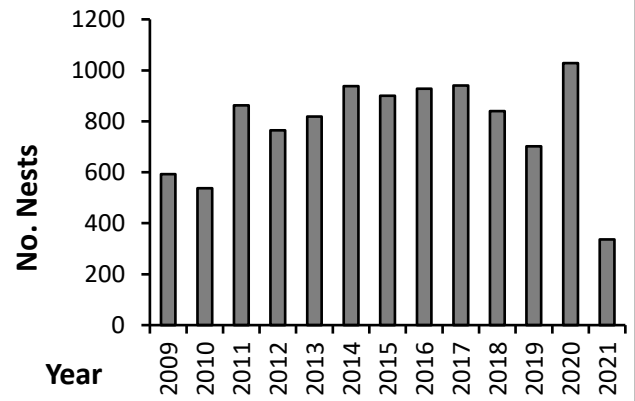
**Beaches monitoring impacted by COVID-19 restrictions in 2020-2021*



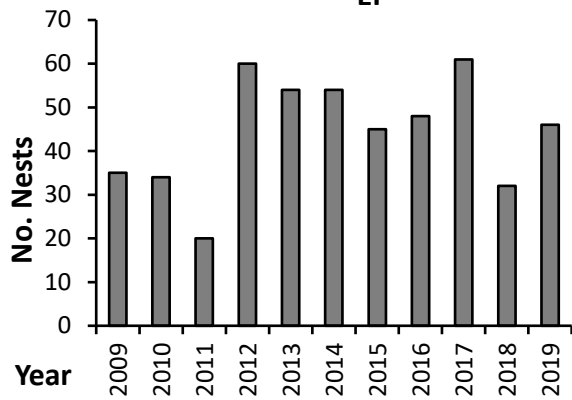
Berta, Brazil - EI



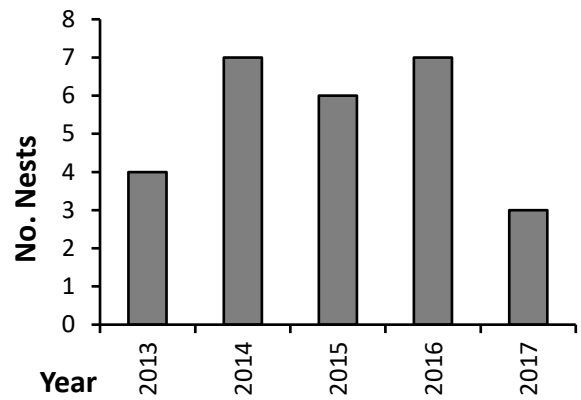
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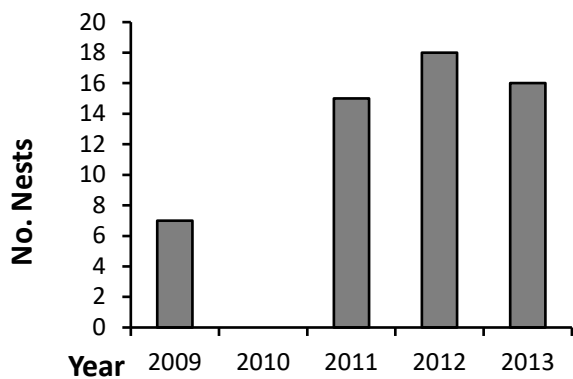
**Klein Bonaire, Caribbean Netherlands
- EI**



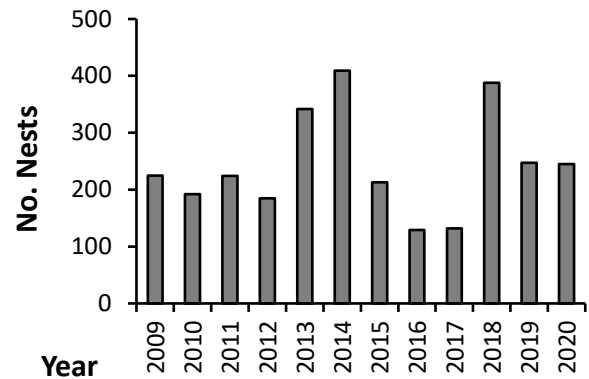
Zeelandia, St Eustatius, CN - EI

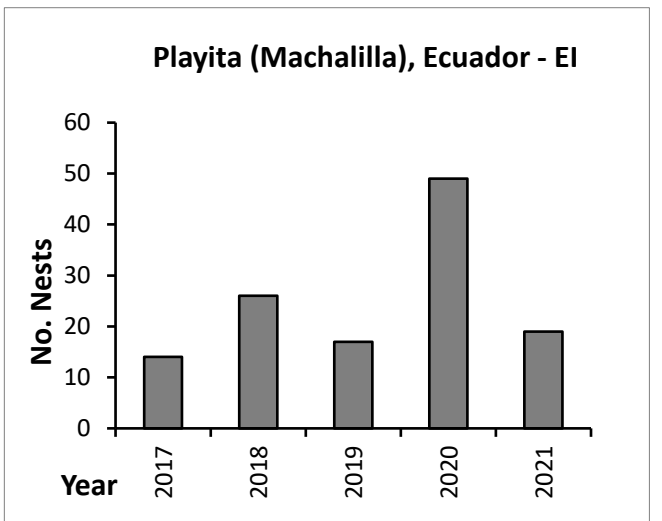
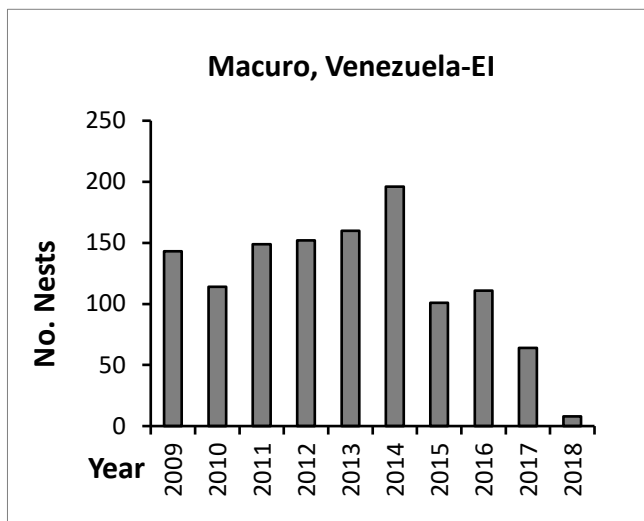
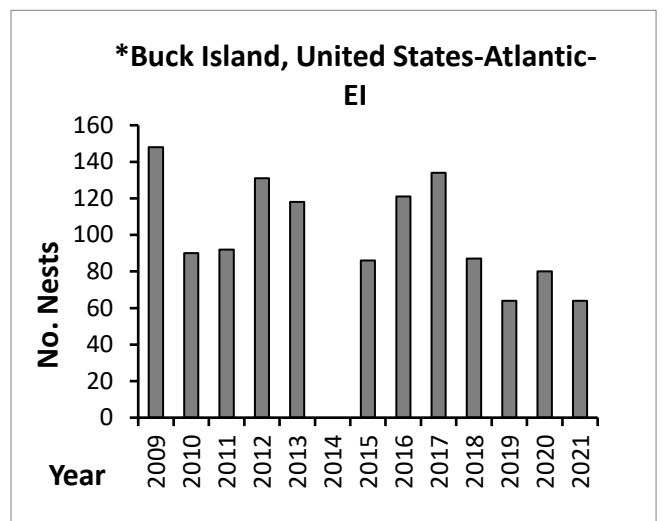
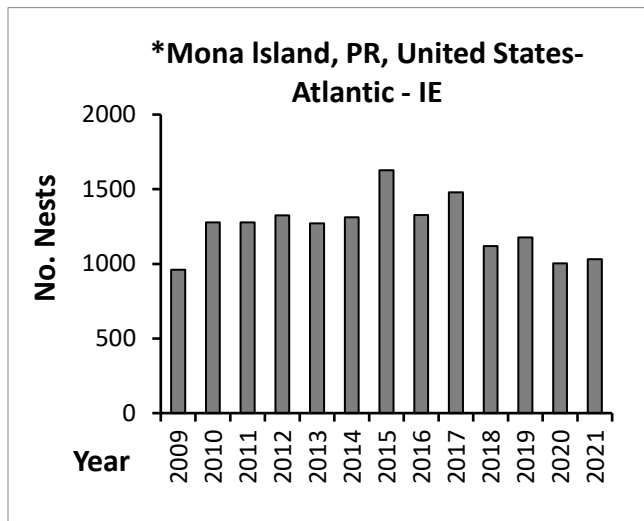
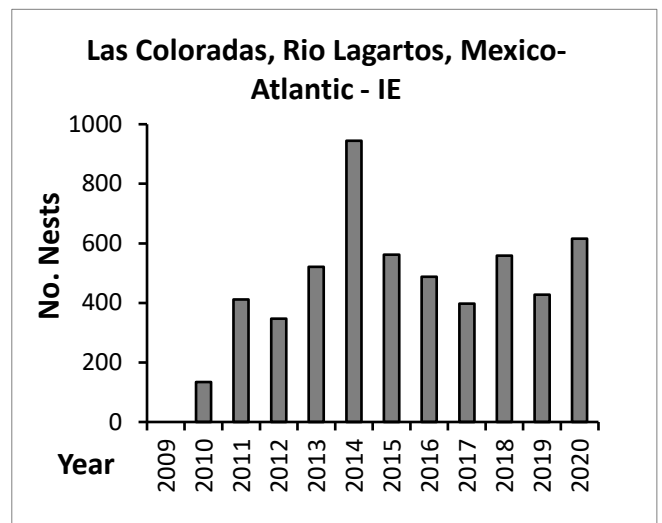
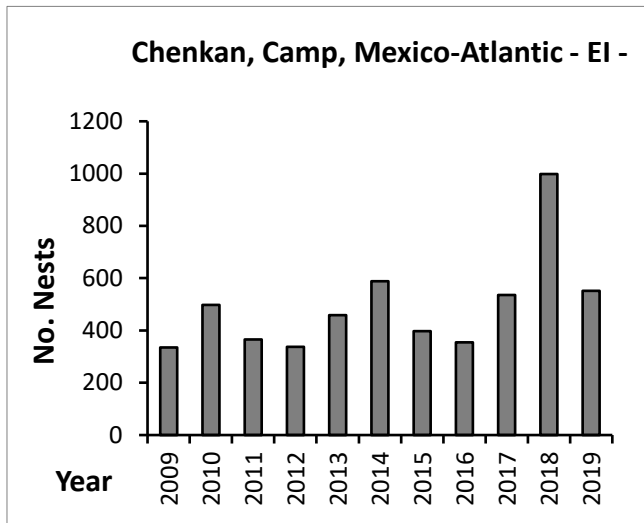


Cahuita, C.R.-Atlantic - EI



**Isla Aguada-Xicalango-Victoria,
Mexico-Atlantic - EI**





Common Name: Loggerhead Turtle

Scientific Name: *Caretta caretta*

IUCN Red List Categories:

Global: Vulnerable

North Pacific: Least Concern

South Pacific: Critically Endangered

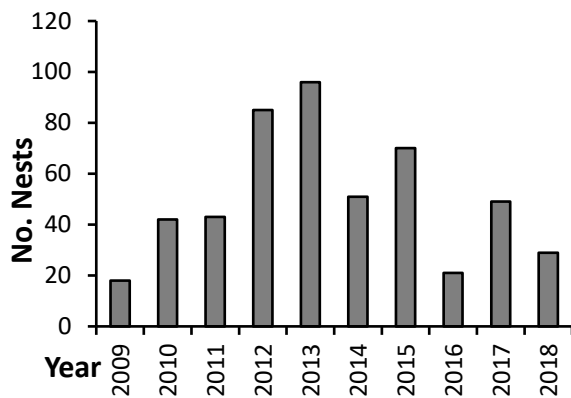
Northwest Atlantic: Least Concern

Southwest Atlantic: Least Concern

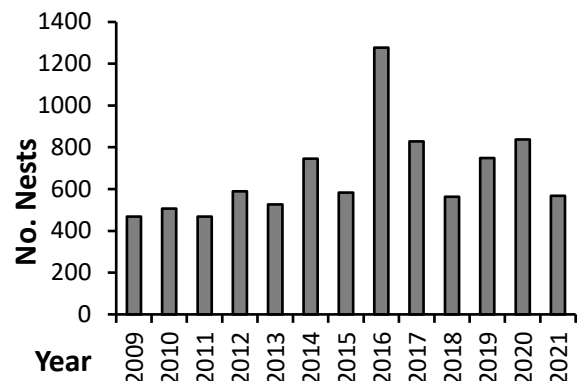
**Beaches monitoring impacted by COVID-19 restrictions in 2020-2021*



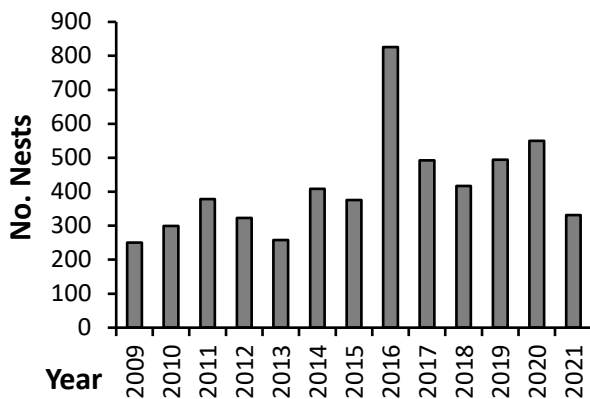
Bacalar Chico MR, Belize - CC



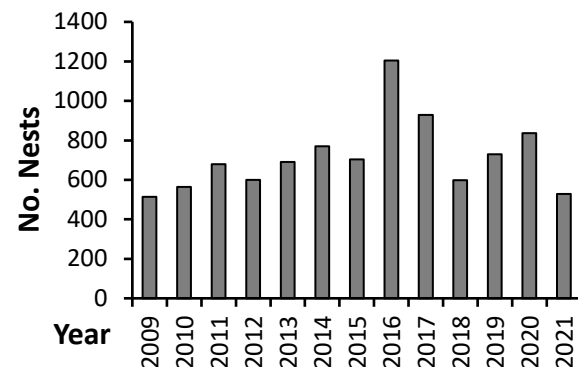
Comboios, Brazil - CC

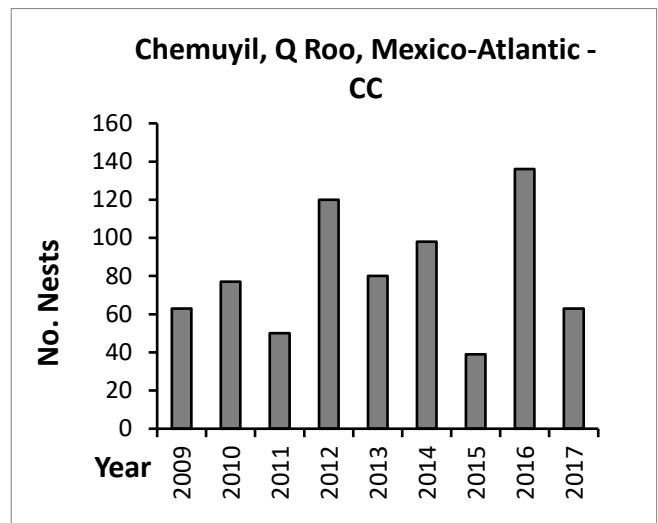
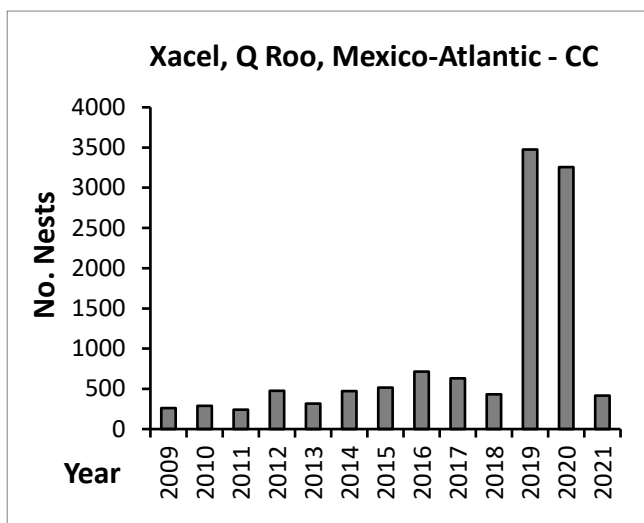
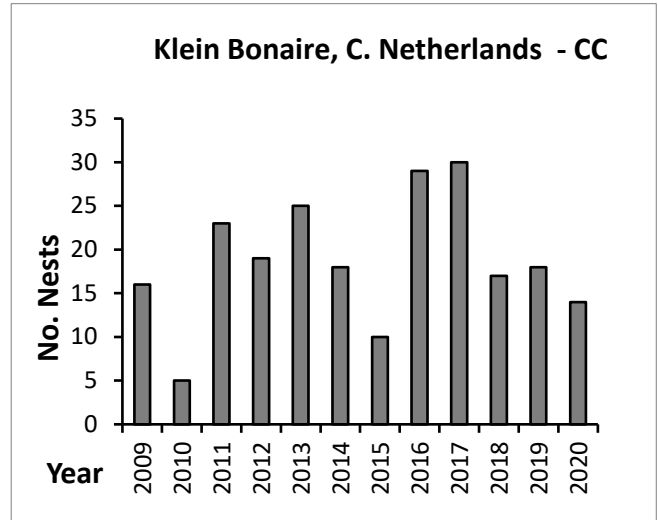
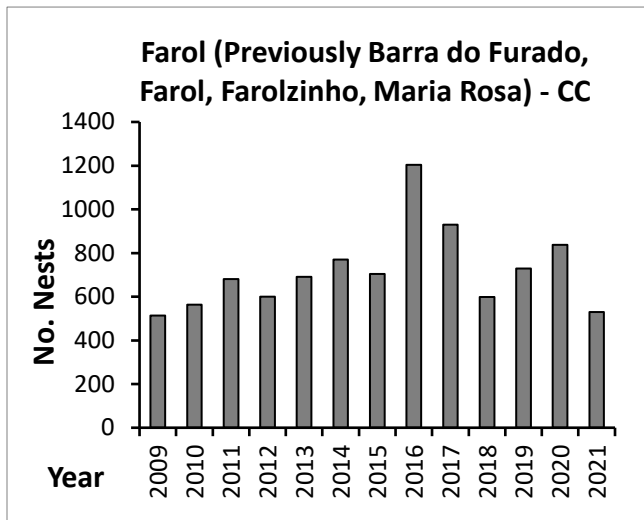
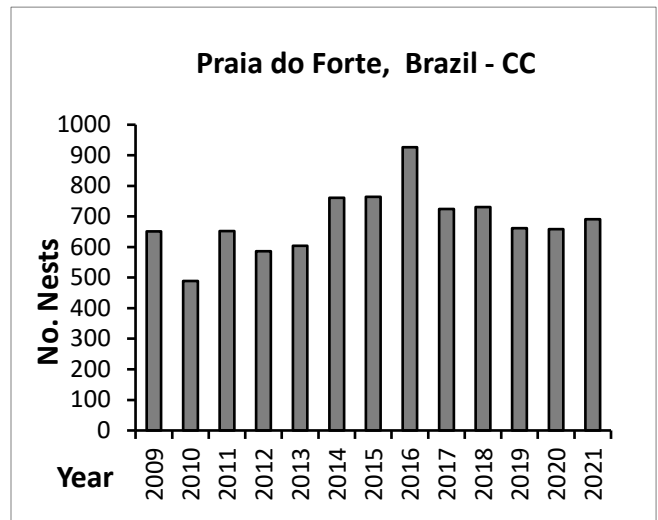
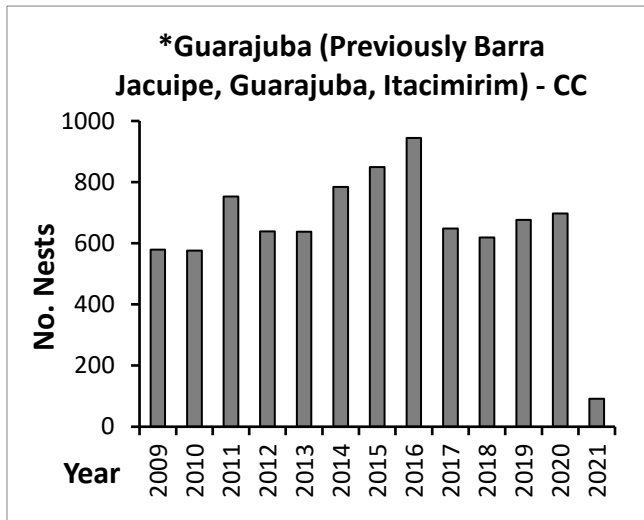


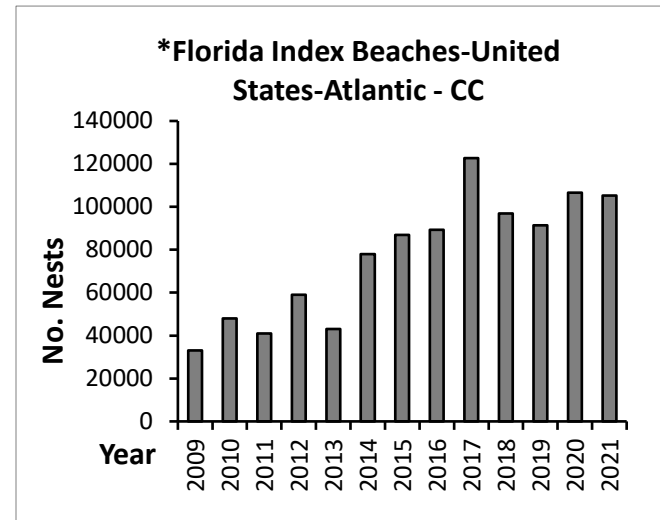
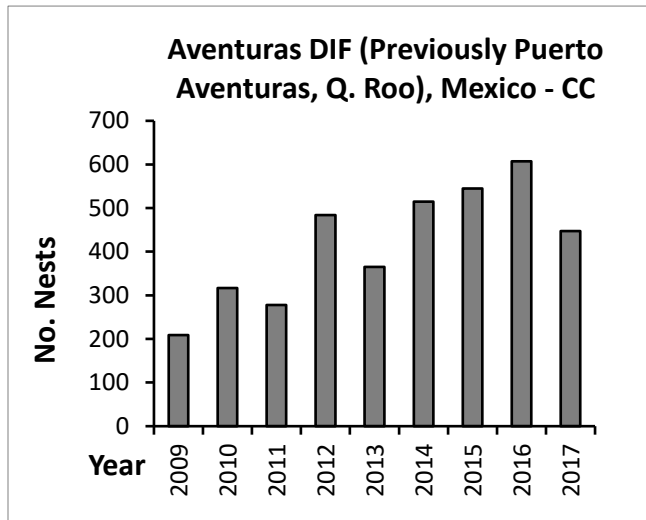
Povoacao, Brazil - CC



Interlagos (Previously Busca Vida y Santa Maria) - CC



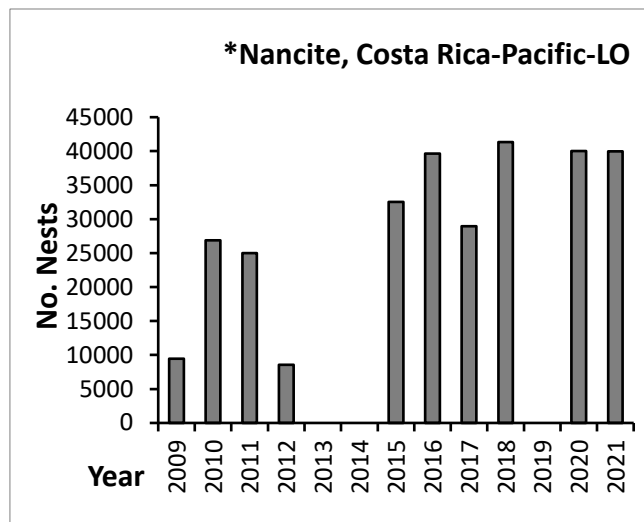
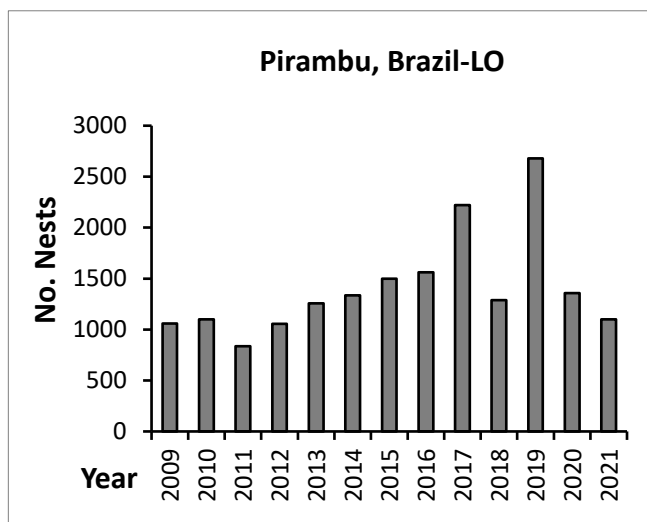
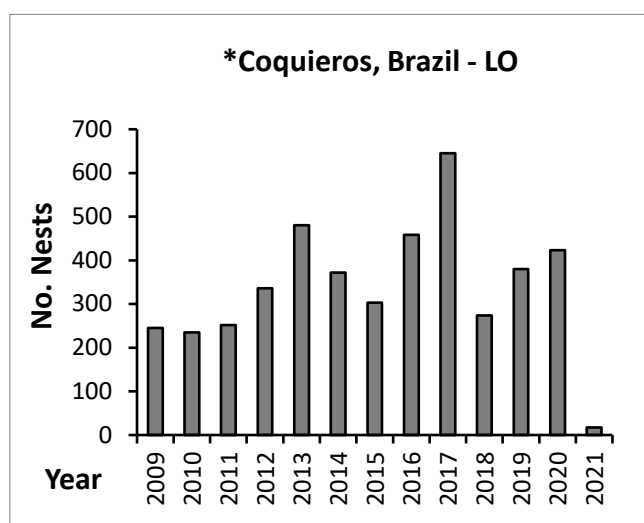
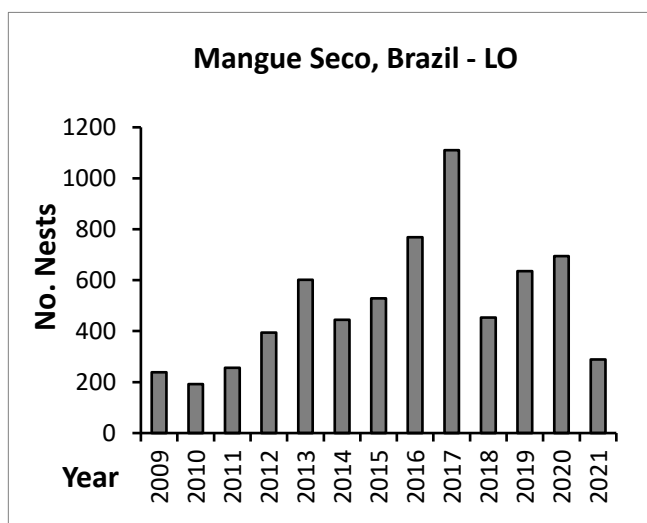




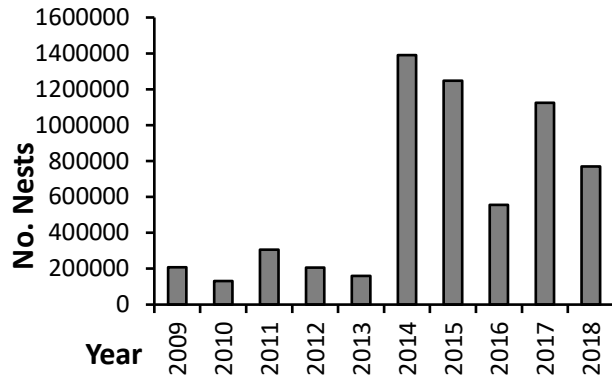
Common Name: Olive Ridley Turtle
Scientific Name: *Lepidochelys olivacea*
IUCN Red List Category:

Global: Vulnerable

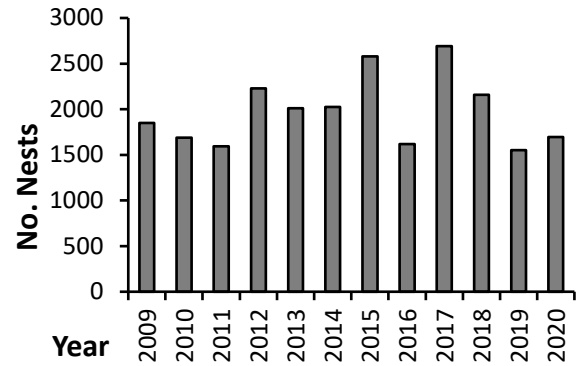
**Beaches monitoring impacted by COVID-19 restrictions in 2020-2021*



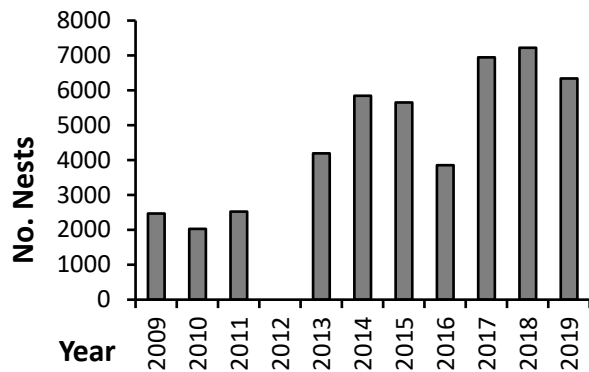
***Ostional, CR-Pacific-LO**



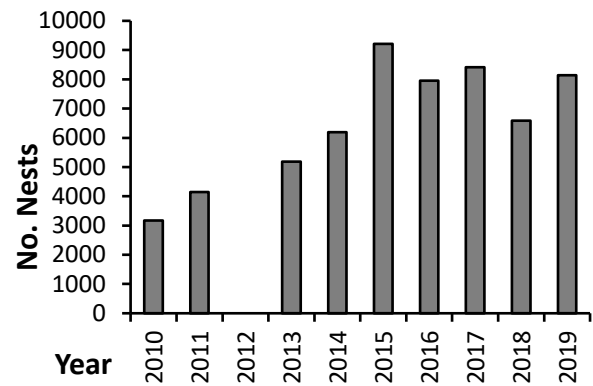
El Verde, Sin, Mexico-Pacific-LO



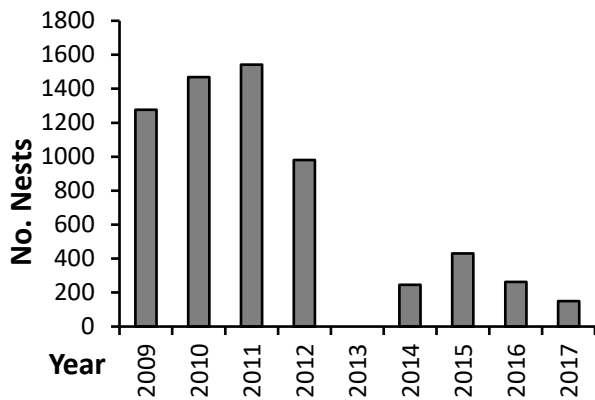
Platanitos, Nay, Mexico-Pacific-LO



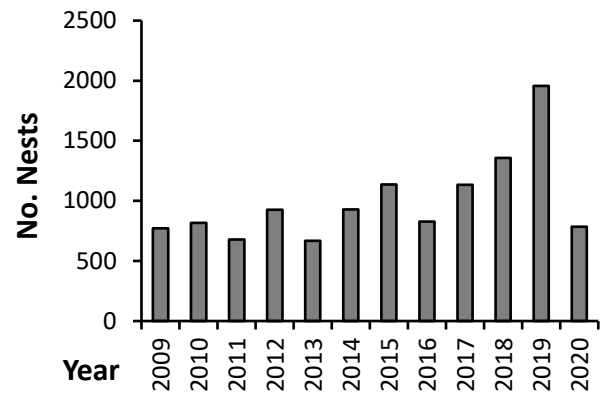
Mismaloya, Jal, Mexico-Pacific-LO

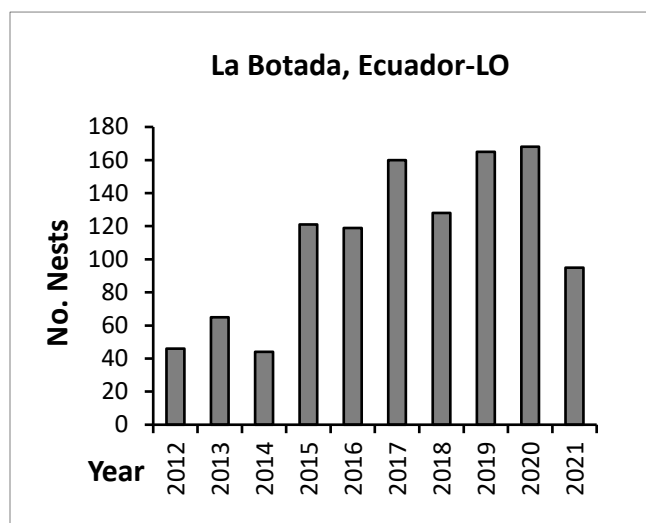
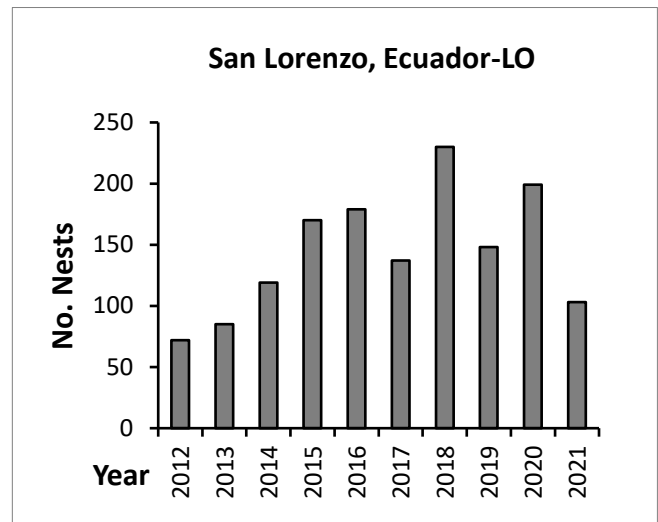
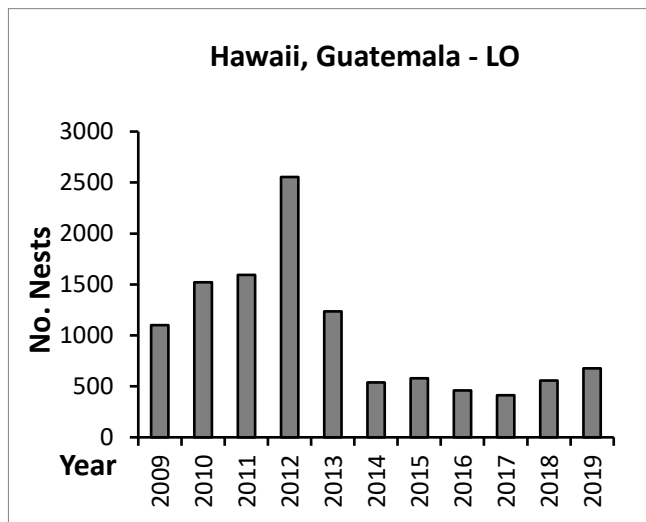
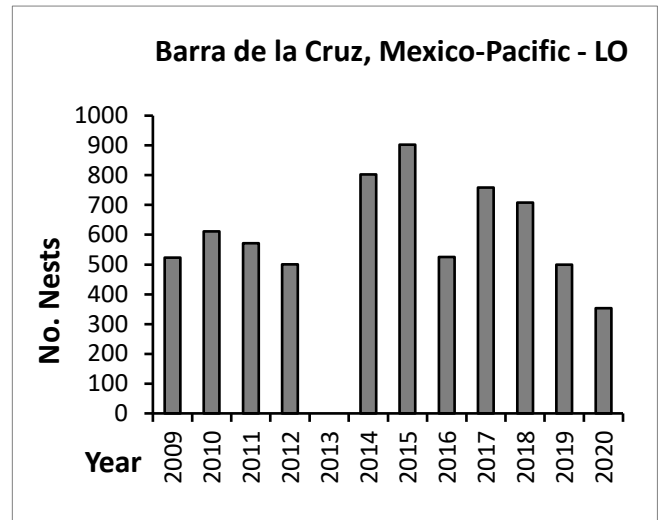
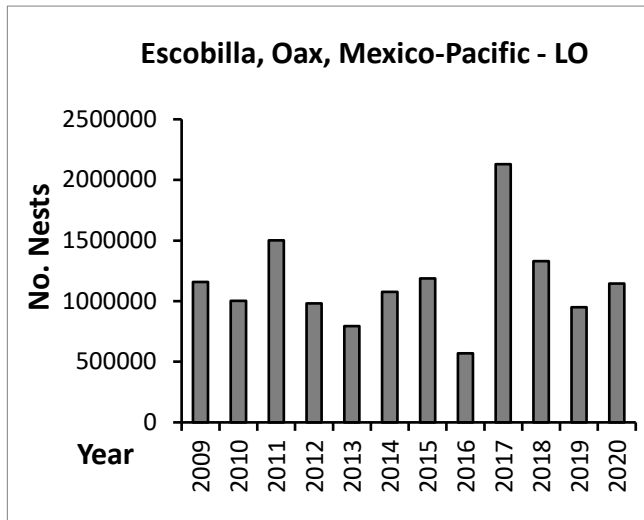


Mexiquillo, Mich, Mexico-Pacific - LO



Tierra Colorada, Gro, Mexico-Pacific - LO





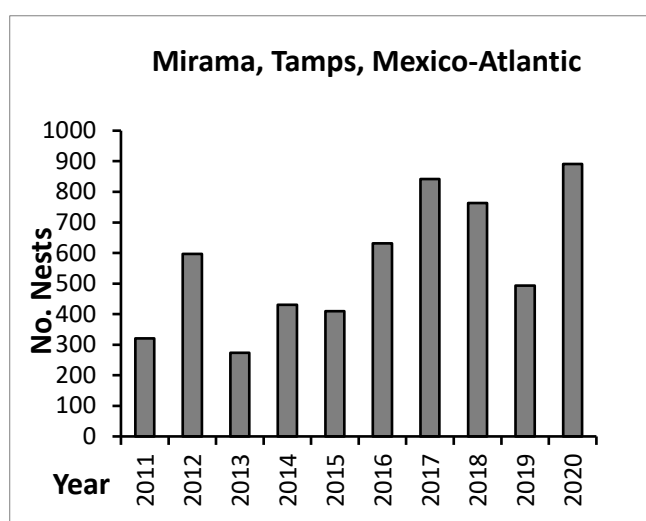
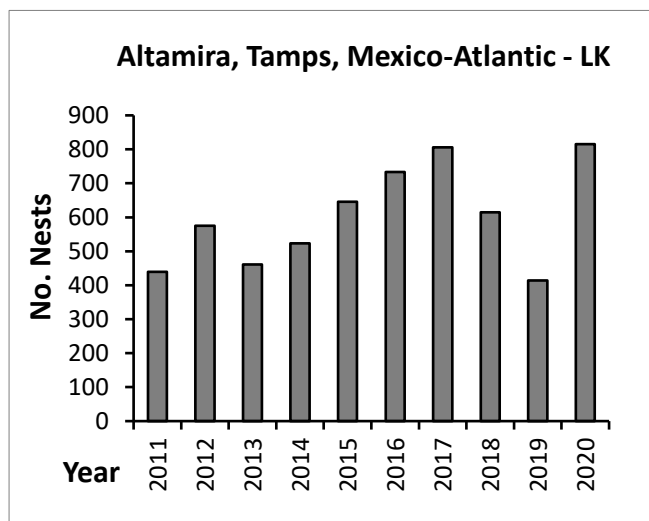
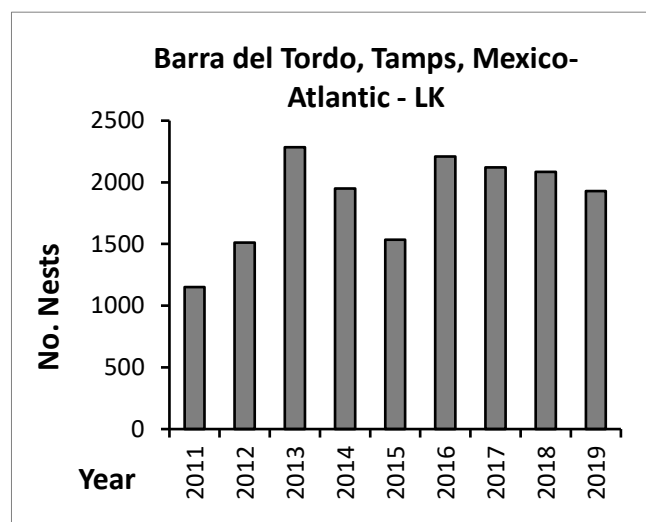
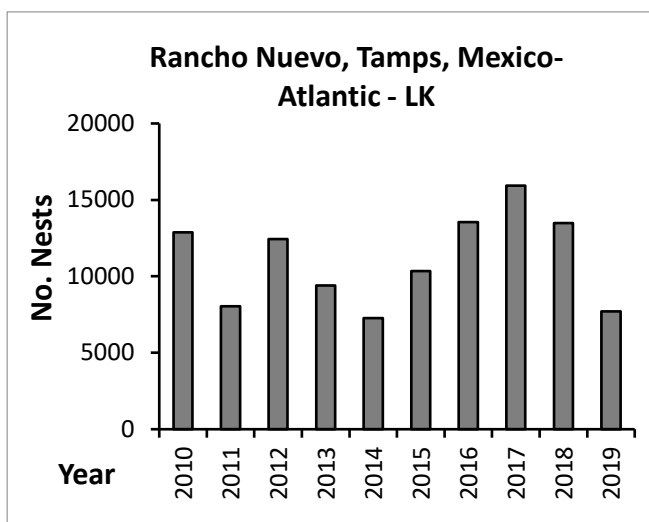
Common Name: Kemp's Ridley Turtle

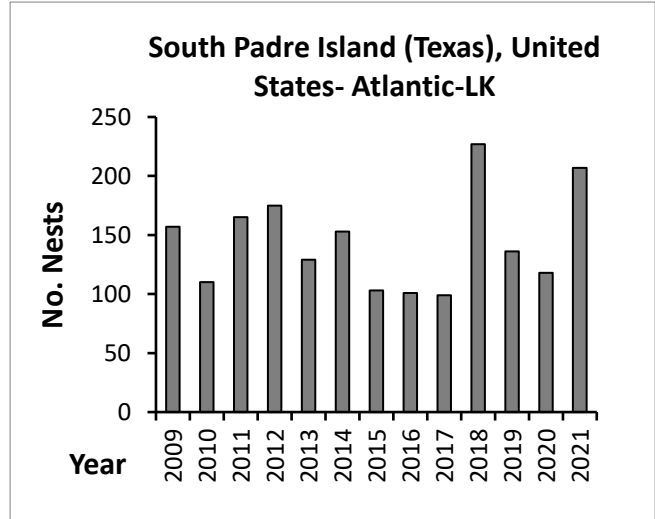
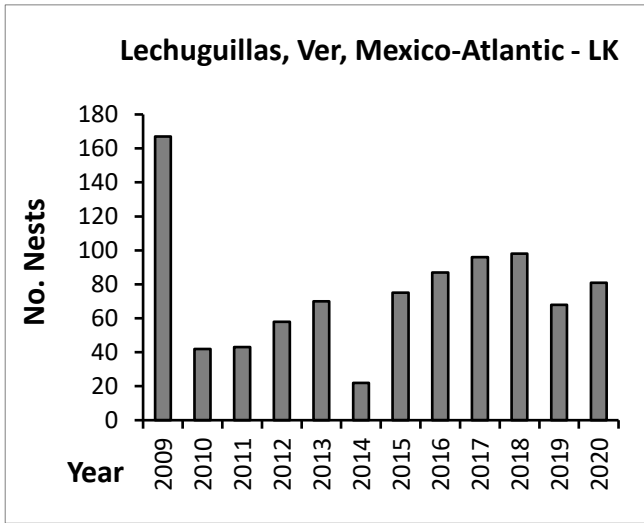
Scientific Name: *Lepidochelys kempii*

IUCN Red List Category:

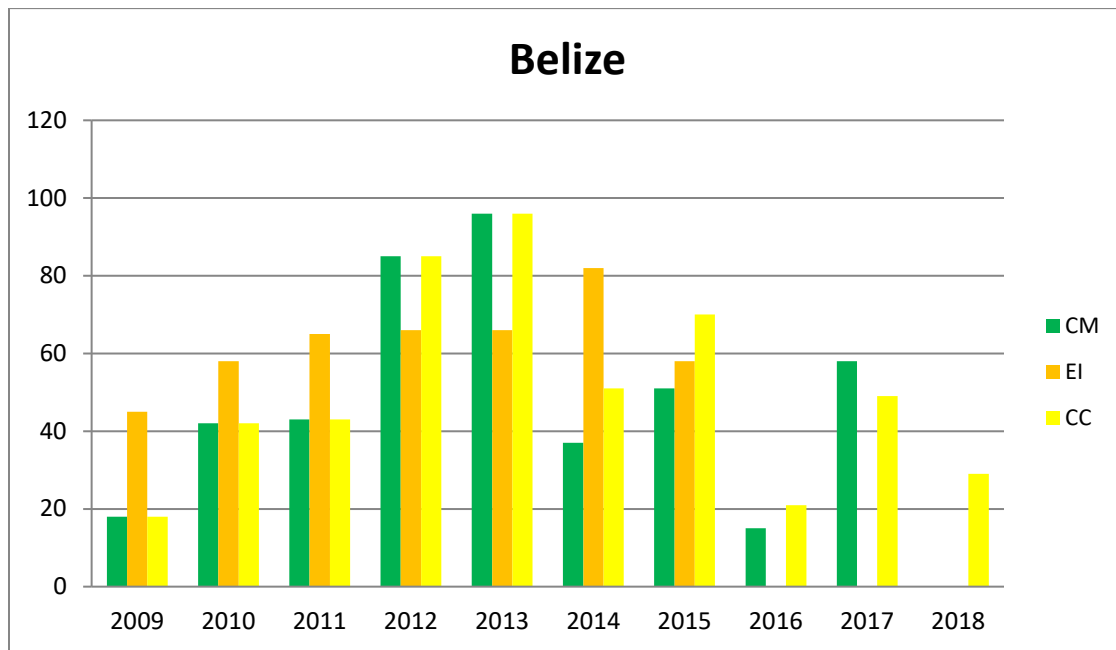
Global: Critically Endangered

**Beaches monitoring impacted by COVID-19 restrictions in 2020-2021*

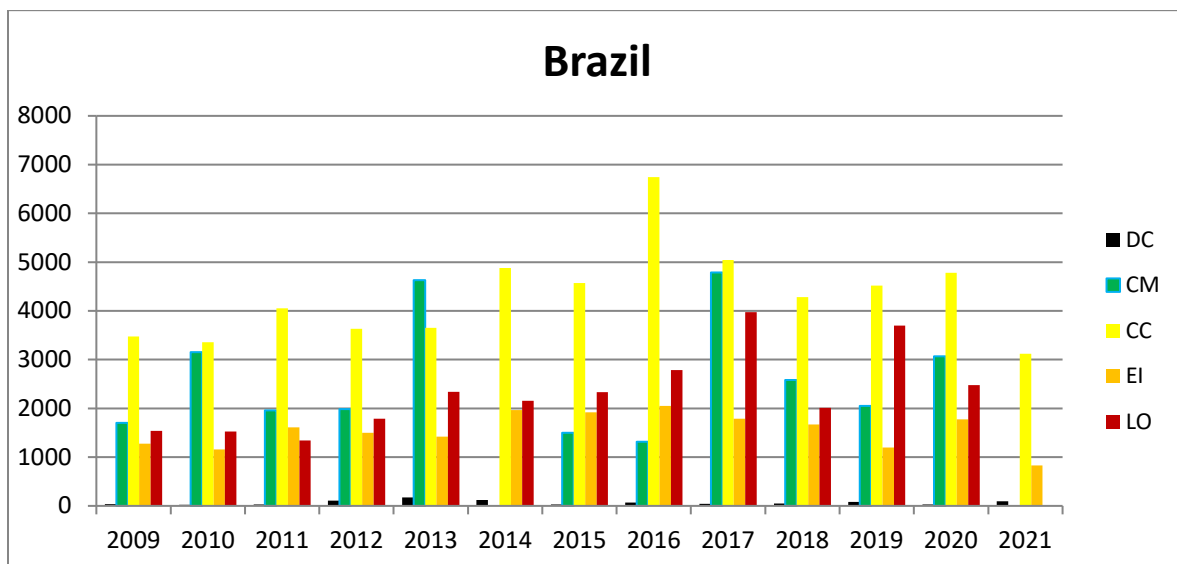


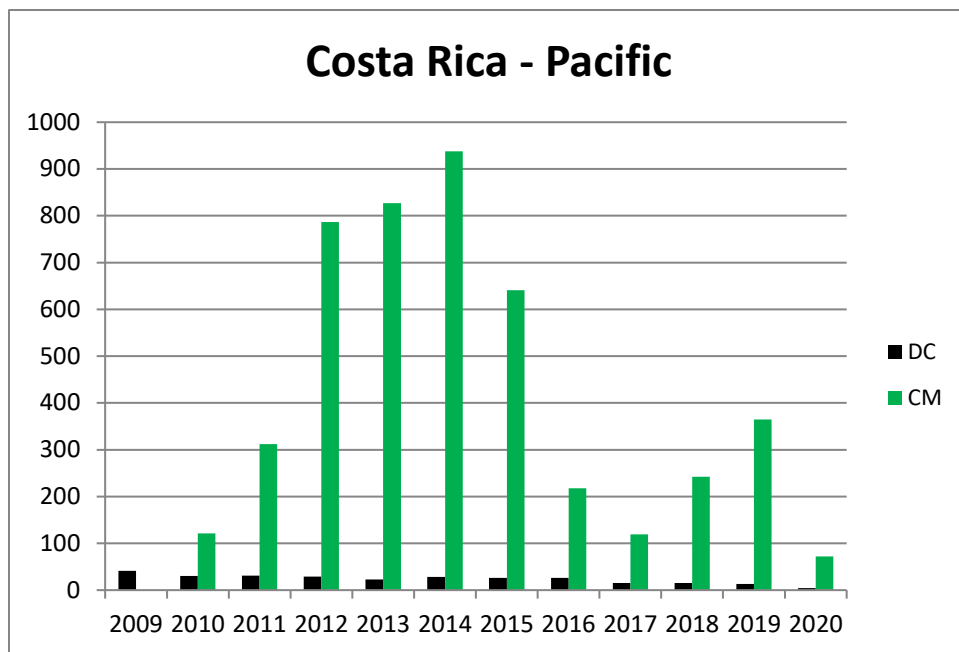
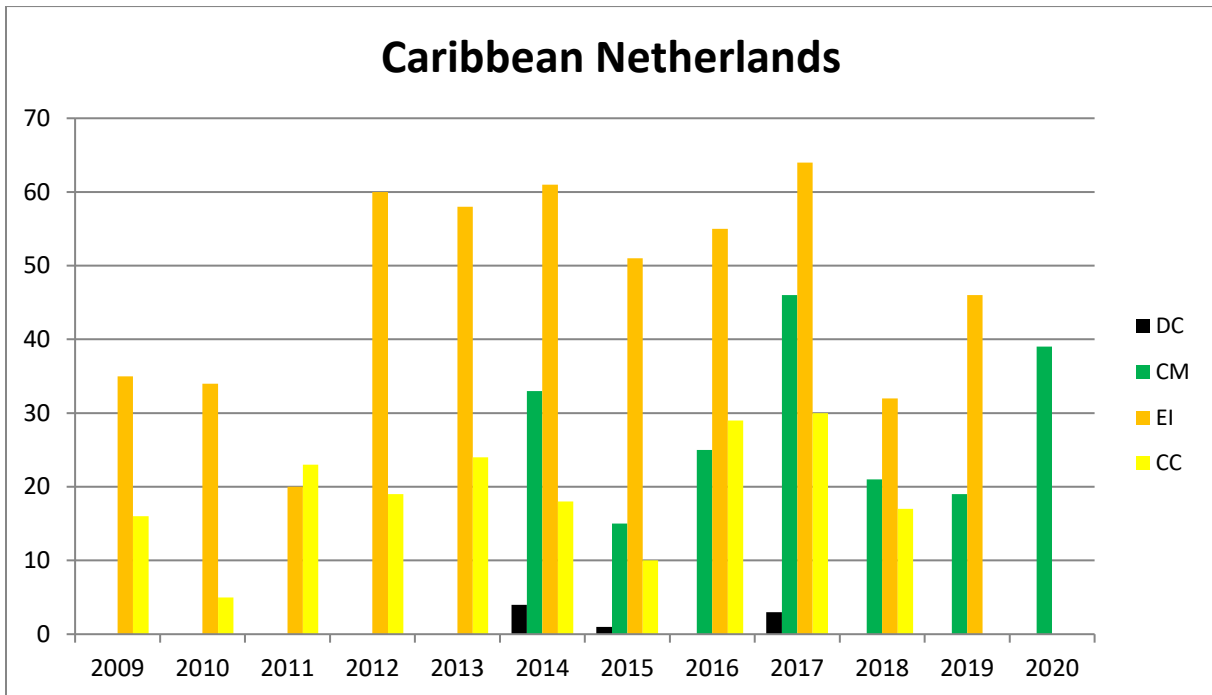


DPS Regional Graphs

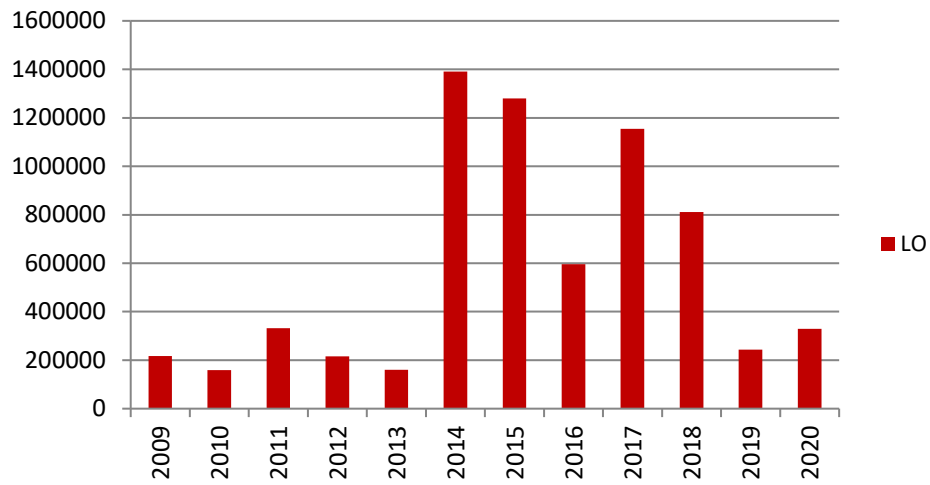


**Belize last IAC Annual Report was submitted in 2017 and nesting data in 2019*

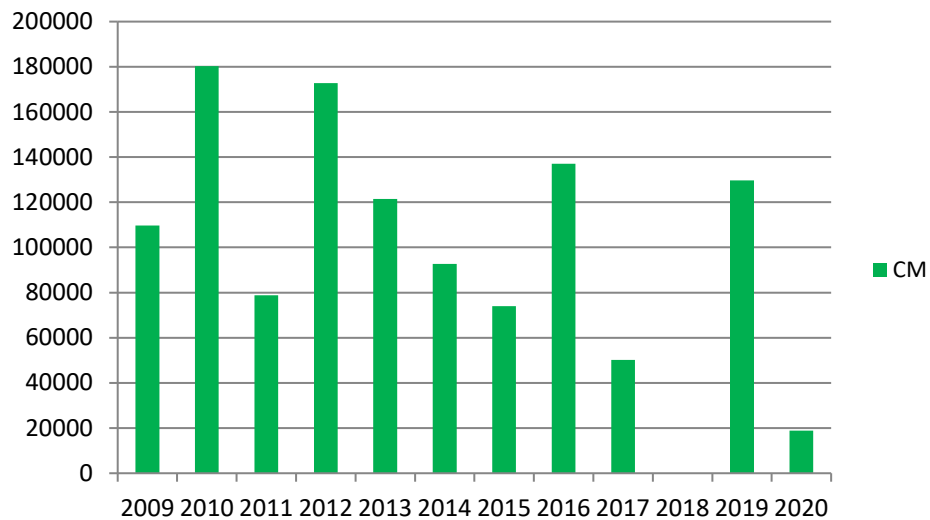


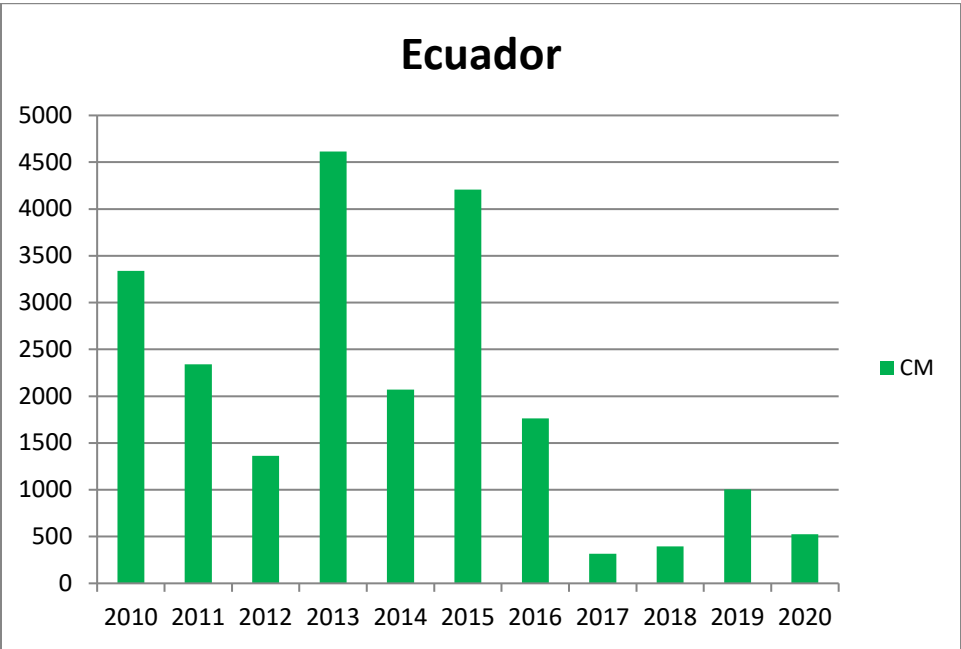
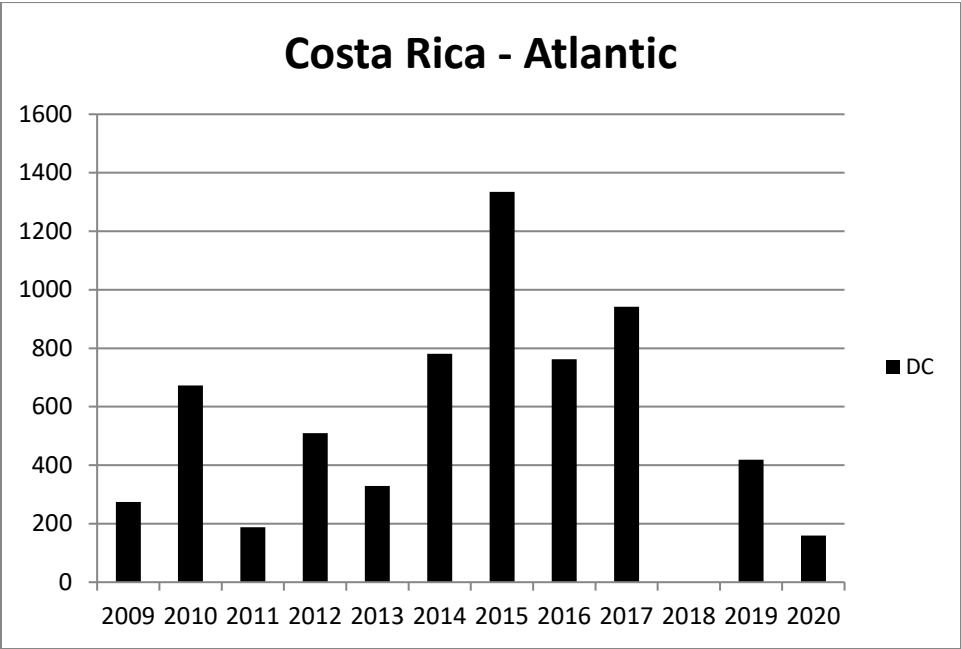


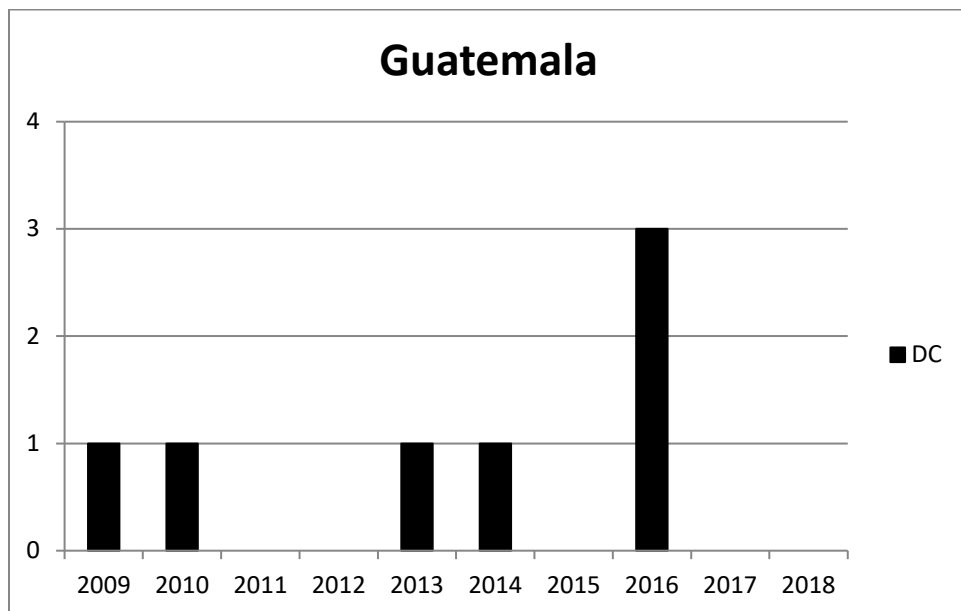
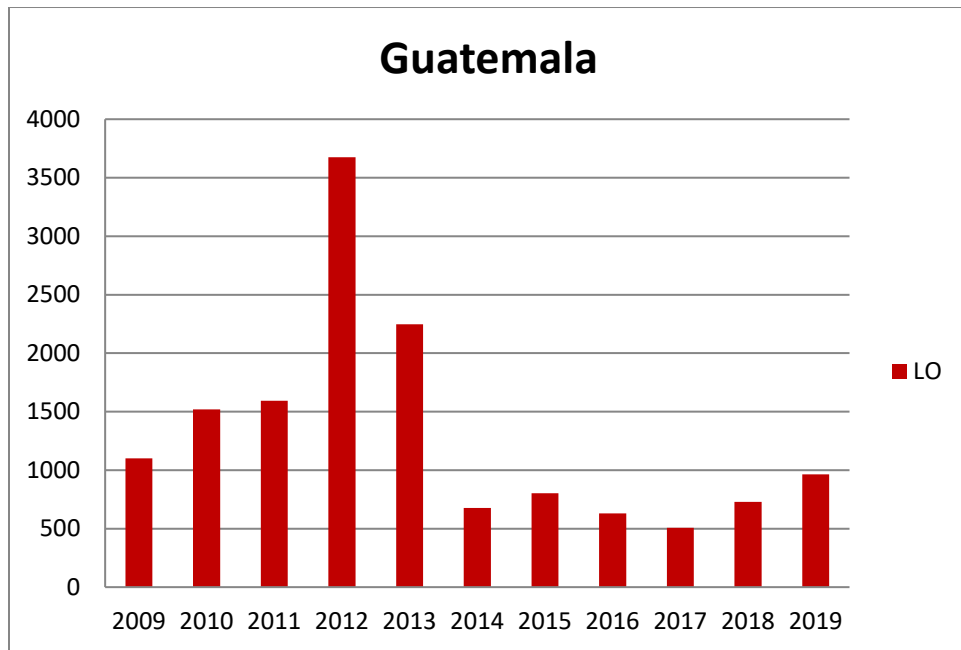
Costa Rica - Pacific Observed Females

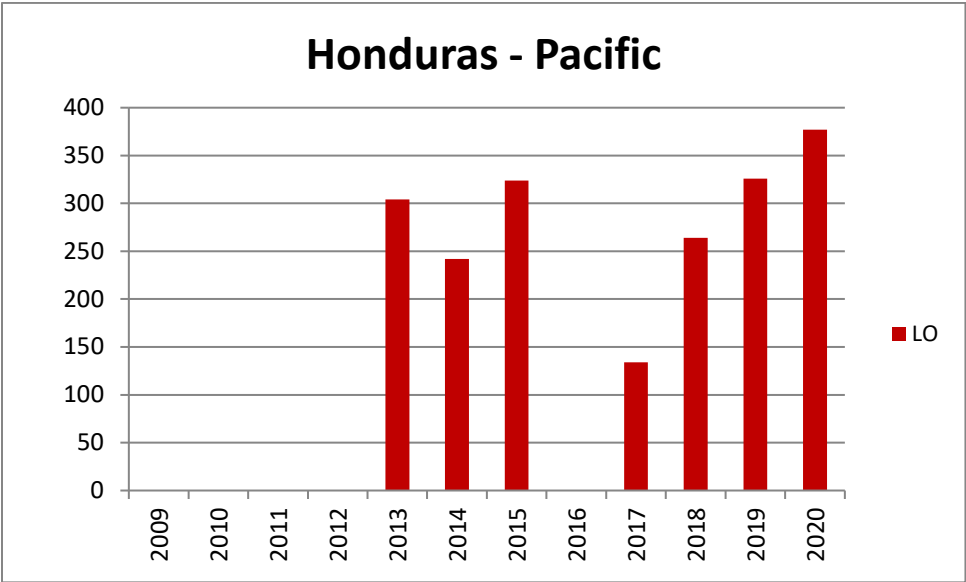
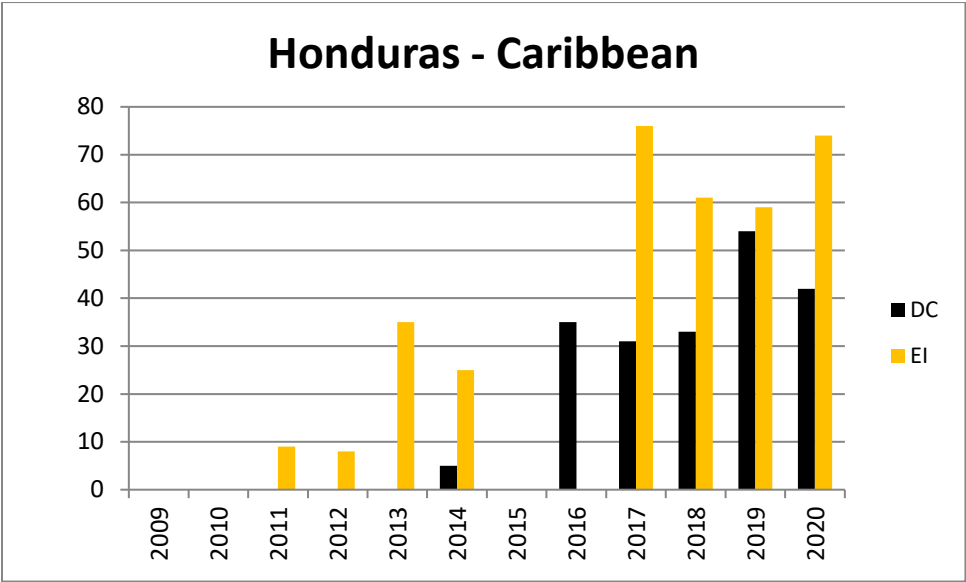


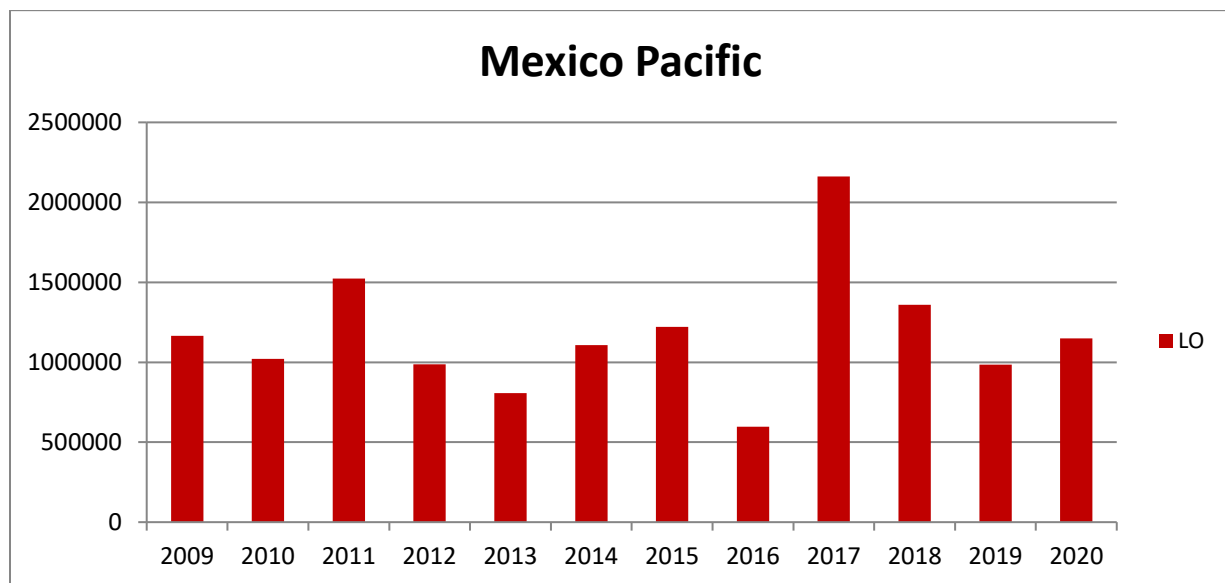
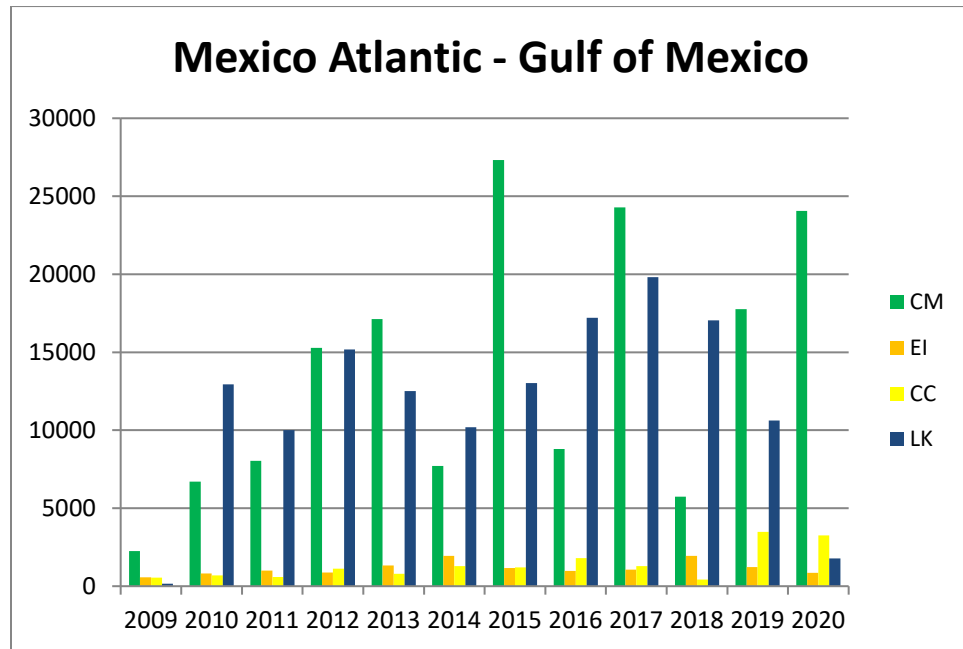
Costa Rica - Atlantic



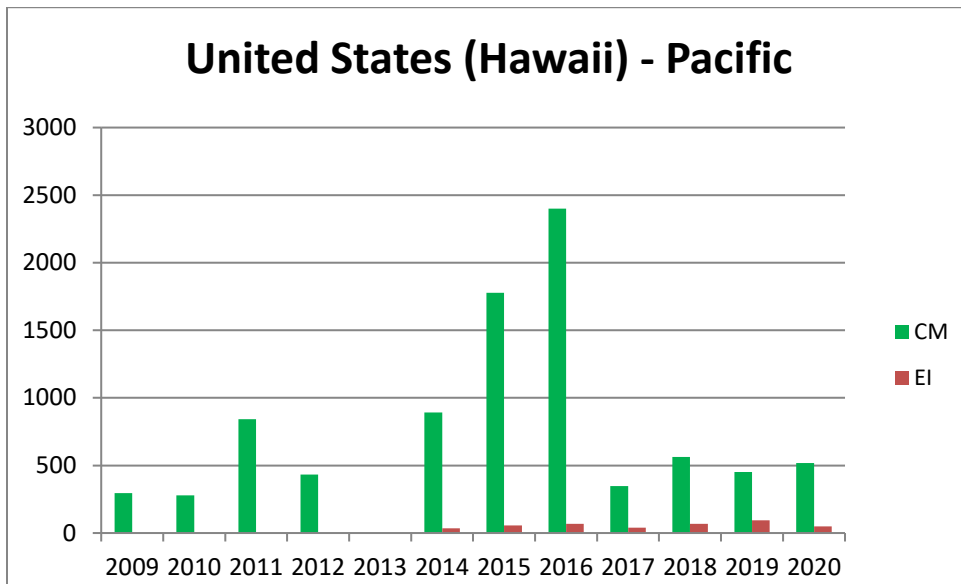
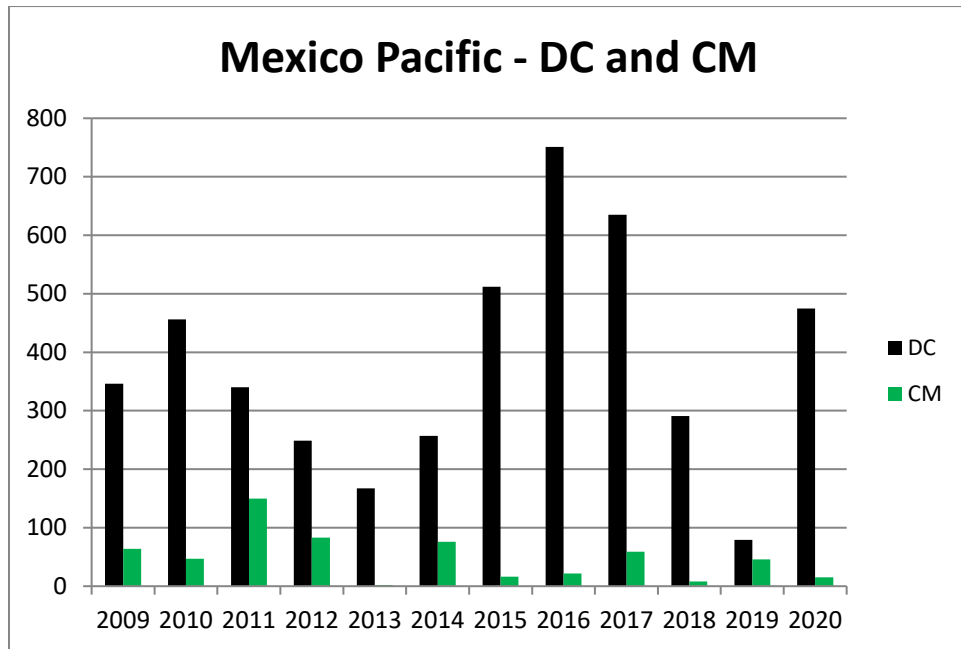




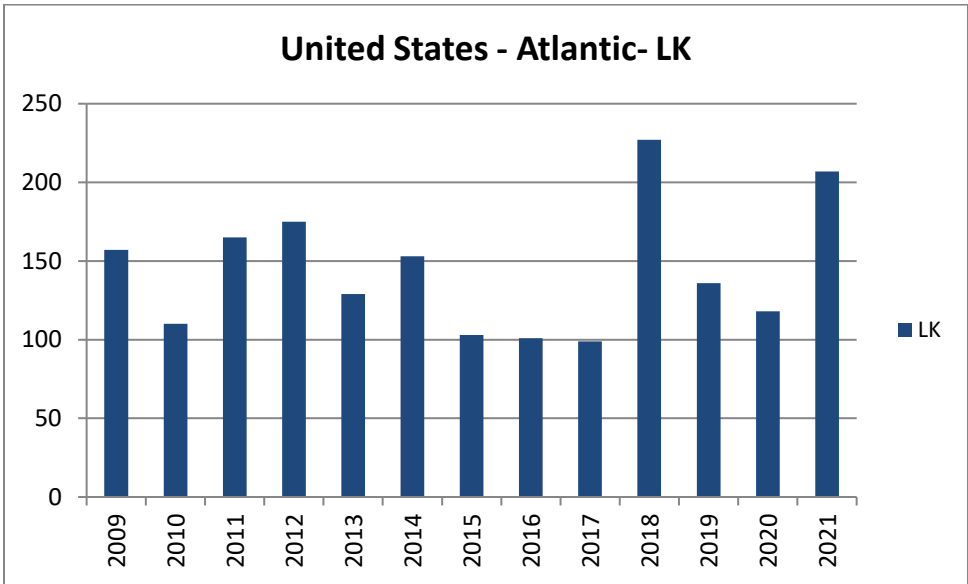
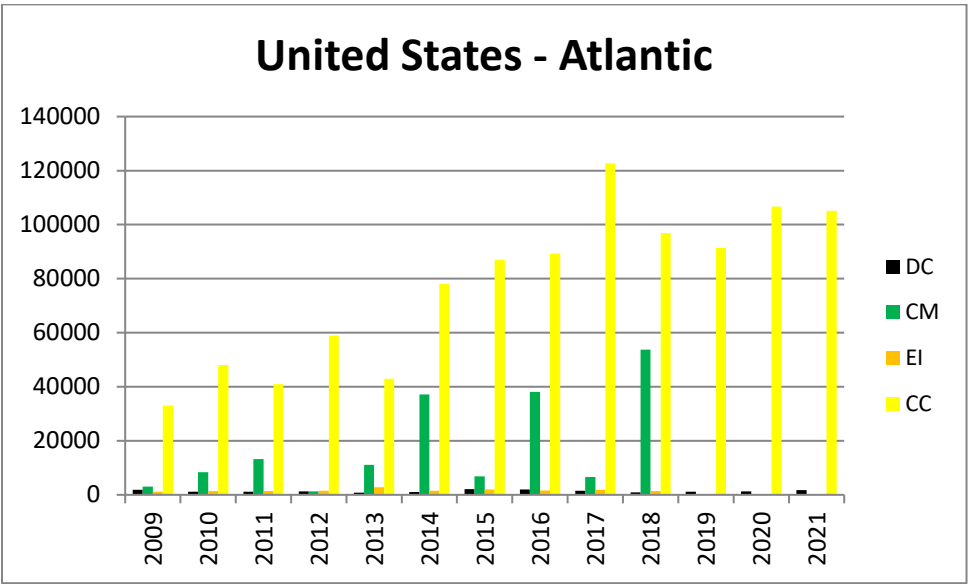


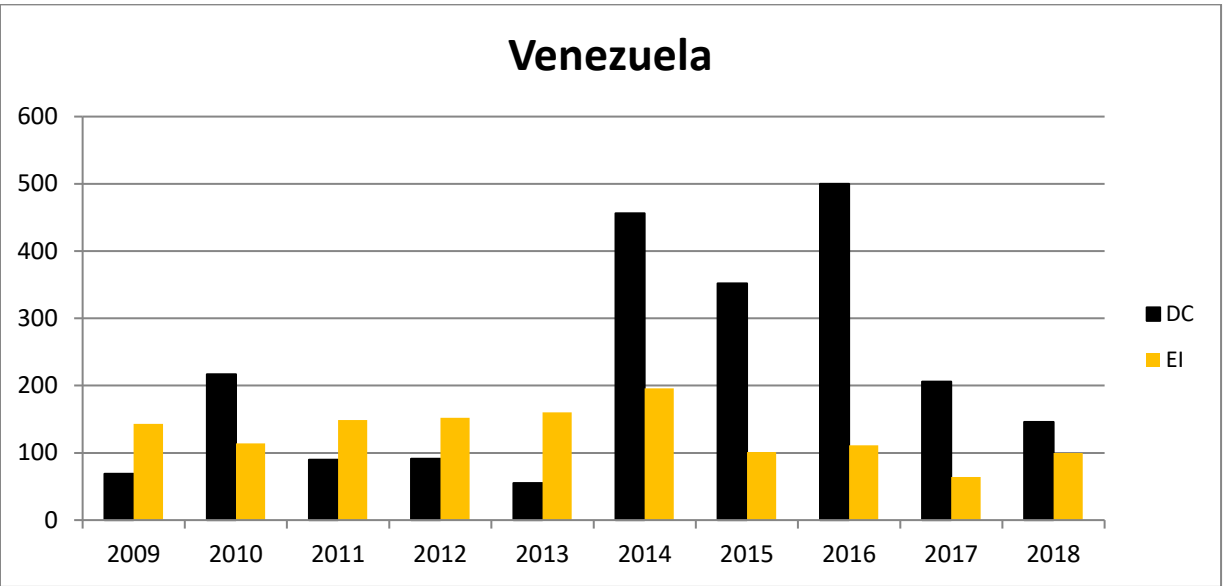


*Excludes Maruata and Colola beach



**No surveys reported in 2021 due to COVID-19*





**Venezuela last IAC annual report was submitted in 2019*

The Inter-American Convention for the Protection and Conservation of Sea Turtles (IAC) is an intergovernmental treaty which provides the legal framework for countries in the Americas to take actions in benefit of sea turtles. The IAC addresses the need to implement measures harmonized among nations, coordinate multilateral conservation and protection actions, and oversee the implementation of a regional agenda that will lead to the recovery of the six sea turtle species included in the treaty

For more information visit:

www.iacseaturtles.org



Inter-American Convention for the Protection and Conservation of Sea Turtles

IAC Secretariat

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