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### **Annual Report 2019**

#### **IAC Annual Report General Instructions**

Annex IV of the Convention text states that each Contracting Party shall hand in an Annual Report. To complete this Annual Report, Focal Points should consult with various stakeholders involved in sea turtle issues. If you have any questions regarding this Annual Report, please write to the Secretariat *Pro Tempore* at secretario@iacseaturtle.org

Please note that the date to submit this Annual Report is April 30th, 2019.

#### **Part I (General Information)**

Please fill out the following tables. Add additional rows if necessary.

#### a.\_ Focal Point

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Name	Andrea Hurtado Epstein
Date Annual Report submitted	May 7, 2019

#### b.\_ Agency or Institution responsible for preparing this report

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#### Part II (Policy and Management)

### a.\_ General description of activities carried out for the protection and conservation of sea turtles

In accordance with Articles IX and XVIII of the text of the Convention, each Party shall establish monitoring programs, policies, and plans for implementation at a national level for the protection and conservation of sea turtles and their habitat.

As a result, the Party shall report on the action plans, management plans, or other types of instruments, describing their location, the species considered and the actions implemented by governmental, non-governmental, and private institutions related to sea turtles.

In addition to the above, please fill out the following tables and explain the level of progress in the comments column.

	YES/NO/	Comments
	In Progress	
Does your country have a national action plan in accordance with Article XVIII?	Yes	The Environment and Natural Resources Secretariat (SEMARNAT), through the National Commission of Natural Protected Areas (CONANP), is in charge of coordinating the National Program for the Conservation of Sea Turtles (PNTM) within the framework of the Program for the Recovery of Species at Risk (PROCER). Implementation of the main conservation actions is done through the Action Programs for the Conservation of Species (PACE). Each of the six species of sea turtles occurring in Mexican territory has its own PACE containing actions such as knowledge generation, management, recovery, protection, administration, and culture, aiming to the conservation and recovery of the species of interest and its habitat, both in federal protected natural areas as in other priority areas of the country *1 (to see more). The Federal Attorney for Environmental Protection



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	Aimuai Report 2019	
	YES/NO/ In Progress	Comments
	III 110g1ess	conducts inspection and surveillance on nesting beaches, in addition to actions at sea, with the support of the Secretary of the Navy, as well as in roads and city markets.
Does your country have policies and programs at local and regional levels in accordance with Article XVIII?	Yes	Mexico has a permanent policy of total protection of sea turtles and their habitats reflected in a vast legal framework that includes several regulatory instruments such as Laws, Regulations, the Federal Criminal Code, and Official Mexican Norms in environmental and fishing matters, Decrees, Agreements, Environmental Protection Notices, and Programs.
		The Federal Attorney for Environmental Protection (PROFEPA) implements annually in coordination with the Secretariat of the Navy of Mexico (SEMAR) and the National Commission of Natural Protected Areas (CONANP) two permanent operations during the nesting season of two sea turtle species, the olive ridley turtle Lepidochelys olivacea and the leatherback turtle Dermochelys coriacea, which nest on its main nesting beaches; La Escobilla and Morro Ayuta in the state of Oaxaca, for olive ridley turtles, and for leatherback turtles, Tierra Colorada beaches, in the state of Guerrero, Mexiquillo in the state of Michoacán, and Barra de la Cruz and Cahuitán in the state of Oaxaca.
		On June 25, 2018, the "Agreement extending the establishment of the fishing refuge zone and new measures to reduce the possible interaction of fishing with sea turtles on the West Coast of Baja



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	YES/NO/	Comments
	In Progress	
		California Sur" was published., and made public on June 23, 2016, to continue with the participation of the On-Board Technical Assistants (ATB) and the monitoring that provides data on the null or little interaction of fishing gears with sea turtles.
Does your country have monitoring programs in accordance with Article IX?	Yes	All fishing vessels greater than 10.5 meters long operating in federal jurisdiction waters, as well as Mexican-flagged vessels that carry out fishing activities on the High Seas, must comply with the Official Mexican Norm NOM-062-SAG/PESC-2014, for the use of the Fishing Vessel Satellite Location and Monitoring System (DOF 07/03/15), which allows monitoring the fishing areas where they operate. The PACE foresees mechanisms to assess results with measurable indicators in the short, medium, and long term.

<sup>\*1-</sup>National Action Plan: a general description of the program for the protection and conservation of sea turtles:

The National Program for the Conservation of Sea Turtles is the oldest wildlife conservation program in Mexico, starting 53 years ago, and showing significant achievements in the recovery of some of the species. Currently, under the Environmental Sector, the General Directorate of Wildlife establishes the measures and policies regarding the management, conservation, protection, use, and research of sea turtles in Mexico. The authority's main objectives are to make a diagnosis of the different species' population status distributed in our country, address current legislation, coordinate the sectors participating in protection and conservation actions, and establish the instruments that will give rise to protection strategies. It also carries out activities aimed at promoting compliance with current legislation on sea turtles, their protection, conservation, research, and non-extractive use.

As of November 29, 2006, the internal regulations of SEMARNAT establish that the National Program for the Conservation of Sea Turtles will be operated through CONAP's General Directorate of Regional Operations. This Program dictates the policies and guidelines to develop actions for the protection and conservation of sea turtles on nesting beaches and the protection of their habitats. It protects the sea turtles' nesting areas found in Mexico. It encourages the



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development of specific projects by species. It coordinates the actions that several stakeholders carry out for the conservation of sea turtles. The Commission carries out activities to protect and monitor sea turtles in 46 nesting and feeding sites. These sites include priority beaches for the nesting of the six species of sea turtle that inhabit our country; several of the centers have been in operation for more than 25 years and their mission has been to protect and recover the populations of sea turtle species in their natural spaces found in Mexican territory.

In terms of protecting the sea turtles' nesting habitat, in 1986, 16 reserve areas and refuge sites were declared for the reproduction of sea turtles, 15 of which in 2002 were categorized as Sanctuaries because of their adequate biodiversity conditions, endemism, singularity, extension, and degree of conservation. They are currently being re-decreed as Sanctuaries with defined polygons and in some cases, expanded, for the benefit of turtle conservation. The Preliminary Justifying Study is in public consultation and the decree is expected to be issued in 2019.

A fundamental part of the Program is the Mexican Turtle Center, which mission is to promote the conservation of Mexico's natural heritage through the direct and indirect conservation of sea turtles and their ecosystems, as well as harmonious and sustainable links with local communities.

The participation of communities in sea turtle conservation continues to be promoted by the Commission through subsidy programs: Community Surveillance Program (PVC) and the Conservation Program for Sustainable Development (PROCODES). During 2018, the support to the communities has been for PVC a total of \$5,190,924.00 pesos (\$259,596.00. USD) and through the PROCODES program of \$8,351,726.50 pesos (\$417,586.00 USD). Through the Program for the Recovery of Species at Risk (PROCER), certain conservation actions were carried out for sea turtles in the country that will be described later, with an investment of \$3,065,270.00 pesos (\$153,263.50 USD). Within the Program of Monitoring in Protected Natural Areas (PROMANP), \$165,000 pesos (\$8,250 USD) were invested to develop an analysis of sea turtles nesting beaches loss in the Rancho Nuevo Beach Sanctuary, Tamaulipas.

Among the relevant actions, are the following:

1. Clutch protection results for hatchling release at 45 nesting sites operated and supervised by CONANP. The nesting and protection results of the official camps operated by CONANP for 2018 were 2,300,183 clutches of the six species of turtles that nest in our country, releasing 34,057,986 hatchlings into their natural environment. These data include information from two *Lepidochelys olivacea arribada* beaches, and it is clarified that the 2018 nesting season for the Pacific includes months of 2019, so in some places, the information is not yet complete, especially, the results of olive ridley and leatherback turtles.

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- 2. Project Eastern Pacific Leatherback *Dermochelys coriacea*. Protection has been carried out since 1982. Actions were reinforced in 1996. Its goal is to achieve the recovery of the leatherback turtle in the Mexican Pacific through the protection of females, eggs, and hatchlings on the main nesting beaches in Mexico, as well as maintain awareness of the population trend. In the last 5 years, the protection of nests on priority beaches has reached up to 95%, with an average of around 85%. Its main activities are listed below:
  - a. Protection of females, eggs, and hatchlings on priority beaches.
  - b. Population monitoring using standardized methods.
  - c. It provides training for students and professionals on the subject, as well as for the inhabitants of coastal towns.
  - d. Preparation of the Leatherback Project Final Report that involves index beaches in the country and additional historical information.

We are currently part of the LaudOPO Network, a network made up of expert conservationists interested in the recovery of the Eastern Pacific leatherback turtle, carrying out joint actions that seek to reverse the current status of the population. Through them, actions are promoted to reduce bycatch in longline and driftnet fisheries, both in national and international fisheries. During 2017 and 2018, surveys were carried out with fishermen along the Mexican Pacific coast to determine sites as possible hotspots, where certain artisanal and coastal fishing gear had interacted with leatherbacks. 499 surveys were applied in the states of Sinaloa and Sonora during June and July 2017, and 215 surveys were carried out in the states of Guerrero, Oaxaca, and Chiapas during the second semester of 2017 and February and March 2018, for a total of 714 surveys in a total of 37 communities.

#### The conclusions of the project were:

- The Mexican coast is an important area for the occurrence and development of the leatherback turtle. The fishermen interviewed have reported the observation of individuals of different sizes, which reflects diversity in terms of age/stages.
- Fishermen have encounters with leatherback turtles, with some gear interactions, or only sightings, although the frequency of these encounters is less than with other species of sea turtles. This is probably because the abundance of the Leatherback is lower compared to the other turtles.
- Although many fishermen report not having enough knowledge to compare the abundance of leatherback turtles in the past and the present, some of them recognize that the abundance is on a downward trend.
- According to different variables analyzed to determine sites of greatest vulnerability (hot spots) to bycatch (IC) of leatherback turtles from small-scale fishing, six main sites are identified:



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Bahía Kino, Sin., Cerro Cabezón, Sin., Barra de Tecoanapa – Punta Maldonado, Gro., Pto. Ángel – Sta. María Huatulco, Oax., La Ventosa, Oax. and Paredon, Chis.

- The maximum value of those fishermen interviewed who report interaction with Leatherbacks is 33%, reaffirming the low probability of encounters between Leatherbacks and fishing gear in most of the sites.
- Communities such as Barra de Tecoanapa, Punta Maldonado (hot spots), and Corralero, mainly fish their target species with hand lines, however, these are sites with reports of leatherback turtles captures when they use gillnets. It is believed that there is a possibility that the high numbers of leatherback turtles captured in these sites include hatchlings since these are the sites where the nesting beaches with the greatest abundance of nests are located.
- According to the information obtained from the different types of boats, it is believed that the leatherback turtle species is more likely to be caught incidentally in large boats with trawl nets for fin fishing and without excluders, as this is the fishing gear with the highest proportion of reports of incidental captures of leatherbacks, gillnets followed by the trawl nets.
- 3. The United States-Mexico Binational Program for the Recovery of the Olive Ridley Sea Turtle *Lepidochelys kempii*, aims for the recovery of the species. Among the most relevant results are the following:
  - a. The main Kemp's ridley nesting areas in Mexico are currently protected.
  - b. Nesting of the olive ridley turtle in 2018 was 13,508 clutches, releasing a total of 716,787 hatchlings in all the Tamaulipas camps operated by CONANP.
  - c. Although in general, the population shows a recovery trend, the 2018 nesting results show a decrease of 33% compared to 2017. It is believed that this decrease may have more to do with natural variations in the population than with a real decrease in population, however, it is necessary to continue monitoring nesting in the long term.
- 4. Project for the Protection, Conservation, and Recovery of the Hawksbill Turtle *Eretmochelys imbricata*. Which objective is to achieve the conservation and recovery of the populations of the hawksbill turtle (*Eretmochelys imbricata*) in Mexico. Among the main results of 2018 are:
  - a. Establishing critical areas for the conservation of the hawksbill in Campeche.
  - b. Threat prioritization, and review of the Hawksbill PACE.
  - c. Strategies to improve sea turtle conservation practices in Campeche.
  - d. Study of juveniles in feeding areas in the State of Campeche.
  - e. Work in areas of distribution of the species continues in the Mexican Gulf and the Caribbean area.
  - f. Evaluation of the impact of climate change on sea turtles' nests' incubation assessing temperature in nesting beaches at Laguna de Terminos Flora and Fauna Protection Area.



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g. Study on bycatch of sea turtles, associated with coastal fishing in five ports of the state of Campeche, Mexico.

## b.\_ National legislation and international instruments related to sea turtles adopted in the preceding year

Describe any national regulations, international agreements and other legal instruments adopted during the preceding year (April 30, 2018- April 30, 2019) related to sea turtles and/or relevant activities. Provide a reference and attach the digital file for the legislation and its corresponding number. The laws adopting the international legislation should be included when they exist.

National Legislation			
Type and name	Description (Scope of application)	Sanctions(s) Imposed	
of the legal			
instrument (No.)			
General Law of	Scope: The national territory and the	It involves the following	
Ecological	areas over which the nation exercises its	administrative sanctions:	
Balance and	sovereignty and jurisdiction.	Fine for the equivalent of	
Environmental	Regulates the preservation and	twenty to fifty thousand	
Protection.	protection of biodiversity, and regulates	days of minimum wage in	
The last reform	the establishment of protected natural	force in the Federal	
published in the	areas in places where the original	District; Temporary or	
DOF June 5,	environments have not been	permanent, partial or total	
2018.	significantly altered by human activities	closure; Administrative	
	or that need to be preserved or restored,	arrest for up to 36 hours;	
	it establishes criteria for the	Confiscation of	
	preservation and sustainable use of	instruments, specimens,	
	wildlife, prohibits the use of natural	products or by-products	
	populations of threatened or	directly related to	
	endangered species.	infractions, and suspension	
		and revocation of	
		concessions, licenses,	
		permits or authorizations.	



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General Wildlife Law. Last amendment published in the DOF on January 19, 2018. Scope: Territory of the Mexican Republic and in areas within the Nation jurisdiction.

It establishes the criteria to define the species and populations at risk and the sanctions for those who carry out acts contrary to the restoration programs and the closed seasons; prohibits the extractive use, whether subsistence or commercial, including its parts and derivatives, of any specimen of sea turtle, whatever species, and provides for the declaration of critical habitats for the conservation of wildlife and refuge areas to protect aquatic species.

It involves the following administrative sanctions: written reprimand; penalty fee; temporary, partial or total suspension of authorizations, licenses or permits; Revocation of the corresponding authorizations, licenses or permits; Temporary or definitive, partial or total closure of the facilities or sites where the activities that give rise to the respective infraction are carried out: administrative arrest for up to 36 hours; Confiscation of the specimens, parts or derivatives of wildlife, as well as the instruments directly related to the infractions.

General Law on Sustainable Fisheries and Aquaculture Last reform published in the DOF April 24, 2018 Scope: National territory and in areas within the Nation jurisdiction.

Its purpose is to guarantee the conservation, preservation and rational use of fishing resources and to establish the bases for its adequate promotion and administration in relation to the natural resources that constitute the flora and fauna whose total, partial or temporary livelihood, is the water. Establishes the coordination between the Ministry of Environment and Natural Resources and the Ministry of Agriculture, Livestock. Rural Development, Fisheries and Food to dictate measures for the protection of turtles, marine mammals and aquatic species under a It involves the following administrative sanctions: Reprimand with warning; Imposition of fine; Imposition of an additional fine for each day that the infraction persists; Administrative arrest for up to thirty-six hours; Temporary or definitive closure, partial or total, of the facilities in which the infractions have been committed: Confiscation of vessels, vehicles, fishing gear and/or products obtained from aquaculture and fishing directly related



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	special status of protection.	to the infractions committed, and Suspension or revocation of the corresponding permits, concessions and authorizations.
General Law of National Assets Last amendment published in the DOF on January 19, 2018.	Scope: This law applies to all national assets, except those assets regulated by specific laws.  It refers that it corresponds to the Federal Executive, through the Ministry of the Environment and Natural Resources, to promote the sustainable use and exploitation of the federal maritime terrestrial zone and the land reclaimed from the sea, delimiting that the concessions granted on federal real estate may be revoked for damaging ecosystems as a result of their use, or exploitation.  It states that those who use or exploit the federal maritime-terrestrial zone and the land reclaimed from the sea, without having a permit or authorization from the competent authority, directly or indirectly causing damage to the ecosystems or their components, will be obliged to repair the damage to the environment, or, to the environmental compensation that proceeds in accordance with the provisions of the Federal Law of Environmental Responsibility.	It contemplates the following administrative sanctions: Revocation of the concessions granted in the federal maritimeterrestrial zone and land reclaimed from the sea.
Federal criminal code Title Twenty- Fifth "Crimes	Scope: It will apply to federal crimes be applied throughout the Mexican Republic.	It involves the following criminal sanctions: From 1 to 9 years in prison and for the equivalent of 300 to
Against the Environment and Environmental Management"	It establishes the sanctions for those who capture, damage or deprive of life any specimen of turtle or marine mammal, or collect or store their	3,000 days fine. Additional penalty of 3 years and up to a thousand additional days fine when it affects a



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Last reform published in the DOF on November 5, 2018.	products or by-products in any way.	protected natural area or is carried out for commercial purposes.
Agreement that announces the Update of the National Fisheries Charter. Published in the DOF on August 24, 2012 and June 11, 2018.	In its technical sheet for the shrimp resource, it mentions the mandatory use of turtle excluder devices on both coasts, it also includes a summary of the management measures applied to the sanctuaries and reserve areas and refuge sites for the turtle protection, conservation, repopulation, development and control of the various species of sea turtle, additionally in its chapter V, it provides a list of priority marine species Subject to Protection and Conservation, in which information sheets on sea turtle species are included, including information on: protection measures, indicators, impacts, guidelines and management strategies. The inclusion of information about these species in the CNP, despite not being subject to any exploitation scheme, is relevant due to the fact that they are organisms that interact with fishing species.	There are no sanctions
AGREEMENT establishing the loggerhead ( <i>Caretta caretta</i> ) turtle refuge in the Gulf of Ulloa, in Baja California Sur. (06/05/2018)	In order to protect the sea turtles present in the area.	There are no sanctions



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It establishes the aptitudes for each zone	There are no sanctions
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, · · · · · · · · · · · · · · · · · · ·	People who fail to comply
1	with or contravene this
	Agreement will be subject
	to the sanctions established
turtles for 5 more years	for the case by the General
	Law on Sustainable
	Fisheries and Aquaculture
	and other applicable legal
	provisions.
Its objective is to remove the temporary	People who fail to comply
ban on fishing for all existing shrimp	with or contravene this
species in the areas and dates in the	Agreement will be subject
marine waters under federal jurisdiction	to the sanctions established
in the Gulf of Mexico and the Caribbean	for the case by the General
Sea.	Law on Sustainable
	Fisheries and Aquaculture
	and other applicable legal
	provisions.
	1
	The objective is to extend the validity of the Fishing Refuge Zone that minimizes and reduces any interaction of the coastal fishing fleet with species of sea turtles for 5 more years  Its objective is to remove the temporary ban on fishing for all existing shrimp species in the areas and dates in the marine waters under federal jurisdiction in the Gulf of Mexico and the Caribbean



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Mexico and the		
Caribbean Sea.		
(DOF		
04/30/2018).		
0 1/30/2010).		
Agreement	Its objective is to remove the temporary	People who fail to comply
establishing a	ban for all existing shrimp fisheries in	with or contravene this
temporary ban	the areas and dates in the marine waters	Agreement will be subject
on fishing for all	of the federal jurisdiction of the Pacific	to the sanctions established
shrimp species in	Ocean, including the Gulf of California,	for the case by the General
the marine	as well as the estuarine lagoon systems,	Law on Sustainable
waters under	marshes and bays, from the states of	Fisheries and Aquaculture
federal	Baja California Sur, Sonora, Sinaloa,	and other applicable legal
jurisdiction in	Nayarit, Jalisco and Colima.	provisions.
the Pacific		r
Ocean, including		
the Gulf of		
California, as		
well as in the		
estuarine lagoon		
systems, marshes		
and bays of the		
States of Baja		
Southern		
California,		
Sonora, Sinaloa,		
Nayarit, Jalisco		
and Colima.		
(DOF 03/14/18).		
Agreement to	It aims to establish a temporary ban on	People who fail to comply
establish a	commercial fishing for yellowfin tuna	with or contravene this
temporary ban	(Thunnus albacares), patudo or big-eye	Agreement will be subject
on the	tuna (Thunnus obesus), bluefin tuna	to the sanctions established
commercial	(Thunnus orientalis) and barrilete	for the case by the General
fishing of	(Katsuwonus pelamis) with Mexican-	Law on Sustainable
yellowfin tuna	flag tuna vessels 182 and more metric	Fisheries and Aquaculture
(Thunnus	tons of carrying capacity using seine	and other applicable legal
albacares),	nets, in waters of federal jurisdiction of	provisions.
patudo or bigeye	the Mexican United States of the Pacific	
tuna (Thunnus	Ocean, as well as in high seas and	

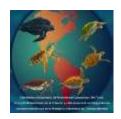


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North, Central and South America.	
	foreign jurisdictional waters of the Eastern Pacific Ocean (EPO) included in the area bounded by the coast of North, Central and South America.

**Note:** If this is the first time a country is submitting this information, please include all pertinent national legislation and international instruments currently in force.



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#### c.\_ Actions for compliance with national and international legislation

#### c.1 IAC Resolutions

Fill in the following tables for each of the IAC Resolutions listed below. In the case that a Resolution does not apply to your country, please mark the box RESOLUTION DOES NOT APPLY, and if a specific question does not apply, please mark the column DOES NOT APPLY. If you need more space to describe these actions, please attach additional pages and note the resolution and question number to which you are responding.

**Resolution CIT-COP7-2015-R2**: Conservation of the Eastern Pacific Leatherback Turtle (*Dermochelys coriacea*)

#### ACCORDING TO RESOLUTION CIT-COP7-2015-R2, REPORT WHETHER YOUR COUNTRY:

			RESOLUTION DOES NOT APPLY	
IS COMPLIANT WITH THE FOLLOWING:	YES	NO	DESCRIBE ACTION (*)	DOES NOT APPLY
1a) Have you created conservation plans and long-term programs that can reverse the critical situation of the leatherback turtle in the Eastern Pacific?	x		It should be noted that the capture of leatherback turtle has been permanently closed since March 16, 1994.  The Leatherback Project is within the National Program for the Conservation of Sea Turtles, operated by the National Commission for Protected Areas (CONANP), which has been in existence for more than 25 years. The project has generated information on the most important beaches for the species with monitoring season after season, ranking as one of the most complete leatherback turtle projects at an international level. The goal of this project is to protect at least 90% of nests on priority I beaches and 75% on priority II beaches, as well as the protection of nesting habitat. The project is working on the four index beaches of Mexico: Mexiquillo, Mich., Tierra Colorada, Gro., Cahuitán and Barra de la Cruz, Oax. The nesting activity in these areas represents 45% of the nesting of the Mexican Pacific coast.	
1b) Are you implementing these conservation plans and monitoring programs?	X		The Leatherback Project has carried out coordinated conservation actions with the main actors. Currently, there is a PACE for the leatherback turtle published in	
2. Have you taken conservation measures to eliminate poaching of leatherback turtles?	X		2008, prepared with the participation of all the actors involved in the conservation of this species.  The leatherback PACE was published in 2008 and its actions are implemented annually, with evaluation	



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3. If your country has leatherback turtle nesting beaches in the Eastern Pacific: Have you taken conservation measures to protect the nesting sites and their associated habitats?  4. Has your country adopted fishing techniques that reduce incidental capture and mortality of	x	indicators in the short, medium and long term. In addition to this, since 1982 efforts have been made to protect nests on priority nesting beaches, being reinforced from 1996 to date.  In accordance with the Mexican Official Laws in place and related to the subject (001, 002, 022, 023, 029 and 061), the corresponding inspection and surveillance actions are carried out.  The Secretary of the Navy carries out inspection and surveillance actions on the nesting beaches during the nesting season.  The Federal Attorney for Environmental Protection (PROFEPA) has carried out the certification and verification of the proper use of Turtle Excluder Devices (TED's), both on the dock prior the fishing season, and on the high seas during fishing operations of the shrimp trawling fleet.  As part of the conservation actions, in terms of the application and compliance with both national and international laws that protect sea turtles, PROFEPA has implemented the following inspection and surveillance programs on nesting beaches and fishing vessels:  1. Operational Inspection and Surveillance Program for the Protection of Sea Turtles on nesting beaches. 2016-2018.  2. Protocol for terrestrial and marine Surveillance Operations, linked to the protection of species at risk in Bahía de Ulloa, Baja California Sur. 2016-2018.  In September 2003, the Three-State Agreement was signed between the governments of the states that have priority beaches for the leatherback turtle: Michoacán	
		As part of the conservation actions, in terms of the application and compliance with both national and international laws that protect sea turtles, PROFEPA has implemented the following inspection and surveillance programs on nesting beaches and fishing vessels:  1. Operational Inspection and Surveillance Program for the Protection of Sea Turtles on nesting beaches. 2016-	
4. Has your country		Operations, linked to the protection of species at risk in	
adopted fishing techniques	x	signed between the governments of the states that have priority beaches for the leatherback turtle: Michoacán, Guerrero, and Oaxaca with the aim of working in coordination for the recovery of the Leatherback Turtle. The four priority beaches for the species in Mexico have an annual program to protect females, eggs and hatchlings through coordinated actions by CONANP, Profepa, the Secretary of the Navy and Kutzari AC. Currently, the index beaches also have the support of a a UNDP GEF project, consisting of extra technical personnel, equipment, and environmental education that support the conservation of sea turtles. The priorities for the following years are to continue working on the beach to monitor females and embryonic development.  Of the four leatherback turtle index beaches in Mexico, two have a Sanctuary category and one more is in the process of being declared a protected natural area. The four beaches are Ramsar Sites, three of them since 2003 and 2004, the last one was declared in February 2008, due to their importance as wetlands at an international	
		level. Of all of them, CONANP has the destiny of the federal zone for its conservation.  NOM-162-SEMARNAT-2012 and the decrees and	



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management programs for protected natural areas	
establish rules and specifications for the protection of	
sea turtle nesting beaches, including leatherback turtles.	
The mandatory use of turtle excluder devices (TED's) is	
maintained in accordance with the Official Mexican	
Norm NOM-061-SAG-PESC/SEMARNAT-2016,	
Technical specifications of sea turtle excluders used by	
the shrimp trawling fleet in jurisdictional waters of the	
United Mexican States (DOF 12/13/16), in order to	
contribute to the protection of sea turtle populations and	
reduce their bycatch, these include the use of a flat bar	
grill, which is more efficient in the exclusion of sea	
turtles.	
In the Official Mexican Norms (NOM) that regulate the	
activity of the fisheries with the highest incidence of	
incidental capture of sea turtles (shrimp, tuna, sharks),	
various measures have been included to reduce their	
capture and, in the event that this happens, resuscitation	
measures are implemented for the turtles that require it,	
prior to their release. Among the standards mentioned	
we can mention: NOM-002-SAG/PESC-2013, Mexican	
Official Standard NOM-061-SAG-PESC/SEMARNAT	
-2016, NOM-001-SAG/PESC-2013 and NOM-029-	
PESC-2006. Additionally, there is an Agreement to	
establish a fishing refuge area and measures to reduce	
the possible interaction of fishing with sea turtles on the	
western coast of Baja California Sur.	

(\*) Specify actions implemented, the name of the project or relevant document, location, objective(s), institutions responsible, contact, financial or other support (optional), results (both positive and negative) and duration.

CONANP collaborates with the LaudOPO Network project on incidental fishing. For this reason, as part of the 2018 activities, surveys were carried out on fishermen in the states of the North and South of the Pacific coast, obtaining the following. This project conclusion were mentioned above (Section II to \*1, 2).



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**Resolution CIT-COP8-2017-R2:** Conservation of the Hawksbill Turtle (*Eretmochelys imbricata*)

#### ACCORDING TO RESOLUTION CIT-COP8-2017-R2, REPORT WHETHER YOUR COUNTRY:

#### RESOLUTION DOES NOT APPLY DOES IS COMPLIANT WITH THE YES NO **DESCRIBE ACTION (\*)** NOT **FOLLOWING: APPLY** Are strengthening Inspection and surveillance actions on nesting beaches, during monitoring of the illegal use and the nesting season. trade of hawksbill turtles and their Identification of red hot spots in coastal communities in the products State of Campeche, that carry out incidental or directed fishing and/or that consume or take advantage of sea turtles. This project was carried out during 2006 and 2007 by Defenders of Wildlife, APFFLT-CONANP and DECOL Ciudad del Carmen AC. Surveillance tours are carried out for their protection on their main nesting beaches in the states of Navarit, Quintana Roo, and Yucatán. For Campeche, the main nesting state for this species, the trend in egg poaching dropped from 5% to less than 2% in the last 23 years. There are operations specifically for sea turtle's protection by the Environmental Protection Agency (PROFEPA) in these states. Verification of cross-border movement at the main points of entry and exit of the country for the import and export of wildlife products and by-products, including handicrafts made with hawksbill turtle shell. Since March 16, 1994, capturing the species has been 2. Are you enforcing pertinent hawksbill legislation? permanently banned, consumption and trade of products and by-products of all species of sea turtle, including the hawksbill are also prohibited. In accordance with the provisions of the General Law of Ecological Balance and Environmental Protection, the General Law of Wildlife and its regulations Federal Criminal Code, NOM-002-PESC-1993, NOM-126-SEMARNAT-200, NOM061-PESC- 2006, NOM-059-SEMARNAT-2010 and NOM-029-PESC-2006, the Total Ban Agreement for all Species and Subspecies of Sea Turtle in Waters of Federal Jurisdiction of the Gulf of Mexico and the Caribbean Sea, as well as those of the Ocean Pacific including the Gulf of California, and the provisions of the declaration of Protected Natural Area, the actions aimed at the application of current legislation in favor of the protection of the hawksbill turtle, the following are listed: • Inspection and surveillance in sea turtle protection centers with special attention to the release of hatchlings, preventing hatchlings from being held for several days and being released at inappropriate times. • Certification and verification of the proper use of turtle



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		excluders (TED's) both on the dock and off shore, of the	
		shrimp trawling fleet. For fisheries such as the shark, NOM-	
		029-PESC-2006 was issued, which includes regulations for	
		the protection of nesting beaches and incidental capture.	
		Fishermen and local communities have been integrated into	
		actions for the protection and conservation of sea turtles,	
		creating greater awareness regarding their protection.	
		Surveillance tours are carried out for their protection on their	
		main nesting beaches in the states of Nayarit, Quintana Roo,	
		and Yucatán.	
		Strengthening inspection and surveillance through	
		operations to verify compliance with NOM-162-	
		SEMARNAT-2012 in sea turtle protection centers, verifying	
		the preferential use of the <i>in situ</i> incubation technique, the	
		management program, and special attention in the most	
		natural protocol for releasing offspring, preventing the	
		offspring from being held for several days, as well as at	
		inappropriate times.	
		Verification of cross-border movement at the main points of	
		entry and exit of the country for the import and export of	
		wildlife products and by-products, including handicrafts made with hawksbill turtle shell.	
		For law enforcement, PROFEPA carries out inspection and	
2. A		surveillance operations in markets, beaches and the sea.	
3. Are activities being carried out in	X	Certifications of shrimp boats for the proper use of Turtle	
order to stop the illegal trade of		Excluder Devices (TED).	
hawksbill products?		Verification operations for shrimp vessels to comply with	
		NOM-061-SAG-PESC/SEMARNAT-2016 (TED).	
		Inspection of extractive and non-extractive use of marine	
		species at risk.	
		Inspection and surveillance actions on nesting beaches and fishing boats.	
		PROFEPA, with the support of SEMAR, carry out inspection	
		and surveillance operations for the protection of hatchlings,	
		nesting sites, in order to avoid illegal traffic and trade of sea	
		turtles in markets, beaches and the sea.	
		Within the POA Annual Operational Program, national	
		application goals are included in which actions are carried out	
		aimed at the protection of sea turtles in general, among which are included: Certification and verification of the installation	
		and use of Turtle Excluder Devices (TEDs) off shore;	
		Inspection actions to: Sea Turtle Conservation Centers,	
		restaurants, markets, craft shops and tourist souvenirs,	
		furriers, taxidermists, tanneries or others that could market sea	
		turtle products and by-products; Land and marine surveillance	
		patrols in front of beaches of sea turtle nesting beaches, in	
		feeding areas, in Protected Natural Areas, promotion and	
		installation of Participatory Environmental Surveillance	
		Committees CVAP and specific operations, including actions	
		in their nesting and feeding sites, inspections on the roads. All	
		this in compliance with national legislation regarding sea	
		turtle protection.	
		The goals in which these actions are included are listed below:	
		Operations to battle the illegal trafficking of specimens,	
		products and by-products of terrestrial and marine wildlife	



Mexico

		, ,		
4. Indicate if	a) Protection of	X	<ul> <li>species.</li> <li>Surveillance operations for the protection of species at risk and the protection of sea turtles in nesting areas.</li> <li>Installation of Participatory Environmental Surveillance Committees for the Protection of Priority Species PACE</li> <li>Attention to contingencies regarding wildlife, marine resources and coastal ecosystems.</li> <li>Through the application of federal government subsidy programs, fishermen and local communities have been integrated into actions for the protection and conservation of sea turtles, creating greater awareness of the importance of their care.</li> <li>Certifications of shrimp boats for the proper use of Turtle Excluder Devices (TED).</li> <li>Verification operations for shrimp vessels to comply with NOM-061-SAG-PESC/SEMARNAT-2016 (TED).</li> <li>Inspection of extractive and non-extractive use of marine species at risk</li> <li>The previous goal statements are presented in annual programming figures for compliance by the Federal Representations of PROFEPA in the Coastal States of the Mexican Republic.</li> <li>For the protection of nesting habitats, the following</li> </ul>	
your country is strengthening the protection of important nesting and foraging habitats by declaring protected areas and regulating anthropogenic activities that adversely impact these habitats	nesting habitats		legislation is in place:  -Decree of protected natural areas (ANP), there are 17 ANP with the category of specific sanctuaries for the protection of nesting and nesting places of sea turtles, in addition to other ANP that also protect said beaches: RB Laguna de Terminos, RB Los Petenes, Ría Celestún RB, Ría Lagartos RB, which have nesting areas within their polygons.  -The Official Mexican Norm NOM-029-PESC-2006, responsible fishing of sharks and rays. Specifications for their use (DOF 02/14/07), establishes that directed fishing for sharks and rays may not be carried out in a marine strip five kilometers wide in front of the main sea turtle nesting beaches, during the nesting seasons. Nesting beaches are specified in Normative Appendix "B" of the regulation.  - NOM-162-SEMARNAT-2012, which establishes the specifications for the protection, recovery and management of sea turtle populations in their nesting habitat.  - Agreement that establishes the name of Akumal Bay as the refuge area for the protection of the indicated species, the marine portion that is indicated in the State of Quintana Roo, which protects hawksbill turtle nesting habitats, among other.  - Decree by which the region known as the Mexican Caribbean is declared a Natural Protected Area, with the nature of a biosphere reserve.	



Mexico

b) Protection of	X	For the protection of feeding habitats, we have:	
feeding habitats		- Agreement that establishes the name of Akumal Bay as the	
		refuge area for the protection of the indicated species, the	
		marine portion that is indicated in the State of Quintana Roo,	
		which protects hawksbill turtle nesting habitats, among other.	
		-Decrees of natural protected areas (ANP) that have feeding	
		habitats within their polygons: RB Laguna de Terminos, RB	
		Los Petenes, RB Ría Celestún, RB Ría Lagartos, which have	
		nesting areas.	
		- Agreement that establishes the fishing refuge zone and new	
		measures to reduce the possible interaction of fishing with sea	
		turtles on the western coast of Baja California Sur.	
		- Decree by which the region known as the Mexican	
		Caribbean is declared a Natural Protected Area, with the	
		nature of a biosphere reserve.	

<sup>(\*)</sup> Specify actions implemented, the name of the project or relevant document, location, objective(s), institutions responsible, contact, financial or other support (optional), results (both positive and negative) and duration.



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**Resolution CIT-COP7-2015-R3:** Resolution on the Conservation of the Loggerhead Sea Turtle (*Caretta caretta*)

### ACCORDING TO RESOLUTION CIT-COP7-2015-R3, REPORT WHETHER YOUR COUNTRY:

			RESOLUTION DOES NOT APPLY	
IS COMPLIANT WITH THE FOLLOWING:	YES	NO	DESCRIBE ACTION (*)	DOES NOT APPLY
1. Has your country created national action plans or monitoring programs to promote loggerhead sea turtle conservation?	x		Program of Action for the Conservation of Species (PACE) Loggerhead Turtle Caretta caretta.  Program for the protection of the refuge for the protection of marine species in Bahía de Akumal (ARBA), published on March 7, 2016.  In the region of the Gulf of Ulloa, evaluations of the causes of turtle mortality, dissemination actions with the fishing sector, media plan and specific projects have been carried out:  • Fishing systems verification project.  • Project of Technical Assistants on Board of the artisanal fleet.  • Monitoring program through video recordings in the Gulf of Ulloa, Baja California Sur.  • Project measures to mitigate loggerhead turtle captures in artisanal fishing equipment.  • Application of recommendations and technical means in coastal fishing, to reduce interaction with sea turtles in the Gulf of Ulloa, B.C.S.  • Method of capture and recapture of sea turtles and their effect on mortality as well as evaluation of the effective time of gillnet fishing.  As a result of the declaration of the Refuge Area for the Loggerhead Turtle (Caretta caretta) in the Gulf of Ulloa, Baja California Sur, the Refuge Protection Program was developed, which is still under review.	
2. State if there are plans or recovery programs, or bilateral or regional cooperation.	X		Both programs only apply in Mexico. The PACE has a national scope, the Protection Program is local. Regarding the specific projects, they are considered Regional Programs, however they contribute to the conservation of the population of loggerhead sea turtles ( <i>Caretta caretta</i> ). In addition to generating accurate information and data on fishing operations, catches, and interactions with sea turtles.	
3. Are these action plans or monitoring programs being implemented?	x		Based on the actions proposed in the PACE, CONANP promotes projects that reverse the threats to loggerhead turtles. Surveillance actions are carried out in the ARBA, as well as supporting and strengthening actions to protect females and clutches for the release of hatchlings into the marine environment on some nesting beaches in the Mexican Caribbean.  Application of the Agreement that establishes the fishing refuge and new measures to reduce the possible	



Mexico

			I have noted and the first time with the second second second	
			interaction of fishing with sea turtles on the western coast of Baja California Sur.	
4. Is there protection of the species at a state or federal level?	X		The Federal Criminal Code establishes sanctions for those who capture, damage or take the life of any specimen of sea turtle, or collect or store its products or by-products in any way.  The General Wildlife Law prohibits the extractive use of sea turtles, whether for subsistence or commercial, including their parts and derivatives.  Specifically, the Official Mexican Norm NOM-162-SEMARNAT-2012, establishes the specifications for the protection, recovery and management of sea turtle populations in their nesting habitat.  There is also an Agreement that establishes the fishing refuge and new measures to reduce the possible interaction of fishing with sea turtles on the western coast of Baja California Sur, which establishes measures to reduce the possible interaction of fishing with sea turtles, particularly with the <i>Caretta caretta</i> .  The provisions of the Agreement are applicable to fishermen, permit holders and concessionaires of commercial and sports-recreational fishing who use larger or smaller vessels in the exploitation of fishing resources in the marine waters of federal jurisdiction of the United Mexican States, adjacent to the western coast of the State of Baja California Sur, in the area called "Gulf of Ulloa".  - Decree by which the region known as the Mexican Caribbean is declared a Natural Protected Area, with the nature of a biosphere reserve.	
5. If your country has loggerhead turtles nesting beaches:		x		
5a. Has your country taken conservation actions to protect nesting beaches and their associated habitats?	X		The Official Mexican Norm NOM-162-SEMARNAT-2012 establishes the specifications for the protection, recovery and management of sea turtle populations in their nesting habitat.  There is an Agreement that establishes the fishing refuge and new measures to reduce the possible interaction of fishing with sea turtles on the western coast of Baja California Sur, which establishes measures to reduce the possible interaction of fishing with sea turtles, particularly with <i>Caretta caretta</i> .  Pursuant to the Agreement, a Fishing Refuge Zone (ZRP) was established with a surface area of 19,934 km2 (1,993,229 hectares), and a Specific Fishing Restrictions Area (AERP) with a surface area of 7, 244 km2 (724, 372 hectares). (1,993,229 hectares). In order to reduce the possible interaction of fishing with sea turtles.  The most relevant nesting beaches have some category of protected natural area. Among these are: Isla Contoy	



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			National Park, Puerto Morelos National Park, Sian Ka'an Biosphere Reserve, Tulum National Park. Currently the Gran Caribe Biosphere Reserve that includes the Xcacel-Xcacelito beaches in its terrestrial portion. All of them nesting beaches of Loggerhead. Gran Caribe Biosphere Reserve also includes feeding, development and transit areas, as well as the Refuge Area for the Protection of species "Bahía De Akumal (ARBA)"	
5b. Are there laws on turtle-friendly lighting in areas impacted by coastal development?	x		NOM-162-SEMARNAT-2014 establishes that lighting near nesting beaches must be directed downwards and away from the beach, using one of the following measures:  a) Directional luminaires or those provided with screens or hoods. b) Low voltage bulbs (40 watts) or compact fluorescent lamps of equivalent luminosity. c) Yellow or red light sources, such as low pressure sodium vapor lamps. Additionally, this Standard states that during the tours for the observation of sea turtles, only the person responsible for guiding the visitors can make use of some type of lighting The Decree by which the region known as the Mexican Caribbean is declared a Protected Natural Area, with the character of a biosphere reserve, prohibits placing lighting directed towards the sea and the beaches, which alters the reproductive cycle of sea turtles, as well as their entry or transit; with the exception of maritime signaling determined by the competent authority There is an Agreement that establishes the fishing refuge and new measures to reduce the possible interaction of fishing with sea turtles on the western coast of Baja California Sur, which establishes measures to reduce the possible interaction of fishing with sea turtles, particularly with the Caretta caretta.	
5c. Is there long-term (minimum 10 years) standardized data available for population trend studies?	x		Yes, on the beaches of Quintana Roo, especially those in the central portion of the State. These beaches have been monitored for more than 15 years and are currently managed by the NGO Flora, Fauna and Culture.	
6. Is there exploitation or direct harvest of loggerhead sea turtles in your country?		X	Despite being illegal, since the species has been permanently banned since March 16, 1994 and is persecuted by the competent authorities, it is an activity that still occurs minimally in some places, especially in the Baja California Peninsula.	

<sup>(\*)</sup> Specify actions implemented, the name of the project or relevant document, location, objective(s), institutions responsible, contact, financial or other support (optional), results (both positive and negative) and duration



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**Resolution CIT-COP3-2006-R2**: Reduction of the adverse impacts of fisheries on sea turtles

#### ACCORDING TO RESOLUTION CIT-COP3-2006-R2, REPORT WHETHER YOUR COUNTRY:

 $In the column for "species" please use: Cm ({\it Chelonia mydas}), Lo ({\it Lepidochelys olivacea}), Dc ({\it Dermochelys coriacea}), Cc ({\it Chelonia mydas}), Lo ({\it Chelonia mydas}), Cc ({\it Chelonia$ 

(Caretta caretta), Lk (Lepidochelys kempii), Ei (Eretmochelys imbricata)

IS CO	OMPLYING H THE LOWING:	YES	NO	DESCRIBE ACTION (*)	SPECIES	DOES NOT APPLY
Agric	culture Organization	(FAO),	includi		Nations Food	d and
A.Re	search and monitoring	ig of the	advers	se impact of fisheries on sea turtles		
i)	Collect information by fishery	X		Mainly in the shrimp, tuna and shark fishery. Fishing activities in fisheries that have some interaction with sea turtles are being monitored, minimizing possible incidental catches of these species.	Mainly Lo, Lk, Cm	
ii)	Observer programs	х		There are observers on board in the shark fishery (bycatch). Currently, there is a Program for On-Board Observers or Technical Assistants on Board of the Artisanal Fleet on the western coast of Baja California Sur, which covers 50% of fishing operations, specifically on vessels that have a finfish and shark permit. There is a program of scientific observers on board tuna vessels, and to a lesser extent on shrimp and shark longliners, keeping a record of each fishing trip with an observer on board.	Mainly Lo, Lk, Cm	
iii)	Research on sea turtle/fishery interactions	X		Mainly in the shrimp and shark fishery.  From 2014 to 2018, assessments of the causes of turtle mortality have been carried out in the Gulf of Ulloa region.  After three years of implementing Fisheries Management actions, through On-Board Observer Programs and Video Recording Systems, it has been possible to document and verify that fishing is not the cause of the turtle mortality recorded on the Western Coast of B.C.S. Studies are ongoing to minimize bycatch in fishing activities regarding this issue.	Mainly Lo, Lk, Cm	
iv)	Information on non-Party vessels					N/A
v)	Cooperation with non-Party states to obtain information	X		Exchange of information		
B. M	litigation measures for	or the fo	llowing	g fisheries:		
i)	Long-line	X		Described in NOM-029-PESC-2006, responsible fishing for sharks and rays that requires the use of circle hooks in certain areas and depths.  The Agreement that establishes the fishing refuge and new measures to reduce the possible interaction of fishing with sea turtles on the western coast of Baja California Sur,	Mainly Lo, Lk, Cm, but also applies to CC, DC	



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The second secon				
		establishes: an area where the use of gill nets, long lines or longlines and traps; measures for the release of accidentally captured specimens; a loggerhead turtle mortality limit (90 individuals) after which commercial fishing will be suspended and allows only trawls using Sea Turtle and Fish Excluder Devices.  Fishing may not be carried out with these fishing gear to catch sharks and rays, in a marine strip five kilometers wide in front of the main sea turtle nesting beaches, during their nesting season.  NOM-029-PESC-2006, responsible fishing for sharks and rays that requires the use of circle hooks in certain areas and depths, immediately releasing turtles caught incidentally in longlines. Immediate release of turtles caught incidentally in longlines.  Use of less attractive bait for turtles. Use of circle hooks of	and EI.	
ii) Gillnets	X	the largest possible size.  Described in NOM-029-PESC-2006, responsible fishing for sharks and rays, which prohibits their use in front of turtle nesting beaches and during the turtle breeding season.  The Agreement that establishes the fishing refuge and new measures to reduce the possible interaction of fishing with sea turtles on the western coast of Baja California Sur, establishes: an area where the use of gill nets, long lines or longlines and traps is forbidden; measures for the release of accidentally captured specimens; a loggerhead turtle mortality limit (90 individuals) after which commercial fishing will be suspended and allows only trawls using Sea Turtle and Fish Excluder Devices.  Bans have been established on the use of gillnets in shark and swordfish fisheries, due to their high interaction with turtles and other marine species.	Mainly Lo, Lk, Cm, but also applies to CC, DC and EI.	
iii) Trawling (e.g., 1. TEDs: specify legally approved TEDs, their dimensions, material, and target species for that fishery, 2.time-area closures: specify a geographical area, time of closure and target species for that fishery, 3. tow times and/or 4. other measures)	X	NOM-002-SAG/PESC-2013 specifies that the use of TEDs is mandatory for shrimp trawling, this standard is completed with NOM-061-SAG-PESC/SEMARNAT-2016, Technical specifications of sea turtle excluders used by the shrimp trawling fleet in waters under the federal jurisdiction of the United Mexican States (DOF 12/13/16), which includes the following specifications: The characteristics of the TED in terms of shape, dimensions, construction materials, assembly, installation and inclination of the grill, must facilitate the exclusion of adult and juvenile turtles whose height in the shell is greater than 10.2 centimeters, preventing their passage into the net bag and allowing their exit through an opening to escape. Also, the TED must facilitate the transit of the shrimp to the bag. TEDs must be made up of the following components:  a) Extension of netting with an opening. b) Solid grill. c) Opening cover. d) Floats. Additionally, you can use: e) Accelerator funnel.	Mainly Lo, Lk, Cm, but also applies to CC, DC and EI.	



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- f) Tension cable.
- g) Protection cape.
- h) Cloth cover to prevent wearing.
- 4.1.3 Requirements for components and materials of construction:
- a) Extension of netting with an escape opening.

TED structure. It is built with a single rectangular piece of polyamide thread shrimp cloth.

(PA) multifilament dyed and treated from number 18 to 36 or polyethylene (PE), with a mesh size of 38 millimeters (1 1/2 inches) to 41 millimeters (1 5/8 inches) equivalent to a mesh size of between 35 millimeters (1 3/8 inches) and 38 millimeters (1 1/2 inches); and dimensions of at least 50 by 150 meshes, adjusting to the size of the grills. The smaller sides of the cloth must be joined together by sewing and must be joined at their ends to the body of the net and to the bag every two meshes at most.

The escape opening is a rectangular cutout, which shall not be less than the dimensions of either of the following two options:

- 1) 142 centimeters (56 inches) in the transverse direction and 51 centimeters (20 inches) in the longitudinal direction, measured at stretched cloth, from half a mesh forward of the grill, where the opening begins to be cut. The cover for this opening corresponds to specification 1) of item c), and can be used on grills greater or less than 120 inches in perimeter, taking into account that if it is used on a grill greater than 120 inches in perimeter, the outlet opening cut lengthwise should be located at a maximum of 4 inches from the full width of the grill on both sides.
- 2) 180 centimeters (71 inches) in the transverse direction and 66 centimeters (26 inches) in the longitudinal direction measured with a stretched cloth from half a mesh in front of the grid, where the cut of the opening begins.

The cover to be used with this escape opening is specified in specification 2) of subsection c), and may only be used on grills greater than 120 inches in perimeter.
b) Solid grill.

Characteristics and materials:

It must be a rigid structure made up of an oval or semi-rectangular frame without corners, with minimum dimensions of 81 centimeters by 115 centimeters and maximum dimensions of 107 centimeters by 130 centimeters, with vertical bars firmly fixed to the frame, at least at one of its ends and distributed equidistantly with a maximum separation of 10.2 centimeters measured from edge to edge of the bars and with respect to the frame. In the event that in the lower part of the TED, the end of the bars of the grill are not attached to the frame, a reinforcement of the same material as the frame or bars must be incorporated, as a horizontal arm behind the grill, joined to each of the bars by perpendicular spacer sections of not less than 12.7 centimeters (5 inches). The brace must be placed within the area between the midpoint of the



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exterior of the frame and the bottom of the grill bars. Shelves can be made of any of the following materials: galvanized or stainless steel rod with a minimum diameter of 7.9 millimeters (5/16 inches) for the frame and 6.4 millimeters (1/4 inch) for the vertical bars; 3/4 inch (19.1 mm) minimum diameter aluminum bar or rod in the frame and 5/8 inch (16 millimeters) for vertical bars; aluminum pipe with a minimum of 32 millimeters (1 1/4 inches) outside diameter for frame and bars, or schedule galvanized steel pipe 40 with a minimum outside diameter of 12.7 millimeters (1/2 inch) for the frame and 9.5 millimeters (3/8 Inch) for vertical bars. As an alternative to the above, the use of a solid grill with flat bars or slabs with a rigid structure with the following characteristics or specifications is authorized (Annex 1): I. Made up of an oval frame oval 109 centimeters wide by 129 centimeters high. II. Frame of the tube grill or bar of 3.2 centimeters in diameter. III. A tube or support bar of 3.2 centimeters in diameter perpendicular to the flat bars located in the central part of

the frame, and may be fixed at a maximum distance of 10 centimeters from the center of the frame. IV. Vertical flat bars (slabs) firmly fixed to the frame, equidistantly distributed with a maximum separation of

10.2 centimeters measured from edge to edge of the bars and with respect to the frame, the vertical bars must be 3.8 centimeters wide by 0.6 centimeters thick or gauge and must be firmly attached (welded) to the tube or support bar. V. The material of construction must be aluminum (alloy

quality T-60/61 or 6000).

Grill position: it must be installed inside the TED body inclined forward (front of the TED oriented in the mouthpocket direction of the net), when the escape opening is lower, or backwards (rear of the TED), when the escape opening is higher. The inclination of the grid with respect to the horizontal axis of the TED must have an angle between 35° and 55° (with an optimal value of 45°) for the first case and between 125° and 145° (with an optimal value of 135°) for the second. The grill must be firmly attached to the extension of the cloth along the perimeter of the frame by means of joints with multifilament polyamide thread.

Direction of the grill bars: Some TED models have a grill which bars have a certain angle of inclination with respect to the frame that supports them. These are special designs that prevent the accumulation of garbage and its effect on shrimp retention; in those cases the direction of the bars should be towards the front of the TED.

c) Escape opening cover.

The cover of the escape opening must be pre-stretched and heat-treated polyethylene (PE) net cloth. The mesh size used should be between 38.1 millimeters (1 ½ inches) and 41.28 millimeters (1 5/8 inches).

The exhaust opening cover shall comply with any of the



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following options:					
1) Two sections of rectangular cloth, a minimum of 147.3					
centimeters (58 inches) wide, stretched cloth, which are					
installed in the body of the TED covering the escape					
opening (142 by 51 centimeters), overlapping one above					
the other no more than 38.1 centimeters (15 inches),					
stretched cloth, along their entire length, with no seam in					
the overlap that fixes one section of cloth with the other,					
except in					
the seam joining the sections (caps) to the leading edge of					
the escape opening. Sections (lids) may extend up to 24					
inches (61 centimeters) behind the grill and must be					
attached along their entire length. This lid will be used with					
option 1) of item a) of section 4.1.3.					
2) A section of rectangular cloth at least 337.8 cm (133					
inches) wide by 147.3 centimeters (58 inches) long at					
stretched cloth. This cover is installed on the body of the					
TED covering the exhaust opening (180 by 66					
centimeters), with the longest edge (337.8 centimeters)					
attached to the leading edge of the exhaust opening, with					
the possibility of overlapping in that place up to a					
maximum of 12.7 centimeters (5 inches).					
The side edges may be attached to the TED body up to 6					
inches (15.2 centimeters) behind the trailing edge of the					
escape opening, with the ability to extend freely (i.e., not					
attached to the cloth) up to a maximum of 61 centimeters					
(24 inches) behind the grill. This cover will be used with					
specification 2) of item a) of specification 4.1.3. Both types					
of covers can be overlapped on the body of the TED, in the					
panel before the escape opening by a maximum of 2 or 3					
meshes, and are fixed by sewing along the entire length of					
the mesh line, equidistant from the front margin of the					
opening or attached thereto; in the cover of the 71-inch					
opening, laterally it can overlap the body of the TED up to					
a maximum of 2 or 3 meshes and be equally fixed by					
sewing, even up to a maximum of 15.2 centimeters (6					
inches) behind the union of the grill with the TED body at					
its bottom, from which point the lid should be completely					
free. In the case of the double cover exhaust opening of 56					
inches or more, it can laterally overlap the TED body up to					
a maximum of 2 or 3 meshes and be equally fixed by					
sewing and can extend behind the grill up to a maximum					
61 centimeters (24 inches), and must be fixed throughout					
its length.					
d) Floats.					
The buoyancy that the excluders with escape opening in					
the lower part must have, for their adequate stability,					
hydrodynamics and operation, must be equal to or greater					
than their weight in the water. If the buoyancy of the					
excluder is not equal to its weight, floats must be					
incorporated to complement it. A buoyancy of 9 to 10					
kilograms of force provided by floats made of					
polyurethane, polyvinyl chloride (PVC), ethyl vinyl acetate					
(EVA), other rigid plastic, or aluminum is sufficient.					
Requirements and position of the floats when the escape					

Requirements and position of the floats when the escape



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opening is lower. In the case of polyurethane floats, they must be two bodies with similar dimensions, weight and shape, with a buoyant force of 4.5 kilograms each, fixed by means of a polyamide (PA) or polyethylene (PE) rope on both sides of the part top center of the grill (at the junction point with the TED body) symmetrically. In this case, they can go outside the TED body or inside behind the grill frame.

In the case of a spherical float made of PVC, another rigid plastic or aluminum, it must cover at least the buoyancy of 9 kilograms of force; be fixed to the upper central part of the grill (at the junction point with the TED body) and always outside the TED body.

Requirements and position of floats when the exhaust opening is above: The same types of floats can be used when the TED has an escape opening above, in which case, they must be installed outside the body of the TED, one on each side of the TED. below the edge of the escape opening cover.

- 4.1.4 Additional Components.
- a) Accelerator funnel.

It is an accessory that has the function of favoring the rapid transit of the shrimp towards the bag, avoiding losses due to exclusion. It is made of polyethylene (PE) cloth, prestretched and heat-treated, with a mesh size no greater than 41.28 millimeters (1.5/8 inches). Generally, it is built with a section of cloth of 100 by 29 meshes, although they can be larger depending on the size of the grill, it is joined by sewing on the sides of 29 meshes. It is a body similar to a truncated cone with a tongue at one of its ends, with a width between 36 and 62 meshes. At that end the funnel should be able to stretch a minimum of 180 centimeters (71 inches)

For the installation of the funnel, its front part (the one that does not have a tab) must be fixed to the perimeter of the cloth extension, making a uniform distribution of the 100 meshes of its perimeter, with the meshes of the cloth extension. The rear part of the funnel is fixed, by its shorter side (margin where the tab begins) to the bars of the grill on the side opposite the exhaust opening, at a distance of 10 centimeters from its frame, joining the narrowest edge of the funnel at most a third of its perimeter and leaving the flap completely free towards the escape opening. Care must be taken that the funnel is installed in congruence with the symmetry of the net.

b) Tension cable.

These are ropes that ensure the maintenance of the grid angle so that the TED has adequate efficiency. They can be made of polyamide (PA), polypropylene (PP) or polyethylene (PE) with a minimum diameter of 1 centimeter and are placed on each side of the TED body. attached to the grill by means of a tie, outside the extension of the cloth by means of one seam every 2 or 3 stitches towards the front and joined to several stitches by stitching at the upper end of the rope.



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c) Protection cable  It is a rope that helps to reduce the wearing of the net around the grill and prevents its deterioration due to occasional friction with the bottom. It can be made of polypropylene (PP) or polyethylene (PE), at least 1.2 centimeters in diameter, which is placed interspersed along the entire length of the grill frame and through a mesh line.  To hold firmly to the grill, it has several ties with polyamide (PA) thread.
d) Cloth cover to prevent wearing. A cloth cover can be used to prevent wearing of the escape opening cover, when there is eventually friction with the bottom, particularly during the process of excluding a turtle, as long as it meets the following requirements:  1) Its dimensions are not greater than those of the cover of the opening, so it cannot extend beyond the side and back margins of the cover.  2) It can only be attached to the panel extension (TED body) at the junction points with the front margin of the opening, when the cover is directly attached to it.  3) The cloth used must be made of polyamide thread with a diameter greater than 2.4 millimeters.  4) May not interfere with or restrict the escape opening.  5) It cannot be installed or used in the double cover exhaust opening.  4.1.5 Technical specifications installation  4.1.5.1 To contribute to the optimal functioning of the TED, its installation must be done taking care to keep symmetry between the body of the TED and the body of the net  4.1.5.2 The front part of the TED (joining edge with the funnel) is oriented in the opening-pocket direction of the net.  4.1.5.3 The cover of the TED opening must be before the grid, in the direction of the net bag.  4.1.5.4 The other end of the TED must be attached to the net bag.  4.1.5.5 In both joins, the distribution of TED meshes with respect to the body and bag of the net must be homogeneous.  Sea turtle's fisheries have been permanently closed since 1994.  The Agreement that establishes the fishing refuge and new measures to reduce the possible interaction of fishing with sea turtles on the western coast of Baja California Sur, establishes: an area where the use of gill nets, long lines or longlines and traps; measures for the release of accidentally captured specimens; a loggerhead turtle mortality limit (90 individuals) after which commercial fishing will be suspended and allows only trawls using Sea Turtle and Fish Excluder Devices.  With regard to closed season, sea turtles have been in a total and



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			closed seasons and areas for fishing in 1994. Permanent use and mandatory use of TED. Those authorized according to region and/or preference are: ANTHONY WEEDLEESS, FED-INP, GEORGIA JUMPER, SAUNDERS GRID, SUPER SHOOTER 4" AND SUPER SHOOTER RIGID 6".	
	Other fishing gear (indicate which one(s))	x	The Agreement that establishes the fishing refuge zone and new measures to reduce the possible interaction of fishing with sea turtles on the western coast of Baja California Sur, prohibits large temporary fixed traps, called "almadrabas" that may not be used under any circumstances.	
	Training programs for fisherman about best practices for safe handling and release of sea turtles incidentally caught	x	In accordance with NOM-001-SAG/PESC-2013 for purse-seine tuna and NOM-002-SAG/PESC-2013 for shrimp, in both cases as bycatch.  Since 2010, each year to date, CONAPESCA operates a Comprehensive Training and Technical Assistance Program called the Emerging Training Program on the efficient use of Turtle Excluder Devices (TEDs).  During 2018, the training reinforcement program was carried out on the management and construction of turtle excluder equipment (TED's) and their efficient use; through the delivery of 70 courses where 1,794 fishermen from the states of Baja California, Campeche, Chiapas, Oaxaca, Sinaloa, Sonora, Tamaulipas and Veracruz participated.	
i) 3	Support socio- economic activities that help mitigate adverse impacts of fisheries on sea turtles	erations	Economic support and temporary employment during shark and shrimp's fisheries closures.	

<sup>(\*)</sup> Specify actions implemented, the name of the project or relevant document, location, objective(s), institutions responsible, contact, financial or other support (optional), results (both positive and negative) and duration.

#### c.2 National and International Mandates

List actions that are being carried out to comply with national and international mandates (Ex: inspections, confiscations, sanctions, etc.)

Through its publication in the Official Gazette of the Federation (DOF), on December 13, 2016, the process of modifying the Official Mexican Norm "NOM-061-SAG-PESC/SEMARNAT - 2016, Technical specifications of the excluders of sea turtles used by the shrimp trawling fleet in waters under the federal jurisdiction of the United Mexican States. In this modification, in



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addition to the rigid type grills that were already authorized, the use of a solid grill with flat bars or soles was included, which is more efficient for the exclusion of large organisms, such as sea turtles, they have a greater shelf life and improve the flow of shrimp into the bag. With this modification, the technical specifications of the TEDs are standardized with those established in other countries with which there is commercial exchange and technical cooperation.

On June 23, 2016, the "Agreement establishing the fishing refuge and new measures to reduce the possible interaction of fishing with sea turtles on the western coast of Baja California Sur" was published in the DOF, to establish a temporary partial fishing refuge zone with a surface area of 19,934 km2 (1,993,229 ha) in the marine waters of federal jurisdiction, adjacent to the central part of the western coast of Baja California Sur in the area called "Gulf of Ulloa". It establishes an area where the use of gill nets, longlines and traps is prohibited; It establishes measures for the release of specimens captured accidentally, and a mortality limit for loggerhead turtles (90 specimens) after which commercial fishing will be suspended. Allows only trawls using Fish and Sea Turtle Excluder Devices. The Agreement was modified in the DOF on November 18, 2016.

Within the actions for the protection of the sea turtle on its nesting beaches and to fight the trade of its products and by-products during the year 2018, PROFEPA carried out 64 operations at the national level, of which 5 focused on fighting sea turtle illegal exploitation and 15 to protect their nesting and feeding areas. As a result, 82 surveillance tours were carried out in the states of Baja California Sur, Chiapas, Michoacán, Quintana Roo, Sinaloa, Veracruz and Yucatan.

In June 2018, inspection, surveillance and verification actions were applied and strengthened to guarantee compliance with the protection and conservation of sea turtles and their nesting habitat at the Sea Turtle Protection and Conservation Centers (CPCTM), where 13 inspections and 6 inspections were carried out to confirm the sea turtle ban, as well as the creation and monitoring of 9 Participatory Environmental Surveillance Committees.

No sea turtle eggs were seized during these actions, nor was any person brought before the Federal Public Ministry for the illegal possession of specimens, parts and derivatives of sea turtles.

On the beaches of La Escobilla and Morro Ayuta in Oaxaca, which are the main nesting beaches for the Olive Ridley turtle in the State, during the period from June to December, the phenomenon of massive nesting called *Arribada* occurs. Due to the above, PROFEPA carries out an operation that consists of permanent surveillance of the area in coordination with the Secretary of the Navy - Navy of Mexico and technical personnel from the Mexican Turtle Center, with the aim of preventing nests poaching capture of turtles. In total, during 2018, 946

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surveillance tours were carried out, through which 17 *arribadas* were protected, in which the protection of approximately 2,701,003 nests is estimated.

The second operation is related to the nesting of the leatherback sea turtle. This operation was carried out at the end of the 2017-2018 season in the period from January to March and at the beginning of the 2018-2019 season in the period from November to December on the main nesting beaches of this species, which are: Mexiquillo, from Michoacan; Tierra Colorada, Guerrero; Barra de la Cruz and Cahuitán, from Oaxaca. The operations are carried out in coordination with elements of the Secretariat of the Navy - Navy of Mexico and technical personnel of the National Commission of Protected Natural Areas (CONANP) and the Mexican Turtle Center (CMT), during which time there was permanent presence of these authorities on the beaches. As a result of this operation, 25 surveillance tours were carried out, in which 2 specimens were sighted, 4 nests were protected and there were no records of the release of hatchlings. Additionally, since the nesting beaches are shared, protection was provided to the olive ridley and brown turtle nests that reached these beaches, estimating the protection of 21 olive ridley nests (*Lepidochelys olivacea*) and 2 brown turtle nests (*Chelonia agassizi*).

In 2018, the Federal Environmental Protection Agency certified sea turtle excluder devices (DET) in two periods:

- a) At the end of the 2017-2018 season, 22 shrimp boats were certified.
- b) At the beginning of the 2018-2019 season, 1,109 shrimp trawler vessels operating in waters under the federal jurisdiction of the United Mexican States were certified.

The certification of these vessels was carried out in accordance with the provisions of the Official Mexican Norms NOM-002-PESC-1993 and NOM-061-SAG-PESC/SEMARNAT-2016, particularly the latter establishes the technical specifications that TEDs must meet.

During 2018, the certifications made in the mentioned seasons totaled 1,131 on both coasts, where the largest number of certifications at the end of the 2018-2019 season was made in the Pacific, equivalent to 72% of the total number of vessels, this because the shrimp fishery is more relevant on the coast of the Pacific Ocean and the Gulf of California. In the Gulf of Mexico and the Caribbean Sea, 28% of the shrimp fleet was certified

Likewise, as part of the actions carried out in 2018, to verify compliance with the norm NOM-061-SAG-PESC/SEMARNAT-2016, efforts were made to strengthen inspection and surveillance, particularly in shrimp fishing areas, in addition of the actions on the dock, being relevant for this purpose the close coordination with the National Commission of Aquaculture and Fisheries (CONAPESCA). In this effort, we also had the collaboration of the Secretary of the Navy of Mexico (SEMAR) and the National Commission of Natural Protected Areas (CONANP).



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The existing collaboration and coordination with CONAPESCA has made it possible to achieve better results. During the 2017-2018 season (October-March), PROFEPA verified 173 shrimp boats, without finding any irregularities.

In the initial part of the 2018-2019 season (September-December), verification of compliance with NOM-061-SAG-PESC/SEMARNAT-2016 has been carried out in 118 shrimp boats, of which 25% were reviewed in the fishing areas and the rest 75% on the dock. The foregoing is equivalent to the verification of 1,746 exclusion devices, which during their use favor the exit of sea turtles from shrimp nets, raising 18 administrative procedures and finding one serious irregularity.

#### d.\_ Application [submission] of exceptions established in the Convention

Describe in detail the exceptions allowed in accordance with article IV, item 3(a,b,d) and Annex IV of the text of the Convention, in accordance to the procedure established by the COP (Doc. CIT-COP5-2011-R2). Attach management program.

Not applicable for Mexico.



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#### **Part III (Research information)**

#### a.\_ Threats

Indicate threats (Coastal development, incidental capture, direct use, contamination and pathogens, and climate change) by species, with information on the area and activities taken to control them in the following table. Lo = Lepidochelys olivacea; Lk = Lepidochelys kempii; Dc = Dermochelys coriacea; Ei = Eretmochelys imbricata; Cc = Caretta caretta; Cm = Chelonia mydas.

Species	Threat(s)	Actions
Species Lo, Lk, Dc, Ei, Cm, Cx	Threat(s)  ⊠Coastal development ⊠Incidental capture ⊠Direct use ⊠Contamination □Pathogens ⊠Climate change	Actions  Patrols and relocation of clutches to safe and sheltered sites are carried out in a large number of nesting beaches in the country. This in order to avoid poaching and strengthen the recruitment of offspring to the wild population. A large number of nongovernmental groups such as communities, civil associations, universities, among others, have joined this action of the federal government through CONANP.
		Inspection and surveillance actions are carried out on nesting beaches during the nesting season where turtles and seized eggs, collected and eggs relocated, released hatchlings, as well as seized fishing gear are reported. Special operations are also carried out in coordination with PROFEPA on the coast.
		Inspection and surveillance actions were carried out in the sea turtle protection centers with special attention to the release of hatchlings, preventing hatchlings from being held for several days and being released at inappropriate times.
		Inspection and surveillance actions on the nesting beaches of both coasts during the nesting season and special operations in



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coordination with SEMAR and CONANP on the main olive ridley turtle nesting beaches, in Escobilla and Morro Ayuta, to protect their arrival.\*1

Certification and verification of the proper use of turtle excluders (TED's) are carried out annually, both on the dock prior to the start of the fishing season, and on the high seas during the fishing period of the shrimp trawling fleet, in accordance with to NOM-002-SAG/PESC-2013 and NOM-061-SAG-PESC/SEMARNAT-2016.

Inspection and surveillance actions for restaurants and marketers of fishery products, especially during the holiday season.

Inspection and surveillance in the federal maritime-terrestrial zone in order to verify that the activities carried out in this zone comply with the regulations.

In particular, for the loggerhead sea turtle *Caretta caretta*, a ZRP was implemented in the Gulf of Ulloa, through the Agreement that extends the validity of the similar one that establishes the fishing refuge zone and new measures to reduce the possible interaction of fisheries with sea turtles on the West Coast of Baja California Sur, published on June 23, 2016 (DOF 06/25/2018).

Change of land use for construction of rural housing, surveillance is maintained in the area.

Environmental education, Community organization.

Poaching of eggs in holiday seasons with a greater influx of visitors on the beaches. Inspection and surveillance actions and



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special operations (PROFEPA-SEMAR) to protect nesting species.

Hurricanes (beach erosion). Management strategies are implemented to prevent loss of clutches.

Light on beaches, vehicle transit. The traffic on the beaches increases especially in tourist sites and seasons. The public is alerted by announcements on the beach about the presence of sea turtles. In some places, vehicles are obstructed by placing trunks or milestones across the beach, however, there is no law in Mexico that prohibits the free movement of vehicles in national territory.

Constructions and infrastructure on the beach. Inspection and surveillance in order to verify that all constructions have an Environmental Impact statement, as well as compliance with mitigation measures, in accordance with the General Law of Ecological Balance and Environmental Protection (LGEEPA) and regulations regarding this matter.

Observations: In the tourist developments, it is verified that the lighting is in accordance with the conditions established in the environmental impact statement, such as the orientation of the lamps, and type of lighting, in order to avoid disturbing the turtles during the nesting season.

Predation of eggs and hatchlings by domestic or wild animals Project in coordination between PROFEPA, SEMAR, CONANP and in some places with the Ministry of Health to carry out a program of sterilization and sanitary control of feral dogs.



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Inadequate management of tourism Inspection and surveillance in sea turtle protection centers with special attention to the release of hatchlings, preventing hatchlings from being held for several days and being released at inappropriate times.

Observations: It is necessary to carry out environmental education courses among tourism service providers in order to promote an awareness of respect, and transmitted to visitors, in order to avoid harming the turtles.

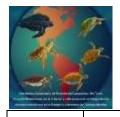
Trawl nets, longlines, gillnets, etc. Certification and verification of the proper use of turtle excluders (TED's) both on the dock and on the high seas of the shrimp trawling fleet. For fisheries such as the shark, NOM-029-PESC-2006 was issued, which includes regulations for the protection of nesting beaches and bycatch. Fishermen and local communities have been integrated into actions for the protection and conservation of sea turtles, creating greater awareness of the importance of their care.

Observations: It is necessary to increase inspections during shrimp fishing activities.

Turtle captures for the use of its meat, both on the beach and in the sea. In Mexico, by law, the extractive use of sea turtles, products and by-products is prohibited. The Mexican Navy conducts boat surveys to detect ships that are fishing illegally. PROFEPA inspectors carry out this same type of action in coordination with the Secretary of the Navy.

Inspection and surveillance actions on nesting beaches during the nesting season and special operations (PROFEPA-SEMAR).

Inspection and surveillance actions for



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restaurants and marketers of fishery products, especially during the holiday season.

Observations: In the holiday season to discourage consumption, operations are implemented to combat this activity.

The PROFEPA delegations in coastal states have boats, which allow them to carry out tours in front of the nesting beaches in order to identify boats that carry out directed capture of turtles.

All vessels in the shrimp fleet are required by law to use sea turtle excluder devices (TEDs), in order to allow turtles caught incidentally to free themselves from the net.

The Federal Attorney for Environmental Protection is the body in charge of verifying their proper use and installation both on the dock and on the high seas, as well as certifying the DETs each year as established by NOM-061- PESC/SEMARNAT-2006 and NOM-003- PESC-1993.

PROFEPA verifies compliance with the IATTC resolution, tuna purse seine vessels must make every effort to free a trapped turtle.

<sup>\*</sup>I The main sea turtle nesting beaches of the country are in this area, among which the beaches of: Sanctuary Playa de Escobilla and Morro Ayuta stand out, where the massive nesting of more than a million individuals per season are recorded. For this reason, it is considered one of the most important places in the world for the reproduction of turtles.



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#### b.\_ Research

Describe scientific research that is being carried out in the country relating to sea turtle population assessments including tagging, migration, and genetic studies, as well as those relating to conservation issues including habitat monitoring, fisheries interactions, disease, etc. Provide a list of references for the information used in this report and note how to obtain them when needed.

#### FISHERIES MANAGEMENT PROJECTS CARRIED OUT BY CONAPESCA IN 2018

- ➤ "TECHNICAL ASSISTANTS ON BOARD SMALL VESSELS ON THE WEST COAST OF BAJA CALIFORNIA SUR IN THE AREA CALLED GULF OF ULLOA".
- > TECHNICAL ASSISTANTS ON BOARD THE ARTISANAL FLEET OF THE GULF OF ULLOA.
- ➤ "ASSESSMENT OF SHORE FISHING OPERATIONS BY VIDEO RECORDING IN THE NORTH ZONE OF THE GULF OF ULLOA, B.C.S. STAGE VI".
- ➤ "ASSESSMENT OF COASTAL FISHING OPERATIONS BY VIDEO RECORDING IN THE CENTRAL AND SOUTH ZONE OF THE GULF OF ULLOA, B.C.S. STAGE VI".
- > "HABITAT USE AND MORTALITY OF SEA TURTLES USING SATELLITE TAGS".

RESEARCH, CONSERVATION AND MANAGEMENT PROJECTS CARRIED OUT THROUGH PROCER AND PROMANP (CONANP) IN 2018:

1) DIAGNOSIS OF THE VULNERABILITY OF THE CEUTA BEACH SANCTUARY **Objective**: Strengthen conservation actions within the Playa Ceuta Sanctuary, through an analysis that assess the level of vulnerability that allows proposing mitigation actions and adaptation measures to climate change, to reduce vulnerability.

**Region**: Ceuta Beach Sanctuary

**Brief description of the project**: The Playa Ceuta Sanctuary is one of the northern limits of the olive ridley turtle nesting in Mexico, with a historical record of more than 25 years of nesting. With this project, a diagnosis of the physical, functional and social vulnerability of the Playa Ceuta Sanctuary nesting beach was developed; the population was informed about the physical, functional and social vulnerability of the nesting beach of the Ceuta Beach Sanctuary, and an Action Plan was generated with objectives and measures for adaptation to climate change with local participation.

### 2) CONSERVATION OF SEA TURTLES IN THE FEEDING AREAS OF THE GULF OF CALIFORNIA ISLANDS AND SAN PEDRO MÁRTIR ISLAND

**Objective**: To determine the abundance and structure by sizes and species of sea turtles ocurring in the marine area of the San Ignacio, Macapule, Nixcoco, San Pedro Mártir and



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Tiburón Islands.

Region: APFF Islands of the Gulf of California, RB Isla San Pedro Mártir

Brief description of the project: Studies of sea turtles in their feeding areas are relatively recent and scarce, so this project carried out a regional evaluation of the status of sea turtles in feeding areas in the Islands of the Gulf of California, specifically in the marine area of the San Ignacio, Macapule, Nixcoco, San Pedro Mártir and Tiburón Islands, as well as an analysis of population abundance, with a spatio-temporal description by species and size structure and diagnosis of threats and mortality record due to anthropogenic causes. As a very important component in the conservation of species at risk, community groups collaborating in the project were trained on monitoring sea turtle feeding sites.

### 3) STRENGTHENING ACTIONS FOR THE CONSERVATION AND PROTECTION OF SEA TURTLES IN BARRA DE LA CRUZ BEACH - PLAYA GRANDE OAXACA

**Objective**: Help in the recovery of sea turtle populations in Barra de la Cruz-Playa Grande, Oax.

Region: RPC Barra de la Cruz-Playa Grande, Oax.

Brief description of the project: Barra de la Cruz beach is one of the four main leatherback turtle nesting beaches in Mexico, and one of the main ones in the Eastern Pacific, where abundance has been alarmingly reduced in recent years. Therefore, it is necessary to evaluate the abundance, distribution of clutches, incubation success, body condition and laying success of sea turtles with a focus on the olive ridley turtle, protection of clutches for the greatest release of hatchlings and reduce mortality of juveniles and adults on the beach. Likewise, environmental education talks were designed and implemented for primary school children, as well as the training of community technicians from Playa Grande. For the best management of clutches and hatchling production, the thermal regime of the incubation pen was determined.

### 4) CONSERVATION OF SEA TURTLES IN RÍO LAGARTOS BEACH

**Objective:** Provide information and technical elements on the nesting habitat and populations of sea turtles that contribute to their conservation and recovery in the Ría Lagartos Biosphere Reserve and the beach sanctuary adjacent to the town of Río Lagartos; and transfer information about these priority species to local communities.

Region: RB Ria Lagartos

**Brief description of the project**: One of the main nesting areas for the hawksbill turtle in the Greater Caribbean region is in the Ría Lagartos BR, specifically in the areas known as Las Coloradas and El Cuyo. In this place, the abundance of nesting and incubation success were determined. Alsom the space-time distribution of clutches was characterized, on the beaches of the RBRL and the SRL, as well as the identification of areas impacted by tidal actions. Actions to restore beaches and coastal dune vegetation were proposed, and the rescue of both nesting females that cross the dune and enter the saline pools, nests that are vulnerable to weather conditions, awareness actions with fishermen, and the elaboration of dissemination material.



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#### 5) ATTENTION TO SEA TURTLE STRANDING

**Objective**: Develop and implement an Attention Contingency Plan for Sea Turtles in Mexico through the creation of a stranding network and training of technicians to provide an immediate response to emergencies that arise with these turtles.

**Region**: National

**Brief description of the project**: For prompt and expeditious attention to massive or isolated stranding of sea turtles, an Attention Contingency Plan for Sea Turtles in Mexico was developed, strengthening contingency attention through the creation of a stranding network for sea turtles in Mexico and the training of turtle center technicians on the subject. In order to have historical data, information was collected on contingencies registered in the country from at least 5 years ago, the attention given and its result.

#### 6) ADAPTATION AND IMPLEMENTATION OF THE SEA TURTLE SYSTEM

**Objective**: Optimize the use of SITMAR at the service of sea turtle conservation projects.

**Region**: National

**Brief description of the project**: The systematization of the standardized information that is generated in the different centers, especially those operated by CONANP, is of utmost importance in a national Program, with more than 50 years of operation, therefore, to the adequacy of the System, the Technical Executive Committee was activated for the review and suggestions in technical aspects and analysis for the best functioning of the Sea Turtle Information System (SITMAR); field technicians were trained for its use in real time and the necessary improvements were made for the best functioning of SITMAR.

# 7) ANALYSIS OF THE SEA TURTLE NESTING BEACH LOSS IN PLAYA RANCHO NUEVO SANCTUARY AND FLORA AND FAUNA PROTECTION AREA LAGUNA MADRE AND RÍO BRAVO DELTA, TAMAULIPAS

**Objective**: To determine the loss of the beach of Rancho Nuevo Beach Sanctuary and the Laguna Madre and Rio Grande Delta Flora and Fauna Protection Area, and its impact on these species to establish priority sites for their conservation and management.

Region: APFF Laguna Madre and Rio Bravo Delta

In addition to the above, please fill out the following table on the types of research being carried out in the country and with what <u>species</u>.

Research	Specie(s)(Lo, Lk, Cm, Ei, Cc, Dc)
Tagging	Lo, Lk, Cm, Ei, Cc, Dc
Migration	Lk, Cm, Ei, Cc, Dc
Habitat monitoring	Lo, Lk, Cm, Ei, Cc, Dc
Fisheries interactions	Lo, Lk, Cm, Ei, Cc, Dc
Genetics	Lo, Lk, Cm, Ei, Cc, Dc



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#### SCIENTIFIC RESEARCH

In Mexico there are different institutions carrying out sea turtle research projects. There are some tagging programs with long-term objectives, such as the Mexican Pacific Leatherback Project and the Hawksbill Turtle Conservation Program in the Gulf of Mexico and the Mexican Caribbean, and the Loggerhead Turtle Conservation Program in the Mexican Caribbean.

The National Program for the Conservation of Sea Turtles coordinates the monitoring of population trends on the index beaches of the species that nest in the country. Likewise, it coordinates with academic institutions and NGOs to agree on research priorities according to the strategies established in the PACE.

The General Directorate of Wildlife, in 2018 authorized the following research projects:

Institution	Project	Species	Zone
Centro Universitario de La Costa Sur. Universidad de Guadalajara	Determinación sexual de crías de <i>Lepidochelys olivacea</i> mediante dos métodos en el campamento Bahía Navidad, Mpio de Cihuatlán Jalisco	" Lepidochelys olivacea	Jalisco
Centro Mexicano de la Tortuga, Comisión Nacional de Áreas Naturales Protegidas, CONANP.	Casos Clínicos de Tortuga Marinas en el Centro Mexicano de la Tortuga	" Chelonia agassizi ", "Lepidochelys olivacea ", " Eretmochelys imbricata " y "Lepidochelys kempi "	Oaxaca
Centro Mexicano de la Tortuga, Comisión Nacional de Áreas Naturales Protegidas, CONANP.	Evaluación del desarrollo en ejemplares juveniles o adultos de tortuga golfina <i>Lepidochelys olivacea</i> en el Centro Mexicano de la Tortuga	" Lepidochelys olivacea "	Oaxaca
Facultad de Biología Universidad Michoacana de San Nicolás de Hidalgo	Niveles hormonales plasmáticos de testosterona, estradiol y corticosterona durante el cortejo y cópula en machos reproductores y machos " de tortuga negra (Chelonia agassizii) de Michoacán, México. "	"Chelonia agassizi"	Michoacán
Facultad de Biología Universidad Veracruzana	Programa de monitoreo biológico basado en especies indicadoras de integridad ecológica en el PNSAV.	" Chelonia mydas " y " Eretmochelys imbricata "	Veracruz



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Institution	Project	Species	Zone
Centro Interdisciplinario de Investigación para El Desarrollo Integral Regional-Oaxaca (CIIDIR) Intituto Politécnico Nacional .	Determinación de la existencia de áreas de alimentación de tortugas marinas en la zona costera del Pacífico Sur de México.	"Lepodochelys olivácea", "Dermochelys coriácea", "Chelonia mydas", "Eretmochelys imbricata" y "Caretta caretta"	Oaxaca
Instituto de Neuroetología Universidad Veracruzana	Influencia de la concentración de corticosterona sobre los niveles de estradiol y vitelogenina en hembras anidantes de la tortuga lora, Lepidochelys kempii	"Lepidochelys kempii"	Veracruz
Comisión Nacional de Áreas Naturales Protegidas, CONANP	Evaluación poblacional y de salud de las Tortugas Marinas dentro de Bahía de los Ángeles, Baja California, México	"Caretta caretta", "Chelonia mydas", "Eretmochelys imbricata", Lepidochelys olivácea" y "Dermochelys coriácea"	Baja California
Donataria Cden S.C.	Programa de Protección, Conservación e Investigación de la Tortuga Lora (Lepidochelys kempii) en las playas de La Pesca, Tehehuajes y Santuario Rancho Nuevo.	"Lepidochelys kempii", "Chelonia mydas", "Caretta caretta", "Dermochelys coriácea" y "Eretmochelys imbricata"	Tamaulipas
Sociedad Civil Para La Conservación y Desarrollo de Espacios Naturales	Programa de Protección, Conservación e Investigación de la Tortuga Lora ( <i>Lepidochelys kempii</i> ) en las playas Barra del Toro, Tesoro y Miramar	"Lepidochelys kempii", "Chelonia mydas", "Caretta caretta", "Dermochelys coriácea" y "Eretmochelys imbricata"	Tamaulipas
Instituto de Biología Universidad Nacional Autónoma de México	Ecología y conservación de cuatro especies de tortugas	"Eretmochelys imbricata", "Caretta caretta", "Lepidochelys olivacea" y "Chelonia mydas"	Yucatán y Quintana Roo
Centro de Biotecnología Genómica Instituto Politécnico Nacional	Diversidad genómica de Lepidochelys kempii especie en peligro crítico de extinción	"Lepidochelys kempii"	Tamaulipas
Instituto de Neuroetología Universidad Veracruzana	Densidad de células de la retina de crías en Lepidochelys spp., y el efecto de longitudes de onda sobre su desplazamiento	"Lepidochelys kempii"	Veracruz



Mexico

Institution	Project	Species	Zone
Centro de Biotecnología Genómica Instituto Politécnico Nacional	Análisis filogenético utilizando código de barras de ADN de tortugas marinas que anidan en México	"Lepidochelys olivácea", "Caretta caretta", "Eretmochelys imbricata" y "Chelonia mydas"	Tamaulipas
Centro de Estudios Tecnológico del Mar	Programa de varamientos de tortugas marinas en Yucatán	"Eretmochelys imbricata", "Caretta caretta", "Chelonia mydas", y "Dermochelys coriácea"	Yucatán
Centro de Estudios Tecnológico del Mar	Evaluación del estado de salud actual de las tortugas marinas en Yucatán	"Eretmochelys imbricata" y "Chelonia mydas"	Yucatán
Campamento Tortuguero Ayotlcalli, A.C.	Ecología reproductiva y conservación de las tortugas marinas que anidan en playa blanca, playa larga y Barra de Potosí, en Zihuatanejo de Azueta, Guerrero	"Lepidochelys olivacea", "Chelonia agassizi" y "Dermochelys coriácea"	Guerrero
Universidad Autónoma Metropolitana, Unidad Iztapalapa	Monitoreo de contaminantes y sus efectos en la tortuga lora Lepidochelys kempii en Rancho Nuevo, Tamaulipas	"Lepidochelys kempii"	Ciudad de México
Facultad de Ciencias Naturales Universidad Autónoma del Carmen	Compuestos orgánicos persistentes en tortuga marina de Campeche	"Chelonia mydas" y "Eretmochelys imbricata"	Campeche
Universidad Autónoma de Baja California Sur	Determinación del estado de salud y conservación de las tortugas marinas en áreas de alimentación y anidación en la Península de Baja California, Golfo de California y el Pacífico Norte de México	"Chelonia mydas", "Chelonia agassizii", "Eretmochelys imbricata" y "Caretta caretta"	Baja California Sur
Organización para La Sustentabilidad y La Conservación del Medio Ambiente, AC	Monitoreo de la abundancia y distribución de las tortugas marinas en el Parque Nacional Revillagigedo	"Lepidochelys olivácea", "Chelonia agassizii", "Caretta caretta", "Eretmochelys imbricata" y "Dermochelys coriácea"	Baja California Sur
Parque Nacional Cabo Pulmo Comisión Nacional de Áreal Naturales Protegidas (CONANP)	Uso de material de organismos varados muertos para actividades de educación ambiental	"Dermochelys coriacea", "Caretta caretta", "Chelonia agassizi", "Eretmochelys imbricata", y	Baja California Sur



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Institution	Project	Species	Zone
		"Lepidochelys olivácea"	
Promotora Xcaret, S.A. de C.V.	Programa de protección y conservación de tortugas marinas en el litoral central de Quintana Roo: Programa de exhibición de nidadas 2018	"Chelonia mydas" y "Caretta caretta"	Quintana Roo
Facultad de Ciencias del Mar Universidad Autónoma de Sinaloa	Utilización de hábitat y mortalidad de la tortuga amarilla <i>Caretta caretta</i> en la costa oriental de Baja California Sur	"Caretta caretta"	Sinaloa
Centro de Investigación Científica y de Educación Superior de Ensenada (CISESE)	Programa de monitoreo de tortugas marinas en las costas de la Península de Baja California	"Chelonia mydas", "Caretta caretta", "Lepidochelys olivácea", "Eretmochelys imbricata" y	Baja California
Acuario de Veracruz A.C.	Marcado con placas de Inconel y microchip y colecta de tejido para estudios de genética en el estado de Veracruz	"Lepidochelys kempii",  "Chelonia mydas",  "Caretta caretta",  "Dermochelys coriácea"  y "Eretmochelys  imbricata"	Veracruz
Universidad de Sonoma State. California, U.S.A.	Evaluación de la capacidad de buceo y adaptaciones en las seis especies de tortugas marinas que anidan en México	"Caretta caretta", "Chelonia mydas", "Dermochelys coriácea", "Eretmochelys imbricata", "Lepidochelys kempii", "Lepidochelys olivácea" y "Chelonia agassizi"	Oaxaca
Gerente del Proyecto y Co- Jefe Científico del Ocean Discovery Institute	Métodos de prueba para reducir la captura incidental de tortugas marinas en la pesca	"Chelonia mydas"	Baja California
Instituto de Investigaciones Biomedicas Universidad Nacional Autónoma de México	Factores genéticos y epigenéticos involucrados en la determinación sexual de la tortuga marina Lepidochelys olivacea	"Lepidochelys olivacea"	Oaxaca



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Institution	Project	Species	Zone
El Colegio de La Frontera Sur (ECOSUR)	Seguimiento de las tortugas marinas que circundan en litoral costero del Caribe Mexicano	"Chelonia mydas", "Eretmochelys imbricata" y "Dermochelys coriácea"	Quintana Roo
Instituto de Investigaciones Sobre Los Recursos Naturales (INIRENA)	Efecto de la incubación en nidos artificiales sobre la respuesta inmunológica en la tortuga marina Lepidochelys olivacea.	"Lepidochelys olivácea"	Michoacán
Directora Ejecutiva del Grupo Tortuguero de Las Californias, A.C.	Ecología de las tortugas amarilla (Caretta caretta), Prieta (Chelonia mydas agassizi) y laud (Dermochelys coriacea) en Áreas de Forrajeo de la Península de Baja California, Golfo de California y el Pacífico Norte de México	"Caretta caretta", Lepidochelys olivacea", "Chelonia mydas" y "Dermochelys coriacea"	Baja California Sur
Representante Legal de La Organización Para la Sustentabilidad y La Conservación del Medio Ambiente A.C.	Seguimiento vía satélite del desplazamiento de tortugas marinas en costas de México	"Chelonia mydas", "Caretta caretta", "Eretmochelys imbricata", "Lepidochelys olivácea" y "Dermochelys coriácea"	Baja California Sur
Investigador del Instituto de Biología Universidad Nacional Autónoma de México	Temperatura y humedad óptima para el desarrollo embrionario de Eretmochelys imbricata	" Eretmochelys imbricata"	Campeche y Yucatán
Instituto de Biología Universidad Nacional Autónoma de México	Infuencia ambiental en los nidos de tortugas marinas y las repercusiones en su éxito reproductor ante al cambio climático	"Eretmochelys imbricata", "Caretta caretta", "Lepidochelys olivacea" y "Chelonia mydas"	Yucatán y Quintana Roo

#### c.\_ Other activities

Include information on environmental education activities, programs to establish and manage protected areas, and cooperative activities with other Party countries.

Two important Agreements for the conservation of sea turtles were published in the Official Gazette of the Federation in 2018: the AGREEMENT establishing the refuge area for the loggerhead turtle (*Caretta caretta*) in the Gulf of Ulloa, in Baja Southern California, and the AGREEMENT by which the North Pacific Marine and Regional Ecological Planning



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Program is promoted. Both have a direct impact on the protection of the loggerhead (yellow) turtle *Caretta caretta* in the Gulf of Ulloa in the Baja California Peninsula. In addition to this, the destination of the federal maritime terrestrial zone of the Maruata and Colola Sanctuaries, and Rancho Nuevo beach, was obtained in favor of CONANP.

#### GEF PROGRAM TO STRENGTHEN THE PROTECTION OF SPECIES AT RISK:

This project supports 10 beaches identified as having the highest priority to carry out conservation actions, through strengthening, both with trained personnel and with equipment. These beaches are Natural Protected Areas and Priority Regions for Conservation, with significant numbers of nesting of the 6 species of sea turtles that nest in our country. The strengthened beaches are the following:

- 1. PN Tulum (playas Xcacel-Xcacelito, Q. Roo.
- 2. Santuario Playa de Escobilla, Oax.
- 3. RPC El Verde Camacho, Sin.
- 4. RPC Chenkán, Camp.
- 5. RPC Cahuitán, Oax.
- 6. RPC Barra de la Cruz, Oax.
- 7. PN y Santuario Chacahua, Oax.
- 8. Santuario Tierra Colorada, Gro.
- 9. Santuario Rancho Nuevo, Tamps.



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Part IV: Annexes

#### **Table 1: Species Present**

Place an X in the box when the species listed is present in the oceanographic basins of your country as established in Article III of the text of the Convention. Lo = Lepidochelys olivacea;  $Lk = Lepidochelys \ kempii; \ Dc = Dermochelys \ coriacea; \ Ei = Eretmochelys \ imbricata; \ Cm = Chelonia mydas; \ Cc = Caretta \ caretta.$ 

Species	Pacific	Atlantic	Caribbean Sea
Lo	X		
Lk		X	X
Dc	X	X	X
Ei	X	X	X
Ст	X	X	X
Cc	X	X	X



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#### Table 2: Index nesting sites or beaches for sea turtle conservation

- a. This table is intended to report information on index nesting sites or beaches for each species. For beaches that have multiple species nesting, enter that beach under the list for the primary nesting species. When entering information on nesting site or beaches, information is to be entered for each species independently. Indicate the names of index nesting sites. On a separate sheet of paper, indicate the selection criteria used for identifying the index beach, for example, because it hosts a significant proportion of the overall nesting population within a region or other defined unit or genetic importance. Please use the index sites that your country has selected included in the document circulated with this report.
- b. Nesting season: Indicate the starting and finishing date of the nesting season.
- c. Monitoring period: Indicate the starting and finishing date of monitoring efforts.
- d. Survey frequency: Indicate the frequency with which the surveys are done (daily, weekly, bi-weekly, monthly, among others).
- e. Geographic location: Specify latitude and longitude in decimal degrees.
- f. Extension of beach monitored: Provide the total length (in Kilometers) of the nesting beach.
- g. Declared protection area: Indicate (yes or no) if the area is declared as some type of protected area.
- h. Annual nesting abundance: Provide information on the total number of females and/or clutches or nests deposited at the nesting site or beach in real numbers. Provide the exact count of females based on tagged or uniquely identified individuals. If the exact number of clutches is unknown provide a total number of nests.
- i. Information from tagging program: Indicate if there have been any tagging activities at the nesting beach by using the letters of the type of tagging being done: flipper tagging (FT), passive integrated transponder (PIT) tagging, and satellite telemetry (ST) programs. If possible, on a separate sheet or as attached reference provide greater detail about the type of tagging efforts conducted. Also, provide satellite telemetry maps or flipper tag recovery information if available.
- j. Tissue sampling: Indicate if there has been tissue sampling conducted at this site. This includes skin, blood, and other body tissues. On a separate sheet, or as attached references describe these tissue sampling programs in greater detail. For example, were samples collected for genetic, contaminant, and/or stable isotope studies?
- k. Indicate what organization or entity is providing the data.
- 1. When inserting new rows, please copy and paste the drop-down menus when applicable.

	Name of	Nestin	g Season		itoring eriod	lency		ocation (Lat/Lon) nal Degrees	f beach (km)	Declared Protected	Annual N	lesting Ab	undance	Tagging Program	Tissue	Organizatio
Spp	Index Nesting Site or Beach	Start	Finish	Start	Finish	Survey Frequency	Latitude	Longitude	Extension of beach monitored (km)	Protected Area (Yes/No)	Female s Exact Count	Clutch es Exact Count	Numb er of Nests	(FT, ST, PIT)	Sampling (Yes, No)	n or entity providing data
Lo	Barra de la Cruz	June	May	June	May	Daily	15.81666667	95.9666667	8.5	No	Nd	708	708	None	No	CONANP
Lo	Cahuitán	June	May	June	May	Daily	16.31166667	98.5351111	10	No	nd	1,291	1,291	None	No	CONANP
Lo	Chalacatepec , Jal.	June	May	June	May	Daily	19.72086806	105.289722	16	Yes	nd	7,973	7,973	None	No	CONANP
Lo	El Chupadero, Col.	June	May	June	May	Daily	18.79206	103.863169	25	Yes	nd	4,839	4,839	None	No	CONANP
Lo	El Verde, Sin.	June	May	June	May	Daily	18.75416667	106.484444	20	Yes	468	2,158	2,158	FT	No	CONANP
Lo	Nuevo Vallarta, Nay.	June	May	June	May	Daily	20.7022275	105.299605	10	No	nd	4,346	4,346	None	No	CONANP
Lo	Platanitos, Nay.	June	May	June	May	Daily	21.34805556	105.239178	8	No	nd	7,223	7,223	None	No	CONANP
Lo	Santuario Playa de Escobilla, Oax.	June	May	June	May	Daily	15.72638889	96.7627778	15	Yes	nd	1,328, 898	nd	None	No	CONANP
Lo	Santuario Playa Mismaloya, Jal	June	May	June	May	Daily	20.09273722	105.545816	10	Yes	nd	6,587	6,587	None	No	CONANP
Lo	Santuario Playa Tierra Colorada	June	May	June	May	Daily	16.50083333	98.7277778	12	Yes	nd	1,357	1,357	None	No	CONANP

Lk	Altamira, Tamps.	Marc h	Nov	Marc h	Nov	Daily	22.52050556	97.8593056	18	No	nd	615	615	FT and PIT	No	CONANP (con la colaboració n del GPZ*1)
Lk	Barra del Tordo, Tamps	Marc h	Nov	Marc h	Nov	Daily	23.02452778	97.8636639	42	No	nd	2,085	2,085	FT and PIT	No	CONANP (con la colaboració n del GPZ*1)
Lk	Lechuguillas, Ver.	Marc h	Nov	Marc h	Nov	Daily					25	98	98	None	No	CONANP
Lk	Miramar, Tamps.	Marc h	Nov	Marc h	Nov	Daily	22.28077778	97.7978583	10	No	11	763	763	None	No	CONANP
Lk	Santuario Playa de Rancho Nuevo, Tamps.	Marc h	Nov	Marc h	Nov	Daily	23.33277778	97.7702778	30	Yes	1,033	13,491	13,491	FT and PIT	No	CONANP (con la colaboració n del GPZ*1)
Dc	Barra de la Cruz, Oax.	Oct	May	Oct	May	Daily	15.81666667	95.9666667	8.5	No	53	153	153	FT and PIT	Si	CONANP /en colaboració n con Kutzari)
Dc	Cahuitán, Oax.	Oct	May	Oct	May	Daily	16.31166667	98.5351111	10	No	30	78	78	FT and PIT	No	CONANP /en colaboració n con Kutzari)
Dc	Santuario Playa de Escobilla, Oax.	Oct	May	Oct	May	Daily	15.72638889	96.7627778	15	Yes	nd	1	3	FT	No	CONANP
Dc	Santuario Playa Tierra Colorada, Gro.	Oct	May	Oct	May	Daily	16.50083333	98.7277778	12	Yes	22	59	59	FT and PIT	No	CONANP /en colaboració n con Kutzari)

Ei	Chenkan, Camp.	April	Oct	April	Oct	Daily	19.225	90.8433333	20	No	nd	998	998	FT	No	CONANP
Ei	Isla Aguada- Xicalango- Victoria, Camp.	April	Oct	April	Oct	Daily	18.78305556	91.4972222	26	Yes	22	388	388	None	No	CONANP
Ei	Santuario playa adyacente a la RB Ría Lagartos (Las Coloradas), Yuc.	April	Oct	April	Oct	Daily	21.61111111	88.1666667	40	Yes	24	559	559	FT	No	CONANP (con la colaboració n de PRONATU RA YUC)
Ei	Lechuguillas, Ver.	Marc h	Nov	Marc h	Nov	Daily					nd	2	2	None	No	CONANP
Cm	Barra de la Cruz, Oax.	Oct	May	Oct	May	Daily	15.81666667	95.9666667	8.5	No	nd	8	8	None	No	CONANP /en colaboració n con Kutzari)
Cm	Cahuitán, Oax.	Oct	May	Oct	May	Daily	16.31166667	98.5351111	10	No	nd	35	35	None	No	CONANP /en colaboració n con Kutzari)
Cm	Chalacatepec , Jal.	June	May	June	May	Daily	19.72086806	105.289722	16	Yes	nd	1	1	None	No	CONANP
Cm	Chenkan, Camp.	April	Oct	April	Oct	Daily	19.225	90.8433333	20	No	nd	10	10	None	No	CONANP
Cm	El Chupadero, Col.	June	May	June	May	Daily	18.79206	103.863169	25	Yes	nd	16	16	None	No	CONANP
Cm	Santuario Playa de Escobilla, Oax.	June	May	June	May	Daily	15.72638889	96.7627778	15	Yes	nd	4	4	None	No	CONANP
Cm	Isla Aguada- Xicalango-	April	Oct	April	Oct	Daily	18.78305556	91.4972222	26	Yes	17	796	796	None	No	CONANP

	Victoria, Camp.															
Ei	Santuario playa adyacente a la RB Ría Lagartos (Las Coloradas), Yuc.	April	Oct	April	Oct	Daily	21.61111111	88.1666667	40	Yes	18	2,448	2,448	FT	No	CONANP (con la colaboració n de PRONATU RA YUC)
Cm	Lechuguillas, Ver.	May	Dec	May	Dec	Daily	20.01472222	96.5852778	35	No	68	1,452	1,452	None	No	CONANP
Ст	Santuario Playa de Maruata y Colola, Mich.	Aug	Jan	Aug	Jan	Daily	18.25833333	103.35	12.5	Yes	nd	nd	nd		Universid ad Michoaca na de San Nicolás de Hidalgo	Santuario Playa de Maruata y Colola, Mich.
Cc	Xcacel, Chemuyil, Xel Ha Q. Roo	April	Oct	April	Oct	Daily	465268.693 2251016.667	463085.2 2246778.0	4.8	Yes	nd	3477	3477	No	Flora, Fauna y Cultura de México, A.C.	Xcacel, Chemuyil, Xel Ha Q. Roo

<sup>\*1</sup> GPZ Gladys Porter Zoo \*2 La temporada de arribadas aún está en proceso por lo que se presenta un estimado del número de hembras anidando en cada arribada.

List of index sites for each sea turtle species for each IAC country within which sea turtle nesting occurs.

Name of Beach	DC	CM	EI	CC	LO	LK	Responsible
Belize (2)		(1)	(1)	(1)			
Gales Point			X				
Bacalar Chico Marine Reserve		X		X			
Brazil (18)	(2)	(1)	<b>(7</b> )	(12)	(3)		
Comboios	X			X			
Povoação	X			X			
Busca Vida			X	X			
Santa Maria				X			
Barra Jacuipe			X	X			
Guarajuba			X	X			
Itacimirim			X	X			
Praia do Forte			X	X			
Barra do Furado				X			
Farol				X			
Farolzinho				X			
Maria Rosa				X			
Berta			X				
Pipa			X				
Mangue Seco					X		
Coqueiros					X		
Pirambu		_		_	X		
Trindade Island		X					

Name of Beach	DC	CM	EI	CC	LO	LK	Responsible
Caribbean Netherlands (2)	(1)	(2)	(1)	(1)			
Klein Bonaire, Bonaire		X	X	X			Sea Turtle Conservation Bonaire
Zeelandia, St. Eustatius	X	X					St Eustatius Sea Turtle Conservation
Costa Rica /Pacific (9)	(1)	(5)			(4)		
Isla Murcielago		X					
Nancite*					X		
Naranjo		X			X		
Cabuyal		X					
Nombre de Jesús		X					
Punta Pargos		X					
Playa Grande	X						
Ostional*					X		
Hermosa					X		
Costa Rica/Atlantic (4)	(3)	(1)	(1)				
Tortuguero	X	X					
Pacuare Norte	X						
Mondonguillo	X						
Cahuita			X				
Ecuador (9)		(6)	(1)		(5)		
San Lorenzo					X		MAE (Pacoche)
La Botada					X		MAE (Pacoche)
Playa Chocolatera		X			X		MAE (REMACOPSE)
Playa Tres Cruces		X			X		MAE(REMACOPSE)
PlayaMar Bravo		X			X		MAE(REMACOPSE)
Playita (Machalilla)			X				MAE (PNM/ Equilibrio
Quinta Playa (Galapagos)		X					MAE (DPNG)
Barahona (Galapagos)		X					MAE (DPNG)
Las Bachas (Galapagos)		X					MAE (DPNG)

Name of Beach	DC	CM	EI	CC	LO	LK	Responsible
Guatemala (2)	(1)				(2)		
Hawaii	X				X		ARCAS
La Barrona					X		
Honduras/Atlantic (3)	(1)		(2)				
Pumkin Hill, Utila			X				
Plaplaya	X						
Cayos Cochinos			X				
Honduras/Pacific (2)					(2)		
Punta Ratón					X		
El Venado					X		
México/Atlantic (12)		(11)	(4)	(8)		(7)	
Rancho Nuevo, Tamps		X		X		X	CONANP
Barra del Tordo, Tamps		X		X		X	CONANP
Altamira, Tamps		X		X		X	CONANP
Mirama, Tamps						X	CONANP
Lechuguillas, Ver		X	X			X	CONANP
Isla Aguada-Xicalango- Victoria, Camp		X	X			X	CONANP
Chenkán, Camp		X	X			X	CONANP
Las Coloradas/Rio Lagartos, Yuc		X	X	X			CONANP
Xcacel, Q.Roo		X		X			Reserve Estatal
Chemuyil, Q. Roo		X		X			
Xel Ha, Q. Roo		X		X			
Puerto Aventuras, Q. Roo		X		X			
México/Pacific (13)	(6)	(5)			(9)		
El Verde, Sin	X				X		CONANP
Platanitos, Nay					X		CONANP
Nuevo Vallarta, Nay					X		CONANP
Mismaloya, Jal					X		CONANP
Chalacatepec, Jal					X		CONANP
El Chupadero, Col							CONANP

Name of Beach	DC	CM	EI	CC	LO	LK	Responsible
Mexiquillo, Mich	X	X			X		CONANP
Tierra Colorada, Gro	X	X			X		CONANP
Cahuitán, Oax	X						CONANP
Escobilla, Oax*	X				X		CONANP
Barra de la Cruz, Oax	X	X			X		CONANP
Maruata, Mich		X					Univ. Michoacana SNH
Colola, Mich		X					Univ. Michoacana SNH
Panamá/Atlantic (3)	(2)	(1)	(3)	(1)			
Cayos Zapatillas (B. del Toro)			X				
Playa Chiriqui (B. del Toro)	X	X	X	X			
Playa Armita o Pito (GunaYala)	X		X				
Panamá/Pacific (2)		(2)			(2)		
RVS Isla Cañas		X			X		
Playa La Marinera		X			X		
United States/Atlantic (7)	(5)	(4)	(3)	(4)		(1)	
Culebra Island, Puerto Rico	X						
Vieques Island, Puerto Rico	X	X	X				
Mona Island, Puerto Rico			X				
Buck Island Reef National Monument, U.S. Virgin	X	X					
Sandy Point NWR, U.S. Virgin Islands	X	X	X				
Florida Index Beaches	X	X		X			
Georgia Index Beaches				X			
North Carolina Index Beaches				X			
South Carolina Index Beaches				X			
Texas (South Padre Island)						X	
United States/Pacific (2)		(1)	(1)				
French Frigate Shoals (HI)		X					
Hawaii			X				

Name of Beach	DC	CM	EI	CC	LO	LK	Responsible
Venezuela (11)	(6)	(4)	(6)	(6)			
Querepare (Edo. Sucre)	X			X			CICTMAR
Cipara (Edo. Sucre)	X			X			CICTMAR
Macuro (varias playas cercanas, Edo. Sucre)	X	X	X				ONDB-MPPA
El Agua - Parguito Beach (Edo. Nueva Esparta)	X						ONDB-MPPA
Parque Nacional Archipiélago Los Roques (varios cayos)			X	X			INPARQUES, Fundación Científica
La Sabana (Edo. Vargas)	X						ONDB-MPPA, Consejo de Pescadores
Parque Nacional Henri Pittier (Playas Cuyagua, Uricaro y		X	X	X			INPARQUES, Fundación Ecodiversa, Lideres de la
Playas entre las bocas del Rio Morón Y Rio Yaracuy			X	X			Palmichal S.C.
Parque Nacional Morrocoy (Cayo Borracho, Varadero y Playas Mayrquina)		X	X				CICTMAR, INPARQUES
Paraguana Peninsula	X		X	X			UNEFM (Universidad Nacional
RFS Isla de Aves		X					ONDB-MPPA