



Inter-American Convention for the Protection and Conservation of Sea Turtles Belize Annual Report 2016

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 PT Secretariat at secretario@iacseaturtle.org

Please note that the date to submit this Annual Report is **April 30th of 2016**.

Part I (General Information)

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

a._ Focal Point

Institution	Belize Fisheries Department
Name	Vanessa Figueroa
Date Annual Report submitted	April 2017

b._ Agency or Institution responsible for preparing this report

Name of Agency or Institution	Hol Chan Marine Reserve
Name of the person responsible for completing this report	Kirah Forman-Castillo
Address	P.O. Box 60
Telephone(s)	(501)226-2247
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c._ Others who participated in the preparation of this report

Name	Agency or Institution	E-mail
Kevin Andrewin	Gales Point	gpwscmc@yahoo.com
Vanessa Figueroa	Belize Fisheries Department	figuerov@gmail.com



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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 plan 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/ In Progress	Comments
Does your country have a national plan of action in accordance with Article XVIII?	Yes	In 1992 an action plan was created under WIDECAS, but has not been updated.
Does your country have policies and programs at local and regional levels in accordance with Article XVIII?	Yes	The Belize Sea Turtle Conservation Network is a group of organizations including, the Fisheries Department that ensures that the monitoring of sea turtles is carried out, and reviews existing policies, and evaluates the need for new policies if needed.
Does your country have monitoring programs in accordance with Article IX?	Yes	The Ambergris Caye Marine Turtle Program, and Gales Point Wildlife



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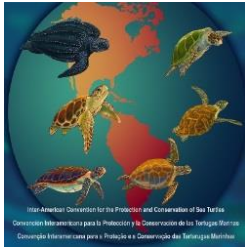
	<p>Sanctuary Turtle Monitoring program, in conjunction with Marymount University, Dr. Todd Rimkus. These are the two key nesting areas. All Marine Reserve Staff also collect and submit nesting data when nesting occurs at the Reserves and surrounding areas.</p>
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b. 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, 2015-April 30, 2016) 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 of legal instrument (No.)	Description (Range of application)	Sanctions(s) Imposed
International Instruments		
Treaty, Convention, Agreements, Memorandum of Understanding		Year signed and/or ratified

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

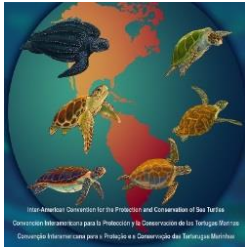
Fill in the following tables for each of the IAC Resolutions listed below. In the case that a Resolution does not apply to your country, please mark the box RESOLUTION DOES NOT APPLY, and if a specific question does not apply, please mark the column DOES NOT APPLY. If you need more space to describe 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:

IS COMPLYING WITH THE FOLLOWING:	YES	NO	RESOLUTION DOES NOT APPLY	
			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
1b) Are you implementing these conservation plans and monitoring programs?				X
2. Have you taken conservation measures to eliminate poaching of leatherback turtles?				X
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?				X
4. Has your country adopted fishing techniques that reduce incidental capture and mortality of this species?				X

(*) Specify actions implemented, 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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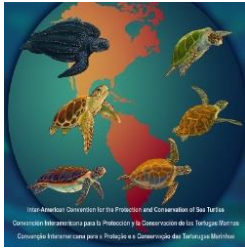
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Resolution CIT-COP3-2006 R-1: Hawksbill turtle conservation (*Eretmochelys imbricata*)

ACCORDING TO RESOLUTION CIT-COP3-2006-R1, REPORT WHETHER YOUR COUNTRY:

IS COMPLYING WITH THE FOLLOWING:	RESOLUTION DOES NOT APPLY		DOES NOT APPLY
	YES	NO	
1. Are you strengthening monitoring of the illegal use and trade of hawksbill turtles and their products?	X		To some extent the illegal capture of turtles is being monitored through several satellite tagging programs by different organizations (WCS, MarAlliance, ECOMAR) that have recorded tagged turtles being fished, along with local reports that are often made. The Department keeps a record of these incidences, however this is an area that could use some strengthening through funding for monitoring and enforcement.
2. Are you enforcing pertinent hawksbill legislation?	X		The Fisheries Department through the conservation compliance unit (CCU)
3. Are activities being carried out in order to stop illegal trade of hawksbill products?	X		These are included within the enforcement program of the Marine Reserve Network and the Conservation Compliance Unit of the Fisheries Department. The Department conducts public awareness campaigns regarding the fisheries legislation which includes hawksbill turtles, and produces booklets, posters, banners, radio announcements, radio talk shows, and public displays at various public events throughout the year.
4. Indicate if 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.		X	The Belize Sea Turtle Conservation Network through its member organizations monitors nesting beaches, identifies threats, and works within communities to alleviate or mitigate the threats to nesting sites. Hol Chan Marine reserve has a program called the Ambergris Caye Marine Turtle Program that also raises awareness of the island, as an important nesting site, and monitors stranding throughout the country.
	a) Protection of nesting habitats	X	
		X	



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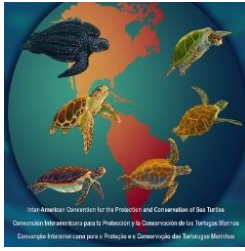
			In August 2015 the Hol Chan Marine reserve was expanded.
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(* Specify actions implemented, name of the project or relevant document, location, objective(s), institutions responsible, contact, financial or other support (optional), results (both positive and negative) and duration.

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:

IS COMPLYING WITH THE FOLLOWING:	YES	NO	DESCRIBE ACTION (*)	DOES NOT APPLY
Adopted the “Guidelines to Reduce Sea Turtle Mortality induced by fisheries operations”, of the United Nations Food and Agriculture Organization (FAO), including:				
A. Research and monitoring of adverse impact of fisheries on sea turtles				
<ul style="list-style-type: none"> Collect information by fishery 	X		<ul style="list-style-type: none"> The Belize High Seas Fishing fleet has adopted the use of circular hooks on 10% of the fishing fleet All vessels are required to report incidental catches and release all live turtles caught by longlines. High Seas Fishing Vessels are regulated by the High Seas Fishing Act which requires that they comply with international fishing regulation Conventions ratified by Belize, and resolution of Regional Fisheries Management organizations (RFMOs) of the area authorized to fish. 	
<ul style="list-style-type: none"> Observer programs 		X		
<ul style="list-style-type: none"> Research on sea turtle/fishery interactions 		X		
<ul style="list-style-type: none"> Information on non-Party vessels 			Belize has no non-party states fishing in our jurisdictional waters	X
<ul style="list-style-type: none"> Cooperation with non-Party states to obtain information 				X
B. Mitigation measures for the following fisheries:				
i. Long-line	X		FVC-12/02 states that sea turtles are identified as bycatch and should be released immediately. Dead bycatch should be retained on board, recorded, and landed. Use of circular hooks on 10% for fishing fleet.	
ii. Gillnets		X		



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iii.	Trawling (e.g., 1. TEDs: specify legally approved TEDs, their dimensions, material, and target species for that fishery, 2. time-area closures: specify geographical area, time of closure and target species for that fishery, 3. tow times and/or 4. other measures)			Trawling is band in Belize	X
iv.	Other fishing gear (indicate which one(s))		X		
v.	Training programs for fisherman about best practices for safe handling and release of sea turtles incidentally caught		X		
C. Socio-economic considerations					
	<ul style="list-style-type: none"> Support socio-economic activities that help mitigate adverse impacts of fisheries on sea turtles 		X		

(*) Specify actions implemented, 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.)



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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.

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
Lo	<input type="checkbox"/> Coastal development <input type="checkbox"/> Incidental capture <input type="checkbox"/> Direct use	<input type="checkbox"/> Contamination <input type="checkbox"/> Pathogens <input type="checkbox"/> Climate change	N/A
Lk	<input type="checkbox"/> Coastal development <input type="checkbox"/> Incidental capture <input type="checkbox"/> Direct use	<input type="checkbox"/> Contamination <input type="checkbox"/> Pathogens <input type="checkbox"/> Climate change	N/A
Dc	<input type="checkbox"/> Coastal development <input type="checkbox"/> Incidental capture <input type="checkbox"/> Direct use	<input type="checkbox"/> Contamination <input type="checkbox"/> Pathogens <input type="checkbox"/> Climate change	N/A
Ei	<input checked="" type="checkbox"/> Coastal development <input checked="" type="checkbox"/> Incidental capture <input type="checkbox"/> Direct use	<input type="checkbox"/> Contamination <input type="checkbox"/> Pathogens <input checked="" type="checkbox"/> Climate change	<ul style="list-style-type: none"> • Belize is growing as a tourism destination and some of the key nesting areas are also prime real-estate. At key nesting sites, the organizations carrying out the monitoring activities have set in place programs to work with landowners as to best practices for development to mitigate the effects of coastal development on nesting beaches. • The Fisheries Department works closely with the Department of Environment, who is responsible for approving development projects to vet proposed developments, ensuring that they comply with all regulations,



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			<p>and no adverse effects arise due to a particular development.</p> <ul style="list-style-type: none"> • Nothing has been done directly to address incidental captures, however, through the Fisheries Department's Managed Access Program fishers have obtained training on best practices for sustainable fisheries, they have been engaged through outreach programs, and some have been provided with alternative livelihood training, all of which affects fishing pressure and as a result incidental catch. • Belize as member of the Caribbean Community (CARICOMP) has access to project being carried out by the Caribbean Community Climate Change Centre which implements projects for mitigation of climate change impacts to coastal areas, which indirectly has a positive effect on nesting areas.
Cm	<input checked="" type="checkbox"/> Coastal development <input checked="" type="checkbox"/> Incidental capture <input type="checkbox"/> Direct use	<input type="checkbox"/> Contamination <input type="checkbox"/> Pathogens <input checked="" type="checkbox"/> Climate change	<ul style="list-style-type: none"> • Belize is growing as a tourism destination and some of the key nesting areas are also prime real-estate. At key nesting sites, the organizations carrying out the monitoring activities have set in place programs to work with landowners as to best practices for development to mitigate the effects of coastal development on nesting beaches. • The Fisheries Department works closely with the Department of Environment, who is responsible for approving development projects to vet proposed developments, ensuring that they comply with all regulations, and no adverse effects arise due to a particular development. • Nothing has been done directly



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			<p>to address incidental captures, however, through the Fisheries Department's Managed Access Program fishers have had training on best practices for sustainable fisheries, they have been engaged through outreach programs, and some have been provided with alternative livelihood training, all of which affects fishing pressure and as a result incidental catch.</p> <ul style="list-style-type: none"> • Belize as member of the Caribbean Community (CARICOMP) has access to project being carried out by the Caribbean Community Climate Change Centre which implements projects for mitigation of climate change impacts to coastal areas, which indirectly has a positive effect on nesting areas.
Cc	<p><input checked="" type="checkbox"/> Coastal development</p> <p><input checked="" type="checkbox"/> Incidental capture</p> <p><input type="checkbox"/> Direct use</p>	<p><input type="checkbox"/> Contamination</p> <p><input type="checkbox"/> Pathogens</p> <p><input checked="" type="checkbox"/> Climate change</p>	<ul style="list-style-type: none"> • Belize is growing as a tourism destination and some of the key nesting areas are also prime real-estate. At key nesting sites, the organizations carrying out the monitoring activities have set in place programs to work with landowners as to best practices for development to mitigate the effects of coastal development on nesting beaches. • The Fisheries Department works closely with the Department of Environment, who is responsible for approving development projects to vet proposed developments, ensuring that they comply with all regulations, and no adverse effects arise due to a particular development. • Nothing has been done directly to address incidental captures, however through the Fisheries Department's Managed Access



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			<p>Program fishers have had training on best practices for sustainable fisheries, they have been engaged through outreach programs, and some have been provided with alternative livelihood training, all of which affects fishing pressure and as a result incidental catch.</p> <ul style="list-style-type: none"> • Belize as member of the Caribbean Community (CARICOMP) has access to project being carried out by the Caribbean Community Climate Change Centre which implements project for mitigation of climate change impacts to coastal areas, which indirectly has a positive effect on nesting areas.
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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.

1. Long term in-water sea turtle monitoring program at Glover’s Reef Atoll. Organization: Wildlife Conservation Society. Started in 2007. The main objectives of the monitoring program are to determine an absolute abundance estimate of the Glover’s Reef Atoll fore-reef habitat aggregation and long-term abundance, increase our knowledge of sea turtle movements and habitat use, assess genetic stock of foraging sea turtles at Glover’s Reef, study growth rates of sea turtles at Glover’s Reef, and build the capacity of stakeholders to collect accurate, reliable, and standardized data from foraging index sites. The program started with a focus on Hawksbills but has since collected data on all species found on the Atoll.

In 2014 WCS tagged 4 sea turtles captured during their annual in-water sea turtle survey at Glover's Atoll. Tagged were 3 hawksbills and 1 green sea turtle. The 3 hawksbills remained at Glover's Atoll and the sub-adult green travelled to Columbia and on the return trip stopped transmitting near the border of Costa Rica and Nicaragua (<http://www.ecomarbelize.org/satellite-telemetry.html>).



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Ref:

Coleman, R. 2011. In-water Surveys of Marine Turtles at Glover's Reef Marine Reserve. Wildlife Conservation Society. 21 pp.

<https://belize.wcs.org/Wildlife/Hawksbill-turtle.aspx>

2. Patterns of Behavior and Movements for Hawksbill Turtles in Lighthouse Reef Atoll Research. Organization: MarAlliance Satellite tagging of Hawksbill to look at their movements around the Atoll. Ref: <https://maralliance.org/science/>

3. ECOMAR tracks reports of nesting, and strandings for the country and carries out in-water census every few years since 2011. ECOMAR also utilizes satellite telemetry to monitor the movements of sea turtles in Belize and the Wider Caribbean. The imagery provides valuable information on migration paths, foraging grounds and behavior of individual sea turtles. Ref: <http://www.ecomarbelize.org/satellite-telemetry.html>

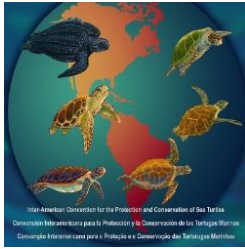
In addition to the above, please fill out the following table on the types of research being carried out in the country and with what specie(s).

Research	Specie(s)(Lo, Lk, Cm, Ei, Cc, Dc)
<i>Tagging</i>	<i>Ei, Cc, Cm</i>
<i>Migration</i>	<i>Cm, Ei</i>
<i>Habitat monitoring</i>	<i>Ei, Cm</i>
Choose an item.	
Choose an item.	
Choose an item.	

c. _ Other activities

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

The Ambergris Caye Marine Turtle Project is managed and implemented by marine biologists that work for Hol Chan Marine Reserve. The project started in 2007 by formalizing and recording marine turtle stranding data and rehabilitation. In 2009 Turtle nesting monitoring and research was initiated on the beaches of North Ambergris Caye. In 2011 in-water turtle density surveys were conducted. The project now consists of annual nesting surveys in Ambergris caye, and documentation of strandings (both live and dead) throughout the year. The stranding work has grown to where Hol Chan now rehabilitates strandings from around the country.



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Part IV: Annexes

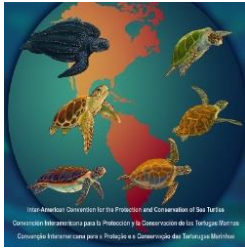
Table 1: Species Present

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 Ocean	Atlantic Ocean	Caribbean Sea
Lo			
Lk			
Dc			
Ei			X
Cm			X
Cc			X

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.
- 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



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- individuals. If the exact number of clutches is unknown provide 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.*
 - l. When inserting new rows, please copy and paste the drop down menus when applicable.*



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Spp	Name of Index Nesting Site or Beach	Nesting season		Monitoring period		Survey Frequency	Geographic Location (Lat/Long) in Decimal Degrees				Extension of beach monitored (km)	Declared Protected Area (Yes/No)	Annual Nesting Abundance			Tagging Program (FT, ST, PIT)	Tissue Sampling (Yes/No)	Organization or entity providing data
		Start	Finish	Start	Finish		Latitude	Longitude	Females Exact Count	Clutches Exact Count			Number of Nests					
Ei	Gales Point	May	Nov	May	November	Every two days	17.2036095	°	-88.3049575	°	14km	No		58	58	ST	Choose an item.	Gales Point Manatee Wildlife Sanctuary, Kevin Andrewin
	Ambergris Caye	July	August	May	September	Once per week	18.114095	°	-87.84795	°	2.5km	No* Only a small portion of beach 100m falls within the MPA of Bacalar Chico.		2	2	None	No	Hol Chan Marine Reserve
Cm	Gales Point	August	September	May	November	Every two days	17.2036095	°	-88.3049575	°	14km	No		12	12	None	Choose an item.	Gales Point Manatee Wildlife Sanctuary, Kevin Andrewin
	Ambergris Caye	July	September	May	September	Once per week	18.114095	°	-87.84795	°	2.5km	No* Only a small portion of beach 100m falls within the MPA of Bacalar Chico.		70	70	None	No	Hol Chan Marine Reserve



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Cc	Gales Point	August	September	May	November	Every two days	17.2036095	°	-88.3049575	°	14	No	15	15	None	Choose an item.	Gales Point Manatee Wildlife Sanctuary, Kevin Andrewin
	Ambergris Caye	May	September	May	September	Once per week	18.114095	°	-87.84795	°	2.5km	No* Only a small portion of beach 100m falls within the MPA of Bacalar Chico.	39	39	None	No	Hol Chan Marine Reserve



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Table 3: Important foraging sites for sea turtle conservation

NOTE: The IAC Scientific Committee at their 13th Meeting, agreed to remove from the IAC Annual Report the sea turtle foraging sites Table in Annex 3, in its place the information currently collected in this table will be more easily available for the use of IAC Parties by including it in a technical document that will be prepared by the SC that will contain the following information:

a) List of foraging areas in the IAC Parties, b) Contact information of people working in the areas, c) Threats in foraging areas, among other. This document will be updated every 5 years.