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

Ecuador

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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 several 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

Part I (General Information)

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

a._ Focal Point

Institution	Galapagos National Park
Name	Eduardo Espinoza
Date Annual Report submitted	September 2, 2012

b._ Agency or Institution responsible for preparing this report

Name of Agency or Institution	Galapagos National Park Office
Name of the person responsible for completing this report	Eduardo Espinoza
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c._ Others who participated in the preparation of 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 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?	*In Progress*	*An Action Plan has been prepared and is waiting to be signed by the corresponding ministries.*
Does your country have policies and programs at local and regional levels in accordance with Article XVIII?	*Yes*	*The new constitution establishes clear management policies*
Does your country have monitoring programs in accordance with Article IX?	*Yes*	

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, 2011-April 30, 2012) 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
Regulation on Use of Turtle Excluder Device (TED)	On May 13, 2002, the Turtle Excluder Device (TEDs) Regulation was implemented for Ecuador's coastal fisheries, consolidated by Article 2. – Shrimp trawl boats must have turtle excluder devices permanently and correctly installed in their trawl nets and Article 3. – The TEDs used by shrimping trawl boats must be "SUPER SHOOTER" model rather than constructed out of steel, aluminum o fiberglass. A sea turtle conservation communications strategy has also been prepared and is included in the national action plan.	The national fisheries law, the part that establishes sanctions for violations, is currently under review, given that the sanctions were created 60 years ago and the current value of the fines are ridiculous.

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-COP2-2004 R1: Conservation of leatherback turtles (*Dermochelys coriacea*)

ACCORDING TO RESOLUTION CIT-COP2-2004-R1, REPORT WHETHER YOUR COUNTRY:

			RESOLUTION DOES NOT APPLY	
IS COMPLYING 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		The National Action for the Conservation of Sea Turtles has been prepared and includes all sea turtles found in the country.	
1b) Are you implementing these conservation plans and monitoring programs?	X		Even though the National Action Plan has already been prepared, it has not been legally articled. Signatures are still pending from the ministries (MAE and MAGAP) in order to approve the plan. The sea turtle conservation programs continue to be carried out like the circle hook program, gillnets, bycatch reduction (fishing extensionism, use of TEDs, training fishermen to prevent incidental capture, onboard observer programs, IATTC bycatch reduction).	
2a) Have you taken conservation measures to significantly reduce the use of leatherback turtle products and by-products?	X		Control and surveillance programs exist led by MAGAP, MAE, UPMA, and the Navy, that carry out actions to guarantee compliance of current regulations. A sea turtle conservation communication strategy has been prepared that complements the National Action Plan.	
2b) Do you evaluate these conservation measures?	X		NOAA inspections occur ever year that certifies the use of TEDS on board the trawling fleet. The IATTC also has binding resolutions that are evaluated annually by the bycatch committee. National control authorities prepare their control and surveillance reports that monitor activities.	

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3a) 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?			DOES NOT APPLY	
3b) Do you evaluate the conservation measures taken to protect those nesting sites and their associated habitats?		X		
4. Has your country adopted fishing techniques that reduce incidental capture and mortality of this species?	X		The use of TEDs on the trawling fleet was adopted as being mandatory in 2002 and continues to date. The IATTC has implemented a program to mitigate the effects of sea turtle bycatch.	
5a) Is your country collecting information on incidental capture of leatherbacks in the following fisheries:				
Artisanal fisheries				
i) Long-line	X		WWF,SRP,EQUILIBRIO AZUL,INP	
ii) Gillnets	X		INP	
iii) Other fishing gear (indicate which one(s))	X		deep water longline (INP, SRP)	
Industrial fisheries				
i) Long-line	X		SRP (Probecuador)	
ii) Gillnets			DOES NOT APPLY	
iii) Other fishing gear (indicate which one(s))	X		Seiners. IATTC.	
5b) Have you provided the IAC with information on incidental capture of leatherbacks in the following fisheries:				
Artisanal fishing				
i) Long-line	X		INP, WWF-SRP	
ii) Gillnets	X		INP	
iii) Other fishing gear (indicate which one(s))	X		deep water longline (INP, SRP)	
Industrial fisheries				
i) Long-line		X		
ii) Gillnets			DOES NOT APPLY	
iii) Other fishing gear (indicate which one(s))	X		Trawling nets (SRP)	
6. Have you established agreements and/or understandings with countries fishing within international waters to adopt fishing techniques that reduce incidental capture of leatherback turtles? List which countries:		X		
7. Have you encouraged other non-Party states to the IAC, carrying out activities that affect leatherback turtles, to adopt measures in favor of their conservation, by means of bilateral, multilateral or regional contacts?	X		Memorandum of understanding between the IAC and IATTC to promote sea turtle conservation.	
8. Have any cooperative agreements or alliances been established with pertinent organizations? List:	X		With CPPS, prepared a workshop for the standardization of sea turtle monitoring techniques. The Subsecretary for Fishing Resources, the Eastern Pacific Fishing	

			School (EPESPO) and WWF are part of a Project for the Transformation and Adoption of Better Fishing Practices throughout the coast.	

(*) 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 R-1: Hawksbill turtle conservation *(Eretmochelys imbricata)*

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

			RESOLUTION DOES NOT APPLY		
IS COMPLYING WITH THE FOLLOWING:		**YES**	**NO**	**DESCRIBE ACTION (*)**	**DOES NOT APPLY**
1. Has your country promoted synergies with other Conventions, treaties, international organizations, and/or regional fisheries bodies on the management and conservation of hawksbill turtles and their habitats? Indicate which one(s).		**X**		Country Focal Point is coordinating a regional project through the IAC to evaluate the national conservation status of E. imbricata.	
2 a) Are you strengthening monitoring of the illegal use and trade of hawksbill turtles and their products?		**X**		Cooperation agreement between the Navy, PNG, ONM and the Environmental Police to carry out actions to control illegal trade. Surveillance in protected areas. More preventative measures are needed to eliminate illegal trade.	
2 b) Are you enforcing pertinent hawksbill legislation?		**X**		The hawksbill turtle is protected by the constitution just like the other sea turtle species.	
2 c) Are activities being carried out in order to stop illegal trade of hawksbill products?		**X**		There are legal instruments and fines. Actions are taken to protect wildlife in general, but not specifically for the hawksbill turtle.	
3. Does your country support and strengthen the research and monitoring activities required to improve the scientific basis of conservation measures for the hawksbill turtle? Especially in:	Genetics	**X**		Alliance between ICAPO, Equilibrio Azul and MAE to analyze local stock in Machalilla National Park.	
	Migratory behavior	**X**		Satellite and acoustic tags Equilibrio Azul, NOAA, CI, MAE in Machalilla National Park. USFQ-PNG and the University of North Carolina placed satellite tags on two turtles in Punta Pitt, San Cristóbal. MAE-PNG-Valdivia Aquarium placed two satellite tags on released turtles.	
	Location and conservation status of foraging habitats.	**X**		Equilibrio Azul does in-water monitoring in Machalilla National Park.	
	Location and conservation status of prey species.		**X**		

	Population dynamics at foraging sites	**X**		Only PNM, Abundance and distribution.	
	Integrity of nesting habitats	**X**		Protection and control of tourism on Playita, Machalilla National Park as critical nesting habitat for hawksbills.	
	Others (specify)				
4. As indicated in the recommendations from FAO's Technical Meeting on the conservation of marine turtles and fisheries that was held in Bangkok in 2004 and adopted by the 26th Session of FAO's Fisheries Committee (COFI), does your country carry out any activities mentioned in a) and/or b)?	a) Evaluate incidental capture of hawksbill turtles in jurisdictional waters.	**X**		INP executes a research project on sea turtle interactions in the first marine mile. IATTC monitors sea turtle bycatchin tuna fishery.	
	b) Actions to mitigate incidental capture of hawksbill turtles in their jurisdictional waters.	**X**		IATTC, turtle release regulations. SRP mandatory use of TEDs (Monthly monitoring). SRP continues with hook exchange project.	
5. Does your country apply the precautionary approach when considering proposals for seismic exploration on priority marine habitats of the hawksbill turtle?			**X**		
6. 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.	a) Protection of nesting habitats	**X**		PNM, REMACOPSE, RMGSF, RVSP	
	b) Protection of feeding habitats	**X**		PNM, REMACOPSE, , RMGSF, RVSP	
7. Does your country promote exchange of technical capacity and collaborative research on hawksbill habitats among Parties as well as non Parties and other involved organizations in the Area of the Convention?		**X**		Equilibrio Azul participated in the International Sea Turtle Symposium in Mexico.	

(*) 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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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
1.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				
• Collect information by fishery	X		SRP, EA, INP, WWF, NAZCA	
• Observer programs	X		EA, SRP, INP	
• Research on sea turtle/fishery interactions	X		EA, SRP, INP, FCD and PNG have systematically monitored nesting green turtles for the past 7 years in 4 key sites of the Galapagos archipelago.	
• Information on non-Party vessels		X		
• Cooperation with non-Party states to obtain information	X		IATTC generates fishing and bycatch information for member and non-member Parties.	
B. Mitigation measures for the following fisheries:				
i) Long-line		X		
ii) Gillnets		X		
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)	X		Regulation on use of Turtle Devices (TEDs). Article 2. – Shrimp trawl boats must have turtle excluder devices permanently and correctly installed in their trawl nets and Article 3. – The TEDs used by shrimping trawl boats must be "SUPER SHOOTER" model rather than constructed out of steel, aluminum o fiberglass.	
iv) Other fishing gear (seiner nets)	X		IATTC Resolution C-07-03 "RESOLUTION TO MITIGATE THE IMPACT OF TUNA FISHIN ON SEA TURTLES"	
C.Training, education and dissemination				
• Training, education and dissemination activities		X		
D. Harmonization of policies and legislation				
• Modifications to instruments	X		SRP, Project for the Transformation and Adoption of Better Fishing Practices throughout the coast.	
E. Capacity building				
• Creation of a national sea turtle committee/network	X		CMS, CPPS	
F. Financing				
• Financial support obtained to implement guidelines in this resolution	X		State funding and SENESCYT.	

G. Socio-economic considerations				
• Support socio-economic activities that help mitigate adverse impacts of fisheries on sea turtles	X		Free circle hooks, strengthening women's groups to sell items from recycled plastic. 150 jobs with MAE as forest rangers.	
H. Other aspects				
• Environmental impact studies for mariculture projects	X		By law, everything must have a study done.	
2. Sent information and documents on sea turtles created by your country to the Secretariat of the Convention? List documents.	X		Waiting for INP to send.	
3. Initiated activities that assist the Convention Secretariat in contacting non Party States through established mechanisms, especially in the area of the Convention, so that they may provide, in a cooperative spirit, the Secretariat with available data on incidental sea turtle catches in their fisheries?	X		Representatives of the new Environmental Ministry of Colombia have been contacted so they adhere to the Convention.	
4. Supports the Convention Secretariat, through established mechanisms, to commence discussions with regional fishery management organizations in order to develop Memorandum of Understandings.	X		Memorandum of Understanding between the IATTC and IAC, improvement criteria were emitted.	

(*) 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-COP4-2009-R5: Adaptation of sea turtle habitats to climate change

ACCORDING TO RESOLUTION CIT-COP4-2009-R5, REPORT WHETHER YOUR COUNTRY:

IS COMPLYING WITH THE FOLLOWING:	YES	NO	DESCRIBE ACTION (*)	DOES NOT APPLY
1 a) Have marine and coastal habitats on which sea turtles depend been included in national plans and programs for adaptation to climate change? Specify habitats and plans		X		
1 b) Are these plans for adaptation to climate change being implemented?		X		
2 a) Are corrective measures and measures on adaptation to climate change included within management plans and/or protection and conservation programs for sea turtles and their habitats?		X		
2 b) Are you evaluating the corrective measures and measures on adaptation to climate change included within management plans and/or protection and conservation programs for sea turtles and their habitats?		X		
3. Have you identified any organizations or pertinent expert groups as possible partners to work on the topic of adaptation by sea turtles to climate change? Please list.	X		Project climate change FCD, PNG, CI, CIIFEN, USFQ, NSCU, WWF; Autonomous decentralized governments.	

4. Have you carried out research and monitoring to improve knowledge of the effects on, and vulnerability of sea turtles and their habitats, to climate change?	X		Characterization of nesting area on beaches in PNG.	
5. Has your country hosted capacity building workshops for monitoring techniques and/or adaptation to climate change?	X		Workshop on types of impacts and how to mitigate them. Held by PNG and FUNDAR in March of 2012. Sea turtle conservation campaign carried out by the Coastal Provinces Departments under the framework of CMS in October, 2010. Outreach campaign for conserving objects of conservation (sea turtles) in the Puntilla Coastal Marine Fauna Production Reserve of Santa Elena.	
6. Has your country implemented mitigation measures for non-climatic threats as a way to improve the resilience of populations to the impacts of climate change? Specify which ones.	X		Provincial commitment to regulate the infrastructure built along the coastline through the National Secretary of Risk in coordination with MAE and GADS	

(*) 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.)

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

Describe 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	Solid waste on nesting beaches and in marine area (REMACOPSE).	Province wide beach cleaning campaign, through outreach and awareness and beach cleaning activities supported by Salinas Military Fort, Ecuadorian Air Force, Naval Base, volunteers, naturalist guides, GADs and associations renting umbrellas and selling various items on the beach.
	Presence of tourists on nesting beaches.	According to the zoning defined in the REMACOPSE Management Plan, nesting beaches are considered to be strict conservation zones, therefore, monitoring and surveillance is carried out to prevent visitors from entering and carrying out bad environmental practices. This is carried out by park guards and assisted by military bases.
	Destruction of nests and hatchling depredation by invasive species (dogs) at nesting beaches.	Eradication campaign for dogs found on beaches of REMACOPSE assisted by military bases. Spay/neuter campaign for dogs and cats within the area of direct influence of REMACOPSE With the help of PAE; a total of 246 pets were sterilized.
	Interactions with fishing gear.	
Dc		
Ei	Solid waste in marine area (REMACOPSE)	Province wide beach cleaning campaign, through outreach and awareness and beach cleaning activities supported by Salinas Military Fort, Ecuadorian Air Force, Naval Base, volunteers, naturalist guides, GADs and associations renting umbrellas and selling various items on the beach.
Cm	Solid waste on nesting beaches and in marine area (REMACOPSE).	Province wide beach cleaning campaign, through outreach and awareness and beach cleaning activities supported by Salinas Military Fort, Ecuadorian Air Force, Naval Base, volunteers, naturalist guides, GADs and associations renting umbrellas and selling various items on the beach.
	Presence of tourists on nesting beaches.	According to the zoning defined in the REMACOPSE Management Plan, nesting beaches are considered to be strict

		conservation zones, therefore, monitoring and surveillance is carried out to prevent visitors from entering and carrying out bad environmental practices. This is carried out by park guards and assisted by military bases.
	Destruction of nests and hatchling depredation by invasive species (dogs) at nesting beaches.	Eradication campaign for dogs found on beaches of REMACOPSE assisted by military bases. Spay/neuter campaign for dogs and cats within the area of direct influence of REMACOPSE
	Interactions with fishing gear.	
Cc	Solid waste in marine area (REMACOPSE)	Province wide beach cleaning campaign, through outreach and awareness and beach cleaning activities supported by Salinas Military Fort, Ecuadorian Air Force, Naval Base, volunteers, naturalist guides, GADs and associations renting umbrellas and selling various items on the beach.

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.

Report from Diahly Coello: National Fisheries Institute

In May of this year, the National Fisheries Institute initiated a project on Biological Conditions of Fisheries and Fishing Gear within the first nautical mile off the Ecuadorian coast. This project includes a component on the interaction fishing gear – resources that will also obtain information on sea turtles.

Monitoring of nesting green turtles *Chelonia mydas* in Galápagos, 2011-2012 season

Institutions involved: Charles Darwin Foundation, Galapagos National Park
Authors of the document: Macarena Parra D[1]., Eduardo Espinoza [2], Charles Darwin Foundation, and Galapagos National Park

Project Description

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Since 2001/2002, the Charles Darwin Foundation has systematically monitored green turtle nesting for 7 years in 4 key sites of the archipelago. Since the 2009/10 season, the program has been executed bi-institutionally between the Charles Darwin Foundation and the Galapagos National Park. During the 2011/12 season Quinta Playa was also monitored, which according to historical records, is the most important nesting site for this species in the archipelago. The main activities of the project are: tagging of nesting females with Inconel metal tags, identification and monitoring of nests during their incubation period and nest excavations after hatchlings emerge; daily surveys to quantify and geo-reference the total number of nests laid during a season. In addition, monitoring of the beach dynamics was carried out this season, creating monthly beach profiles to observe and determine any changes throughout the nesting season that affect the hatching success of the nests.

Preliminary results:

Abundance of females and nests: During the 2011/2012 season a total of 1,496 nests were recorded, of which 415 were marked in order to be monitored during their incubation period. In terms of female abundance, a total of 467 nesting females were recorded, of which 407 were turtles tagged during the season and 60 were recaptured females that were tagged in previous seasons. It is important to note that efforts to tag females this season was less than previous seasons, tagging only those turtles whose nest was marked for monitoring. Based on nesting intervals and frequency recorded during previous seasons, it can be estimated that approximately 500 females arrived to nest during the season.

Mortality: Only two strandings were recorded during the season. One adult female with curved carapace length (CCL) of 95.5 cm whose cause of death could not be determined and one male with CCL of 59.5 cm that presented signs of injuries to the shell caused by impact with a boat.

Introduced animals: once again the presence of wild cats on the beach was noted. Cat prints surrounding the nests were frequently observed during the daily surveys, but no direct observation of evidence of their depredation was seen (decapitated hatchlings, pieces of carapace, ect.)

Hatching and emergence success: A total of 446 nests were excavated during the season, of which 215 were marked nests, the remaining 231 nests were unmarked nests that had been identified by hatchling tracks, which were excavated 48 hrs after noting tracks. The average hatching and emerging success for the season was 70.25% and 70.92% respectively.

Beach profile: Beach profiling was done monthly at 20 points along the beach. Throughout the entire season and mainly due to tidal action, an increase and/or decrease in the width and height of the dune (fig.1) was observed, burying and eroding the nests located in the affected areas.

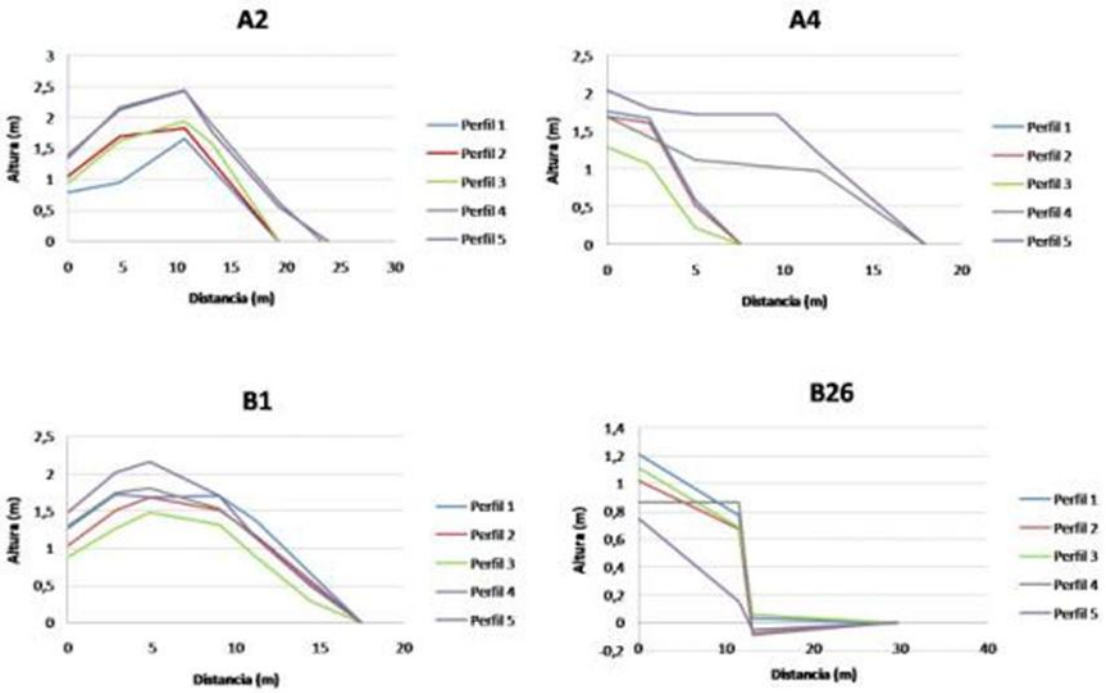


Figure 1. Beach profile of the 4 most representative points on the beach. **Profile 1:** corresponds to the month of January; **Profile 2:** corresponds to the month of February; **Profile 3:** corresponds to the month of March; **Profile 4:** corresponds to the month of April; **Profile 5:** corresponds to the month of May.

The information provided in this summary is preliminary information. A more detailed analysis is currently being performed and will be available for the 2013 country report.

Study, monitoring and biodiversity conservation of the REMACOPSE Protected Area

Prepared by: Beatriz Ladines
Jose F. Feijo

Background:

The Ministry of the Environment in conjunction with the Ministry of Defense and Volunteers from the Santa Elena Peninsula State University, have carried out a study to

monitor and conserve the biodiversity of the Puntilla de Santa Elena Coastal Marine Wildlife Production Reserve, obtaining the following results described below.

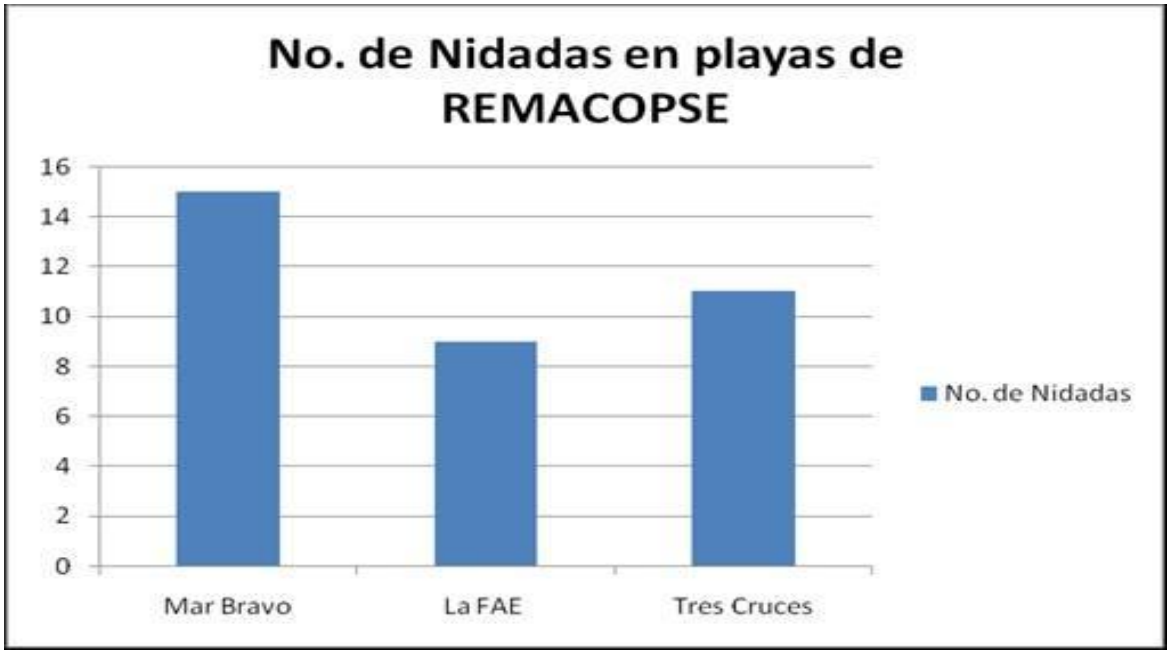
Within the framework of the Research, Monitoring and Scientific Cooperation Program and, according to the Puntilla de Santa Elena Coastal Marine Wildlife Production Reserve (REMACOPSE), the Project "Studying, monitoring and conserving the biodiversity of the Protected Area", was developed for the 2011 -2012 period. The objective of the project was to systematically monitor and gather information on vulnerable and endangered emblematic species found in the area that would aid in their management and conservation, including the following components for sea turtles:

I.- NESTING

The project's activities began for the first time on November 21 of 2011 on three nesting beaches of REMACOPSE: Mar Bravo, La FAE and Tres Cruces (6.5 km), where systematic monitoring of the sea turtle nesting sites was carried out on a daily and nightly basis. Monitoring of nests, recording of predators, protection and anthropogenic activities were also included.

Results from this season

During the current season, two species were recorded nesting: *Chelonia mydas,* and *Lepidochelys olivacea*. Mar Bravo beach was identified as the most important beach in terms of number of nests.



Graph 1. Total number of nests recorded during the 2011 -2012 season on the three beaches having nesting activities within the Puntilla de Santa Elena Reserve.

Lepidochelys Olivacea (95 %) represents the majority of the nesting with a small percentage of *Chelonia mydas* (5%) recorded.

Beach	**Nests *C. mydas***	**Nests *L. olivácea***	**Total number of nests**	**No. patrols**
Mar Bravo	-	15	15	103*
La FAE	1	8	9	103*
Tres Cruces	1	10	11	103*

Table 1. Number of nests recorded in REMACOPSE. All nests were confirmed by observation of nesting activity and/or by nest excavation. * Includes daily and nightly patrols.

Nest excavations were performed on identified nests, the highest hatching success was found on Tres Cruces beach in the only *C. mydas* nest, and that same beach reported the least hatching success for the species *L. olivacea*.

The nests on Mar Bravo beach had a low hatching success due to flooding by high tides, since the wall built to protect the airport runway decreases the width of the beach. In addition, the nests are dug up by "dogs" that come onto the beach from surrounding neighborhoods located in the district of Salinas.

Beach	**Species**	**No. Nests**	**Average Eggs/ nest**	**Hatching success**	**Emergence success**
Mar Bravo	*L. olivacea*	15	84	43	39
La FAE	*L. olivacea*	8	76	45	43
	C. mydas	1	62	93	43
Tres Cruces	*L. olivacea*	10	93	42	39
	C. mydas	1	46	93	42

Table 2. Number of nests per species and results of the hatchling and emergence success.

Identification and threat mitigation

Even though the REMACOPSE regulation zones nesting beaches as strict conservation areas, the most important threats to these beaches were identified during the 2011-2012 season, such as stray dogs, vehicle traffic from tourists that come to the beach, especially at Tres Cruces, high tides at Mar Bravo beach along with the runway strip and accumulation of solid waste washing up on shore.

The short and long term priority management activities taken to recover nesting beaches were the following.

- 2012 spay/neuter campaign with assistance from "Ecuador's Animal Protection" Foundation in surrounding neighborhoods of the Salinas district in order to control overpopulation of stray dogs. 278 spayed/neutered.
- 2012 Environmental Education Campaign. 1000 students participated in the awareness activities on protecting PA conservation objects.
- 2011- 2012 Beach Cleaning Campaign. 2 informational events on best practices of solid waste management and 5 cleaning events, which will continue throughout the year.
- Capacity building of members of the Ecuadorian Surf Federation, beach goers (under the MAE-FES agreement) on best practices of sports fields/courts (beaches) in REMACOPSE. 60 surfers trained.
- Marking of the strict conservation zone as a sea turtle nesting site. 5 signs with regulations were placed.
- With the assistance of military bases, the control and surveillance of tourist activities in REMACOPSE has improved. Placement of a control post at the point of entry for visitors and a 50% increase in patrols with military security personnel.

Conclusions and Recommendations

The results of the 2012 nesting season justify that proposed in the REMACOPSE management plan, which classifies the area as a Strict Conservation Zone, limiting or restricting public use of its beaches Mar Bravo (runway), La FAE and Tres Cruces.

According to the monitoring results of the 2011- 2012 season, the beaches of REMACOPSE present average activity in terms of *Lepidochelys Olivacea* nesting. For these sites, with the implementation of medium to long term protective measures the number of nests and hatching success can be recovered.

The following is recommended for the conservation and management of REMACOPSE nesting sites:

Relocating nests threatened by high tides to hatcheries, after training REMACOPSE personnel in order to guarantee an increase in their hatching success.

Prepare and execute a Monitoring and Surveillance Plan with strategic interinstitutional actions that emphasize control of anthropogenic activities on nesting beaches and fisheries activities.

Carry out an annual spay/neuter campaign for dogs and cats in the areas of direct influence in REMACOPSE.

Implement tagging of nesting females in future seasons, after training REMACOPSE personnel.

Implement monitoring surveys to identify aggregation and foraging sites, after training REMACOPSE personnel.

"Sea turtle conservation; reducing threats to the nesting habitat within the Pacoche Coastal Marine Wildlife Refugee, La Botada and San Lorenzo beaches"

Luciano Ponce kponce@ambiente.gob.ec
Pacoche Wildlife Reserve

This Project was being carried out sporadically by Park Guards in the area, but as of June 1 of this year, the monitoring is being done on a daily and nightly basis making it possible to cover 100% of the area. The park guards received theoretical and practical training, leaving the doors open so that students and volunteers may also participate in a similar manner after receiving training.

II. STRANDINGS

LEATHERBACK TURTLE (*Dermochelys coriacea*) STRANDING REPORT ON SAN CLEMENTE BEACH (0°45'35.51" S; 80°30'45.14"W) MANABÍ - ECUADOR

Cyntia Mizobe, Julia Cordero, Eduardo Espinoza, RVSMC Pacoche Natural Patrimony Unit, Galapagos National Park cmizobe@ambiente.gob.ec

On the afternoon of June 30, 2011, an e-mail was sent to the Manabí Provincial Department of Environment, reporting a turtle stranded on the coast of San Clemente on June 29 of 2011 at approximately12:00 AM. A tourist in the area had sent the notification. Immediately afterwards, the personnel from the Provincial Department began investigating the incident, which is described in this report.
Immediately following the e–mail notification of a stranded turtle, JC went to the location (0°45'35.51'' S; 80°30'45.14'' W) to verify the report though a visual inspection that determined it was a leatherback turtle (*Dermochelys coriácea*). On July 1 of 2011 CL and CM proceeded to document the measurements and physical characteristics of the specimen, taking samples for DNA analysis, performing a necropsy in search of the cause of death.

Samples were taken from the front and back flippers, esophagus, large and small intestines and heart for DNA analysis in the Galapagos National Park by the biologist Eduardo Espinoza, IAC Focal Point.

Figure 1. Leatherback turtle (*Dermochelys coriácea)* found on the coast of San Clemente attended by personal from the Pacoche Wildlife Reserve

Biologist Julia Cordero estimating the total length of the turtle (Photo: Dr. Cristhian Lam) in relation to the size of a human.

CONCLUSION

- The cause of death was undetermined by the external exam, however, a loss of color was noted since approximately 60 hours had passed since it was discovered on the coast of San Clemente.
- The necropsy did not reveal the cause of death, no plastics were found in a thorough examination of the esophagus, which could have asphyxiated the animal and thus died as a result of ingestion of plastics.
- The oviduct did not present a mature state of fertility and, therefore, the turtle had not tried to lay eggs.

c._ Other activities

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

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	X		
Lk	X		
Dc	X		
Ei	X		
Cm	X		
Cc	Paper Alva, 2008 MTN		

Table 2: Important nesting sites for sea turtle conservation

a. *This table is intended to report information on the priority nesting beaches (for example, sites with greater abundance, endemism, genetic importance, others) 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 beaches, information is to be entered for each species independently. Indicate the names of nesting sites and the nesting season months for each site.*
b. *Geographic location: Specify latitude and longitude in degrees, minutes and seconds - provide one or two points of reference for nesting sites (if available).*
c. *Extension: Provide the total length (in Kilometers) of the nesting beach.*
d. *Declared protection area: Indicate if the area is declared as some type of protected area.*
e. *Protection measures: Indicate if any type of protection measures are in place at the nesting site (For example, turtle safe lights).*
f. *Annual nesting abundance: Where possible, provide information on the total number of females and/or nests deposited at the nesting beach. If a specific value is not available, please provide a range for annual number of nesting females or nests deposited. If data are unavailable, enter 'unknown' or 'unavailable'. The ranges for annual number of females are: 0-10, 11-100, 101-500, 501-1000, 1001-5000, 5001-10000, 10001-50000, 50001-100000, >100000. The ranges for annual number of nests are: 0-10, 11-100, 101-500, 501-1000, 1001-5000, 5001-10000, 10001-100000, 100001-500000, >500000. On a separate sheet, provide a brief description/justification on why each site that was mentioned is considered important (sites with greater abundance, endemism, genetic, others). Include historical information (graphic and/or tables) showing the population status of each species present at the site.*
g. *Information from tagging program: Indicate if there have been any tagging activities at the nesting beach. This includes flipper tagging, passive integrated transponder (PIT) tagging, and satellite telemetry 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.*
h. *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?*

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Spp	Name of Priority Nesting Site (Regular nesting)	Season	Geographic Location (Lat/Long) in Degrees, Minutes, and Seconds Beginning	Ending	Extension (km)	Declared Protection Area	Annual Nesting Abundance Females	Clutches	Tagging Program	Tissue Sampling
Especie	Nombre del Sitio de Anidación Prioritario (Anidación periódica)	Temporada	b. Ubicación geográfica (Lat/Long) en Grados, Minutos, y Segundos — Punto Inicial	Punto Final	Extensión (km)	Área Protegida Declarada	Abundancia Anual de Hembras	Nidadas	Programa de Marcaje	Muestras de Tejido
Lo	Tres Cruces	2011-2012	2° 11' 21.13" S 81° 0' 23.40" W	to 2° 11' 50.01" S 81° 0' 02.65" W	1.15	REMACOPSE	No disponible	10		
	La FAE	2010-2011	2 11' 50.01" S 81 0 02.65" W	to 2 12 09.88" S 80 59 45.31" W	0.88	REMACOPSE	No disponible	8		
	Mar Bravo	2010-2011	2° 12' 15.17" S 80° 58' 15.19" W	to 2° 13' 29.40" S 80° 58' 15.19" W	3.46	REMACOPSE	No disponible	15		
Cm	Tres Cruces	2010-2011	2° 11' 21.13" S 81° 0' 23.40" W	to 2° 11' 50.01" S 81° 0' 02.65" W	1.15	REMACOPSE	No disponible	1		
	La FAE		2 11' 50.01" S 81 0 02.65" W	to 2 12 09.88" S 80 59 45.31" W	0.88	REMACOPSE	No disponible	1		
	Mar Bravo	2010-2011	2° 12' 15.17" S 80° 58' 15.19" W	to 2° 13' 29.40" S 80° 58' 15.19" W	3.46	REMACOPSE	No disponible			

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Table 3: Important in-water sites for sea turtle conservation

a. *This table is intended to contain information for the priority in-water sites for each species. For marine habitats that have multiple species present, enter the specific site under the heading for the priority species at that site. Indicate whether or not there is in water occurrence and/or foraging sites for that species.*
b. *Geographic location: Describe the in-water site in general, providing the name of the site and points of reference at sea, when available. If possible add the geographic location in Lat/Long coordinates.*
c. *Declared protection area: Indicate if the area is declared as some type of protected area.*
d. *Information from tagging program: Indicate if there have been any tagging activities at the in-water site. This includes flipper tagging, passive integrated transponder (PIT) tagging, and satellite telemetry 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.*
e. *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?*

Species		Description of geographic location	Declared Protection Area	Tagging Program	Tissue Sampling
Lo	In water Occurrence				
	Foraging Sites				
Lk	In water Occurrence				
	Foraging Sites				
Dc	In water Occurrence				
	Foraging Sites				
Ei	In water Occurrence	It is possible that there are aggregation areas for juvenile hawksbills in rocky reefs of the Galera San Francisco Marine Reserve	Yes	None	No
	Foraging Sites				
Cm	In water Occurrence				
	Foraging Sites				
Cc	In water Occurrence				
	Foraging Sites				