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

IAC – ANNUAL REPORT 2021

URUGUAY

IAC Annual Report General Instructions

Annex IV of the Convention text states that each Contracting Party shall submit an Annual Report each year.

To complete this Annual Report, Focal Points should consult with appropriate stakeholders involved in sea turtle issues. If you have any questions regarding this Annual Report, please contact the Secretariat at secretario@iacseaturtle.org

The submission deadline for this Annual Report is April 30th, 2021.

Translation by Luz Helena Rodriguez – IAC Secretariat

Part I – General Information

Country

Name of the country reporting
››› Uruguay

Official Note

If required, please attach here the relevant administrative authority **official note** endorsing the annual report submission.
Are you attaching an official note?
Please select only one option
☐Yes
☐ No

1) Focal Point

1.1 Name
››› Directora Silvana Montes de Oca (Punto Focal Político)

1.2 Institution
››› Dirección de Medio Ambiente - Ministerio de Relaciones Exteriores

1.3 Submission Date
››› This report includes data from the period 2018 to 2021.
Delivery date May 31, 2021.

2) Agency or Institution responsible for preparing this report

2.1 Name of the person preparing this report
››› MSc. Cecilia Lezama (Punto Focal Técnico)

2.2 Name of Agency or Institution
››› Dirección Nacional de Recursos Acuáticos - Ministerio de Ganadería Agricultura y Pesca (MGAP)

2.3 Address
››› Constituyente 1497 Montevideo, Uruguay

2.4 Telephone
››› 598 24004689 interno 149

2.5 E-mail
››› clezama@mgap.gub.uy

3) Others who participated in the preparation of this report

3.1 Others who participated in the preparation of this report

Name	Agency or Institution	E-mail
Dra. Gabriela Vélez-Rubio	Asociación Civil Karumbé/CURE- UDELAR	gabriela.velezrubio@gmail.com

Part II – Policy and Management

1) General description of activities

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. The Party shall report on the action plans, management plan or other types of instruments.

Please select the options that best apply for your country and provide the link to the corresponding document if available online. If it is in progress add the date is expected to be finalized in the corresponding section.

1.1 The country has a national strategy/plan for the conservation of sea turtles in accordance with Article XVIII.

Please upload the file or attach the links to the corresponding documents using the blue box icons beneath each question
Please select only one option

☐Yes
☒No
☐In Progress

Species Management Plan

Only applicable to countries that have developed individual management plans for each species.

1.1.1 The country has a **specific strategy/plan** for the conservation of:

Please upload the file or attach the link to the corresponding document using icons below.
☐*Lepidochelys olivacea*
☐*Lepidochelys kempii*
☐*Dermochelys coriacea*
☐*Eretmochelys imbricata*
☐*Caretta caretta*
☐*Chelonia mydas*

1.2 Does your country have policies and programs at local and regional scales in accordance with Article XVIII?

Please attach the list of policies and programs and other information relevant to their adoption or implementation.
Please select only one option
☒Yes
☐No
☐In Progress

1.3 Does your country have monitoring programs in accordance with Article IX?

Please attach the list of programs and other information relevant to their adoption or implementation.
Please select only one option
☐Yes
☒No
☐In Progress

2) National legislation and international instruments related to sea turtles adopted during the preceding year

Describe any national regulations, international agreements and other legal instruments related to sea turtles and/or relevant activities that were adopted during the preceding year (**30 April 2020** – **30 April 2021**).
Please provide a literature 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.
First time a country is submitting this information: please include all pertinent national legislation and international instruments currently in force.
Countries that have previously submitted this information; please provide information for any changes that have occurred since your country's last report submission (2020).

National Legislation

Type and name of the legal instrument (No.)	Description (Range of application)	Sanctions Imposed
Presidential Decree No. 115/2018	Decree regulating Law No. 19,175, of December 20, 2013, which declares conservation, research, sustainable development and responsible use of hydrobiological resources and the ecosystems that contain them to be of general interest.	

You have attached the following documents to this answer.

Decree_115-2018_Fisheries Law Regulation - Decree that Regulates the new Fisheries Law (Law No.19.175 of 2013)

International Instruments

Treaty, Convention, Agreements, Memorandum of Understanding	Year signed and/or ratified

3) Actions to comply with National and International Mandate

List actions that are being carried out to comply with national and international mandates.

(Ex: inspections, confiscations, sanctions, etc.)
›››

4) Efforts to increase IAC membership

4.3 Has your country encouraged non-member states to join the IAC?
Please select only one option
☐Yes (list countries below)
☒No

4.4 Has your country reached out to Canada, Guyana, French Guiana, Trinidad and Tobago, and/or Suriname to inform these nations about the critical situation of the population and priority actions for the conservation of leatherbacks in the NW Atlantic?
Please select only one option
☐Yes (list countries below)
☒No

5) Exceptions under the Convention

5.3 Implementation and monitoring of exceptions established in the Convention

Describe the progress in the implementation of the exception correspondent to the current year (800 words) according to the current resolutions on exceptions.

Resolutions on Exceptions

CIT-COP5-2011-R2 (PDF)
CIT-COP6-2013-R1 (PDF)
CIT-COP7-2015-R1 (PDF)
›››

Part III - Compliance with IAC Resolutions

1) Sea Turtle Species Presence

1.1 Sea Turtle Species Present in the Country

Check the box if the species listed is present in the oceanographic basins of your country as established in Article III of the text of the Convention.

	AtlanticOcean	Caribbean Sea	PacificOcean
Lepidochelys olivacea	☒	☐	☐
Caretta caretta	☒	☐	☐
Chelonia mydas	☒	☐	☐
Eretmochelys imbricata	☒	☐	☐
Dermochelys coriacea	☒	☐	☐
Lepidochelys kempii	☒	☐	☐

Additional Notes

Include other information, if required

›››

2) IAC Resolutions

2.1 The following resolutions apply to this country

☐Eastern Pacific Leatherback Turtle Resolution
☒Hawksbill Resolution
☒Loggerhead Resolution
☐Northwest Atlantic Leatherback Resolution
☒Fisheries Resolution

Resolution CIT-COP8-2017-R2 - Hawksbill Turtle (*Eretmochelys imbricata*)

1. Is your country strengthening monitoring of the illegal use and trade of hawksbill turtles and theirproducts?
Please select only one option
☐Yes
☐No
☒Does not apply

Please list the most relevant actions of the year (500 words)

List the activities, workshops, research, publications, or any other relevant material related to your response. Attachsupporting documents, if required.
››› Uruguay is not within the distribution range of the species.
Reference: Estrades A, Vélez-Rubio, Caraccio MN, Fallabrino A. 2013. Exploring southern waters: The presence of Hawksbill turtles in Uruguay. In: Tucker, T., Belskis, L., Panagopoulou, A., Rees, A., Frick, M., Williams, K., LeRoux, R., and Stewart, K. compilers. 2013. Proceedings of the Thirty-Third Annual Symposium on Sea Turtle Biology and Conservation. NOAA Technical Memorandum NOAA NMFS SEFSC-645:263 p.

2. Is your country enforcing pertinent hawksbill legislation?
Please select only one option
☐Yes
☐No
☒Does not apply

Please list the most relevant actions of the year (500 words)

List the activities, workshops, research, publications, or any other relevant material related to your response. Attachsupporting documents, if required.
›››

3. Are activities being carried out in your country to stop the illegal trade of hawksbill products?
Please select only one option
☐Yes
☐No
☒Does not apply

Please list the most relevant actions of the year (500 words)

List the activities, workshops, research, publications, or any other relevant material related to your response. Attachsupporting documents, if required.
›››

4. Indicate if your country is strengthening the protection of important nesting andforaging habitats by declaring protected areas and regulating anthropogenic activities that adversely impact these habitats

4a. Protection of nesting habitats

Please select only one option
☐Yes
☐No
☒Does not apply

Please list the most relevant actions of the year (500 words)

List the activities, workshops, research, publications, or any other relevant material related to your response. Attachsupporting documents, if required.
›››

4b. Protection of feeding habitats
Please select only one option
☒Yes
☐No
☐Does not apply

Please list the most relevant actions of the year (500 words)
List the activities, workshops, research, publications, or any other relevant material related to your response. Attachsupporting documents, if required.
››› Inclusion of the marine protected area "Isla de Flores" in Río de la Plata, to the National System of Protected Areas (SNAP) of the National Directorate of the Environment (DINAMA) under the category of "National Park" (Decree No. 9/ 2018).

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

1. Has your country created national action plans and/or monitoring programs to promote loggerhead sea turtle conservation?
Please select only one option
☐Yes
☒No
☐Does not apply

Please list the most relevant actions of the year (500 words)

List the activities, workshops, research, publications, or any other relevant material related to your response. Attach supporting documents, if required.
›››

2. State if there are plans or recovery programs, or bilateral or regional cooperation in your country.
Please select only one option
☐Yes
☒No
☐Does not apply

Please list the most relevant actions of the year (500 words)

List the activities, workshops, research, publications, or any other relevant material related to your response. Attach supporting documents, if required.
›››

3. Are these action plans or monitoring programs being implemented?
Please select only one option
☐Yes
☒No
☐Does not apply

Please list the most relevant actions of the year (500 words)

List the activities, workshops, research, publications, or any other relevant material related to your response. Attach supporting documents, if required.
›››

4. Is there protection of the loggerhead turtle at a state or federal level?
Please select only one option
☒Yes
☐No
☐Does not apply

Please list the most relevant actions of the year (500 words)

List the activities, workshops, research, publications, or any other relevant material related to your response. Attach supporting documents, if required.
›››
- Law No. 17,283 of 2000 - Protection of the environment
- Law No. 17,234 of 2000- Creates the National System of Protected Areas (Modified by Law No. 17,930 of 2005).
- Law No. 19,175 of 2013 - Establishes the legal regime for Fisheries and Aquaculture in order to ensure the conservation, research, sustainable development and responsible use of hydrobiological resources and the ecosystems that contain them.
- Decree No. 144 of 1998 - Maintains the prohibition of capture, retention and transportation, commercialization, transformation and processing of the four species of sea turtles found in the country up to that date.

5. Has your country taken conservation actions to protect nesting beaches and their associated habitats?
Please select only one option
☐Yes
☐No
☒There are no nesting beaches in the country

Please list the most relevant actions of the year (500 words)

List the activities, workshops, research, publications, or any other relevant material related to your response. Attach supporting documents, if required.
›››

6. Are there laws on turtle-friendly lighting in areas impacted by coastal development?
Please select only one option
☐Yes
☐No
☒There are no nesting beaches in the country

Please list the most relevant actions of the year (500 words)

List the activities, workshops, research, publications, or any other relevant material related to your response. Attach supporting documents, if required.
›››

7. Is there long-term (minimum 10 years) standardized data available for population trend studies?
Please select only one option
☐Yes
☐No
☒There are no nesting beaches in the country

Please list the most relevant actions of the year (500 words)

List the activities, workshops, research, publications, or any other relevant material related to your response. Attach supporting documents, if required.
›››

8. Is there exploitation or direct harvest of loggerhead turtles in your country?
Please select only one option
☐Yes
☒No
☐Does not apply

Please list the most relevant actions of the year (500 words)

List the activities, workshops, research, publications, or any other relevant material related to your response. Attach supporting documents, if required.
›››

Resolution CIT-COP3-2006-R2 – Reduce impacts of fisheries on sea turtles

Relating to if your country has 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 the adverse impact of fisheries on sea turtles

1. Does your country collect information by fishery?
Please select only one option
☒Yes
☐No
☐Does not apply

Please list the most relevant actions of the year (500 words)

List the activities, workshops, research, publications, or any other relevant material related to your response. Attach supporting documents, if required.
››› The National Program of onboard Observers at the National Directorate of Aquatic Resources (DINARA) collects information on sea turtle as well as other species, bycatch.

2. Does your country have observer programs?
Please select only one option
☒Yes
☐No
☐Does not apply

Please list the most relevant actions of the year (500 words)

List the activities, workshops, research, publications, or any other relevant material related to your response. Attach supporting documents, if required.
››› The National Directorate of Aquatic Resources (DINARA) has a National Program of onboard Observers for Industrial Fisheries, which collects information sea turtles, sea birds and marine mammal bycatch.

3. Does your country do research on sea turtle/fishery interactions?
Please select only one option
☒Yes
☐No
☐Does not apply

Please list the most relevant actions of the year (500 words)

List the activities, workshops, research, publications, or any other relevant material related to your response. Attach supporting documents, if required.
››› **-** Within the framework of DINARA´s National Program of onboard Observers, information is collected regarding sea turtles, birds and marine mammals bycatch in different commercial fisheries.
- Within the framework of the Uruguayan Sea Turtle Stranding and Rescue Network (created by the Karumbé Civil Association in 1999), the presence of signs of interaction with turtle fisheries is verified, when possible, on sea turtles stranded on the coast (alive or dead).
Publications:
- López-Mendilaharsu M, Giffoni B, Monteiro D, Prosdocimi L, V.lez-Rubio GM, […] (2020) Multiple threats analysis for loggerhead sea turtles in the Southwest Atlantic Ocean. Endangered Species Research 41:183–196
Camiñas, J., Domingo, A., Coelho, R., Bruyn, P., Abascal, F., & Baéz, J. (2020). Tuna regional fisheries management organizations and the conservation of sea turtles: A reply to Godley et al. Orix, 1-1. doi:10.1017/S0030605320000708

4. Does your country have information on non-Party vessels and interactions with sea turtles?
Please select only one option
☐Yes
☒No
☐Does not apply

Please list the most relevant actions of the year (500 words)

List the activities, workshops, research, publications, or any other relevant material related to your response. Attach supporting documents, if required.
›››

5. Does your country cooperate with non-party states to obtain information on interactions with sea turtles?
Please select only one option
☐Yes
☒No
☐Does not apply

Please list the most relevant actions of the year (500 words)

List the activities, workshops, research, publications, or any other relevant material related to your response. Attach supporting documents, if required.
›››

B. Mitigation measures

6. Does your country implement mitigation measures in long-line fisheries?

If the answer is **NO** please justify
Please select only one option
☐Yes
☐No
☒Does not apply

Please list the most relevant actions of the year (500 words)

List the activities, workshops, research, publications, or any other relevant material related to your response. Attach supporting documents, if required.
››› Currently there is no pelagic longline fleet in Uruguay

7. Does your country implement mitigation measures in gillnets fisheries?

If the answer is **NO** please justify
Please select only one option
☐Yes
☒No
☐Does not apply

Please list the most relevant actions of the year (500 words)

List the activities, workshops, research, publications, or any other relevant material related to your response. Attach supporting documents, if required.
››› Gillnets are used by Artisanal Fisheries (small-scale coastal fishery, up to 10 GRT) and to date there is no observer program or mitigation measures implemented for this fisheries.

8. Does your country implement mitigation measures in trawl fisheries (e.g. TEDs)?

If the answer is **NO** please justify
Please select only one option
☐Yes
☒No
☐Does not apply

Please list the most relevant actions of the year (500 words)

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; or attach any relevant documents
›››

9. Does your country implement mitigation measure in other fishing gears?

If the answer is **NO** please justify
Please select only one option
☐Yes
☒No
☐Does not apply

If yes, please indicate which fishing gears
›››

10. List the fisher training programs about best practices for safe handling and release of incidentally-caught sea turtles carried out by your country during the last year

››› No program with this approach has been implemented in recent years

C. Socio-economic considerations

11. Does your country support socio-economic activities that help mitigate adverse impacts of fisheries on sea turtles?
Please select only one option

☐Yes

☒No

☐Does not apply

Please list the most relevant actions of the year (500 words)

List the activities, workshops, research, publications, or any other relevant material related to your response. Attach supporting documents, if required.

›››

Part IV – Research Information

Indicate threats (Coastal development, incidental capture, direct use, contamination, pathogens, and climate change) by species

1) Threats

1.1 Indicate threats

Indicate threats **(Coastal development, incidental capture, direct use, contamination, pathogens, and climate change)** by species

Lo = *Lepidochelys olivacea*
Lk = *Lepidochelys kempii*
Dc = *Dermochelys coriacea*
Ei = *Eretmochelys imbricate*
Cc = *Caretta caretta*
Cm = *Chelonia mydas*.

	Lo	***Lk***	***Dc***	***Ei***	***Cc***	***Cm***
Contamination	☒	☐	☒	☒	☒	☒
Pathogens	☐	☐	☐	☐	☐	☒
Climate Change	☐	☐	☒	☐	☒	☒
Incidental Capture	☐	☐	☒	☐	☒	☒
Direct Use	☐	☐	☐	☐	☐	☒
Coastal development	☐	☐	☒	☐	☒	☒

2) Indicate the mitigation actions that apply for each species

2.1 Habitat loss mitigation actions (i.e. coastal development, pollution, climate change)

	Lo	***Lk***	***Dc***	***Ei***	***Cc***	***Cm***
Predator's removal/control	☐	☐	☐	☐	☐	☐
Beach Cleanups	☐	☐	☒	☐	☒	☒
Permits required for recreational activities near nesting sites	☐	☐	☐	☐	☐	☐
Permits required for scientific research on feeding/nesting grounds	☒	☐	☒	☒	☒	☒
Permits required for construction near nesting sites	☐	☐	☐	☐	☐	☐
Lighting regulations in place	☐	☐	☐	☐	☐	☐
Use of sea turtle friendly lighting	☐	☐	☐	☐	☐	☐
Establishment of Marine Protected Areas	☒	☐	☒	☒	☒	☒
None	☐	☐	☐	☐	☐	☐

2.2. Bycatch mitigation actions (i.e. Incidental Capture)

	Lo	*Lk*	*Dc*	*Ei*	*Cc*	*Cm*
Time/space closures	☐	☐	☐	☐	☐	☐
Sea Turtle Excluder Devices (TED)	☐	☐	☐	☐	☐	☐
Nets illumination	☐	☐	☐	☐	☐	☐
Trawling is banned	☐	☐	☐	☐	☐	☐
Nets are banned	☐	☐	☐	☐	☐	☐
Use of circle hooks	☐	☐	☐	☐	☐	☐
Observers program	☐	☐	☒	☐	☒	☒
Fishers trained on sea turtle safe handling and release	☐	☐	☒	☐	☒	☒
Marking of fishing gear in commercial vessels	☐	☐	☐	☐	☐	☐
Vessel monitoring using VMS	☒	☐	☒	☐	☒	☒
Research on new fishing gear technology	☐	☐	☐	☐	☐	☐
None	☐	☐	☐	☐	☐	☐

2.2 Direct use mitigation actions

	Lo	**Lk**	**Dc**	**Ei**	**Cc**	**Cm**
None	☐	☐	☐	☐	☐	☐
Exception management plan (if applies)	☐	☐	☐	☐	☐	☐
Permits required for scientific research	☒	☐	☒	☒	☒	☒
Livelihood alternatives for local communities	☐	☐	☐	☐	☐	☐
Seizure of sea turtle products	☒	☐	☒	☒	☒	☒
Environmental education for local communities	☒	☐	☒	☒	☒	☒
Poaching regulations in place	☐	☐	☐	☐	☐	☐
Satellite Tracking	☐	☐	☐	☐	☐	☐
Flipper Tagging	☐	☐	☐	☐	☐	☐
Day Patrols	☐	☐	☐	☐	☐	☐
Night Patrols	☐	☐	☐	☐	☐	☐
Nests relocation	☐	☐	☐	☐	☐	☐

3) Research

3.1 Types of research

Please fill out the following table on the types of research being carried out in the country related to each species.

	Lo	*Lk*	*Dc*	*Ei*	*Cc*	*Cm*
Disease	☐	☐	☐	☐	☒	☒
Fisheries interactions	☐	☐	☒	☐	☒	☒
Habitat monitoring	☐	☐	☐	☐	☐	☒
Genetics	☐	☐	☒	☐	☒	☒
Migration	☒	☐	☒	☒	☒	☒
Tagging	☒	☐	☒	☒	☒	☒

3.2 Describe scientific research

In addition to the above, please 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.

To report each project, please use the following structure:

1) Name of the project
2) Objective
3) E-mail of the organization/responsible
4) Summary (5 lines)
5) Annex Number (Use the blue buttons to attach photos and/or the full report, if available)

Describe the file with the same Annex number referenced in the text.
››› 1. STUDY OF THE GREEN TURTLE (*Chelonia mydas*) POPULATION ON THE ATLANTIC COAST OF URUGUAY
Objective: To know the population structure of the green turtle aggregation, identify areas of greatest use, know their diet and possible changes associated with environmental changes. In addition, it is intended to know the state of health and the incidence of threats that affect the species at a regional and global scale.
Responsible: Gabriela Vélez-Rubio (NGO Karumbé and CURE-Udelar). Email: karumbemail@gmail.com
Abstract: The Atlantic coast of Uruguay is an area of aggregation of juveniles from different populations of the green turtle, and its use by the turtles can be seasonal or annual. It is difficult to establish a specific population size for juvenile sea turtles since they make use of large areas of distribution, and mortality at this stage is high both due to biological reasons and to threats of anthropic origin. Previous studies carried out by Karumbé in the study area have shown a 12% recapture rate of individuals, indicating that this is an area where turtles show high site fidelity. Given the high seasonal migration and the fidelity of the site, mark-recapture activities are of special interest to know the movements of the turtles.
2. EVALUATION OF SEA TURTLE AGGREGATIONS IN URUGUAYAN WATERS THROUGH STRANDING ANALYSIS.
Objective: Determine the abundance and spatiotemporal patterns of sea turtles, as well as the threats that affect them.
Responsible: Gabriela Vélez-Rubio (NGO Karumbé). Email: karumbemail@gmail.com
Abstract: the number of sea turtles found on the coasts or captured by fishing boats every year, in the waters of Río de la Plata and the Atlantic Ocean totals up to approximately 300 individuals. Although most of the reported stranding are dead specimens, a significant number of live turtles are also found on the beaches, with varying degrees of compromised health status. From the work of the Karumbé Civil Association that began in 1999, and its Marine Turtle Rescue and Stranding Network of Uruguay (RRVTMU), the issues compromising physical integrity of the sea turtles became evident, and with it the need to carry out long-term monitoring of the aggregation of turtles found in our waters.
3. POPULATION GENETICS OF THE LEATHERBACK TURTLE (*Dermochelys coriacea*) IN WATERS OF RÍO DE LA PLATA
Responsible: Gabriela Vélez-Rubio and Laura Prosdocimi (NGO Karumbé). Email: karumbemail@gmail.com
Objective: To esablish the origin of leatheback turtle individuals found stranded on the Uruguayan coast using mitochondrial and nuclear sequences.
Abstract: In theis work, mtDNA, ncDNA sequences and morphometric data obtained from strandings of leatherback turtles are analyzed to improve knowledge about migratory patterns and characterize the aggregation of this species in the waters of Río de la Plata (Uruguay and Argentina).
4. EFFECT OF THE INTERACTION OF SEA TURTLES WITH SOLID WASTE IN URUGUAYAN WATERS
Responsible: Daniel Gonzalez (NGO Karumbé and James Cook University, Australia). Doctoral Thesis in its third year of completion. Email: karumbemail@gmail.com
Objective: Analyze the effects of plastic pollution on the health of the green turtle and study the distribution patterns of

plastic debris in Uruguayan waters. In addition, the results will allow evaluating the risk of plastic ingestion of this population related to the levels of exposure to plastic.
Abstract: This study intends to analyze and evaluate the effects of contamination by anthropogenic waste (mainly plastic) on the health of green turtles, based on a wide and robust range of samples collected by the NGO Karumbé over a period of 10 years. The quantification of these impacts continues to be a high priority for research both in the field of marine pollution by anthropogenic waste, and in the conservation of sea turtles.
5. ASSISTANCE FOR THE APPLICATION OF NEW MONITORING TOOLS FOR THE POPULATION ASSESSMENT OF MAMMALS AND SEA TURTLES IN THE RÍO DE LA PLATA. Project GCP/ARG/025/GFF
"Strengthening of Management and Protection of Coastal Marine Biodiversity in key Ecological Areas and the Application of the Ecosystem Approach to Fisheries (EEP)".
Responsible: Natalia Teryda, Laura Prosdocimi and Gabriela Vélez (NGO Karumbé). Email: karumbemail@gmail.com
Objective: Estimate the density of marine fauna in the area of Río de la Plata estuary and Cabo San Antonio, based on the analysis of information obtained through the use of UAVs in the area of Bahía Samborombón and Cabo San Antonio.
Abstract: The Río de La Plata Maritime Front (FMRLP) is an important feeding and development area for many species of birds, mammals and sea turtles. Satellite tracking studies of sea turtles in the Western South Atlantic have given an essential, albeit partial, description of the use of this habitat by these species, highlighting the importance of the FMRLP in their life cycle. In this area there is also an important fishing activity, which leads to placing in a vulnerable situation the species of marine mammals and turtles in it. The use of new technologies for the monitoring these species is of vital importance for their conservation.
6. INDIVIDUAL IDENTIFICATION OF SEX AND NESTING COLONY THROUGH MORPHOLOGICAL FEATURES IN JUVENILE GREEN TURTLES IN URUGUAY
Responsible: Candela Buteler (NGO Karumbé and National University of Córdoba, Argentina). Doctoral thesis in its second year of completion. Email: karumbemail@gmail.com
Objective: To test morphological characters that allow proposing non-invasive identification techniques in juveniles of *Chelonia mydas*.
Abstract: Mark-recapture methods are widely used in studies that seek to estimate population parameters (abundance, survival rates, etc.) and collect data on demography, migration, and life history of sea turtles. An alternative method to the application of artificial tags (a technique commonly used in sea turtles) to identify individuals is based on using their natural body markings. In addition, knowing the ratio of sexes and origin in a population has important ecological implications, especially in threatened species, such as the green turtle. The evaluation of morphological variables using the technique called morphometry could allow establishing differences between sexes and colonies of origin without more delicate and expensive analyzes (analysis of hormones, mitochondrial DNA, etc.).
7. ENVIRONMENTAL CONTAMINATION AND SANITARY STATE OF THE AGGREGATION OF GREEN TURTLES FROM "CERRO VERDE AND LA CORONILLA ISLANDS" COASTAL MARINE PROTECTED AREA AND ZONES OF INFLUENCE
Responsible: Florencia David (NGO Karumbé and Universidad de Rosario, Argentina). Doctoral thesis in its first year of completion. Email: karumbemail@gmail.com
Objective: To obtain information on the health status of the species *Chelonia mydas* from oxidative stress indicators, such as the activity of antioxidant enzymes, lipid peroxidation and loss of DNA integrity.
Abstract: Due to their ontogenetic diet change and the different habitats they use throughout their life cycle; sea turtles have an important role as indicators of environmental health. Although sea turtles face numerous anthropogenic threats, the effects of heavy metals, organochlorine compounds (OC) and polychlorinated biphenyls (PCBs) on their health, survival and reproduction are among the main topics for their conservation. Blood samples are a reliable and non-lethal method to assess concentrations of xenobiotics in sea turtles. Considering that knowledge about the effects of exposure to contaminants on juvenile green turtles in Uruguayan waters is practically null, this study aims to obtain information on the health status of the aggregation of juveniles of this species present in the Marine Protected Coastal Area "Cerro Verde and La Coronilla Islands".
8. OPPORTUNISTIC BENTHIC EPIBIONTS ON JUVENILE GREEN TURTLE IN THE ATLANTIC COAST OF URUGUAY: COMPOSITION AND INDICATORS OF HABITAT USE
Responsible: Marina Reyes (NGO Karumbe and University of Buenos Aires). Email: karumbemail@gmail.com
Objective: To analyze the composition and structure of the opportunistic epibionts of juvenile green turtles (*Chelonia mydas*) and to estimate the habitat use during their brumation by comparing it with benthic assemblages of rocky substrates from the Atlantic coast of Uruguay.
Abstract: On the Uruguayan coast there are large seasonal variations in sea surface temperature, which is why most of the juvenile green turtles migrate to the coastal waters of southern Brazil or to oceanic waters where the temperature is higher during the winter. Even so, a small proportion of the juvenile aggregation may remain in Uruguayan coastal waters during that season. These individuals that do not migrate, facing a gradual drop in temperature, can develop a behavior of winter torpor or "brumation" to tolerate low temperatures by remaining on the seabed for long periods of time. In this framework, the hypothesis of this work is that green turtle individuals during the cold months constitute an available substrate for benthic organisms, reflecting the benthic assemblage of the rocky substrate of the Atlantic coast of Uruguay. The study of the assemblage in these zones (species composition, monthly recruitment and growth rates of mussels) will allow inferring the habitat use of the turtles during this period of the year.

PUBLISHED BIBLIOGRAPHY (2018-2021):
1. Barreto J, Miller P, Teixeira JB, Baptistotte C, Fallabrino A, Marcondes A, Estrades A, Laporta M, Thomé JC (2021) Loggerhead turtle captured in the Río de la Plata is found 10 years later nesting in Espírito Santo, Brazil. Marine Turtle Newsletter 162: 4-5.

2. López-Mendilaharsu M, Giffoni B, Monteiro D, Prosdocimi L, V.lez-Rubio GM, […] (2020) Multiple threats analysis for loggerhead sea turtles in the Southwest Atlantic Ocean. Endangered Species Research 41: 183–196.
3. Camiñas, J, Domingo, A, Coelho, R, Bruyn, P, Abascal, F, & Baéz, J (2020) Tuna regional fisheries management organizations and the conservation of sea turtles: A reply to Godley et al. Oryx, 1-1. doi:10.1017/S0030605320000708
4. Cardozo JM, Ma. Noel Caraccio, Alejandro Márquez, Susana González (2019) Genetic diversity of loggerhead turtles (Caretta caretta) stranded on the Uruguayan coast; contributions towards the conservation of the species in the Southwestern Atlantic Ocean. Conference paper in Mangel, J.C., Rees, A., Pajuelo, M., Córdova, F, Acuña, N. compilers. 2019. Proceedings of the Thirty-Sixth Annual Symposium on Sea Turtle Biology and Conservation. NOAA Technical Memorandum NOAA NMFSSEFSC-734: 364 p.
5. Vélez-Rubio GM, Cardona L, Carranza A, Martinez-Souza G, González-Paredes D, Tomás J (2019) Long-term patterns of habitat use by juvenile green turtle, Chelonia mydas, off Uruguay revealed by stable isotope values in carapace scute layers. Conference paper in Mangel, J.C., Rees, A., Pajuelo, M., Córdova, F, Acuña, N. compilers. 2019. Proceedings of the Thirty-Sixth Annual Symposium on Sea Turtle Biology and Conservation. NOAA Technical Memorandum NOAA NMFSSEFSC734: 364 p.
6. Teryda N, Rodriguez D, Vélez-Rubio GM (2019) Marine debris ingestion by green turtles (Chelonia mydas) in Uruguayan coastal waters. Conference paper in Mangel, J.C., Rees, A., Pajuelo, M., Córdova, F, Acuña, N. compilers. 2019. Proceedings of the Thirty-Sixth Annual Symposium on Sea Turtle Biology and Conservation. NOAA Technical Memorandum NOAA NMFS-SEFSC-734: 364 p.
7. Leoni V, Vélez-Rubio GM, Scarabino F, Marques AC, Miranda TP, Carranza, A (2019) Epibiontic hydroids from marine turtles: a global review of literature and a case from juvenile green turtles (Chelonia mydas) in the SW Atlantic coast. Conference paper in Mangel, J.C., Rees, A., Pajuelo, M., Córdova, F, Acuña, N. compilers. 2019. Proceedings of the Thirty-Sixth Annual Symposium on Sea Turtle Biology and Conservation. NOAA Technical Memorandum NOAA NMFSSEFSC734: 364 p.
8. Pizarro-Mora F, Velasco-Charpentier C, Estrades A, Vélez-Rubio GM (2019) Epibiota of Hawksbill turtle Eretmochelys imbricata stranded in the coast of Rocha Department, Uruguay. Conference paper in Mangel, J.C., Rees, A., Pajuelo, M.,Córdova, F, Acuña, N. compilers. 2019. Proceedings of the Thirty-Sixth Annual Symposium on Sea Turtle Biology and Conservation. NOAA Technical Memorandum NOAA NMFS-SEFSC-734: 364 p .
9.Velasco-Charpentier C, Pizarro-Mora F, Estrades A, Vélez-Rubio GM (2019) Epibiota of Loggerhead turtle Caretta caretta stranded in Rocha Deparment, Uruguay. Conference paper in Mangel, J.C., Rees, A., Pajuelo, M., Córdova, F, Acuña, N. compilers. 2019. Proceedings of the Thirty-Sixth Annual Symposium on Sea Turtle Biology and Conservation. NOAA Technical Memorandum NOAA NMFSSEFSC734: 364 p.
10. Ferrando V, Vélez-Rubio GM (2019) Surviving anthropogenic debris: description of a clinical case. Conference paper in Mangel, J.C., Rees, A., Pajuelo, M., Córdova, F,Acuña, N. compilers. 2019. Proceedings of the Thirty-Sixth Annual Symposium on Sea Turtle Biology and Conservation. NOAA Technical Memorandum NOAA NMFSSEFSC-734: 364 p.
11. Vélez-Rubio GM, Domit C, Gonzalez Carman V, López-Mendilaharsu M, Santos RG (2019) Feeding habits and ontogenetic dietary shift of green turtle, Chelonia mydas, in the Southwastern Atlantic Ocean: what we know until now? Conference paper in Mangel, J.C., Rees, A., Pajuelo, M., Córdova, F, Acuña, N. compilers. 2019. Proceedings of the Thirty-Sixth Annual Symposium on Sea Turtle Biology and Conservation. NOAA Technical Memorandum NOAA NMFS-SEFSC-734: 364 p.
12. Teryda N, Liana Rosa, Gabriela Vélez-Rubio, Laura Prosdocimi, Suzana Guimarães (2019) Pollution and sea turtles in South Western Atlantic. Conference paper in Mangel, J.C., Rees, A., Pajuelo, M., Córdova, F, Acuña, N. compilers. 2019. Proceedings of the Thirty-Sixth Annual Symposium on Sea Turtle Biology and Conservation. NOAA Technical Memorandum NOAA NMFS-SEFSC-734: 364 p.
13. Vélez-Rubio GM; (2018a) Pre and post-settlement movements of juvenile green turtles in the Southwestern Atlantic Ocean. Journal of Experimental Marine Biology and Ecology 501:36-45.
14. Vélez-Rubio G.M., N. Teryda, P.E. Asaroff, A. Estrades, D. Rodriguez, J. Tomás (2018b) Differential impact of marine debris ingestion during ontogenetic dietary shift of green turtles in Uruguayan waters, Marine Pollution Bulletin 127: 603-611.

4) Other activities

In the case of projects, please include the name of the project, organizations involved, a five lines summary, current status, and contact person.

4.1 Other activities

Include a 500 words summary of information on environmental education activities, programs to establish and manage protected areas, and cooperative activities with other Party countries.
Please attach any other relevant documents using the blue boxes below.

››› ENVIRONMENTAL EDUCATION PROGRAM

Objectives: 1. Strengthen the environmental education program of the NGO Karumbé by updating the didactic material used in the workshops carried out within the framework of the program. 2. Update information and recreational activities with teachers of different educational levels 3. Hold workshops where it is possible to work using these materials, generating knowledge regarding the coastal environment, biodiversity, threats, care and conservation practices. 4. Disseminate this material through workshops, educational centers and digitize it to be able to share it from the organization's website.

Abstract: Since 1999, the NGO Karumbé has been working on environmental education as a fundamental tool to encourage and promote a correct relationship between society and nature, taking into account values, experiences and knowledge to achieve sustainable development and improve this relationship between humans and nature. This project intends to update the pedagogical material that is used in the workshops within the framework of the environmental education program of the organization, in conjunction with teachers, non-university actors and UDELAR students, in order to update, create and adapt knowledge to three age ranges from initial, primary and secondary school education (basic cycle), considering the different modalities in which it will be possible to work under the current health emergency.

WILDLIFE REHABILITATION CENTERS

Through the Uruguayan Sea Turtle Stranding and Rescue Network, the NGO Karumbé receives an average of 50 sea turtles that require veterinary attention every year, which are referred to one of the following centers:

- Since 2005, the NGO has owned the Cerro Verde Scientific Base located on the Atlantic coast of Uruguay, which has a temporary "Rehabilitation Area" that is operational from November to April. In this center primary care is carried out and turtles with simple clinical cases are kept.
- In 2010, the "Sea Turtle Center - CTM" was opened in the Villa Dolores Zoo, in the city of Montevideo. The Center has a space for the rehabilitation of specimens of greater clinical complexity, dedicated to the recovery of sick and/or injured turtles, to the investigation of pathological processes and to education and awareness regarding the situation of sea turtles in Uruguay.

Objectives: The main objective of the NGO's Rehabilitation Centers is to broaden the knowledge of the state of health of existing sea turtles on the coasts of Uruguay, to allow their correct management and conservation. Specifically, work is being done on: 1. Carrying out the necessary veterinary processes for the reinsertion of turtles into their natural environment. 2. Record and identify the main causes of sea turtle stranding. 3. Generate lines of research of interest for the state of health of sea turtles. 4. Deepen the development and improvement of clinical protocols and action in the Emergency Department. 5. Training of human resources. 6. Transfer of acquired knowledge.

.

Part V – Nesting Information

Index nesting sites or beaches for sea turtle conservation

Use the following drop down menu to select the index sites which you would like to report information forthe latest season corresponding to the year of this report

Index Nesting Sites

Attach here other files relevant to this section, if required

Please describe the content of the attachment in the box below and use the blue button to attach the file.

›››

Part VI – Fisheries Information

If your country does not have data available to fill out the information on longline fisheries, please contact the IAC Secretariat secretario@iacseaturtle.org

Longline Fisheries (Vessels >20m)

Does your country have industrial longline fisheries with vessels over 20m?
Please select only one option
☐Yes
☒No

Thank you!

Thank you, you have completed the IAC Online Report questionnaire.
We are very appreciative of the time you have taken to answer all of the questions. The PDF of thisdocument will be published on the Annual Reports section of the IAC
website http://www.iacseaturtle.org/informes-eng.htm