

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

# IAC - ANNUAL REPORT 2022

# ARGENTINA

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 <a href="mailto:secretario@iacseaturtle.org">secretario@iacseaturtle.org</a>

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

Translation by Luz Helena Rodríguez (IAC Secretariat)

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# THE PDF OF THE ANNUAL REPORT SUBMITTED BY EACH COUNTRY WILL BE PUBLISHED ON THE CONVENTION WEBSITE

## **Part I - General Information**

Country

Name of the country reporting > Republic of Argentina

#### **Official Note**

If required, please attach here the relevant administrative authority **official note** endorsing the annual report submission. Are you attaching an official note? I Yes

You have attached the following Web links/URLs to this answer.

Official Note 2022

#### 1) Focal Point

1.1 Name > Sra. Ministro Corina B. Lehmann

1.2 Institution> Ministerio de Relaciones Exteriores, Comercio Internacional y Culto

1.3 Submission Date > 30/04/2022

#### 2) Agency or Institution responsible for preparing this report

2.1 Name of the person preparing this report > Débora Winter

 2.2 Name of Agency or Institution
> Dirección Nacional de Gestión Ambiental del Agua y los Ecosistemas Acuáticos, Ministerio de Ambiente y Desarrollo Sostenible

2.3 Address > San Martín 451, CABA 2.5 E-mail > dwinter@ambiente.gob.ar

#### 3) Others who participated in the preparation of this report

3.1 Others who participated in the preparation of this report

E-mail	Agency or Institution	Name
Natalia S. Teryda	School of Natural Resources and Environment, University of Florida	nteryda@ufl.edu
Sofía Jones	División Zoología Vertebrados - Facultad de Ciencias Naturales y MuseoUniversidad Nacional de La Plata- CONICET	sjones@fcnym.unlp.edu
Alan Rosenthal	Asociación de Naturalistas Geselinos (ANG)	alanfrosenthal@gmail.co
Victoria González Carman	InstitutodeInvestigacionesMarinasyCosteras(IIMyC)(CONICET-UNMdP); Instituto Nacional de Investigación y Desarrollo Pesquero (INIDEP)	vgcarman@gmail.comvg; carman@inidep.edu.ar
Karina Cecilia Álvarez	Departamento de Conservación - Fundación Mundo Marino	cecikaru@hotmail.com
Laura Prosdocimi	Coordinación de Gestión de Pesquerías, Dirección de Planificación Pesquera. SubsecretaríadePescayAcuiculturadelaNación-MinisteriodeAgricultura, Ganadería y Pesca	lprosdocimi@magyp.gob
Jorgelina del Pilar Oddi	Dirección Nacional de Gestión Ambiental del Agua y los Ecosistemas Acuáticos, Ministerio de Ambiente y Desarrollo Sostenible	joddi@ambiente.gob.ar

# 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

🗹 Yes

You have attached the following Web links/URLs to this answer.

PAN for National Report

#### Strategy/plan in progress

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.  $\Box$  In Progress

You have attached the following Web links/URLs to this answer.

PAN for National Report

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.  $\ensuremath{\boxtimes}$  No

# 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 2021 – 30 April 2022**).

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 (2021).

National Legislation

Sanctions(s) Imposed	Description (Range of application)	Type and name of the legal instrument (No.)
Resolution MAyDS 218/2021	Creates the "Federal Network to Assist Marine Fauna Strandings"	
Resolution MAyDS 201/2021	Approves the Protocol to implement marine fauna monitoring in seismic prospecting	

#### International Instruments

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

#### 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.)

> Buenos Aires Province, through Resolution 86/2010 and through the Province Organization for Sustainable Development (OPDS), coordinates the Marine Fauna Rescue Network with jurisdiction over the entire Buenos Aires coast. The actions of this network include mechanisms to facilitate the referral of sea turtles found stranded, and require to be transferred to the nearest authorized rehabilitation center, for recovery and subsequent release.

The two aquariums in the province of Buenos Aires (Aquarium in Mar del Plata and Mundo Marino in San Clemente del Tuyú) are registered under Resolution 231/19, which creates a Single Registry of Wildlife Operators. Currently, inspections of these aquariums are carried out by the Inspections Directorate of the Ministry of Environment and Sustainable Development (MAyDS), run by Dr. Alejandro Mackielo

#### 4) Efforts to increase IAC membership

4.1 Has your country encouraged non-member states to join the IAC?  $\ensuremath{\boxtimes}$  No

4.2 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?

# 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.

	Caribbean Sea	Pacific Ocean	Atlantic Ocean
Chelonia mydas			
Caretta caretta			
Eretmochelys imbricata			
Dermochelys coriacea			
Lepidochelys kempii			
Lepidochelys olivacea			

#### Additional Notes

Include other information, if required

> Only two records of the species, which were hybrids with Caretta caretta.

#### 2) IAC Resolutions

2.1 The following resolutions apply to this country

Hawksbill Resolution

☑ Loggerhead 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 their products? ☑ Not applicable

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. > Not applicable

2. Is your country enforcing pertinent hawksbill legislation? ☑ Not applicable

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. > Not applicable

3. Are activities being carried out in your country to stop the illegal trade of hawksbill products? ☑ Yes

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.

Measures in Law 22.344 enforcement, approve CITES Convention and Fauna National Law (22.421). To export hawksbill products, the exporter should certify that the pieces were obtained before the Convention. This certificate is issued by the Ministry of Culture of the Nation. Regarding trafficking, control measures, are enforced along with Customs and the relevant security authorities. As Hawksbill sea turtles don't occur in the country, records of the trade of hawksbill pieces are scarce

# 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

4a. Protection of nesting habitats  $\ensuremath{\square}$  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. > Doest not apply

4b. Protection of feeding habitats  $\square$  No

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. > No

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

1. Has your country created national action plans and/or monitoring programs to promote loggerhead sea turtle conservation? vers

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.

In 2015, the Environment Federal Council (COFEMA in Spanish) by Resolution No.317/2015, approved the "National Action Plan for Conservation of Sea Turtles in the Republic of Argentina (PANTM)" and the "National Action Program to Reduce the Sea Turtles Interaction with Marine Debris in Argentina" within. Likewise, the PANTM includes the "National Action Program to Reduce Sea Turtles Interactions with Fisheries in Argentina", adopted by the Federal Fishing Council (CFP in Spanish) Resolution No 14/2018

2. State if there are plans or recovery programs, or bilateral or regional cooperation in your country.  $\ensuremath{\boxtimes}$  No

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. > No

3. Are these action plans or monitoring programs being implemented?  $\ensuremath{\square}$  Yes

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.

> Workshops are held to monitor the implementation of the PAN Tortugas

4. Is there protection of the loggerhead turtle at a state or federal level?  $\ensuremath{\boxtimes}$  Yes

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 № 22.421/1981 Fauna National Law and its Regulatory Decree 666/1997. Law № 24.922/1997 adopts

the Federal Fishing Regime, and Regulatory Decree 748/1999. Resolution SAyDS 513/2007 prohibits hunting, capture, inter-regional traffic, trade on federal jurisdiction, and export of live specimens, products, or subproducts of wildlife, including sea turtles in Annex I

5. Has your country taken conservation actions to protect nesting beaches and their associated habitats? ☑ 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.

> Does not apply

6. Are there laws on turtle-friendly lighting in areas impacted by coastal development? ☑ 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.

> Does not apply

7. Is there long-term (minimum 10 years) standardized data available for population trend studies? ☑ 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.

> Does not apply

8. Is there exploitation or direct harvest of loggerhead turtles in your country? ☑ No

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. > No

#### 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? ☑ No

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.

> No

2. Does your country have observer programs?

☑ No

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.

> Although there is not a specific onboard observers program, INIDEP (National Institute for Fisheries) Development) has the Onboard Commercial Vessels Observers Program which protocol to handle sea turtles onboard is updated every year, as well as for all INIDEP programs susceptible to interact with sea turtles. This protocol includes sea turtle identification booklets.

3. Does your country do research on sea turtle/fishery interactions? ☑ Yes

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

- Evaluation of areas of use by the commercial fishing fleet and their potential interaction with sea turtles, defining sensitive areas for the management and conservation of sea turtles. Reference: Prosdocimi et al. 2020 (see list of references.)

-Doctoral thesis (in progress): "Evaluation of the impact of fisheries on sea turtles occurring in Argentinian waters" by Sofía Jones in the Vertebrate Zoology Division-Faculty of Natural Sciences and Museum-National University of La Plata - CONICET. Within the framework of this thesis, a species identification sheet has been designed (Figure 1), to assist the fishing sector in reporting the observations of fauna, required in the fishing reports, as established in resolution SAGYP 92/ 2021; It can be found in the official page of the Ministry of Agriculture, Livestock and Fisheries of the Nation, freely accessible and free of charge

(https://www.magyp.gob.ar/sitio/areas/pesca\_maritima/plan/PAN-TORTUGAS/index.php). Outreach campaigns have been carried out in different ports of the Buenos Aires province where more than 100 sailors and skippers have been contacted, and trained in identification with the support of animal photographs, and provided with the species identification sheet; Interviews have been conducted to learn about the interaction of these animals with fishing gear; A bycatch reporting network has been created via WhatsApp to collect information on catches in fleets that do not have observers on board; key actors have been contacted in some places to encourage their participation in sea turtle conservation actions; The "Tutka Project" was created to make visible the activities framed in the thesis project and its results, serving as a communication tool to encourage community participation in the conservation of these reptiles. For this, a Facebook page (https://www.facebook.com/search/top?=project%20tutka) and Instagram

(https://instagram.com/project.tutka?Utmmedium=copy\_link )(Figure 2) were created, to post information every day on sea turtles, photographs of fieldwork, records of animals returned to the sea by the fishermen themselves, and all news related to these animals. Figure 1. Front and back design of file species identification. Figure 2. Dissemination in social networks. Instagram and Facebook

-Construction of the sea turtle stranding databases in the northern coastal sector of the Buenos Aires province, to describe their spatial and temporal pattern and evaluate potential causes. There was a bachelor's research regarding this topic, which has been finalized, by Vassallo, Martina. "Space-time analysis of sea turtle strandings in the northern coastal sector of Buenos Aires Province: proposals to reduce their mortality". Director: Dr. Victoria González Carman. Co-direction: Dra. Daniela Alemany. Work started with the Mundo Marino Foundation, the Geseline Naturalists Association, and the Center for Parasitological and Vector Studies of La Plata to study sea turtles' health. To this end, Mr. Ezequiel Palumbo applied for a CONICET postdoctoral fellowship with a proposal entitled "The health status of sea turtles in the temperate region of the Southwest Atlantic." Director: Dr. Victoria González Carman. Co-direction: Dra. Julia I. Diaz. This work complements what was carried out by Ms. Vasallo since it aims to explore other causes of sea turtle mortality (e.g. diseases) not associated with fisheries. Lastly, Ms. Daniela Font master's degree in Coastal Science and Policy at the University of California Santa Cruz project is "Towards a co-designed conservation program to reduce sea turtle bycatch in artisanal fisheries from Argentina". The AquaMarina Foundation and CONICET collaborate on this project.

- Record the presence of fishing gear remains or scars on specimens found in the framework of the stranding monitoring program, indicating a possible interaction with fisheries.

- Record of the fishing gear that caught a specimen released alive or admitted to rehabilitation centers.

4. Does your country have information on non-Party vessels and interactions with sea turtles?  $\ensuremath{\boxtimes}$  No

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.

> No

5. Does your country cooperate with non-party states to obtain information on interactions with sea turtles?

☑ No

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.

> No

#### **B.** Mitigation measures

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

If the answer is NO please justify  $\boxdot$  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. > Does not apply

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

If the answer is NO please justify  $\ensuremath{\square}$  Yes

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 the doctoral thesis (in progress) "Assessment of the impact of fisheries on sea turtles present in Argentine waters" (Sofía Jones), there have been some informal talks with artisanal fishermen from Partido de la Costa

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

If the answer is NO please justify  $\boxdot$  No

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

> No

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

If the answer is **NO** please justify  $\square$  No

If yes, please indicate which fishing gears > No

10. List the fisher training programs about best practices for safe handling and release of incidentallycaught sea turtles carried out by your country during the last year > No

#### C. Socio-economic considerations

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

🛛 No

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.

> No

# **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 olivaceaLk = Lepidochelys kempiiDc = Dermochelys coriaceaEi = Eretmochelys imbricataCc = Caretta caretta

Cm = Chelonia mydas.

	Cm	Cc	Ei	Dc	Цĸ	L O
Climate Change			$\overline{}$		V	
Contamination			$\overline{}$		V	
Pathogens						
Coastal development						
Incidental Capture			$\checkmark$		1	
Direct Use						

#### 2) Indicate the mitigation actions that apply for each species

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

	Cm	Cc	Ei	Dc	L k	L o
None						
Use of sea turtle friendly lighting						
Predator's removal/control						
Beach Cleanups			$\mathbf{\mathbf{\nabla}}$		V	4
Permits required for recreational activities near nesting sites						
Permits required for scientific research on feeding/nesting grounds						
Permits required for construction near nesting sites			N		V	V
Lighting regulations in place						
Establishment of Marine Protected Areas						

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

	Cm	Cc	Ei	Dc	L k	L o
None						
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						7
Research on new fishing gear technology						
Time/space closures						
Sea Turtle Excluder Devices (TED)						

#### 2.3 Direct use mitigation actions

	Cm	Cc	Ei	Dc	L k	L o
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			$\checkmark$			V
Day Patrols						
Night Patrols						
Nests relocation						
None						

### 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.

	Cm	Cc	Ei	Dc	L k	L o
Disease			$\mathbf{\overline{Y}}$			V
Fisheries interactions			$\checkmark$		V	
Habitat monitoring						
Genetics						
Migration						
Tagging			4		V	V

#### 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. Trophic ecology studies in all species of sea turtles related to strandings and bycatch, using tissue (skin, muscle, blood, bone, scutes) for stable isotope analysis and digestive content for research on interactions with plastics and parasites.

2. Continuation of the sea turtles strandings systematic monitoring program, which started in 2014, covering Buenos Aires Province coastal sector between Punta Rasa and Mar Chiquita, with 180 km of beach between March and June. This systematic work allows for necropsies in the field and the identification and comprehensive analysis of the causes of the strandings

Fundación Mundo Marino, the Association of Geselino Naturalists (ANG), the Ecopark of Buenos Aires, CONICET, and INIDEP participate in this program. In this regard, the records of the Fundación Mundo Marino Rehabilitation Center for the period from 4/12/2021 to 4/12/2022 resulted in the following:

Dc: 12 total strandings (12 dead strandings and no live strandings)

Cc: 24 in total (11 dead strandings, 3 dead entanglements, and 10 live entanglements)

Cm: 22 in total (12 dead entanglements; 10 live entanglements)

Simultaneously with the systematic monitoring of strandings, ANG continued to work on its voluntary reporting program with the cooperation of the municipal area for beach safety and the lifeguard corps of the Villa Gesell district during December 2021, and January, February, and March 2022. The lifeguards were instructed to identify the species correctly and were provided with identification cards and colorimetric scales for the corresponding georeferenced photographic reports. As for ANG, the records during the period from March 11, 2021 to April 4, 2022 resulted in:

dc:18 dead stranding

Cc: 8 dead stranding

Cm: 1 dead stranding

3. Study on sea turtles and other megafauna species as indicators of plastic pollution in the Rio de la Plata. Published (González Carman V, Denuncia P, Vassallo M, Berón MP, Alvarez KC, and Rodriguez Heredia S (2021) Charismatic Species as Indicators of Plastic Pollution in the Río de la Plata Estuarine Area, SW Atlantic. Front. Mar. Sci. 8:699100. doi: 10.3389/fmars.2021.699100).

4. Ongoing research projects:

a- Evaluation of the impact of fisheries on sea turtles occurring in Argentinian waters.

Doctoral thesis, División Zoología Vertebrados-Facultad de Ciencias Naturales y Museo-Universidad Nacional de La Plata-CONICET.

GENERAL OBJECTIVE To determine the scope of sea turtles bycatch in different fishing fleets off the Buenos Aires coast, their impact on populations, and possible mitigation measures to reduce this effect. SPECIFIC OBJECTIVES

O1. Evaluate the impact of sea turtle bycatch in the Río de la Plata Maritime Front (FMRP) and "El Rincón" estuary, quantifying the catch per unit effort (CPUE) and the direct mortality rate depending on the type of fleet and fishing gear.

O2. Identify areas susceptible to Caretta caretta, Chelonia mydas, and Dermochelys coriacea bycatch by artisanal fishing activity in the waters of the FMRP and "El Rincón"; and corroborate the precision in the delimitation of those areas previously identified for the commercial fleet.

O3. Identify environmental (sea surface temperature, chlorophyll concentration, salinity) and operational parameters of the fleets (type and size of fishing gear, deployment depth, fishing gear soaking time, operating area, target species, storage capacity, crew) influencing CPUEs and direct mortality rates. O4. Develop and implement collaborative solutions to prevent sea turtles bycatch and increase live releases, with the participation of the stakeholders involved.

E-mail of the person in charge: Sofia Jones (sjones@fcnym.unlp.edu.ar)

Abstract: This project will develop a regional review to determine the scope of sea turtles bycatch in five sites with higher overlapping between operating zones and areas identified as key for the three species found in Argentina; participatory conservation programs will be developed simultaneously, involving the fishing community, to favor long-term conservation of these animals, minimizing not only bycatch but also the negative economic impacts that other mitigation efforts may have in fishing communities. It should be noted that the objectives proposed in this research are aligned with the goals in one of the programs of the National Action Plan for the Conservation of Sea Turtles (PAN - TM).

Products to date: Jones et al. 2021; Jones et al 2022

b- Identifying strategies for Sea Turtles conservation in Argentina and Uruguay, South America. PhD thesis, School of Natural Resources and Environment, University of Florida.

Objectives: The objective is to develop and consolidate a holistic approach to the analysis and conservation of sea turtles and their coastal habitats. Efforts will be directed to the investigation of two endangered species with the application of new technologies, the strengthening of regional conservation and management networks, and the integration of these components with the development of community capacities. At the same time, the goal is to test the use and efficiency of UAS in new areas where these technologies have not been used before and to develop useful protocols for future deployment around the world. E-mail of the person in charge: Natalia S. Teryda (nteryda@ufl.edu)

Summary: The project will focus on the investigation of two species of sea turtles in danger of extinction, the green turtle (Chelonia mydas) and the leatherback turtle (Dermochelys coriacea), using new remote research technologies, the reinforcement of regional networks of conservation and management, and the integration of these components with community training. Simultaneously, the objective is to test the use and efficiency of drones (or UAS) in new areas in which these technologies have not been used before and to develop useful protocols for their future implementation in similar regions of the world. In particular, during the development of this project, the efficiency of drones for monitoring marine species will be evaluated and tested, while standardizing the protocols for the future implementation in sea turtle long-term research in the water in low visibility conditions and hard-to-reach coastal areas. Also, it is expected to estimate the preliminary abundance of leatherback turtles and their habitat distribution in the Río de La Plata Estuary, Argentina, which can be used as a tool to design efficient monitoring campaigns that can be integrated into the distribution of the fishing fleet for management and conservation efforts. Concomitantly, it is planned to estimate the abundance of green turtles in the Marine Protected Area of Cerro Verde and Islas de La Coronilla, Uruguay, using the same protocols and to assess the anthropogenic threats faced by these species by examining the strandings in Uruguay applying UAS as substitutes for the efficient management efforts of marine protected areas and the reinforcement of regional conservation and management networks.

Products to date: Prosdocimi et al. 2020b; Teryda et al. 2022

c- Evaluation of sensitive areas for the conservation of Sea Turtles.

Objectives: From the evaluation of areas of use by the commercial fishing fleet and the sea turtles occurring in Argentina, the potential interaction with Sea Turtles was evaluated, defining sensitive areas for management and conservation.

E-mail of the person in charge: Laura Prosdocimi (lprosdo@yahoo.com.ar)

Summary: High-priority areas for intervention, conservation, and management were identified based on available published information on fishing operations and sea turtle habitat use. The distribution of bottom trawling within the Río de la Plata Maritime Front (RLPMF) and its adjacent international waters is analyzed. This area is a highly important fishing ground in the South Western Atlantic, as well as a feeding and development area for sea turtles.

Using the information available from the Vessel Sattelite Monitoring System (VMS) implemented to monitor commercial fleets, the areas of greatest use by the fleet were defined. Currently, there are not many studies that use VMS data to identify key conservation areas within fishing grounds, making this study an innovative analysis for endangered species conservation studies. Our results identified areas of high susceptibility to incidental capture of sea turtles by the commercial trawling fleet along the RLPMF. The implementation of bycatch mitigation measures by the Argentinian and Uruguayan fisheries management agencies has the potential to benefit both fisheries and marine megafauna. In addition, more research is needed on the impact that this fleet may have on sea turtles present in the area.

Products to date: Prosdocimi et al. 2020th

d- Management and conservation of threatened marine species in Argentina: an approach from distribution models and the ethnography of the actors involved.

Summary

The growing human population and its consumption pressure endanger the existence of numerous species

whose management and protection require scientific information on their ecology and interaction with human activities. The general objective of the project is to contribute to the conservation of marine species by working with two complementary epistemological and methodological approaches, the biological and the anthropological, in order to address their conservation and management in a comprehensive way, contemplating the socio-cultural, political, and ontological dimensions involved. From the biological approach, work will be done on modeling the use of habitat and distribution to evaluate the impact of various activities or anthropic factors on different species of sea turtles and marine mammals, to propose management and protection measures. From the anthropological approach, progress will be made in an ethnographic investigation with the objective of analytically reconstructing the discourses and practices of a group of artisanal fishermen and experts in conservation and management who interact in an area of interest both for the conservation of sea turtles and marine mammals, and the exploitation of fishing resources. In particular, it is proposed that the problem of the incidental capture of these species in the north of the province of Buenos Aires must be addressed by reconstructing not only the concerns about the loss of biodiversity raised by the hegemonic discourse of conservationism but also the issues regarding inequality in access to fishing resources and overexploitation by current fishing policies. The proposed approach to the conservation of these species is in tune with the principles of ecosystem management adopted by government wildlife and fisheries agencies and at the forefront of scientific disciplines such as Conservation Biology and Nature Anthropology. E-mail of the person in charge: Victoria González Carman (vgcarman@gmail.com; vgcarman@inidep.edu.ar) Products to date: Gonzalez Carman et al 2021; Kot et al 2022

e- Gelatinous plankton as food for sea turtles in the Río de la Plata estuary Summary

The objective of this work plan is to explore the role of gelatinous plankton as food for sea turtles in one of the southernmost feeding areas of the Southwestern Atlantic: the Río de la Plata estuary. At least three species of sea turtles arrive in Río de la Plata after migrating thousands of kilometers from tropical latitudes. Some of these species are in critical stages of their life cycle in which the type and amount of food determine survival and reproductive success. However, the role of gelatinous plankton in marine food webs is controversial. Historically considered a poor food given its high water content (close to 95%), the great densities of gelatinous plankton reached during its demographic explosions (or blooms) would compensate for its low energy value. Our hypothesis is that Río de la Plata is an important feeding area for sea turtles due to the high concentration and predictability (in space and time) of gelatinous plankton in this area. To test this hypothesis, a literature review will be conducted to describe existing knowledge about the trophic ecology (diet, consumption rates, energy requirements) of turtle species in the Southwest Atlantic. Then, we will work with the databases of the Gabinete de Zooplancton del Instituto Nacional de Investigación y Desarrollo Pesquero to determine the spatial distribution of gelatinous plankton and the interannual variations of its biomass, identifying the areas with the highest plankton density in a Geographic Information System. Finally, the importance of the Río de la Plata as a feeding area for sea turtles will be evaluated based on the results obtained in the previous steps regarding the energy requirements and the consumption rate by sea turtles, as well as in relation to the supply of gelatinous plankton in the study area.

E-mail of the person in charge: Victoria González Carman (vgcarman@gmail.com; vgcarman@inidep.edu.ar) Products to date: undergraduate thesis in progress.

f- Time-space analysis of sea turtle strandings in the northern coastal sector of the province of Buenos Aires: proposals to reduce their mortality

#### Summary

Of the seven species of sea turtles, six are threatened with extinction according to the International Union for the Conservation of Nature. The waters of the Argentinian continental shelf are the southernmost feeding and development habitat of the Southwestern Atlantic for loggerhead (Caretta caretta), green (Chelonia mydas), and leatherback (Dermochelys coriacea) turtles. This paper explored the hypothesis that bycatch is one of the main causes of sea turtle strandings recorded in the north of Buenos Aires Province. For this, data from beach patrols carried out from March to May 2014 to 2018 were used to characterize the strandings, describe their time-space distribution, and relate them to physical, biological, and anthropic variables. Generalized additive models were used to analyze the number of strandings per week as a function of explanatory variables such as month, sea surface temperature, winds, fishing effort, and fishing closures. The species C. caretta and D. coriacea constituted 47.4% and 49.3%, of the strandings, respectively. Although an effect of sea surface temperature and winds from the west and south on the number of strandings was found, the effect of fishing effort was weak or non-existent. In this sense, no unequivocal evidence was found in favor of the proposed hypothesis. This study represents the first analysis of the time-space distribution of sea turtle strandings in Argentina based on physical, biological, and anthropic factors. The results of this thesis provide valuable information obtained from data collected systematically during a significant part of the time in which these species use the waters of the Argentinian continental shelf.

E-mail of the person in charge: Victoria González Carman (vgcarman@gmail.com; vgcarman@inidep.edu.ar) Products generated to date: Vassallo, M. 2021

g- The health condition of sea turtles in the temperate region of the Southwestern Atlantic

Of the seven existing species of sea turtles, three of them -Caretta caretta, Chelonia mydas, and Dermochelys coriacea- feed in Reio de la Plata estuary and its waterfront, from late spring to early fall. The presence of these individuals is evidenced by the weakened or dead specimens found on the beach. The main causes of these strandings are bycatch in the fishing fleets, plastics ingestion, and diseases caused by viruses (such as

fibropapillomatosis) or parasites (mostly digeneous). The general objective of this work plan is to contribute to the conservation of sea turtles by evaluating, for the first time, some aspects of the health condition of the species that feed in the temperate region of the Southwestern Atlantic. Health condition of sea turtles will be evaluated based on the characterization of their body condition, parasitic fauna, and prevalence of diseases; and it will be compared with the data already reported in Brazil and Uruguay. In addition, the relationship between health condition of the sea turtles and their diet will be explored, taking into account the consumption of plastic and the type of food. In the absence of previous studies, this plan represents the possibility of establishing the base knowledge on the health status of sea turtles in an area that will be exposed, in the short term, to the negative effects of hydrocarbon exploration, among others. adverse effects of anthropization. On the other hand, it is expected to fill information gaps and answer a series of questions of great ecological interest. At the same time, the exploration of the relationship between the consumption of gelatinous plankton and the health condition of sea turtles will contribute to understanding the low prevalence of parasitic infections and diseases previously observed in the area.

E-mail of the person in charge: Victoria González Carman (vgcarman@gmail.com; vgcarman@inidep.edu.ar) Products generated to date: post-doctoral work plan presented to CONICET; Palumbo et al, 2021. References

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Vassallo, Martina. 2021. Análisis espacio-temporal de los varamientos de tortugas marinas en el sector costero norte de la provincia de Buenos Aires: propuestas para reducir su mortalidad.

#### 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.

> Some of the activities offered by Fundación Mundo Marino carried out in the reporting period were:

The following activities were carried out within the park and with the visitors:

Exploring the Unknown, guided tours with educational talks reaching 4,755 visitors; Little Conservationists (January and February 2022), reaching 4,240 children; Educational Programs (Play for Nature and Little Adventurers), reaching 11,848 students from various Provinces; Virtual Educational Program (with GROUP company), reaching 1015 students from different schools. Total: 21858 people

Activities outside Mundo Marino aimed at the local community and visitors (tourists):

During the Festival for Wetlands Day (February 2) in the Port of San Clemente, talks on sea turtles and their threats in the area (interaction with fishing nets and marine debris) for 50 people; Clean Beaches Campaign (January and February 2022), in the spas of the different towns of the Partido de La Costa, carrying out

recreational and educational activities with a total of 738 children. Total: 788 Outreach with printed material:

550 sea turtle flyers were distributed

Digital outreach

\* Development of technical data sheets on Chelonia mydas, Dermochelys coriacea, Caretta caretta.

\* Dissemination of educational material on sea turtles through social media.

\* Ephemeris World Day of Sea Turtles: development of didactic material for teachers.

\* Participation as a teacher in the Virtual Course on SDGs at the National University of Córdoba, in charge of SDG 14, where the threats to sea turtles in Argentina and the efforts in their conservation are exposed and disseminated.

\* The 5th Provincial Census of marine litter is carried out and the infographic with its results is disseminated in social media, graphic media, radio, and television, which generates a large number of notes with important repercussions and the possibility of disseminating the problem of sea turtles and their interaction with waste. ANG, for their part, carried out various educational and outreach activities:

During the 2021 school year, several schools were visited with recreational and outreach activities on sea turtles.

During the week of June 6th to 12th, and in commemoration of World Sea Turtle Day, there were different posts on social media with information on the biology and conservation of sea turtles.

Within the framework of the 5th census of waste on the Buenos Aires coast and the Escuelas Azules project of the Centro Cultural de la Ciencia, San Patricio school was conveyed to collaborate with a thorough survey of plastics and microplastics on the beaches of Villa Gesell district.

From December 2021 to February 2022, the traveling exhibition of marine fauna "OPEN OCEAN" was mounted on different beaches of the Villa Gesell district with the exhibition of skeletons and samples of sea turtles found in the Argentinian seas, educational infographics, and informative posters on the biology, threats and conservation measures for sea turtles in the region.

On the side of the Fundación para la Recepción y Asistencia de Animales Marinos (FRAAM), throughout the year 2021, they continued to work from virtuality with teachers and students from schools in the city of Bahía Blanca, Villa del Mar coastal area and the city of Punta Alta, the latter corresponding to the Coronel Rosales Party. In this sense, Initial Level establishments made contact, and it was the kids who created the triptychs illustrated with drawings and legends of the three frequent species in our region, coastal-marine wetlands of the southwest of Buenos Aires, biology, ecology and dangers they face, mainly accidents, involuntary ingestion of plastic waste in the sea and on the beach - and their contributions to reverse these environmental damages.

Other kindergartens prepared murals with similar information, in both cases they were publicly exhibited at the XIII Provincial Festival of Los Humedales - Villa del Mar, on February 11 and 12, 2022. Within the context of Environmental Education, they offered several formal talks to teachers and learners, and informally to the general public.

Likewise, they remembered World Sea Turtle Day in their networks and expanded the diffusion, offering different notes on the event on AM and FM radio, and media in the Region. Newspaper references

- https://telegrafo.com.ar/noticias/80098-mas-del-84-de-los-residuos-encontrados-en-la-costa-bonaerensesonplasticos

-https://www.minutog.com/5-medio-ambiente/25701-plasticos-y-colillas-son-el-84--de-los-residuos-que-dejan -en-las-playas/

- https://prensa.mundomarino.com.ar/imagenes-alarmantes-una-tortuga-defeco-mas-de-10-tipos-de-plasticosdiferentes

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## **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?  $\ensuremath{\boxtimes}$  Yes