

# IAC - Annual Report 2020

## 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 Pro Tempore at [secretario@iacseaturtle.org](mailto:secretario@iacseaturtle.org)

The submission deadline for this Annual Report is June 30th, 2020.

## Part I - General Information

### 1) Focal Point

#### 1.1 Name

> João Carlos Alciati Thomé and Igor Andrade Vidal Barbosa

#### 1.2 Institution

> TAMAR Center - ICMBio - Ministry of Environment/foreign affairs ministry

#### 1.3 Submission Date

> aug/04/2020

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

#### 2.1 Name of the person preparing this report

> Cecilia Baptistotte

#### 2.2 Name of Agency or Institution

> TAMAR Center - ICMBio

#### 2.3 Address

> Av. Nossa Senhora dos Navegantes, 451 - Ed. PetroTower, sala 1601 - Enseada do Suá, Vitória-ES, CEP 29.050-335 - Brasil

#### 2.4 Telephone

> 55-27 3222 1417/ 55-27 3222 4775

#### 2.5 E-mail

> [cecilia.baptistotte@icmbio.gov.br](mailto:cecilia.baptistotte@icmbio.gov.br)

### 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

	Danielle Silveira Monteiro	FURG	danismonteiro@yahoo.com.br
	Bruno Giffoni	Fundação Pro-TAMAR	bruno@tamar.org.br
	Gilberto Sales	Centro TAMAR-ICMBio	gilberto.sales@icmbio.gov.br
	Evandro de Martini	Centro TAMAR-ICMBio	evandro.martini@icmbio.gov.br
	João Carlos Alciati Thomé	Centro TAMAR-ICMBio	joao.thome@icmbio.gov.br
	Alexsandro Santana dos Santos	Fundação Pro-TAMAR	alex@tamar.org.br
	Maria Angela Marcovaldi	Fundação Pro-TAMAR	neca@tamar.org.br

## 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

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

[Plano de Ação Nacional para a Conservação das Tartarugas Marinhas](#)

### Species Management Plan

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*

### Strategy/plan in progress

Date to be finalized

>

Provide details on the progress

>

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

*Please select only one option*

Yes

No

In Progress

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

*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 2019 – 30 April 2020**).

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.

#### National Legislation

	Type and name of the legal instrument (No.)	Description (Range of application)	Sanctions(s) Imposed

#### 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.)

> National Action Plan for the Conservation of Sea Turtles - PAN

### 4) Efforts to increase IAC membership

4.1 Has your country encouraged non-member states to join the IAC?

*Please select only one option*

Yes (list countries below)

> French Guiana

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?

*Please select only one option*

Yes (list countries below)

>

No

### 5) Application [submission] of exceptions established by the Convention

Application [submission] of exceptions established in the Convention

Describe 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 (CIT-COP5-2011-R2).

Attach management plan and five-year progress report as indicated in Resolution CIT-COP6-2013-R1/CIT-COP7-2015-R1 using the blue icons below.

#### External supporting documents

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.

	Caribbean Sea	Atlantic Ocean	Pacific Ocean
Lepidochelys olivacea	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lepidochelys kempii	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dermochelys coriacea	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Eretmochelys imbricata	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Chelonia mydas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Caretta caretta	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### 2) IAC Resolutions

#### 2.1 The following resolutions apply to this country

2.1 Las siguientes resoluciones aplican para este país

- Eastern Pacific Leatherback Turtle Resolution
- Hawksbill Resolution
- Loggerhead Resolution
- Northwest Atlantic Leatherback Resolution
- Fisheries Resolution

### 3. Resolution CIT-COP7-2015-R2 - Eastern Pacific Leatherback Turtle (Dermochelys coriacea)

1. Has your country created conservation plans and/or long-term programs that can reverse the critical situation of the leatherback turtle in the Eastern Pacific?

*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. Are you implementing the country EP leatherback conservation plans?

*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. Have you taken conservation measures to eliminate poaching of leatherback 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.

>

4. If your country has leatherback turtle nesting beaches in the Eastern Pacific: Have you taken conservation measures to protect the nests and nesting habitat?

*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. Has your country adopted fishing techniques that reduce incidental capture and mortality of this species?

*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. 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?

*Please select only one option*

- Yes
- 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.

> National Action Plan for the Conservation of Sea Turtles - PAN

2. Is your country enforcing pertinent hawksbill legislation?

*Please select only one option*

- Yes
- 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.

> National Action Plan for the Conservation of Sea Turtles - PAN

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

*Please select only one option*

- Yes
- 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.

>

#### 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

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.

> -Proposal to create a coastal-marine protected area in Rio Grande do Norte (BELLINI, C., VIEIRA, D.H.G. e BEZERRA, J. de P. e SANTOS, A.J.B. Tartarugas marinhas no litoral sul do Rio Grande do Norte – Uma síntese. Cap. 5, 50-56 p. In: APA Recifes de Pirangi (recurso eletrônico): proposta de criação de área protegida

costeiro-marinha no Rio Grande do Norte / Coordenadores Ligia Moreira da Rocha, Luis Eduardo Carvalho Bonilha – Parnamirim, RN: Oceânica, 2020. il. color.: 2020, 1ª. edição, 196 p..

-Same conservation actions as before, under the National Action Plan for the Conservation of Sea Turtles, coordinated by ICMBio

-BELLINI, C.; SANTOS, A.J.B.; PATRÍCIO, A.R.; BORTOLON, L.F.W.; GODLEY, B.J.; MARCOVALDI, M.A.; TILLEY, D.; COLMAN, L.P. Distribution and growth rates of immature hawksbill turtles *Eretmochelys imbricata* in Fernando de Noronha, Brazil. *Endangered Species Research*, v.40, p. 41-52. 2019.

-Arantes, L., Vargas, S., Santos, F.R. (2020). Global phylogeography of the critically endangered hawksbill turtle (*Eretmochelys imbricata*). *Genetics and Molecular Biology* 43(2): e20190264.

- WERNECK, M.R., R. VELLOSO, P.B.C. DAS CHAGAS, H.J. LEANDRO & R.M. DE AMORIM. (2019). First report of *Pyelosomum cochlear* Looss 1899 (Digenea: Pronocephalidae) in a hawksbill turtle - *Eretmochelys imbricata* L. found in Brazilian coast. *HELMINTHOLOGIA* 56: 334-337.

- NASCIMENTO, M. L. ; SILVA, O. B. ; SILVA, E. G. ; OITAVEN, L. P. C. ; MOURA, G. J. B. . *Eretmochelys Imbricata* Eggs. Predation By *Amphisbaena littorallis* (Roberto, Brito & Ávila 2014). *HERPETOLOGICAL REVIEW*, v. 50, p. 1-2, 2019.

- NAKAMURA, M.F.; SANTOS, A.J.B.; LOBÃO-SOARES, B.; CORSO, G. Lunar phases and hawksbill sea turtle nesting. *Journal of Ethology*. v.37, p.307-316. 2019 ISSN 0289-0771. <https://doi.org/10.1007/s10164-019-00604-7>

##### 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. Attach supporting documents, if required.

> -Proposal to create a coastal-marine protected area in Rio Grande do Norte (BELLINI, C., VIEIRA, D.H.G. e BEZERRA, J. de P. e SANTOS, A.J.B. Tartarugas marinhas no litoral sul do Rio Grande do Norte – Uma síntese. Cap. 5, 50-56 p. In: APA Recifes de Pirangi (recurso eletrônico): proposta de criação de área protegida

costeiro-marinha no Rio Grande do Norte / Coordenadores Ligia Moreira da Rocha, Luis Eduardo Carvalho Bonilha – Parnamirim, RN: Oceânica, 2020. il. color.: 2020, 1ª. edição, 196 p..

-Same conservation actions as before, under the National Action Plan for the Conservation of Sea Turtles, coordinated by ICMBio

#### 5. 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?

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.

> National Action Plan for the Conservation of Sea Turtles

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.

> - ASO Network(South Western Atlantic)

- South Atlantic Sea Turtle Network - SAST

- Collaborative work to assess sea turtle bycatch in pelagic longline fleets (Atlantic and Indian Oceans and Mediterranean Sea)

Workshop II, Málaga – Spain, 27-31 January 2020

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.

> The National Action Plan for the Conservation of Sea Turtles

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.

> The National Action Plan for the Conservation of Sea Turtles

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

*Please select only one option*

- Yes  
 No  
 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.

> - Conservation actions under The National Action Plan for the Conservation of Sea Turtles, coordinated by ICMBio.

- A new Marine Protected Area is being planned, protecting all the main nesting area for *C. caretta* in Espírito Santo state.

- TACCHI, M.F.; QUIRINO, F.P.; FERREIRA, D.J.M.; AFONSO L.G.; TOGNIN, F.; NEGREIROS, D. Efeito da granulometria da areia no sucesso de eclosão de ovos da tartaruga marinha *Caretta caretta*. Neotropical Biology and Conservation. v. 14, n. 1, p. 43-54, 2019. [https://doi: 10.3897/neotropical.14.e34836](https://doi.org/10.3897/neotropical.14.e34836).

You have attached the following documents to this answer.

[Relatório\\_GASPARINI - Subsídios para criação de UC \(rev02\).pdf](#) - Subsídios para criação de UC na foz do Rio Doce

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

*Please select only one option*

- Yes  
 No  
 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.

> The National Action Plan for the Conservation of Sea Turtles

COLMAN, L. P.; LARA, P. H.; BENNIE, J.; BRODERICK, A. C.; DE FREITAS, J. R.; MARCONDES, A.; WITT, M. J.; GODLEY, B. J. Assessing coastal artificial light and potential exposure of wildlife at a national scale: the case of marine turtles in Brazil. *Biodiversity and Conservation*, [s. l.], v. 29, n. 4, p. 1135-1152, 2020.

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

*Please select only one option*

- Yes  
 No  
 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.

> - The National Action Plan for the Conservation of Sea Turtles.

- MONTERO, N.; TOMILLO, P.S.; SABA, V.S.; MARCOVALDI, M.A.G.dei; LOPEZ-MENDILAHARSU, M.; SANTOS, A.S.; FUENTES, M.M.P.B. Effects of local climate on loggerhead hatchling production in Brazil: Implications from climate change. *Scientific Reports*. v.9, n. 8861, p. 1-12, 2019.<https://doi.org/10.1038/s41598-019-45366-x>.

- MONSINJON, J.R.; WYNEKEN, J.; RUSENKO, K.; LOPEZ-MENDILAHARSU, M.; LARA, P.; SANTOS, A.; MARCOVALDI, M.A.G.; FUENTES, M.M.P.B.; KASKA, Y.; TUCEK, J.; NEL, R.; WILLIAMS, K.L.; LE BLANC, A.M.; ROSTAL, D.; GUILLON, J.M.; GIRONDOT, M. The climatic debt of loggerhead sea turtle populations in a warming world. *Ecological Indicators*, v. 107, p. 105657. 2019.

- LARA, P.H.; TOGNIN, F.; VERISSIMO, L.; MORA, D.; SANTOS, A.S.dos; MARCOVALDI, M.A.; LOPEZ-MENDILAHARSU, M.; SWIMMER, Y. New conservation challenges in Brazil: Satellite tracking reveals new foraging grounds for loggerheads turtles. In. *ANNUAL SYMPOSIUM ON SEA TURTLES BIOLOGY AND CONSERVATION*, 39, 2019, Charleston, USA. Proceedings... [s.n], 2019.

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.

> The National Action Plan for the Conservation of Sea Turtles

## **6. Resolution CIT-COP9-2019-R2 - Northwest Atlantic Leatherback (*Dermochelys coriacea*)**

1. Has your country implemented techniques to reduce leatherback bycatch and mortality in fisheries, following the UN-FAO Guidelines to Reduce Sea Turtle Mortality in Fishing Operations?

*Please select only one option*

- Yes  
 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.

>

2. Does your country have fishery observer programs that comply with the minimum standards for scientific observer coverage that have been established by pertinent Regional Fishery Management Organizations?

*Please select only one option*

- Yes

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.

>

3. Has your country implemented laws and regulations related to Northwest Atlantic leatherback conservation, particularly related to fisheries bycatch and marine protected areas?

*Please select only one option*

Yes

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.

>

4. Has your country implemented conservation measures for the protection of the NWA leatherback nesting beaches and associated habitats?

*Please select only one option*

Yes

No

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.

>

5. Does your country have a monitoring and tagging program at the NWA leatherback nesting beaches?

*Please select only one option*

Yes

No

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. Is your country collecting data on interactions of the NWA leatherback with fishing fleets? If YES, please report data of interactions of the species with industrial longline vessels in Part VI of this report.

6. ¿Su País está colectando datos de las interacciones de la baula del Atlántico Noroccidental con las flotas pesqueras? Si la respuesta es SI, por favor reporte las interacciones de esta especie con embarcaciones industriales de palangre en la Parte VI de este informe.

*Please select only one option*

Yes

No

## **7. 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 Action Plan for the Conservation of Sea Turtles

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.

> We do not have a national fishery observer program working since 2014. We had just few initiatives or projects focusing specific groups (sharks, sea birds, sea turtles, etc...).

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.

> - Fiedler et al. 2020 - High mortality rates of *C. mydas* in a small-scale bottom gillnet fishery in the SW Atlantic Ocean Aquatic. Conserv: Mar Freshw Ecosyst. 2020;1-8.

- Duarte, D. L., Broadhurst, M. K., & Dumont, L. F. (2019). Challenges in adopting turtle excluder devices (TEDs) in Brazilian penaeid-trawl fisheries. Marine Policy, 99, 374-381.

- Tagliolatto, A. B., Giffoni, B., Guimarães, S., Godfrey, M. H., & Monteiro-Neto, C. (2020). Incidental capture and mortality of sea turtles in the industrial double-rig-bottom trawl fishery in south-eastern Brazil. Aquatic Conservation: Marine and Freshwater Ecosystems, 30(2), 351-363.

- Parga, M. L., Crespo-Picazo, J. L., Monteiro, D., García-Párraga, D., Hernandez, J. A., Swimmer, Y., ... & Stacy, N. I. (2020). on-board study of gas embolism in marine turtles caught in bottom trawl fisheries in the Atlantic Ocean. Scientific reports, 10(1), 1-9.

- López-Mendilaharsu, M., Giffoni, B., Monteiro, D., Prosdocimi, L., Vélez-Rubio, G. M., Fallabrino, A., ... & Tiwari, M. (2020). Multiple-threats analysis for loggerhead sea turtles in the southwest Atlantic Ocean. Endangered Species Research, 41, 183-196.

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.

> - Collaborative work to assess sea turtle bycatch in pelagic longline fleets (Atlantic and Indian Oceans and Mediterranean Sea)

## 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.

> We are implementing mitigate measures to longline from norm 2017

### 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.

>

### 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

> - Tests with TED in trawl vessels in according of FAO guidelines (Sergipe, São Paulo, Paraná e Espírito Santo fleets).

- Tagliolatto, A. B., Giffoni, B., Guimarães, S., Godfrey, M. H., & Monteiro-Neto, C. (2020). Incidental capture and mortality of sea turtles in the industrial double-rig-bottom trawl fishery in south-eastern Brazil. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 30(2), 351-363.

- Parga, M. L., Crespo-Picazo, J. L., Monteiro, D., García-Párraga, D., Hernandez, J. A., Swimmer, Y., ... & Stacy, N. I. (2020). on-board study of gas embolism in marine turtles caught in bottom trawl fisheries in the Atlantic Ocean. *Scientific reports*, 10(1), 1-9.

- Duarte, D. L., Broadhurst, M. K., & Dumont, L. F. (2019). Challenges in adopting turtle excluder devices (TEDs) in Brazilian penaeid-trawl fisheries. *Marine Policy*, 99, 374-381.

### 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

> We do not have training program with this focus in the last year.

## 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.

> Social and Economic support to fishing communities.

## 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 imbricata*

Cc = *Caretta caretta*

Cm = *Chelonia mydas*.

	Cm	Cc	Ei	Dc	Lk	Lo
Climate Change	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Pathogens	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contamination	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Direct Use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Incidental Capture	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Coastal development	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### 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	Lk	Lo
Permits required for recreational activities near nesting sites	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Beach Cleanups	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Predator's removal/control	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Establishment of Marine Protected Areas	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Use of sea turtle friendly lighting	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lighting regulations in place	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Permits required for construction near nesting sites	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Permits required for scientific research on feeding/nesting grounds	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

	Cm	Cc	Ei	Dc	Lk	Lo
Sea Turtle Excluder Devices	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Nets illumination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trawling is banned	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nets are banned	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use of circle hooks	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Observers program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fishers trained on sea turtle safe handling and release	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Marking of fishing gear in commercial vessels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vessel monitoring using VMS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Research on new fishing gear technology	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Time/space closures	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### 2.3 Direct use mitigation actions

	Cm	Cc	Ei	Dc	Lk	Lo
Nests relocation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Night Patrols	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Day Patrols	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Flipper Tagging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Satellite Tracking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Poaching regulations in place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental education for local communities	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Seizure of sea turtle products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Livelihood alternatives for local communities	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Permits required for scientific research	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exception management plan (if applies)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 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	Lk	Lo
Tagging	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Migration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Genetics	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Habitat monitoring	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fisheries interactions	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Disease	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### 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.

Provide a list of references for the information used in this report and note how to obtain them when needed.

> -Conservation Routes Project - DELTA TARTARUGAS INSTITUTE

-Project to monitor the populations of *Chelonia mydas* (Linnaeus, 1758) in different areas in the municipality of Guarujá, south coast of São Paulo, using intentional capture and tagging method - GREMAR INSTITUTE FOR RESEARCH, EDUCATION AND FAUNA MANAGEMENT

-How can breeding strategies mitigate the impacts of climate change on sea turtles? - Pro Tamar Foundation

-Hormonal, hematological and metabolic biomarkers of plastic malnutrition in juveniles of *Chelonia mydas* (Linnaeus, 1758) on the coast of Rio Grande do Sul - Federal University of Rio Grande do Sul - UFRGS

-Genetic characterization of the sea turtle *Chelonia mydas* in Brazil: Focus on the “lost years” - FOUNDATION C. B. P. P. SEA TURTLES

-Bioaccumulation of heavy metals in sea turtles off the coast of Pernambuco, Brazil - Federal University of Pernambuco - UFPE

-Study of strandings of marine mammals and turtles in the Campos Basin - Instituto Oswaldo Cruz - IOC / FIOCRUZ

-The research aims to map potential foraging areas on the south coast of Pernambuco, and with this it will be possible to generate information that will support the indication of priority areas for the application of more effective environmental public policies for the protection of feeding habitats - Federal University of Pernambuco - UFPE

-Survey of *Salmonella* spp in turtles (*Chelonia mydas*) from beaches in Baixada Santista - Paulista University - UNIP

-Multiple paternity and sex ratio of the reproductive population of *Dermochelys coriacea* - Federal University of Espírito Santo - UFES

-Predation of sea turtle nests and evaluation of mitigation methods on the beaches of Barreira do Inferno, Parnamirim / RN - Federal University of Rio Grande do Norte

-Monitoring of antimicrobial resistance - Federal University of Rio de Janeiro

-Monitoring of Sea Turtles in the Archipelago of São Pedro and São Paulo -

Chico Mendes Institute for Biodiversity Conservation

-Trophic bioindicators of oil contamination and impacts on artisanal fishing off the coast of Pernambuco - FRASSINETTI COLLEGE OF RECIFE - FAFIRE

-Monitoring of spawning and stranding of sea turtles on the coast of Conde-PB - Federal University of Paraíba

-Impact of photopollution on sea turtle hatchlings on Guriri Island, São Mateus and Conceição da Barra - ES - Federal University of Espírito Santo - UFES

-Request for use of samples of plastic materials found in the digestive tract of sea turtles found by the Tamar Project in the North Coast of São Paulo - Sorocaba School of Technology CEETEPS

-Citizen Science Initiative - Tortoise Heart - Maraú - Bahia - INSTITUTE OF SUSTAINABLE DEVELOPMENT OF THE PENINSULA DE MARAÚ

-Bioaccumulation and deleterious biochemical effects of oil constituents on marine fauna affected by the spill over the Northeast of Brazil and food security of vulnerable populations - Instituto Oswaldo Cruz - IOC / FIOCRUZ

-Participatory monitoring of marine fauna in the Fernando de Noronha archipelago through the citizen science project: Com Viver Marinho - IBC - BLUE CHANGE INSTITUTE

-Determination of echocardiographic parameters in green turtles (*Chelonia mydas*) conscious or anesthetized with sevoflurane - Faculty of Veterinary Medicine and Zootechnics USP

-Physiological and pathological aspects of sea turtles on the south coast of Espírito Santo - INST FED EDU CIENCIA TECNOLOGIA DO ES / CAMPUS PIÚMA

References:

1. Parga, M. L., Crespo-Picazo, J. L., Monteiro, D., García-Párraga, D., Hernandez, J. A., Swimmer, Y., ... & Stacy, N. I. (2020). On-board study of gas embolism in marine turtles caught in bottom trawl fisheries in the Atlantic Ocean. *Scientific reports*, 10(1), 1-9.

2. López-Mendilaharsu, M., Giffoni, B., Monteiro, D., Prosdocimi, L., Vélez-Rubio, G. M., Fallabrino, A., ... & Tiwari, M. (2020). Multiple-threats analysis for loggerhead sea turtles in the southwest Atlantic Ocean. *Endangered Species Research*, 41, 183-196.

3. Fuentes, M. M., Wildermann, N., Gandra, T. B., & Domit, C. (2020). Cumulative threats to juvenile green turtles in the coastal waters of southern and southeastern Brazil. *Biodiversity and Conservation*, 1-21.
4. Tagliolatto, A. B., Giffoni, B., Guimarães, S., Godfrey, M. H., & Monteiro-Neto, C. (2020). Incidental capture and mortality of sea turtles in the industrial double-rig-bottom trawl fishery in south-eastern Brazil. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 30(2), 351-363.
5. Cantor, M., Barreto, A. S., Tauffer, R. M., Giffoni, B., Castilho, P. V., Maranhão, A., Beatriz, C., Kolesnikovas, C., Godoy, D., Rogério, D. W., Dick, J. L., Groch, K. R., Rosa, L., Cremer, M. J., Cattani, P. E., Valle, R. R., and Domit, C. (2020). High incidence of sea turtle stranding in the southwestern Atlantic Ocean. – *ICES Journal of Marine Science*, doi:10.1093/icesjms/fsaa073
6. de Farias, D. S. D., de Alencar, A. E. B., Bomfim, A. D. C., de Lima Frago, A. B., Rossi, S., de Moura, G. J. B., ... & de Lima Silva, F. J. (2019). Marine turtles stranded in northeastern Brazil: composition, spatio-temporal distribution, and anthropogenic interactions. *Chelonian Conservation and Biology*, 18(1), 105-111.
7. Tagliolatto, A. B., Goldberg, D. W., Godfrey, M. H., & Monteiro-Neto, C. (2020). Spatio-temporal distribution of sea turtle strandings and factors contributing to their mortality in south-eastern Brazil. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 30(2), 331-350.
8. Duarte, D. L., Broadhurst, M. K., & Dumont, L. F. (2019). Challenges in adopting turtle excluder devices (TEDs) in Brazilian penaeid-trawl fisheries. *Marine Policy*, 99, 374-381.
9. Jerdy, H., Mastrangelli, A., Lacerda, P., Baldassin, P., Scarelli, A. C., Werneck, M. R., & Carvalho, E. (2020). Anoxia Effects in Asphyxiated Green Sea Turtles (*Chelonia mydas*) Caught in an Artisanal Fishing Net on the Coast of Brazil. *Journal of Comparative Pathology*, 176, 67-70.
10. Dias, B. S., Barbosa, J. F., & Jordaan, A. (2019). Sea Turtle Records at the Environmental Protection Area of Algodão-Maiandeuá, Para State, Brazil. *Marine Turtle Newsletter*, 158, 24-26.
11. BELLINI, C.; SANTOS, A.J.B.; PATRÍCIO, A.R.; BORTOLON, L.F.W.; GODLEY, B.J.; MARCOVALDI, M.A.; TILLEY, D.; COLMAN, L.P. Distribution and growth rates of immature hawksbill turtles *Eretmochelys imbricata* in Fernando de Noronha, Brazil. *Endangered Species Research*, v.40, p. 41-52. 2019.
12. CAMPOS, P.; CARDONA, L. Individual variability in the settlement of juvenile green turtles in the western South Atlantic Ocean: relevance of currents and somatic growth rate. *Marine Ecology Progress Series*, v. 614, p. 173-182. 2019. <https://doi.org/10.3354/meps12909>
13. LIMA, E.H.S.M.; MELO, M.T.D.; FERREIRA, F.D.A. A First Record of Green Turtle (*Chelonia mydas*) Nesting in Almofala, Western Coast of Ceará, Brazil. *Marine Turtle Newsletter*, n.156, p. 3-4. 2019.
14. MONSINJON, J.; LOPEZ-MENDILAHARSU, M.; LARA, P.; SANTOS, A.; MARCOVALDI, M.A.G. de; GIRONDOT, M.; FUENTES, M.M.P.B. Effects of temperature and demography on the phenology of loggerhead sea turtles in Brazil. *Marine Ecology Progress Series*. v. 623, p. 209-219, 2019. <https://doi.org/10.3354/meps12988>
15. MONSINJON, J.R.; WYNEKEN, J.; RUSENKO, K.; LÓPEZ-MENDILAHARSU, M.; LARA, P.; SANTOS, A.; MARCOVALDI, M.A.G.; FUENTES, M.M.P.B.; KASKA, Y.; TUCEK, J.; NEL, R.; WILLIAMS, K.L.; LE BLANC, A.M.; ROSTAL, D.; GUILLON, J.M.; GIRONDOT, M. The climatic debt of loggerhead sea turtle populations in a warming world. *Ecological Indicators*, v. 107, p. 105657. 2019.
16. MONTERO, N.; TOMILLO, P.S.; SABA, V.S.; MARCOVALDI, M.A.G.de; LOPEZ-MENDILAHARSU, M.; SANTOS, A.S.; FUENTES, M.M.P.B. Effects of local climate on loggerhead hatchling production in Brazil: Implications from climate change. *Scientific Reports*. v.9, n. 8861, p. 1-12, 2019. <https://doi.org/10.1038/s41598-019-45366-x>
17. NAKAMURA, M.F.; SANTOS, A.J.B.; LOBÃO-SOARES, B.; CORSO, G. Lunar phases and hawksbill sea turtle nesting. *Journal of Ethology*. v.37, p.307-316. 2019 ISSN 0289-0771. <https://doi.org/10.1007/s10164-019-00604-7>
18. SANTOS, A.J.B.; BELLINI, C.; BORTOLON, L.F.W.; OUTERBRIDGE, B.; BROWNE, D. C.; SANTOS A.; MEYLAN, A.; MEYLAN, P.; SILVA, B.M.G.; WANDERLINDE, J.; LIMA, E.H.S.M.; BAPTISTOTTE, C.; MARCOVALDI, M.A. Long-Range Movements and Growth Rates of Brazilian Hawksbill Turtles: Insights from a Flipper-Tagging Program. *Chelonian Conservation and Biology*, 2019, v.18, n.1, p.75-81 2019. doi:10.2744/CCB-1343.1
19. SANTOS, E.A.P.; SILVA, A.C.C.D.; SFORZA, R.; OLIVEIRA, F.L.C.; WEBER, M.I.; CASTILHOS, J.C.; LÓPEZ-MENDILAHARSU, M.; MARCOVALDI, M.A.A.G.; RAMOS, R.M.A.; DIMATTEO, A. Olive ridley inter-nesting and post-nesting movements along the Brazilian coast and Atlantic Ocean. *Endangered Species Research*. v. 40, p. 149-162.
20. TACCHI, M.F.; QUIRINO, F.P.; FERREIRA, D.J.M.; AFONSO L.G.; TOGNIN, F.; NEGREIROS, D. Efeito da granulometria da areia no sucesso de eclosão de ovos da tartaruga marinha *Caretta caretta*. *Neotropical Biology and Conservation*. v. 14, n. 1, p. 43-54, 2019. <https://doi.org/10.3897/neotropical.14.e34836>
21. BELLINI, C.; SANTOS, E.A.P.; RAMOS, R.; MARCOVALDI, M. A.; SANTOS, A. J. B. Internesting intervals of hawksbill turtles through satellite tracking using gps reveals residence fidelity. In. *ANNUAL SYMPOSIUM ON SEA TURTLES BIOLOGY AND CONSERVATION*, 39, 2019, Charleston, USA. Proceedings... [s.n], p. 2019.
22. CASTILHOS, J.C.de; SILVA, A.C.C.D.da; FONSECA, E.L.; LIRA, F.; CORRÊA, A.C.; WEBER, M.I.; ABREU, J.A.de; SANT'ANA, A.; TOGNIN, F.; MARCOVALDI, M.A.; TIWARI, M. Increase in nesting numbers of olive ridleys in Brazil allows the evaluation of spation-temporal nesting patterns. In. *ANNUAL SYMPOSIUM ON SEA TURTLES BIOLOGY AND CONSERVATION*, 39, 2019, Charleston, USA. Proceedings... [s.n], p. 2019.
23. LARA, P.H.; TOGNIN, F.; VERISSIMO, L.; MORA, D.; SANTOS, A.S.dos; MARCOVALDI, M.A.; LÓPEZ-MENDILAHARSU, M.; SWIMMER, Y. New conservation challenges in Brazil: Satellite tracking reveals new foraging grounds for loggerheads turtles. In. *ANNUAL SYMPOSIUM ON SEA TURTLES BIOLOGY AND CONSERVATION*, 39, 2019, Charleston, USA. Proceedings... [s.n], 2019.
24. SANTOS, A.J.B.; BELLINI, C.; SANTOS, E.A.P.; RAMOS, R.; VIEIRA, D.H.G.; MARCOVALDI, M.A. Satellite

- tracking of hawksbill turtles between nesting seasons: a case study of high fidelity. In. ANNUAL SYMPOSIUM ON SEA TURTLES BIOLOGY AND CONSERVATION, 39, 2019, Charleston, USA. Proceedings... [s.n], p. 2019.
25. STAHELIN, G.; MARCOVALDI, M.A.; MANSFIELD, K.; SANTOS, A.J.B.; BELLINI, C. Juvenile hawksbill long-term mark-recapture analysis in Fernando de Noronha, northeastern Brazil. In. ANNUAL SYMPOSIUM ON SEA TURTLES BIOLOGY AND CONSERVATION, 39, 2019, Charleston, USA. Proceedings... [s.n], p. 2019.
26. BRITO, C.; VILAÇA, S. T.; LACERDA, A. L.; MAGGIONI, R.; MARCOVALDI, M. Á.; VÉLEZ-RUBIO, G.; PROIETTI, M. C. Combined use of mitochondrial and nuclear genetic markers further reveal immature marine turtle hybrids along the South Western Atlantic. *Genetics and Molecular Biology*, [s. l.], v. 43, n. 2, 2020.
27. WALLACE, B. P.; STACY, B. A.; CUEVAS, E.; HOLYOAKE, C.; LARA, P. H.; MARCONDES, A. C. J.; MILLER, J. D.; NIJKAMP, H.; PILCHER, N. J.; ROBINSON, I.; RUTHERFORD, N.; SHIGENAKA, G. Oil spills and sea turtles: Documented effects and considerations for response and assessment efforts. *Endangered Species Research*, [s. l.], v. 41, p. 17-37, 2020
28. COLMAN, L. P.; LARA, P. H.; BENNIE, J.; BRODERICK, A. C.; DE FREITAS, J. R.; MARCONDES, A.; WITT, M. J.; GODLEY, B. J. Assessing coastal artificial light and potential exposure of wildlife at a national scale: the case of marine turtles in Brazil. *Biodiversity and Conservation*, [s. l.], v. 29, n. 4, p. 1135-1152, 2020.
29. Lunardon, E. A., Costa-Schmidt, L. E., Lenz, A. J., Borges-Martins, M., & de Oliveira, L. R. (2020). Skull ontogenetic variation of the coastal developmental stage of the loggerhead turtle (*Caretta caretta*) in the western South Atlantic Ocean. *Hydrobiologia*, 1-21.
30. Cremer, Marta Jussara, et al. "Tartarugas marinhas no litoral norte de Santa Catarina e Baía Babitonga." *Revista CEPISUL-Biodiversidade e Conservação Marinha* 9.1 (2020): eb2020002.
31. Arantes, L., Vargas, S., Santos, F.R. (2020). Global phylogeography of the critically endangered hawksbill turtle (*Eretmochelys imbricata*). *Genetics and Molecular Biology* 43(2): e20190264
32. RODRIGUEZ, C.A.B.; LACERDA, L.D.; BEZERRA, M.F.; MOURA, V.L.; REZENDE, C.E.; BASTOS, W.R. Influence of size on total mercury (THg), methyl mercury (MeHg), and stable isotopes of N and C in green turtles (*Chelonia mydas*) from NE Brazil. *Environmental Science and Pollution Research*, v.27, n.16, p. 20527-20537, 2020. doi:10.1007/s11356-020-08623-5
33. MACHOVSKY-CAPUSKA, G. E.; ANDRADES, R.; SANTOS, R. G. Debris ingestion and nutritional niches in estuarine and reef green turtles. *Marine Pollution Bulletin*, v. 153, 110943, 2020. doi:10.1016/j.marpolbul.2020.110943
34. GUIMARÃES, L.S.F.; YVES, A.; MENDES, S.S.; MAIA, I.M.; ALTOMARI, L.N.; CARVALHO, R.H.; SOUSA, B.M. Plastic debris ingestion by the green sea turtle (*Chelonia mydas*) in Espírito Santo state, southeastern Brazil. *Herpetology Notes*, v. 13, p. 391-392, 2020.
35. DÍAZ-DELGADO, J., GOMES-BORGES, J.C., SILVEIRA, A.M., EINHARDT-VERGARA, J., GROCH, K.R., CIRQUEIRA, C. S., SANSONE, M.; GATTAMORTA, M.A.; MATUSHIMA, E.R.; CATÃO-DIAS, J. L. Primary Multicentric Pulmonary Low-grade Fibromyxoid Sarcoma and Chelonid Alphaherpesvirus 5 Detection in a Leatherback Sea Turtle (*Dermochelys coriacea*). *Journal of Comparative Pathology*, v. 168, p. 1-7, 2019. doi:10.1016/j.jcpa.2019.02.001
36. DE MELLO, D.M.D.; ALVAREZ, M.C.L. Health assessment of juvenile green turtles in southern São Paulo State, Brazil: a hematologic approach. *Journal of Veterinary Diagnostic Investigation*, v.32, p.1-11, 2019. doi:10.1177/1040638719891972
37. GOLDBERG, D.W.; FERNANDES, M.R.; SELLERA, F.P.; COSTA, D.G.C.; BRACARENSE, A.P.L.; LINCOPAN, N. Genetic background of CTX-M-15-producing *Enterobacter hormaechei* ST114 and *Citrobacter freundii* ST265 co-infecting a free-living green turtle (*Chelonia mydas*). *Zoonoses and Public Health*, v.66, n.8, p. 1-6. 2019. doi:10.1111/zph.12572
38. JERDY, H.; WERNECK, M.; GOLDBERG, D.; BALDASSIN, P.; FERIOLLI, R.; MARANHO, A.; RIBEIRO, R.; BIANCHI, M.; SHIMODA, E.; CARVALHO, E. Ocular spirorchidiosis in sea turtles from Brazil. *Journal of Helminthology*, v. 94, p. 1-4, 2019. doi: 10.1017/S0022149X1900049X
39. VINICIUS, D., RENAN, M., DOS SANTOS, D., & JAQUELINE, C. (2018). Pivotal temperature and hatchling sex ratio of olive ridley sea turtles *Lepidochelys olivacea* from the South Atlantic coast of Brazil. *Herpetological Conservation and Biology*, 13(2), 488-496.
40. SILVA, C.C.; BIANCHINI, A. Blood Cholesterol as a Biomarker of Fibropapillomatosis in Green Turtles. *Marine Turtle Newsletter*, v. 158, p. 16-21, 2019.
41. ROSSI, S.; SÁNCHEZ-SARMIENTO, A.M.; SANTOS, R.G.; ZAMANA, R.R.; PRIOSTE, F.E.S.; GATTAMORTA, M.A.; OCHOA, P.F.C.; GRISI-FILHO, J.H.H.; MATUSHIMA, E.R. Monitoring green sea turtles in Brazilian feeding areas: relating body condition index to fibropapillomatosis prevalence. *Journal of the Marine Biological Association of the United Kingdom*, p. 1-9, 2019. <https://doi.org/10.1017/S0025315419000730>
42. FUTEMA, F.; CARVALHO, F.M.; WERNECK, M.R. Spinal anesthesia in green sea turtles (*Chelonia mydas*) undergoing surgical removal of cutaneous fibropapillomas. *J. Of Zoo and Wildlife Medicine*, v. 51, n. 2, p. 357-362, 2020. <https://doi.org/10.1638/2015-0084>
43. Silva-Júnior, E.S.; Farias, D.S.D.; BoMfim, A.C.; FREIRE, A.C.B.; Revorêdo, R.A.; ROSSI, S.; Matushima, E.R.; Grisi-Filho, J.H.H.; SILVA, F.J.L.; Gavilan, S.A. Stranded Marine Turtles in Northeastern Brazil: Incidence and Spatial-temporal Distribution of Fibropapillomatosis. *Chelonian Conservation and Biology*, v. 18, n. 2, p. 249-258, 2019. <https://doi.org/10.2744/CCB-1359.1>
44. Campos, P., & Cardona, L. (2020). Trade-offs between nutritional quality and abundance determine diet selection in juvenile benthic green turtles. *Journal of Experimental Marine Biology and Ecology*, 527, 151373.
45. Cardona Pascual, L., Campos Pena, P., & Velasquez, A. (2020). Contribution of green turtles *Chelonia*

mydas to total herbivore biomass in shallow tropical habitats of oceanic islands. PLoS One, 2020, vol. 15, num. 1, p. e0228548.

46. FABRICIO, M. A. S. ; BONFIM, A. C. ; Rossi, S. ; FARIAS, D. S. ; CAVALCANTE, R. M. ; MOURAO JUNIOR, H. B. ; SILVA, F. J. L. ; GAVILAN, S.A. (2019). Breeding Biology of Green Sea Turtles Stranded in Potiguar Basin, Northeastern Brazil. MARINE TURTLE NEWSLETTER, v. 159, p. 12-16.

47. CRESPO-PICAZO JL, PARGA M, BERNALDO DE QUIRÓS Y, MONTEIRO D, MARCO-CABEDO V, LLOPIS-BELENQUER CAND GARCÍA-PÁRRAGA D (2020) Novel Insights Into Gas Embolism in Sea Turtles: First Description in Three New Species. FRONTIERS IN MARINE SCIENCE, 7:442. doi: 10.3389/fmars.2020.00442.

48. NAGAOKA, S.M.; GODOY, D.F.; BOUSSAMBA, F.L.; FORMIA, A. & SOUNGUET, G.P. (2019) Unusual Mortality Event of Leatherback Turtles (*Dermochelys coriacea*) in the Southern Coast of São Paulo State, Brazil. MARINE TURTLE NEWSLETTER 156:21-25.

49. FARIAS, D.S.D.; Alencar, A, E, B.; Bomfim, A. C.; Fragoso, A,B,L.; Rossi, S.; Moura, G.J.B.; Gavilan, S.A; Silva, F. J.L.( 2019) Marine Turtles Stranded in Northeastern Brazil: Composition, Spatio-Temporal, Distribution, and Anthropogenic Interactions. Chelonian Conservation and Biology, v.18(1), p.105-111.

50. Corrêa, G. C.; Bomfim, A. C.; Farias, D. S.D.; Silva, F. J. L.; Rossi, S.; Gavilan, S.A. Impacto da pesca incidental na população de tartarugas olivas, no litoral do Rio Grande do Norte e Ceará. IX Reunião e VIII Jornada de Pesquisa e Conservação de Tartarugas Marinhas no Atlântico Sul Ocidental 2018 - Rede ASO-Tartarugas.

51. NASCIMENTO, M. L. ; SILVA, O. B. ; SILVA, E. G. ; OITAVEN, L. P. C. ; MOURA, G. J. B. . *Eretmochelys Imbricata* Eggs. Predation By *Amphisbaena littoralis* (Roberto, Brito & Ávila 2014). HERPETOLOGICAL REVIEW, v. 50, p. 1-2, 2019.

52. COSTA, S.A.G.L., F.J.L. SILVA, D.S.D. FARIAS, A.B.L. FRAGOSO, T.E.B. Costa, A.E.B. Alencar. 2016. Pesquisa e Conservação de Tartarugas Marinhas na Bacia Potiguar, Rio Grande do Norte, Nordeste do Brasil. páginas 257 em: J.M.S. Correia, E.M. Santos, e G.J.B. Moura (Eds). Conservação de Tartarugas Marinhas no Nordeste do Brasil: Pesquisas, Desafios e Perspectivas. Recife: EDUFRPE.

53. Cavalcante, R. M.S; Farias, D.S.D; Bomfim, A.C; Rosi, S.; Revoredo, R.A.; Silva, F.J.L; Gavilan, S.A. Halodule sp. (NAJADALES, CYMODOCEACEAE) NA DIETA DE Chelonia mydas (TESTUDINES, CHELONIIDAE) ENCALHADAS NA BACIA POTIGUAR, NORDESTE DO BRASIL: PREFERÊNCIA ALIMENTAR? IX Reunião e VIII Jornada de Pesquisa e Conservação de Tartarugas Marinhas no Atlântico Sul Ocidental 2018 - Rede ASO-Tartarugas.

54. Fiedler et al. 2020 - High mortality rates of *C. mydas* in a small-scale bottom gillnet fishery in the SW Atlantic Ocean Aquatic. Conserv: Mar Freshw Ecosyst. 2020;1-8

## 4) Other activities

### 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.

> -The environmental education program conducted by the TAMAR/ICMBio Center focuses on three kinds of public assistance: 1) school public, in continuous annual actions at school and at the Environmental Education Centers; 2) children and young public from varied origins (mostly school groups), in occasional and scheduled visits to the Environmental Education Centers; and 3) general public (tourists, residents), in environmental awareness actions during the release of sea turtle chicks to the sea. The actions address the conservation of sea turtles involving the entire coastal-marine environment related to its area of use. Therefore, the strategy used is to lead the public to understand the importance of the coastal-marine environment for the conservation of turtle species that spawn in Brazil, through critical and emancipatory environmental education. The actions are carried out by TAMAR Center employees, by ICMBio Volunteer Program collaborators and by local partner institutions.

-National Action Plan for the Conservation of Sea Turtles - PAN

## 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 for the latest season corresponding to the year of this report

### Index Nesting Sites

#### Brazil

#### Comboios

Comboios: Criteria for selection of this index beach/site

Select the guidelines used to identify this site as an index beach based on the IAC document CIT-CC10-2013-Tec.5 "Selecting Index Beaches in the IAC Region and Data Collection Guidelines".

If your country requires to report a new index beach please send a request based on above guidelines to the IAC Secretariat Pro Tempore [secretario@iacseaturtle.org](mailto:secretario@iacseaturtle.org)

#### Guidelines for selecting index beaches/sites in the IAC Region

- This is a site where one of the species found in the country nests at any significant level.
- This site hosts a significant proportion of the overall nesting population within the region or the country, even if numbers are small.
- There is significant population structure (e.g. genetics, RMUs), that represent the various segments of the regional population.
- This site includes major nesting sites already under intensive study and long-term monitoring.
- This site remains consistent as index beach from year to year and receives sufficient resources to maintain adequate and consistent monitoring.

### Index Nesting Site Information

Geographic Location: Latitude

Specify latitude in decimal degrees

> 19,72640

Geographic Location: Longitude

Specify longitude in decimal degrees

> -39,95456

Declared Protected Area

Indicate if the area is declared as some type of protected area

*Please select only one option*

- Yes
- No

Tagging Programs

Indicate if there have been any tagging activities at the nesting beach by using the letters of the type of tagging being done: flipper tagging (FT), passive integrated transponder (PIT) tagging, and satellite telemetry (ST) programs.

- FT
- ST
- PIT
- None

Additional information on tagging programs (flipper and telemetry)

Please list the references available to the public with information on flipper tagging and telemetry in the box below. If required, 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 and indicate if this data is open for publication in our website or should stay confidential.

>

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, include a table describing: date, species, type of tissue collected, general purpose (genetics, contaminant, and/or stable isotope studies, etc) and reference or report if available to the public.

Please select only one option

Yes

No

### Tissue Sampling - additional information

Please list the references available to the public with information on studies based on tissue sampling (genetics, contaminants and/or stable isotope) in the box below.

>

### Organization or entity providing data

Indicate what organization or entity is providing the data

> Fundação Projeto TAMAR

### Extension of beach monitored (km)

Provide the total length (in kilometers) of the nesting beach.

> 37

## Annual Nesting

### Annual Nesting

This table is intended to report information on index nesting sites or beaches for each species.

Nesting season: Indicate the starting and finishing date of the nesting season.

Monitoring period: Indicate the starting and finishing date of monitoring efforts.

Survey frequency: Indicate the frequency with which the surveys are done (daily, weekly, bi-weekly, monthly, among others).

Season females/ nests/ clutch count: Provide information on the total number of females and/or nests/ clutches deposited at the nesting site or beach in real numbers. Provide the exact count of females based on tagged or uniquely identified individuals. If the exact number of clutches is unknown provide a total number of nests.

**Please scroll to the right** to see all questions >>>>

	Season Number of Nests	Season Clutches Exact Count	Season Females Exact Count	Survey Frequency	End of Monitoring Period	Start of Monitoring Period	End of Nesting Season	Start of Nesting Season
Lo								
Lk								
Dc		21		daily	March	September	March	September
Ei								
Cc		837		daily	March	September	March	September
Cm								

Please indicate if there were any circumstances that impacted monitoring (hurricanes, storms, other natural phenomenon, personnel availability, financial constraints, etc.)

> the beach monitoring of the 2019/2020 nesting season was totally suspended in March, 21,2020 due to measures to combat the SARS-COV2 pandemic

## Povoacao

Povoacao: Criteria for selection of this index beach/site

Select the guidelines used to identify this site as an index beach based on the IAC document CIT-CC10-2013-Tec.5 "Selecting Index Beaches in the IAC Region and Data Collection Guidelines".

If your country requires to report a new index beach please send a request based on above guidelines to the IAC Secretariat Pro Tempore [secretario@iacseaturtle.org](mailto:secretario@iacseaturtle.org)

**Guidelines for selecting index beaches/sites in the IAC Region**

- This is a site where one of the species found in the country nests at any significant level.
- This site hosts a significant proportion of the overall nesting population within the region or the country, even if numbers are small.
- There is significant population structure (e.g. genetics, RMUs), that represent the various segments of the regional population.
- This site includes major nesting sites already under intensive study and long-term monitoring.
- This site remains consistent as index beach from year to year and receives sufficient resources to maintain adequate and consistent monitoring.

**Index Nesting Site Information**

Geographic Location: Latitude

Specify latitude in decimal degrees

> -19,61201

Geographic Location: Longitude

Specify longitude in decimal degrees

> -39,79700

Declared Protected Area

Indicate if the area is declared as some type of protected area

*Please select only one option*

- Yes
- No

Tagging Programs

Indicate if there have been any tagging activities at the nesting beach by using the letters of the type of tagging being done: flipper tagging (FT), passive integrated transponder (PIT) tagging, and satellite telemetry (ST) programs.

- FT
- ST
- PIT
- None

Additional information on tagging programs (flipper and telemetry)

Please list the references available to the public with information on flipper tagging and telemetry in the box below. If required, 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 and indicate if this data is open for publication in our website or should stay confidential.

>

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, include a table describing: date, species, type of tissue collected, general purpose (genetics, contaminant, and/or stable isotope studies, etc) and reference or report if available to the public.

*Please select only one option*

- Yes
- No

Tissue Sampling – additional information

Please list the references available to the public with information on studies based on tissue sampling (genetics, contaminants and/or stable isotope) in the box below.

>

Organization or entity providing data

Indicate what organization or entity is providing the data  
> Fundação Projeto TAMAR

Extension of beach monitored (km)

Provide the total length (in kilometers) of the nesting beach.  
> 10

## Annual Nesting

Annual Nesting

This table is intended to report information on index nesting sites or beaches for each species.

Nesting season: Indicate the starting and finishing date of the nesting season.

Monitoring period: Indicate the starting and finishing date of monitoring efforts.

Survey frequency: Indicate the frequency with which the surveys are done (daily, weekly, bi-weekly, monthly, among others).

Season females/ nests/ clutch count: Provide information on the total number of females and/or nests/ clutches deposited at the nesting site or beach in real numbers. Provide the exact count of females based on tagged or uniquely identified individuals. If the exact number of clutches is unknown provide a total number of nests.

**Please scroll to the right** to see all questions >>>>

	Season Number of Nests	Season Clutches Exact Count	Season Females Exact Count	Survey Frequency	End of Monitoring Period	Start of Monitoring Period	End of Nesting Season	Start of Nesting Season
Lo								
Lk								
Dc		9		daily	March	September	March	September
Ei								
Cc		550		daily	March	September	March	September
Cm								

Please indicate if there were any circumstances that impacted monitoring (hurricanes, storms, other natural phenomenon, personnel availability, financial constraints, etc.)

> the beach monitoring of the 2019/2020 nesting season was totally suspended in March, 21,2020 due to measures to combat the SARS-COV2 pandemic

## Interlagos (Previously Busca vida; Santa Maria)

Interlagos (Previously Busca vida; Santa Maria): Criteria for selection of this index beach/site

Select the guidelines used to identify this site as an index beach based on the IAC document CIT-CC10-2013-Tec.5 "Selecting Index Beaches in the IAC Region and Data Collection Guidelines".

If your country requires to report a new index beach please send a request based on above guidelines to the IAC Secretariat Pro Tempore [secretario@iacseaturtle.org](mailto:secretario@iacseaturtle.org)

### Guidelines for selecting index beaches/sites in the IAC Region

- This is a site where one of the species found in the country nests at any significant level.
- This site hosts a significant proportion of the overall nesting population within the region or the country, even if numbers are small.
- There is significant population structure (e.g. genetics, RMUs), that represent the various segments of the regional population.
- This site includes major nesting sites already under intensive study and long-term monitoring.
- This site remains consistent as index beach from year to year and receives sufficient resources to maintain adequate

and consistent monitoring.

## Index Nesting Site Information

Geographic Location: Latitude

Specify latitude in decimal degrees

> -12,82408

Geographic Location: Longitude

Specify longitude in decimal degrees

> -38,223048

Declared Protected Area

Indicate if the area is declared as some type of protected area

*Please select only one option*

Yes

No

Tagging Programs

Indicate if there have been any tagging activities at the nesting beach by using the letters of the type of tagging being done: flipper tagging (FT), passive integrated transponder (PIT) tagging, and satellite telemetry (ST) programs.

FT

ST

PIT

None

Additional information on tagging programs (flipper and telemetry)

Please list the references available to the public with information on flipper tagging and telemetry in the box below. If required, 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 and indicate if this data is open for publication in our website or should stay confidential.

>

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, include a table describing: date, species, type of tissue collected, general purpose (genetics, contaminant, and/or stable isotope studies, etc) and reference or report if available to the public.

*Please select only one option*

Yes

No

Tissue Sampling – additional information

Please list the references available to the public with information on studies based on tissue sampling (genetics, contaminants and/or stable isotope) in the box below.

>

Organization or entity providing data

Indicate what organization or entity is providing the data

> Fundação Projeto TAMAR

Extension of beach monitored (km)

Provide the total length (in kilometers) of the nesting beach.

> 11

## Annual Nesting

Annual Nesting

This table is intended to report information on index nesting sites or beaches for each species.

Nesting season: Indicate the starting and finishing date of the nesting season.

Monitoring period: Indicate the starting and finishing date of monitoring efforts.

Survey frequency: Indicate the frequency with which the surveys are done (daily, weekly, bi-weekly, monthly, among others).

Season females/ nests/ clutch count: Provide information on the total number of females and/or nests/ clutches deposited at the nesting site or beach in real numbers. Provide the exact count of females based on tagged or uniquely identified individuals. If the exact number of clutches is unknown provide a total number of nests.

**Please scroll to the right** to see all questions >>>>

	Season Number of Nests	Season Clutches Exact Count	Season Females Exact Count	Survey Frequency	End of Monitoring Period	Start of Monitoring Period	End of Nesting Season	Start of Nesting Season
Lo								
Lk								
Dc								
Ei		171		daily	March	September	April	September
Cc		1205		daily	March	September	April	September
Cm								

Please indicate if there were any circumstances that impacted monitoring (hurricanes, storms, other natural phenomenon, personnel availability, financial constraints, etc.)

> the beach monitoring of the 2019/2020 nesting season was totally suspended in March, 21, 2020 due to measures to combat the SARS-COV2 pandemic

### **Guarajuba (Previously Barra de Jacuipe; Guarajuba; Itacimirim)**

Guarajuba (Previously Barra de Jacuipe; Guarajuba; Itacimirim): Criteria for selection of this index beach/site

Select the guidelines used to identify this site as an index beach based on the IAC document CIT-CC10-2013-Tec.5 “Selecting Index Beaches in the IAC Region and Data Collection Guidelines”.

If your country requires to report a new index beach please send a request based on above guidelines to the IAC Secretariat Pro Tempore [secretario@iacseaturtle.org](mailto:secretario@iacseaturtle.org)

#### **Guidelines for selecting index beaches/sites in the IAC Region**

- This is a site where one of the species found in the country nests at any significant level.
- This site hosts a significant proportion of the overall nesting population within the region or the country, even if numbers are small.
- There is significant population structure (e.g. genetics, RMUs), that represent the various segments of the regional population.
- This site includes major nesting sites already under intensive study and long-term monitoring.
- This site remains consistent as index beach from year to year and receives sufficient resources to maintain adequate and consistent monitoring.

### **Index Nesting Site Information**

Geographic Location: Latitude

Specify latitude in decimal degrees

> -12,64944

Geographic Location: Longitude

Specify longitude in decimal degrees

> -38,064919

## Declared Protected Area

Indicate if the area is declared as some type of protected area

*Please select only one option*

- Yes  
 No

## Tagging Programs

Indicate if there have been any tagging activities at the nesting beach by using the letters of the type of tagging being done: flipper tagging (FT), passive integrated transponder (PIT) tagging, and satellite telemetry (ST) programs.

- FT  
 ST  
 PIT  
 None

## Additional information on tagging programs (flipper and telemetry)

Please list the references available to the public with information on flipper tagging and telemetry in the box below. If required, 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 and indicate if this data is open for publication in our website or should stay confidential.

>

## 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, include a table describing: date, species, type of tissue collected, general purpose (genetics, contaminant, and/or stable isotope studies, etc) and reference or report if available to the public.

*Please select only one option*

- Yes  
 No

## Tissue Sampling – additional information

Please list the references available to the public with information on studies based on tissue sampling (genetics, contaminants and/or stable isotope) in the box below.

>

## Organization or entity providing data

Indicate what organization or entity is providing the data

> Fundação Projeto TAMAR

## Extension of beach monitored (km)

Provide the total length (in kilometers) of the nesting beach.

> 16

## Annual Nesting

### Annual Nesting

This table is intended to report information on index nesting sites or beaches for each species.

**Nesting season:** Indicate the starting and finishing date of the nesting season.

**Monitoring period:** Indicate the starting and finishing date of monitoring efforts.

**Survey frequency:** Indicate the frequency with which the surveys are done (daily, weekly, bi-weekly, monthly, among others).

**Season females/ nests/ clutch count:** Provide information on the total number of females and/or nests/ clutches deposited at the nesting site or beach in real numbers. Provide the exact count of females based on tagged or uniquely identified individuals. If the exact number of clutches is unknown provide a total number of nests.

Please scroll to the right to see all questions >>>>

	Season Number of Nests	Season Clutches Exact Count	Season Females Exact Count	Survey Frequency	End of Monitoring Period	Start of Monitoring Period	End of Nesting Season	Start of Nesting Season
Lo								
Lk								
Dc								
Ei		172		daily	March	September	April	September
Cc		697		daily	March	September	April	September
Cm								

Please indicate if there were any circumstances that impacted monitoring (hurricanes, storms, other natural phenomenon, personnel availability, financial constraints, etc.)

> the beach monitoring of the 2019/2020 nesting season was totally suspended in March, 21,2020 due to measures to combat the SARS-COV2 pandemic

## Praia do Forte

Praia do Forte: Criteria for selection of this index beach/site

Select the guidelines used to identify this site as an index beach based on the IAC document CIT-CC10-2013-Tec.5 "Selecting Index Beaches in the IAC Region and Data Collection Guidelines".

If your country requires to report a new index beach please send a request based on above guidelines to the IAC Secretariat Pro Tempore [secretario@iacseaturtle.org](mailto:secretario@iacseaturtle.org)

### Guidelines for selecting index beaches/sites in the IAC Region

- This is a site where one of the species found in the country nests at any significant level.
- This site hosts a significant proportion of the overall nesting population within the region or the country, even if numbers are small.
- There is significant population structure (e.g. genetics, RMUs), that represent the various segments of the regional population.
- This site includes major nesting sites already under intensive study and long-term monitoring.
- This site remains consistent as index beach from year to year and receives sufficient resources to maintain adequate and consistent monitoring.

## Index Nesting Site Information

Geographic Location: Latitude

Specify latitude in decimal degrees

> -12,55049

Geographic Location: Longitude

Specify longitude in decimal degrees

> -37,99060

Declared Protected Area

Indicate if the area is declared as some type of protected area

*Please select only one option*

- Yes
- No

Tagging Programs

Indicate if there have been any tagging activities at the nesting beach by using the letters of the type of tagging being done: flipper tagging (FT), passive integrated transponder (PIT) tagging, and satellite telemetry (ST) programs.

- FT
- ST
- PIT

None

### Additional information on tagging programs (flipper and telemetry)

Please list the references available to the public with information on flipper tagging and telemetry in the box below. If required, 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 and indicate if this data is open for publication in our website or should stay confidential.

>

### 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, include a table describing: date, species, type of tissue collected, general purpose (genetics, contaminant, and/or stable isotope studies, etc) and reference or report if available to the public.

*Please select only one option*

Yes

No

### Tissue Sampling – additional information

Please list the references available to the public with information on studies based on tissue sampling (genetics, contaminants and/or stable isotope) in the box below.

>

### Organization or entity providing data

Indicate what organization or entity is providing the data

> Fundação Projeto TAMAR

### Extension of beach monitored (km)

Provide the total length (in kilometers) of the nesting beach.

> 14

## Annual Nesting

### Annual Nesting

This table is intended to report information on index nesting sites or beaches for each species.

Nesting season: Indicate the starting and finishing date of the nesting season.

Monitoring period: Indicate the starting and finishing date of monitoring efforts.

Survey frequency: Indicate the frequency with which the surveys are done (daily, weekly, bi-weekly, monthly, among others).

Season females/ nests/ clutch count: Provide information on the total number of females and/or nests/ clutches deposited at the nesting site or beach in real numbers. Provide the exact count of females based on tagged or uniquely identified individuals. If the exact number of clutches is unknown provide a total number of nests.

**Please scroll to the right** to see all questions >>>>

	Season Number of Nests	Season Clutches Exact Count	Season Females Exact Count	Survey Frequency	End of Monitoring Period	Start of Monitoring Period	End of Nesting Season	Start of Nesting Season
Lo								
Lk								
Dc								
Ei		197		daily	March	September	April	September
Cc		658		daily	March	September	April	September

Cm								
----	--	--	--	--	--	--	--	--

Please indicate if there were any circumstances that impacted monitoring (hurricanes, storms, other natural phenomenon, personnel availability, financial constraints, etc.)  
 > the beach monitoring of the 2019/2020 nesting season was totally suspended in March, 21, 2020 due to measures to combat the SARS-COV2 pandemic

**Farol (Previously Barra do Furado; Farol; Farolzinho; Maria Rosa)**

Farol (Previously Barra do Furado; Farol; Farolzinho; Maria Rosa): Criteria for selection of this index beach/site

Select the guidelines used to identify this site as an index beach based on the IAC document CIT-CC10-2013-Tec.5 “Selecting Index Beaches in the IAC Region and Data Collection Guidelines”.

If your country requires to report a new index beach please send a request based on above guidelines to the IAC Secretariat Pro Tempore [secretario@iacseaturtle.org](mailto:secretario@iacseaturtle.org)

**Guidelines for selecting index beaches/sites in the IAC Region**

- This is a site where one of the species found in the country nests at any significant level.
- This site hosts a significant proportion of the overall nesting population within the region or the country, even if numbers are small.
- There is significant population structure (e.g. genetics, RMUs), that represent the various segments of the regional population.
- This site includes major nesting sites already under intensive study and long-term monitoring.
- This site remains consistent as index beach from year to year and receives sufficient resources to maintain adequate and consistent monitoring.

**Index Nesting Site Information**

Geographic Location: Latitude

Specify latitude in decimal degrees  
 > -22,0406

Geographic Location: Longitude

Specify longitude in decimal degrees  
 > -41,0478

Declared Protected Area

Indicate if the area is declared as some type of protected area  
*Please select only one option*

- Yes
- No

Tagging Programs

Indicate if there have been any tagging activities at the nesting beach by using the letters of the type of tagging being done: flipper tagging (FT), passive integrated transponder (PIT) tagging, and satellite telemetry (ST) programs.

- FT
- ST
- PIT
- None

Additional information on tagging programs (flipper and telemetry)

Please list the references available to the public with information on flipper tagging and telemetry in the box below. If required, 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 and indicate if this data is open for publication in our website or should stay confidential.

>

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, include a table describing: date, species, type of tissue collected, general purpose (genetics, contaminant, and/or stable isotope studies, etc) and reference or report if available to the public.

Please select only one option

- Yes  
 No

### Tissue Sampling – additional information

Please list the references available to the public with information on studies based on tissue sampling (genetics, contaminants and/or stable isotope) in the box below.

>

### Organization or entity providing data

Indicate what organization or entity is providing the data

> Fundação Projeto TAMAR and Porto do Açú SA

### Extension of beach monitored (km)

Provide the total length (in kilometers) of the nesting beach.

> 31

## Annual Nesting

### Annual Nesting

This table is intended to report information on index nesting sites or beaches for each species.

Nesting season: Indicate the starting and finishing date of the nesting season.

Monitoring period: Indicate the starting and finishing date of monitoring efforts.

Survey frequency: Indicate the frequency with which the surveys are done (daily, weekly, bi-weekly, monthly, among others).

Season females/ nests/ clutch count: Provide information on the total number of females and/or nests/ clutches deposited at the nesting site or beach in real numbers. Provide the exact count of females based on tagged or uniquely identified individuals. If the exact number of clutches is unknown provide a total number of nests.

**Please scroll to the right** to see all questions >>>>

	Season Number of Nests	Season Clutches Exact Count	Season Females Exact Count	Survey Frequency	End of Monitoring Period	Start of Monitoring Period	End of Nesting Season	Start of Nesting Season
Lo								
Lk								
Dc								
Ei								
Cc		837		daily	March	September	March	September
Cm								

Please indicate if there were any circumstances that impacted monitoring (hurricanes, storms, other natural phenomenon, personnel availability, financial constraints, etc.)

>

## Berta

Berta: Criteria for selection of this index beach/site

Select the guidelines used to identify this site as an index beach based on the IAC document CIT-CC10-2013-Tec.5 "Selecting Index Beaches in the IAC Region and Data Collection Guidelines".

If your country requires to report a new index beach please send a request based on above guidelines to the IAC Secretariat Pro Tempore [secretario@iacseaturtle.org](mailto:secretario@iacseaturtle.org)

#### **Guidelines for selecting index beaches/sites in the IAC Region**

- This is a site where one of the species found in the country nests at any significant level.
- This site hosts a significant proportion of the overall nesting population within the region or the country, even if numbers are small.
- There is significant population structure (e.g. genetics, RMUs), that represent the various segments of the regional population.
- This site includes major nesting sites already under intensive study and long-term monitoring.
- This site remains consistent as index beach from year to year and receives sufficient resources to maintain adequate and consistent monitoring.

### **Index Nesting Site Information**

Geographic Location: Latitude

Specify latitude in decimal degrees

> 12,72910

Geographic Location: Longitude

Specify longitude in decimal degrees

> -38,14012

Declared Protected Area

Indicate if the area is declared as some type of protected area

*Please select only one option*

- Yes
- No

Tagging Programs

Indicate if there have been any tagging activities at the nesting beach by using the letters of the type of tagging being done: flipper tagging (FT), passive integrated transponder (PIT) tagging, and satellite telemetry (ST) programs.

- FT
- ST
- PIT
- None

Additional information on tagging programs (flipper and telemetry)

Please list the references available to the public with information on flipper tagging and telemetry in the box below. If required, 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 and indicate if this data is open for publication in our website or should stay confidential.

>

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, include a table describing: date, species, type of tissue collected, general purpose (genetics, contaminant, and/or stable isotope studies, etc) and reference or report if available to the public.

*Please select only one option*

- Yes
- No

Tissue Sampling – additional information

Please list the references available to the public with information on studies based on tissue sampling (genetics, contaminants and/or stable isotope) in the box below.

>

Organization or entity providing data

Indicate what organization or entity is providing the data

> Fundação Projeto TAMAR

## Extension of beach monitored (km)

Provide the total length (in kilometers) of the nesting beach.  
> 07

## Annual Nesting

### Annual Nesting

This table is intended to report information on index nesting sites or beaches for each species.

Nesting season: Indicate the starting and finishing date of the nesting season.

Monitoring period: Indicate the starting and finishing date of monitoring efforts.

Survey frequency: Indicate the frequency with which the surveys are done (daily, weekly, bi-weekly, monthly, among others).

Season females/ nests/ clutch count: Provide information on the total number of females and/or nests/ clutches deposited at the nesting site or beach in real numbers. Provide the exact count of females based on tagged or uniquely identified individuals. If the exact number of clutches is unknown provide a total number of nests.

**Please scroll to the right** to see all questions >>>>

	Season Number of Nests	Season Clutches Exact Count	Season Females Exact Count	Survey Frequency	End of Monitoring Period	Start of Monitoring Period	End of Nesting Season	Start of Nesting Season
Lo								
Lk								
Dc								
Ei		208		daily	March	September	April	September
Cc								
Cm								

Please indicate if there were any circumstances that impacted monitoring (hurricanes, storms, other natural phenomenon, personnel availability, financial constraints, etc.)

> the beach monitoring of the 2019/2020 nesting season was totally suspended in March, 21, 2020 due to measures to combat the SARS-COV2 pandemic

## Pipa

Pipa: Criteria for selection of this index beach/site

Select the guidelines used to identify this site as an index beach based on the IAC document CIT-CC10-2013-Tec.5 "Selecting Index Beaches in the IAC Region and Data Collection Guidelines".

If your country requires to report a new index beach please send a request based on above guidelines to the IAC Secretariat Pro Tempore [secretario@iacseaturtle.org](mailto:secretario@iacseaturtle.org)

### Guidelines for selecting index beaches/sites in the IAC Region

- This is a site where one of the species found in the country nests at any significant level.
- This site hosts a significant proportion of the overall nesting population within the region or the country, even if numbers are small.
- There is significant population structure (e.g. genetics, RMUs), that represent the various segments of the regional population.
- This site includes major nesting sites already under intensive study and long-term monitoring.
- This site remains consistent as index beach from year to year and receives sufficient resources to maintain adequate and consistent monitoring.

## Index Nesting Site Information

### Geographic Location: Latitude

Specify latitude in decimal degrees

> -06,22961

### Geographic Location: Longitude

Specify longitude in decimal degrees

> -35,048

### Declared Protected Area

Indicate if the area is declared as some type of protected area

*Please select only one option*

Yes

No

### Tagging Programs

Indicate if there have been any tagging activities at the nesting beach by using the letters of the type of tagging being done: flipper tagging (FT), passive integrated transponder (PIT) tagging, and satellite telemetry (ST) programs.

FT

ST

PIT

None

### Additional information on tagging programs (flipper and telemetry)

Please list the references available to the public with information on flipper tagging and telemetry in the box below. If required, 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 and indicate if this data is open for publication in our website or should stay confidential.

>

### 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, include a table describing: date, species, type of tissue collected, general purpose (genetics, contaminant, and/or stable isotope studies, etc) and reference or report if available to the public.

*Please select only one option*

Yes

No

### Tissue Sampling – additional information

Please list the references available to the public with information on studies based on tissue sampling (genetics, contaminants and/or stable isotope) in the box below.

>

### Organization or entity providing data

Indicate what organization or entity is providing the data

> Fundação Projeto TAMAR

### Extension of beach monitored (km)

Provide the total length (in kilometers) of the nesting beach.

> 42

## Annual Nesting

### Annual Nesting

This table is intended to report information on index nesting sites or beaches for each species.

Nesting season: Indicate the starting and finishing date of the nesting season.

Monitoring period: Indicate the starting and finishing date of monitoring efforts.

Survey frequency: Indicate the frequency with which the surveys are done (daily, weekly, bi-weekly, monthly, among others).

Season females/ nests/ clutch count: Provide information on the total number of females and/or nests/ clutches deposited at the nesting site or beach in real numbers. Provide the exact count of females based on tagged or uniquely identified individuals. If the exact number of clutches is unknown provide a total number of nests.

**Please scroll to the right** to see all questions >>>>

	Season Number of Nests	Season Clutches Exact Count	Season Females Exact Count	Survey Frequency	End of Monitoring Period	Start of Monitoring Period	End of Nesting Season	Start of Nesting Season
Lo								
Lk								
Dc								
Ei		1028		daily	May	November	May	November
Cc								
Cm								

Please indicate if there were any circumstances that impacted monitoring (hurricanes, storms, other natural phenomenon, personnel availability, financial constraints, etc.)

> the beach monitoring of the 2019/2020 nesting season was partially suspended in March, 21, 2020 due to measures to combat the SARS-COV2 pandemic

## Mangue Seco

Mangue Seco: Criteria for selection of this index beach/site

Select the guidelines used to identify this site as an index beach based on the IAC document CIT-CC10-2013-Tec.5 “Selecting Index Beaches in the IAC Region and Data Collection Guidelines”.

If your country requires to report a new index beach please send a request based on above guidelines to the IAC Secretariat Pro Tempore [secretario@iacseaturtle.org](mailto:secretario@iacseaturtle.org)

### Guidelines for selecting index beaches/sites in the IAC Region

- This is a site where one of the species found in the country nests at any significant level.
- This site hosts a significant proportion of the overall nesting population within the region or the country, even if numbers are small.
- There is significant population structure (e.g. genetics, RMUs), that represent the various segments of the regional population.
- This site includes major nesting sites already under intensive study and long-term monitoring.
- This site remains consistent as index beach from year to year and receives sufficient resources to maintain adequate and consistent monitoring.

## Index Nesting Site Information

Geographic Location: Latitude

Specify latitude in decimal degrees

> -11,48089

Geographic Location: Longitude

Specify longitude in decimal degrees

> -37,36747

Declared Protected Area

Indicate if the area is declared as some type of protected area

*Please select only one option*

Yes

No

### Tagging Programs

Indicate if there have been any tagging activities at the nesting beach by using the letters of the type of tagging being done: flipper tagging (FT), passive integrated transponder (PIT) tagging, and satellite telemetry (ST) programs.

- FT
- ST
- PIT
- None

### Additional information on tagging programs (flipper and telemetry)

Please list the references available to the public with information on flipper tagging and telemetry in the box below. If required, 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 and indicate if this data is open for publication in our website or should stay confidential.

>

### 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, include a table describing: date, species, type of tissue collected, general purpose (genetics, contaminant, and/or stable isotope studies, etc) and reference or report if available to the public.

*Please select only one option*

- Yes
- No

### Tissue Sampling – additional information

Please list the references available to the public with information on studies based on tissue sampling (genetics, contaminants and/or stable isotope) in the box below.

>

### Organization or entity providing data

Indicate what organization or entity is providing the data

> Fundação Projeto TAMAR

### Extension of beach monitored (km)

Provide the total length (in kilometers) of the nesting beach.

> 8

## Annual Nesting

### Annual Nesting

This table is intended to report information on index nesting sites or beaches for each species.

Nesting season: Indicate the starting and finishing date of the nesting season.

Monitoring period: Indicate the starting and finishing date of monitoring efforts.

Survey frequency: Indicate the frequency with which the surveys are done (daily, weekly, bi-weekly, monthly, among others).

Season females/ nests/ clutch count: Provide information on the total number of females and/or nests/ clutches deposited at the nesting site or beach in real numbers. Provide the exact count of females based on tagged or uniquely identified individuals. If the exact number of clutches is unknown provide a total number of nests.

**Please scroll to the right** to see all questions >>>>

	Season Number of Nests	Season Clutches Exact Count	Season Females Exact Count	Survey Frequency	End of Monitoring Period	Start of Monitoring Period	End of Nesting Season	Start of Nesting Season
--	------------------------	-----------------------------	----------------------------	------------------	--------------------------	----------------------------	-----------------------	-------------------------

Lo		694		daily	march	september	march	september
Lk								
Dc								
Ei								
Cc								
Cm								

Please indicate if there were any circumstances that impacted monitoring (hurricanes, storms, other natural phenomenon, personnel availability, financial constraints, etc.)  
 > the beach monitoring of the 2019/2020 nesting season was totally suspended in March, 21, 2020 due to measures to combat the SARS-COV2 pandemic

**Coquieros**

Coquieros: Criteria for selection of this index beach/site

Select the guidelines used to identify this site as an index beach based on the IAC document CIT-CC10-2013-Tec.5 “Selecting Index Beaches in the IAC Region and Data Collection Guidelines”.

If your country requires to report a new index beach please send a request based on above guidelines to the IAC Secretariat Pro Tempore [secretario@iacseaturtle.org](mailto:secretario@iacseaturtle.org)

**Guidelines for selecting index beaches/sites in the IAC Region**

- This is a site where one of the species found in the country nests at any significant level.
- This site hosts a significant proportion of the overall nesting population within the region or the country, even if numbers are small.
- There is significant population structure (e.g. genetics, RMUs), that represent the various segments of the regional population.
- This site includes major nesting sites already under intensive study and long-term monitoring.
- This site remains consistent as index beach from year to year and receives sufficient resources to maintain adequate and consistent monitoring.

**Index Nesting Site Information**

Geographic Location: Latitude

Specify latitude in decimal degrees  
 > -11,53528

Geographic Location: Longitude

Specify longitude in decimal degrees  
 > -37,40609

Declared Protected Area

Indicate if the area is declared as some type of protected area  
*Please select only one option*

- Yes
- No

Tagging Programs

Indicate if there have been any tagging activities at the nesting beach by using the letters of the type of tagging being done: flipper tagging (FT), passive integrated transponder (PIT) tagging, and satellite telemetry (ST) programs.

- FT
- ST
- PIT
- None

Additional information on tagging programs (flipper and telemetry)

Please list the references available to the public with information on flipper tagging and telemetry in the box below. If required, 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 and indicate if this data is open for publication in our website or should stay confidential.

>

## 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, include a table describing: date, species, type of tissue collected, general purpose (genetics, contaminant, and/or stable isotope studies, etc) and reference or report if available to the public.

*Please select only one option*

Yes

No

## Tissue Sampling – additional information

Please list the references available to the public with information on studies based on tissue sampling (genetics, contaminants and/or stable isotope) in the box below.

>

## Organization or entity providing data

Indicate what organization or entity is providing the data

> Fundação Projeto TAMAR

## Extension of beach monitored (km)

Provide the total length (in kilometers) of the nesting beach.

> 6

## Annual Nesting

### Annual Nesting

This table is intended to report information on index nesting sites or beaches for each species.

Nesting season: Indicate the starting and finishing date of the nesting season.

Monitoring period: Indicate the starting and finishing date of monitoring efforts.

Survey frequency: Indicate the frequency with which the surveys are done (daily, weekly, bi-weekly, monthly, among others).

Season females/ nests/ clutch count: Provide information on the total number of females and/or nests/ clutches deposited at the nesting site or beach in real numbers. Provide the exact count of females based on tagged or uniquely identified individuals. If the exact number of clutches is unknown provide a total number of nests.

**Please scroll to the right** to see all questions >>>>

	Season Number of Nests	Season Clutches Exact Count	Season Females Exact Count	Survey Frequency	End of Monitoring Period	Start of Monitoring Period	End of Nesting Season	Start of Nesting Season
Lo		423		daily	March	September	March	September
Lk								
Dc								
Ei								
Cc								
Cm								

Please indicate if there were any circumstances that impacted monitoring (hurricanes, storms, other natural phenomenon, personnel availability, financial constraints, etc.)

> the beach monitoring of the 2019/2020 nesting season was totally suspended in March, 21, 2020 due to measures to combat the SARS-COV2 pandemic

## Pirambu

Pirambu: Criteria for selection of this index beach/site

Select the guidelines used to identify this site as an index beach based on the IAC document CIT-CC10-2013-Tec.5 "Selecting Index Beaches in the IAC Region and Data Collection Guidelines".

If your country requires to report a new index beach please send a request based on above guidelines to the IAC Secretariat Pro Tempore [secretario@iacseaturtle.org](mailto:secretario@iacseaturtle.org)

### Guidelines for selecting index beaches/sites in the IAC Region

- This is a site where one of the species found in the country nests at any significant level.
- This site hosts a significant proportion of the overall nesting population within the region or the country, even if numbers are small.
- There is significant population structure (e.g. genetics, RMUs), that represent the various segments of the regional population.
- This site includes major nesting sites already under intensive study and long-term monitoring.
- This site remains consistent as index beach from year to year and receives sufficient resources to maintain adequate and consistent monitoring.

## Index Nesting Site Information

Geographic Location: Latitude

Specify latitude in decimal degrees

> -10,70920

Geographic Location: Longitude

Specify longitude in decimal degrees

> -36,81259

Declared Protected Area

Indicate if the area is declared as some type of protected area

*Please select only one option*

- Yes
- No

Tagging Programs

Indicate if there have been any tagging activities at the nesting beach by using the letters of the type of tagging being done: flipper tagging (FT), passive integrated transponder (PIT) tagging, and satellite telemetry (ST) programs.

- FT
- ST
- PIT
- None

Additional information on tagging programs (flipper and telemetry)

Please list the references available to the public with information on flipper tagging and telemetry in the box below. If required, 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 and indicate if this data is open for publication in our website or should stay confidential.

>

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, include a table describing: date, species, type of tissue collected, general purpose (genetics, contaminant, and/or stable isotope studies, etc) and reference or report if available to the public.

*Please select only one option*

- Yes
- No

## Tissue Sampling – additional information

Please list the references available to the public with information on studies based on tissue sampling (genetics, contaminants and/or stable isotope) in the box below.

>

### Organization or entity providing data

Indicate what organization or entity is providing the data

> Fundação Projeto TAMAR

### Extension of beach monitored (km)

Provide the total length (in kilometers) of the nesting beach.

> 12

## Annual Nesting

### Annual Nesting

This table is intended to report information on index nesting sites or beaches for each species.

Nesting season: Indicate the starting and finishing date of the nesting season.

Monitoring period: Indicate the starting and finishing date of monitoring efforts.

Survey frequency: Indicate the frequency with which the surveys are done (daily, weekly, bi-weekly, monthly, among others).

Season females/ nests/ clutch count: Provide information on the total number of females and/or nests/ clutches deposited at the nesting site or beach in real numbers. Provide the exact count of females based on tagged or uniquely identified individuals. If the exact number of clutches is unknown provide a total number of nests.

**Please scroll to the right** to see all questions >>>>

	Season Number of Nests	Season Clutches Exact Count	Season Females Exact Count	Survey Frequency	End of Monitoring Period	Start of Monitoring Period	End of Nesting Season	Start of Nesting Season
Lo		1358		daily	March	September	March	September
Lk								
Dc								
Ei								
Cc								
Cm								

Please indicate if there were any circumstances that impacted monitoring (hurricanes, storms, other natural phenomenon, personnel availability, financial constraints, etc.)

> the beach monitoring of the 2019/2020 nesting season was totally suspended in March, 21, 2020 due to measures to combat the SARS-COV2 pandemic

## Trindade Island

Trindade Island: Criteria for selection of this index beach/site

Select the guidelines used to identify this site as an index beach based on the IAC document CIT-CC10-2013-Tec.5 "Selecting Index Beaches in the IAC Region and Data Collection Guidelines".

If your country requires to report a new index beach please send a request based on above guidelines to the IAC Secretariat Pro Tempore [secretario@iacseaturtle.org](mailto:secretario@iacseaturtle.org)

### Guidelines for selecting index beaches/sites in the IAC Region

- This is a site where one of the species found in the country nests at any significant level.
- This site hosts a significant proportion of the overall nesting population within the region or the country, even if numbers are small.
- There is significant population structure (e.g. genetics, RMUs), that represent the various segments of the regional population.
- This site includes major nesting sites already under intensive study and long-term monitoring.
- This site remains consistent as index beach from year to year and receives sufficient resources to maintain adequate and consistent monitoring.

### Index Nesting Site Information

Geographic Location: Latitude

Specify latitude in decimal degrees  
> -20,50910

Geographic Location: Longitude

Specify longitude in decimal degrees  
> -29,32494

Declared Protected Area

Indicate if the area is declared as some type of protected area  
*Please select only one option*

- Yes
- No

Tagging Programs

Indicate if there have been any tagging activities at the nesting beach by using the letters of the type of tagging being done: flipper tagging (FT), passive integrated transponder (PIT) tagging, and satellite telemetry (ST) programs.

- FT
- ST
- PIT
- None

Additional information on tagging programs (flipper and telemetry)

Please list the references available to the public with information on flipper tagging and telemetry in the box below. If required, 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 and indicate if this data is open for publication in our website or should stay confidential.

>

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, include a table describing: date, species, type of tissue collected, general purpose (genetics, contaminant, and/or stable isotope studies, etc) and reference or report if available to the public.

*Please select only one option*

- Yes
- No

Tissue Sampling – additional information

Please list the references available to the public with information on studies based on tissue sampling (genetics, contaminants and/or stable isotope) in the box below.

>

Organization or entity providing data

Indicate what organization or entity is providing the data  
> Fundação Projeto TAMAR

Extension of beach monitored (km)

Provide the total length (in kilometers) of the nesting beach.

>

## Annual Nesting

### Annual Nesting

This table is intended to report information on index nesting sites or beaches for each species.

Nesting season: Indicate the starting and finishing date of the nesting season.

Monitoring period: Indicate the starting and finishing date of monitoring efforts.

Survey frequency: Indicate the frequency with which the surveys are done (daily, weekly, bi-weekly, monthly, among others).

Season females/ nests/ clutch count: Provide information on the total number of females and/or nests/ clutches deposited at the nesting site or beach in real numbers. Provide the exact count of females based on tagged or uniquely identified individuals. If the exact number of clutches is unknown provide a total number of nests.

**Please scroll to the right** to see all questions >>>>

	Season Number of Nests	Season Clutches Exact Count	Season Females Exact Count	Survey Frequency	End of Monitoring Period	Start of Monitoring Period	End of Nesting Season	Start of Nesting Season
Lo								
Lk								
Dc								
Ei								
Cc								
Cm		3067		daily/weekly	April	December	June	December

Please indicate if there were any circumstances that impacted monitoring (hurricanes, storms, other natural phenomenon, personnel availability, financial constraints, etc.)

> the beach monitoring of the 2019/2020 nesting season was totally suspended in the first days of April, due to measures to combat the SARS-COV2 pandemic

Note from the Secretariat: Following number 7 of Resolution CIT-COP9- 2019-R2 for the Conservation of the Northwest Atlantic Leatherback requesting information in table 3 (longline fisheries information) of this report, sensitive information will be kept confidential. For additional information, the procedures defined in Resolution CIT-COP9-2019-R4 should be followed.

## Part VI - Fisheries Information

If your country does not have data available to fill out the information on industrial longline fisheries, please contact the IAC Secretariat [secretario@iacseaturtle.org](mailto:secretario@iacseaturtle.org)

### Industrial Longline Fisheries (Vessels >20m)

Does your country have industrial longline fisheries?

*Please select only one option*

- Yes  
 No

### Instructions

Please fill up the corresponding boxes according to the type of sets. **Shallow sets** correspond to sets with **<15 Hooks per Basket/Hooks between Float or <100m max hook depth**, and **deep sets** corresponds to sets with **≥15 Hooks per Basket/Hooks between Floats or ≥100m max hook depth**.

### Fleet Information (Vessels > 20m)

**a. Period covered:** Starting and end date of the fishing operations of the year.

**b. Area fished:** Indicate the area coordinates where shallow set and deep sets fishing operations were carried out during the last year.

**c. No. of vessels that fished:** Indicate the total number of vessels in the fleet in each case (deep set and shallow set), the number of vessels with observers on board, and the corresponding percentage of vessels with observers (% observed).

**d. No. of trips:** Indicate the total number of trips in each case (deep set and shallow set), the number of trips with observers on board, and the corresponding percentage of trips with observers onboard (% observed).

**e. No. of effective fishing days:** Indicate the total number of fishing days in each case (deep set and shallow set) when fishing took place, the number of fishing days with observers on board, and the corresponding percentage of fishing days with observers onboard (% observed).

**f. No. of sets:** Indicate the total annual number of sets in each case (deep set and shallow set), the annual number of sets with observers on board, and the corresponding annual percentage of sets with observers onboard (% observed).

**g. No. of hooks (in thousands):** Indicate the total annual number of hooks in each case (deep set and shallow set), the annual number of hooks with observers on board, and the corresponding annual percentage of hooks with observers onboard (% observed).

It refers to the number of hooks per basket (HPB) or the number of hooks between floats (HBF). If the number is unknown include an approximate number of hooks/sets, using an asterisk (\*) to indicate that it is an approximation.

**h. Predominant hook type/size:** Using the IATTC codes indicate the most common hooks (> 50%) used throughout the year as a total, and in vessels with onboard observers in each case (deep sets and shallow sets).

**i. Predominant bait type:** Indicate the most common bait used throughout the year as a total, and in vessels with observers in each case (deep sets and shallow sets) using the following bait codes: SQ - squid (e.g. Cephalopods), M - mackerel (e.g. Scomber spp.), A - artificial lure (e.g. plastic jig), O-other, and specify.

### Sea Turtles Species (Units expressed in the number of individuals observed)

**j. Released alive:** Total number of each sea turtle species released alive in each case (shallow and deep sets).

**k. Released dead:** Total number of individuals of each sea turtle species released dead in each case (shallow and deep sets).

**l. Released condition unknown:** Total number of each sea turtle species released under unknown conditions as the individual could not be brought onboard or close enough to verify the condition dead or alive.

**m. Notes:** Include additional information such as turtles caught that had tags (flipper tags or satellite transmitter), in each case (shallow and deep sets), if applicable.

## Brazil Atlantic

### 1. Target Species

#### 1. Target Species

Indicate the target species (common and scientific name) of the industrial longline fisheries during the last year. Indicate with an **X** if the catch was using shallow or deep sets.

	Common Name	Scientific Name	Shallow sets	Deep sets
	Swordfish	Xiphias gladius	10.584	
	Yellowfin Tuna and Bigeye Tuna Bandolim	Thunnus albacares; Thunnus obesus		1.800

### 2. Shallow Sets (<15 HPB/HBF or <100m max hook depth)

#### 2.1 Period Covered & Area Fished

Please enter information in the following formats:

**Period Covered:** date range mm/dd/yyyy-mm/dd/yyyy

**Area Fished:** from (XXX)oW to (XXX)oW and from (XXX)oS/N to (XXX)oS/N

	Shallow sets
Period Covered	apr/01/2019 - mar/31/2020
Area Fished	20S to 38W / 20S to 22W / 34S to 49W / 34S to 27W

#### 2.2. Fleet Information - Shallow Sets

Please read the instructions before filling out this form

#### Codes

IATTC Hook codes (<https://www.iattc.org/Downloads/Hooks-Anzuelos-Catalogue.pdf>)

Bait codes: SQ - squid (e.g. Cephalopods)

M - mackerel (e.g. Scomber spp.)

A - artificial lure (e.g. plastic jig)

O-other, and specify.

	Total Fleet	Observed	% observed

Predominant bait type	mackerel		
Predominant hook type/size	C-06		
Number of hooks (in thousands)	13.759.200	0	0
Number of sets	10.584	0	0
Number of effective fishing days	10.584	0	0
Number of trips	756	0	0
Number of vessels that fished	63	0	0

### 2.3a Sea Turtle Species – Shallow sets

#### Number of Individuals Observed

Please read the instructions before filling out this form

	Released Alive	Released Dead	Released Condition Unknown
Lepidochelys olivacea			
Lepidochelys kempii			
Dermochelys coriacea			
Eretmochelys imbricata			
Caretta caretta			
Chelonia mydas			

### 2.3b Notes (e.g. Tagged turtles, etc.)

> The national on-board observer program has ceased to function since 2016, by decision of the Secretariat of Fisheries, alleging legal weaknesses. Some research projects have embarked observers on longline fishing, however, these 2019/2020 data are still being analyzed and. As soon as they become available, they will be included in this report.

## 3. Deep Sets ( $\geq 15$ HPB/HBF or $\geq 100$ m max hook depth)

### 3.1 Period Covered & Area Fished

Please enter information in the following formats:

**Period Covered:** date range mm/dd/yyyy-mm/dd/yyyy

**Area Fished:** from (XXX)oW to (XXX)oW and from (XXX)oS/N to (XXX)oS/N

	Deep Sets
Period Covered	apr/01/2019 to mar/31/2020
Area Fished	5N to 42W / 5N to 19W / 20S to 38W / 20S to 22W

### 3.2 Fleet Information – Deep Sets

Please read the instructions before filling out this form

#### Codes

IATTC Hook codes (<https://www.iattc.org/Downloads/Hooks-Anzuelos-Catalogue.pdf>)

Bait codes: SQ – squid (e.g. Cephalopods)

M – mackerel (e.g. Scomber spp.)

A – artificial lure (e.g. plastic jig)

O-other, and specify.

	Total Fleet	Observed	% observed
Predominant bait type	mackerel		
Predominant hook type/size	C-06 or C-02		
Number of hooks (in thousands)	2.160.000		
Number of sets	1.800		
Number of effective fishing days	1.800		
Number of trips	180		
Number of vessels that fished	15		

### 3.3a Sea Turtle Species – Deep sets

Please read the instructions before filling out this form

	Released Alive	Released Dead	Released Condition Unknown
<i>Chelonia mydas</i>			
<i>Caretta caretta</i>			
<i>Eretmochelys imbricata</i>			
<i>Dermochelys coriacea</i>			
<i>Lepidochelys kempii</i>			
<i>Lepidochelys olivacea</i>			

### 3.3b Notes (e.g. Tagged turtles, etc.)

> The national on-board observer program has ceased to function since 2016, by decision of the Secretariat of Fisheries, alleging legal weaknesses. Some research projects have embarked observers on longline fishing, however, these 2019/2020 data are still being analyzed. As soon as they become available, they will be included in this report.

### 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 this document will be published on the Annual Reports section of the IAC website <http://www.iacseaturtle.org/informes-eng.htm>