Sea turtles in the South-West Atlantic Region

MTSG Annual Regional Report 2019

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REGIONAL OVERVIEW

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1. RMU: *Caretta caretta* – Southwest Atlantic

1.1 Distribution, abundance, trends

1.1.1 Nesting sites

All the rookeries are located in Brazil. There are 22 nesting sites (Table 1- Main Table; Fig. 1) for the South-West Atlantic subpopulation, 13 of them are classified as "major" nesting sites and 9 are as "minor" nesting sites, according to the Table 1 (Main Table). For abundance indexes (e.g. nests, females) please see Table 1 – Main Table. The most recent year for abundance data published across all rookeries was 2013. All except for one nesting site has shown a 70% increase in the number of nests between 2008 - 2013. (BR Table R # 68).

1.1.2 Marine areas

Identified foraging grounds and migratory corridors of loggerhead nesting females tagged in Praia do Forte, Bahia are shown in Fig. 2 (BR Table R # 78). Movement paths and pelagic foraging areas of immature loggerheads satellite-tagged in Elevação do Rio Grande in the SW Atlantic are displayed in Fig. 3 (BR Table R # 1). Dispersal patterns and migratory routes of oceanic stage of yearling loggerhead turtles satellite-tagged in Praia do Forte are shown in Fig. 4 (BR Table R # 82).

1.2 Other biological data

Please see Table 1- Main Table.

1.3 Threats

1.3.1 Nesting sites

Please see Table 1- Main Table.

1.3.2 Marine areas

Please see Table 1- Main Table.

1.4 Conservation

Protection status: see Table 1 – Main Table for national laws and Table 3 in the country chapters for international conventions. National laws for sea turtle protection are available in Brazil, Argentina and Uruguay. See Table R in the country chapters (BR #190; AR #21; UR #6,7). Long-term governmental and non-governmental programs are listed in Table 4 for each country chapter.

2 RMU: *Dermochelys coriacea* - Southwest Atlantic

2.1 Distribution, abundance, trends

2.1.1 Nesting sites

There are 5 nesting sites, hosting a small population (see Table 1- Main Table). Four among these 5 areas are considered priority nesting beaches in Brazil (BR Table 2; Fig. 1). Even though they are classified as "minor" nesting sites according to the Main Table, they are the only regular nesting areas for the region. Between 1995–1996 and 2003–2004, the annual number of nests increased at about 20.4% per year on average (BR Table R #122).

2.1.2 Marine areas

Movements of satellite tracking leatherbacks tagged in nesting areas (Gabon and Brazil) and on the foraging grounds in the SWA are shown in Fig 5.

2.2 Other biological data

Please see Table 1- Main Table.

2.3 Threats

Please see Table 1- Main Table.

2.4 Conservation

Protection status: see Table 1 – Main Table for national laws and Table 3 in the country chapters for international conventions. National laws for sea turtle protection are available in Brazil, Argentina and Uruguay. See Table R in the country chapters (BR #190; AR #21; UR #6,7). Long-term governmental and non-governmental programs are listed in Table 4 for each country chapter.

3 RMU: *Chelonia mydas* - Southwest Atlantic

3.1 Distribution, abundance, trends

3.1.1 Nesting sites

There are 11 nesting sites (Table 1 – Main Table; Fig. 1). The tree main nesting areas of this RMU are located on oceanic islands. For abundance indexes (e.g. nests or nesting females per year) please see Table 1- Main Table. In Trindade Island, the population remained stable between 1991 and 2008 (BR Table R #101). The average annual number in of nests in the Biological Reserve of Atol das Rocas was approximately the same when comparing the two five-year periods 1990-1994 and 2004-2008 (BR Table R # 92).

3.1.2 Marine areas

Brazil, Argentina and Uruguay host important mixed stock feeding grounds for juvenile, sub-adults and adults green turtles (BR Table R # 163) (UR Table R # 34, 33).

3.2 Other biological data

Please see Table 1- Main Table.

3.3 Threats

3.3.1 Nesting sites

Please see Table 1- Main Table.

3.3.2 Marine areas
Please see Table 1- Main Table.

3.4 Conservation
Protection status: see Table 1 – Main Table for national laws and Table 3 in the country chapters for international conventions. National laws for sea turtle protection are available in Brazil, Argentina and Uruguay. See Table R in the country chapters (BR #190; AR #21; UR #6,7). Long-term governmental and non-governmental programs are listed in Table 4 for each country chapter.

4 RMU: *Chelonia mydas* - Southcentral Atlantic

4.1 Distribution, abundance, trends

4.1.1 Nesting sites
Not apply.

4.1.2 Marine areas
Movement paths and foraging areas of immature green turtles in the SW Atlantic are displayed in Fig. 10 (UR # 34), while distribution of strandings of immature green turtles are showed in Fig. 2 the high concentrations of stranding reflects the coastal foraging areas (UR # 33).

4.2 Other biological data
Please see Table 1.

4.3 Threats
4.3.1 Nesting sites
Not apply.

4.3.2 Marine areas
Please see Table 1

4.4 Conservation
Protection status: see Table 1 for national laws (UR # 6,7).

4.5 Research
Key knowledge gaps about currently bycatch numbers by artisanal and industrial Uruguayan fleet and other international fleet operating in the area.

5 RMU: *Eretmochelys imbricata* – Southwest Atlantic

5.1 Distribution, abundance, trends

5.1.1 Nesting sites
There are 15 nesting sites (Table 1 – Main Table; Fig. 1). The five main nesting areas are located in the northeast of Bahia and Rio Grande do Norte. For abundance indexes (e.g. nests or nesting females per year) please see Table 1- Main Table. All index nesting sites have positive trends (BR Table R # 135;124).

5.1.2 Marine areas

Identified foraging grounds and migratory corridors of hawksbill nesting females tagged in Bahia are shown in Fig. 6 (BR Table R # 78) and Fig. 7 (BR Table R#65). Reported feeding areas are: the Fernando de Noronha National Marine Park, Abrolhos National Marine Park, Biological Reserve of Atol das Rocas and Ilha do Arvoredo. Juveniles tagged in Atol das Rocas were later recorded nesting in Bahia, Brazil (Itacimirim and Ilhéus), Rio Grande do Norte (Pipa) and in Barbados (BR Table R#74; Fig. 8). Records for this specie in Uruguayan waters are rare and sparse. (UR Table R # 33).

5.2 Other biological data

Please see Table 1- Main Table.

5.3 Threats

Please see Table 1- Main Table.

5.4 Conservation

Protection status: see Table 1 – Main Table for national laws and Table 3 in the country chapters for international conventions. National laws for sea turtle protection are available in Brazil, Argentina and Uruguay. See Table R in the country chapters (BR #190; AR #21; UR #6,7). Long-term governmental and non-governmental programs are listed in Table 4 for each country chapter.

6 RMU: *Lepidochelys olivacea* - West Atlantic

6.1 Distribution, abundance, trends

6.1.1 Nesting sites

There are 18 olive ridley nesting sites (Table1 – Main Table; Fig. 1), nine of them are classified as "major" nesting areas, according to Table 1 – Main Table. For abundance indexes (e.g. nests or nesting females per year) please see Table 1 – Main Table. The most recent year for abundance data published across all rookeries (13 nesting sites) was 2013. All index nesting sites have positive trends (BR Table R # 129;136).

6.1.2 Marine areas

Feeding grounds are situated off the coast of the states of Pará, Rio Grande do Norte, Pernambuco, Alagoas, and Espírito Santo, and migration to oceanic waters was identified (BR Table R# 83; Fig. 9). In recent studies, oceanic foraging areas were identified off Cabo Verde, Senegal, Gambia, Guinea-Bissau and Sierra Leone in northwestern Africa. (BR Table R#73). Records for this specie in Uruguayan waters are rare and sparse. (UR Table R # 15, 33).

6.1.3 Other biological data

Please see Table 1.

6.2 Threats

Please see Table 1- Main Table.

6.3 Conservation

Protection status: see Table 1 – Main Table for national laws and Table 3 in the country chapters for international conventions. National laws for sea turtle protection are available in Brazil, Argentina and Uruguay. See Table R in the country chapters (BR #190; AR #21; UR #6,7). Long-term governmental and non-governmental programs are listed in Table 4 for each country chapter.

Table 1.

RMU (all RMUs of all species occurring in a Country or Region) add or remove columns on the right according to the RMUs	**CC-SW ATL**	Country Chapters from which the info is taken	**DC-SW ATL**	Country Chapters from which the info is taken	**CM-SW ATL**	Country Chapters from which the info is taken	**EI-SW ATL**	Country Chapters from which the info is taken	**LO-SW ATL**	Country Chapters from which the info is taken
Occurrence										
Nesting sites	22	Brazil	Y	Brazil	Y	Brazil	Y	Brazil	Y	Brazil
Pelagic foraging grounds	Y	Brazil, Argentina, Uruguay	Y	Brazil, Argentina, Uruguay	Y	Brazil, Argentina, Uruguay	N	Brazil	Y	Brazil
Benthic foraging grounds	Y	Brazil, Argentina, Uruguay	Y	Brazil, Uruguay	Y	Brazil, Uruguay	Y	Brazil	Y	Brazil
Key biological data										
Nests/yr: recent average (range of years)										
Nests/yr: recent order of magnitude										
Number of "major" sites (>20 nests/yr AND >10 nests/km yr)	13	Brazil	0	Brazil	2	Brazil	5	Brazil	8	Brazil

Number of "minor" sites (<20 nests/yr OR <10 nests/km yr)	9	Brazil	5*	Brazil	9	Brazil	10	Brazil	11	Brazil
Nests/yr at "major" sites: recent average (range of years)	547 (2010/2011-2016/2017)	Brazil	24 (2010/2011-2016/2017)	Brazil	1608 (2010/2011-2016/2017)	Brazil	375(2010/2011-2016/2017)	Brazil	1052(2010/2011-2016/2017)	Brazil
Nests/yr at "minor" sites: recent average (range of years)	164 (2010/2011-2016/2017)	Brazil	7 (2010/2011-2016/2017)	Brazil	15 (2010/2011-2016/2017)	Brazil	58(2010/2011-2016/2017)	Brazil	72(2010/2011-2016/2017)	Brazil
Total length of nesting sites (km)	624	Brazil	159	Brazil	**254	Brazil	375	Brazil	313	Brazil
Nesting females / yr										
Nests / female season (N)	4,1	Brazil	5	Brazil	5.2 (775)	Brazil	2.1-2.6	Brazil	N	Brazil
Female remigration interval (yrs) (N)	2	Brazil	2	Brazil	3.5 (142)	Brazil	2,1	Brazil	N	Brazil
Sex ratio: Hatchlings (F / Tot) (N)	53-94 (27.697)	Brazil	N	Brazil	N	Brazil	89-96 (5514)	Brazil	N	Brazil
Sex ratio: Immatures (F / Tot) (N)	N	Brazil	N	Brazil	N	Brazil	N	Brazil	N	Brazil
Sex ratio: Adults (F / Tot) (N)	N	Brazil	N	Brazil	N	Brazil	N	Brazil	N	Brazil
Min adult size, CCL or SCL (cm)	82 CCL	Brazil	125 CCL	Brazil	90 CCL	Brazil	82 CCL	Brazil	62 CCL	Brazil
Age at maturity (yrs)	Y	Brazil	N	Brazil	Y	Brazil	Y	Brazil	Y	Brazil
Clutch size (n eggs) (N)										
Emergence success (hatchlings/egg) (N)										

Nesting success (Nests/ Tot emergence tracks) (N)										
Trends										
Recent trends (last 20 yrs) at nesting sites (range of years)	up	Brazil	up	Brazil	stable	Brazil	up	Brazil	up	Brazil
Recent trends (last 20 yrs) at foraging grounds (range of years)	N	Brazil	N	Brazil	up	Brazil	N	Brazil	N	Brazil
Oldest documented abundance: nests/yr (range of years)										
Published studies										
Growth rates	Y	Brazil, Uruguay	Y	Uruguay	Y	Brazil, Uruguay	Y	Brazil	Y	Brazil
Genetics	Y	Brazil, Uruguay, Argentina	Y	Brazil, Uruguay, Argentina	Y	Brazil, Uruguay, Argentina	Y	Brazil	Y	Brazil
Stocks defined by genetic markers	Y	Brazil, Uruguay, Argentina	Y	Brazil, Uruguay, Argentina	Y	Brazil, Uruguay, Argentina	Y	Brazil	Y	Brazil
Origin of mixed stocks	Y	Brazil	Y	Brazil	Y	Brazil	Y	Brazil	N	Brazil

Remote tracking (satellite or other)	Y	Brazil, Uruguay, Argentina	Y	Brazil, Uruguay, Argentina	Y	Brazil, Uruguay, Argentina	Y	Brazil	Y	Brazil
Survival rates	N	Brazil, Uruguay, Argentina	N	Brazil, Uruguay, Argentina	Y	Brazil, Uruguay	N	Brazil	N	Brazil
Population dynamics	Y	Uruguay	N	Uruguay	Y	Brazil, Uruguay	Y	Brazil	N	Brazil
Foraging ecology (diet or isotopes)	Y	Brazil, Uruguay	Y	Brazil, Uruguay	Y	Brazil, Uruguay, Argentina	Y	Brazil	Y	Brazil
Capture-Mark-Recapture	Y	Brazil, Uruguay	Y	Brazil, Argentina	Y	Brazil, Uruguay	Y	Brazil	Y	Brazil
Threats										
Bycatch: presence of small scale / artisanal fisheries?	Y	Brazil, Uruguay, Argentina	Y	Brazil, Uruguay, Argentina	Y	Brazil, Uruguay, Argentina	Y (SN; PN; OTH (corrals))	Brazil	Y (SN; OTH (corrals))	Brazil
Bycatch: presence of industrial fisheries?	Y	Brazil, Uruguay, Argentina	Y	Brazil, Uruguay, Argentina	Y	Brazil, Uruguay, Argentina	Y (SN)	Brazil	Y (PLL; ST)	Brazil
Bycatch: quantified?	Y	Brazil, Uruguay	Y	Brazil, Uruguay	Y	Brazil, Uruguay	Y	Brazil	Y (PLL)	Brazil
Take. Intentional killing or exploitation of turtles	N	Brazil, Uruguay, Argentina	N	Brazil, Uruguay, Argentina	Y	Brazil, Uruguay	Y	Brazil	N	Brazil
Take. Egg poaching	Y	Brazil	N	Brazil	Y	Brazil	Y	Brazil	Y	Brazil

Coastal Development. Nesting habitat degradation	Y	Brazil	Y	Brazil	Y	Brazil	Y	Brazil	Y	Brazil
Coastal Development. Photopollution	Y	Brazil	Y	Brazil	Y	Brazil	Y	Brazil	Y	Brazil
Coastal Development. Boat strikes	N	Brazil, Uruguay, Argentina	N	Brazil, Uruguay, Argentina	Y	Uruguay	N	Brazil	N	Brazil
Egg predation	Y	Brazil	N	Brazil	Y	Brazil	Y	Brazil	Y	Brazil
Pollution (debris, chemical)	Y	Brazil	Y	Brazil	Y	Brazil	N	Brazil	N	Brazil
Pathogens	Y	Brazil	N	Brazil, Uruguay, Argentina	Y	Brazil, Uruguay	Y	Brazil	Y	Brazil
Climate change	Y	Brazil	N	Brazil, Uruguay, Argentina	N	Brazil, Uruguay, Argentina	Y	Brazil	N	Brazil
Foraging habitat degradation	N	Brazil, Uruguay, Argentina	N	Brazil, Uruguay, Argentina	Y	Brazil, Uruguay	N	Brazil	N	Brazil
Other	Y	Brazil, Argentina	Y	Brazil, Uruguay	Y	Brazil, Uruguay	N	Brazil	Y	Brazil
Long-term projects (>5yrs)										
Monitoring at nesting sites (period: range of years)	Y (1982-ongoing)	Brazil	Y (1982-ongoing)	Brazil	Y (1982-ongoing)	Brazil	Y (1982-ongoing)	Brazil	Y (1982-ongoing)	Brazil

Number of index nesting sites	6	Brazil	2	Brazil	2	Brazil	5	Brazil	3	Brazil
Monitoring at foraging sites (period: range of years)	Y	Brazil, Uruguay, Argentina	Y	Brazil, Uruguay, Argentina	Y	Brazil, Uruguay, Argentina	Y	Brazil	Y	Brazil
Conservation										
Protection under national law	Y	Brazil, Uruguay, Argentina	Y	Brazil, Uruguay, Argentina	Y	Brazil, Uruguay, Argentina	Y	Brazil	Y	Brazil
Number of protected nesting sites (habitat preservation) (% nests)	100%	Brazil	100%	Brazil	100%	Brazil	100%	Brazil	100%	Brazil
Number of Marine Areas with mitigation of threats	0	Brazil, Uruguay, Argentina	0	Brazil, Uruguay, Argentina	2	Uruguay	0	Brazil	0	Brazil
N of long-term conservation projects (period: range of years)	>1 (1982-ongoing)	Brazil	>1 (1982-ongoing)	Brazil	>1 (1981-ongoing)	Brazil	>1 (1982-ongoing)	Brazil	>1 (1982-ongoing)	Brazil
In-situ nest protection (eg cages)	Y	Brazil	Y	Brazil	N	Brazil	Y	Brazil	Y	Brazil
Hatcheries	Y	Brazil	Y	Brazil	N	Brazil	Y	Brazil	Y	Brazil
Head-starting	N	Brazil	N	Brazil	N	Brazil	N	Brazil	N	Brazil
By-catch: fishing gear modifications (eg, TED, circle hooks)	Y	Brazil, Uruguay	Y	Brazil, Uruguay]	N	Brazil, Uruguay, Argentina	N	Brazil	N	Brazil

By-catch: onboard best practices	Y	Uruguay, Argentina	Y	Argentina	Y	Argentina	N	Brazil	N	Brazil
By-catch: spatio-temporal closures/reduction	Y	Argentina	Y	Argentina	Y	Argentina	N	Brazil	Y	Brazil
Other										
* 4 of these 5 areas are considered priority nesting beaches in Brazil. Even though they are classified as “minor sites” according to this classification, they are only regular nesting áreas for the region.										
** low density green turtle nesting beaches, the 3 main nesting areas of this RMU are located in the oceanic islands										

Figures

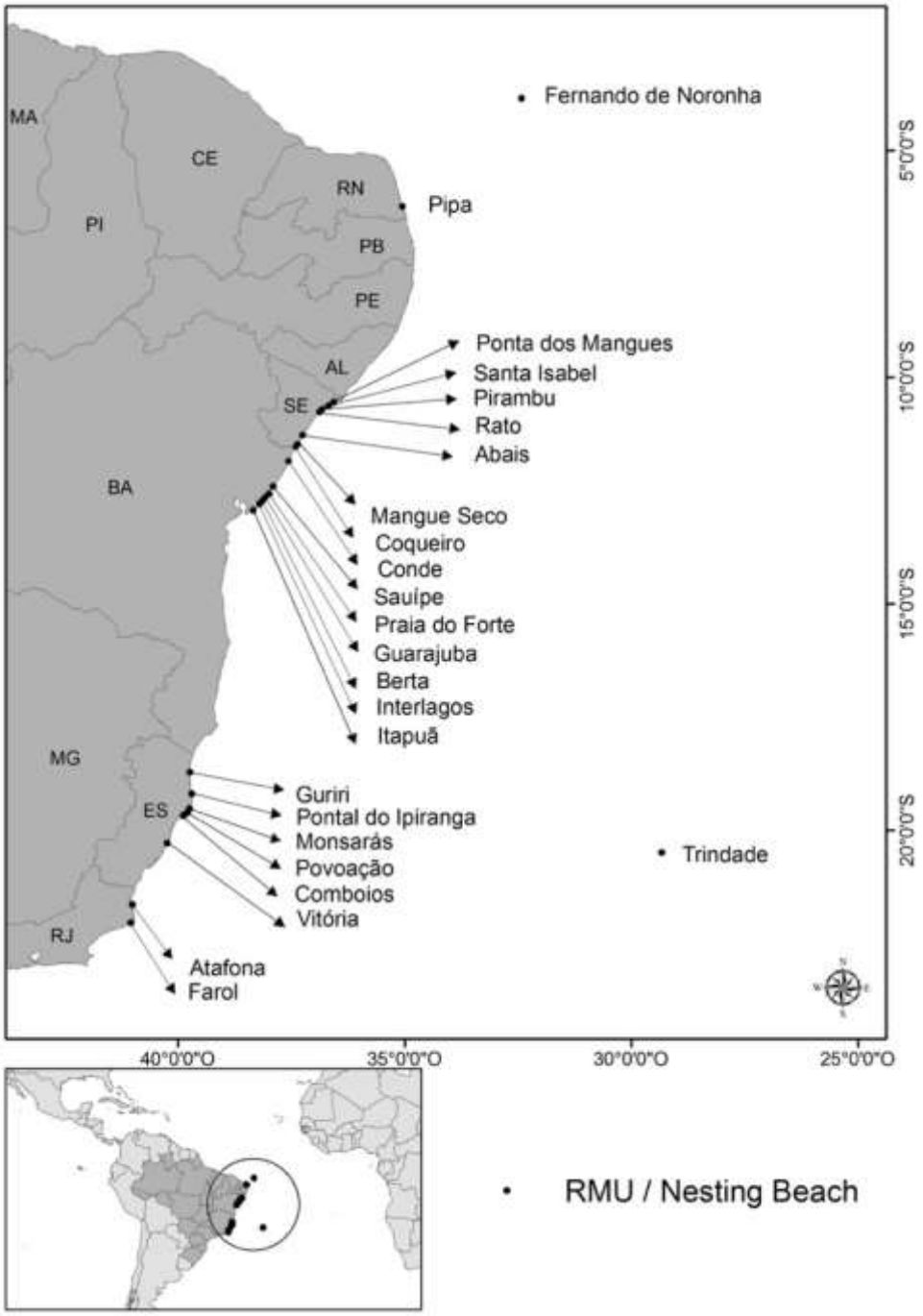

Figure 1. Brazilian Nesting Sites

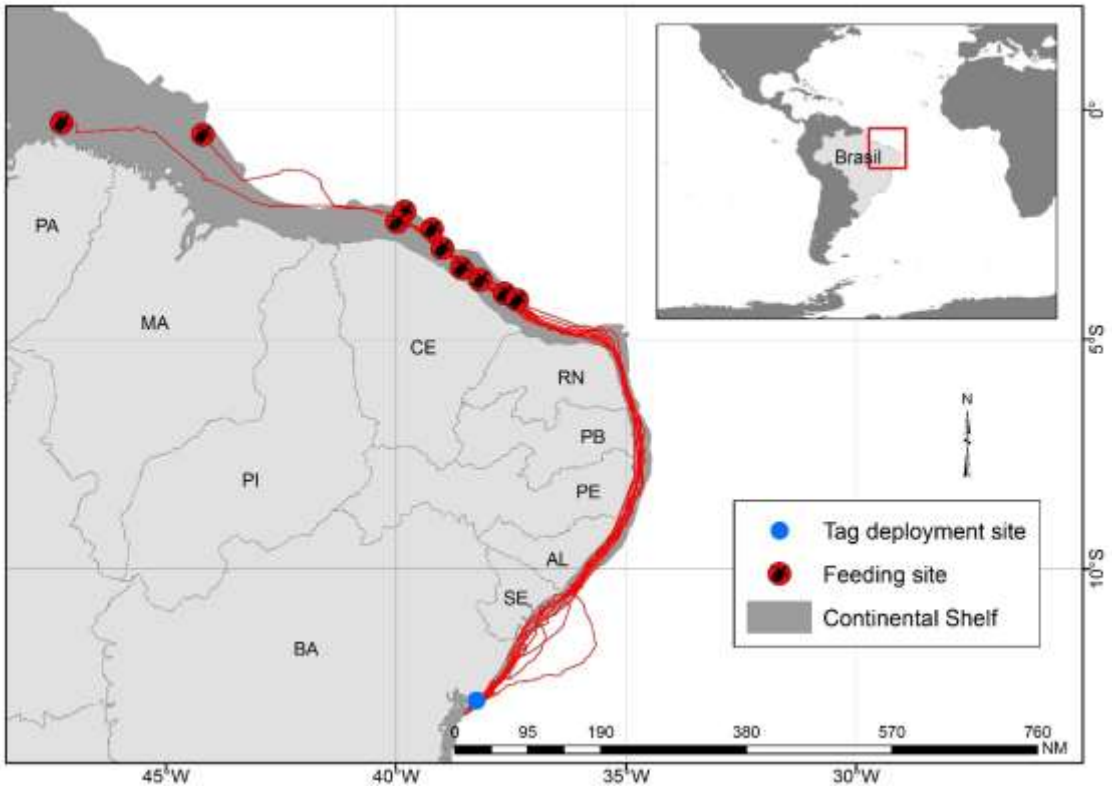

Figure 2. Post-nesting migrations and feeding grounds of 10 loggerhead female turtles satellite-tracked from nesting beaches along the northern coast of Bahia, Brazil (BR Table R #78)

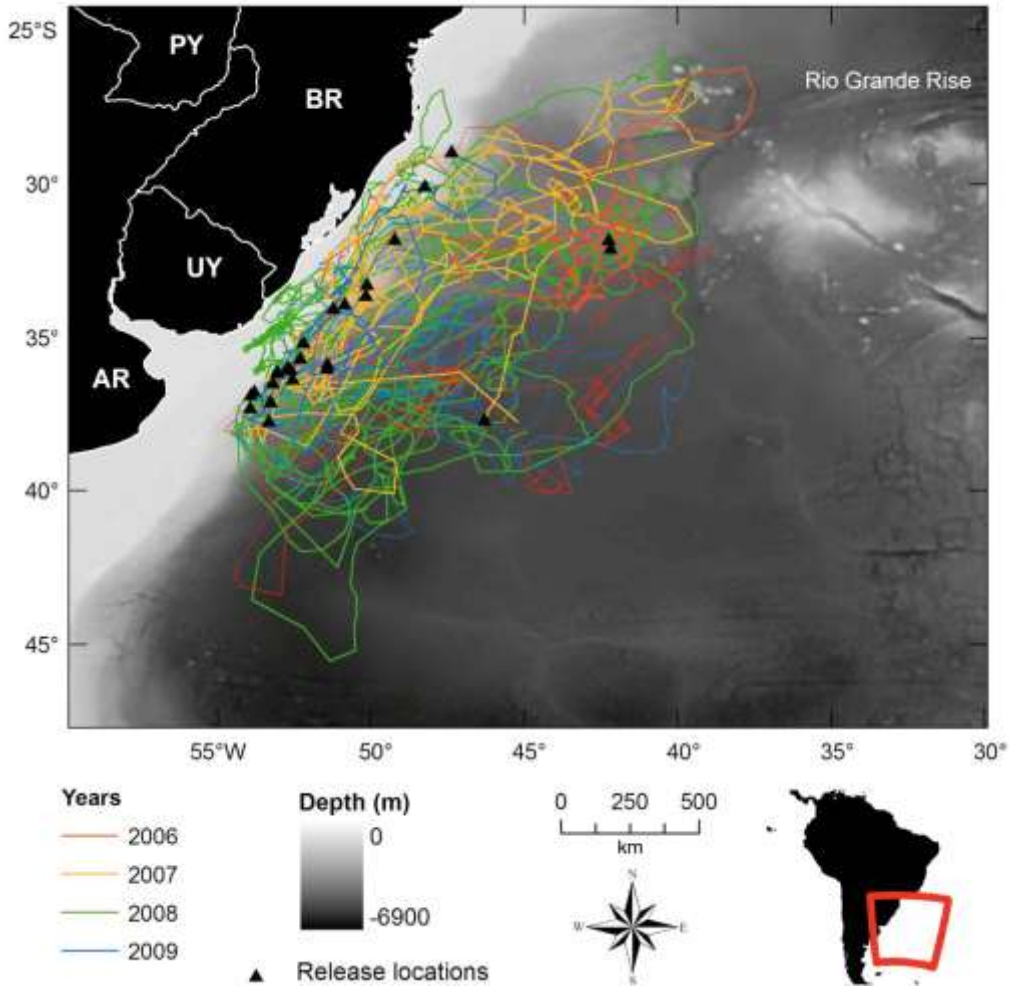

Figure 3. Movement paths of 26 immature loggerheads in the SW Atlantic Ocean between 2006 and 2010. (BR Table R #1)

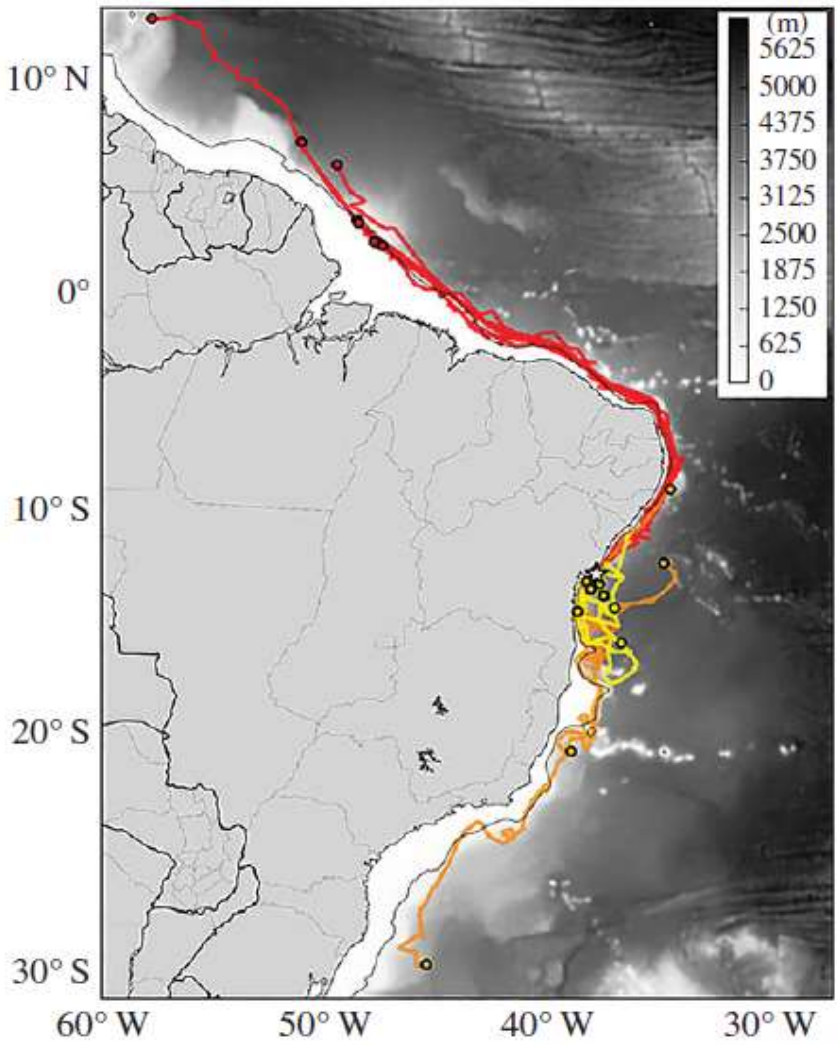

Figure 4. Satellite tracks of 19 yearling loggerhead sea turtles released from Praia do Forte, Bahia, Brazil. (BR Table R #82)

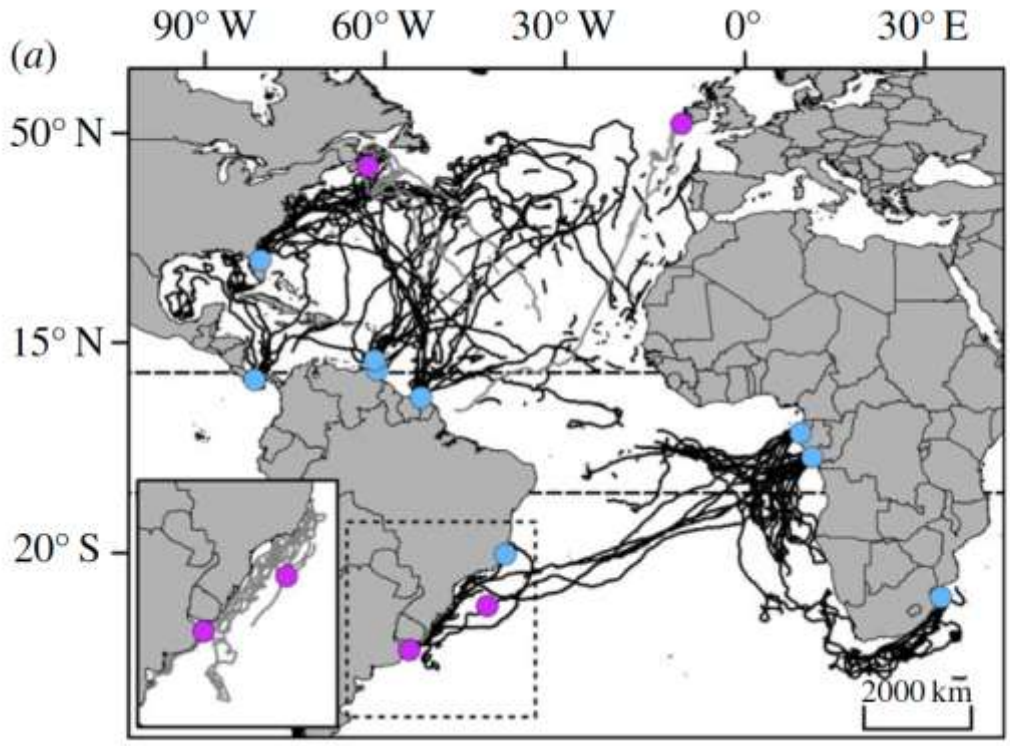

Figure 5. Movements of satellite-tracked leatherbacks during their migration in the Atlantic Ocean, between 1995 and 2010. Black lines: movements of females tagged on the nesting beach. Grey lines: movements of individuals tagged near presumed foraging grounds; Blue dots: deployment from a nesting site; Purple dots: deployment at. Inset: movements of six individuals tagged on their foraging grounds in the southwestern Atlantic. (BR Table R #82; AR Table R #5; UR Table R #13)

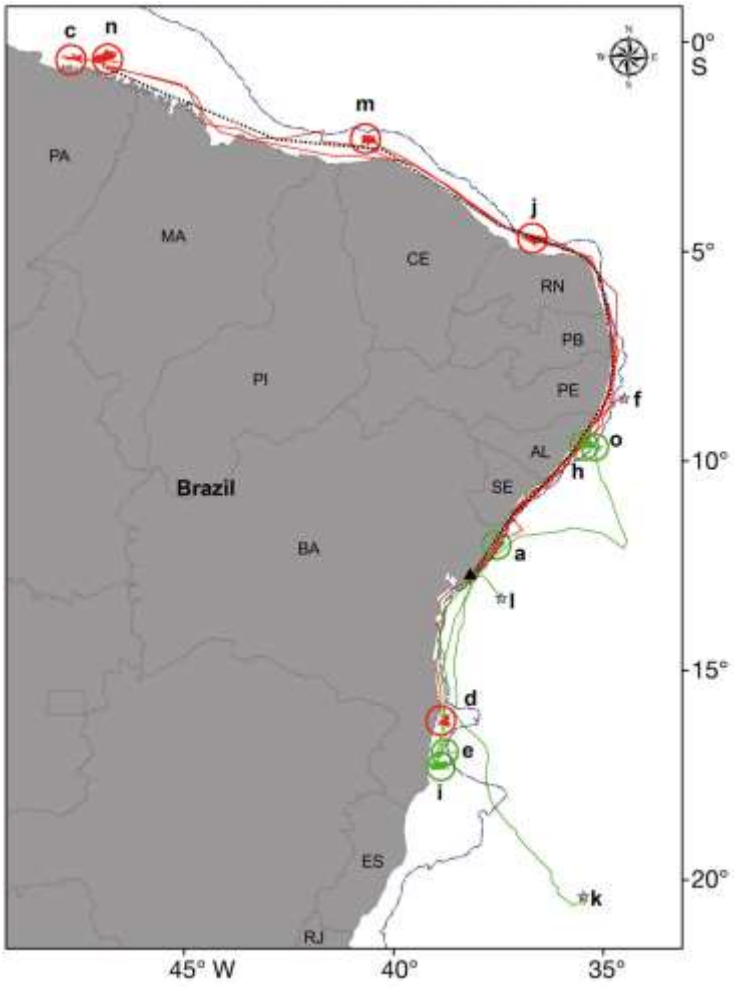

Figure 6. Migratory paths and foraging areas of hawksbill turtles satellite-tracked from nesting grounds in northern Bahia, Brazil (n = 15). Lower case letters: individual turtles; circles: foraging areas (green: hawksbills; red: hawksbill-loggerhead hybrids. (BR Table R #81)

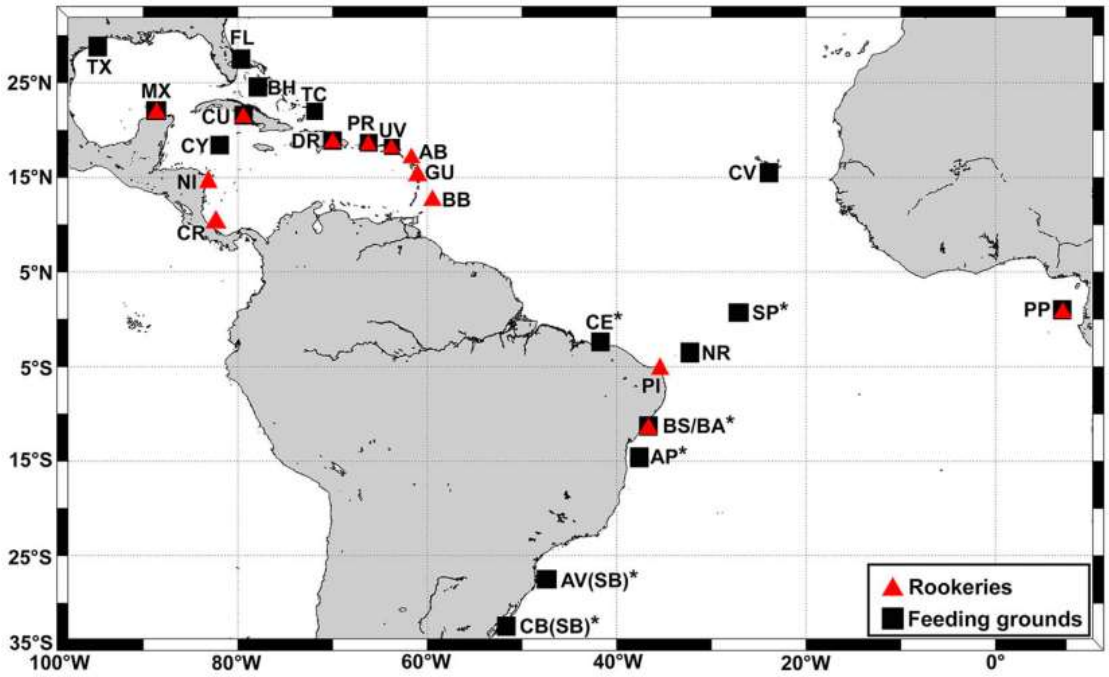

Figure 7. Locations of genetically described hawksbill populations in the Atlantic, rookeries (red triangles) and feeding grounds (black squares). (BR Table R #65)

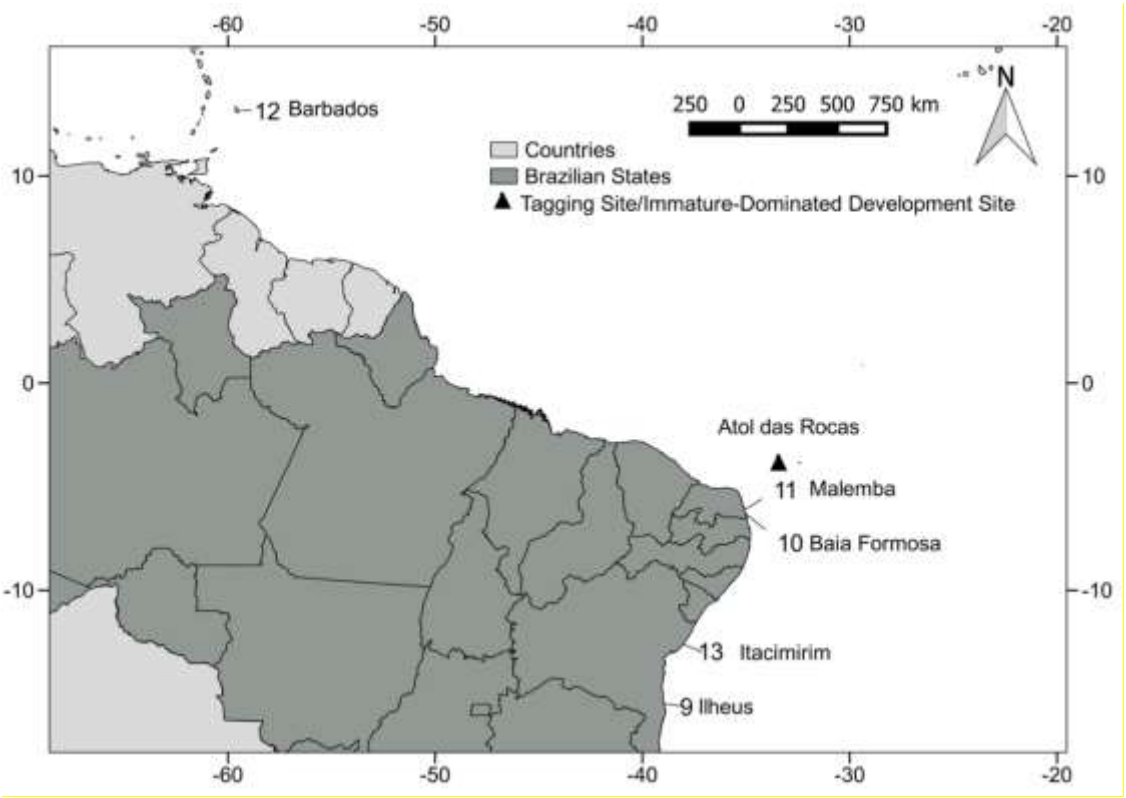

Figure 8. Nesting beach locations for five hawksbills (*Eretmochelys imbricata*) originally tagged as juveniles in Atol das Rocas, Brazil. Numbers correspond to nesting beaches. (BR Table R #74)

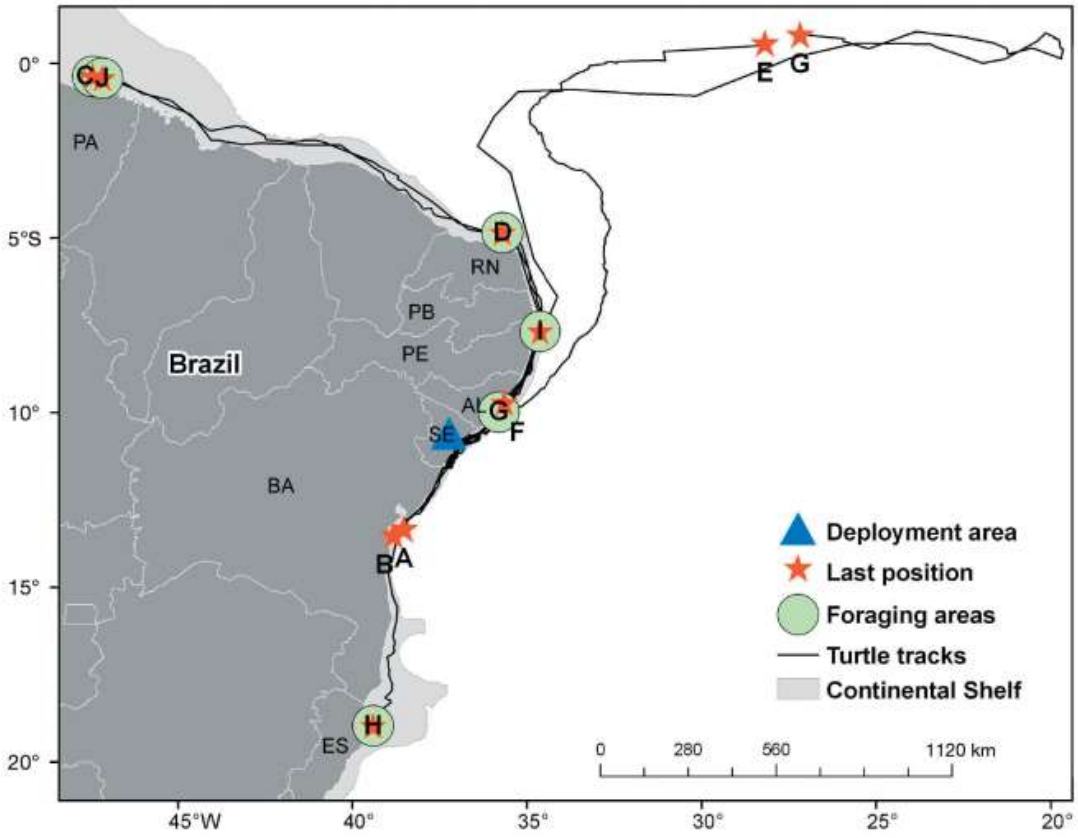

Figure 9. Post-nesting movements of olive ridley turtles satellite tracked from their nesting grounds in Sergipe. (BR Table R #83)

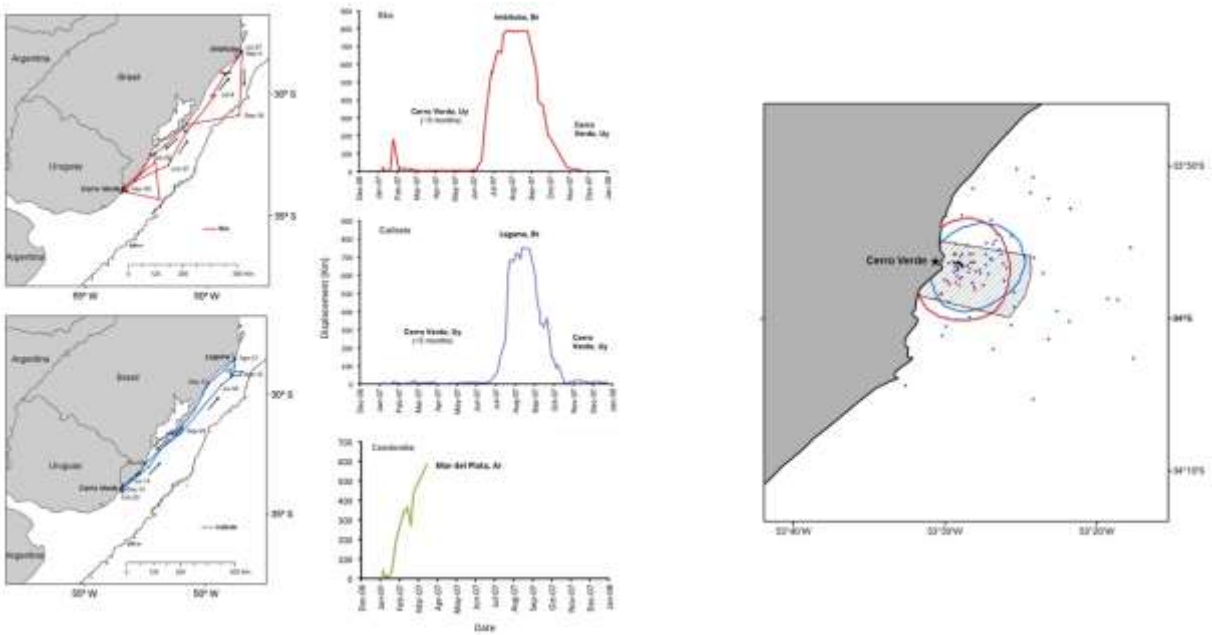

Figure 10. Displacement from released site plot of the three tracked green turtle. The left panels (A and B) show the tracks of those turtles that performed a round-trip migration between summer and winter foraging areas in Uruguay and Brazil respectively. The three

right panels (C, D and E) show distance to the release point through time. Phases of migration are represented by rapid changes in displacement distance; summer and winter foraging areas are revealed by plateaus. Left panels: Right Panel: Turtle's positions and core-use areas (50% KDE contours) for the two green turtles that remained for several months at the CMPA of Cerro Verde and Coronilla islands.Taken from Vélez-Rubio et al. 2018.

ARGENTINA

Laura Prodocimi[1] and Diego Albareda[1]

[1] PRICTMA: Programa Regional de Investigación y Conservación de Tortugas Marinas de la Argentina / Buenos Aires - Argentina

1 RMU: *Caretta caretta* – Southwest Atlantic

1.1 Distribution, abundance, trends

1.1.1 Marine áreas

Movement paths and pelagic foraging areas of immature loggerheads in Argentinian waters Fig. 1 (Table 1).

1.2 Other biological data

Please see Table 1.

1.3 Threats

1.3.1 Marine areas

Please see Table 1.

1.4 Conservation

Protection status: see Table 1 for national laws and Table 2 for international conventions. The PRICTMA (Programa Regional de Investigación y Conservación de Tortugas Marinas) has been working on monitoring and conservation since 2003.

2 RMU: *Dermochelys coriacea* - Southwest Atlantic

2.1 Distribution, abundance, trends

2.1.1 Marine áreas

Movement paths and pelagic foraging areas of adults leatherbacks in Argentina waters Fig. 2 (Table 1).

2.2 Other biological data

Please see Table 1.

2.3 Threats

Please see Table 1.

2.4 Conservation

Protection status: see Table 1 for national laws and Table 2 for international conventions. The PRICTMA (Programa Regional de Investigación y conservación de Tortugas Marinas) has been working on monitoring and conservation since 2003.

3 RMU: *Chelonia mydas* - Southwest Atlantic

3.1 Distribution, abundance, trends

3.1.1 Marine áreas

Movement paths and pelagic foraging areas of immature green turtle in Argentina waters Fig. 3 (Table 1).

3.2 Other biological data
Please see Table 1.

3.3 Threats
Please see Table 1.

3.4 Conservation
Protection status: see Table 1 for national laws and Table 2 for international conventions. The PRICTMA (Programa Regional de Investigación y Conservación de Tortugas Marinas) has been working on monitoring and conservation since 2003.

Tables:

Table 1

RMU	**CC-NW IND**	Ref #	**CM-NW IND**	Ref #	**DC-SW IND**	Ref #
Occurrence						
Nesting sites	N	0	N		n/a	0
Pelagic foraging grounds	JA	1, 6,7,11,15	J	1,7, 10,11,15	A	1,2,4,7,11, 12,15
Benthic foraging grounds	Y	3	n/a		n/a	
Key biological data						
Nests/yr: recent average (range of years)	n/a		n/a		n/a	
Nests/yr: recent order of magnitude	n/a		n/a		n/a	
Number of "major" sites (>20 nests/yr AND >10 nests/km yr)	n/a		n/a		n/a	
Number of "minor" sites (<20 nests/yr OR <10 nests/km yr)	n/a		n/a		n/a	
Nests/yr at "major" sites: recent average (range of years)	n/a		n/a		n/a	
Nests/yr at "minor" sites: recent average (range of years)	n/a		n/a		n/a	
Total length of nesting sites (km)	n/a		n/a		n/a	
Nesting females / yr	n/a		n/a		n/a	
Nests / female season (N)	n/a		n/a		n/a	
Female remigration interval (yrs) (N)	n/a		n/a		n/a	
Sex ratio: Hatchlings (F / Tot) (N)	n/a		n/a		n/a	
Sex ratio: Immatures (F / Tot) (N)	n/a		n/a		n/a	
Sex ratio: Adults (F / Tot) (N)	n/a		n/a		n/a	

Min adult size, CCL or SCL (cm)	n/a		n/a		n/a	
Age at maturity (yrs)	n/a		n/a		n/a	
Clutch size (n eggs) (N)	n/a		n/a		n/a	
Emergence success (hatchlings/egg) (N)	n/a		n/a		n/a	
Nesting success (Nests/ Tot emergence tracks) (N)	n/a		n/a		n/a	
Trends						
Recent trends (last 20 yrs) at nesting sites (range of years)	n/a		n/a		n/a	
Recent trends (last 20 yrs) at foraging grounds (range of years)	n/a		n/a		n/a	
Oldest documented abundance: nests/yr (range of years)	n/a		n/a		n/a	
Published studies						
Growth rates	N		N		N	
Genetics	Y	17	Y	19	Y	18
Stocks defined by genetic markers	Y	17	Y	19	Y	18
Remote tracking (satellite or other)	Y	6,7	Y	7,1	Y	7,4,12
Survival rates	N		N		N	
Population dynamics	N		N		N	
Foraging ecology (diet or isotopes)	N		Y	9	N	
Capture-Mark-Recapture	N		N		Y	2
Threats						
Bycatch: presence of small scale / artisanal fisheries?	Y (DN,SN)	3,11,13	Y	3,11	Y	3,11,13
Bycatch: presence of industrial fisheries?	Y (PT,MT)	3,11, 13	Y (PT,MT)	3,11	Y (DLL, MT, PT)	3,5, 11,13,16,20
Bycatch: quantified?	N	0	N		N	
Take. Intentional killing or exploitation of turtles	N		N		N	
Take. Egg poaching	n/a		n/a		n/a	

Coastal Development. Nesting habitat degradation	n/a		n/a		n/a	
Coastal Development. Photopollution	n/a		n/a		n/a	
Coastal Development. Boat strikes	N		N		N	
Egg predation	n/a		n/a		n/a	
Pollution (debris, chemical)	Y	13,14,15	Y	8,14,15	N	
Pathogens	N		N		N	
Climate change	N		N		N	
Foraging habitat degradation	N		N		N	
Other	Y (see text)		N		N	
Long-term projects						
Monitoring at nesting sites	n/a		n/a		n/a	
Number of index nesting sites	n/a		n/a		n/a	
Monitoring at foraging sites	Y	1,11,15	Y	1,11,15	Y	1,11,15
Conservation						
Protection under national law	Y	21	Y	21	Y	21
Number of protected nesting sites (habitat preservation)	0		0		0	
Number of Marine Areas with mitigation of threats	0		0		0	
Long-term conservation projects (number)	0		0		0	
In-situ nest protection (eg cages)	n/a		n/a		n/a	
Hatcheries	n/a		n/a		n/a	
Head-starting	N		n/a		n/a	
By-catch: fishing gear modifications (eg, TED, circle hooks)	N		N		N	
By-catch: onboard best practices	Y		Y		Y	
By-catch: spatio-temporal closures/reduction	Y (see text)		Y (see text)		Y (see text)	
Other	N		N		N	

Table 2

International Conventions	Signed	Binding	Compliance measured and reported	Species	Conservation actions	Relevance to sea turtles
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (National Law 22.344/82)	Y	Y	Y	CM, CC y DC		
Convention on the Conservation of Migratory Species of Wild Animals (CMS) (National Law 23.918/91)	Y	Y	Y	CM, CC y DC		
Ramsar Convention (Ramsar, 1971) (National Law 23.919/91 and 25.335/00)	Y	Y	Y	CM, CC y DC		
International Convention for the Prevention of Pollution from Ships (MARPOL) (National Law 24.089/92)	Y	Y	Y	CM, CC y DC		
Convention on Biological Diversity (CBD) (National Law 24.375/94)	Y	Y	Y	CM, CC y DC		
United Nations Convention on the Law of the Sea (CONVEMAR) (National Law 24.543/95)	Y	Y	Y	CM, CC y DC		
Inter-American Convention for the Protection and Conservation of Sea Turtle (IAC) (National Law 26.600/10)	Y	Y	Y	CM, CC y DC	**National Action Plan for the conservation of sea turtles in Argentina**, which include two Programmes: 1) National Action Programme to reduce the interaction of sea turtles with marine litter; 2) National	

					Action Programme to reduce the interaction of sea turtles with the fisheries.	

Figures

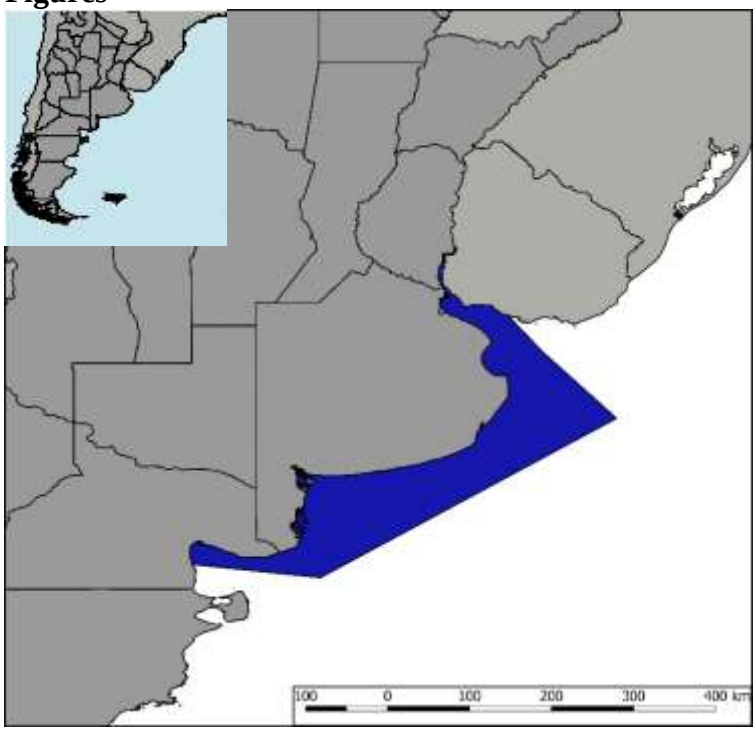

Figure 1. Foraging and migratory areas of juvenile loggerhead turtles in Argentinian waters

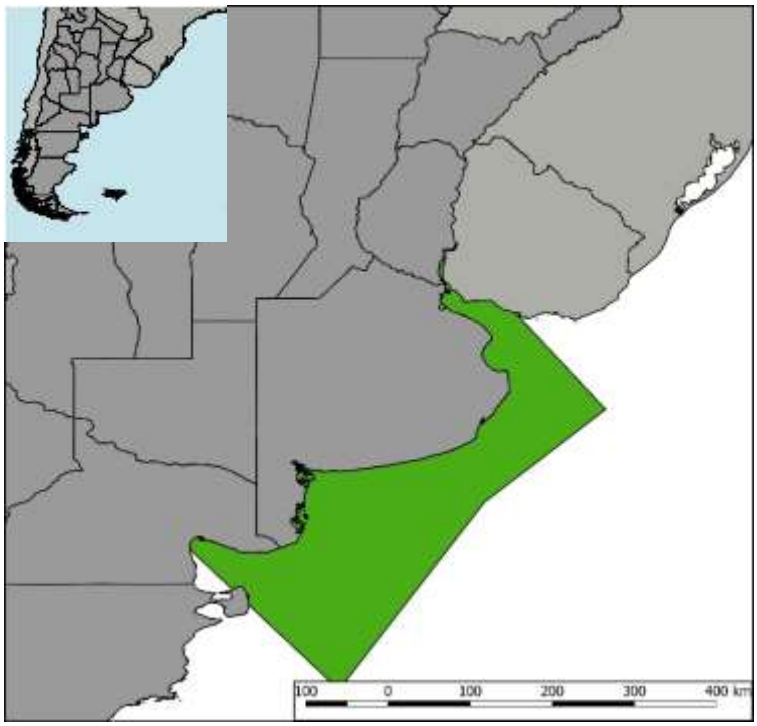

Figure 2. Foraging and migratory areas of adults leatherback turtles in Argentinian waters

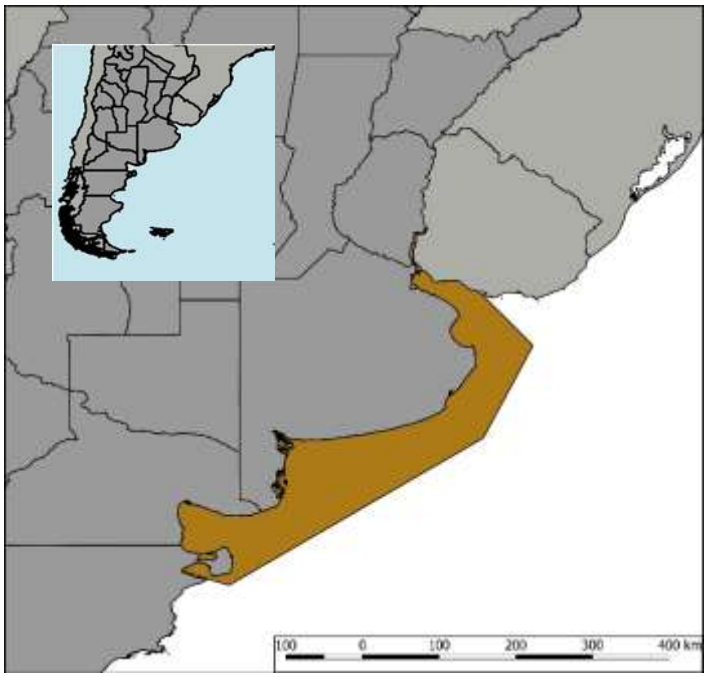

Figure 3. Foraging and migratory areas of juvenile green turtles in Argentinian waters

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BRAZIL

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1 RMU: *Caretta caretta* – Southwest Atlantic

1.1 Distribution, abundance, trends

1.1.1 Nesting sites

There are 22 nesting sites (Table 1 and 2; Fig. 1) for the South-West Atlantic subpopulation, 13 of them are classified as "major" nesting sites and 9 are as "minor" nesting sites, according to the Table 1. For abundance indexes (e.g. nests, females) please see Table 1. The most recent year for abundance data published across all rookeries was 2013. All except for one nesting site has shown a 70% increase in the number of nests between 2008-2013. (Table R # 68).

1.1.2 Marine areas

Identified foraging grounds and migratory corridors of loggerhead nesting females tagged in Praia do Forte, Bahia are shown in Fig. 2 (Table R # 78). Movement paths and pelagic foraging areas of immature loggerheads satellite-tagged in Elevação do Rio Grande in the SW Atlantic are displayed in Fig. 3 (Table R # 1). Dispersal patterns and migratory routes of oceanic stage of yearling loggerhead turtles satellite-tagged in Praia do Forte are shown in Fig. 4 (Table R # 82).

1.2 Other biological data

Please see Table 1.

1.3 Threats

1.3.1 Nesting sites

Please see Table 1.

1.3.2 Marine areas

Please see Table 1.

1.4 Conservation

Protection status: see Table 1 for national laws (Table R # 190) and Table 3 for international conventions. Long-term governmental and non-governmental programs are listed in Table 4.

1.5 Research

Brazil has a huge standardized database. We consider as more relevant for conservation, the update of population trends: currently, Brazil has a 25+ years time series of loggerhead nesting data (annual number of nests).

2 RMU: *Dermochelys coriacea* - Southwest Atlantic

2.1 Distribution, abundance, trends

There is only one known nesting site with 160 km of beach, hosting a small population (Table R # 122, 198); for operational and management purposes, this nesting area was divided into five sections (Table 2; Fig. 1); some biological and ecological information will be provided separately for the five sections (Tables 1, 2). For abundance indexes (e.g. nests, females) please see Table 1. In the complete nesting site (that is, for the five sections as a unity), the mean annual number of nests increased from 26 nests in 1988-1992 to 90 nests in 2013-2017. (Table 1; Table R # 198)

2.1.1 Marine areas

Dispersal patterns of post nesting females in Brazil are shown in Fig 5 (Table R # 2). Satellite-tracking has shown that leatherbacks leaving their nesting sites in Gabon undergo displacements up to the coast of South America (Table R # 191). Recently, through bycatch fishing information, a pelagic juvenile concentration area was identified in the equatorial central Atlantic (Table R #199)

2.2 Other biological data

Please see Table 1.

2.3 Threats

Please see Table 1.

2.4 Conservation

Protection status: see Table 1 for national laws (Table R # 190) and Table 3 for international conventions. Long-term governmental and non-governmental programs are listed in Table 4.

2.5 Research

Brazil has a huge standardized database. An article analyzing 30 years of leatherback nesting data in Brazil has been published in 2019 (Table R # 198).

3 RMU: *Chelonia mydas* - Southwest Atlantic

3.1 Distribution, abundance, trends

3.1.1 Nesting sites

There are 11 nesting sites (Table 1 and 2; Fig. 1). The tree main nesting areas of this RMU are located on oceanic islands. For abundance indexes (e.g. nests or nesting females per year) please see Table 1. In Trindade Island, the population remained stable between 1991 and 2008 (Table R # 101). The average annual number in of nests in the Biological Reserve of Atol das Rocas was approximately the same when comparing the two five-year periods 1990-1994 and 2004-2008 (Ref # 92).

3.1.2 Marine areas

Brazil host important mixed stock feeding grounds for juvenile, sub-adults and adults green turtles (Table R # 163, 63). Capture rates in a non-lethal fishery in southern Brazil increased by 9.2% per year from 1995 to 2016, in line with increasing source populations, particularly the main source contributor which is Ascension Island (Table R # 189). Those data in Brazil could indicate increase trends of populations nesting in distant places (Fig.6).

3.2 Other biological data

Please see Table 1.

3.3 Threats

3.3.1 Nesting sites

Please see Table 1.

3.3.2 Marine areas

Please see Table 1.

3.4 Conservation

Protection status: see Table 1 for national laws (Table R # 190) and Table 3 for international conventions. Long-term governmental and non-governmental programs are listed in Table 4.

3.5 Research

Brazil has a huge standardized database. We consider as more relevant for conservation, the update of population trends: currently, Brazil has a 25+ years time series of green turtle nesting data (annual number of nests), for the 3 main rookeries as followed: Atol das Rocas, Trindade Island and Fernando de Noronha.

4 RMU: *Eretmochelys imbricata* – Southwest Atlantic

4.1 Distribution, abundance, trends

4.1.1 Nesting sites

There are 15 nesting sites (Table 1 and 2; Fig. 1). The five main nesting areas of this RMU are located in the northeast of Bahia and in Rio Grande do Norte (Table 2). For abundance indexes (e.g. nests or nesting females per year) please see Table 1. All index nesting sites have positive trends (Table R # 135;124).

4.1.2 Marine areas

Identified foraging grounds and migratory corridors of hawksbill nesting females tagged in Bahia are shown in Fig. 7 (Table R # 78) and Fig. 8 (Table R#65). Reported feeding areas are: the Fernando de Noronha National Marine Park, Abrolhos National Marine

Park, Biological Reserve of Atol das Rocas and Ilha do Arvoredo . Juveniles tagged in Atol das Rocas were later recorded nesting in Bahia, Brazil (Itacimirim and Ilhéus), Rio Grande do Norte (Pipa) and in Barbados (Table R#74; Fig. 9).

4.2 Other biological data
Please see Table 1.

4.3 Threats
Please see Table 1.

4.4 Conservation
Protection status: see Table 1 for national laws (Table R # 190) and Table 3 for international conventions.
Long-term governmental and non-governmental programs are listed in Table 4.

4.5 Research
Brazil has a huge standardized database. We consider as more relevant for conservation, the update of population trends: currently, Brazil has a 25+ years time series of hawksbill turtle nesting data (annual number of nests).

5 RMU: *Lepidochelys olivacea* - West Atlantic

5.1 Distribution, abundance, trends

5.1.1 Nesting sites
There are 18 olive ridley nesting sites (Table1 and 2; Fig. 1), nine of them are classified as "major" nesting areas, according to Table 1.
For abundance indexes (e.g. nests or nesting females per year) please see Table 1.
The most recent year for abundance data published across all rookeries (13 nesting sites) was 2013. All index nesting sites have positive trends (Table R # 129;136).

5.1.2 Marine areas
Feeding grounds are situated off the coast of the states of Pará, Rio Grande do Norte, Pernambuco, Alagoas, and Espírito Santo, and migration to oceanic waters was identified (Table R# 83; Fig. 10). In recent studies, oceanic foraging areas were identified in Cabo Verde, Senegal, Gambia, Guinea-Bissau and Sierra Leone in northwestern Africa. (Table R#73)

5.2 Other biological data
Please see Table 1.

5.3 Threats
Please see Table 1.

5.4 Conservation
Protection status: see Table 1 for national laws (Table R # 190) and Table 3 for international conventions. Long-term governmental and non-governmental programs are listed in Table 4.

5.5 Research

Brazil has a huge standardized database. We consider as more relevant for conservation, the update of population trends: currently, Brazil has a 25+ years time series of olive ridley turtle nesting data (annual number of nests).

Table 1. Main Table

RMU (all RMUs of all species occurring in a Country or Region) add or remove columns on the right according to the RMUs	**CC-SW ATL**	Ref #	**DC-SW ATL**	Ref #	**CM-SW ATL**	Ref #	**EI-SW ATL**	Ref #	**LO-SW ATL**	Ref #
Occurrence										
Nesting sites	Y	131	Y	133, 198	Y	134	Y	123;135; 118	Y	136
Pelagic foraging grounds	Y	1;12	Y	2	N		N		Y	83
Benthic foraging grounds	Y	78	Y	2	Y	50	Y	81	Y	83
Key biological data										
Nests/yr: recent average (range of years)	7540 (2008/09-2012/13)	68	90 (2013-2017)	198	3600 (1991/92–2008/09)	101	1900 (2009 - 2010)	190	6710 (2009-2010)	190
Nests/yr: recent order of magnitude	7000 - 8000	68	50 - 100 (2013-2017)	198	3000 - 4000	101	2000 - 2500	T2	8000 - 9000	T2
Number of "major" sites (>20 nests/yr AND >10 nests/km yr)	13	3;17;34	0	3;122;133, 198	2	3;17;101;134	5	3;4;17;123;125;135	8	3;17;37;129;136

Number of "minor" sites (<20 nests/yr OR <10 nests/km yr)	9	3;17;34;121	5 *	3;122;133, 198	9	3;17;134	10	3;4;17;123;125;135	11	3;17;37;129;136
Nests/yr at "major" sites: recent average (range of years)	610 (2010/2011-2016/2017)	3;17;34;121	0	3;122;133, 198	1608 (2010/2011-2016/2017)	3;17;101;134	375(2010/2011-2016/2017)	3;4;17;123;125;135	1052(2010/2011-2016/2017)	3;17;37;129;136
Nests/yr at "minor" sites: recent average (range of years)	164 (2010/2011-2016/2017)	3;17;34	90 (2013-2017)	198	15 (2010/2011-2016/2017)	3;17;101;134	58(2010/2011-2016/2017)	3;4;17;123;125;135	72 (2010/2011-2016/2017)	3;17;37;129;136
Total length of nesting sites (km)	624	T2	160	198	**254	T2	375	T2	313	T2
Nesting females / yr	N		N		N		705 - 791	125	N	
Nests / female season (N)	4,1	102;121	5-6 (2013-2017)	198	5.2 (775)	92	2.1-2.6	187;10;119;125	N	
Female remigration interval (yrs) (N)	2	102;121	2-8	198	3.5 (142)	92	2,1	10;119;125	N	
Sex ratio: Hatchlings (F / Tot) (N)	53-94 (27.697)	184; 195	N		N		89-96 (5514)	183	N	
Sex ratio: Immatures (F / Tot) (N)	N		N		N		N		N	
Sex ratio: Adults (F / Tot) (N)	N		N		N		N		N	
Min adult size, CCL or SCL (cm)	82 CCL	T 4.1	125 CCL	198	90 CCL	188; T4.1	82 CCL	T4.1	62 CCL	T 4.1
Age at maturity (yrs)	Y	45; 46	N		Y	48	Y	53	Y	54

Clutch size (n eggs) (N)	127	128	87,7	122	120,1	101	140; 143	70; 120	100,1	129
Emergence success (hatchlings/egg) (N)	73,1% & 63,2%; 79,9% & 67,7; 56,7% to 80,88%	70; 72; 71	66.0%	198	84,40%	101	61% &51,7%	70	80,2% & 78,7%	129
Nesting success (Nests/ Tot emergence tracks) (N)					54%	101				
Trends										
Recent trends (last 20 yrs) at nesting sites (range of years)	up	131	up (1988-2017)	198	stable	101;134	up	135;124	up	129;136
Recent trends (last 20 yrs) at foraging grounds (range of years)	N		N		up	189	N		N	
Oldest documented abundance: nests/yr (range of years)										
Published studies										
Growth rates	Y	45; 46	N		Y	47; 48; 49; 50; 51; 84	Y	52; 53	Y	54
Genetics	Y	55;56; 57; 58;197, 200	Y	59; 60; 61	Y	62; 63	Y	64; 65;197	Y	66

Stocks defined by genetic markers	Y	55; 56	Y	59	Y	62	Y	64; 67	Y	66
Remote tracking (satellite or other)	Y	76; 77; 78; 79; 80; 82;194	Y	2	Y	75, 202	Y	81	Y	82
Survival rates	N		N		Y	84	N		N	
Population dynamics	N		N		Y	84; 49; 189	Y	52	N	
Foraging ecology (diet or isotopes)	Y	105; 106; 107; 87; 108; 109; 110; 76; 94	Y	87; 94	Y	50; 85; 86; 87; 88; 89; 90; 91; 30; 93; 94; 95; 96; 97; 98; 99; 100	Y	53; 103; 104	Y	111; 112; 113
Capture-Mark-Re-capture	Y	121	Y	2; 122, 198	Y	84; 47; 49; 50; 24; 115; 116; 117;	Y	117; 52; 104; 118; 119; 120;187	Y	37
Threats										
Bycatch: presence of small scale / arti-sanal fisheries?	Y (SN; ST; PN; OTH (cor-rals))	24; 25; 31; 36; 40; 41	Y (SN; OTH (corrals))	24; 25; 31; 36; 39; 40	Y (SN; ST; PN; OTH (corrals))	24; 25; 28; 29; 30; 31; 36; 40; 41	Y (SN; PN; OTH (corrals))	24; 25; 31; 36; 40; 41	Y (SN; OTH (corrals))	36; 38; 40

Bycatch: presence of industrial fisheries?	Y (PLL; SN; DN; ST)	5; 6; 7; 8; 9; 11; 12; 13; 14; 15; 16; 18; 19; 20; 21; 22; 27; 32; 35; 43	Y (PLL; SN; DN; ST)	5; 6; 7; 8; 9; 11; 13; 14; 16; 19; 20; 21; 22; 23; 26; 27; 32; 35; 43, 199	Y (PLL; SN; DN; ST)	8; 9; 11; 19; 21; 26; 27; 32; 43	Y (SN)	43	Y (PLL; ST)	5; 8; 9; 11; 13; 19; 26; 32; 35; 43
Bycatch: quantified?	Y (PLL, DN)	6; 8; 11; 13; 14; 15; 16; 18; 19; 21; 24; 27	Y (PLL; DN)	6; 8; 11; 13; 14; 16; 19; 21; 24; 27, 199	Y (PLL; OTH (pound net)	8; 19; 21; 24; 27;189	Y	24	Y (PLL)	8; 19
Take. Intentional killing or exploitation of turtles	N	T4.3	N	T4.3	N	T4.3	N	T4.3	N	T4.3
Take. Egg poaching	Y	126; 127	N		Y	126	Y	126; 125	Y	126;129
Coastal Development. Nesting habitat degradation	Y	130; 131; 132	Y	133, 198	Y	130; 134	Y	130; 135	Y	130; 136
Coastal Development. Photopollution	Y	130; 131; 137; 138; 139	Y	139	Y	130; 134; 139	Y	135; 137	Y	136; 139; 140
Coastal Development. Boat strikes	N		N		N		N		N	
Egg predation	Y	141; 142; 143; 144	N		Y	145	Y	141; 144	Y	143; 144

Pollution (debris, chemical)	Y	42; 146, 201	Y	42, 198, 201	Y	42; 147; 148; 149; 150; 151, 201	Y	201	Y	193, 201
Pathogens	Y	181; 182	N		Y	152; 153; 154; 155; 156; 157; 158; 159; 160; 161; 162; 163; 164; 165; 166; 167; 168; 169; 170; 171; 172; 173; 174; 175; 176; 177; 178; 179; 180; 47	Y	181	Y	181
Climate change	Y	184; 185	N		N		Y	183; 196	N	
Foraging habitat degradation	N		N		Y	97; 186	N		N	
Other	Y	44	Y	44	Y	44	N		Y	44
Long-term projects (>5yrs)										
Monitoring at nesting sites (period: range of years)	Y (1982-ongoing)	3;128	Y (1982-ongoing)	3;122	Y (1982-ongoing)	3;92;101	Y (1982-ongoing)	3;124	Y (1982-ongoing)	3;129

Number of index nesting sites	6	see T2	2	see T2	2	see T2	5	see T2	3	see T2
Monitoring at foraging sites (period: range of years)	2	T4.4; T4.7	1	T4.9	8	84; 189; T4.2; T4.3; T4.4; T4.5; T4.6; T4.8; T4.10; T4.11; T4.14	2	T4.6	1	T4.4
Conservation										
Protection under national law	Y	190	Y	190	Y	190	Y	190	Y	190
Number of protected nesting sites (habitat preservation) (% nests)	100%	190	100%	190	100%	190	100%	190	100%	190
Number of Marine Areas with mitigation of threats	0		0		0		0		0	
N of long-term conservation projects (period: range of years)	>1 (1982-ongoing)	126; T4.1; T4.12	>1 (1982-ongoing)	126; T4.1; T4.9	>1 (1981-ongoing)	126;188;T4.1	>1 (1982-ongoing)	126; T4.1; T4.6	>1 (1982-ongoing)	126;T4.1
In-situ nest protection (eg cages)	Y	126	Y	126	N		Y	126	Y	126

Hatcheries	Y	126	Y	122	N		Y	126	Y	126
Head-starting	N		N		N		N		N	
By-catch: fishing gear modifications (eg, TED, circle hooks)	Y	21	Y	21	N		N		N	
By-catch: onboard best practices	N		N		N		N		N	
By-catch: spatio-temporal closures/re-duction	N		N		N		N		Y	38
Other										
* 4 of these 5 areas are considered priority nesting beaches in Brazil. Eventhough they are "mi-nor sites" using this classification they are regular nesting areas.										
** low density green turtle nesting beaches, the 3 main nesting ar-eas of this RMU are located in the oceanic islands										

Table 2. Nesting sites

RMU / Nesting beach name	Index site	Nests/yr: recent average (range of years)	Crawls/yr: recent average (range of years)	Western limit		Eastern limit		Central point		Length (km)	% Monitored	Reference #	Monitoring Level (1-2)	Monitoring Protocol (A-F)
CC-SW ATL				Long	Lat	Long	Lat	Long	Lat					
Farol	Y	776 (2010/2011 - 2016/2017)		-41,0933	-21,84628	-40,99783	-21,84628			31	100	#190 #184	1	
Atafona	N	1134 (2010/2011 - 2016/2017)		-40,99778	-21,31200	-40,96000	-21,31200			75	100	#190 #184	1	
Vitoria	N	22 (2010/2011 - 2016/2017)		-40,2197	-20,05600	-40,19200	-20,05600			26	100	#190 #184	1	
Comboios	Y	717 (2010/2011 - 2016/2017)		-39,9546	-19,61201	-39,79700	-19,61201			37	100	#190 #184	1	
Povoação	Y	436 (2010/2011 - 2016/2017)		-39,797	-19,53032	-39,75867	-19,53032			10	100	#190 #184	1	
Monsaras	N	454 (2010/2011 - 2016/2017)		-39,7587	-19,30945	-39,69172	-19,30945			29	100	#190 #184	1	

Pontal do Ipiranga	N	281 (2010/2011 - 2015/2016)		-39,6917	-19,02656	-39,72897	-19,02656			28	100	#190 #184	1	
Guriri	N	258 (2010/2011 - 2016/2017)		-39,729	-18,58339	-39,73157	-18,58339			55	100	#190 #184	1	
Itapuan	N	316 (2010/2011 - 2016/2017)		-38,3879	-12,86355	-38,25852	-12,86355			20	100	#190 #184	1	
Interlagos	Y	697 (2010/2011 - 2016/2017)		-38,2585	-12,76501	-38,17058	-12,76501			16	100	#190 #184	1	
Berta	N	281 (2010/2011 - 2016/2017)		-38,1706	-12,69677	-38,11299	-12,69677			11	100	#190 #184	1	
Guarajuba	Y	751 (2010/2011 - 2016/2017)		-38,113	-12,55049	-37,99060	-12,55049			16	100	#190 #184	1	
Praia do Forte	Y	715 (2010/2011 - 2016/2017)		-37,9906	-12,48218	-37,94832	-12,48218			14	100	#190 #184	1	
Sauipe	N	817 (2010/2011 - 2016/2017)		-37,9483	-12,06547	-37,66891	-12,06547			56	100	#190 #184	1	
Conde	N	451 (2010/2011 - 2016/2017)		-37,6689	-11,53528	-37,40609	-11,53528			67	100	#190 #184	1	
Coqueiros	N	64 (2010/2011 - 2016/2017)		-37,4061	-11,48089	-37,36747	-11,48089			6	100	#190 #184	1	

Mangue Seco	N	43 (2010/2011 - 2016/2017)		-37,3675	-11,45500	-37,35800	-11,45500			8	100	#190 #184	1	
Abais	N	261 (2010/2011 - 2016/2017)		-37,314	-11,17400	-37,16700	-11,17400			36	100	#190 #184	1	
Rato	N	75 (2010/2011 - 2016/2017)		-36,9642	-10,70920	-36,81259	-10,70920			26	100	#190 #184	1	
Pirambu	N	129 (2010/2011 - 2016/2017)		-36,8126	-10,66098	-36,74069	-10,66098			12	100	#190 #184	1	
Santa Isabel	N	79 (2010/2011 - 2016/2017)		-36,7407	-10,60659076	-36,64023856	-10,60659076			13	100	#190 #184	1	
Ponta dos Mangues	N	220 (2010/2011 - 2016/2017)		-36,6402	-10,49800	-36,39900	-10,49800			32	100	#190 #184	1	
Pipa	N	4 (2010/2011 - 2016/2017)		-35,0325	-5,88013	-35,15920	-5,88013			42	100	#190 #184	1	
Fernando de Noronha	N	0 (2010/2011 - 2016/2017)						-3,870085	-32,437469		100	#190 #184	1	
Trindade	N	0 (2010/2011 - 2016/2017)						-20,509099	-29,32494		100	#190 #184	1	

EI- SW ATL													
Farol	N	4 (2010/2011 - 2016/2017)		-41,0933	-21,84628	-40,99783	-21,84628			31	100	#190 #183	1	
Atafona	N	4 (2010/2011 - 2016/2017)		-40,9978	-21,31200	-40,96000	-21,31200			75	100	#190 #183	1	
Vitoria	N	0 (2010/2011 - 2016/2017)		-40,2197	-20,05600	-40,19200	-20,05600			26	100	#190 #183	1	
Comboios	N	2 (2010/2011 - 2016/2017)		-39,9546	-19,61201	-39,79700	-19,61201			37	100	#190 #183	1	
Povoação	N	1 (2010/2011 - 2016/2017)		-39,797	-19,53032	-39,75867	-19,53032			10	100	#190 #183	1	
Monsaras	N	1 (2010/2011 - 2016/2017)		-39,7587	-19,30945	-39,69172	-19,30945			29	100	#190 #183	1	
Pontal do Ipiranga	N	1 (2010/2011 - 2015/2016)		-39,6917	-19,02656	-39,72897	-19,02656			28	100	#190 #183	1	
Guriri	N	5 (2010/2011 - 2016/2017)		-39,729	-18,58339	-39,73157	-18,58339			55	100	#190 #183	1	
Itapuan	N	63 (2010/2011 - 2016/2017)		-38,3879	-12,86355	-38,25852	-12,86355			20	100	#190 #183	1	

Interlagos	Y	329 (2010/2011 - 2016/2017)		-38,2585	-12,76501	-38,17058	-12,76501			16	100	#190 #183	1	
Berta	Y	305 (2010/2011 - 2016/2017)		-38,1706	-12,69677	-38,11299	-12,69677			11	100	#190 #183	1	
Guarajuba	Y	183 (2010/2011 - 2016/2017)		-38,113	-12,55049	-37,99060	-12,55049			16	100	#190 #183	1	
Praia do Forte	Y	176 (2010/2011 - 2016/2017)		-37,9906	-12,48218	-37,94832	-12,48218			14	100	#190 #183	1	
Sauipe	N	331 (2010/2011 - 2016/2017)		-37,9483	-12,06547	-37,66891	-12,06547			56	100	#190 #183	1	
Conde	N	68 (2010/2011 - 2016/2017)		-37,6689	-11,53528	-37,40609	-11,53528			67	100	#190 #183	1	
Coqueiros	N	12 (2010/2011 - 2016/2017)		-37,4061	-11,48089	-37,36747	-11,48089			6	100	#190 #183	1	
Mangue Seco	N	11 (2010/2011 - 2016/2017)		-37,3675	-11,45500	-37,35800	-11,45500			8	100	#190 #183	1	
Abais	N	36 (2010/2011 - 2016/2017)		-37,314	-11,17400	-37,16700	-11,17400			36	100	#190 #183	1	
Rato	N	14 (2010/2011 - 2016/2017)		-36,9642	-10,70920	-36,81259	-10,70920			26	100	#190 #183	1	

Pirambu	N	9 (2010/2011 - 2016/2017)		-36,8126	-10,66098	-36,74069	-10,66098			12	100	#190 #183	1	
Santa Isabel	N	11 (2010/2011 - 2016/2017)		-36,7407	-10,60659076	-36,64023856	-10,60659076			13	100	#190 #183	1	
Ponta dos Mangues	N	25 (2010/2011 - 2016/2017)		-36,6402	-10,49800	-36,39900	-10,49800			32	100	#190 #183	1	
Pipa	Y	879 (2010/2011 - 2016/2017)		-35,0325	-5,88013	-35,15920	-5,88013			42	100	#190 #183	1	
Fernando de Noronha	N	0 (2010/2011 - 2016/2017)						-3,870085	-32,437469		100	#190 #183	1	
Trindade	N	0 (2010/2011 - 2016/2017)						-20,509099	-29,32494		100	#190 #183	1	
LO- W ATL														
Farol	N	1 (2010/2011 - 2016/2017)		-41,0933	-21,84628	-40,99783	-21,84628			31	100	#190 #136	1	
Atafona	N	1 (2010/2011 - 2016/2017)		-40,9978	-21,31200	-40,96000	-21,31200			75	100	#190 #136	1	

Vitoria	N	0 (2010/2011 - 2016/2017)		-40,2197	-20,05600	-40,19200	-20,05600			26	100	#190 #136	1	
Comboios	N	8 (2010/2011 - 2016/2017)		-39,9546	-19,61201	-39,79700	-19,61201			37	100	#190 #136	1	
Povoação	N	13 (2010/2011 - 2016/2017)		-39,797	-19,53032	-39,75867	-19,53032			10	100	#190 #136	1	
Monsaras	N	11 (2010/2011 - 2016/2017)		-39,7587	-19,30945	-39,69172	-19,30945			29	100	#190 #136	1	
Pontal do Ipiranga	N	28 (2010/2011 - 2015/2016)		-39,6917	-19,02656	-39,72897	-19,02656			28	100	#190 #136	1	
Guriri	N	20 (2010/2011 - 2016/2017)		-39,729	-18,58339	-39,73157	-18,58339			55	100	#190 #136	1	
Itapuan	N	20 (2010/2011 - 2016/2017)		-38,3879	-12,86355	-38,25852	-12,86355			20	100	#190 #136	1	
Interlagos	N	50 (2010/2011 - 2016/2017)		-38,2585	-12,76501	-38,17058	-12,76501			16	100	#190 #136	1	
Berta	N	7 (2010/2011 - 2016/2017)		-38,1706	-12,69677	-38,11299	-12,69677			11	100	#190 #136	1	
Guarajuba	N	70 (2010/2011 - 2016/2017)		-38,113	-12,55049	-37,99060	-12,55049			16	100	#190 #136	1	

Praia do Forte	N	72 (2010/2011 - 2016/2017)		-37,99906	-12,48218	-37,94832	-12,48218			14	100	#190 #136	1	
Sauipe	N	494 (2010/2011 - 2016/2017)		-37,94883	-12,06547	-37,66891	-12,06547			56	100	#190 #136	1	
Conde	N	700 (2010/2011 - 2016/2017)		-37,66889	-11,53528	-37,40609	-11,53528			67	100	#190 #136	1	
Coqueiros	Y	402 (2010/2011 - 2016/2017)		-37,40661	-11,48089	-37,36747	-11,48089			6	100	#190 #136	1	
Mangue Seco	Y	584 (2010/2011 - 2016/2017)		-37,36675	-11,45500	-37,35800	-11,45500			8	100	#190 #136	1	
Abais	N	1927 (2010/2011 - 2016/2017)		-37,314	-11,17400	-37,16700	-11,17400			36	100	#190 #136	1	
Rato	N	600 (2010/2011 - 2016/2017)		-36,96642	-10,70920	-36,81259	-10,70920			26	100	#190 #136	1	
Pirambu	Y	1384 (2010/2011 - 2016/2017)		-36,81126	-10,66098	-36,74069	-10,66098			12	100	#190 #136	1	
Santa Isabel	N	694 (2010/2011 - 2016/2017)		-36,74007	-10,60659076	-36,64023856	-10,60659076			13	100	#190 #136	1	
Ponta dos Mangues	N	2123 (2010/2011 - 2016/2017)		-36,64002	-10,49800	-36,39900	-10,49800			32	100	#190 #136	1	

Pipa	N	2 (2010/2011 - 2016/2017)		-35,0325	-5,88013	-35,15920	-5,88013			42	100	#190 #136	1	
Fernando de Noronha	N	0 (2010/2011 - 2016/2017)						-3,870085	-32,437469		100	#190 #136	1	
Trindade	N	0 (2010/2011 - 2016/2017)						-20,509099	-29,32494		100	#190 #136	1	
DC- SW ATL														
Farol	N	0 (2010/2011 - 2016/2017)		-41,0933	-21,84628	-40,99783	-21,84628			31	100	#190 #133	1	
Atafona	N	1 (2010/2011 - 2016/2017)		-40,9978	-21,31200	-40,96000	-21,31200			75	100	#190 #133	1	
Vitoria	N	0 (2010/2011 - 2016/2017)		-40,2197	-20,05600	-40,19200	-20,05600			26	100	#190 #133	1	
Comboios	Y	57 (2010/2011 - 2016/2017)		-39,9546	-19,61201	-39,79700	-19,61201			37	100	#190 #133	1	
Povoação	Y	18 (2010/2011 - 2016/2017)		-39,797	-19,53032	-39,75867	-19,53032			10	100	#190 #133	1	

Monsaras	N	26 (2010/2011 - 2016/2017)		-39,7587	-19,30945	-39,69172	-19,30945			29	100	#190 #133	1	
Pontal do Ipiranga	N	10(2010/2011 - 2015/2016)		-39,6917	-19,02656	-39,72897	-19,02656			28	100	#190 #133	1	
Guriri	N	7 (2010/2011 - 2016/2017)		-39,729	-18,58339	-39,73157	-18,58339			55	100	#190 #133	1	
Itapuan	N	0 (2010/2011 - 2016/2017)		-38,3879	-12,86355	-38,25852	-12,86355			20	100	#190 #133	1	
Interlagos	N	0 (2010/2011 - 2016/2017)		-38,2585	-12,76501	-38,17058	-12,76501			16	100	#190 #133	1	
Berta	N	0 (2010/2011 - 2016/2017)		-38,1706	-12,69677	-38,11299	-12,69677			11	100	#190 #133	1	
Guarajuba	N	0 (2010/2011 - 2016/2017)		-38,113	-12,55049	-37,99060	-12,55049			16	100	#190 #133	1	
Praia do Forte	N	0 (2010/2011 - 2016/2017)		-37,9906	-12,48218	-37,94832	-12,48218			14	100	#190 #133	1	
Sauipe	N	0 (2010/2011 - 2016/2017)		-37,9483	-12,06547	-37,66891	-12,06547			56	100	#190 #133	1	
Conde	N	0 (2010/2011 - 2016/2017)		-37,6689	-11,53528	-37,40609	-11,53528			67	100	#190 #133	1	

Coqueiros	N	0 (2010/2011 - 2016/2017)		-37,4061	-11,48089	-37,36747	-11,48089			6	100	#190 #133	1	
Mangue Seco	N	0 (2010/2011 - 2016/2017)		-37,3675	-11,45500	-37,35800	-11,45500			8	100	#190 #133	1	
Abais	N	0 (2010/2011 - 2016/2017)		-37,314	-11,17400	-37,16700	-11,17400			36	100	#190 #133	1	
Rato	N	0 (2010/2011 - 2016/2017)		-36,9642	-10,70920	-36,81259	-10,70920			26	100	#190 #133	1	
Pirambu	N	0 (2010/2011 - 2016/2017)		-36,8126	-10,66098	-36,74069	-10,66098			12	100	#190 #133	1	
Santa Isabel	N	0 (2010/2011 - 2016/2017)		-36,7407	-10,60659076	-36,64023856	-10,60659076			13	100	#190 #133	1	
Ponta dos Mangues	N	0 (2010/2011 - 2016/2017)		-36,6402	-10,49800	-36,39900	-10,49800			32	100	#190 #133	1	
Pipa	N	0 (2010/2011 - 2016/2017)		-35,0325	-5,88013	-35,15920	-5,88013			42	100	#190 #133	1	
Fernando de Noronha	N	0 (2010/2011 - 2016/2017)						-3,870085	-32,437469		100	#190 #133	1	
Trindade	N	0 (2010/2011 - 2016/2017)						-20,509099	-29,32494		100	#190 #133	1	

CM - SW ATL														
Farol	N	0 (2010/2011 - 2016/2017)		-41,0933	-21,84628	-40,99783	-21,84628			31	100	#190 #134	1	
Atafona	N	1 (2010/2011 - 2016/2017)		-40,9978	-21,31200	-40,96000	-21,31200			75	100	#190 #134	1	
Vitoria	N	0 (2010/2011 - 2016/2017)		-40,2197	-20,05600	-40,19200	-20,05600			26	100	#190 #134	1	
Comboios	N	0 (2010/2011 - 2016/2017)		-39,9546	-19,61201	-39,79700	-19,61201			37	100	#190 #134	1	
Povoação	N	0 (2010/2011 - 2016/2017)		-39,797	-19,53032	-39,75867	-19,53032			10	100	#190 #134	1	
Monsaras	N	0 (2010/2011 - 2016/2017)		-39,7587	-19,30945	-39,69172	-19,30945			29	100	#190 #134	1	
Pontal do Ipiranga	N	0 (2010/2011 - 2015/2016)		-39,6917	-19,02656	-39,72897	-19,02656			28	100	#190 #134	1	
Guriri	N	0 (2010/2011 - 2016/2017)		-39,729	-18,58339	-39,73157	-18,58339			55	100	#190 #134	1	

Itapuan	N	2 (2010/2011 - 2016/2017)		-38,3879	-12,86355	-38,25852	-12,86355			20	100	#190 #134	1	
Interlagos	N	12 (2010/2011 - 2016/2017)		-38,2585	-12,76501	-38,17058	-12,76501			16	100	#190 #134	1	
Berta	N	3 (2010/2011 - 2016/2017)		-38,1706	-12,69677	-38,11299	-12,69677			11	100	#190 #134	1	
Guarajuba	N	17 (2010/2011 - 2016/2017)		-38,113	-12,55049	-37,99060	-12,55049			16	100	#190 #134	1	
Praia do Forte	N	24 (2010/2011 - 2016/2017)		-37,9906	-12,48218	-37,94832	-12,48218			14	100	#190 #134	1	
Sauipe	N	25 (2010/2011 - 2016/2017)		-37,9483	-12,06547	-37,66891	-12,06547			56	100	#190 #134	1	
Conde	N	32 (2010/2011 - 2016/2017)		-37,6689	-11,53528	-37,40609	-11,53528			67	100	#190 #134	1	
Coqueiros	N	1 (2010/2011 - 2016/2017)		-37,4061	-11,48089	-37,36747	-11,48089			6	100	#190 #134	1	
Mangue Seco	N	1 (2010/2011 - 2016/2017)		-37,3675	-11,45500	-37,35800	-11,45500			8	100	#190 #134	1	
Abais	N	4 (2010/2011 - 2016/2017)		-37,314	-11,17400	-37,16700	-11,17400			36	100	#190 #134	1	

Rato	N	2 (2010/2011 - 2016/2017)		-36,96 42	-10,709 20	-36,8125 9	-10,7092 0			26	100	#190 #134	1	
Pirambu	N	1 (2010/2011 - 2016/2017)		-36,81 26	-10,660 98	-36,7406 9	-10,6609 8			12	100	#190 #134	1	
Santa Isabel	N	1 (2010/2011 - 2016/2017)		-36,74 07	-10,606 59076	-36,6402 3856	-10,6065 9076			13	100	#190 #134	1	
Ponta dos Mangues	N	6 (2010/2011 - 2016/2017)		-36,64 02	-10,498 00	-36,3990 0	-10,4980 0			32	100	#190 #134	1	
Pipa	N	15 (2010/2011 - 2016/2017)		-35,03 25	-5,8801 3	-35,1592 0	-5,88013			42	100	#190 #134	1	
Fernando de Noronha	Y	194 (2010/2011 - 2016/2017)						-3,8700 85	-32,437 469		100	#190 #134	1	
Trindade	Y	3023 (2010/2011 - 2016/2017)						-20,509 099	-29,324 94		100	#190 #134	1	

Table 3. Conventions

International Conventions	Signed	Binding	Compliance measured and reported	Species
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	Y	Y	Y	CC, CM, DC, EI, LO
Convention on the Conservation of Migratory Species of Wild Animals (CMS)	Y	Y	Y	CC, CM, DC, EI, LO
Ramsar Convention	Y	Y	Y	CC, CM, DC, EI, LO
International Convention for the Prevention of Pollution from Ships (MARPOL)	Y	Y	Y	CC, CM, DC, EI, LO
Convention on Biological Diversity (CBD)	Y	Y	Y	CC, CM, DC, EI, LO
United Nations Convention on the Law of the Sea (CONVEMAR)	Y	Y	Y	CC, CM, DC, EI, LO
Inter-American Convention for the Protection and Conservation of Sea Turtle (IAC)	Y	Y	Y	CC, CM, DC, EI, LO

Table 4. Projects and Databases

#	RMU	Country	Region / Location	Project Name or descriptive title	Keywords	Start date	End date	Leading organisation	Public/ Private	Collaboration with	Reports / Information material	Current Sponsors	Primary Contact (name and Email)	Other Contacts (name and Email)	Database available	Name of Database	Names of sites included (matching Table B, if appropriate)	Beginning of the time series	End of the time series	Track information	Nest information	Flipper tagging	Tags in STTI - ACCSTR?	PIT tagging	Remote tracking	Ref #
T4.1	CM-SW ATL, CC-SW ATL, DC-SW ATL, EI-SW ATL, LO-SW ATL	Brazil	South america / Brazil	Monitoring and protection of priority nesting beaches in Brazil	nesting females; hatchlings; nests; conservation; South west Atlantic	1982	Continue	Projeto TAMAR	Private	ICMBio			Neca Marcovaldi (neca@tamar.org.br)		Y	SITAMAR	N	1982	2017	N	Y	Y		N	Y	3
T4.2	CM-SW ATL	Brazil	South america / South east Brazil, São Paulo,	Monitoring incidental capture of green sea turtles in pound nets, in Brazil	Conservation, Population dynamic; Ju-	1991	continue	Projeto TAMAR	Private	ICMBio	Silva, B. M., Bugoni, L., Almeida, B. A., Giffoni, B. B., Alvarenga, F. S., Brondizio, L. S., & Becker, J. H. (2017).		Neca Marcovaldi (neca@tamar.org.br)	Berenice Gallo (bere@tamar.org.br)	Y	SITAMAR		1991	2017	N	N	Y		N	N	24; 189

			Uba-tuba		ve-nile; Col-labo-rative re-searc h; Uba-tuba						Long-term trends in abundance of green sea tur-tles (Chelo-nia mydas) assessed by non-lethal capture rates in a coastal fishery. *Eco-logical Indicators, 7* 9, 254-264. Gallo, B. M., Macedo, S., Giffoni, B. D. B., Becker, J. H., & Barata, P. C. (2006). Sea turtle conservation in Ubatuba, southeastern Brazil, a feeding area with inci-dental cap-ture in coastal fisher-ies. Chelo-nian conser-vation and bi-ology, 5(1), 93-101.														
T4.3	CM-SW ATL, CC-SW ATL, EI-SW ATL, LO-SW ATL	Br azi l	South amer-ica / North ern Bra-zil, Al-mofal a, Ceará	Monitoring incidental capture of green sea turtles in corrals, in Brazil	Con-serva-tion, Popu-la-tional dy-namic ; Ju-ve-nile;	19 92	Co nti nu e	Projeto TA-MAR	Pri-vate	ICM-Bio			Neca Mar-covaldi (neca@ta-mar.org.br)	Eduardo Lima (edu-ardo.lim a@ta-mar.org. br)	Y	SI-TA M A R		19 92	2 0 1 7	N	N	Y		N	N	

					Collaborative research; Almofala																				
T4.4	CM-SW ATL	Brazil	South america / South east Brazil, Espírito santo	Monitoring Juvenile green turtles in the effluent discharge channel of a steel plant in Brazil	Conservation, Population Dynamic, Juvenile, effluent discharge; Espírito Santo	2000	Continue	Projeto TAMAR	Private	Arcelor Mittal Tubarão Steel Company	Torezani, E., Baptistotte, C., Mendes, S. L., & Barata, P. C. (2010). Juvenile green turtles (Chelonia mydas) in the effluent discharge channel of a steel plant, Espírito Santo, Brazil, 2000–2006. *Journal of the Marine Biological Association of the United Kingdom*, *90*(2), 233-246.		Neca Marcovaldi (neca@tamar.org.br)	Cecília Baptistotte (cecilia@tamar.org.br)	Y	SITAMAR		2000	2017	N	N	Y		N	N	

T4.5	CM-SW ATL	Brazil	South america / Northeast Brazil, Fernando de Noronha island	Capture-mark-recapture of green turtles at an isolated tropical archipelago in Brazil	Survival dynamics, Juvenile, in-water survey	1988	Continue	Projeto TAMAR	Private	ICMBio	Colman, L. P., Patrício, A. R. C., McGowan, A., Santos, A. J., Marcovaldi, M. Â., Bellini, C., & Godley, B. J. (2015). Long-term growth and survival dynamics of green turtles (Chelonia mydas) at an isolated tropical archipelago in Brazil. *Marine biology, 162*(1), 111-122.		Neca Marcovaldi (neca@tamar.org.br)	Liliana P. Colman (lilianacolman@hotmail.com)	Y	SITAMAR		1988	2017	N	N	Y		N	N	
T4.6	EI-SW ATL	Brazil	South america / Northeast Brazil, Fernando de Noronha island	Capture-mark-recapture of hawksbill turtles at an isolated tropical archipelago in Brazil	Survival dynamics, Juvenile, in-water survey	1988	Continue	Projeto TAMAR	Private	ICMBio	SANTOS, A. J. B.; BELLINI, C.; BORTOLON, L. F. W.; OUTERBRIDGE, B.; SANTOS, A. S.; MARCOVALDI, M. A. In press. Movements of Brazilian hawksbill turtles revealed by flipper tags. In: 36th ANNUAL SYMPOSIUM ON		Neca Marcovaldi (neca@tamar.org.br)	Armando Barsante (armando@tamar.org.br)	Y	SITAMAR		1988	2017	N	N	Y		N	N	

											SEA TURTLE BIOLOGY AND CONSERVATION, Lima, Perú.														
T4.7	CC-SW ATL	Brazil	South america / South Brazil, Rio Grande do Sul state	Strandings, incidental capture and habitat use by loggerhead turtles in the foraging grounds in southern Brazil	Conservation, by-catch, diet, stable isotopes, onboard observers	2003	Continue	NEMA	Private		Monteiro, D. S., Estima, S. C., Gandra, T. B., Silva, A. P., Bugoni, L., Swimmer, Y., Seminoff, J. A. & Secchi, E. R. (2016). Long-term spatial and temporal patterns of sea turtle strandings in southern Brazil. Marine Biology, 163(12), 247. ; Monteiro, D.S. 2017. Encalhes de tartarugas marinhas e uso do habitat por		Danielle Monteiro (danismonteiro@yahoo.com.br)		Y			2003	2017	Y	N	Y		N	Y	

											Caretta caretta no sul do Brasil. Tese de Doutorado (Programa de Pós-Graduação em Oceanografia Biológica), Universidade Federal do Rio Grande – FURG, Rio Grande.														
T4.8	CM-SW ATL	Brazil	South america / South Brazil, Rio Grande do Sul state	Strandings, incidental capture and habitat use by green turtles in the foraging grounds in southern Brazil	Conservation, by-catch, diet, onboard observers	2003	Continue	NEMA	Private		Monteiro, D. S., Estima, S. C., Gandra, T. B., Silva, A. P., Bugoni, L., Swimmer, Y., Seminoff, J. A. & Secchi, E. R. (2016). Long-term spatial and temporal patterns of sea turtle strandings in southern Brazil. *Marine Biology*, *163*(12), 247.		Danielle Monteiro (danismonteiro@yahoo.com.br)		Y			2003	2017	N	N	N		N	N	

T4.9	DC-SW ATL	Brazil	South america / South Brazil, Rio Grande do Sul state	Strandings, incidental capture and habitat use by leatherback turtles in the foraging grounds in southern Brazil	Conservation, bycatch, onboard observers	2003	Continue	NEMA	Private		Monteiro, D. S., Estima, S. C., Gandra, T. B., Silva, A. P., Bugoni, L., Swimmer, Y., Seminoff, J. A. & Secchi, E. R. (2016). Long-term spatial and temporal patterns of sea turtle strandings in southern Brazil. *Marine Biology, 163*(12), *247*.		Danielle Monteiro (danismonteiro@yahoo.com.br)		Y			2003	2017	N	N	N		N	N	
T4.10	CM-SW ATL	Brazil	South america / Southeast Brazil, São Paulo, Cananéia, Ilha Comprida, Iguape	Projeto Tartarugas	Conservation; Juvenile; diet; debris	2003	continue	IPeC	Private		Bahia, N.C.F. & Bondioli, A.C.V. (2010) Interação das tartarugas marinhas com a pesca artesanal de cerco-fixo em Cananéia, litoral sul de São Paulo. Biotemas, 23, 203-213; Loreto, B.O. & Bondioli, A.C.V. (2008) Epibionts associated with green sea turtles (Chelonia mydas)		Daniela Godoy (ipecpesquisas@gmail.com)		N							N	N	N	N	

											from Cananéia, Southeast Brazil. Marine Turtle Newsletter, 122, 5-8.; DIAS, R. B. ; BONDIOLI, A. C. V. ; SCHLINDWEIN, M. N. . Tourists and Sea Turtles: A First Evaluation of Tourism Potential and Risks in Cananéia, Brazil. Marine Turtle Newsletter, v. 142, p. 14-17, 2014; Daiana Proença Bezerra. Ingestão de resíduos sólidos por tartarugas marinhas (Chelonia mydas) no Complexo Estuarino Lagunar de Cananeia.. 2012. Dissertação (Mestrado em Ecologia e Conservação) - Universidade Federal do Paraná;														

											Ana Paula Maistro. ESTIMATIVAS DE IDADE E CRESCIMENTO DE TARTARUGAS MARINHAS DA REGIÃO DE CANANÉIA, SP: VALIDAÇÃO DOS MÉTODOS ESQUELETOCRONOLOGICOS DE ANÁLISE ETÁRIA. 2009. Trabalho de Conclusão de Curso. (Graduação em Ciências Biológicas) - Universidade Estadual do Norte do Paraná.																
T4.11	CMSW ATL	Brazil	South America/ Brasil, Rio de Janeiro	Projeto Aruanã	feeding;juvenile; Southwest Atlantic	2010		UFF/ Projeto Aruanã	Public	UFF/ Projeto Aruanã	published articles		Suzana Guimarães suzanamgr@hotmail.com		y		Rio de Janeiro				n	y	y	n	n	14

T4.12	CC-SW ATL	Brazil	South America/ Brazil, north Rio de Janeiro	Marine turtles monitoring - Nesting Beach Monitoring	Nesting female; south west Atlantic	2010	2017	Porto do Açu	Private/ Public	Projeto TAMAR	Annual Reports		Daniel Nascimento - daniel.nascimento@prumologistica.com.br		Y	Prumo Data Base	Barra do Furado, Farol, Farolzinho, Maria Rosa, , Iquipari, Grussaí, Atafona, Caminho das Conchas, Balneário, Chapeu do Sol, Pontal, Balneario	2010	2017	Y	Y	Y	Y	N	Y	

T4.13	CM-SW ATL	Brazil	South America/ Brasil, Paraná	Marine megafauna and environmental health	juvenile; feeding; Southwest Atlantic	2012	ongoing	UFPR - CEM	Public	UFPR /UEL	published articles		Ana Paula Frederico Rodrigues Loureiro Bracarense ana-paula@uel.br, Camila Domit cadomit@gmail.com		Y		Bahia de Paranaguá - Paraná	2010	2017	Y	N	Y	Y	N	Y	10,11,12,13

Figures

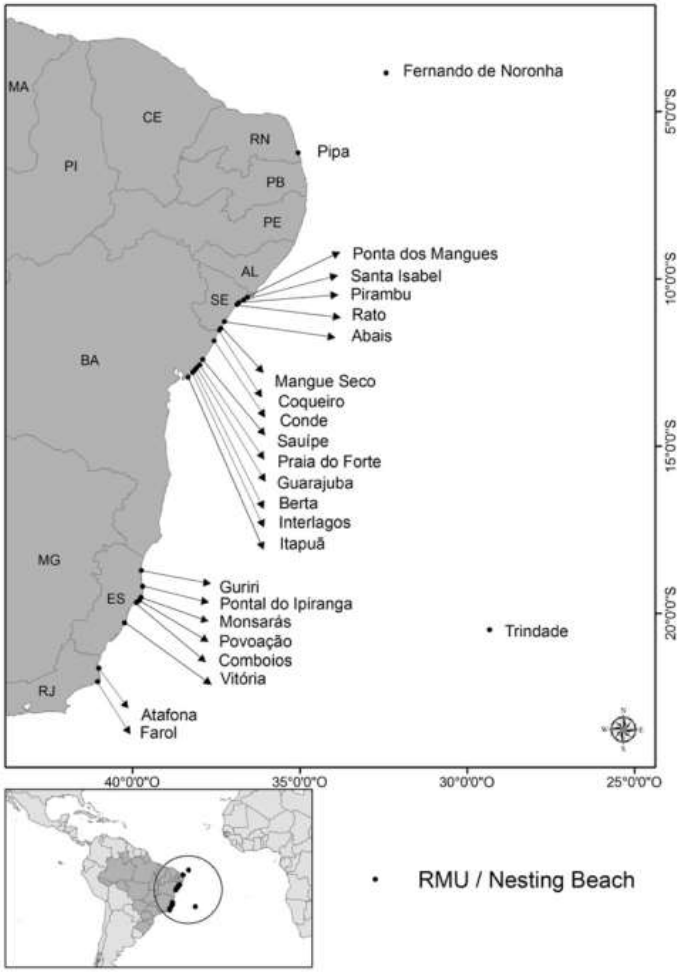

Figure 1. Brazilian Nesting Sites

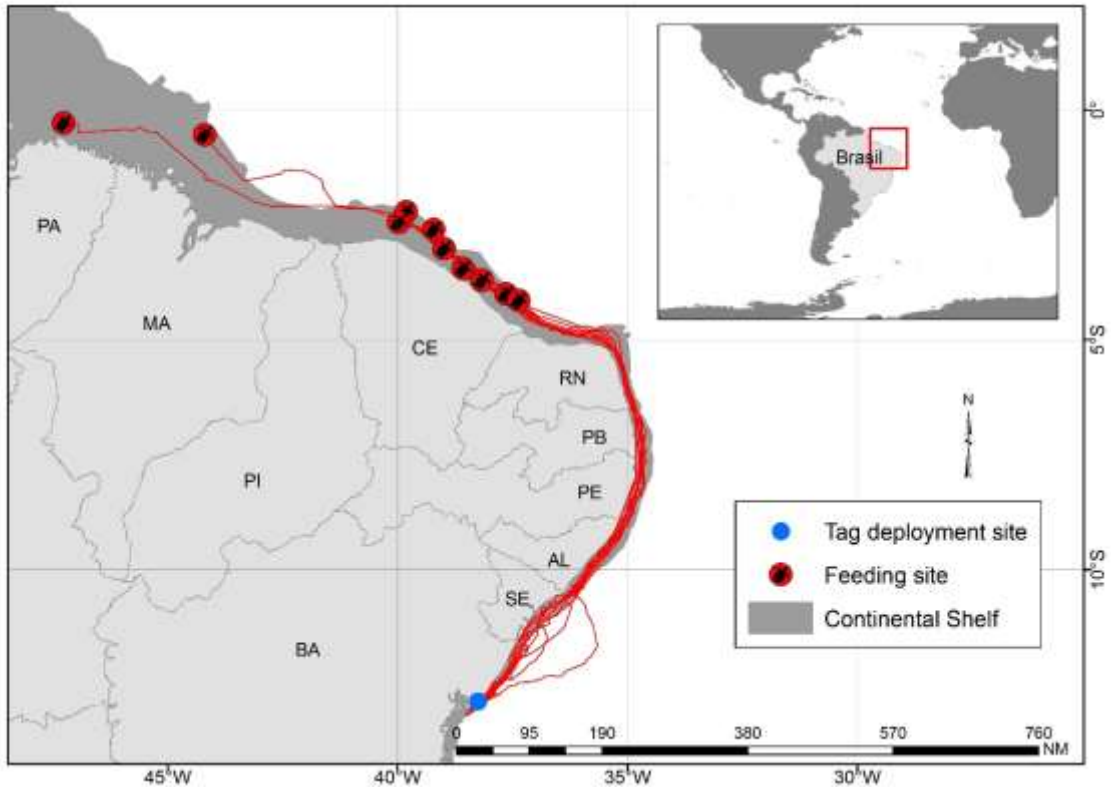

Figure 2. Post-nesting migrations and feeding grounds of 10 loggerhead female turtles satellite-tracked from nesting beaches along the northern coast of Bahia, Brazil (Table R #78)

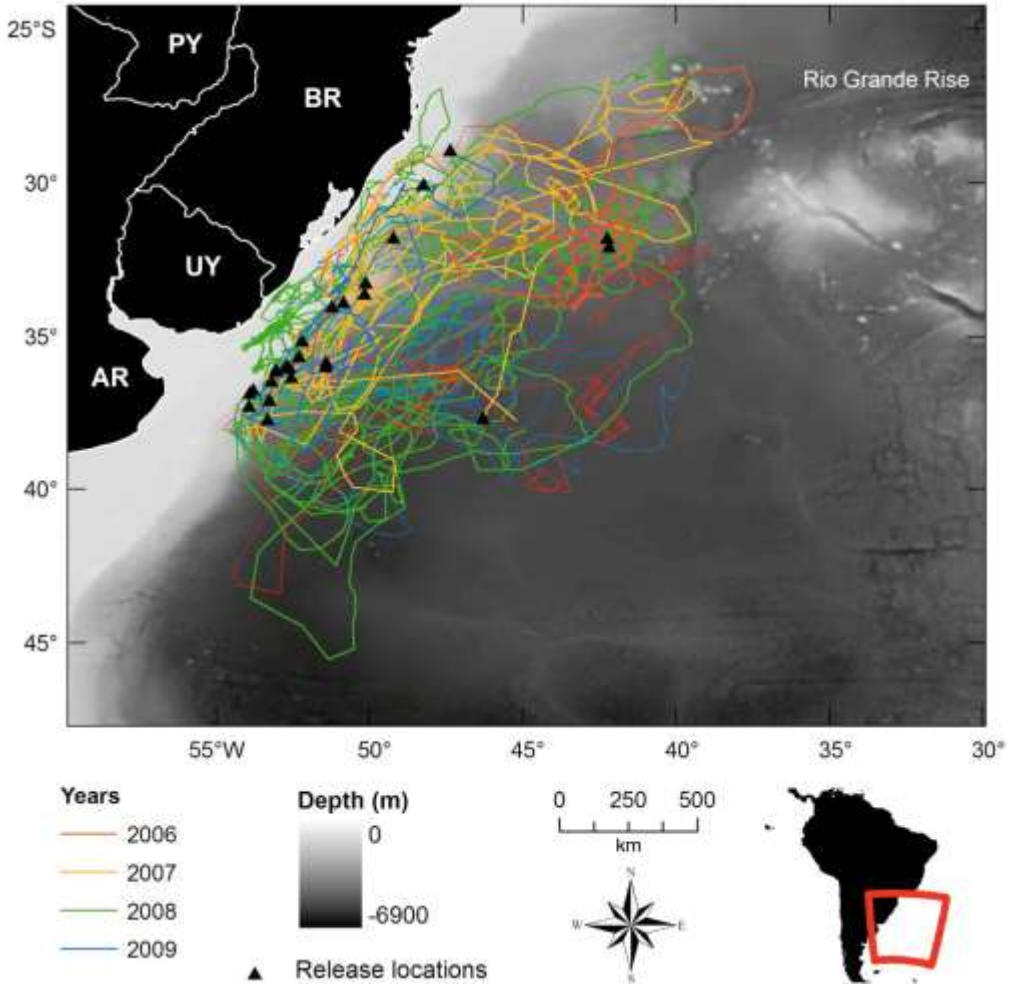

Figure 3. Movement paths of 26 immature loggerheads in the SW Atlantic Ocean between 2006 and 2010. (Table R #1)

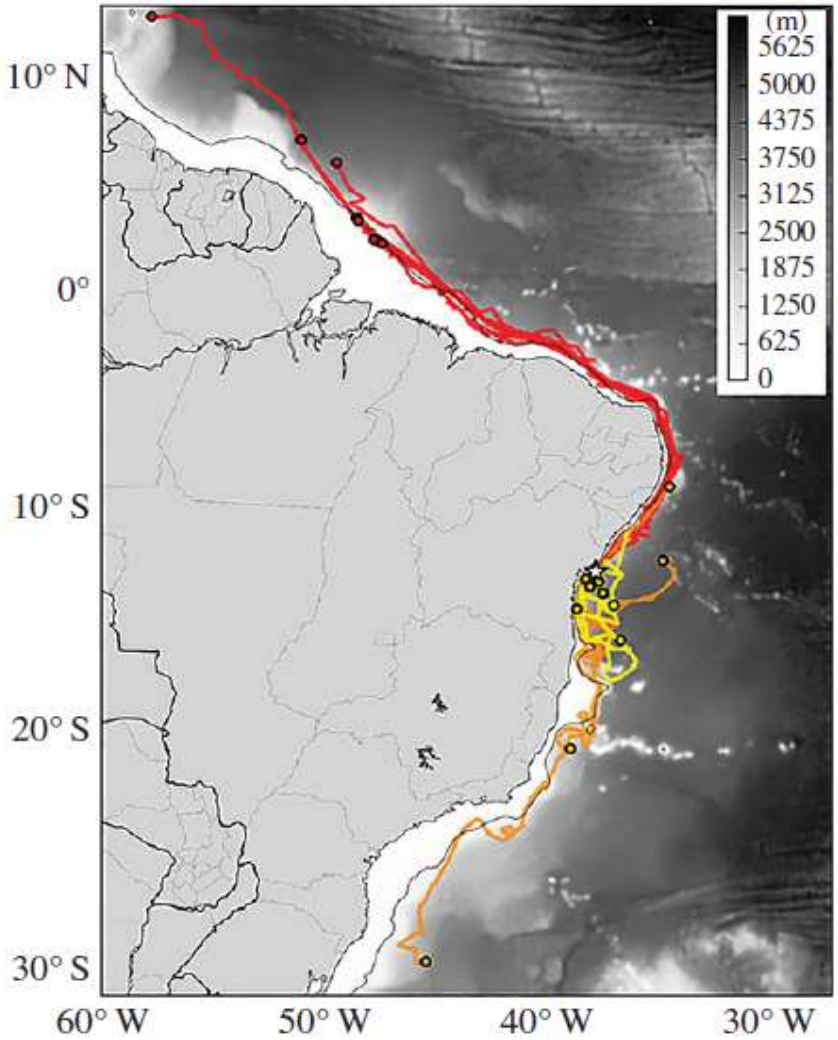

Figure 4. Satellite tracks of 19 yearling loggerhead sea turtles released from Praia do Forte, Bahia, Brazil. (Table R #82)

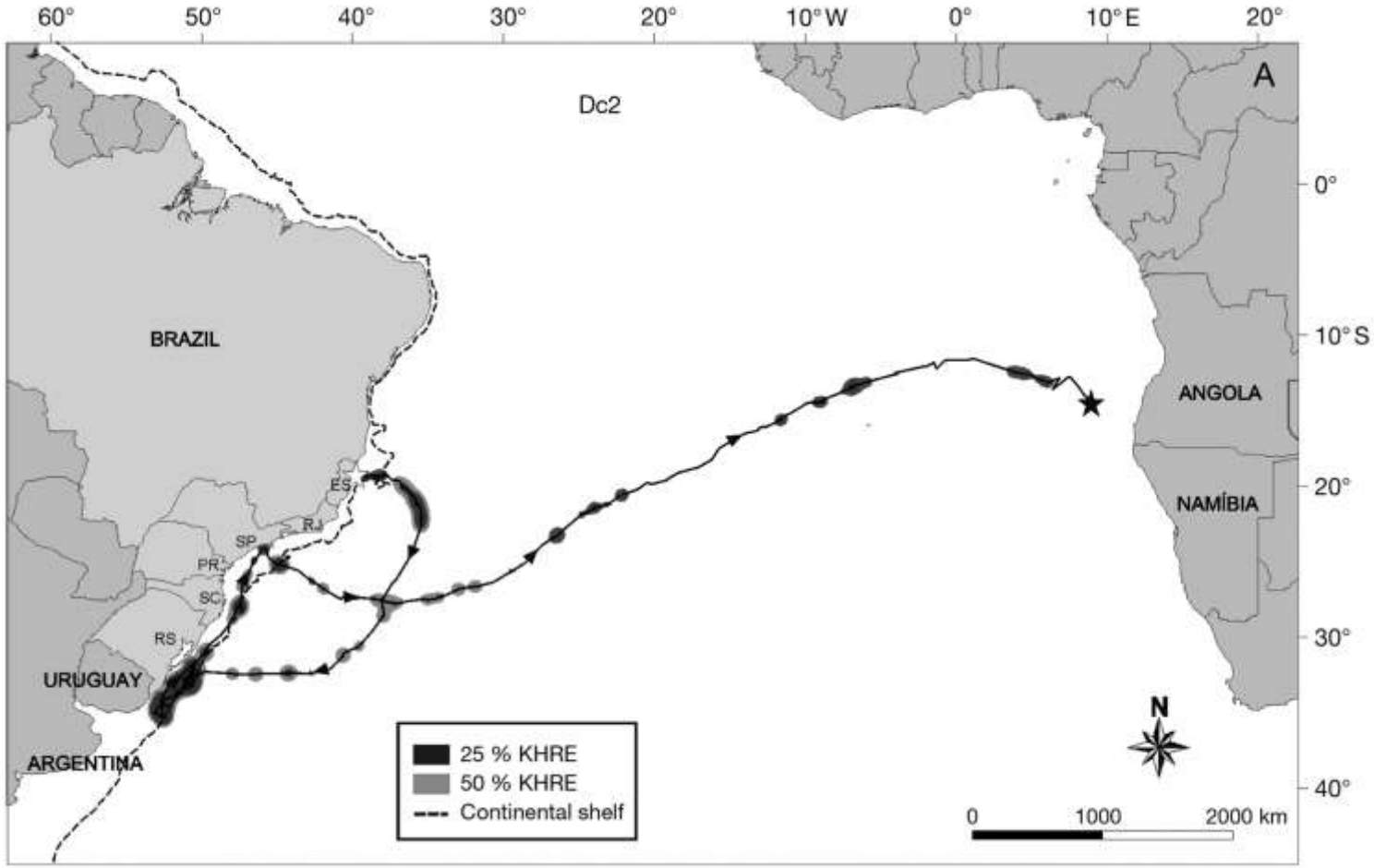

Figure 5. Kernel estimated home range utilization distributions (25 and 50% KHRE) and migratory paths of 2 postnesting female leatherbacks tracked from Espírito Santo, Brazil, and 1 female leatherback caught in a drift net off the State of São Paulo, Brazil. Open stars indicate tracking starting point; black stars show last transmission. (Table R #122)

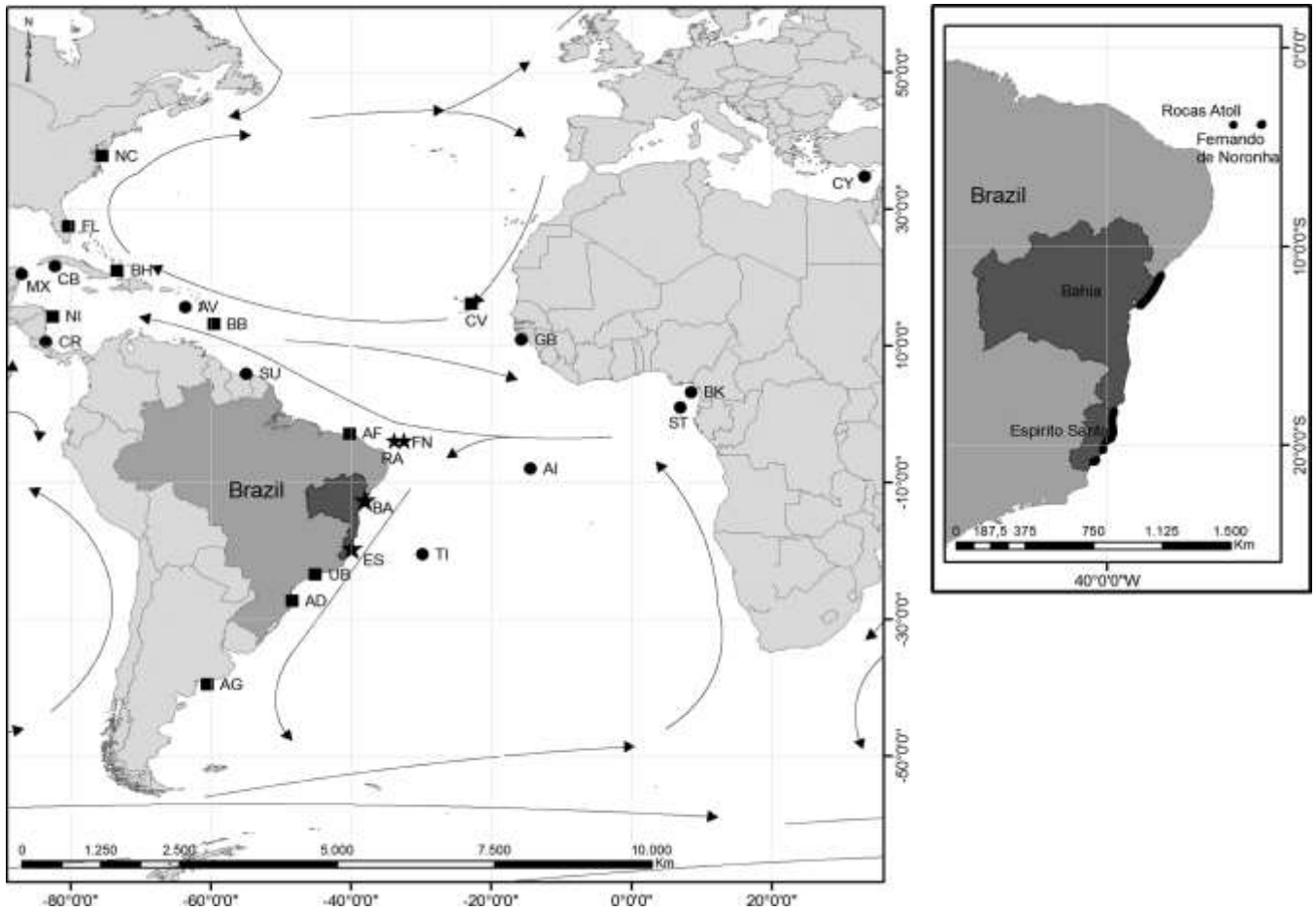

Figure 6. Map of the Rocas Atoll (RA), Fernando de Noronha (FN), Bahia (BA), and Espirito Santo (ES) study sites(symbolized by stars) with respect to general oceanic circulation patterns shown as arrows, and other C. mydas groups previously subject to genetic analysis. (Table R#192)

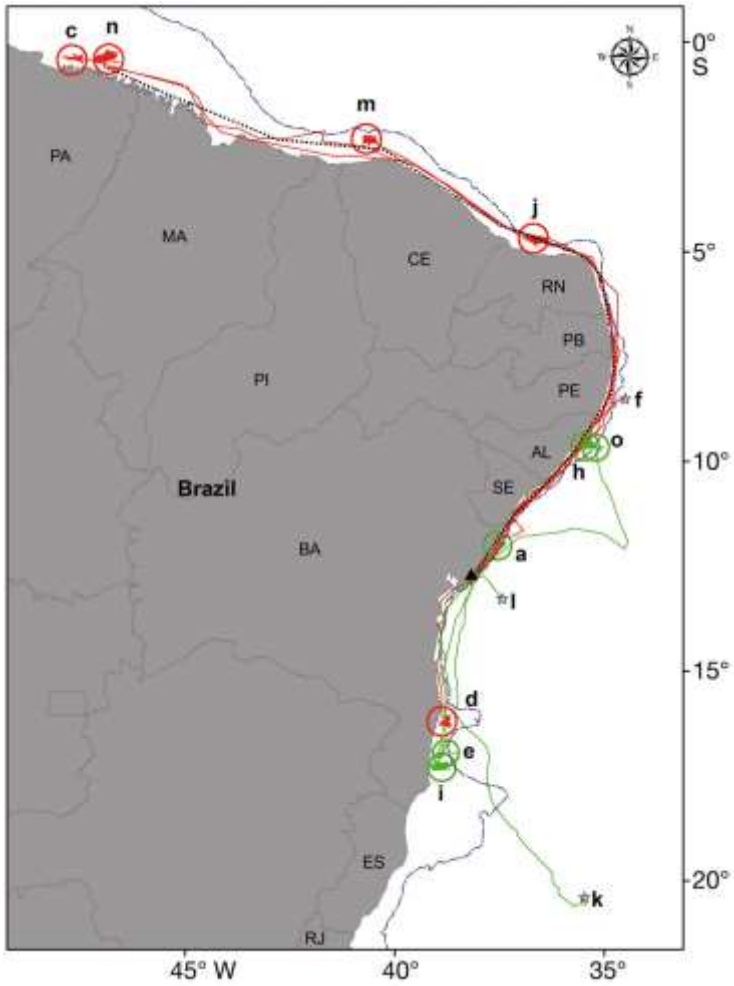

Figure 7. Migratory paths and foraging areas of hawksbill turtles satellite-tracked from nesting grounds in northern Bahia, Brazil (n = 15). Lower case letters: individual turtles; circles: foraging areas (green: hawksbills; red: hawksbill-loggerhead hybrids (Table R #81)

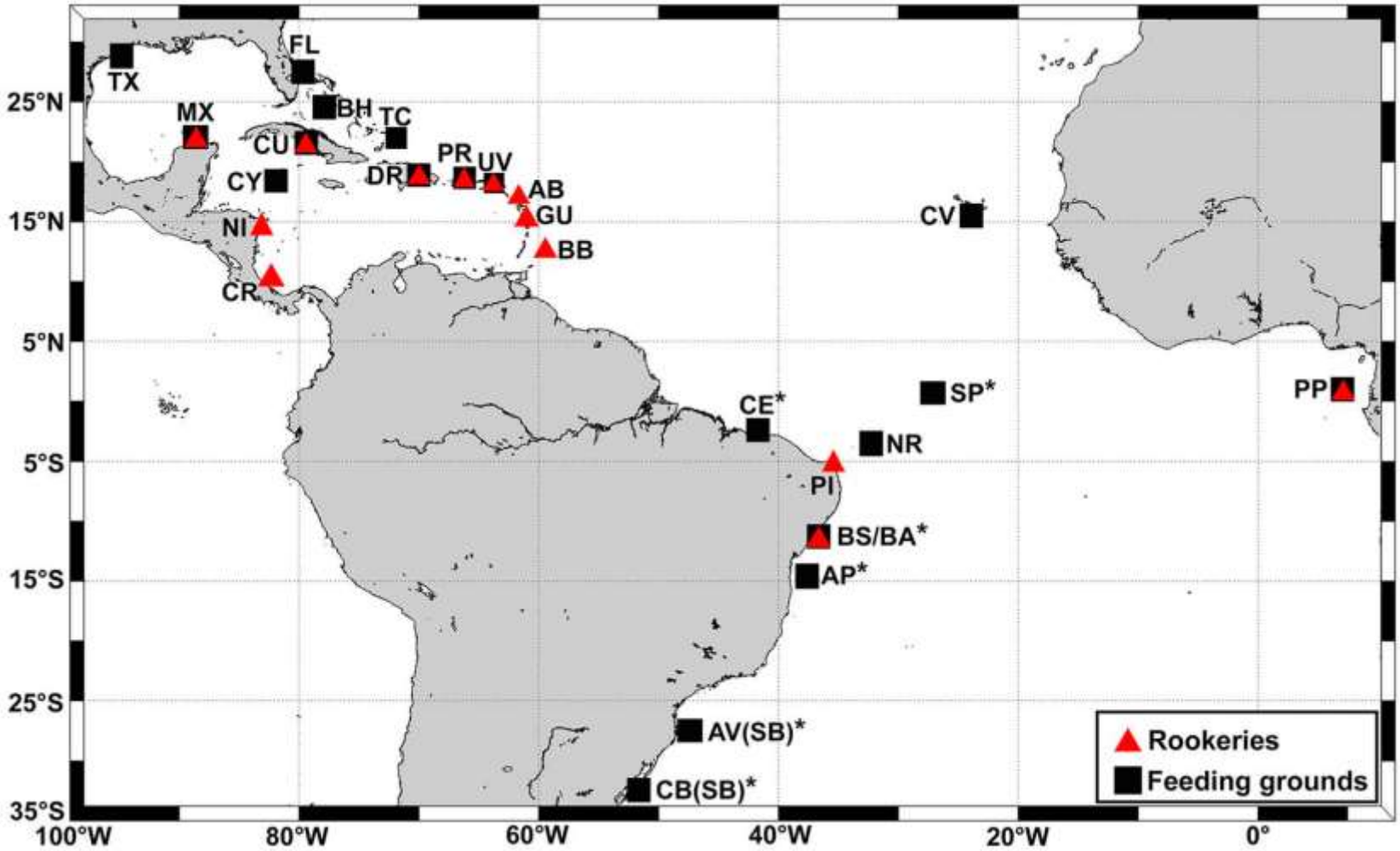

Figure 8. Locations of genetically described hawksbill populations in the Atlantic, rookeries (red triangles) and feeding grounds (black squares) (Table R #65)

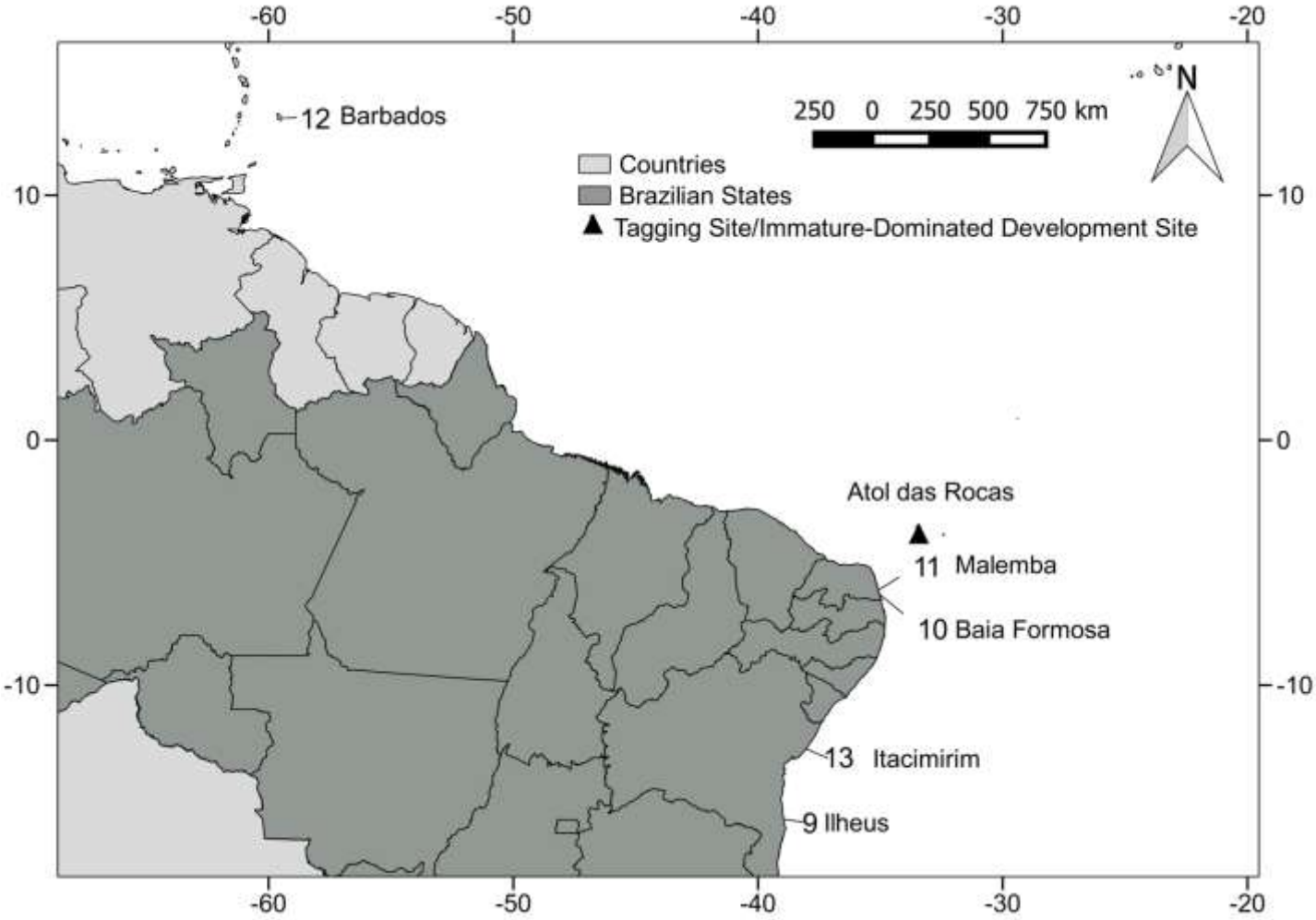

Figure 9. Nesting beach locations for five hawksbills (*Eretmochelys imbricata*) originally tagged as juveniles in Atol das Rocas, Brazil. Numbers correspond to nesting beaches, based on Table R #74.

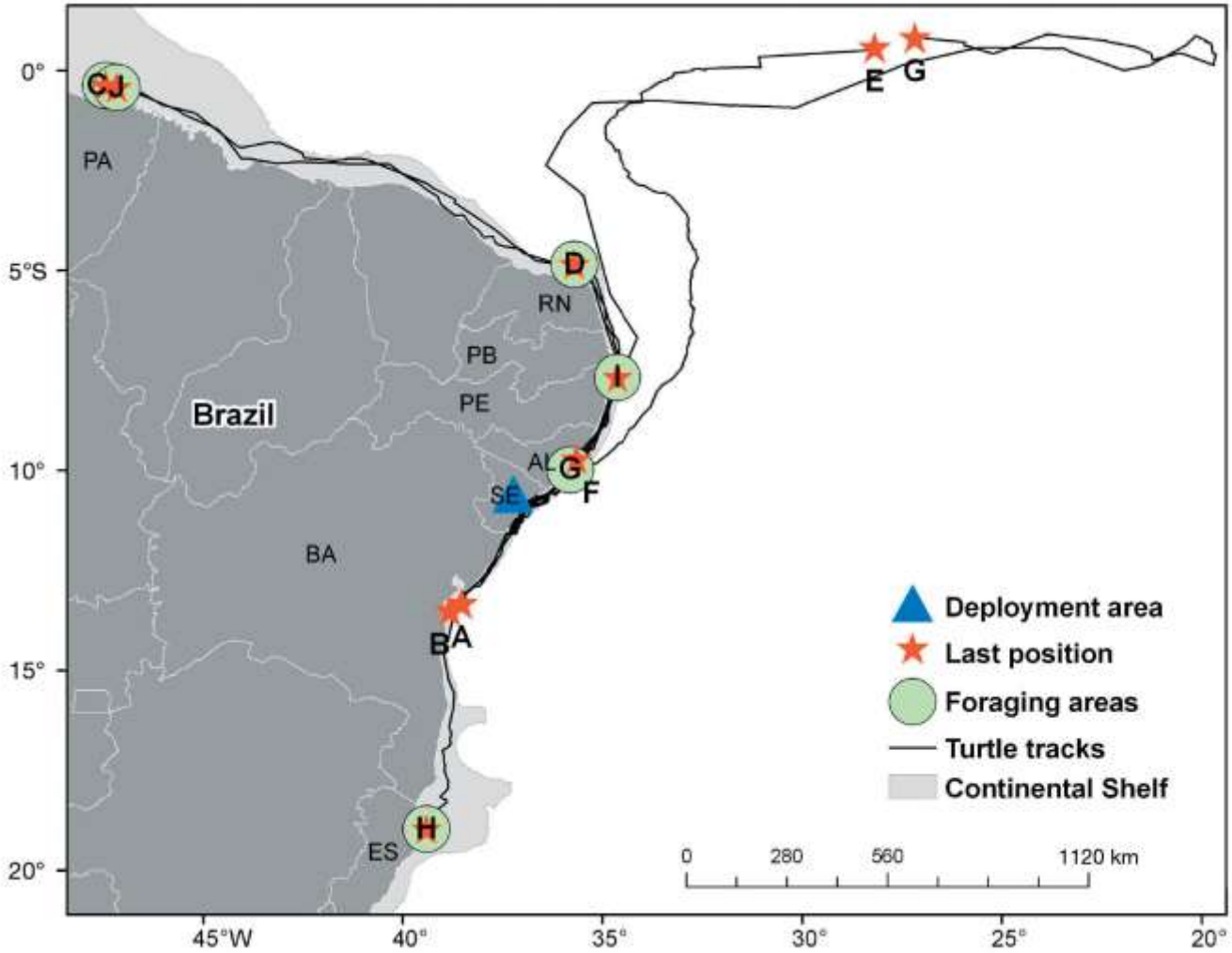

Figure 10. Post-nesting movements of olive ridley turtles satellite tracked from their nesting grounds in Sergipe. (Table R #83)

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1 RMU: *Caretta caretta* – Southwest Atlantic

1.1 Distribution, abundance, trends

1.1.1 Nesting sites

Not apply

1.1.2 Marine áreas

Movement paths and pelagic foraging areas of immature loggerheads in the SW Atlantic are displayed in Fig. 1 (Table R # 1), while distribution of strandings are showed in Fig. 2 the high concentrations of stranding reflect the coastal foraging areas of large juvenile and adult loggerhead turtles (Table R # 33).

1.2 Other biological data

Please see Table 1.

1.3 Threats

1.3.1 Nesting sites

Not apply.

1.3.2 Marine areas

Please see Table 1.

1.4 Conservation

Protection status: see Table 1 for national laws (Table R # 6, 7) and Table 3 for international conventions. Long-term non-governmental program is listed in Table 4.

1.5 Research

Key knowledge gaps about currently bycatch numbers by artisanal and industrial Uruguayan fleet and other international fleet operating in the area.

2 RMU: *Dermochelys coriacea* - Southwest Atlantic

2.1 Distribution, abundance, trends

2.1.1 Nesting sites

Not apply.

2.1.2 Marine áreas

Movement paths and pelagic foraging areas of immature and adult leatherback turtles in the SW Atlantic are displayed in Fig. 3 (Table R # 22), while distribution of strandings of large juvenile and adult leatherback turtles are showed in Fig. 2 the high concentrations of stranding reflect the coastal foraging areas (Table R # 33).

2.2 Other biological data

Please see Table 1.

2.3 Threats

2.3.1 Nesting sites

Not apply.

2.3.2 Marine areas

Please see Table 1.

2.4 Conservation

Protection status: see Table 1 for national laws (Table R # 6, 7) and Table 3 for international conventions. Long-term non-governmental program is listed in Table 4.

2.5 Research

Key knowledge gaps about currently bycatch numbers by artisanal and industrial Uruguayan fleet and other international fleet operating in the area.

3 RMU: *Chelonia mydas* - Southwest Atlantic

3.1 Distribution, abundance, trends

3.1.1 Nesting sites

Not apply.

3.1.2 Marine areas

Movement paths and foraging areas of immature green turtles in the SW Atlantic are displayed in Fig. 5 (Table R # 42), while distribution of strandings of immature green turtles are showed in Fig. 2 the high concentrations of stranding reflect the coastal foraging areas of this specie (Table R # 33).

3.2 Other biological data

Please see Table 1.

3.3 Threats

3.3.1 Nesting sites

Not apply.

3.3.2 Marine areas

Please see Table 1.

3.4 Conservation

Protection status: see Table 1 for national laws (Table R # 6, 7) and Table 3 for international conventions. Long-term non-governmental program is listed in Table 4.

3.5 Research

Key knowledge gaps about currently bycatch numbers by artisanal and industrial Uruguayan fleet and other international fleet operating in the area.

4 RMU: *Chelonia mydas* - Southcentral Atlantic

4.1 Distribution, abundance, trends

4.1.1 Nesting sites

Not apply.

4.1.2 Marine areas

Movement paths and foraging areas of immature green turtles in the SW Atlantic are displayed in Fig. 5 (Table R # 42), while distribution of strandings of immature green turtles are showed in Fig. 2 the high concentrations of stranding reflects the coastal foraging areas (Table R # 33).

4.2 Other biological data

Please see Table 1.

4.3 Threats

4.3.1 Nesting sites

Not apply.

4.3.2 Marine areas

Please see Table 1

4.4 Conservation

Protection status: see Table 1 for national laws (Table R # 6, 7) and Table 3 for international conventions. Long-term non-governmental program is listed in Table 4.

4.5 Research

Key knowledge gaps about currently bycatch numbers by artisanal and industrial Uruguayan fleet and other international fleet operating in the area.

5 RMU: *Eretmochelys imbricata* – Southwest Atlantic

5.1 Distribution, abundance, trends

5.1.1 Nesting sites

Not apply.

5.1.2 Marine áreas

Distribution of strandings of hawksbill turtles are showed in Fig. 2 (bottom panel) (Table R # 33).

5.2 Other biological data

Please see Table 1.

5.3 Threats

5.3.1 Nesting sites

Not apply.

5.3.2 Marine areas

Please see Table 1.

5.4 Conservation
Protection status: see Table 1 for national laws (Table R # 6, 7) and Table 3 for international conventions. Long-term non-governmental program is listed in Table 4.

5.5 Research
Key knowledge gaps about the habitat utilization, movements and threats in this area. Existing genetic data about hybrids specimens reported in this area but unpublished data that should be urgently published.

6 RMU: *Lepidochelys olivacea* - West Atlantic

6.1 Distribution, abundance, trends

6.1.1 Nesting sites
Not apply.

6.1.2 Marine áreas
Distribution of strandings of olive Ridley turtles are showed in Fig. 2 (bottom panel) (Table R # 15, 33).

6.2 Other biological data
Please see Table 1.

6.3 Threats
6.3.1 Nesting sites
Not apply.

6.3.2 Marine areas
Please see Table 1.

6.4 Conservation
Protection status: see Table 1 for national laws (Table R # 6, 7) and Table 3 for international conventions. Long-term non-governmental program is listed in Table 4.

6.5 Research
Key knowledge gaps about the habitat utilization, movements and threats in this area

Tables

Table 3

International Conventions	Signed	Binding	Compliance measured and reported	Species
CITES	Y	Y	Y	Cc, Dc, Cm, Ei, Lo
Convenio RAM-SAR	Y	Y	Y	DC
CMS	Y	Y	Y	ALL
CONVEMAR	Y	Y	Y	ALL
CDB	Y	Y	Y	ALL

Figures

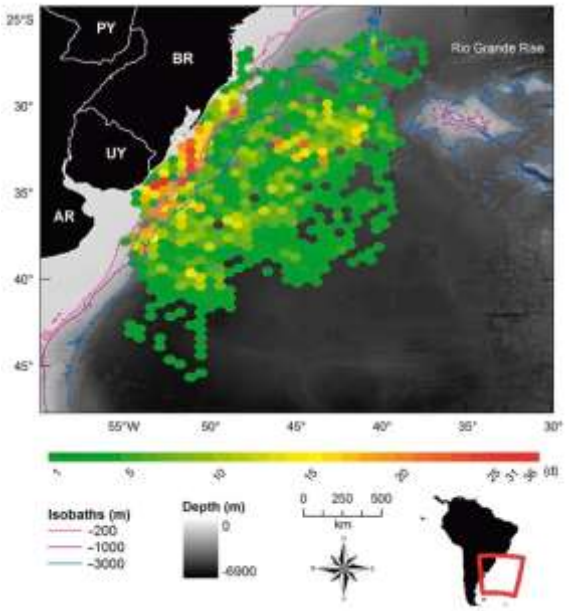

Figure 1. Spatial use of 26 immature loggerhead turtles tracked in the Southwestern Atlantic Ocean between 2006 and 2010. Color denotes the number of days a turtle spent within each hexagonal bin. Taken from Barcelo et al. 2013

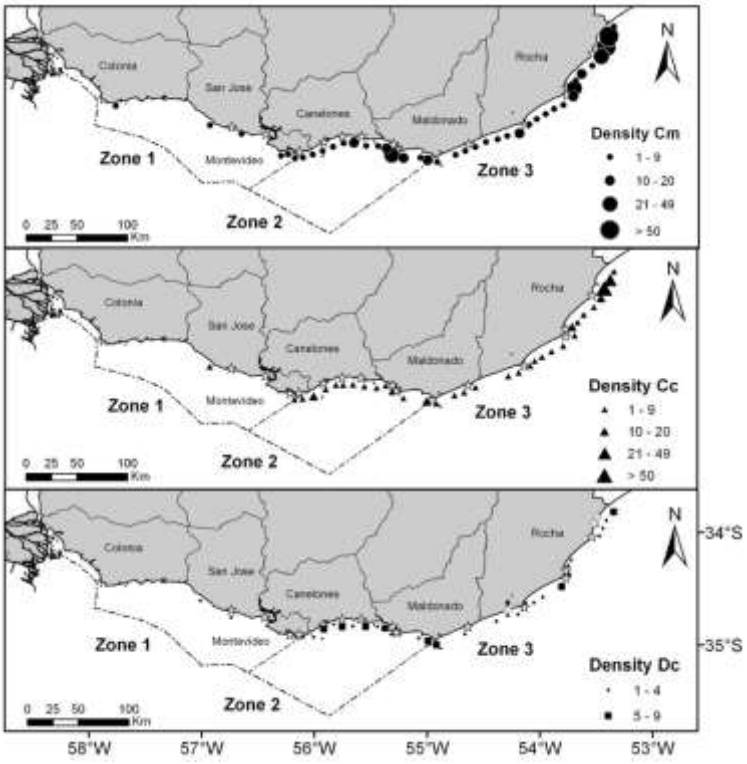

Figure 2. Stranding density (number of marine turtles stranded per 10 km sector) maps showing the Network records between 1999 and 2010. Each map shows the stranding density of the three most frequent species: a green (Cm, filled circle); b loggerhead (Cc, filled triangle); and c leatherback turtles (Dc, filled rectangle). In C, the white crosses indicate the stranding of the three hawksbill turtles and the black diamond indicates the

one olive ridley turtle. The stars indicate the main fishermen settlements and ports. Note the different ranges in density for the leatherback. Taken from Vélez-Rubio et al. 2013

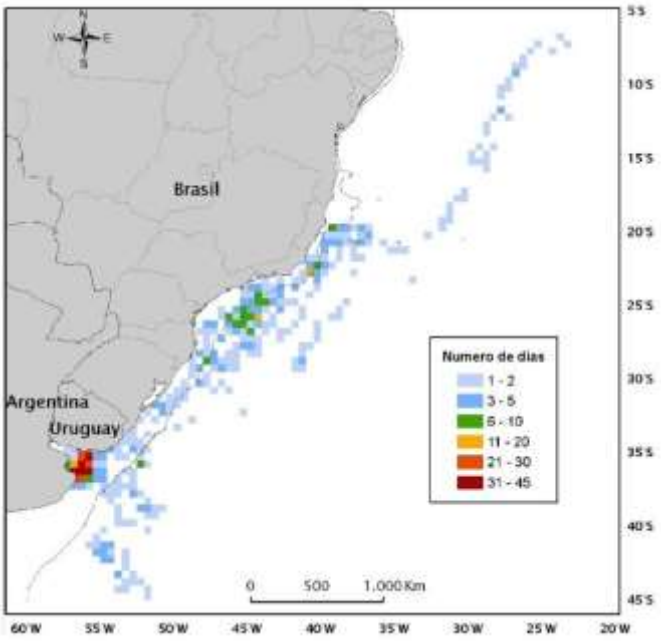

Figure 3. Habitat utilization by tracked leatherback turtles (n=4), using a single daily position, from their respective reconstructed routes. The legend indicates total time (days) turtles spent in each cell. Dashed black line indicates 200 m bathymetric contour.Taken from López-Mendilaharsu et al. 2009

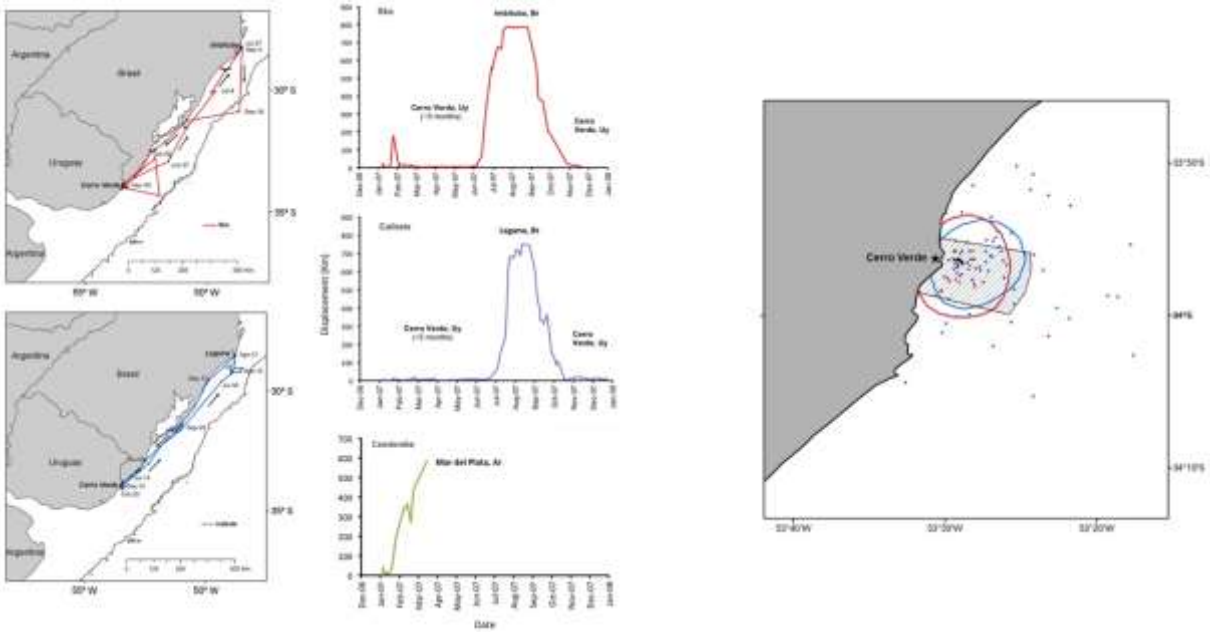

Figure 5. Displacement from released site plot of the three tracked green turtle. The left panels (A and B) show the tracks of those turtles that performed a round-trip migration between summer and winter foraging areas in Uruguay and Brazil respectively. The three right panels (C, D and E) show distance to the release point through time. Phases of migration are represented by rapid changes in displacement distance; summer and winter

foraging areas are revealed by plateaus. Left panels: Right Panel: Turtle's positions and core-use areas (50% KDE contours) for the two green turtles that remained for several months at the CMPA of Cerro Verde and Coronilla islands. Taken from Vélez-Rubio et al. 2018.

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Table 1

RMU	CC-SW A	Ref #	CM-SW A	Ref #	CM-SC A	Ref #	DC-SW A	Ref #	EI-SW A	Ref #	LO-W A	Ref #
Occurrence												
Nesting sites	N		N		N		N		N		N	
Pelagic foraging grounds	J,A	1, 26	J	27, 33, 34, 42	J	27, 33, 34, 42	J,A	13, 22	n/a	34	n/a	15,34
Benthic foraging grounds	J,A	26, 33, 34	J	24, 27, 33, 34, 42	J	24, 27, 33, 34, 42	J,A	13, 33, 22	n/a	34	n/a	15,34
Key biological data												
Nests/yr: recent average (range of years)	n/a		n/a		n/a		n/a		n/a		n/a	
Nests/yr: recent order of magni-tude	n/a		n/a		n/a		n/a		n/a		n/a	
Number of "major" sites (>20 nests/yr AND >10 nests/km yr)	n/a		n/a		n/a		n/a		n/a		n/a	
Number of "minor" sites (<20 nests/yr OR <10 nests/km yr)	n/a		n/a		n/a		n/a		n/a		n/a	
Nests/yr at "major" sites: recent average (range of years)	n/a		n/a		n/a		n/a		n/a		n/a	
Nests/yr at "minor" sites: recent average (range of years)	n/a		n/a		n/a		n/a		n/a		n/a	
Total length of nesting sites (km)	n/a		n/a		n/a		n/a		n/a		n/a	
Nesting females / yr	n/a		n/a		n/a		n/a		n/a		n/a	
Nests / female season (N)	n/a		n/a		n/a		n/a		n/a		n/a	
Female remigration interval (yrs) (N)	n/a		n/a		n/a		n/a		n/a		n/a	
Sex ratio: Hatchlings (F / Tot) (N)	n/a		n/a		n/a		n/a		n/a		n/a	

Sex ratio: Immatures (F / Tot) (N)	n/a		n/a		n/a		n/a		n/a		n/a	
Sex ratio: Adults (F / Tot) (N)	n/a		n/a		n/a		n/a		n/a		n/a	
Min adult size, CCL or SCL (cm)	n/a		n/a		n/a		n/a		n/a		n/a	
Age at maturity (yrs)	n/a		n/a		n/a		n/a		n/a		n/a	
Clutch size (n eggs) (N)	n/a		n/a		n/a		n/a		n/a		n/a	
Emergence success (hatch-lings/egg) (N)	n/a		n/a		n/a		n/a		n/a		n/a	
Nesting success (Nests/ Tot emer-gence tracks) (N)	n/a		n/a		n/a		n/a		n/a		n/a	
Trends												
Recent trends (last 20 yrs) at nest-ing sites (range of years)	n/a		n/a		n/a		n/a		n/a		n/a	
Recent trends (last 20 yrs) at for-aging grounds (range of years)	n/a		n/a		n/a		n/a		n/a		n/a	
Oldest documented abundance: nests/yr (range of years)	n/a		n/a		n/a		n/a		n/a		n/a	
Published studies												
Growth rates	Y	23	Y	2, 21, 27	Y	2, 21, 27	Y	23	N		N	
Genetics	Y	4, 5	Y	3	Y	3	Y	36	N		Y	15
Stocks defined by genetic markers	Y	5	Y	3	Y	3	Y	36	N		N	
Remote tracking (satellite or other)	Y	1	Y	42	Y	42	Y	13,22	N		N	
Survival rates	N		Y	21	Y	21	N		N		N	
Population dynamics	Y	33	Y	21, 33	Y	21, 33	Y	33	N		N	
Foraging ecology (diet or isotopes)	Y	26	Y	24, 32, 34, 42	Y	24, 32, 34, 42	Y	11	N		N	
Capture-Mark-Recapture	Y	16	Y	21, 27	Y	21, 27	N		N		N	

Threats												
Bycatch: presence of small scale / artisanal fisheries?	Y (SN)	25, 37	Y (SN)	19, 30, 37	Y (SN)	19, 30, 37	Y (SN)	33, 37	n/a		n/a	
Bycatch: presence of industrial fisheries?	Y J,A (PLL, MT)	8, 17, 18,14, 23, 25, 29	Y (MT)	8, 17, 18	Y (MT)	8, 17, 18	Y (MT, PLL)	8, 12, 14, 17, 18, 29	n/a		n/a	
Bycatch: quantified?	PLL (3778), MT(99) , SN(2)		MT(21) , SN(21/ 68/4)		MT(21) , SN(21/ 68/4)		MT(17) , SN(21/ 1))		n/a		n/a	
Take. Intentional killing or exploi-tation of turtles	N		Y	28	Y	28	N		n/a		n/a	
Take. Egg poaching	n/a		n/a		n/a		n/a		n/a		n/a	
Coastal Development. Nesting habitat degradation	n/a		n/a		n/a		n/a		n/a		n/a	
Coastal Development. Photopollu-tion	n/a		n/a		n/a		n/a		n/a		n/a	
Coastal Development. Boat strikes	N		Y	33	Y	33	N		n/a		n/a	
Egg predation	n/a		n/a		n/a		n/a		n/a		n/a	
Pollution (debris, chemical)	J,A	25, 26	Y	31, 32, 33, 43	Y	31, 32, 33, 43	N		n/a		n/a	
Pathogens	N		Y	21	Y	21	N		n/a		n/a	
Climate change	N		N		N		N		n/a		n/a	
Foraging habitat degradation	N		Y	38	Y	38	N		n/a		n/a	
Other (negative interaction with invaseve wkelk snail *Rapana venosa*, *Hypothermic stunning*, *Port dredging*)	N (see text)		Y	20, 35, 39	Y	20, 35, 39	Y		N		N	
Long-term projects												

Monitoring at nesting sites	n/a		n/a		n/a		n/a		n/a		n/a	
Number of index nesting sites	n/a		n/a		n/a		n/a		n/a		n/a	
Monitoring at foraging sites	Y	17, 21, 27, 33	Y	17, 21, 27, 33	Y	17, 33	Y	17, 33	n/a		n/a	
Conservation												
Protection under national law	Y	6,7	Y	6,7	Y	6,7	Y	6,7	Y	6,7	Y	6,7
Number of protected nesting sites (habitat preservation)	n/a		n/a		n/a		n/a		n/a		n/a	
Number of Marine Areas with mitigation of threats	0		2		2		0		0		0	
Long-term conservation projects (number)	>1		1		1		1		0		0	
In-situ nest protection (eg cages)	n/a		n/a		n/a		n/a		n/a		n/a	
Hatcheries	n/a		n/a		n/a		n/a		n/a		n/a	
Head-starting	N		n/a		n/a		n/a		n/a		n/a	
By-catch: fishing gear modifications (eg, TED, circle hooks)	Y	9,10	N		N		Y	9,10	n/a		n/a	
By-catch: onboard best practices	Y		n/a		n/a		n/a		n/a		n/a	
By-catch: spatio-temporal closures/reduction	N		N		N		n/a		n/a		n/a	
Other (fishermen collaborative work)	Y	41	Y	41	Y	41	Y	41	N		N	