Annual General Meeting, March 2019

Conservation, research and education programs:

2014-2023 French Guiana National Action Plan

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Presentation plan

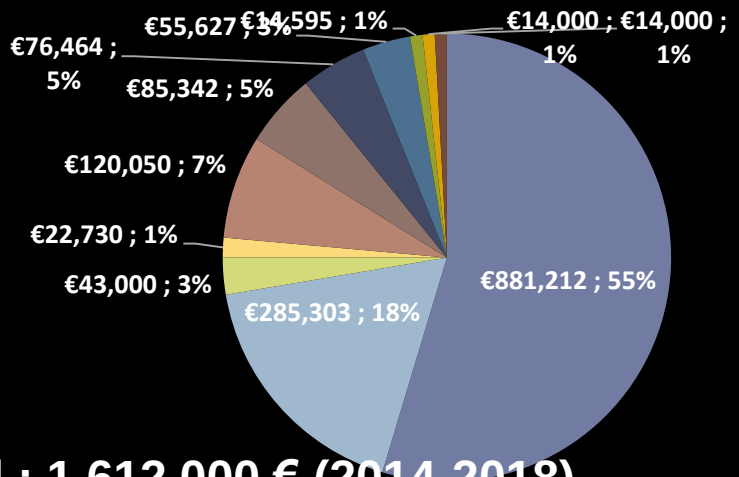
1. The French Guiana National Action Plan
2. Location, habitats, populations
3. Monitoring & research
4. Conservation
5. Education & communication
6. Conclusions to WIDECAST partners

What is a National Action Plan ?

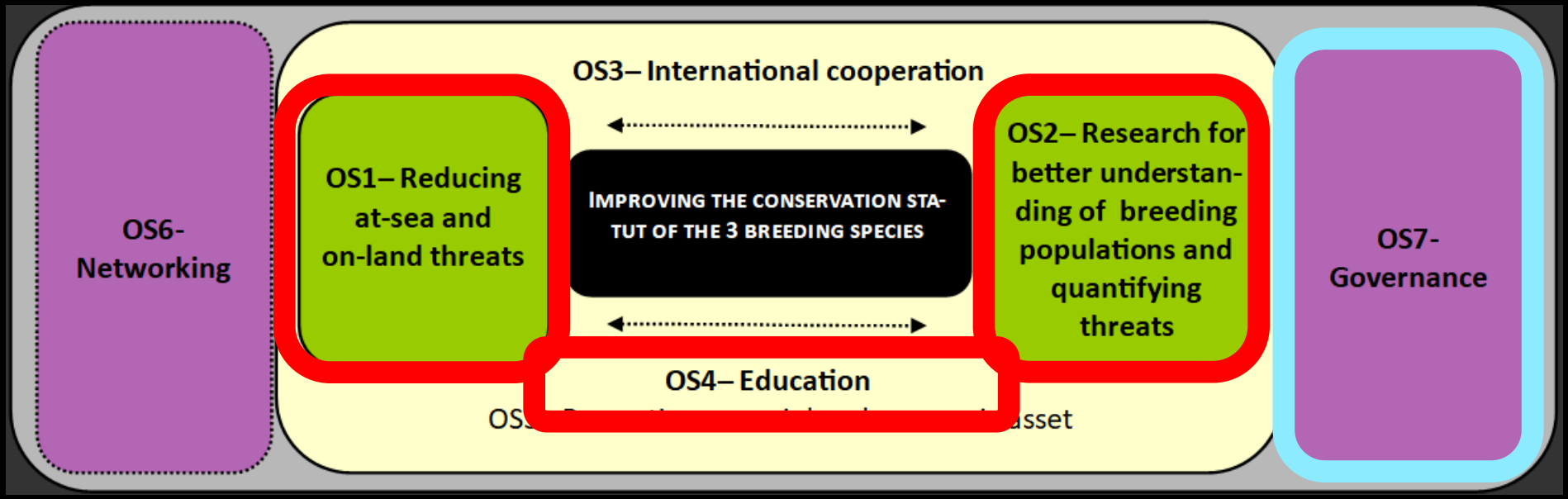
- France response to preserve **CR and EN species** on its territory.
- Develop a **realistic** intervention strategy based on the **priorization of identified conservation issues**.
- Strategy gathering all the **stakeholders**.

1. French Guiana National Action Plan

1st plan from 2007 to 2012 – 2nd plan from 2014 to 2023



Total : 1 612 000 € (2014-2018)



1. French Guiana National Action Plan

- Frequent **working groups** on specific topics (monitoring, bycatch, education…)
- **Annual plenary meetings**
- **Indicators** yearly filled by the stakeholders to measure the progress.

OS 4			Cible: Public jeune (scolaire et hors scolaire)	Cible: Société civile	Cible: Partenaires socio-professionnels*	Cible: Elus	Priorité	Résultats attendus à la fin de la plannification	Intitulé de l'indicateur (NB: indicateurs corrigés en 2016)	Valeur de l'indicateur pour la période (année 2015)	% d'atteinte de l'indicateur vis-à-vis des résultats attendus à la fin de la plannification
S'approprier les enjeux de protection des tortues marines	Favoriser les comportements respectueux via la pédagogie de projets	Monter, valoriser et mettre en œuvre des programmes d'Animation auprès du jeune	X				2	1) Meilleure connaissance de la biologie des tortues marines 2) Meilleure appropriation des enjeux de conservation des tortues marines	1) Nombre d'animations crées (différenciation Est / Ouest)	1) Kwata : Est = 2 RNA : Ouest = NE	100
		Elaborer des outils pédagogiques adaptés	X	X			3	Amélioration de la qualité des supports d'information et de communication s'inscrivant dans une véritable réflexion pédagogique	1) Harmonisation des supports pédagogiques (d'animation ou de communication) au niveau du territoire (différenciation Est / Ouest)	1) Kwata : Est = NE RNA : Ouest = NE	0
									2) Nombre de supports de communication élaborés via un projet pédagogique (différenciation Est / Ouest)	2) Kwata : Est = NE RNA : Ouest = NE	0
		Impliquer la population					3	Meilleure appropriation des enjeux par la population qui concourt à l'amélioration des comportements, et une plus grande portée des messages de sensibilisation	1) Nombre de réseaux citoyens créés	1) NE	
									2) Nombre de personnes impliquées dans chaque réseau	2) NE	
									3)Nombre de projets mis en place dans chaque réseau	3) NE	
	Promouvoir les connaissances	Valoriser les actions du PNA via des actions de communication		x			2	1) Bonne connaissance des actions du PNA au sein de la population 2) Meilleure appropriation des enjeux de conservation	1) Nombre/ Pourcentage de personnes sensibilisés par les spots tv et radio	1) ONCFS : NE / NE	50
									5) Site internet : nombre de sessions, d'utilisateurs (et % de nouveaux), de pages vues et pages/session	5) ONCFS : 7471 sessions dont 89% nouveaux visiteurs 6618 utilisateurs, 11 253 pages vues, 1,51 pages par session, 1min04 par session.	50
									6) Réseaux sociaux : nombre d'abonnés(% de la population guyannaise) / nb de publications	6) ONCFS : 1920 abonnés (env <1 % de la population Guyannaise) / 76 publications.	75
		Assurer une présence en période de ponte sur les plages		X			1	Amélioration des comportements d'observation	1) Nb d'heures de patrouilles de sensibilisation (Nb d'h de patrouille bénévole à l'Est, nb d'h de patrouille saisonnière à l'Est, nb d'h de patrouille saisonnière à l'Ouest)	1) Kwata : Est = 2 057 h de patrouille (1541h bénévolat + 516h agents saisonniers). Ouest = 448 h de présence sur plage. RNA : Ouest = 59 patrouilles.	100
									4) Nb d'interventions de communication en radio, en TV et presse écrite	4) Kwata : 5 communications TV, 7 communications radios, 9 sites internet, 3 communi de presse écrite. RNA : NE	100
	Former et Echanger	Développer et mettre en œuvre des programmes et des actions de formation			X	X	3	1) Meilleure connaissance et prise en compte des enjeux de conservation des tortues marines auprès des socio-professionnels et des élus 2) Valoriser et professionnaliser les agents d'animation par des formations reconnues	1) Nombre d'interventions menées auprès des socio-professionnels	1) Kwata : Est = 3 auprès du SDIS, du SDIS Kourou et des FAG. RNA : Ouest = NE	50
									2) Nombre de formations proposées et nombre de participants	2) Kwata : Est = 1 session de formation à la RNA (6 participants) RNA : Ouest : NE	50
									3) Nombre d'interventions auprès des élus	3) Kwata : Est = 3 (communes non précisées) RNA : Ouest = NE	75
		Faciliter les échanges de savoirs et de pratiques entre les acteurs		X	X		4	1) Tisser des ponts entres les savoirs scientifiques et populaires ou traditionnels 2) Développer la compétence et le savoir par l'échange	1) Nombre de situations d'échanges mises en place	1) Kwata : 1 RNA : NE	75
									2) Nombre de rencontres entre les animateurs de l'Est et de l'Ouest	2) Kwata : 2 RNA : NE	0

2. Location, habitats, populations

Leatherback

Dermochelys coriacea

IUCN : *World (2013)* VU — ***Fr. Guiana (2017)*** *West* VU / EN — *East* NT

Green

Chelonia mydas

IUCN : *World (2004)* EN — ***FG (2017)*** VU

Olive ridley

Lepidochelys olivacea

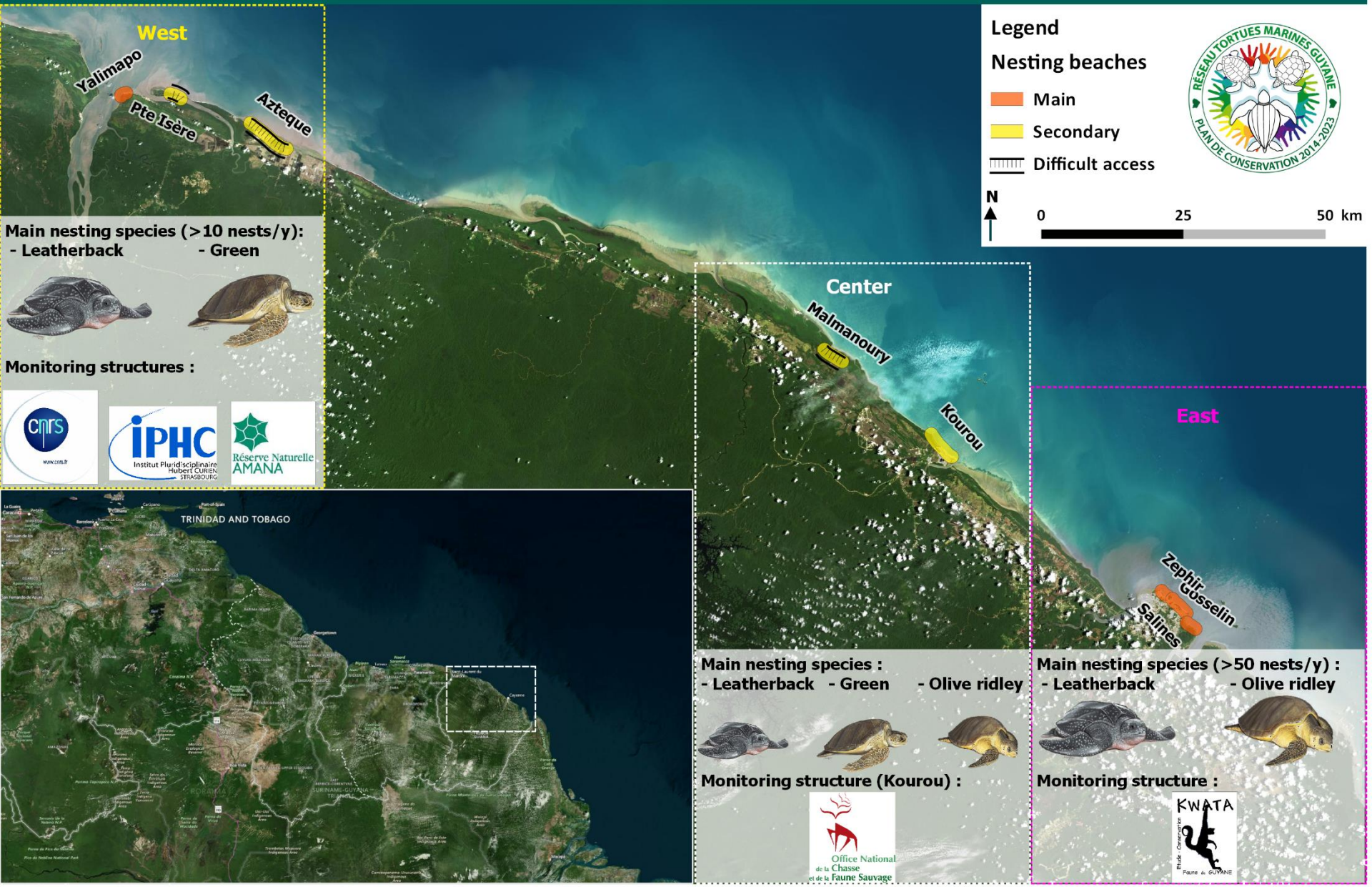
IUCN : *World (2008)* VU — ***Fr. Guiana (2017)*** NT

Nesting

Juvenile development for a few

2. Location, habitats, populations

Sea turtles Nesting beaches in French Guiana



2. Location, habitats, populations

Sea turtles Nesting beaches in French Guiana

Monitoring started in the 70s

From 70's to 80's:

- Schulz, Pritchard, Fretey
- MNHN
- Greenpeace
- WWF Guianas

90's: Campagne Kawana

Yalimapo and previous remote beaches.

Beginning of tagging:

Late 80s: *Dc* flipper tagging

Late 90s: *Dc* PIT tagging

1998: Amana Natural Reserve created

Nest counting & PIT tagging from 98 to 05.

2006: CNRS-IPHC

PIT-tagging since 2006 for *Dc* & 2012 for *Cm*

From 1998 to now

KWATA

Nest counting

PIT tagging

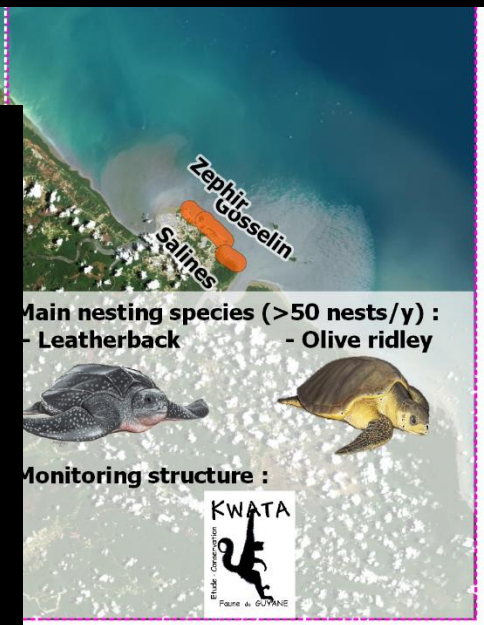
Between 1997 & 2009

KULALASI & SEPANGUY

Nest counting

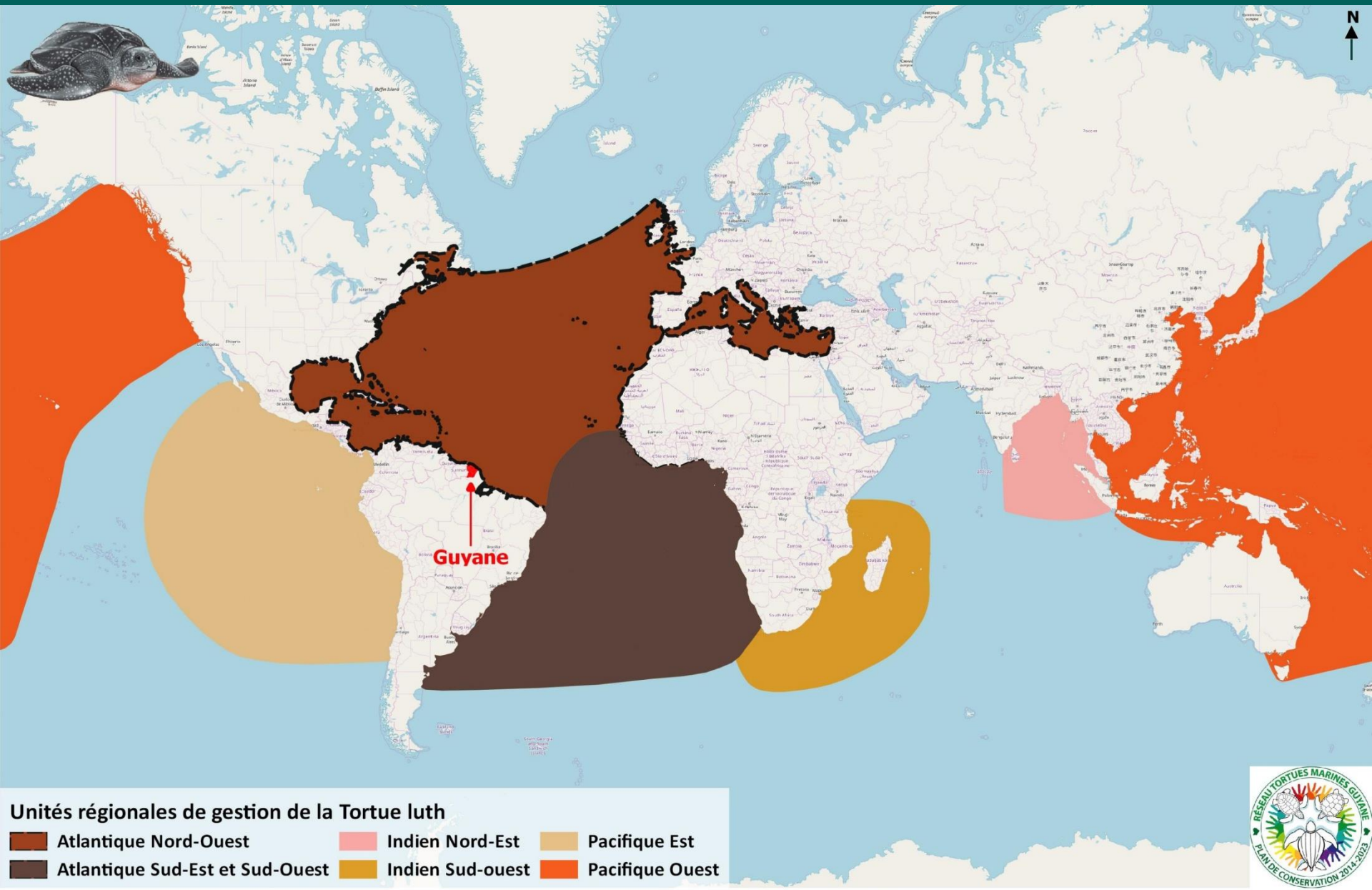
PIT tagging

On remote beaches in the West and Center.



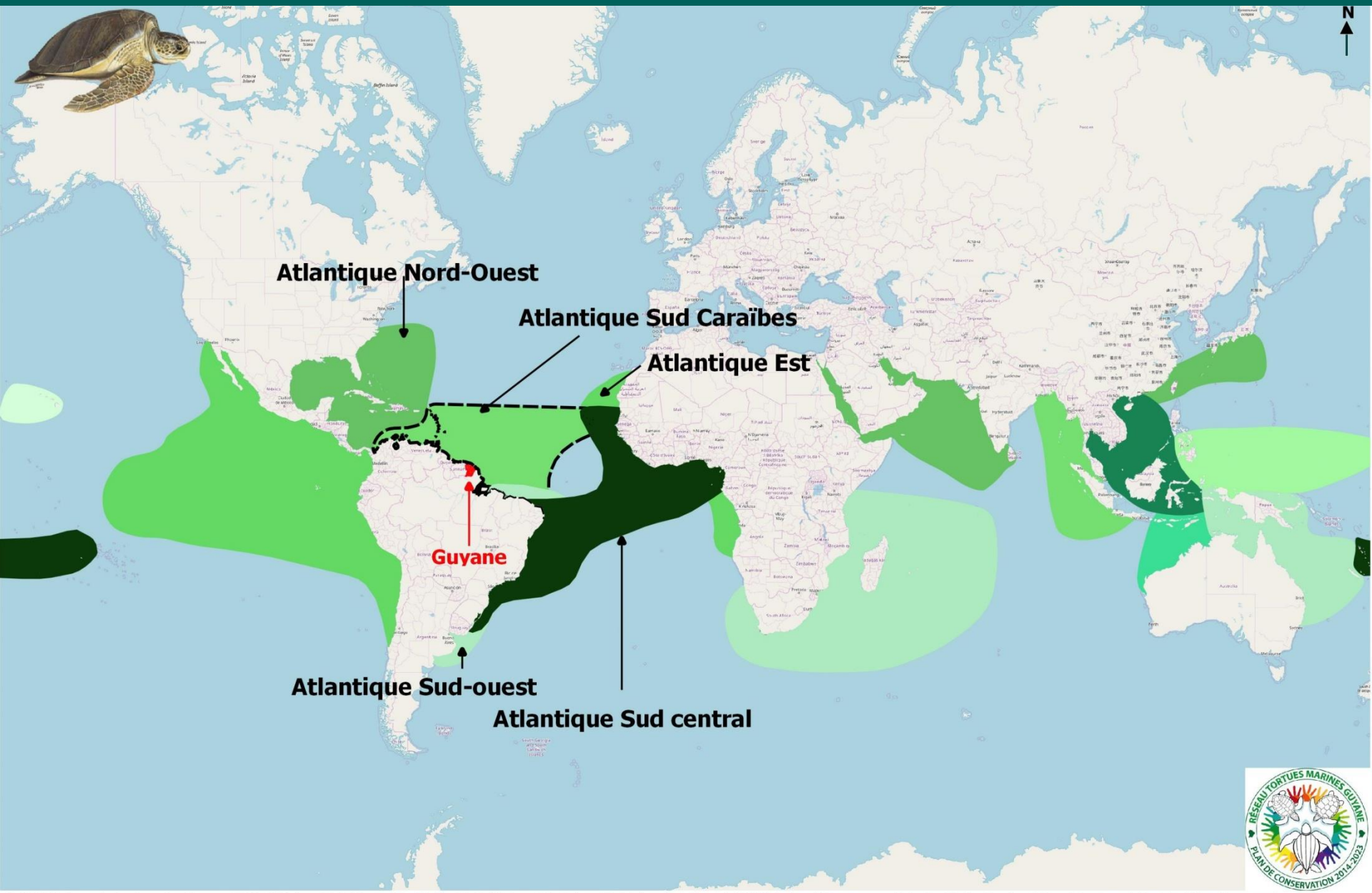
2. Location, habitats, populations

Dermochelys coriacea regional management units



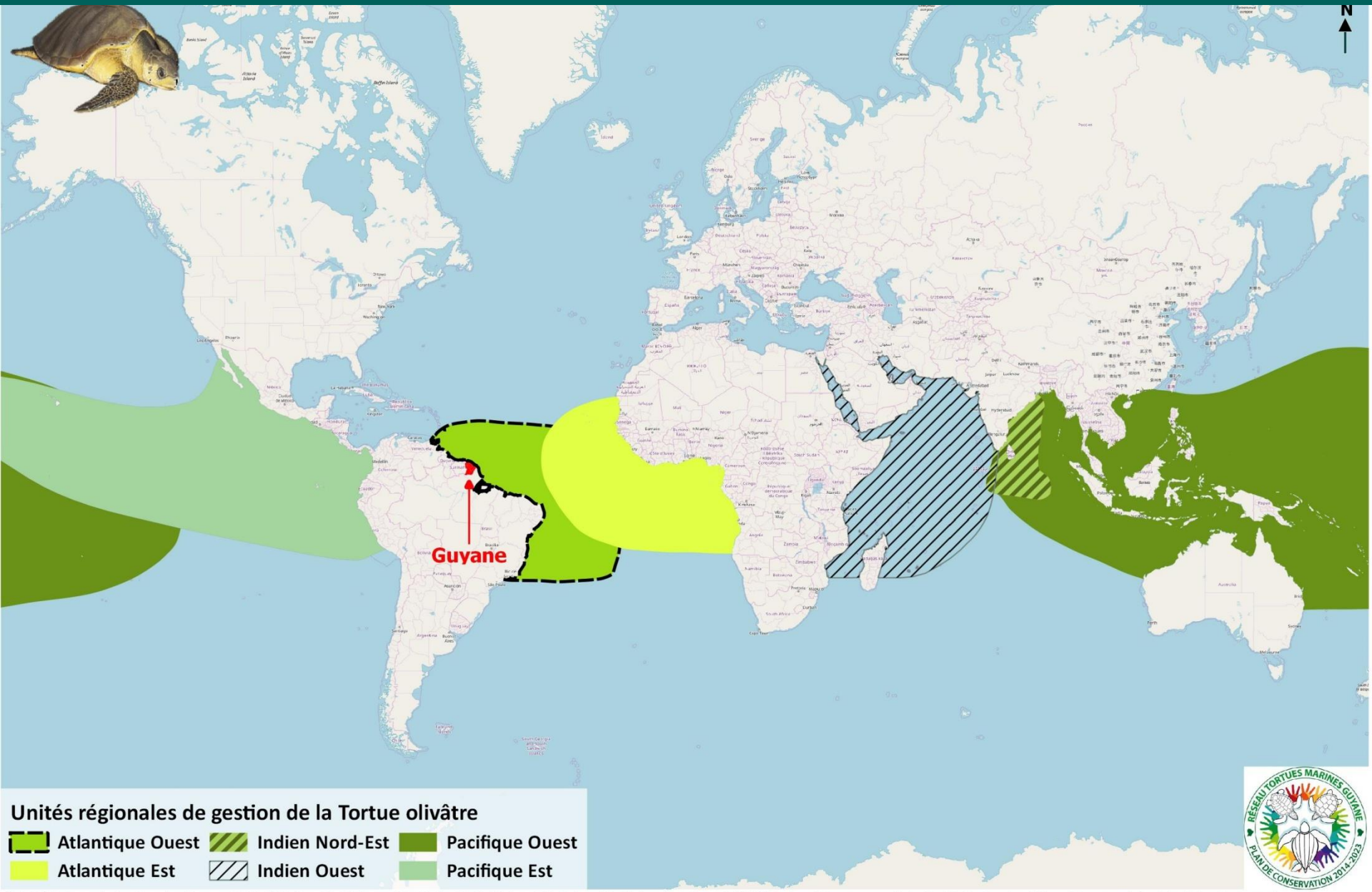
2. Location, habitats, populations

Chelonia mydas regional management units

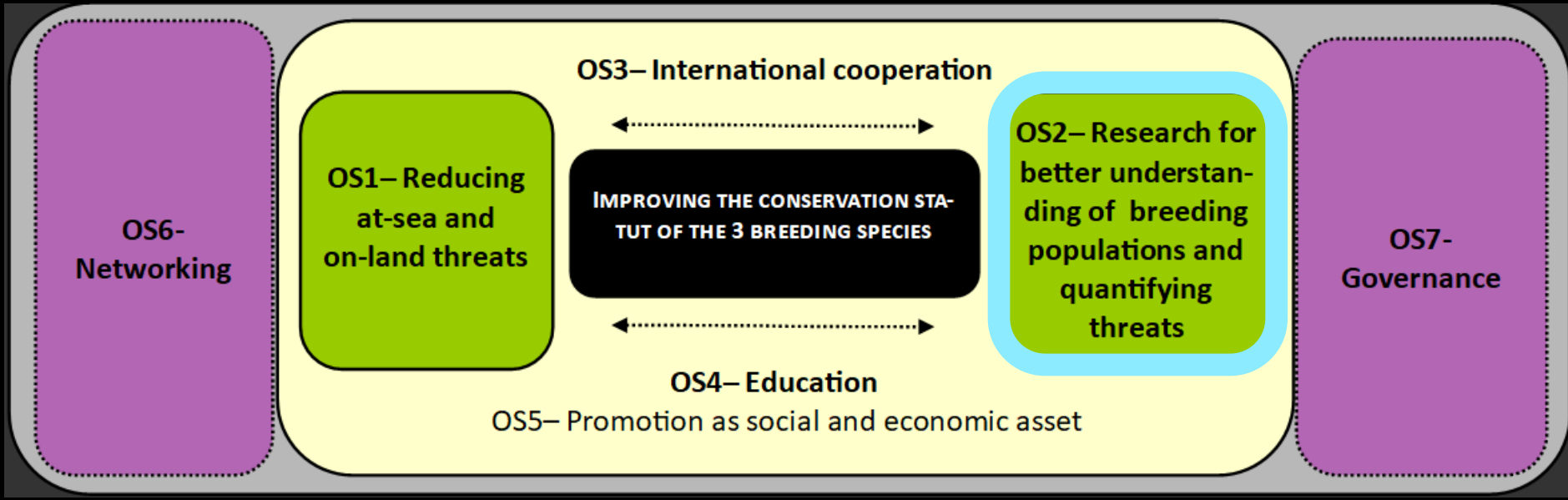


2. Location, habitats, populations

Lepidochelys olivacea regional management units



1. French Guiana National Action Plan



18 actions under this goal: *focus on 3 of them*

Priority #1. Monitoring the populations demography:

Nest counting each year

Nesting females individual tagging each year

Priority #1. Identifying and quantifying the threats to the populations:

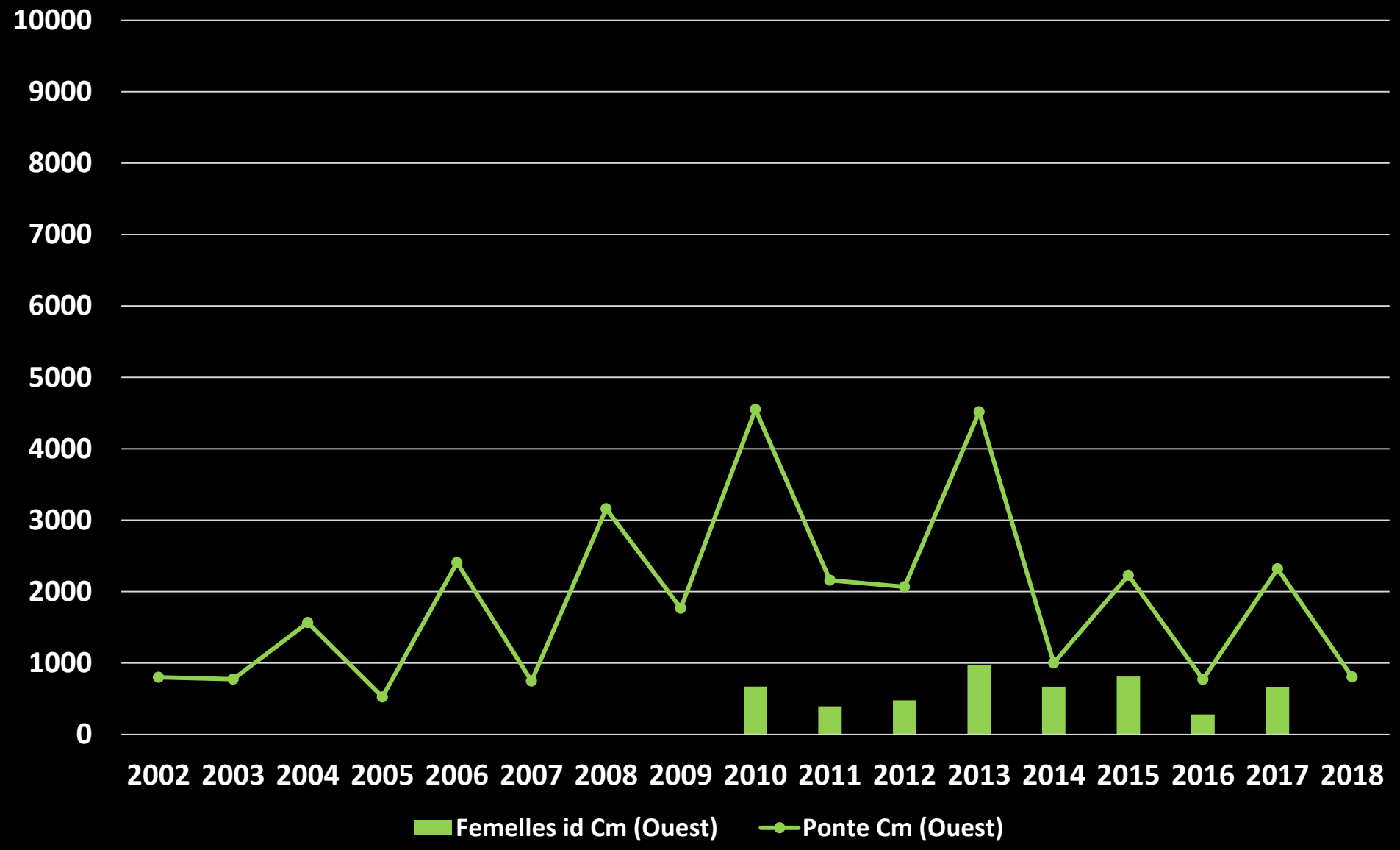
Localizing the routes of the ♀ adults during the nesting season.

Interaction between adults and illegal fishing.

_____ legal fishing.

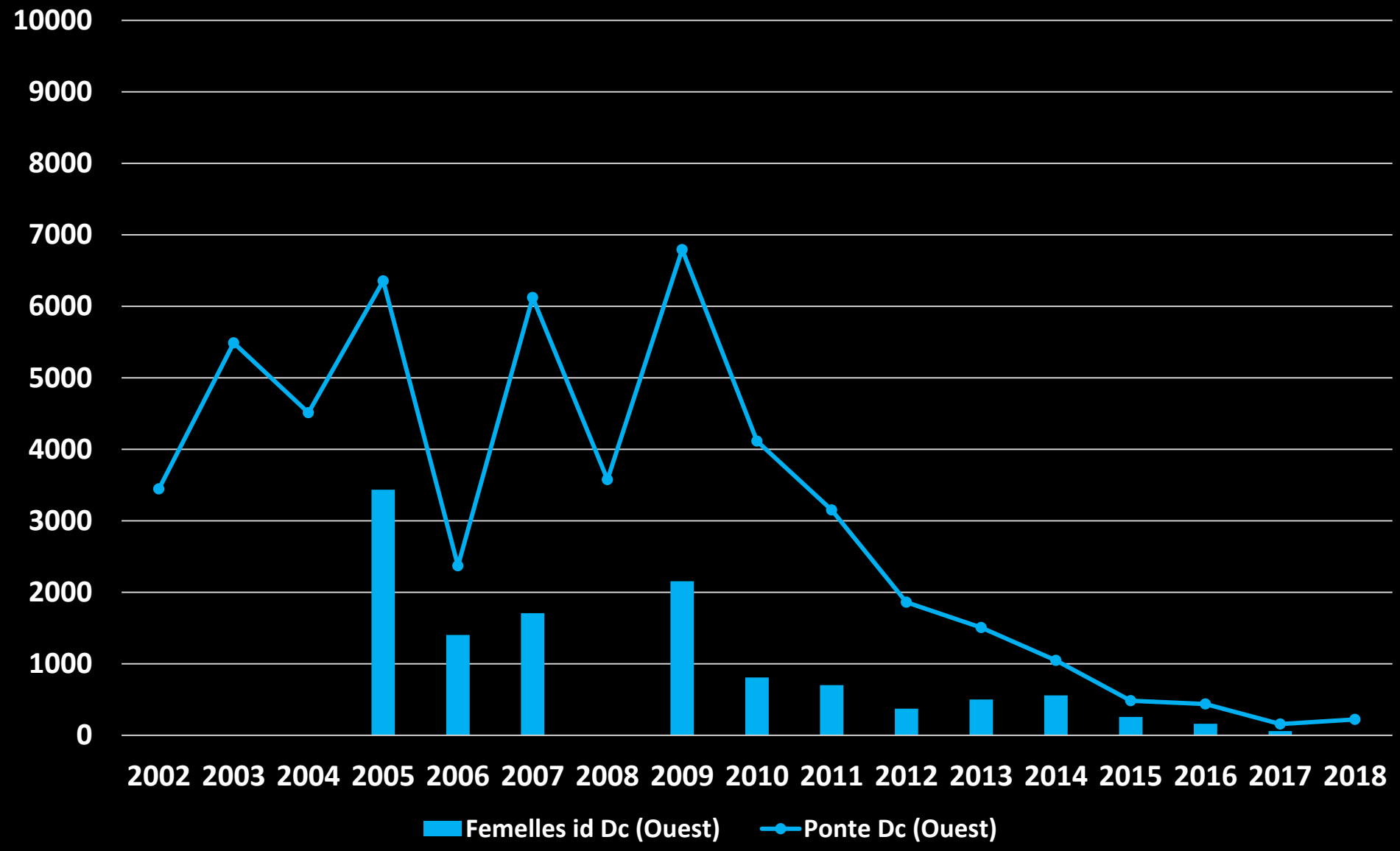
3. Monitoring and research

Nesting activity from 2002 to 2018 in western FG : nest counts (line) and number of nesting females (bars) for the Green turtle (*Chelonia mydas*)



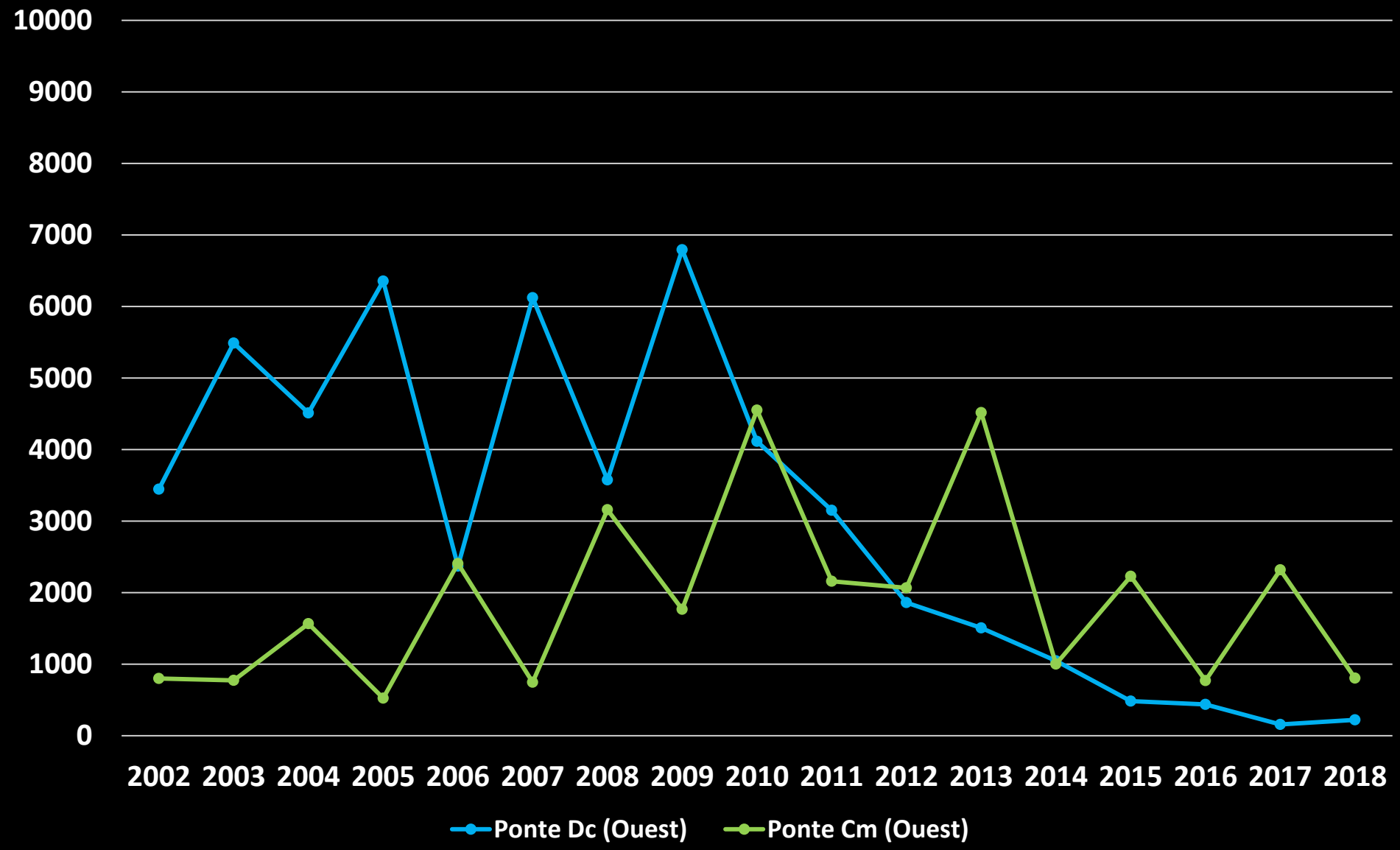
3. Monitoring and research

Nesting activity from 2002 to 2018 in western FG: nest counts (line) & number of nesting females (bars) for the Leatherback (*Dermochelys coriacea*)

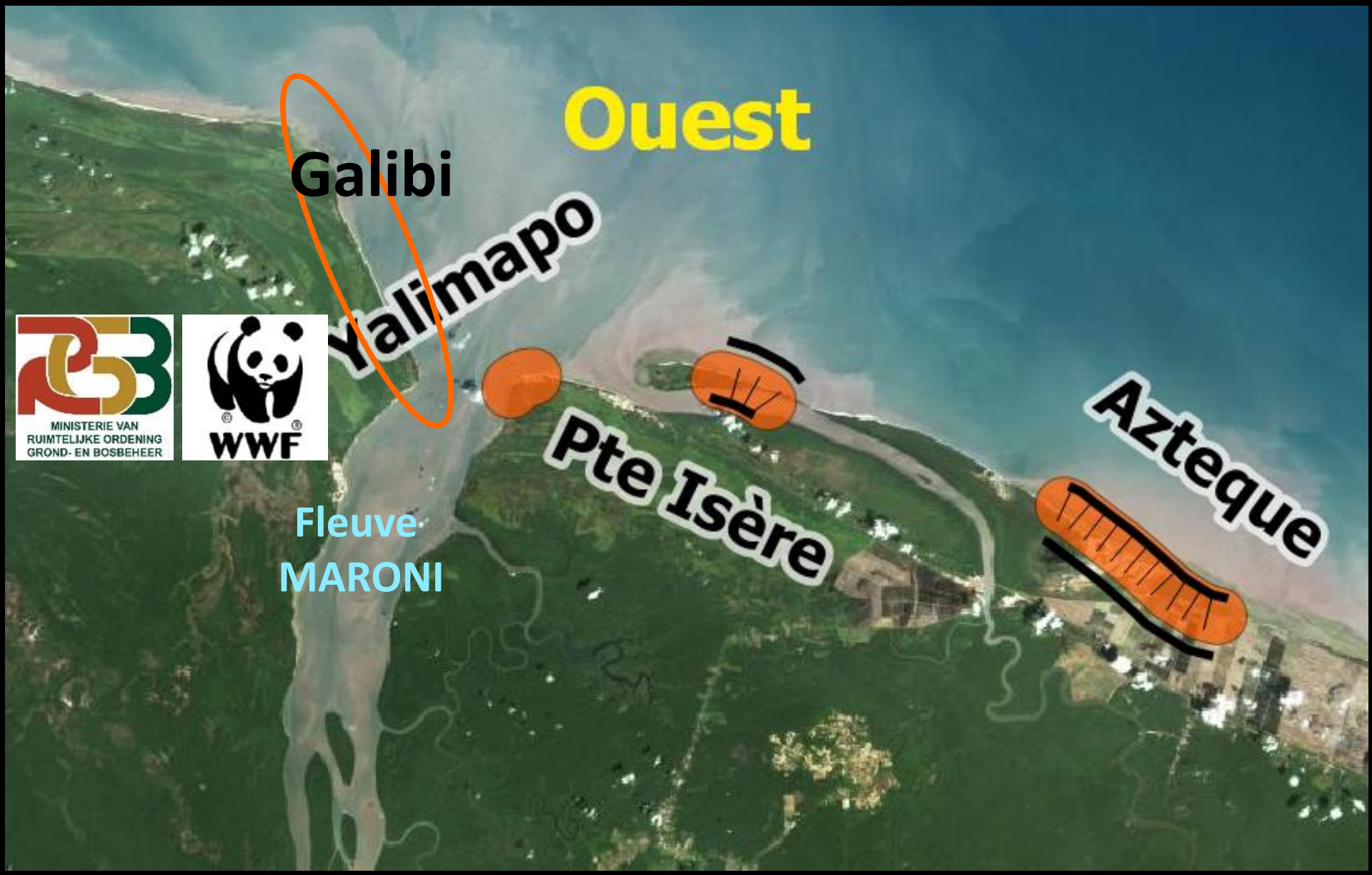


3. Monitoring and research

Nesting activity from 2002 to 2018 in western FG: nest counts (line) for the Leatherback and the Green

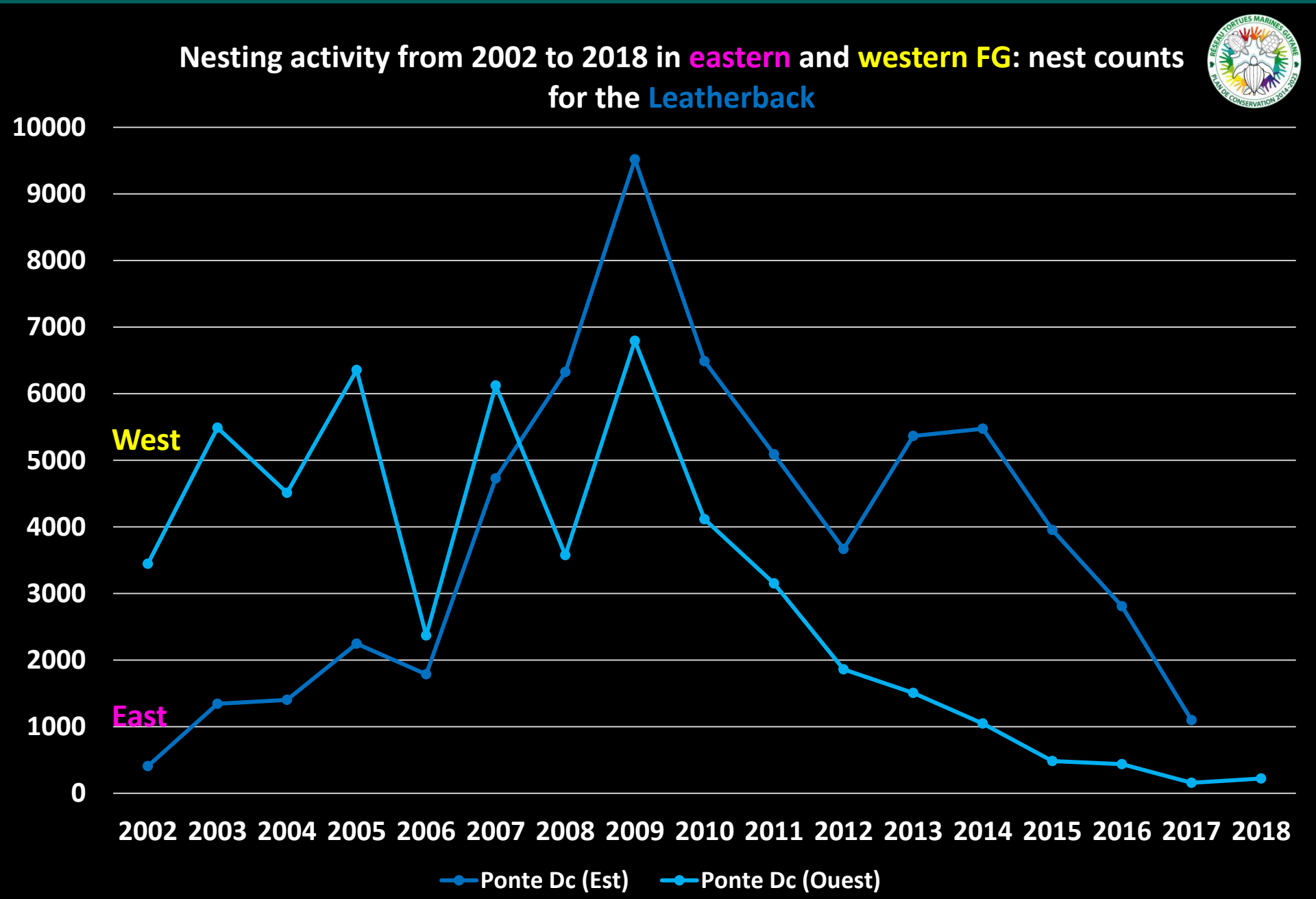


3. Monitoring and research



➔ Transborder nesting females monitoring project submitted to AFB for 2019 – 2020.

3. Monitoring and research



3. Monitoring and research

Northwest Atlantic Leatherback Turtle (*Dermochelys coriacea*) Status Assessment

Prepared by the Northwest Atlantic Leatherback Working Group

Bryan Wallace and Karen Eckert (Compilers and Editors)

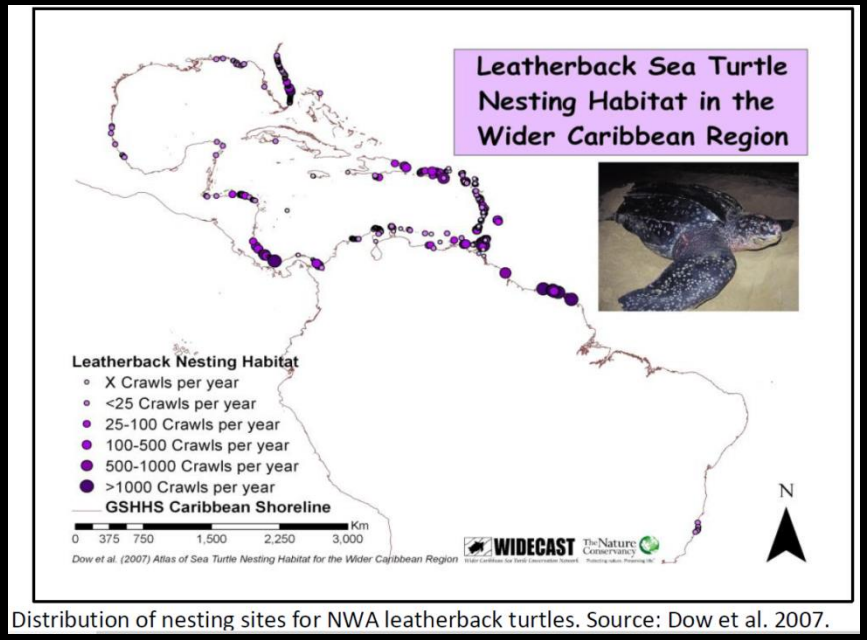
Conservation Science Partners

WIDECAST
Wider Caribbean Sea Turtle Conservation Network

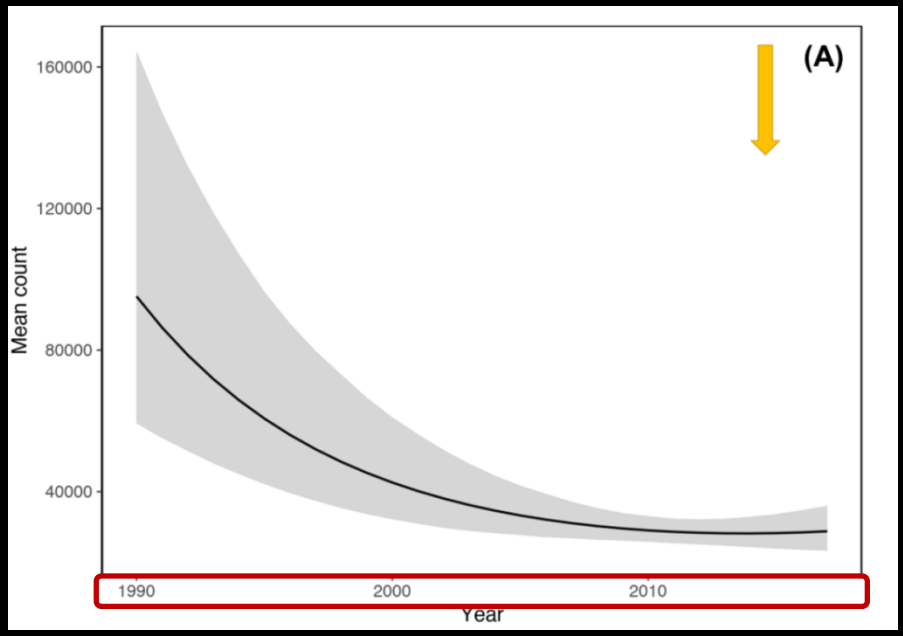
Generously supported by the National Fish and Wildlife Foundation, with additional funding provided by SeaWorld Parks and Entertainment Inc.

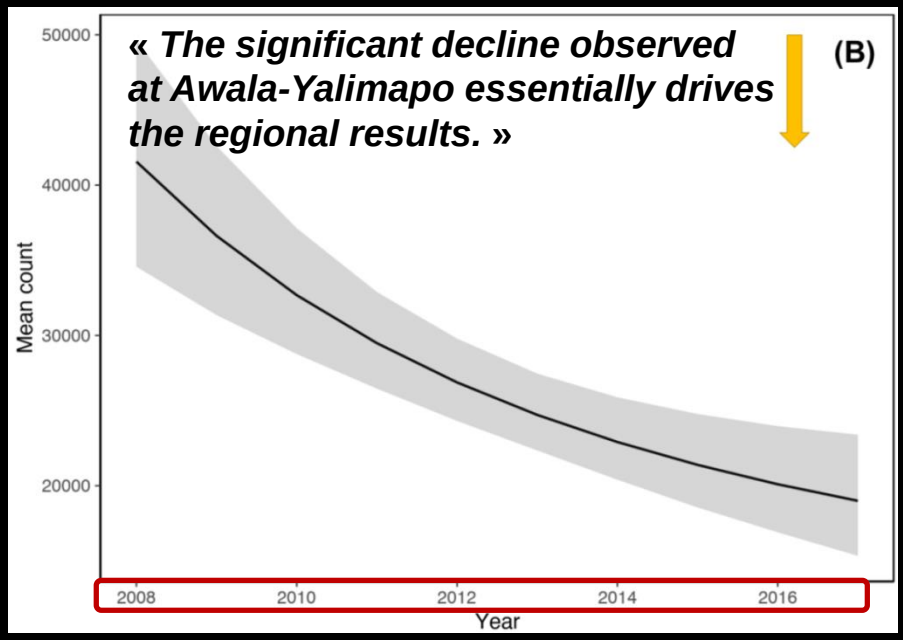
NFWF

2018



Distribution of nesting sites for NWA leatherback turtles. Source: Dow et al. 2007.

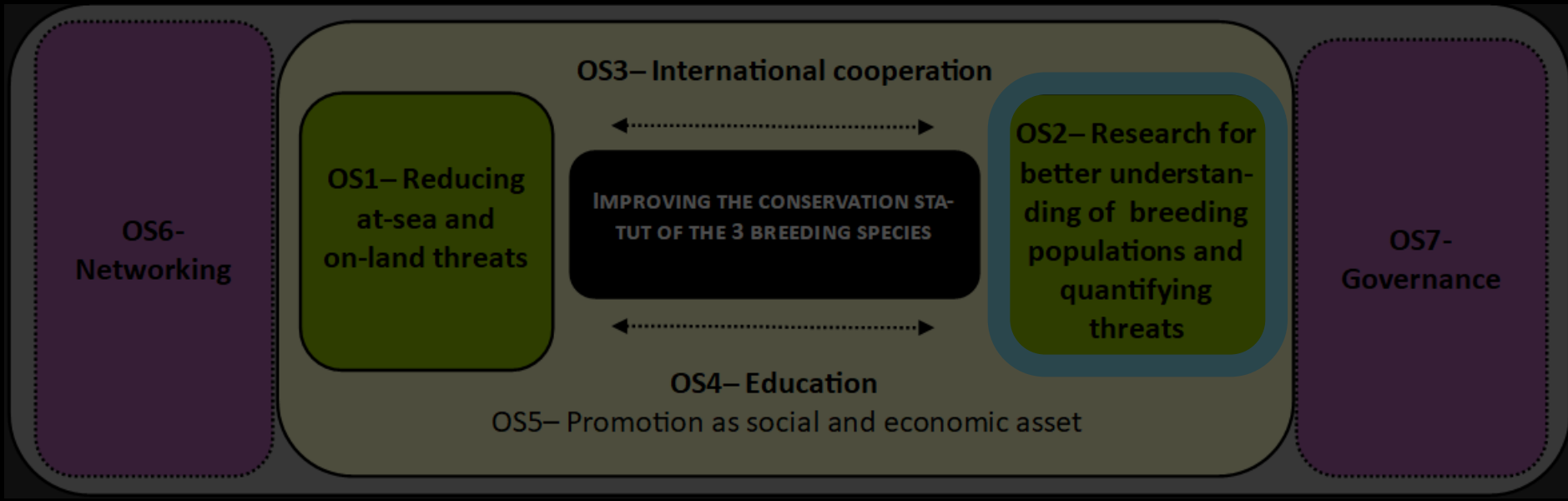




3. Monitoring and research

Nesting activity from 2002 to 2018 in eastern FG : nest counts (line) and number of nesting females (bars) for the Olive ridley (*Lepidochelys olivacea*)

1. French Guiana National Action Plan



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Interaction between adults and illegal fishing.

——————————— legal fishing.

3. Monitoring and research

Leatherback (*Dc*)

⇩

Ongoing

(Cf. Damien Chevallier's presentations)

Green (*Cm*)

⇩

Vol. 555: 235–248, 2016
doi: 10.3354/meps11813

MARINE ECOLOGY PROGRESS SERIES
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Published August 18

Inter-nesting behavioural adjustments of green turtles to an estuarine habitat in French Guiana

Philippine Chambault[1,2,*], Benoît de Thoisy[3], Laurent Kelle[4], Rachel Berzins[5], Marc Bonola[1,2], Hélène Delvaux[6], Yvon Le Maho[1,2], Damien Chevallier[1,2]

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[2]CNRS, UMR 7178, 23 rue Becquerel, 67087 Strasbourg cedex 2, France
[3]Association Kwata, 16 avenue Pasteur, BP 672, 97335 Cayenne cedex, France
[4]WWF Guyane, N°5 Lotissement Katoury, 97300 Cayenne, France
[5]Office National de la Chasse et de la Faune Sauvage-Cellule technique Guyane, Campus agronomique, BP 316, 97379 Kourou cedex, France
[6]DEAL Guyane, Route du Vieux-Port, BP 603, 97328 Cayenne cedex, France

Olive ridley (*Lo*)

⇩

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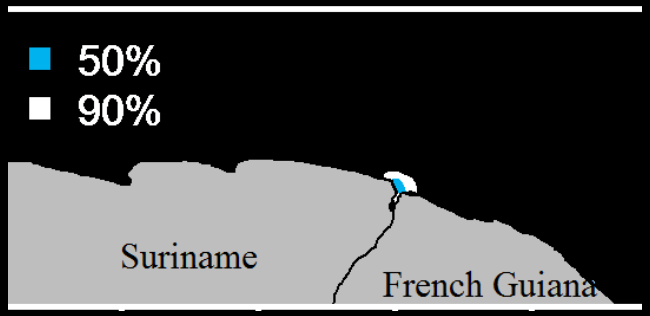
Journal of Marine Systems

journal homepage: www.elsevier.com/locate/jmarsys

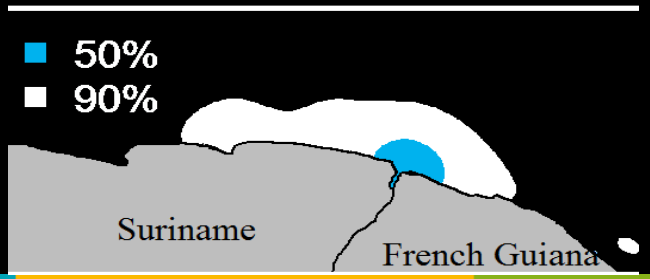
Habitat use and diving behaviour of gravid olive ridley sea turtles under riverine conditions in French Guiana

Philippine Chambault [a,b,*], Lucie Giraudou [a,b], Benoît de Thoisy [c], Marc Bonola [a,b], Laurent Kelle [d], Virginie Dos Reis [c], Fabian Blanchard [e], Yvon Le Maho [a,b], Damien Chevallier [a,b]

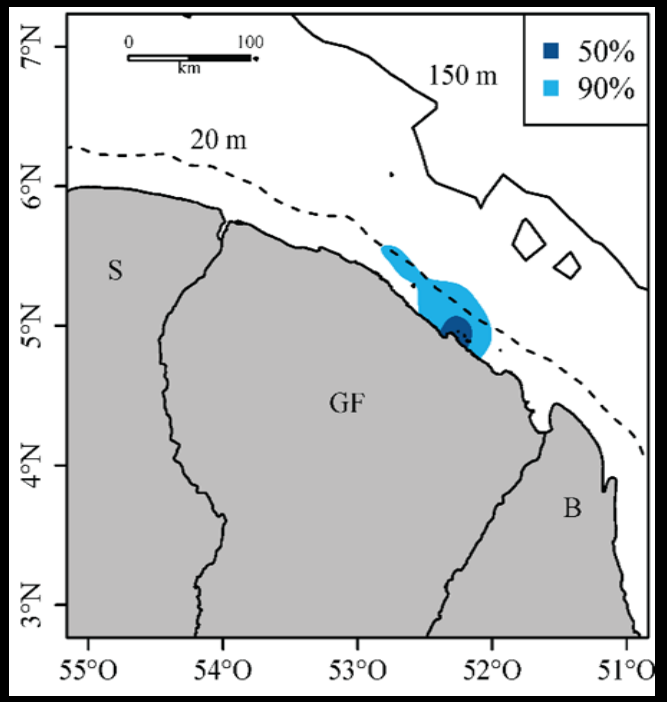
2012



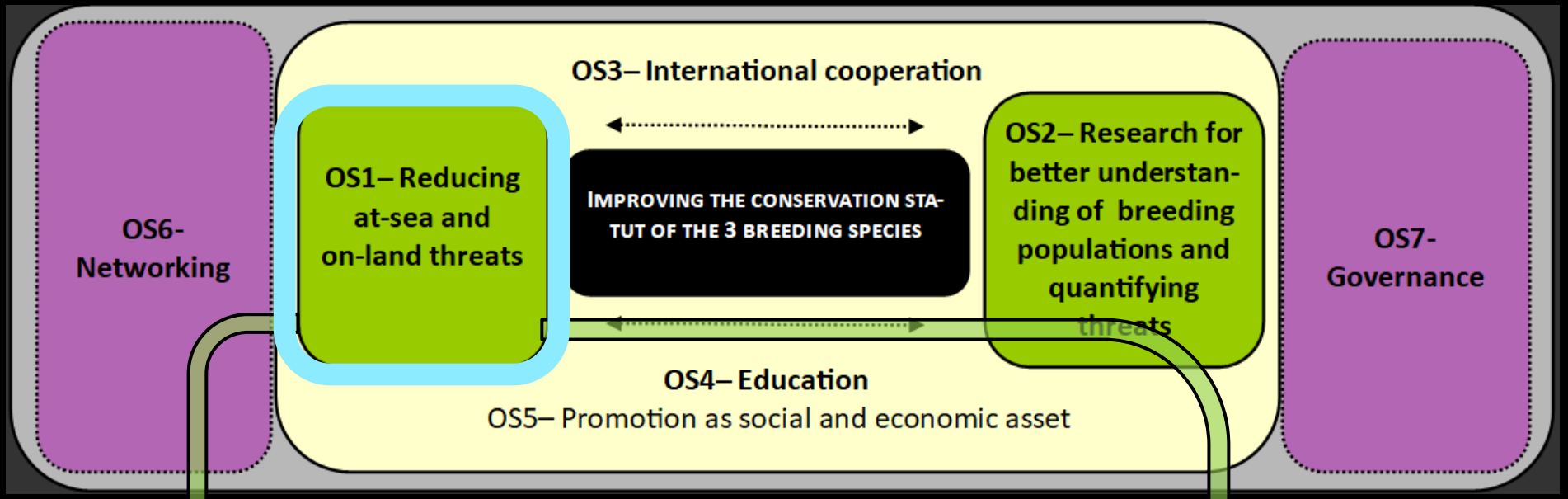
2014



2013-2014



Goal #1 of the National Action Plan



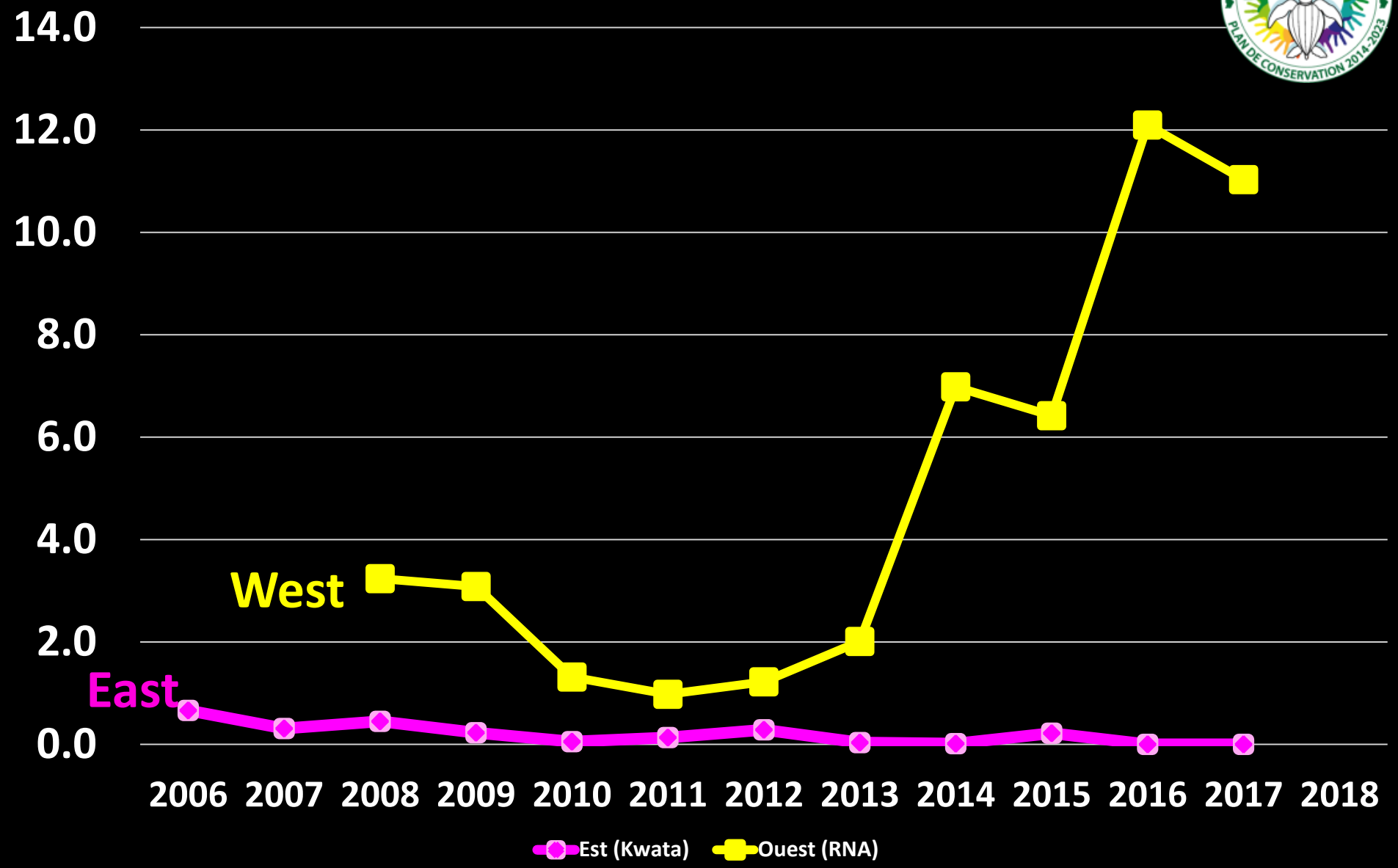
Reducing at-sea threats:

- Bycatch
  - Illegal fishing using gillnets
  - Legal fishing using gillnets
  - Trawl fishing: TTED implementation
  - Recreational fishing using coastal gillnets
  - Longline fishing
- Offshore mining

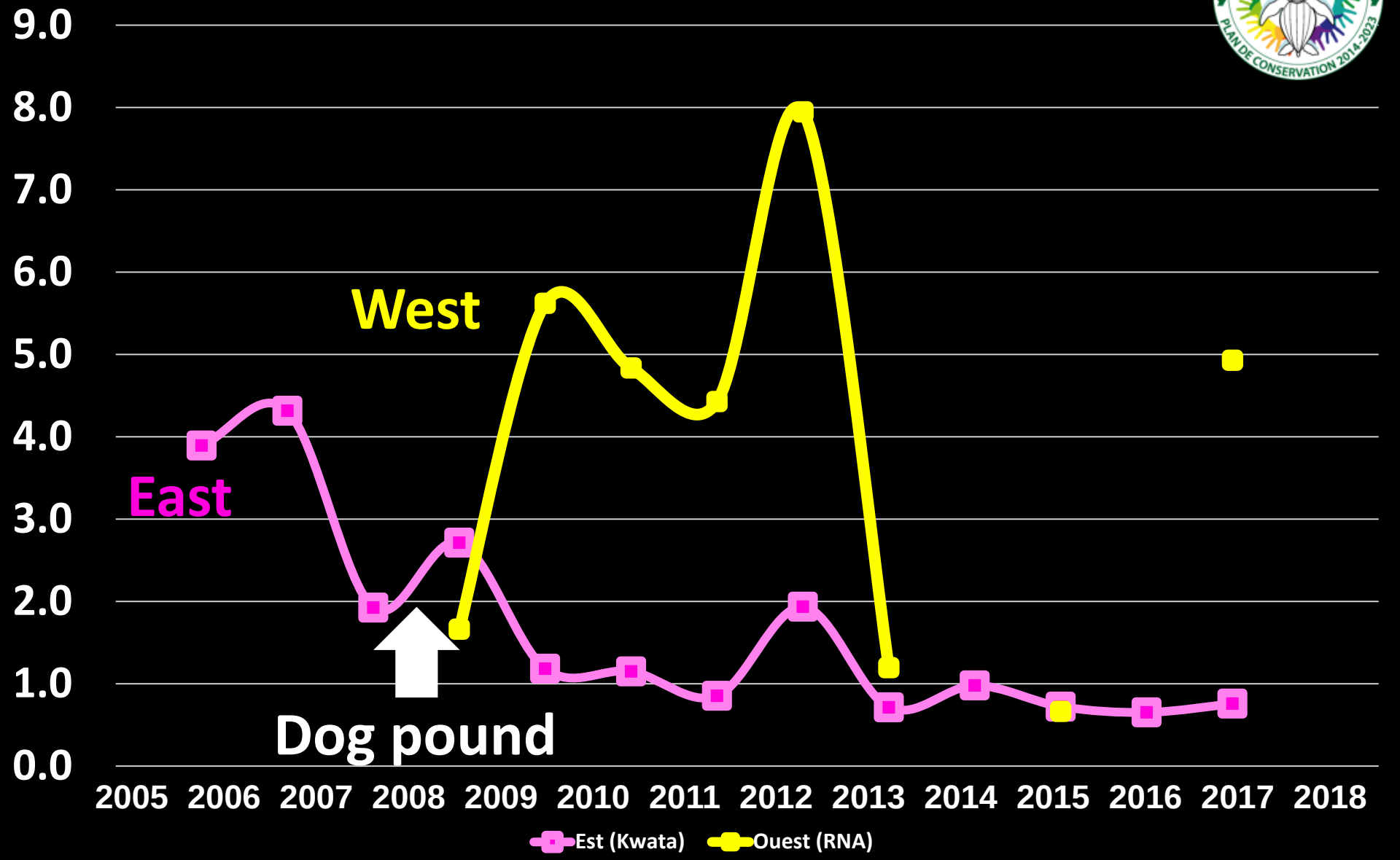
Reducing on-land threats:

- Poaching
- Dog predation on nests & ♀
- Light pollution
- Turtle watching disturbances
- Land planning on nesting sites

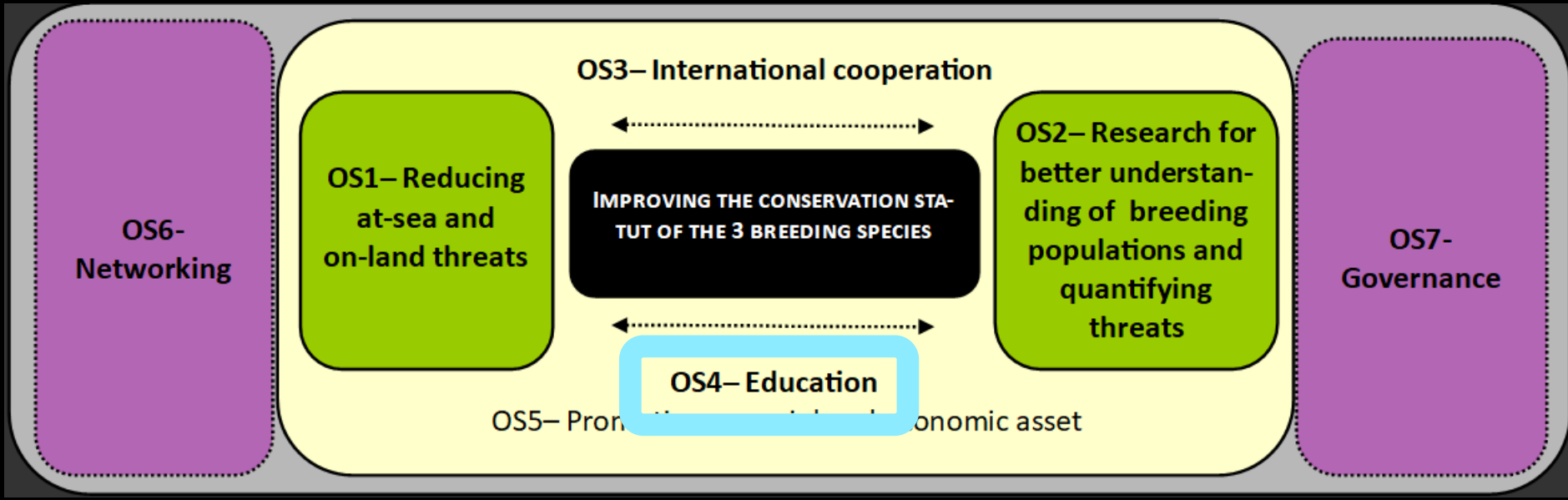
Poaching: % of poached nests



Dog predation on nests: % of destroyed nests



5. Education and communication



School education programs: > 2,500 pupils through 130 classes (2013-18)

Education project « turtles on scene » involving 3 primary schools. Photo : ©Kwata

Beach trash cleaning day on the Yalimapo beach. Photo : ©RNA

5. Education and communication

Citizens education programs: > 53 000 people from 2009 to 2018

Turtle watching opportunity

Patrols to educate people

Free guided tours

Communication

Radio spot

Events : turtle day

Media communication : fb, website

6. Conclusion to WIDECAST partners

Collaborative work

WIDECAST
Wider Caribbean Sea Turtle Conservation Network

1. Monitoring and research:

Based on the success of the *NW Atlantic Leatherback working group* using nest counts to get population trends, we would like to extend data analysis to CMR datasets to get demographic parameters.

French Guiana has 33 years of CMR data (1986-2013) for **Leatherback**.
Chevallier D., Lebreton JD. Et al. in prep. ➔ analysis from 1986 to 2013 (28 years).
Suriname has at least 6 years of CMR data (1999-2005) for **Leatherback**
Hilterman M. & Goverse E., 2007
Others data available ?

Conduct similar work on **Green** (FG : 9 years of PIT tagging from 2010 to 2018) and **Olive ridley** (FG: 10 years of PIT tagging from 2009 to 2018) ?

Complementary outcome: guidelines for future tagging programs at population levels : where do we need info ? How (PIT vs flipper) ? For how long ?
➔ shared vision at a regional scale.

6. Conclusion to WIDECAST partners

Collaborative work

WIDECAST
Wider Caribbean Sea Turtle Conservation Network

2. Conservation (reducing threats):

- Identifying and addressing **leatherback bycatch priorities** in Trinidad and the Guianas

➔ started with the **bycacth priorization workshop** on 17 and 18th, March 2019

➔ Let's keep going to next steps (multi-stakeholders national workshops, Investigate patterns in life history and demographic parameters to put bycatch information in a population-level context.

- Share and maybe extend the French Guiana PALICA program to reduce gillnet bycatch to other countries :

➔ see the presentation this afternoon.

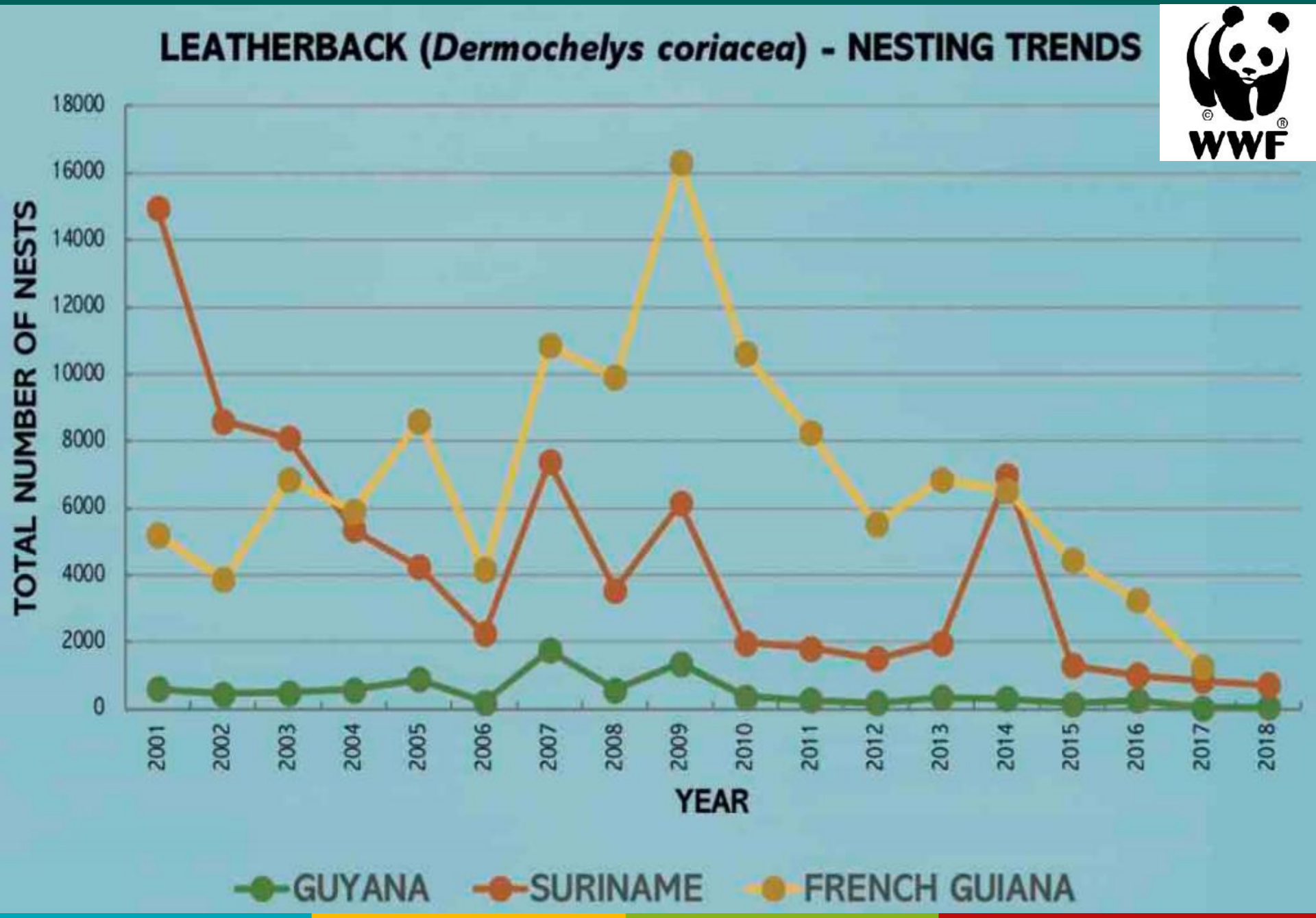
- IUU fishing bycatch issue:

➔ started with the **Guianas regional IUU fishing workshop** on 27 and 28th, November 2018

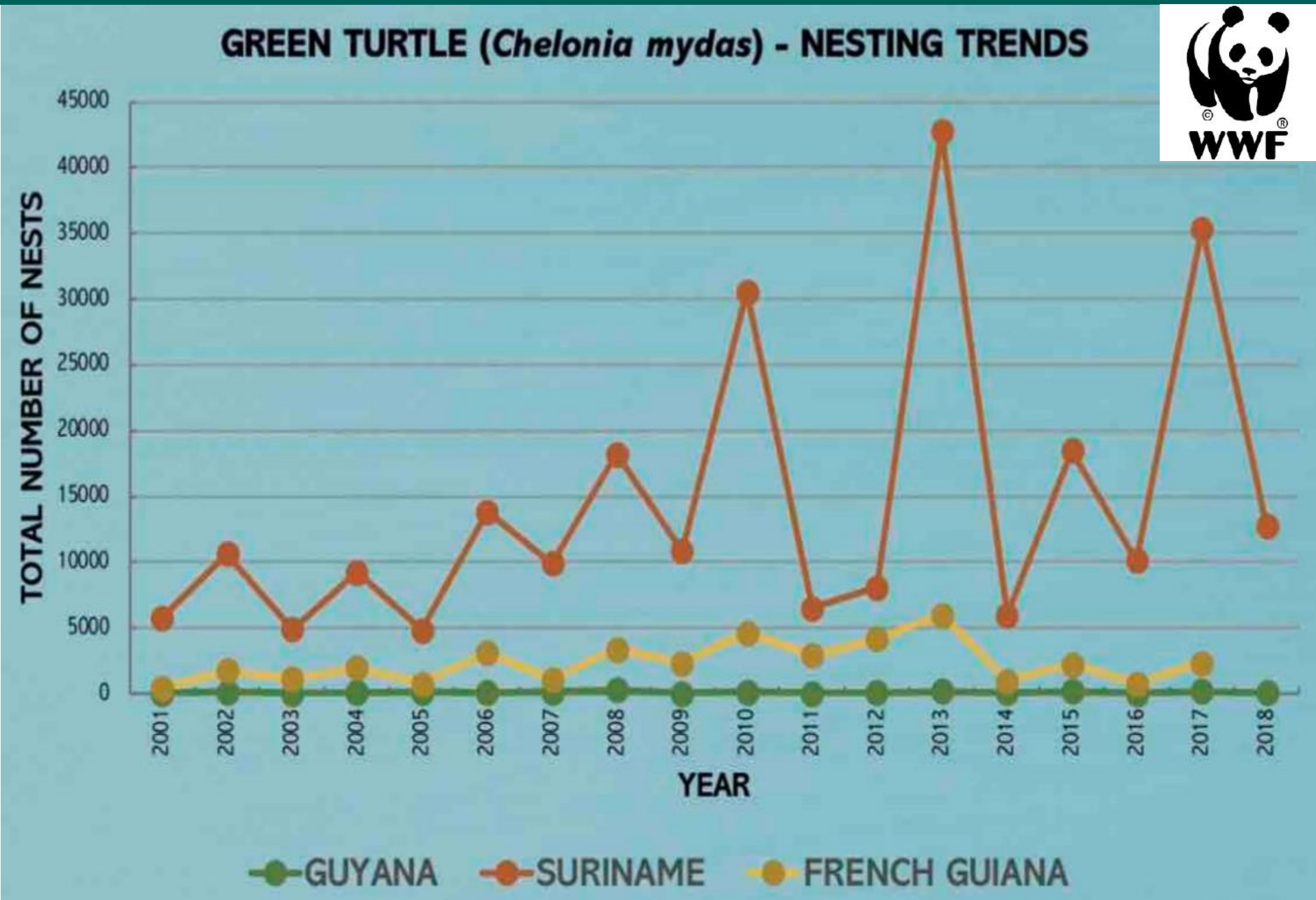
➔ Organize a new workshop in 2019 including Brazil and ask for the Marine Affairs transborder meeting reports.


Office National de la Chasse et de la Faune Sauvage
Liberté • Égalité • Fraternité
RÉPUBLIQUE FRANÇAISE
DIRECTION DE L'ENVIRONNEMENT, DE L'AMÉNAGEMENT ET DU LOGEMENT
GUYANE
RÉSEAU TORTUES MARINES GUYANE
PLAN DE CONSERVATION 2014-2023
Thank you !
2nd Marine Turtles National Action Plan (2014-2023)
1st Marine Turtles National Restauration Plan (2007-2012)
Nicolas Paranthoen (coordination.prtm@gmail.com)
Rachel Berzins (rachel.berzins@oncfs.gouv.fr)
l'Europe s'engage en Guyane

ANNEXE


LEATHERBACK (Dermochelys coriacea) - NESTING TRENDS
TOTAL NUMBER OF NESTS
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
YEAR
GUYANA
SURINAME
FRENCH GUIANA

ANNEXE


GREEN TURTLE (Chelonia mydas) - NESTING TRENDS
TOTAL NUMBER OF NESTS
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
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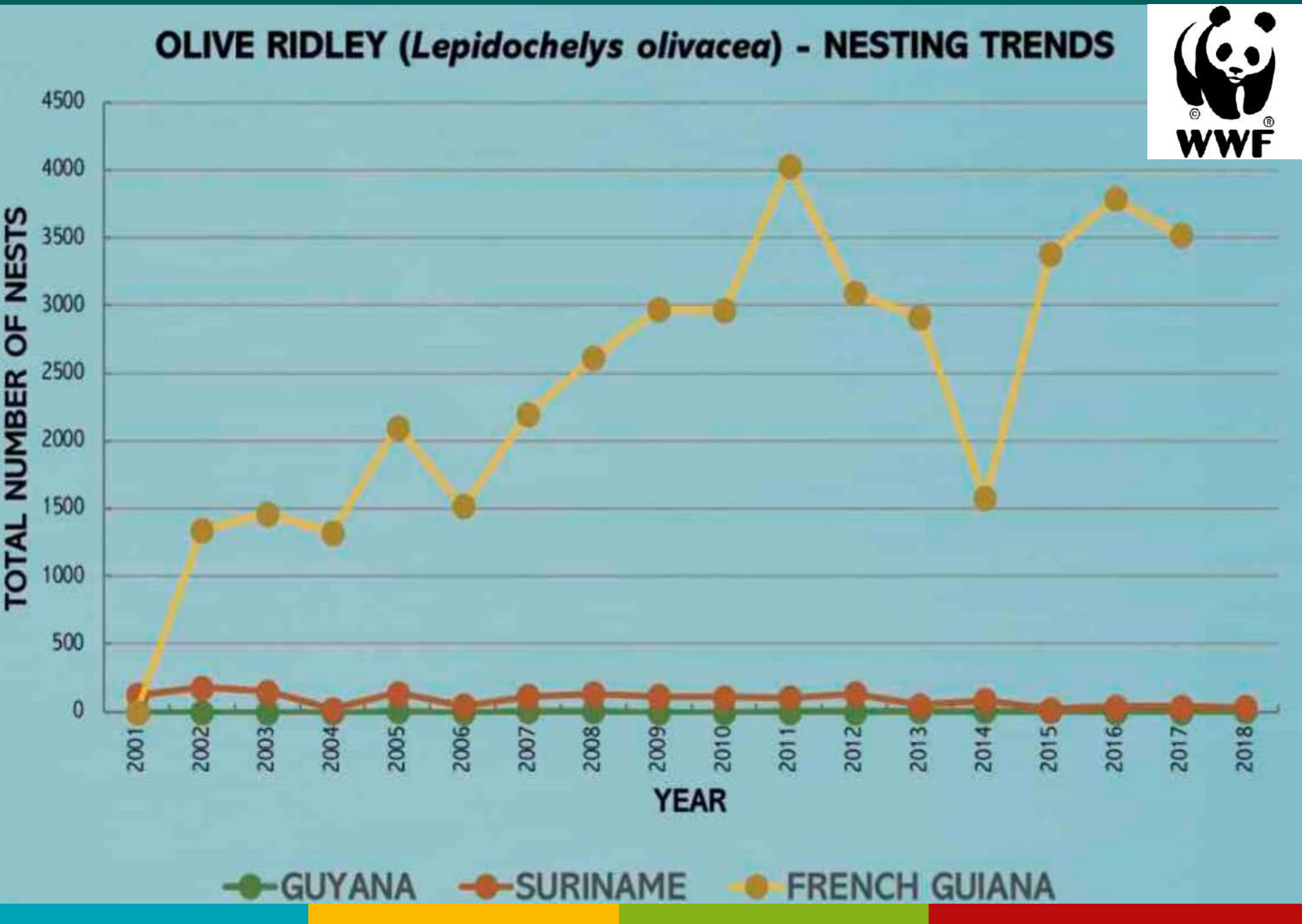
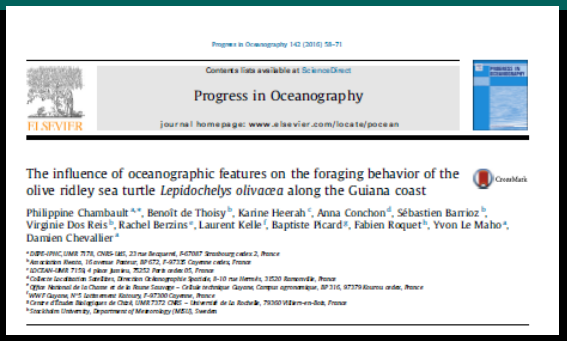
2016
2017
2018
YEAR
GUYANA
SURINAME
FRENCH GUIANA

ANNEXE


OLIVE RIDLEY (Lepidochelys olivacea) - NESTING TRENDS
TOTAL NUMBER OF NESTS
4500
4000
3500
3000
2500
2000
1500
1000
500
0
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
YEAR
GUYANA
SURINAME
FRENCH GUIANA

ANNEXE



Progress in Oceanography 143 (2016) 58–71

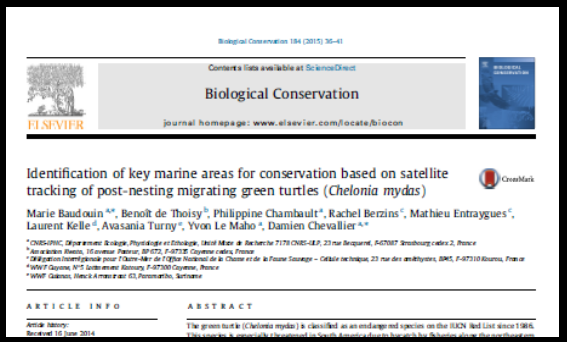
Contents lists available at ScienceDirect

Progress in Oceanography

journal homepage: www.elsevier.com/locate/pocean

The influence of oceanographic features on the foraging behavior of the olive ridley sea turtle *Lepidochelys olivacea* along the Guiana coast

Philippine Chambault[a,*], Benoît de Thoisy[b], Karine Heerah[c], Anna Conchon[d], Sébastien Barrioz[b], Virginie Dos Reis[b], Rachel Berzins[e], Laurent Kelle[f], Baptiste Picard[g], Fabien Roquet[h], Yvon Le Maho[a], Damien Chevallier[a]



Biological Conservation 184 (2015) 36–41

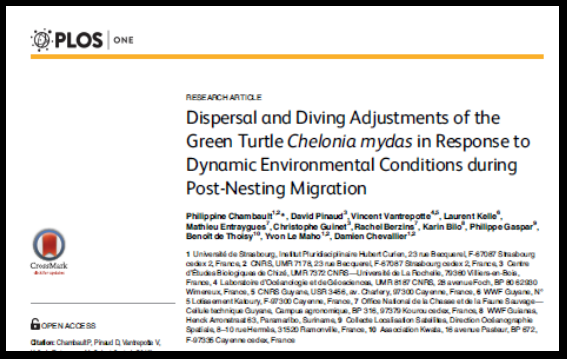
Contents lists available at ScienceDirect

Biological Conservation

journal homepage: www.elsevier.com/locate/biocon

Identification of key marine areas for conservation based on satellite tracking of post-nesting migrating green turtles (*Chelonia mydas*)

Marie Baudouin[a,*], Benoît de Thoisy[b], Philippine Chambault[a], Rachel Berzins[c], Mathieu Entraygues[c], Laurent Kelle[d], Avasania Turny[e], Yvon Le Maho[a], Damien Chevallier[a,*]



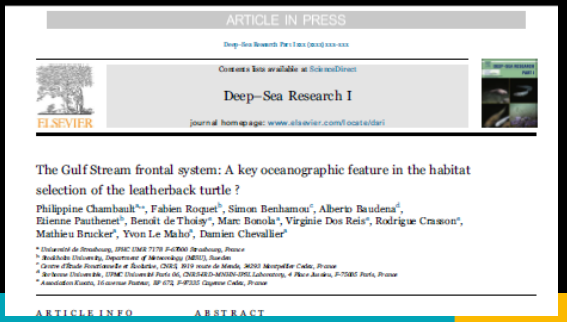
PLOS ONE

RESEARCH ARTICLE

Dispersal and Diving Adjustments of the Green Turtle *Chelonia mydas* in Response to Dynamic Environmental Conditions during Post-Nesting Migration

Philippine Chambault[1,2]*, David Pinaud[3], Vincent Vantrepotte[4,5], Laurent Kelle[6], Mathieu Entraygues[7], Christophe Guinet[3], Rachel Berzins[7], Karin Bilo[8], Philippe Gaspar[9], Benoît de Thoisy[10], Yvon Le Maho[1,2], Damien Chevallier[1,2]

OPEN ACCESS



ARTICLE IN PRESS

Deep-Sea Research Part I (xxx) xxx–xxx

Contents lists available at ScienceDirect

Deep–Sea Research I

journal homepage: www.elsevier.com/locate/dsri

The Gulf Stream frontal system: A key oceanographic feature in the habitat selection of the leatherback turtle ?

Philippine Chambault[a,*], Fabien Roquet[b], Simon Benhamou[c], Alberto Baudena[d], Etienne Pauthenet[b], Benoît de Thoisy[e], Marc Bonola[a], Virginie Dos Reis[e], Rodrigue Crusson[e], Mathieu Brucker[e], Yvon Le Maho[a], Damien Chevallier[a]

ARTICLE INFO ABSTRACT