

BEST

VOLUNTARY SCHEME
FOR BIODIVERSITY AND
ECOSYSTEM SERVICES
IN TERRITORIES OF
EUROPEAN OVERSEAS



Review of existing Repositories & Inventories of Species and Habitats in French Outermost Regions

Guillaume Gigot & Julien Touroult

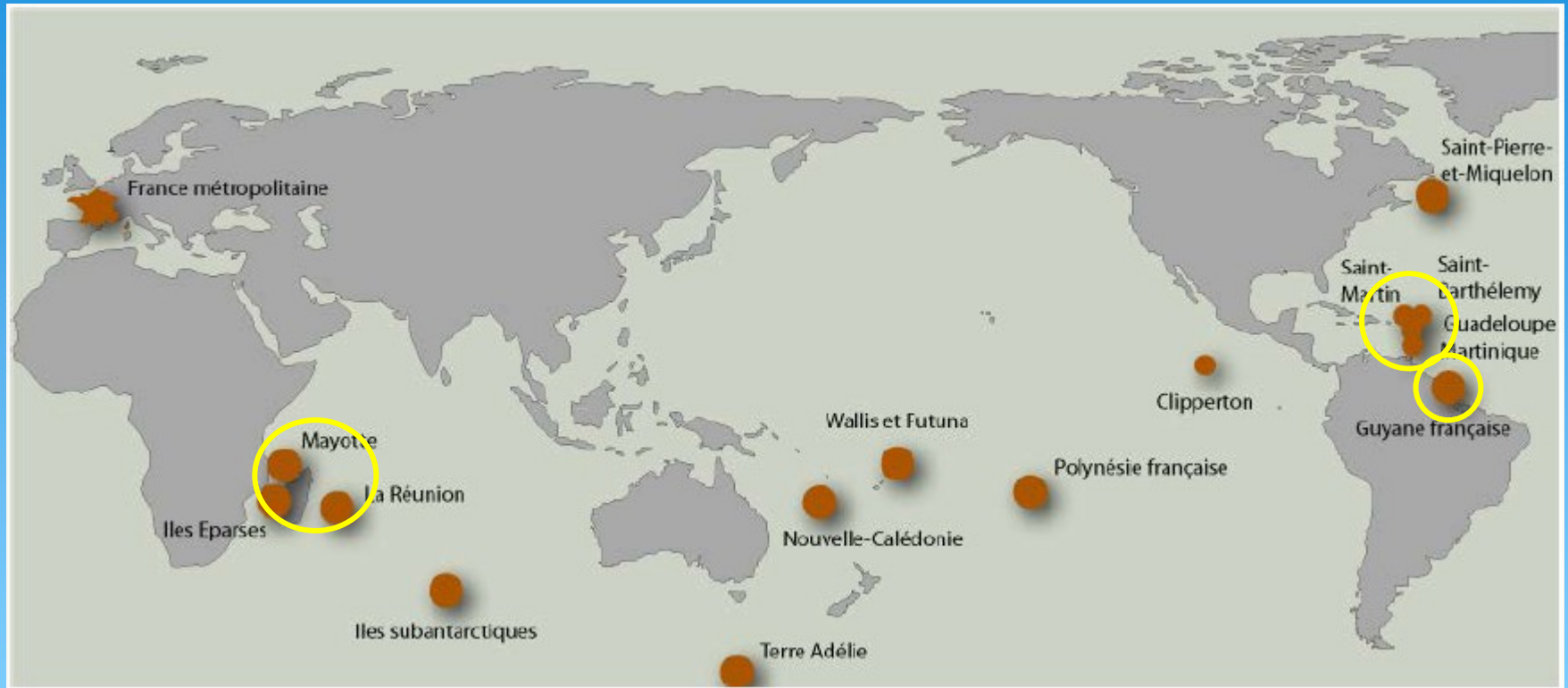
(Muséum national d'Histoire naturelle, UMS Patrimoine naturel, Paris)



**AGENCE FRANÇAISE
POUR LA BIODIVERSITÉ**
ÉTABLISSEMENT PUBLIC DE L'ÉTAT

Bruxelles - 28/11/2017

French Outermost Regions (ORs)



What do we do

Species taxonomic repository (TAXREF)

Habitats repository (HABREF)

Inventory of Natural Areas of Ecological, Fauna and Flora Interest (ZNIEFF)

Species and ecosystems conservation status (Red Lists)

National inventory of species (Atlas, inventories ...)



National Inventory of the Natural Heritage (INPN)

for overseas territories :

~ 600 000 species distribution data

~ 3000 species in national Red List

~ 260 protected areas

37 habitats classification systems

ABOUT

LATEST NEWS

CONTEXT

🏠 > Programmes

PROGRAMS

TAXONOMIC REPOSITORY (TAXREF)



✓ Taxonomic repositories for flora and fauna of metropolitan France and overseas territories

READ MORE

REGULATED SPECIES REPOSITORY



✓ Repository on the regulation of species in metropolitan France and overseas territories.

READ MORE

PROTECTED AREAS



✓ National basis of the areas providing protection or management of natural heritage.

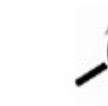
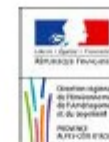
ZNIEFF



✓ Inventory of Natural Areas of Ecological, Fauna and Flora Interest (ZNIEFF).

✓ Rep
veg
and

✓ National basis of the Natura 2000 network.



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Ok

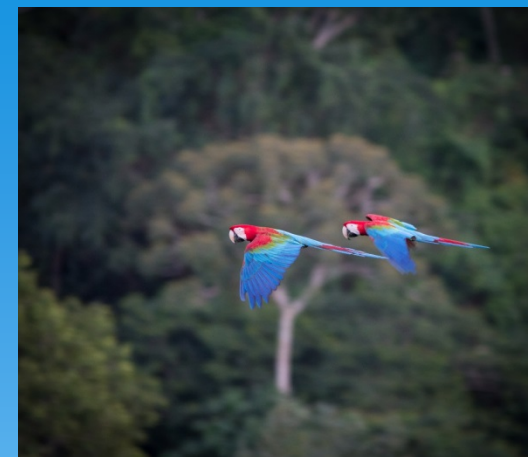
How we did it

Short but detailed study (2017)

Collective expertise / reviewing existing information

Datasets, repositories, classification systems

already available at national level



ZONER	TERRITOIRE	VÉGÉTATIONS	HABITATS	FORMATIONS VÉGÉTALES	OCCUPATION-DU SOL	UNITES PAYSAGÈRES
Atlantique-nord-ouest	Saint-Pierre-et-Miquelon	%	MULLER <i>et al.</i> , 2011 ^h : 118	BOSSEAU, 1965 ^h : 10	%	AUBERT-DE LA RUE, 1951 ^h : n.c.
Caraïbes	Guadeloupe	ROUSTEAU, 1996 ^h : 57	HOFF (coord.), 1997 ^h : 515	IGN, ONF, CG971, FEDER, 2010 ^h : 17	CORINE Land-Cover: 50	Atlas des paysages ^h : 25
	Martinique	STEHLÉ, 1936 & 1937 ^h : 37	HOFF (coord.), 1997 ^h : 515	IFN, 2004 ^h : 10	CORINE Land-Cover: 50	LAUNE, 2012 ^h : 27
	Saint-Martin & Saint-Barthélemy	%	HOFF (coord.), 1997 ^h : 515	%	CHEULA <i>et al.</i> , 2012 ^h : 7	%
					CHEULA <i>et al.</i> , 2012 ^h : 7	%
Côte-atlantique-d'Amérique-du-sud-équatoriale	Guyane	HOFF, 1993 ^h : 170	HOFF (coord.), 1997 ^h : 515	GOND <i>et al.</i> , 2011 ^h : 12(33)	CORINE Land-Cover: 50	QUITET <i>et al.</i> , 2013 & 2015 ^h : 25
			QUITET <i>et al.</i> , 2015 ^h : 41		ONF, 2013 ^h : 61	DEAL, 2009 ^h : 11
Océan-Indien	Mayotte	BOULLET, 2005a ^h : ~200	BOULLET, 2005b ^h : 379	LAINE, 2010 ^h : 26	CORINE Land-Cover: 50	%
	La Réunion	DELBOSC <i>et al.</i> , 2011 ^h : LACOSTE <i>et al.</i> , 2011a, b et 2014 ^h : 261	LACOSTE <i>et al.</i> , 2014 ^h : 373	%	CORINE Land-Cover: 50	DIREN - RÉUNION, 2010 ^h : 17
		CADET, 1980 ^h : n.c.	STRASBERG <i>et al.</i> , 2000 ^h : 339			

Knowledge of habitats



Some tools and mapping for almost all ORs

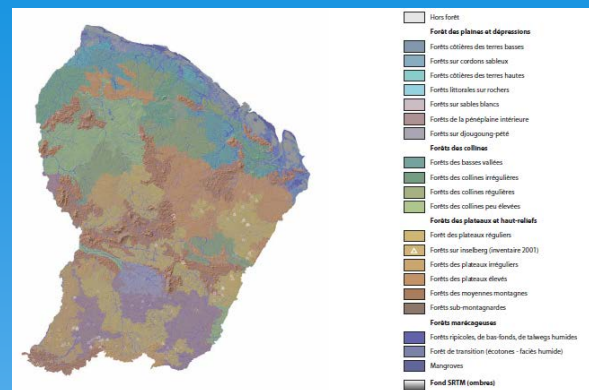


Heterogeneous, no commun language between classification systems and mapping

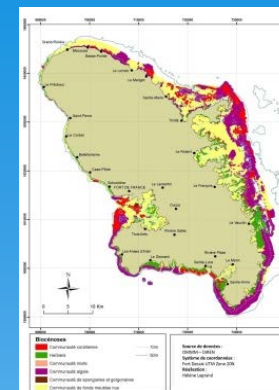
Priorities : marine habitats / a general classification system ?

	Région Caraïbe						Région Amazonie		Région Océan Indien			
	Martinique		Guadeloupe		Saint-Martin		Guyane		La Réunion		Mayotte	
<i>Référentiel</i>	<i>T</i>	<i>C</i>	<i>T</i>	<i>C</i>	<i>T</i>	<i>C</i>	<i>T</i>	<i>C</i>	<i>T</i>	<i>C</i>	<i>T</i>	<i>C</i>
Végétation												
Habitats												
Formations végétales												
Occupation du sol												
Unités paysagères												

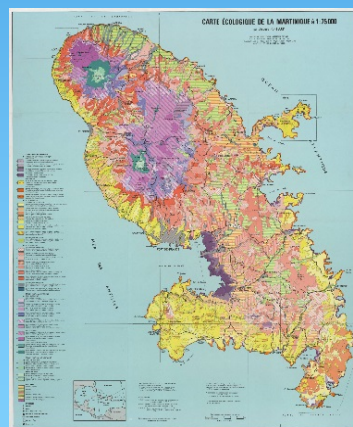
Terrestrial



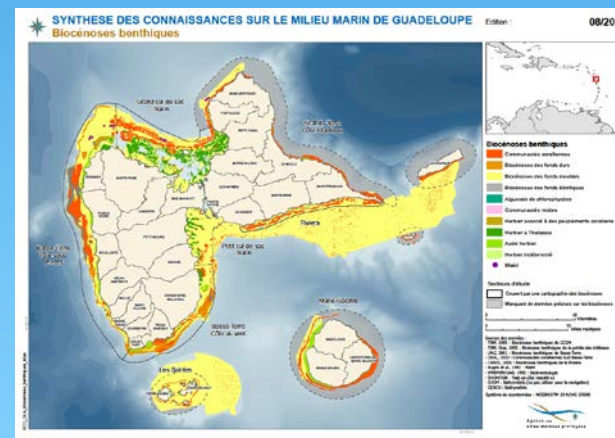
Guitet et al. 2015



Legrand, 2010



Portecop, 1979

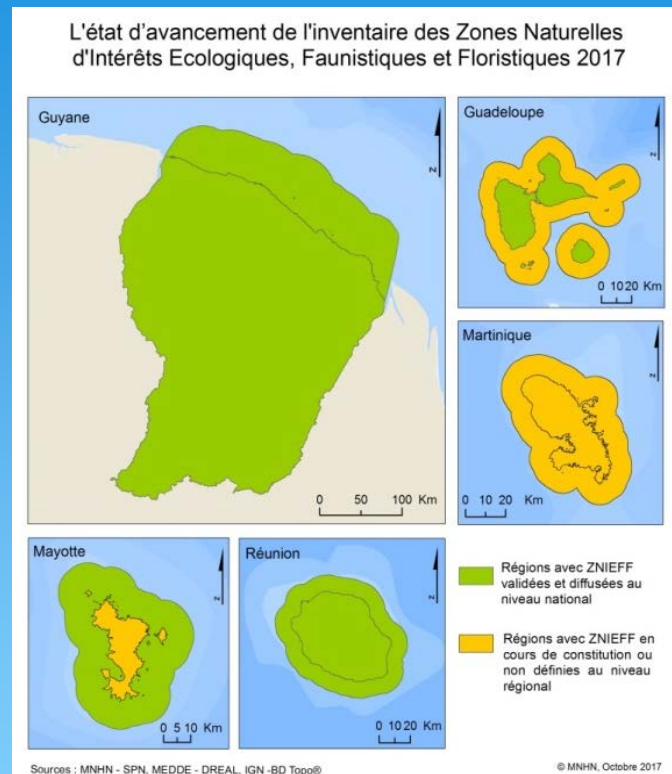


AAMP, 2013

Habitats and conservation issues

+ Ongoing work in ORs / quite good coverage

— Implementation rate too moderate /
needs updating / lack of a shared
classification system

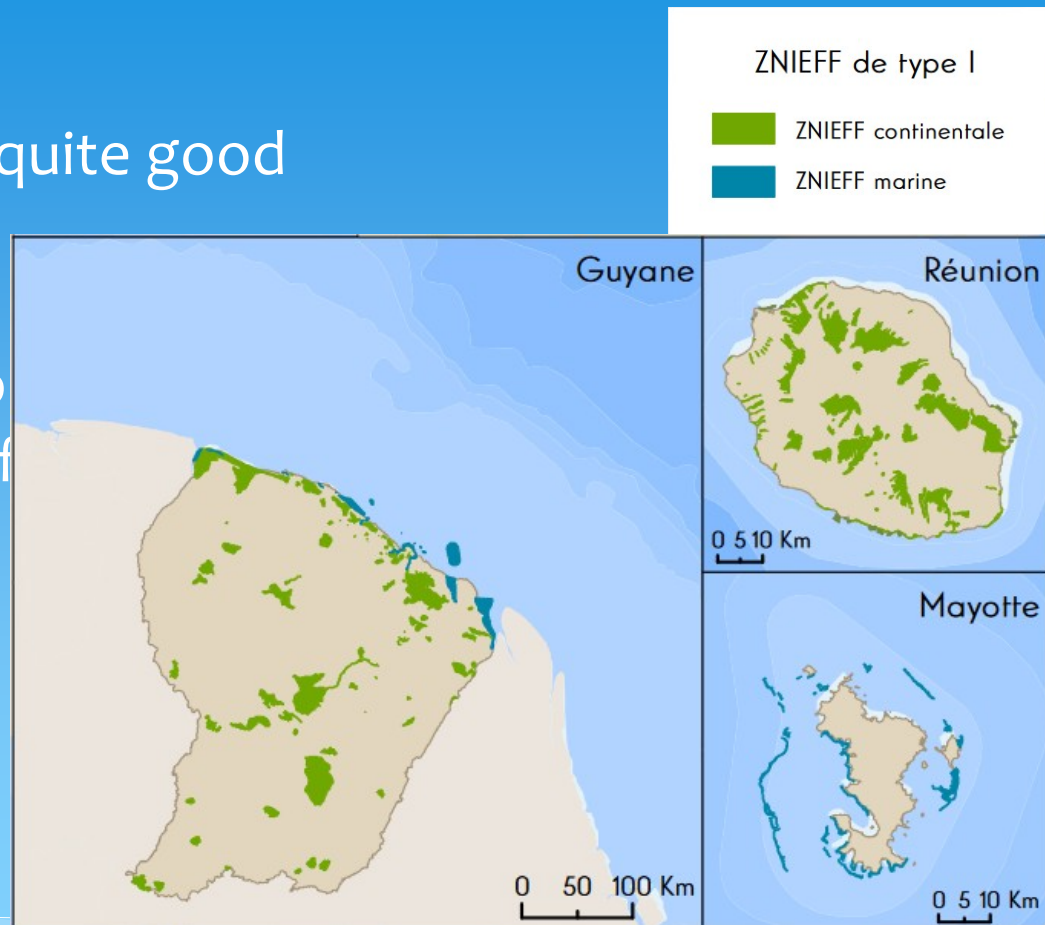


Natural Areas of Ecological, Fauna
and Flora Interest (ZNIEFF)

Habitats and conservation issues

+ Ongoing work in ORs / quite good coverage

— Implementation rate to needs updating / lack of classification system





+ Ongoing project with first results

— Difficult to connect or associate with other geographical levels

Priorities : complete Mangroves, carry on with new assessments

Species and taxonomic repository

+ Quite well up-to-date for main groups

— need for continuous updating / Fungi, algae, some invertebrates...

	Région Caraïbe			Région Amazonie	Région Océan Indien	
	Martinique	Guadeloupe	Saint-Martin	Guyane	La Réunion	Mayotte
Nb total d'espèces	4730	7343	1186	25969	7193	2312
Nb d'espèces endémiques et sub-endémiques	605	1327	62	1894	1457	252
Nb d'espèces introduites ou envahissantes	359	418	122	323	1783	205
Nb d'espèces décrites depuis 2000	93	138	12	1944	350	94
Angiospermes	1621	1730	485	5016	2160	786
Fougères	246	296	2	343	276	76
Mousses	155	244	0	1	289	5
Oiseaux	172	288	136	807	134	128
Mammifères	20	24	22	196	18	15
Herpétofaune	40	72	27	290	33	28
Poissons	46	35	6	440	68	48
Lépidoptères	307	458	128	6090	624	153
Odonates	30	39	9	244	23	34
Coléoptères	383	1406	74	6211	973	167
Hyménoptères Apoidea	18	21	7	320	17	10
Trichoptères, Plécoptères, Epheméroptères	24	52	0	58	11	9
Gastéropodes	86	87	52	94	117	88
Arachnides	81	200	36	511	121	26
Champignons	4	9	0	829	0	0

TAXREF V 10.0
Terrestrial

Species and conservation status



Thousands of assessments available



Invertebrates, Fungi,
Marine species



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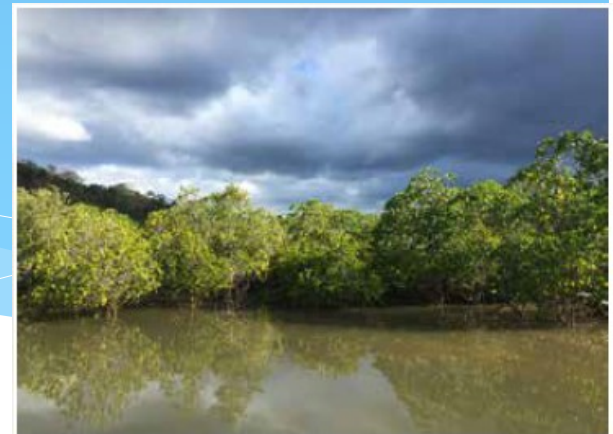
Species National
Red List

	Caribbean reg.			Amazon reg.	Indian Ocean reg.	
	Martinique	Guadeloupe	St Martin	Guyane	La Réunion	Mayotte
<u>Vertebrates</u>						
<u>Invertebrates</u>						
<u>Vasc. Flora</u>						
<u>Bryo. & Algae</u>						
<u>Fungi</u>						

Mainly terrestrial species

Conclusions

- i) **Lists and inventories** exist in almost all the ORs
- ii) Already **identified and available** in a national framework
- iii) **Heterogeneity** between ORs & some tools are missing to support conservation strategies



Mangrove de Kawéni à Mayotte © H. Udo

To go further

Combine a **habitat approach with data on species at stake** to define complementary **key sites for biodiversity**

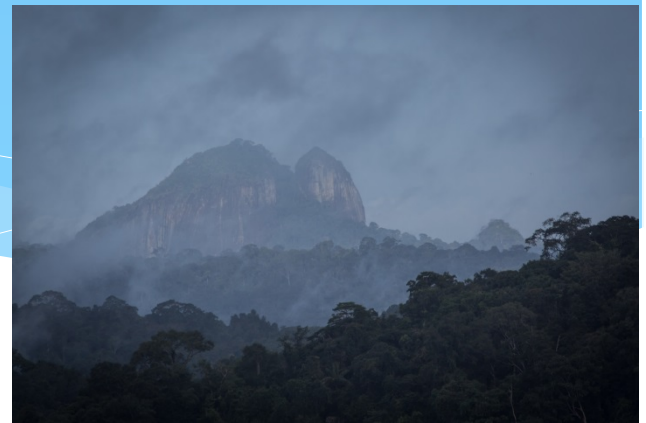


Antilles / F. Mazeas

- Represent all **"natural" ecological compartments**
- **Reactive** (threatened species) & **pro-active** (endemic species)
- Adaptation and potential resilience to **global change**
- **"Less natural spaces"** as part of a **green infrastructure** approach

In practice

- 1) Digitizing / sharing of available **habitat/vegetation maps**
- 2) Re-launch regional **expert groups on habitats**
- 3) Strengthen the **knowledge base on Saint-Martin**
- 4) Implement a **standardized knowledge acquisition strategy**
- 5) Continue / strengthen the development of **Red Lists**
- 6) Carry out **major inventory operations**



Thank you

Species repository

Olivier Gargominy, Claire Régnier

Red Lists

Guillaume Gigot

Habitats

Rémy Poncet, Vincent Gaudillat,
Noémie Michez ,Stéphane Guitet

ZNIEFF projects

Fanny Lepareur

Inventories

Pascal Dupont, Jeanne de Mazière,
Thomas Milon

The INPN team and all the partners



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ZNIEFF de type I

- ZNIEFF continentale
- ZNIEFF marine

