



maritime
week
PORT RÉUNION



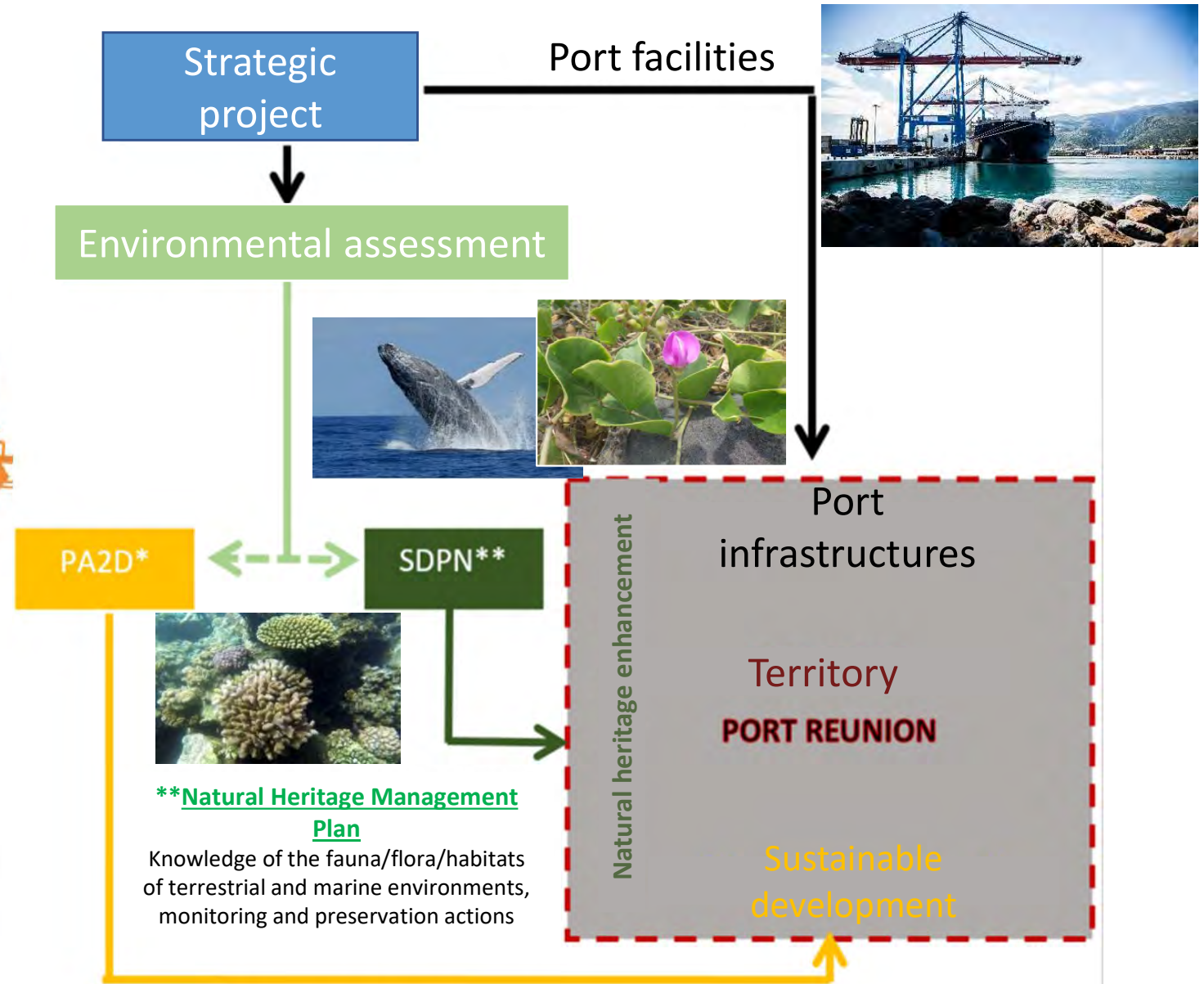
A Natural Heritage Management Plan Revealing Unexpected Deep Biodiversity: A Spotlight on a Port Conservation Action.

Priscille Labarrère, Ludovic Hoarau



A voluntary environmental initiative

❖ Responsible Port



**Natural Heritage Management Plan

Knowledge of the fauna/flora/habitats of terrestrial and marine environments, monitoring and preservation actions

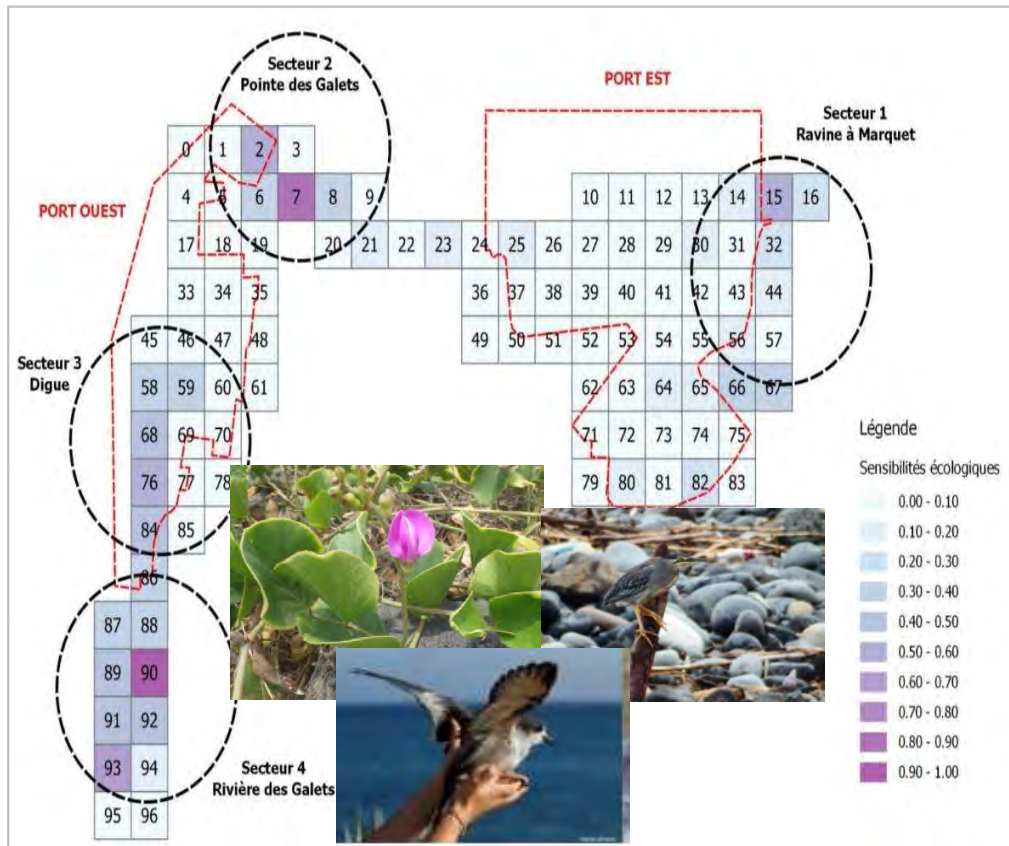
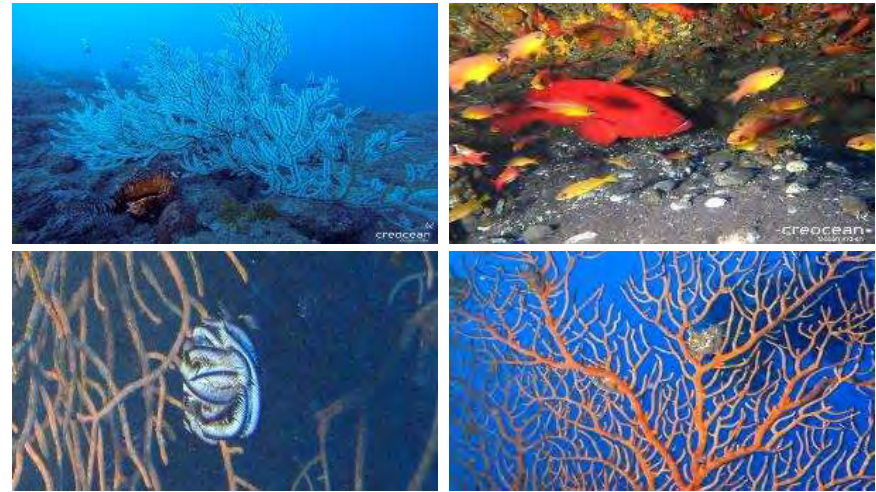
*Sustainable Development Plan

Environment: actions in the field of sustainable development, social and economy

Natural Heritage Master Plan

❖ Better knowledge and considerations of natural heritage in port development projects

- Inventories of terrestrial and marine diversity
- Definition of environmental issues
- Surveys for assessing impacts port projects
- Action plan for biodiversity conservation



Avoid Reduce/Mitigate Compensate

Environmental-friendly port development



A 5-year action plan with multiple objectives

01 KNOWLEDGE OF NATURAL HERITAGE

Enhancing the value of marine survey results

Improving knowledge of marine biodiversity

Install a network of artificial shelters for microchiropterans and evaluate their effectiveness

Reducing light pollution from port activities

03 CONCERTED & COORDINATED MANAGEMENT

Help improve stormwater management in the watershed

Participate in the observation and contribute to the non-proliferation of invasive alien species

Centralize data and make them available

02 PRESERVING & ENHANCING THE RICHNESS & FUNCTIONALITY OF ECOSYSTEMS

Set up a marine population monitoring program

Preserve, restore and rehabilitate natural habitats

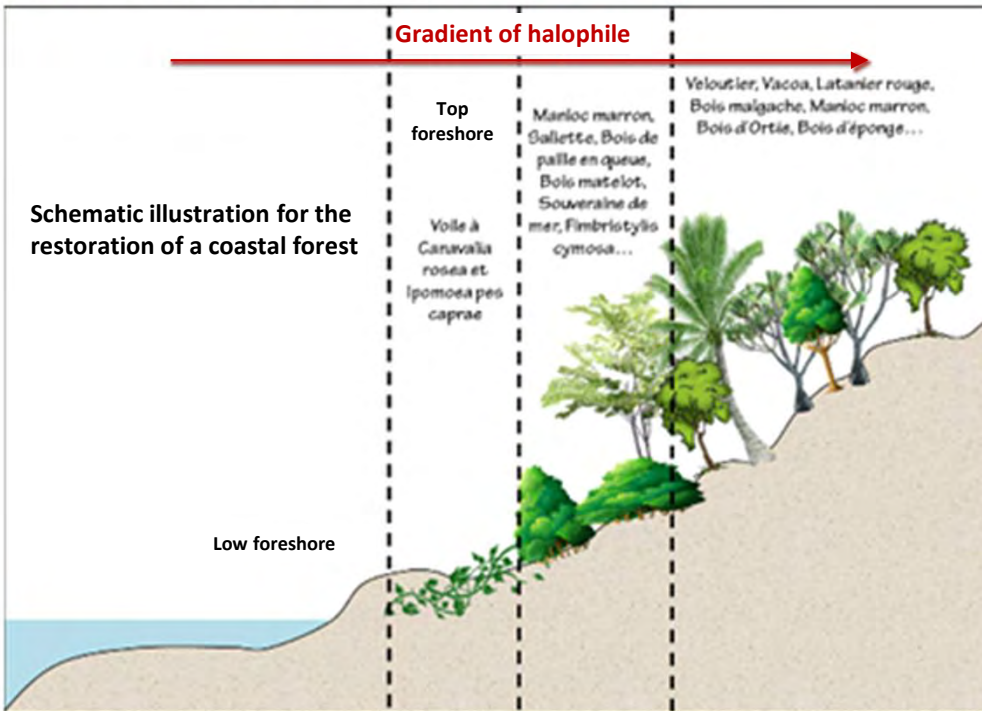
Anticipating coastal erosion and managing its consequences

Set up a plant palette

Reconciling human use and biodiversity in green areas

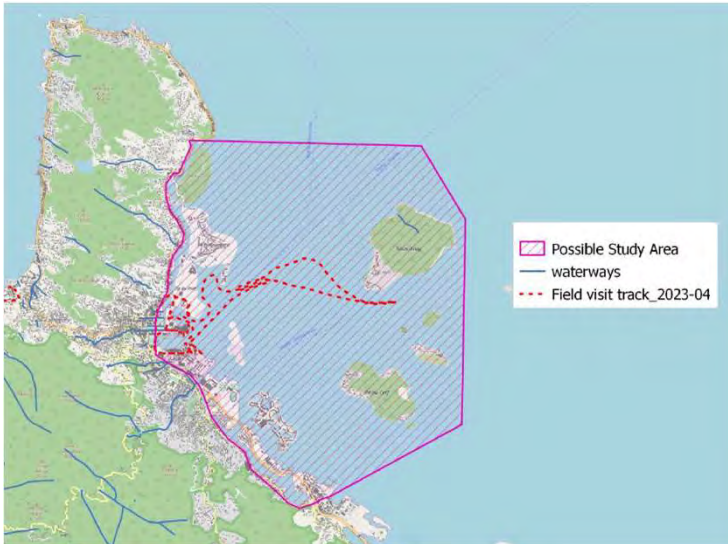
04 COMMUNICATION

Raising awareness of Port Réunion's natural heritage among the local population and stakeholders



SPA/GPMDLR cooperation programme

Development of Natural Heritage Management Plan



Coopération programme between Seychelles Ports Authority (SPE) and Grand Port maritime de la Réunion (GPMDLR) : « Green Port »
Exchange good practices on the development of Natural Heritage Management Plan



Gygis alba (© P.-Y. Fabulet)

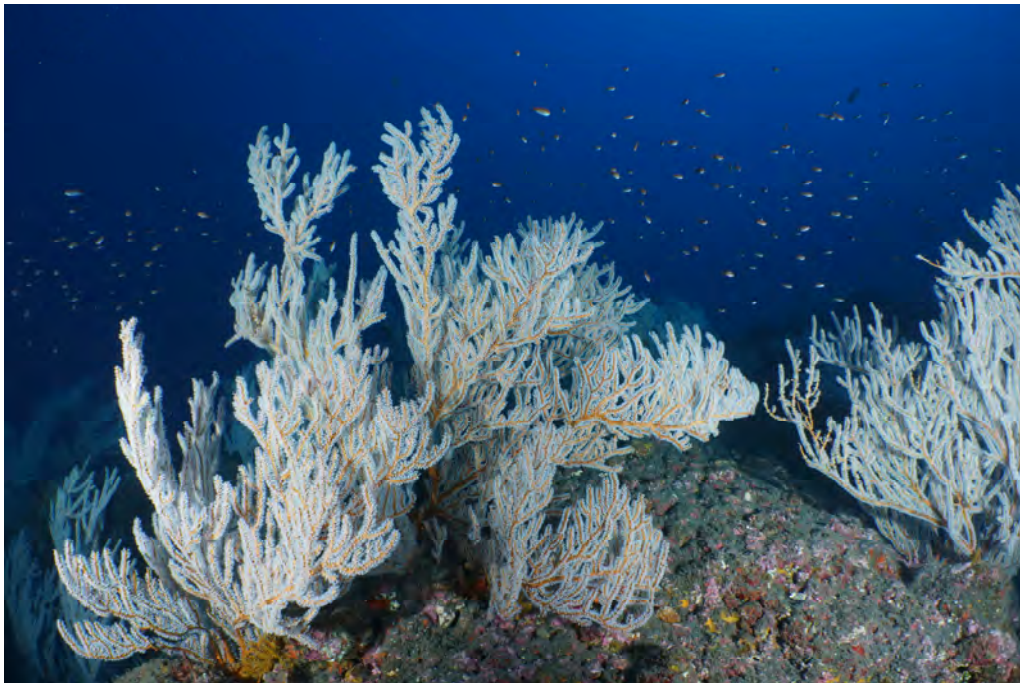
Marine action plan

❖ Marine action plan validated

Objective 1: Knowledge of natural heritage

- Action 1.1:
Enhancing the value of marine survey results

Action 1.2:
Improving knowledge of marine biodiversity



Objective 2: Conservation and promotion of the richness and functionality of ecosystems, extension of inventories carried out

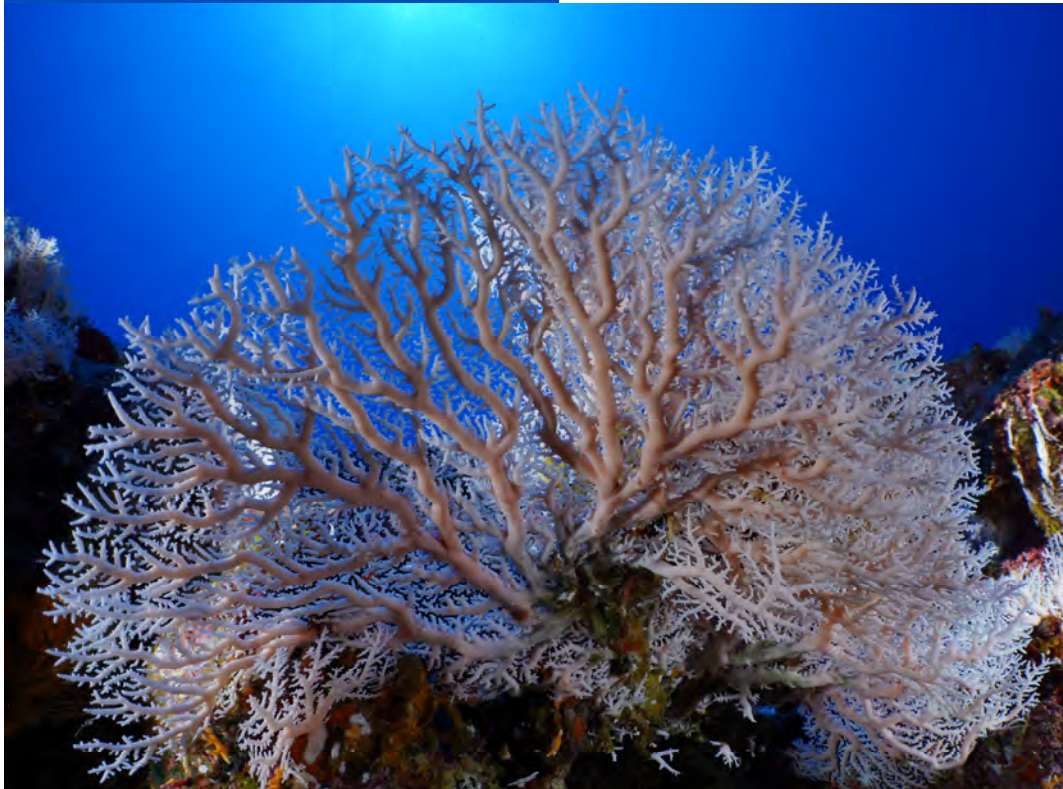
- Action 2.1:
Monitor of marine biodiversity

- Actions 2.2:
Preserve/Restore/Rehabilitate natural habitats



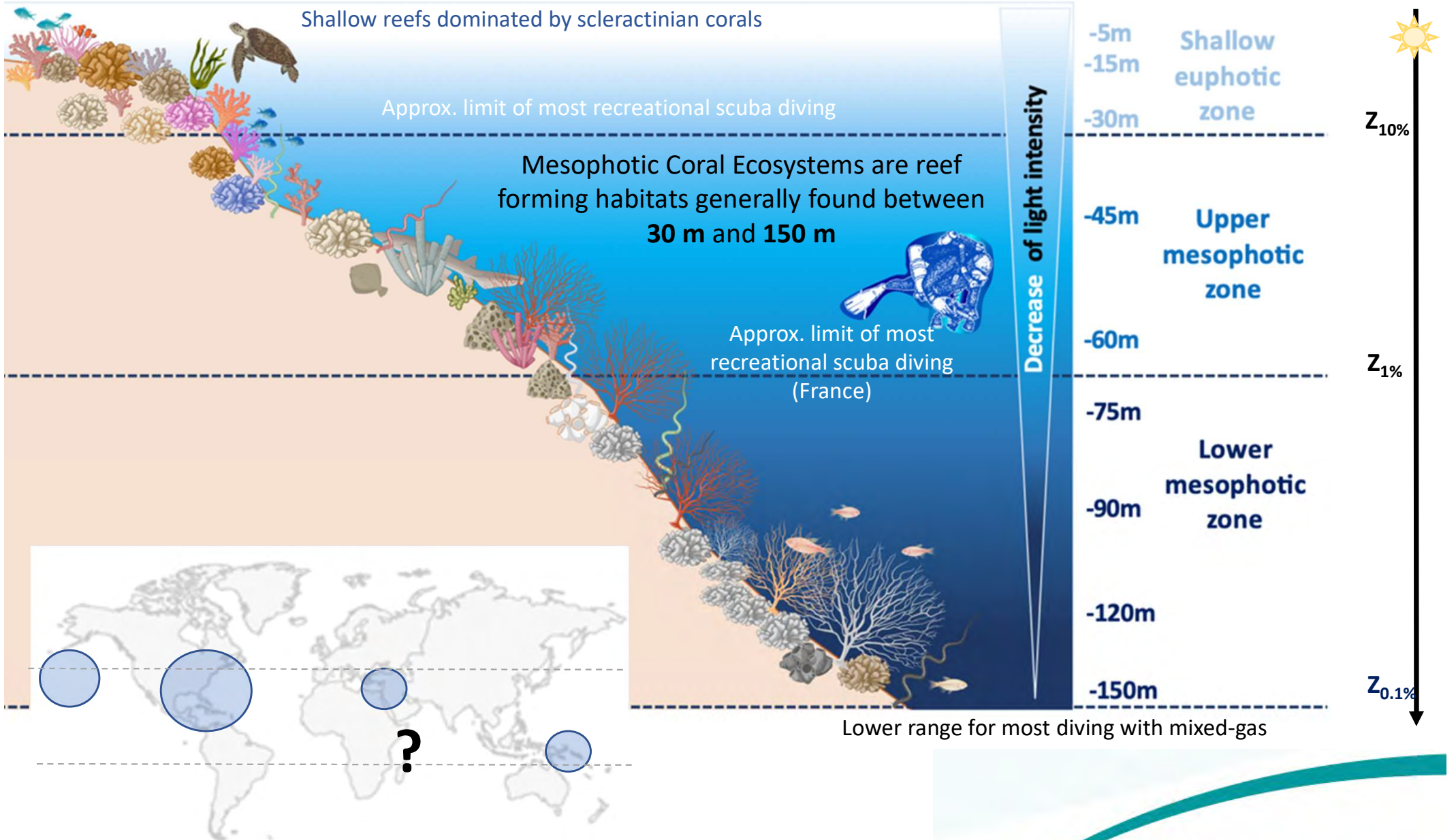
ECOMER Project

Deep high biodiversity: diving into Mesophotic Coral Ecosystems in Reunion Island, SouthWestern Indian Ocean



ECOMER Project

MESOPHOTIC CORAL ECOSYSTEMS



ECOMER Project

Objectives



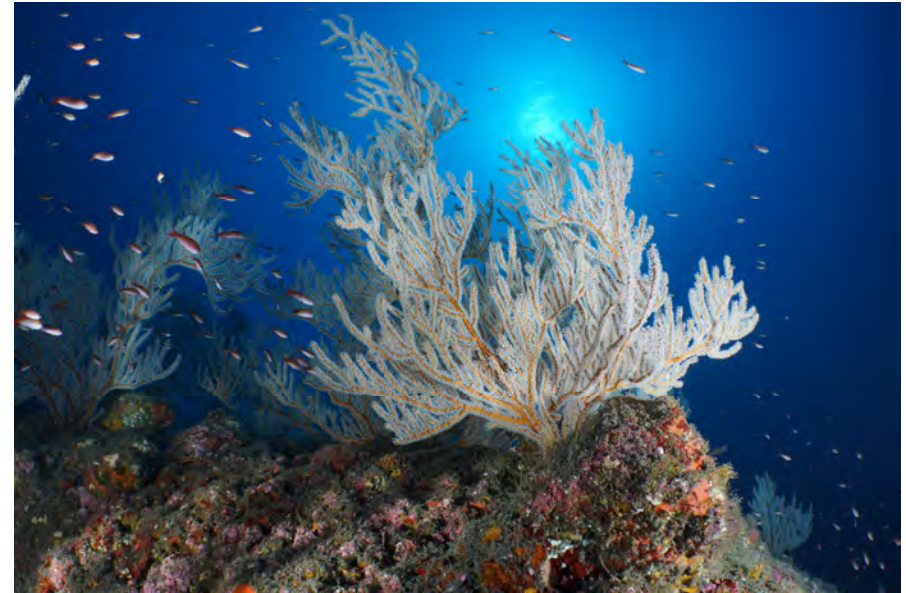
Characterizing mesophotic habitats and sessile macrobenthic communities



Demographic processes of mesophotic scleractinian corals and their genetic structure



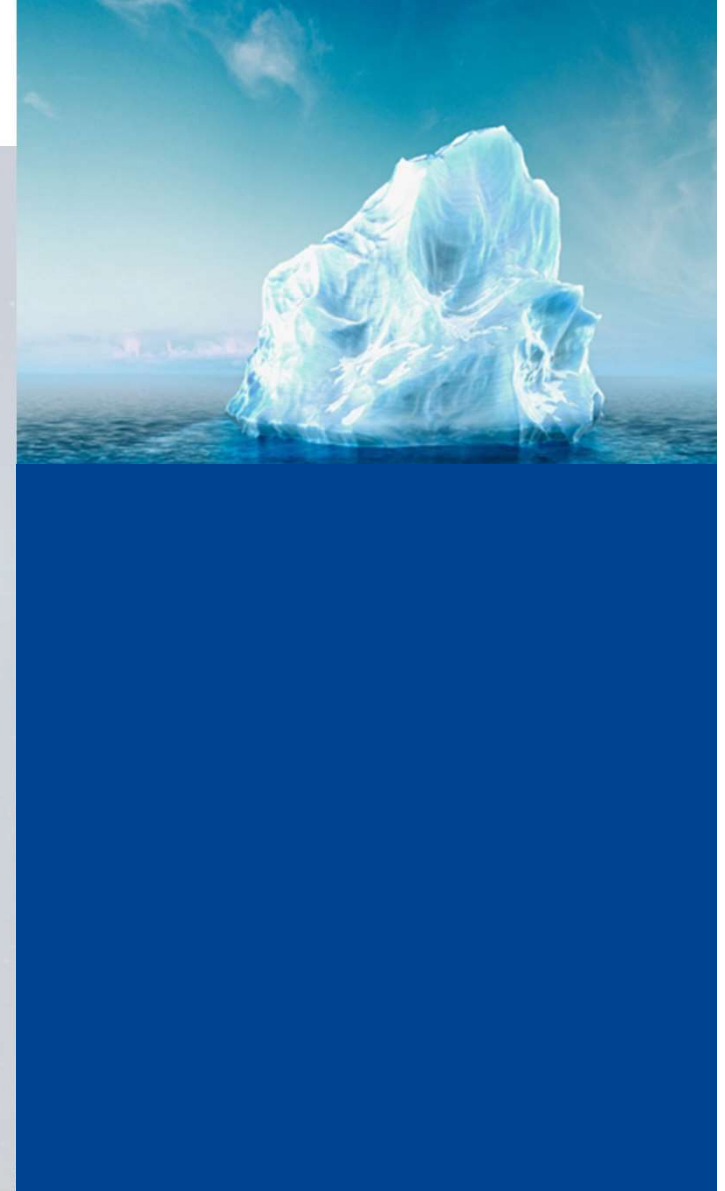
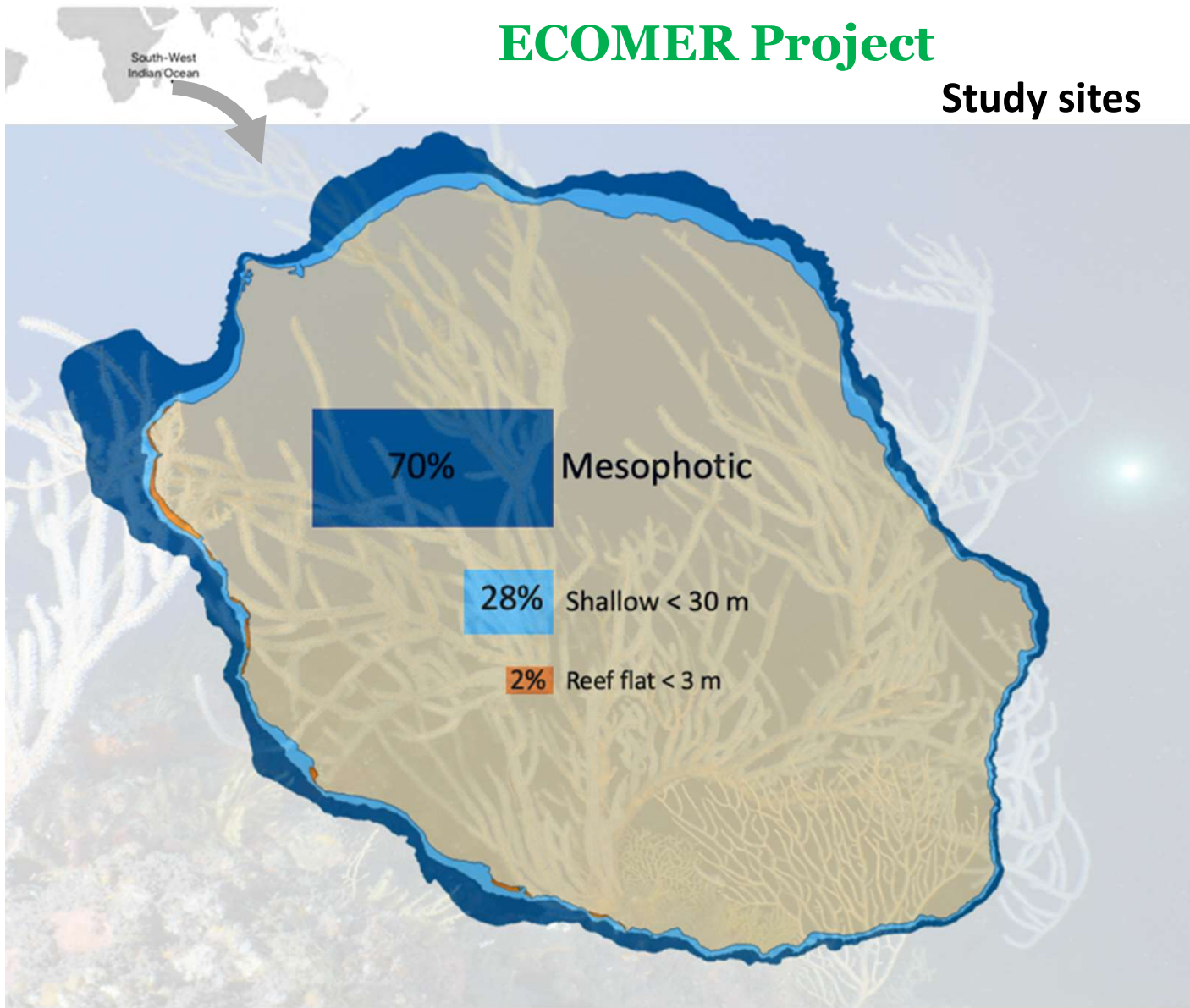
Connectivity and conservation of mesophotic coral ecosystems



SDPN : an experimental base for biodiversity

ECOMER Project

Study sites



ECOMER Project

Study sites

Shallow coral reefs
< 30 m depth

- ✓ Visible/accessible
- ✓ Studied
- ✓ (Partly) protected

70% Mesophotic

28% Shallow < 30 m

2% Reef flat < 3 m

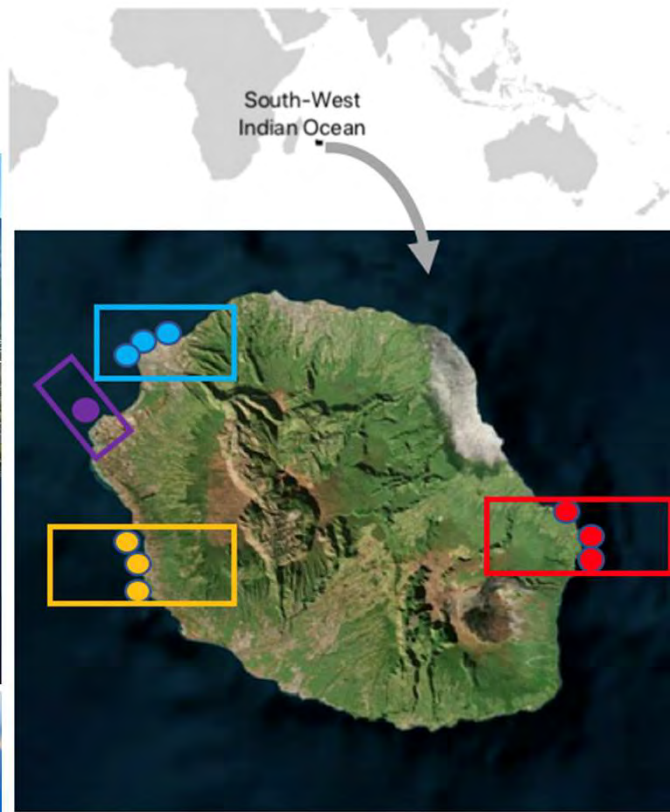
Mesophotic coral reefs
30 m – 150 m depths

- ✓ Not accessible
- ✓ Understudied
- ✓ In need of protection



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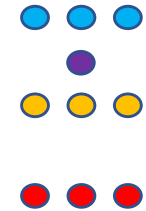
Study sites



3 main geographic locations:

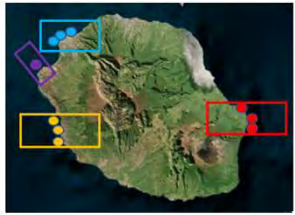
- Le Port (Port area)
- Saint-Leu (Coral reef area)
- Sainte-Rose (Volcanic area)

10 sites:

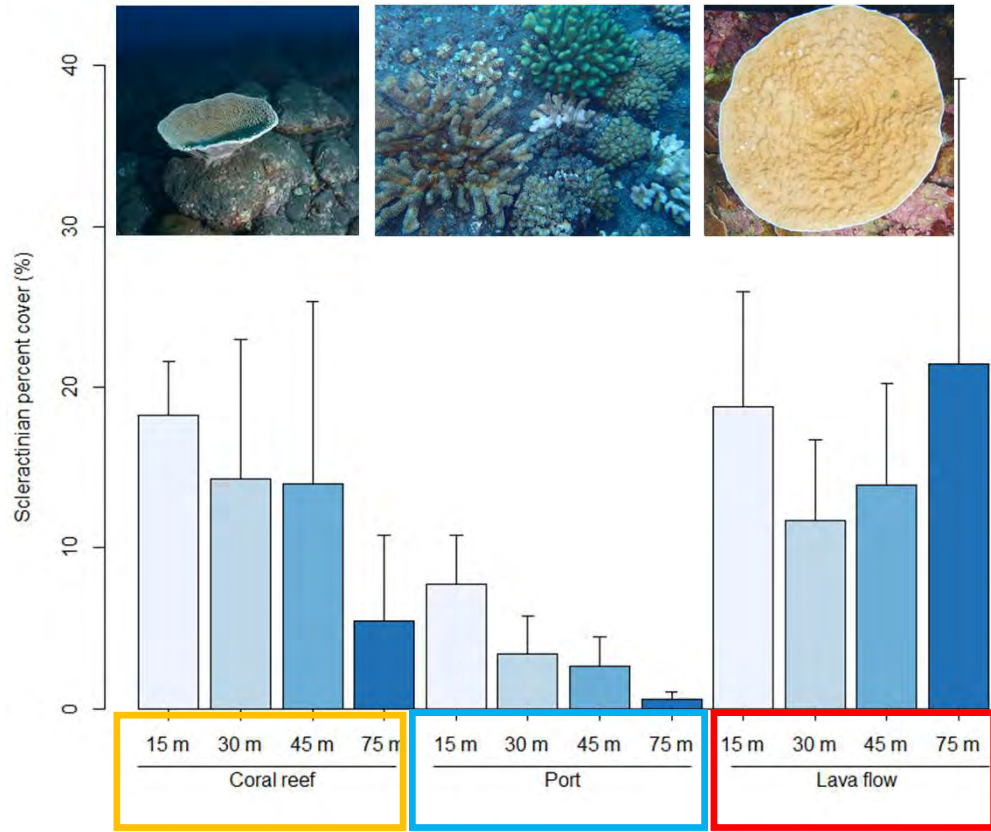


Results

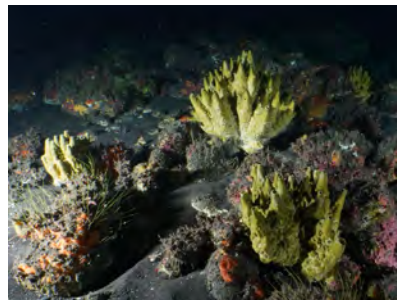
ECOMER Project



Scleractinia



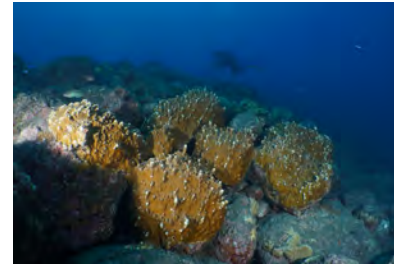
Sponge



Macroalgae



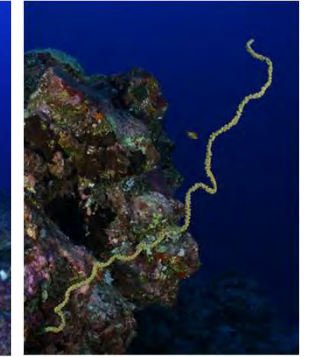
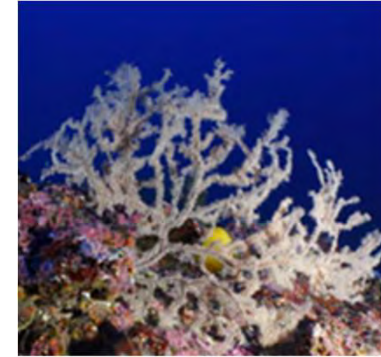
Milleporidae



Stylasteridae



Antipatharia



Octocorallia

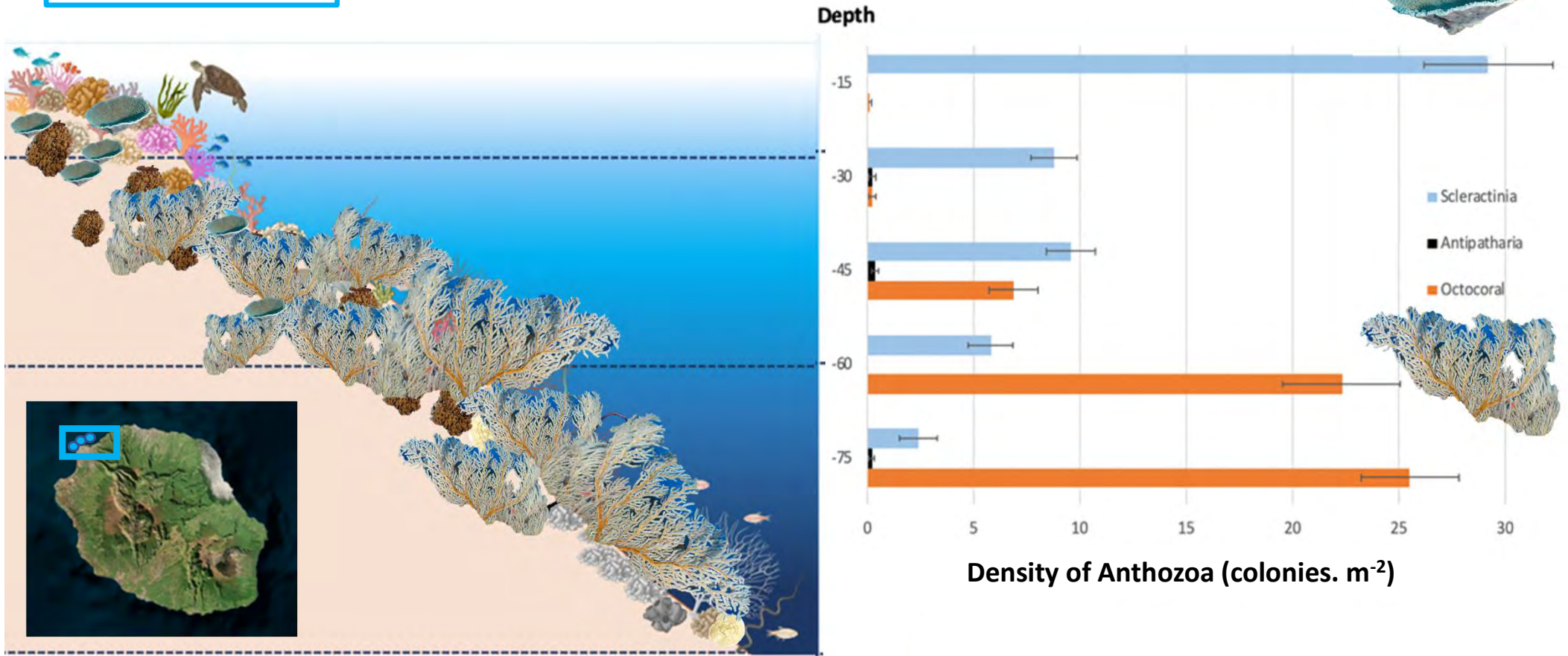


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Results

- Le Port (Port area)

Sessile Benthic Community Shifts



Shift of benthic communities from scleractinian corals to soft corals (gorgonians) at 45 m depth

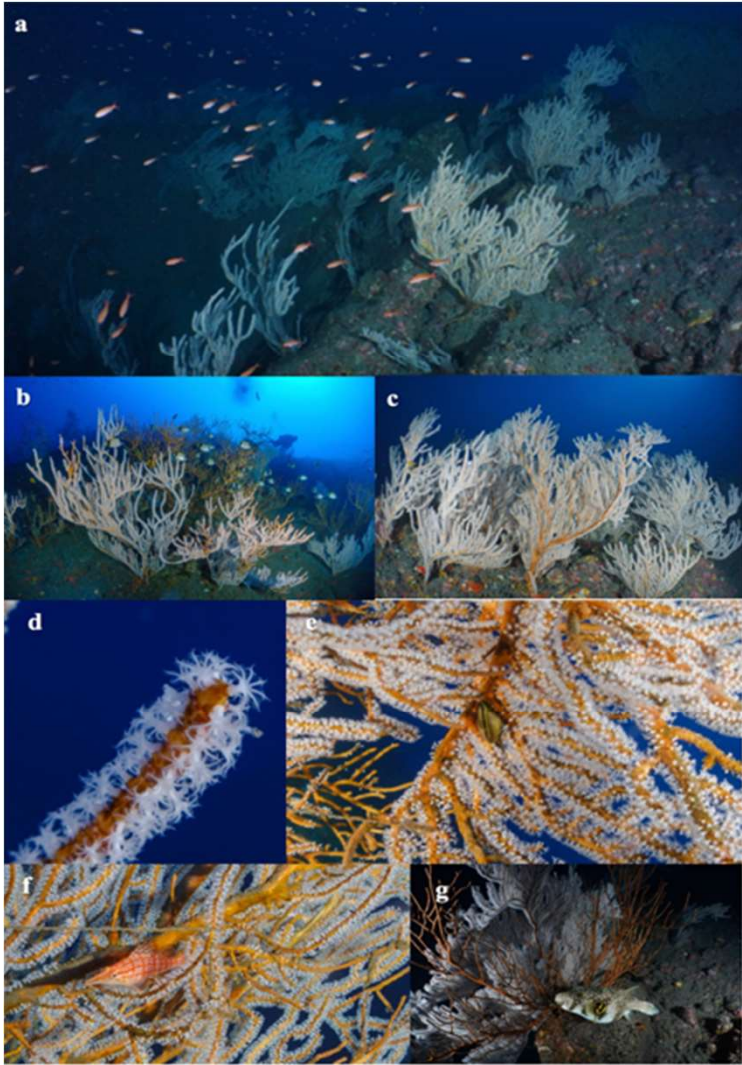


Results

- Le Port (Port area)

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A Marine Animal Forest ...



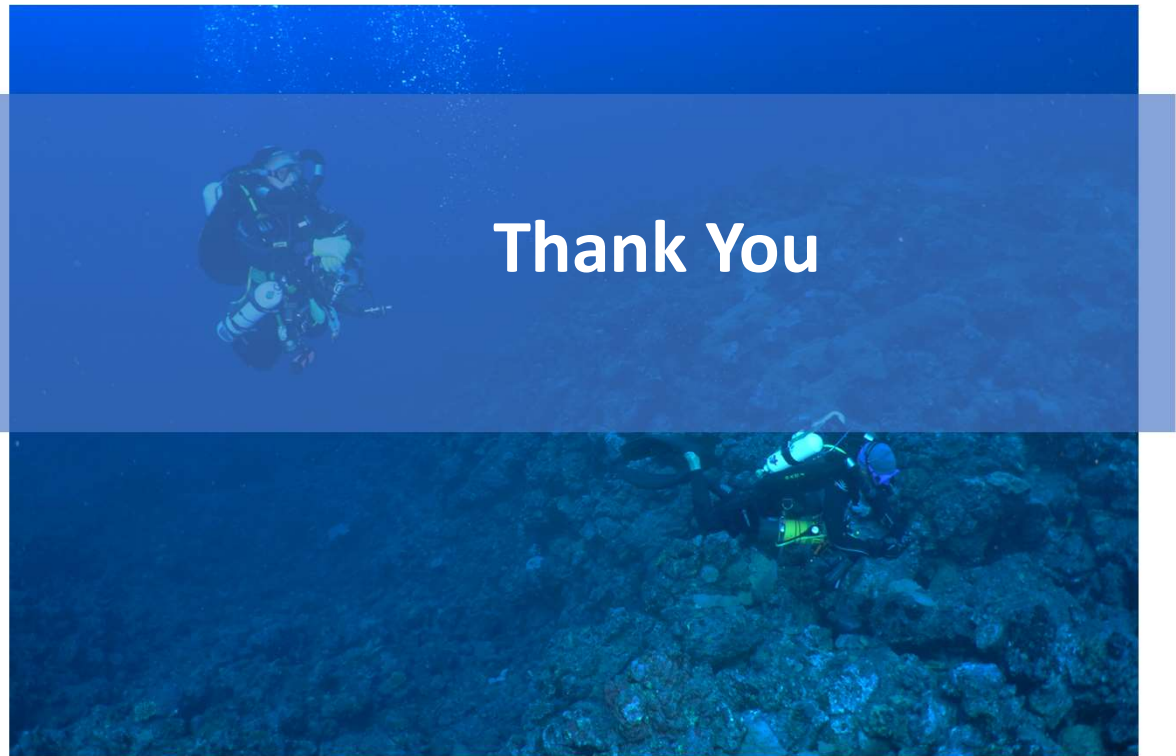
45-65 m
Port West
Gorgonian Forest



...harboring an important biodiversity



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Thank You

