

Three different methods to assess cultural services in French marine protected areas

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01.

Introduction

Context

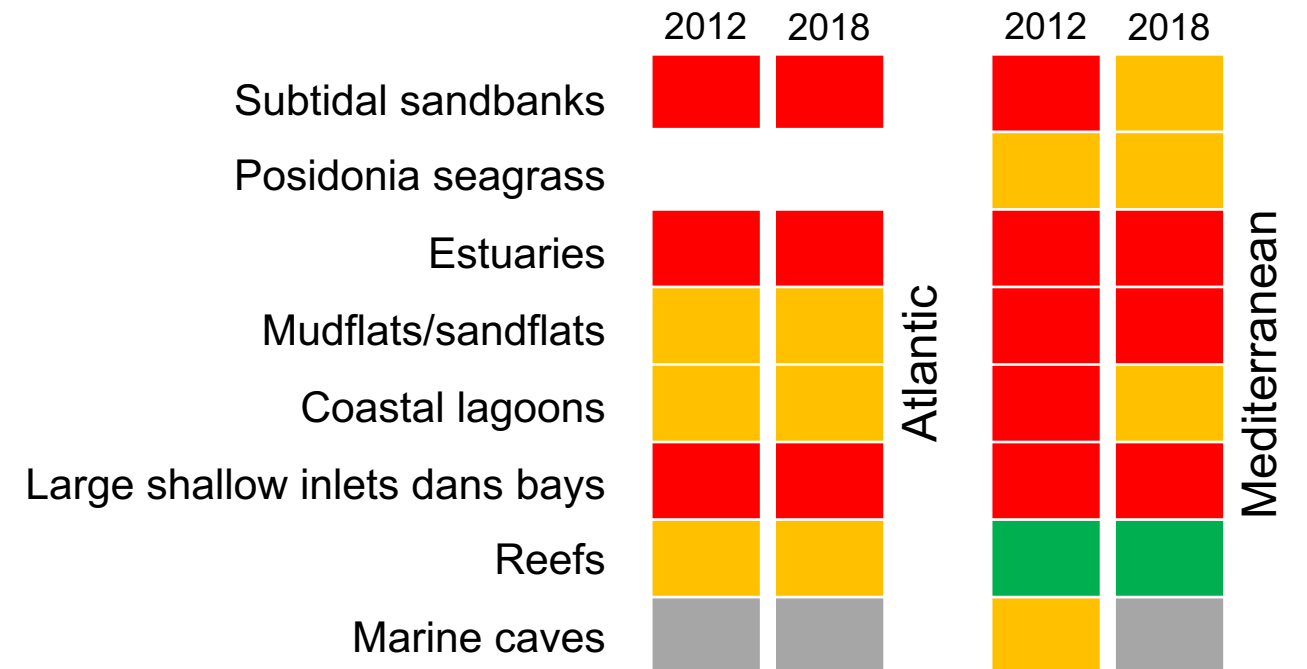


The MarHa project

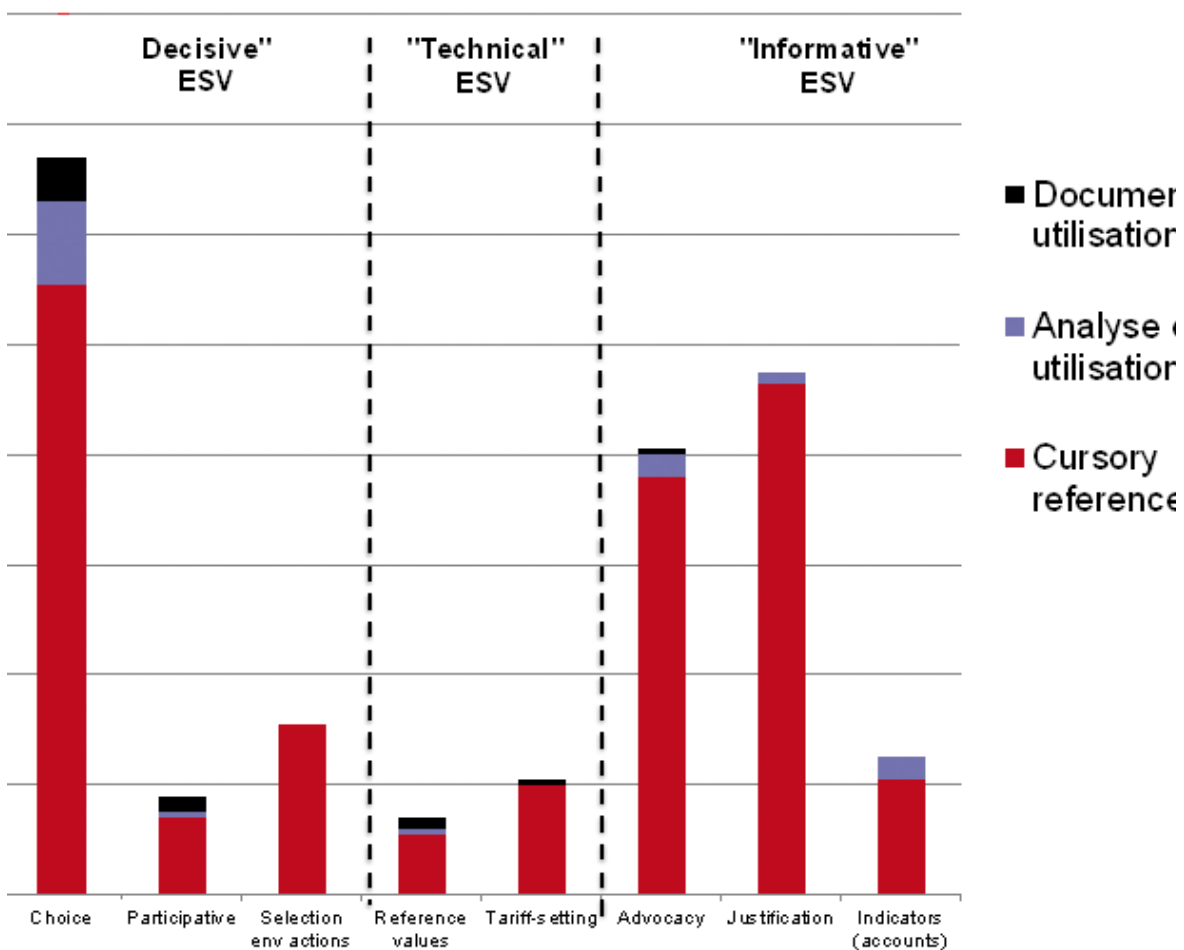
Natura 2000 network: 162 marine protected areas in metropolitan France.

The restoration and maintenance of a **favorable conservation state for marine habitats**

→ **Strong operational scope**



Context



Laurans et al. 2013



Lack of operational impact of ecosystem services assessment

Limited operational scope of ES

Shift from a supply-oriented approach of ES assessment toward a demand-oriented approach

TRIAGE method for a strategic assessment

Step 1: Delineating ESA scope & objective

1. *Why an ESA?*
2. *What are the issues?*
3. *What is the scope?*



Step 2: Refining ESA scope via ES hierarchization

4. *Importance for society*
5. *Exposure to factor of change*
6. *Possibility of action*

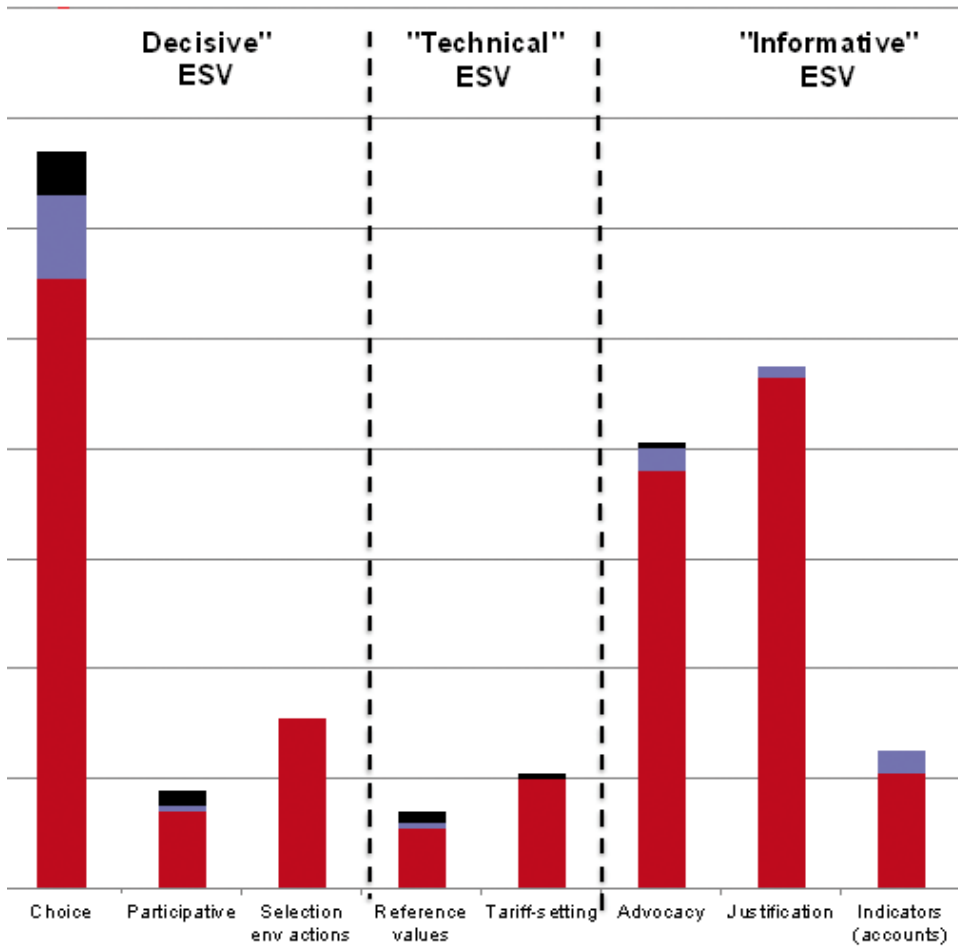


Step 3: Selecting tools & methods for ESA implementation

7. *Choice of indicators*
8. *Choice of method*
9. *Feasibility of the ESA*

Pendleton et al., 2015; Scemama et al., 2022

Context



- Documer utilisation
- Analyse utilisation
- Cursory reference

Laurans et al. 2013



Limited operational scope of ES

Shift from a supply-oriented approach of ES assessment toward a demand-oriented approach

More details on the process?

Poster session!!!!

A strategic approach to assess marine and coastal ecosystem services in French Natura 2000 sites

Scemama Pierre, Alban F., Kermagoret C. & Mongruel R.

INTRODUCTION

Ecosystem services assessment (ESA) is common in environmental policies, but diverse practices often clash. We advocate for a **strategic approach**, driven by stakeholder concerns, **to tailor ESA to the specific needs of Natura 2000 managers.**

METHOD

The TRIAGE method is implemented through **participatory workshops**, involving scientists and managers from marine protected areas (MPAs). Operating through three main stages, TRIAGE guides ESA by prioritizing management issues. Participants engage throughout, fostering **knowledge appropriation** and **enhancing the operational impact of ESA.**

Fig.1 - The TRIAGE approach

Step 1: Delineating ESA scope & objective	1. Why an ESA? 2. What are the issues? 3. What is the scope?
Step 2: Refining ESA scope via ES hierarchization	4. Importance for society 5. Exposure to factor of change 6. Possibility of action
Step 3: Selecting tools & methods for ESA implementation	7. Choice of indicators 8. Choice of method 9. Feasibility of the ESA

RESULT

Fig.2 - Application to the bay of Marseille

Step 1: Management issues at stake:

- 1- Intensification of recreational activities
- 2- Conservation of *Posidonia oceanica* meadows

Hierarchization of ecosystem services (Fig.3):
Top-right square: ES important and exposed but with a low possibility of action. Bottom right square: ES exposed and easily manageable but less important.

Fig.3 - Hierarchization of ES

Step 3: Selection of assessment:

- 1- Assessment of the ES capacity of *P. oceanica* meadows under different factors of change using **state and transition model**.
- 2- Assessment of the social demand for ES associated to the evolution of recreational and touristic practices using **institutional approach**.

Further information

About the TRIAGE approach:
Pouillon, L., Mongruel, R., Beaumont, N., Hooper, T., & Charles, M. (2019). A stage approach to improve the relevance of marine ecosystem services assessments. *Marine Ecology Progress Series*, 320, 183-193.

Scemama, P., Mongruel, R., Kermagoret, C., Batty, D., Carlier, A., & Le Mao, P. (2022). Guidance for stakeholder consultation to support marine ecosystem services assessment: A case study from French marine assessment. *Ecosystem Services*, 54, 101408.

Application of TRIAGE: Scemama, P., Kermagoret, C. et al. (...) (2023). A strategic approach to assess the bundle of ecosystem services provided by *Posidonia oceanica* meadows in the Bay of Marseille. *Marine and Coastal Management*, 70(3-4), 197-207.

State and transition model: Scemama, P., Kermagoret, C. et al. (...) (in revision). Impact assessment of multiple pressures on ecosystem services with state and transition model: application to *Posidonia oceanica* seagrass meadows. *Journal of Environmental Management*.

Assessment of societal demands: Scemama, P., Kermagoret, C., Mongruel, R., Alban F. (2024). Three different methods to assess cultural services in French marine protected areas. *MSEA5 2024*, Yokohama.

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02.

Application to three case studies

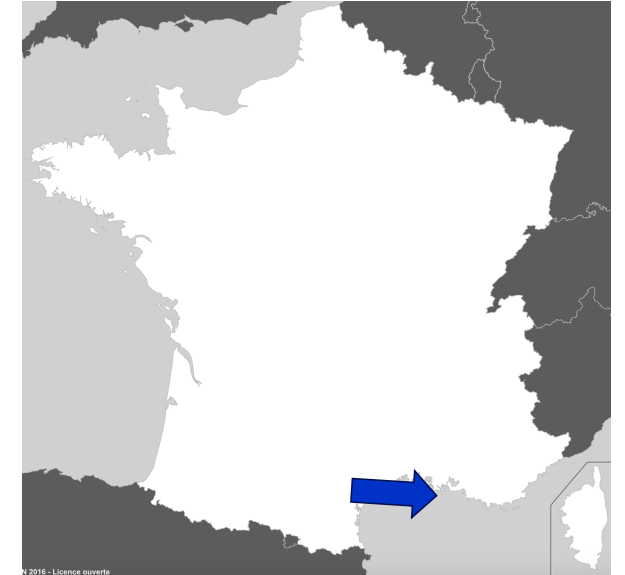
Pink Granit Coast



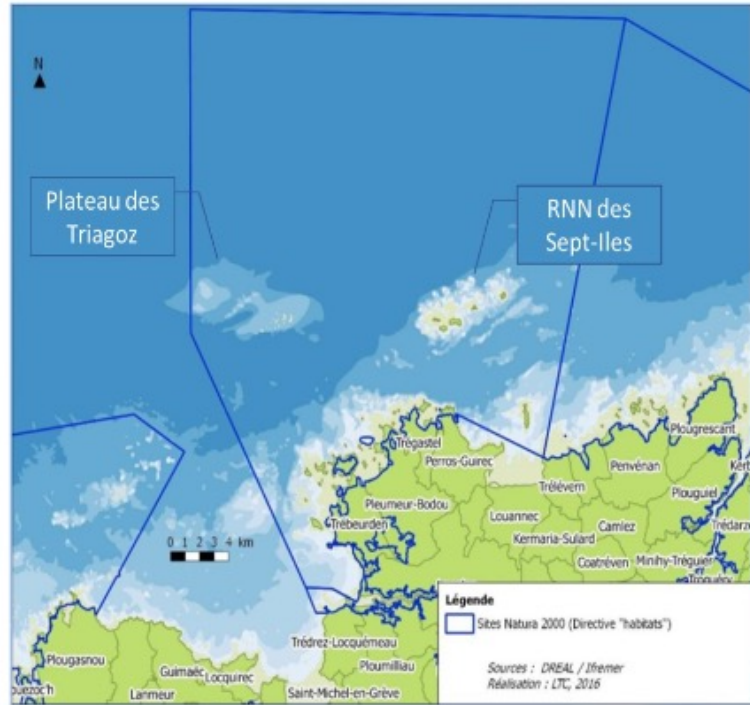
Chausey archipelago



Bay of Marseille



Pink Granit Coast

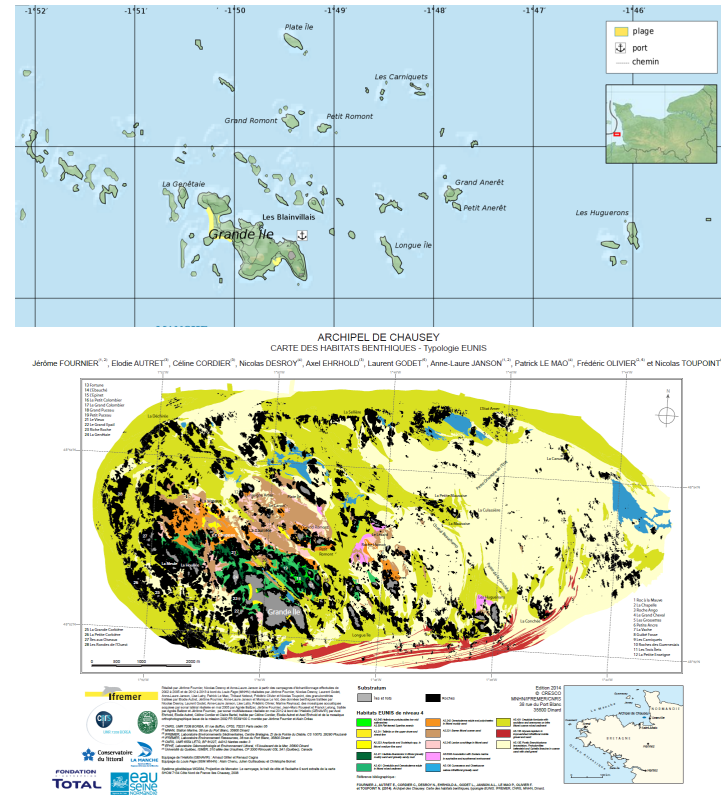


Two overlapping MPA status

74,000 ha (19,700 ha)

Different levels of protection

Chausey archipelago

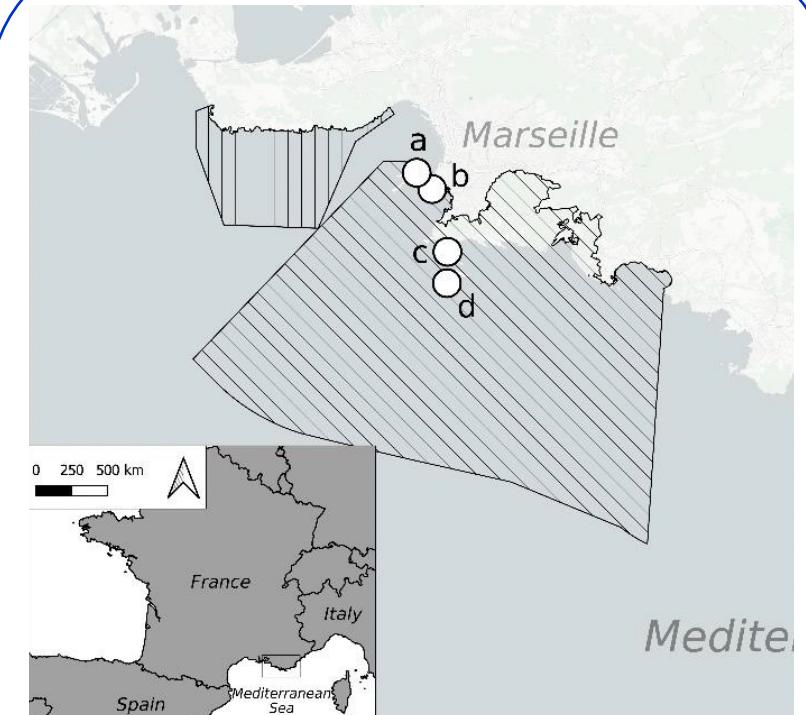


Two overlapping MPA status

86,426 ha (5,000 ha)

Different levels of protection

Bay of Marseille



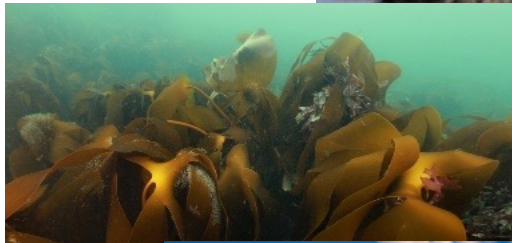
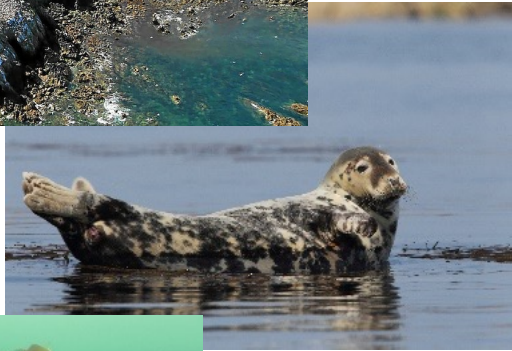
Two MPAs

141,200 ha + 19,000 ha

Multi-use MPA



Pink Granit Coast



Chausey archipelago



Bay of Marseille



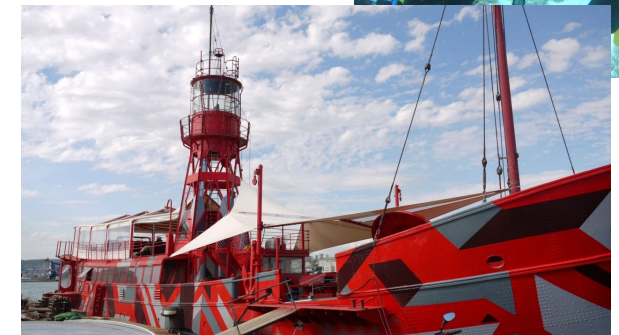
Pink Granit Coast



Chausey archipelago



Bay of Marseille



Pink Granit Coast

Chausey archipelago

Bay of Marseille

TRIAGE approach

Site problematic:
Extension of the nature
reserve

Assessment question:
What is the economic
impacts of the reserve for
the territory?

Site problematic:
Revision of the
management plan

Assessment question:
How to manage the number
of visitors?

Site problematic:
Integration of ecological
knowledge








Assessment question:
What is the demand for
nature from recreation and
tourism?

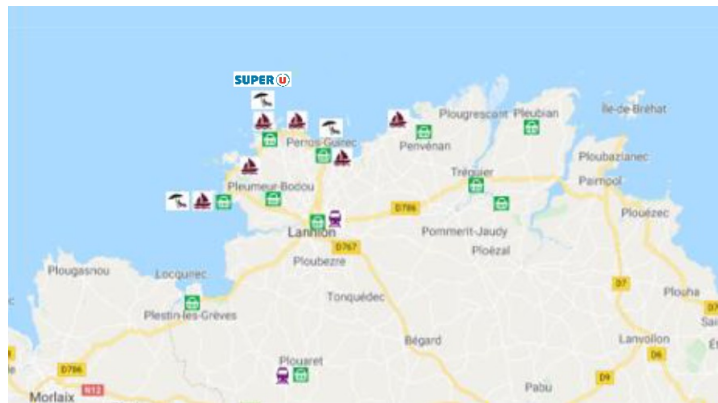


Pink Granit Coast

Assessment of the economic impact of the reserve in the territory

On field interviews
146 residents et 171 tourists
7 recreational activities

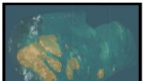









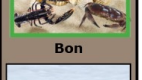
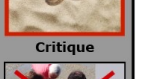



						
Kayak	Light sailing	Boating	Diving	Apnea	Shore fishing	Hiking



Chausey archipelago

Comparing preferences for different management options

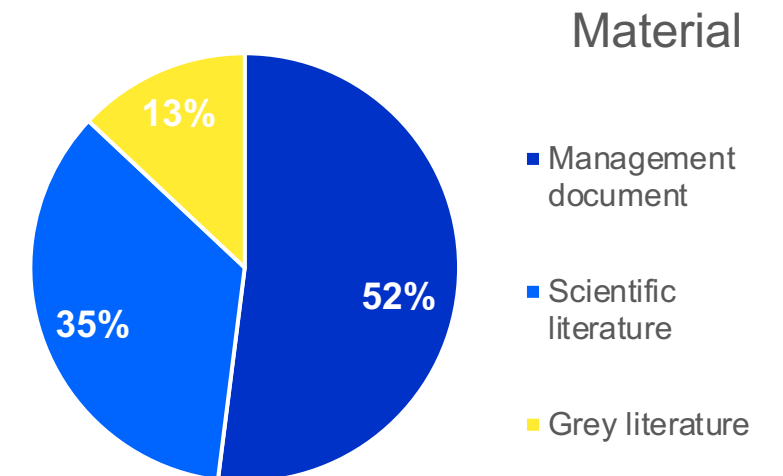
Experimental choice method
Initially field surveys but Covid
Online survey

	Scénario 1	Scénario 2	Scénario 3 (statut-quo)
Accessibilité pour la pêche à pied :	 Moyenne	 Totale	 Totale
Fréquentation des secteurs de pêche :	 Moyenne	 Faible	 Très élevée
Etat des ressources marines :	 Critique	 Bon	 Critique
Intervention sur le terrain :	 Sensibilisation	 Contrôle	 Aucune
Païement via taxe :	 0,90C	 2,70C	 0C

Bay of Marseille

Social demand, an institutional analysis

Analysis of management document between 2000 and 2020



03.

Conclusion

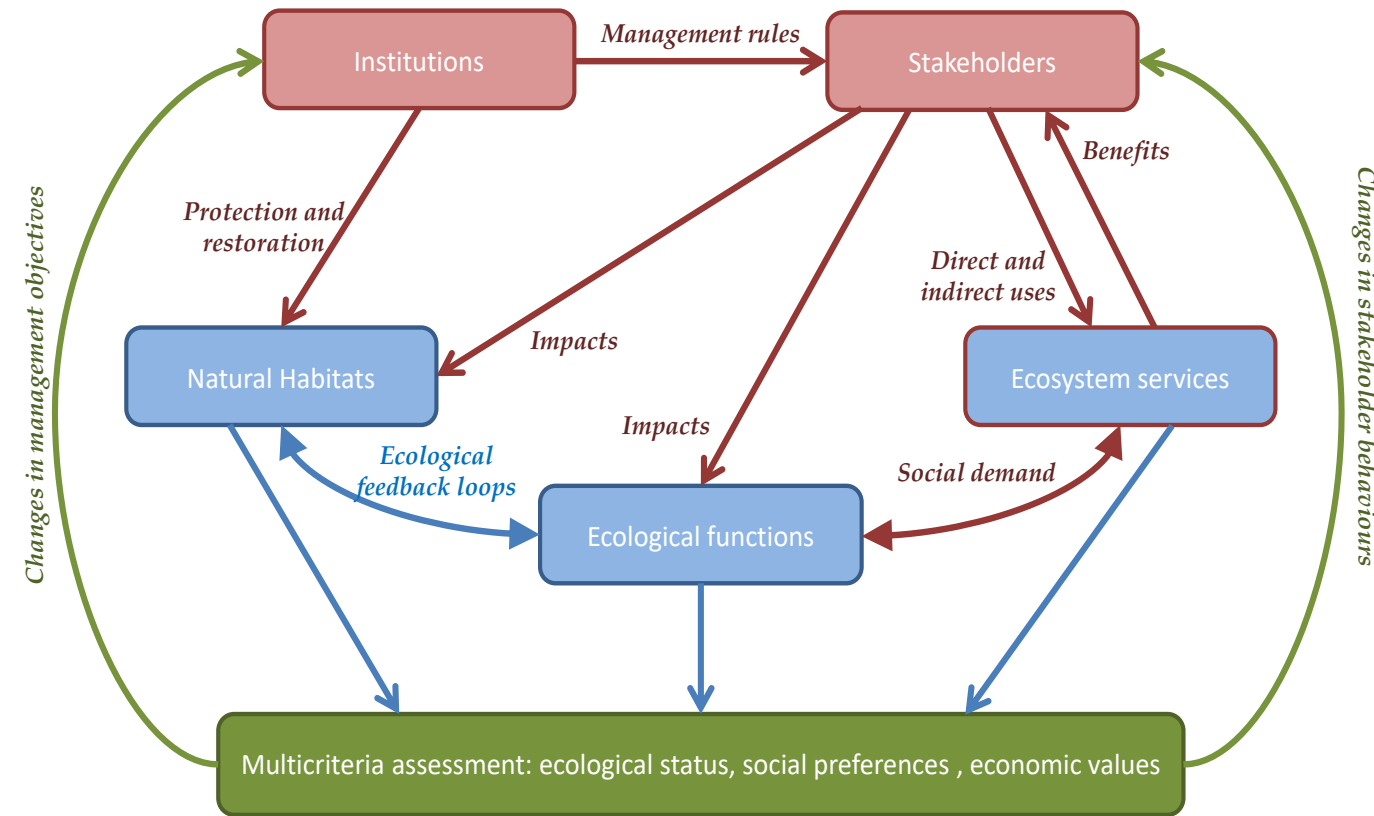
Conclusion

Same policy context: Natura 2000

Same entry point: recreation and tourism

The need for three « tailor-made » assessments

A system approach in the assessment process



Mongruel, 2015



Conclusion

Question for research

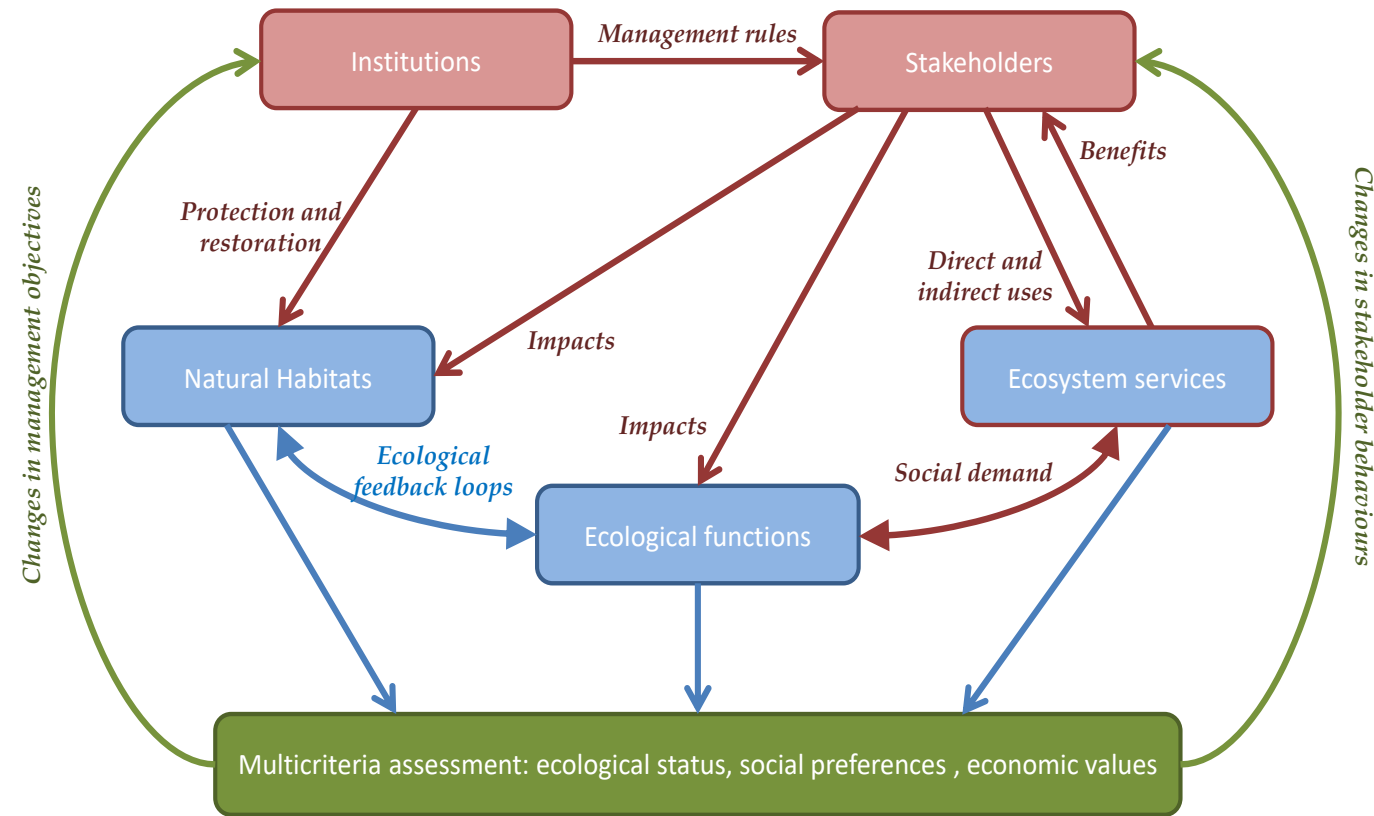
Building of trust and shared culture

Long-term involvement on field

New approach for research?

Increasing the appetite for socio-economic information in an interdisciplinary perspective

A system approach in the assessment process



Mongruel, 2015

Example:
Manager-Scientist
platform

