

# Monitoring approaches of recreational fisheries in France under the Marine Strategy Framework Directive

Amélie Régimbart<sup>1</sup>, Jérôme Baudrier<sup>1</sup>, Eric Foucher<sup>2</sup>, Manuel Bellanger<sup>3</sup>, Damien Delaunay<sup>1</sup>

1 : Ifremer Nantes, Rue de l'Ile d'Yeu, 44 311 Nantes Cedex 03 - France

2 : Ifremer Port-en-Bessin, Avenue Général de Gaulle, BP 32, 14 520 Port-en-Bessin - France

3 : Ifremer Brest, ZI Pointe du Diable, 29 280 Plouzané - France

## Introduction

The **Marine Strategy Framework Directive (MSFD)** is based on the ecosystem approach in order to assess and manage human activities affecting marine environment.

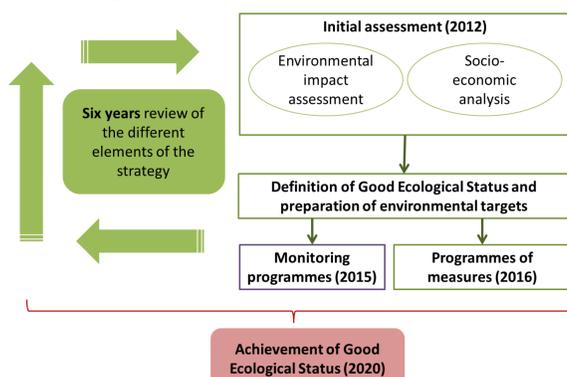


Fig. 1 : Presentation of MSFD elements

The **sustainable exploitation** of commercial species stocks is one of the MSFD objectives.

It is necessary to look at the **pressure** applied by **recreational fisheries** in order to improve **stock assessment**.

Currently, the **French monitoring programme** requires to **expand monitoring** to some species that are not directly concerned by the Data Collection-Multi Annual Programme (DC-MAP).

**In order to meet the MSFD data collection requirements, which monitoring approaches of recreational fisheries in France could be implemented?**

## Materials and methods

1. Determination of **specifics issues** for each French marine sub-regions, based on :

- Current situation of recreational fisheries in France
- Interviews with scientific experts and stakeholders
- Definition of selection criteria for species to be monitored

2. **Review of methods** used in the monitoring of recreational fisheries :

- Review of work about monitoring undertaken in recent years
- Participation to the ICES working group on recreational fisheries surveys

Table 1 : Selection criteria for species to be monitored

Selection criteria (from the least to the most important)
<b>Mode of fishing</b> (handgathering, angling, spearfishing)
<b>Commercial value</b>
<b>Great natural value</b> (e.g. abalone in Brittany)
<b>Stock status</b> :
• assessed or not assessed
• deteriorated, endangered, protected, overfished
<b>Comparison</b> between professional and recreational catches :
<u>Recreational catches</u>
<u>Commercial landings</u>

## Literature cited

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## Results

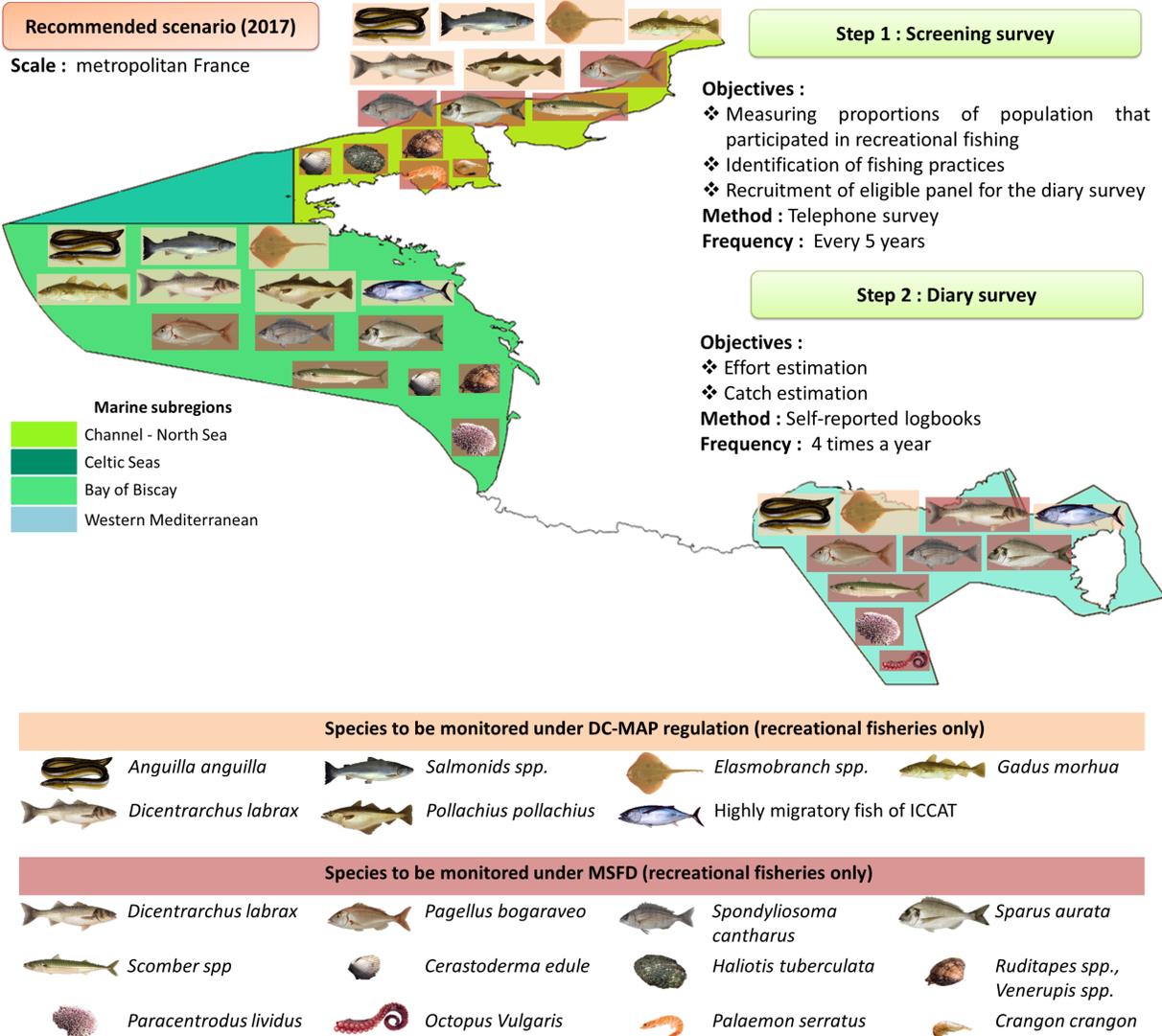


Fig. 2 : Recommended scenario for the monitoring of recreational fisheries in France

Table 2 : SWOT analysis of recommended scenario

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>Data collection on several topics</li> <li>Acquisition of reliable estimates</li> <li>Minimization of bias</li> </ul>	<ul style="list-style-type: none"> <li>Existence of bias (prestige bias, reporting bias, recall bias etc.)</li> <li>Decline in the number of participants during the diary survey</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>Possible funding under European Fisheries Fund</li> <li>Regulatory obligation to conduct a pilot survey under DC-MAP (2018)</li> </ul>	<ul style="list-style-type: none"> <li>Restricted budget</li> <li>Changes in regulation of species deteriorating discussions with recreational fishers</li> </ul>

## Conclusions

- This scenario will be implemented over the coming years.
- It meets **regulatory requirements** (DC-MAP and MSFD).
- This scenario could be developed into an **online reporting system** with an online catch diary.
- To facilitate the monitoring of recreational fisheries, a **mandatory reporting system** could be envisioned.

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