

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

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Introduction

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

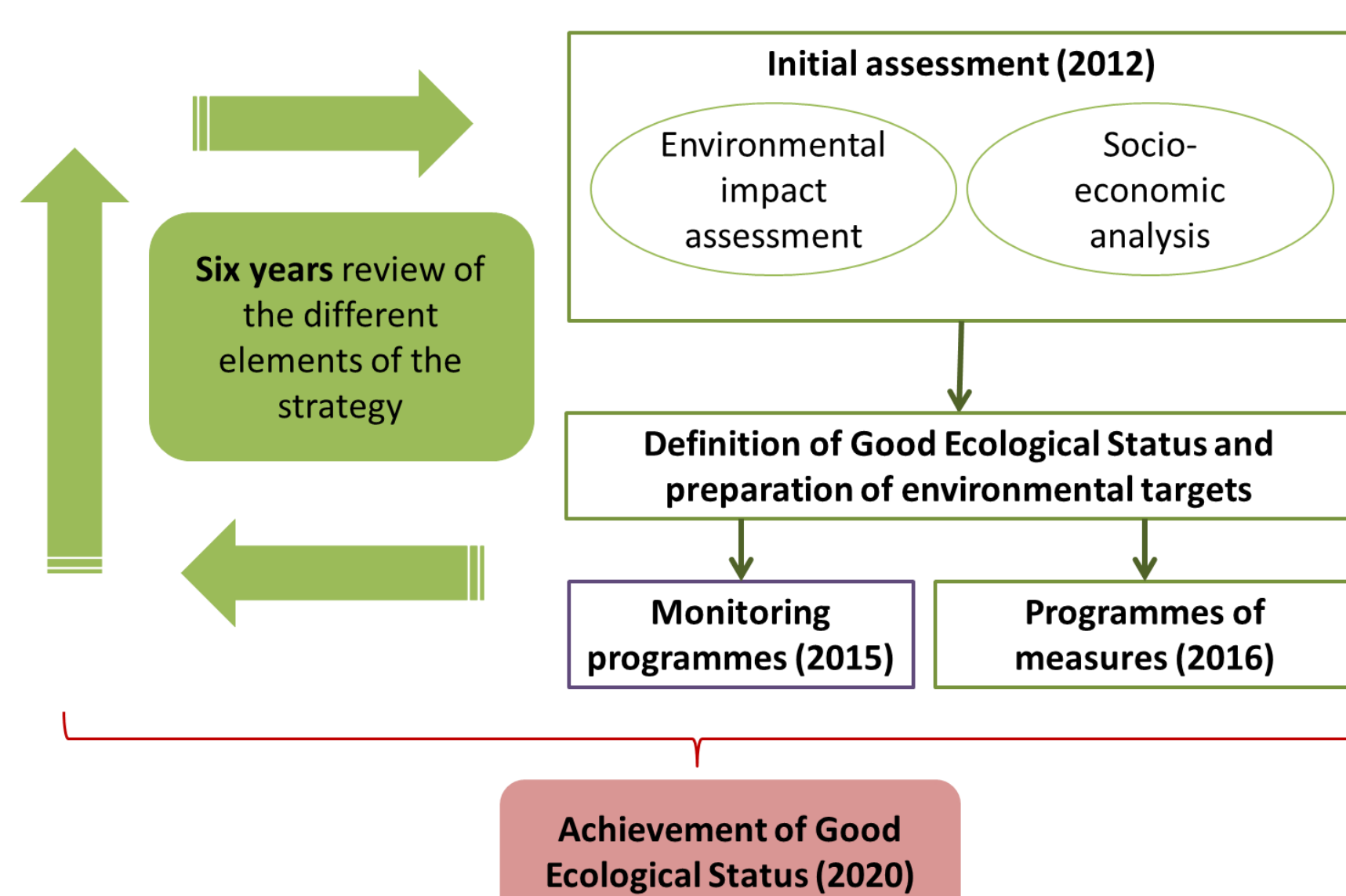


Fig. 1 : Presentation of MSFD elements

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

Literature cited

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Results

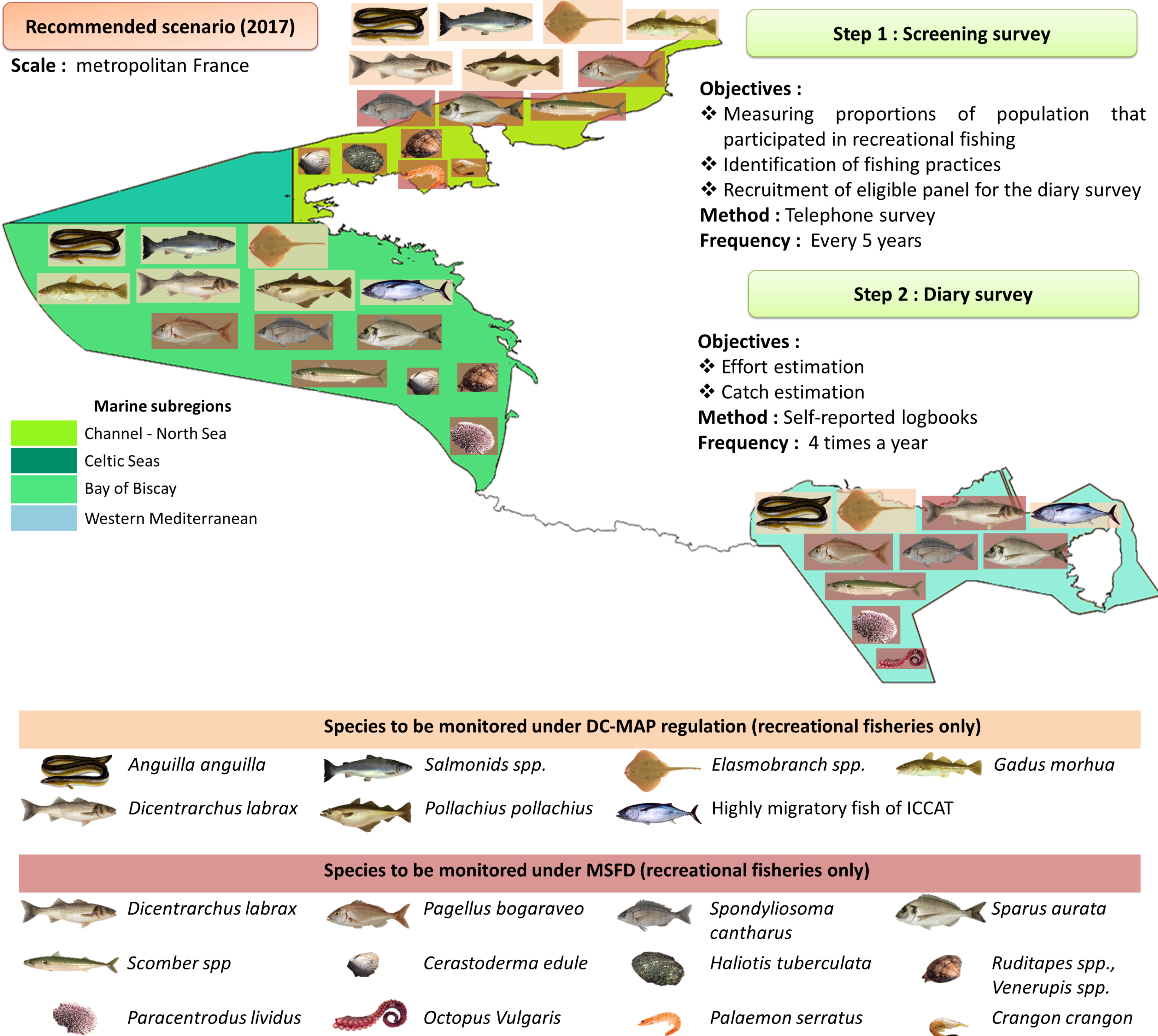


Fig. 2 : Recommended scenario for the monitoring of recreational fisheries in France

Table 2 : SWOT analysis of recommended scenario

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

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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