



Food and Agriculture
Organization of the
United Nations



General Fisheries
Commission for
the Mediterranean

GFCM actions to monitor and mitigate bycatch in the Mediterranean and Black Sea

*Symposium on applying the Ecosystem Approach
to Fisheries Management in ABNJ*

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The General Fisheries Commission for the Mediterranean (GFCM)



The FAO regional fisheries management organization for the Mediterranean and the Black Sea



23 Contracting Parties and
6 Cooperating non-Contracting Parties
(Bosnia & Herzegovina, Georgia, Jordan, Moldova, Saudi Arabia, and Ukraine)

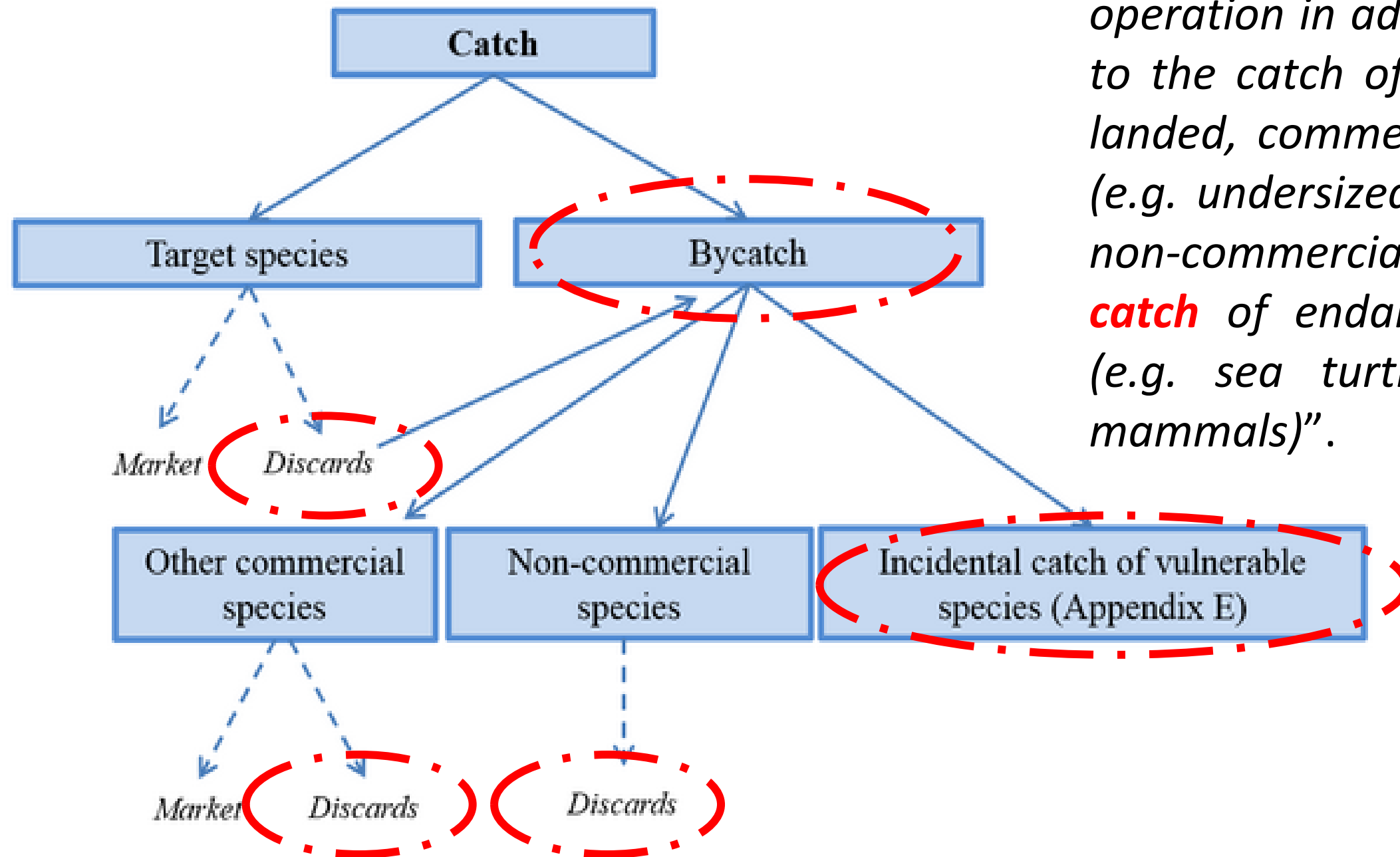
OBJECTIVES

- the **conservation and sustainable use of living marine resources** at all levels (biological, social, economic and environmental)
- the **sustainable development of aquaculture**

GFCM plays a critical role in fisheries governance and has the authority to make binding recommendations for fisheries conservation and management and for aquaculture development.

GFCM actions to monitor and mitigate bycatch

Bycatch: “the part of the catch that is unintentionally captured during a fishing operation in addition to target species. It may refer to the catch of other commercial species that are landed, commercial species that cannot be landed (e.g. undersized, damaged individuals), **discards** of non-commercial species, as well as to **incidental catch** of endangered, vulnerable or rare species (e.g. sea turtles, seabirds, sharks and marine mammals)”.



GFCM actions to monitor and mitigate bycatch

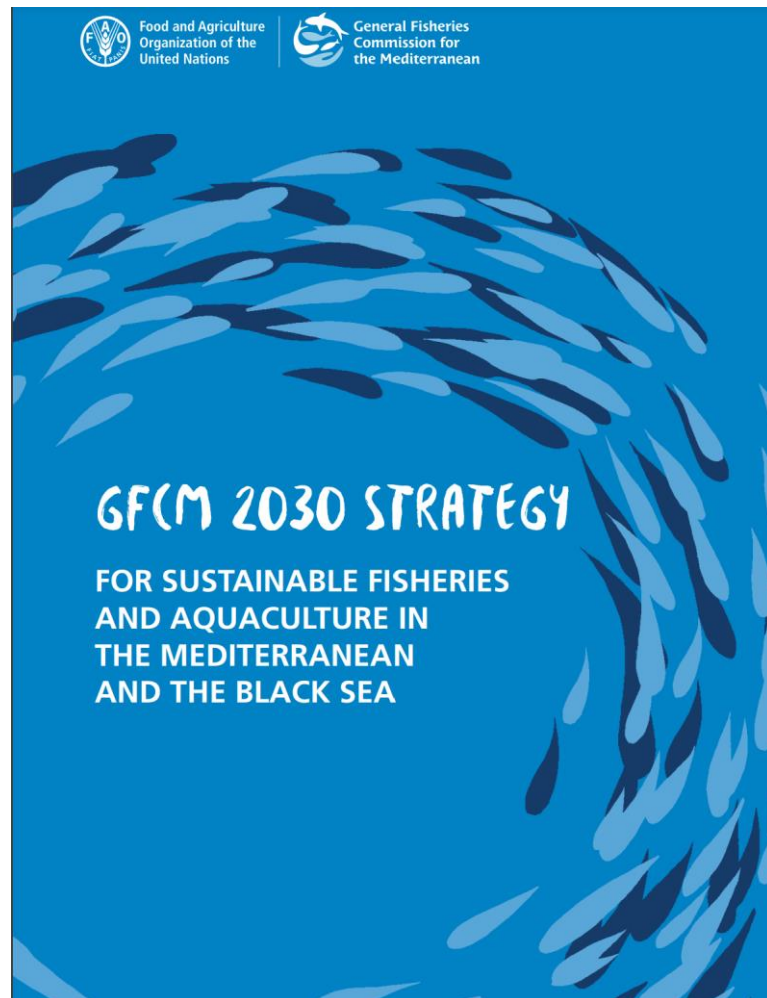
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GFCM DECISIONS

- + Rec. GFCM/44/2021/13 on the mitigation of fisheries impacts for the conservation of **seabirds** in the Mediterranean Sea.
- + Rec. GFCM/44/2021/14 on the mitigation of fisheries impacts for the conservation of **sea turtles**.
- + Rec. GFCM/44/2021/15 on the mitigation of fisheries impacts for the conservation of **cetaceans**.
- + Rec. GFCM/44/2021/16 on additional mitigation measures for the conservation of **elasmobranchs** in the Mediterranean Sea.
- + GFCM/42/2018/2 on fisheries management measures for the **conservation of sharks and rays** in the GFCM area of application, amending Rec. GFCM/36/2012/3
- + Resolution GFCM/44/2021/5 on the mitigation of fisheries impacts for the conservation of **sturgeons** in the Black Sea (geographical subarea 29).
- + Rec. GFCM/37/2013/2 on the establishment of a set of minimum standards for bottom-set gillnet fisheries for turbot and **conservation of cetaceans in the Black Sea**
- + Rec. GFCM/35/2011/5 on fisheries measures for the conservation of the Mediterranean **monk seal** in the GFCM area of application

GFCM actions to monitor and mitigate bycatch

The GFCM 2030 Strategy for sustainable fisheries and aquaculture in the Mediterranean and the Black Sea offers a common vision and guiding principles to achieve sustainable fisheries and aquaculture in the region, federating efforts to deliver on national, regional and global commitments.



1.3 Efficient area-based conservation measures, technical and nature-based solutions strengthened to conserve biodiversity and enhance the productivity of marine living resources

*“Action C. Develop a **regional plan of action** to mitigate bycatch (including both discards and the incidental catch of vulnerable species, particularly elasmobranchs) and depredation through adequate monitoring, testing and implementation of mitigation and selectivity measures.”*



GFCM actions to monitor and mitigate bycatch

Resolution GFCM/46/2023/4 on a regional plan of action to monitor and mitigate interactions between fisheries and vulnerable species in the Mediterranean and the Black Sea (**RPOA-VUL**)

- + The overall objectives of the RPOA-VUL are to draw up and develop adequate monitoring systems, testing and developing mitigation measures to reduce and, where possible, eliminate: i) the incidental catch of elasmobranchs, sea turtles, seabirds and marine mammals and associated fishing mortality; and ii) depredation activities of marine megafauna in fishing gear.
- + Contracting parties and cooperating non-contracting parties should take the necessary steps to pursue and achieve the objectives of the RPOA-VUL by 2030 through the implementation of three key actions, namely **monitoring, managing and capacity development and related activities**.



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Regional Plan of Action for Vulnerable Species RPOA-VUL

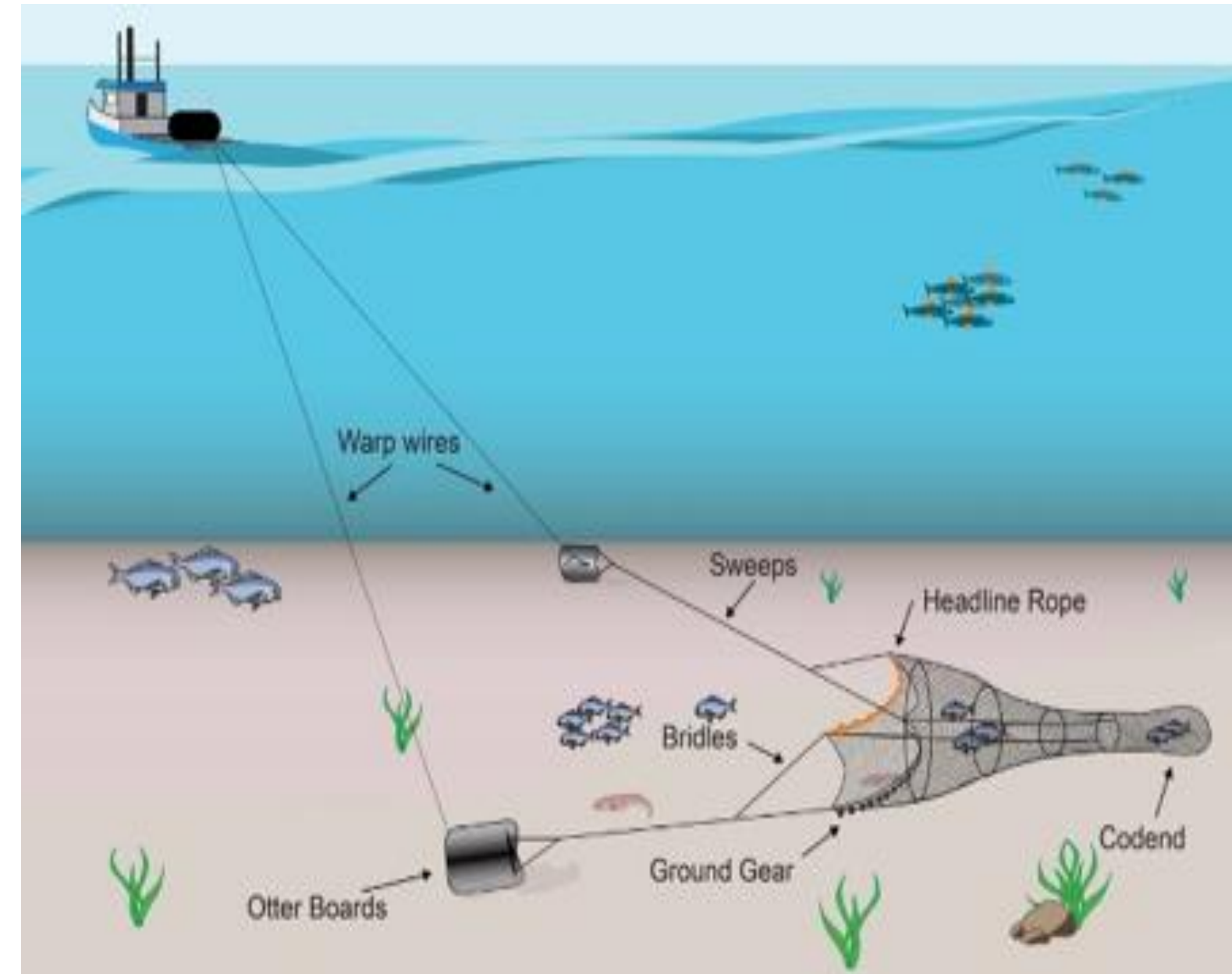
Regional Plan of Action to monitor and mitigate
interactions between fisheries and vulnerable species in
the Mediterranean and the Black Sea

Key Actions

3

GFCM actions to monitor and mitigate bycatch

- + Recommendation GFCM/33/2009/2 on the **minimum mesh size in the codend of demersal trawl nets**: CPCs shall adopt and implement a minimum 40 mm square mesh codend or a diamond mesh size of at least 50 mm, of acknowledged equivalent or higher size selectivity, for all trawling activities exploiting demersal stocks when operating in the GFCM area of application.
- + Recommendation GFCM/44/2021/12 on a multiannual management plan for bottom trawl fisheries exploiting demersal stocks in the Strait of Sicily, which aims to ensure the sustainable use of marine living resources through measures to prevent overfishing, **including selectivity to minimize discard**.



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To assess bycatch effectively and address its significant impacts (e.g., discards continue to represent a major source of uncertainty regarding the actual fishing mortality rates of several commercial stocks; discards can affect the survival of commercial and non-commercial resources; bycatch incurs additional costs without increasing revenues and may hinder profitability, etc.), the GFCM has launched several initiatives in recent years:

Discards:

- Multiple **monitoring programmes** across several countries in the Mediterranean and Black Sea.
- **Standardized methodologies** for collecting and reporting discard data are being applied.
- **Selectivity trials** are being implemented.
- The implementation of **innovative tools and techniques** (e.g. eDNA), in conjunction with the more traditional methodologies, to better monitor the bycatch behaviour of fisheries.
- The first **regional protocol on monitoring discards in Mediterranean and Black Sea fisheries**, outlining the methodology for data collection, has been published.



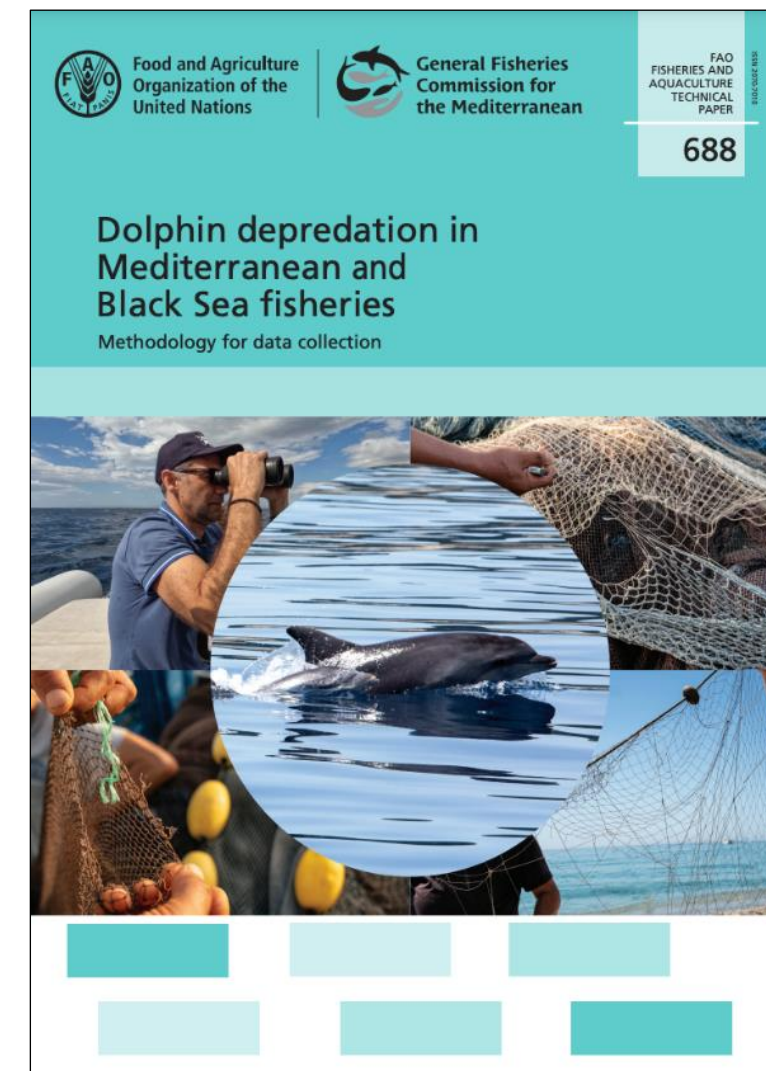
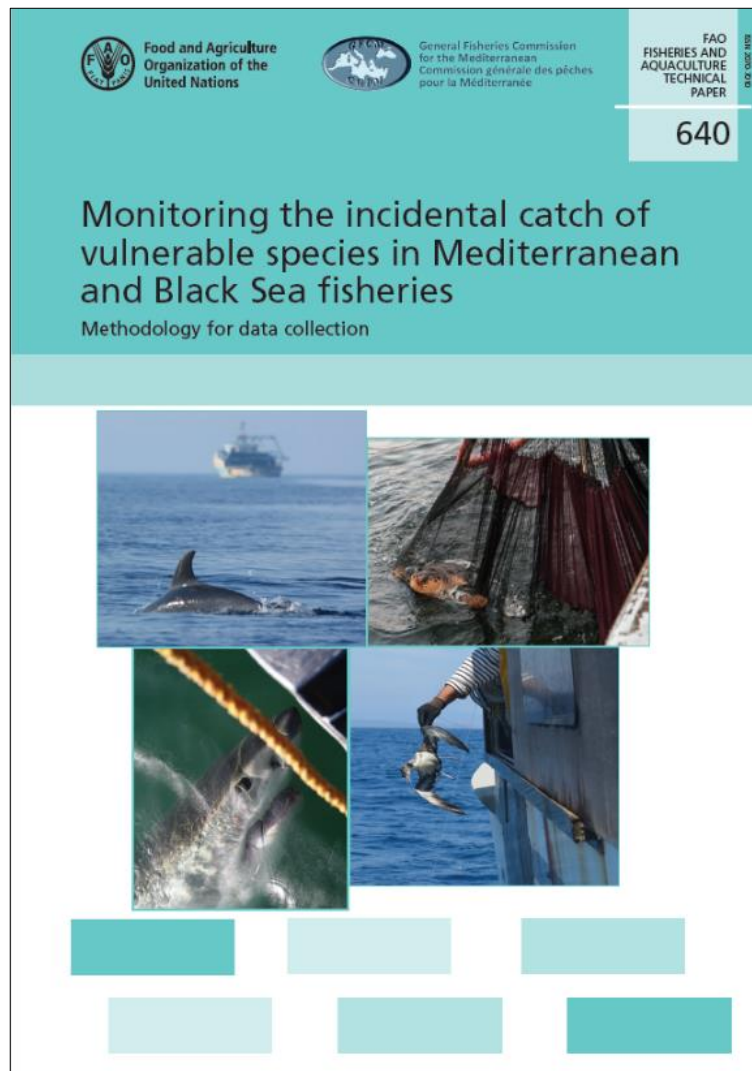
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Incidental Catch of Vulnerable Species:

- Implementation of **ad-hoc monitoring programmes**.
- Participation in the **MedBycatch project**, "Understanding Mediterranean Multi-Taxa Bycatch of Vulnerable Species and Testing Mitigation – A Collaborative Approach," involving 5 countries, 5 taxa, with 3,600 onboard observations, over 12,100 questionnaires, and the engagement of more than 3,000 fishers.
- Publication of **regional identification guides of vulnerable species** incidentally caught in mediterranean fisheries.
- The implementation of **innovative tools and techniques** (e.g. eDNA), in conjunction with the more traditional methodologies, to better monitor the bycatch behaviour of fisheries.
- Compilation of baseline information on incidental catches of vulnerable species through the publication of a **Regional Review**.
- Implementation of **Mitigation trials**
- Development and maintenance of a **regional bycatch database** to support the formulation of scientific advice.
- Dedicated **Working Group** (WGVUL) and upcoming **network** of experts has been established
- Publication of **common methodologies**.

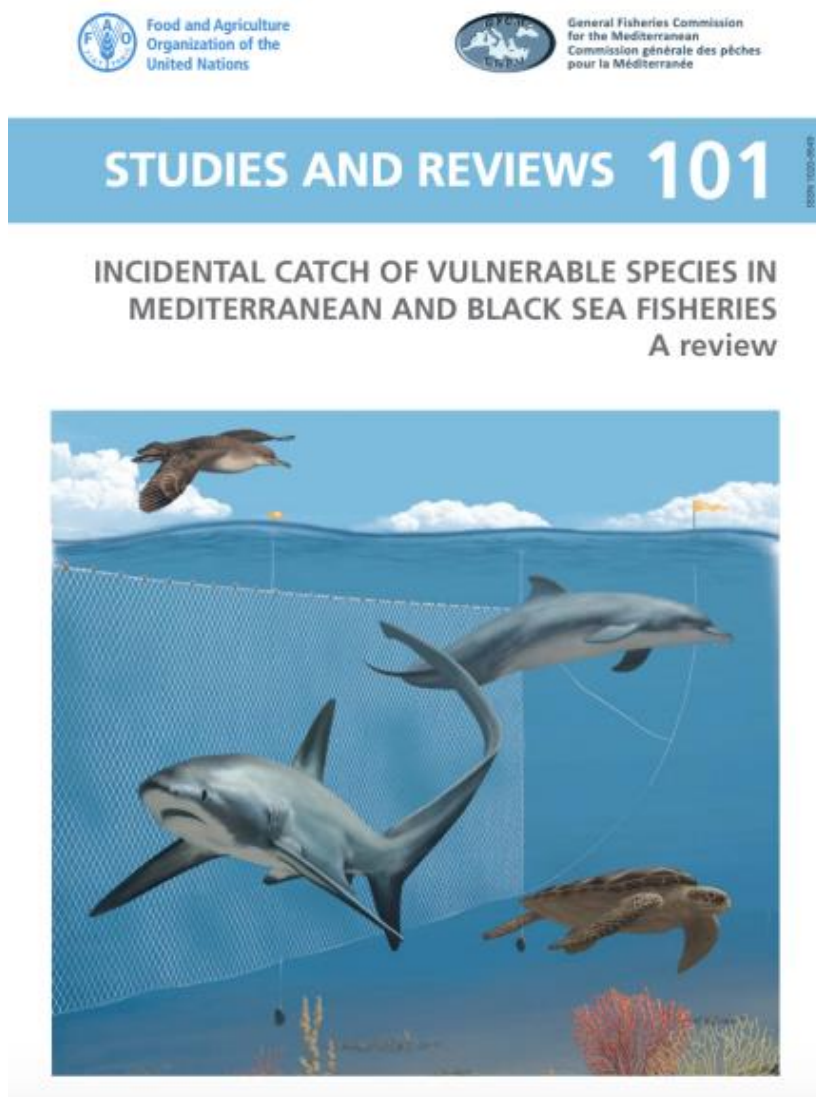


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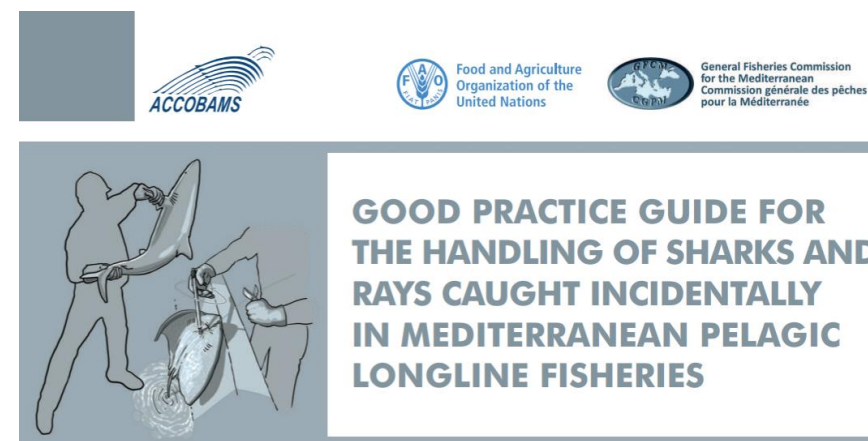


These methodologies, ensure minimum common standards for data collection, enabling replicability and comparisons among fisheries across the region. Consequently, they provide a harmonized basis of knowledge, information, and evidence for decision-making.

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<https://www.fao.org/gfcm/publications/en/>



<https://openknowledge.fao.org/handle/20.500.14283/i8951en>

Regional Review: offers an overview of historical and current trends in the bycatch of five important groups of vulnerable species in the Mediterranean and the Black Sea (i.e. seabirds, sea turtles, elasmobranchs, marine mammals and macrobenthic invertebrates), describing and presenting data from surveys and studies conducted over recent decades.

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SoMFi, the biennial publication prepared by the GFCM Secretariat, **provides a comprehensive overview of the status of fisheries in the region**, looking at their main features and trends, in order to better inform their management and better examine current and future challenges that they will face in the near future.



Chapter 4 of SoMFi presents a compilation and a review of available information on the BYCATCH within the GFCM area of application



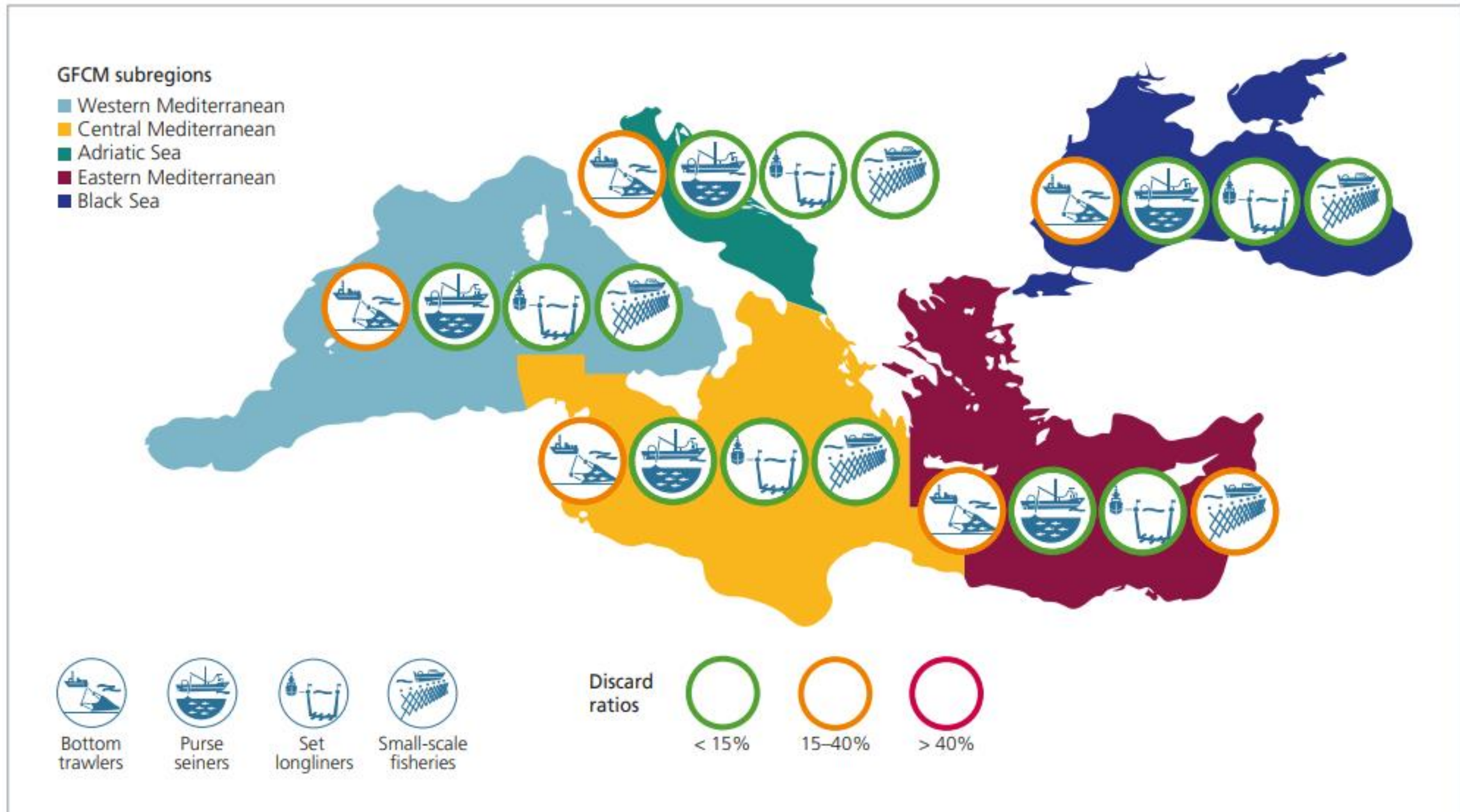
4. Bycatch: Discards and incidental catch of vulnerable species

Bycatch, which includes discards and the incidental catch of vulnerable species (Figure 58), is a complex concept with significant implications for the sector, including from economic, regulatory and public points of view. It can affect the survival of commercial and non-commercial resources (i.e. discards) and can threaten vulnerable species (i.e. incidental catch). From a human perspective, bycatch negatively influences public perception of the sector, drives the need for regulations and limitations on the use of resources, and affects the future yields of harvested resources, increasing the mortality of juvenile and undersized individuals of target species by removing them before they reach their optimal size. Furthermore, in economic terms, bycatch incurs additional costs without increasing revenues and may hinder profitability.

Bycatch of vulnerable species jeopardizes the conservation of a variety of species groups, including marine mammals, seabirds, sea turtles and elasmobranchs.

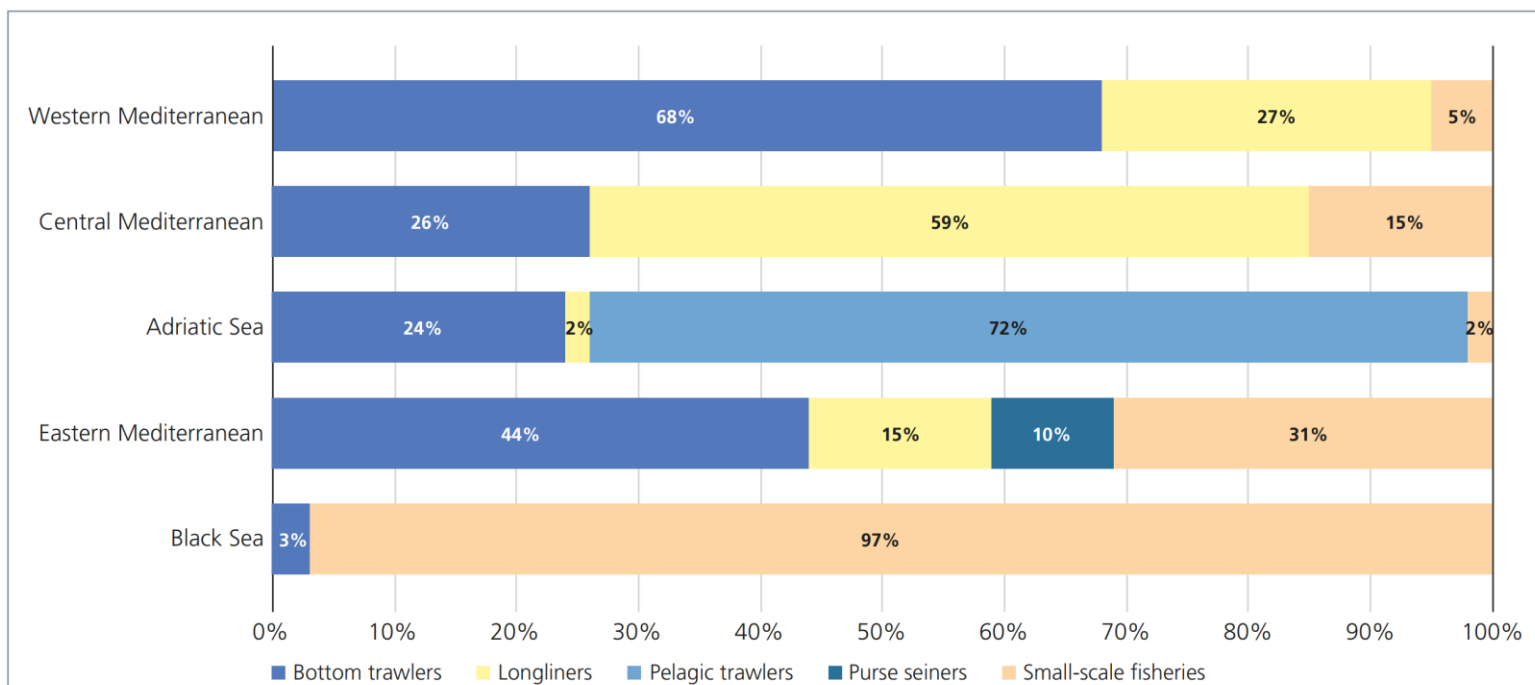
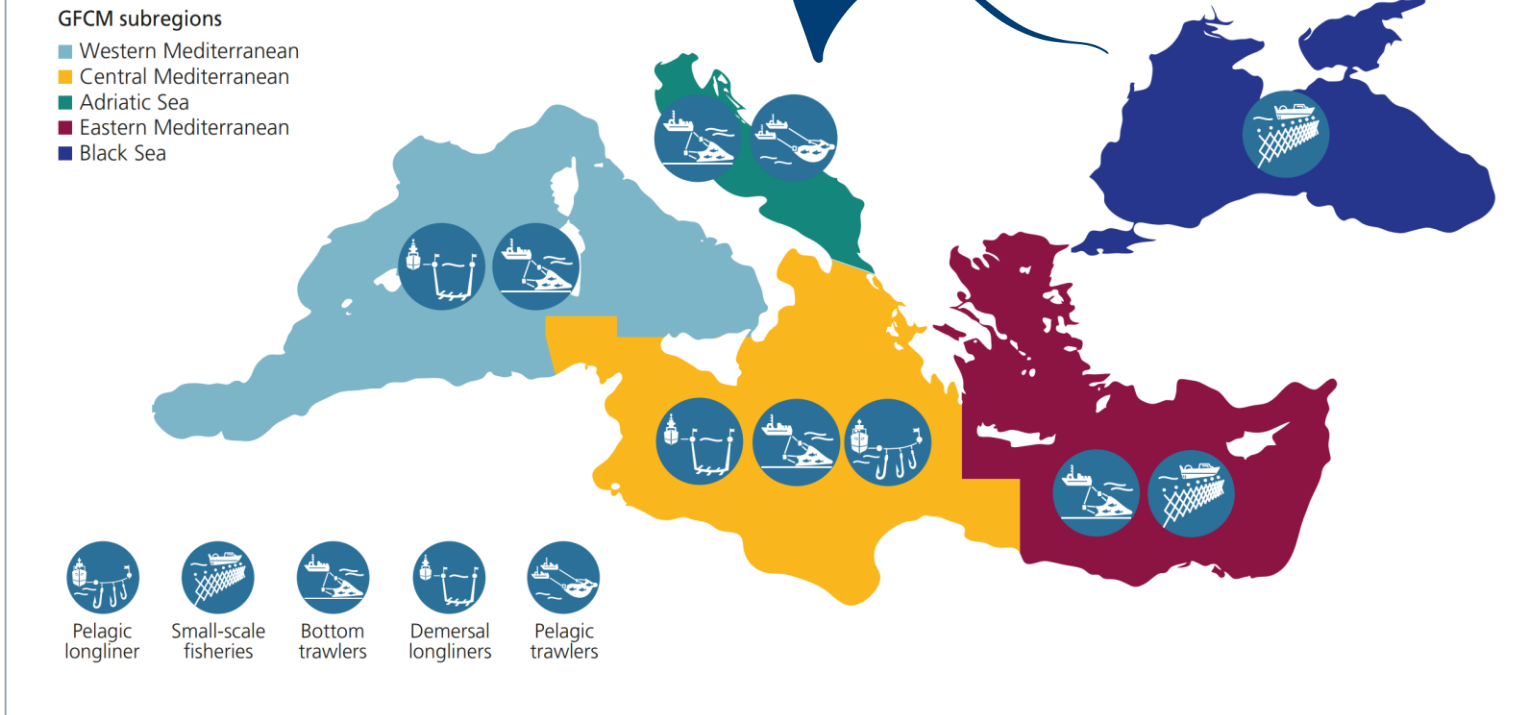
Understanding bycatch and adopting effective measures to reduce it therefore represent essential steps towards minimizing the discards produced by fisheries and their impacts on vulnerable

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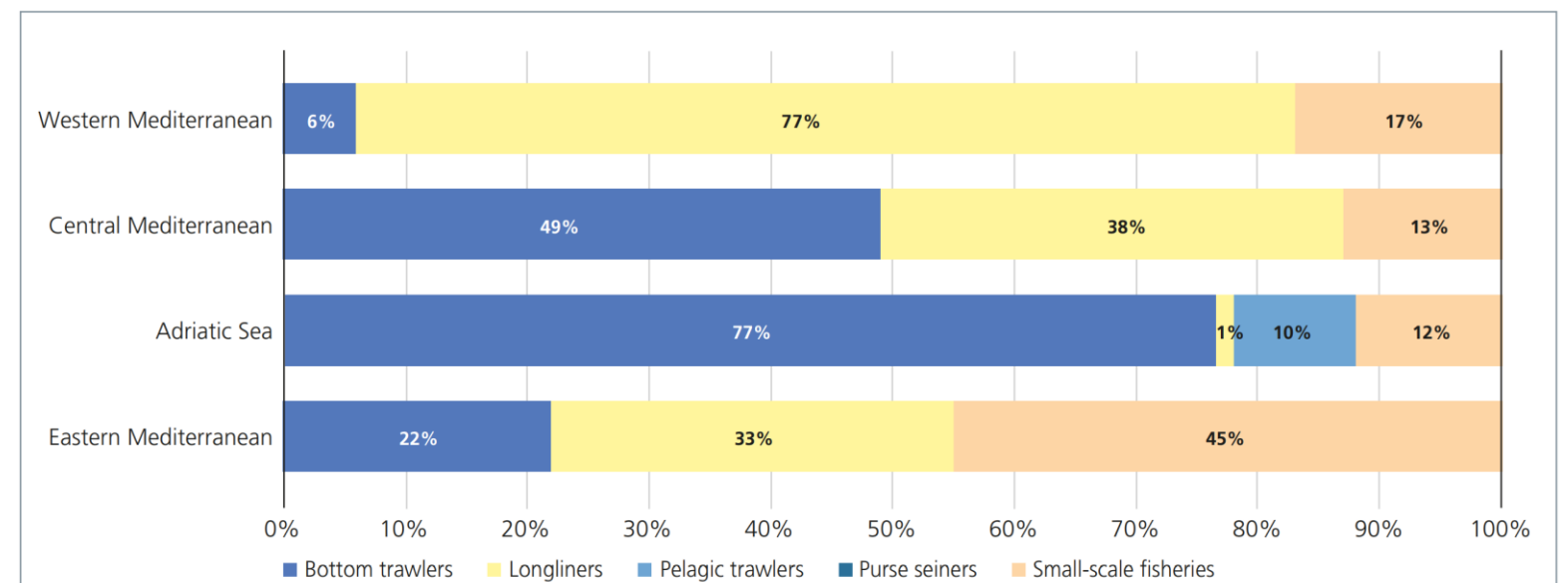
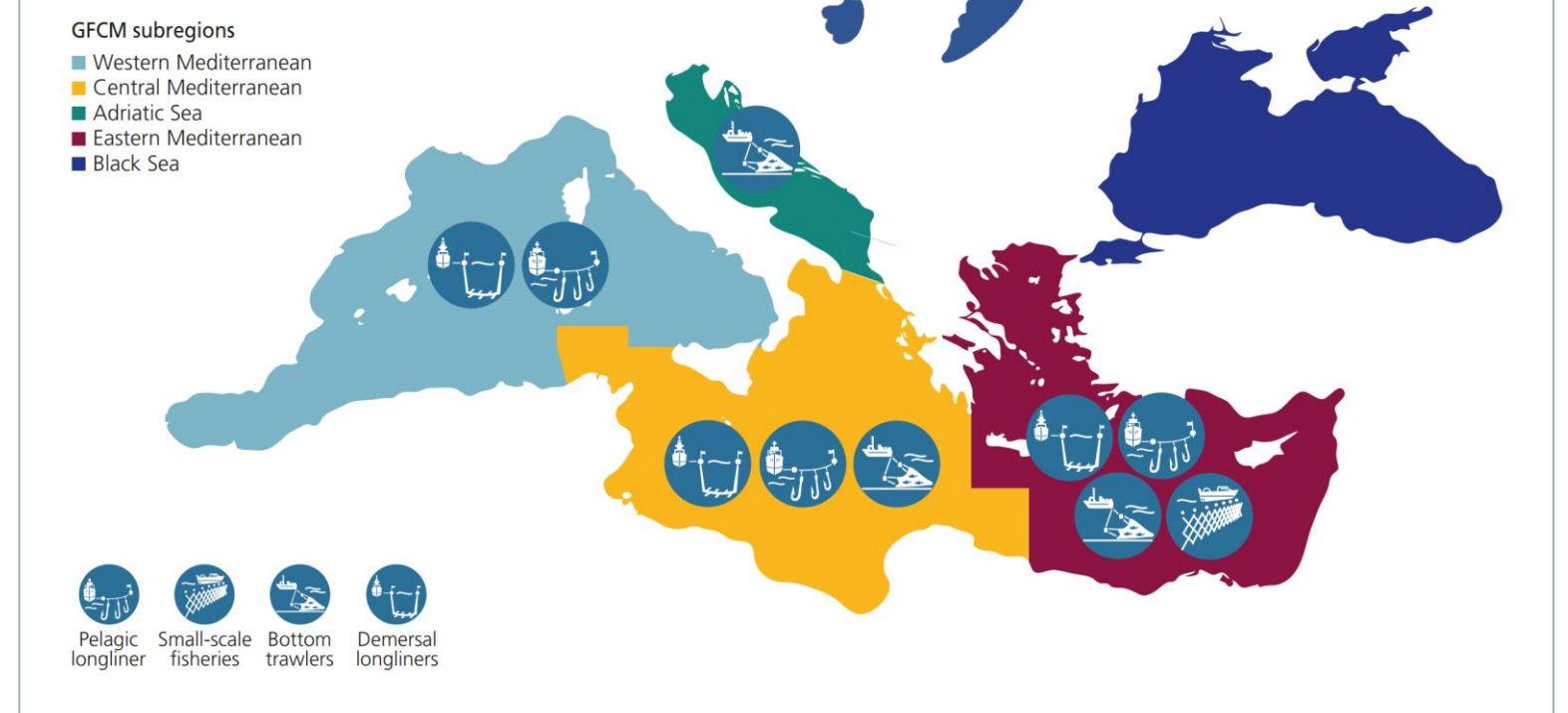


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ELASMOBRANCHS



SEA TURTLES

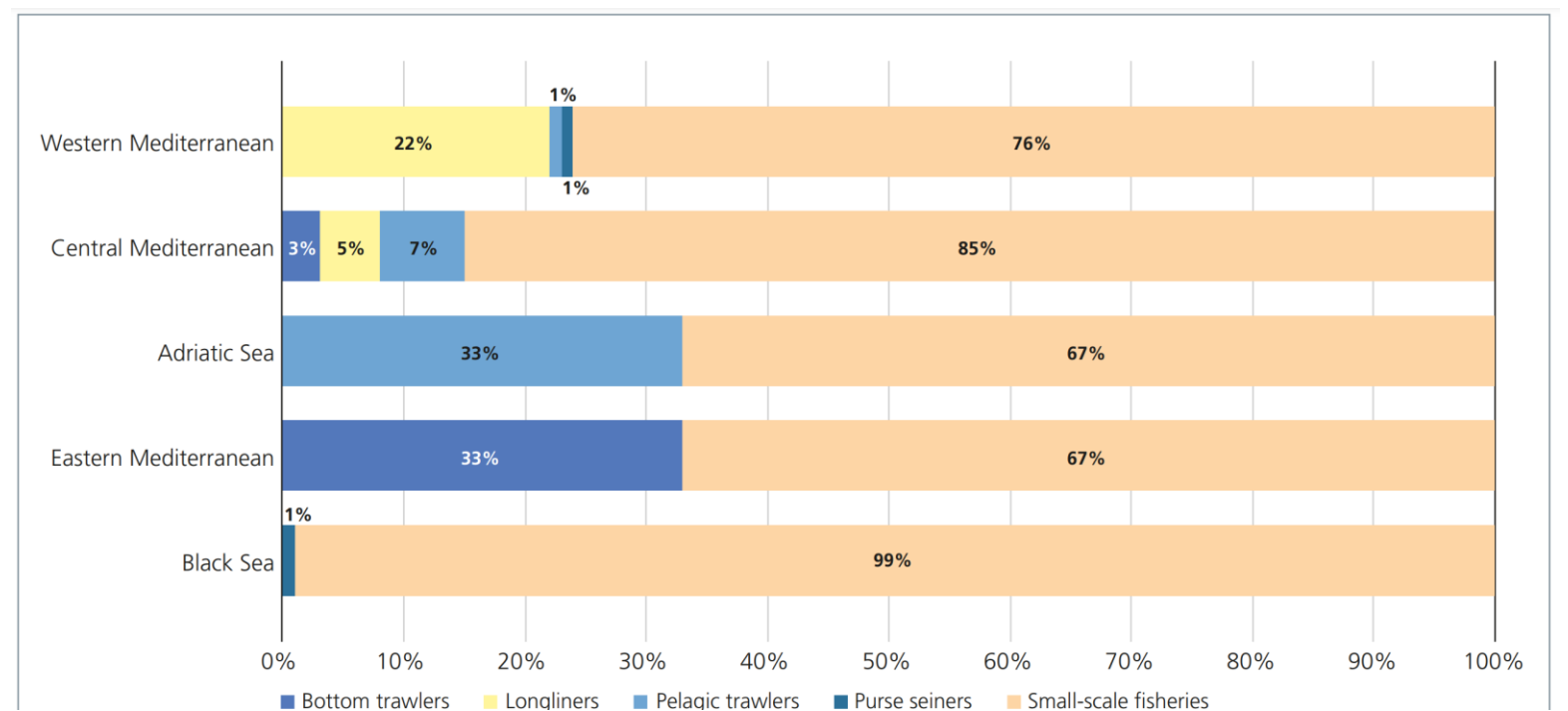
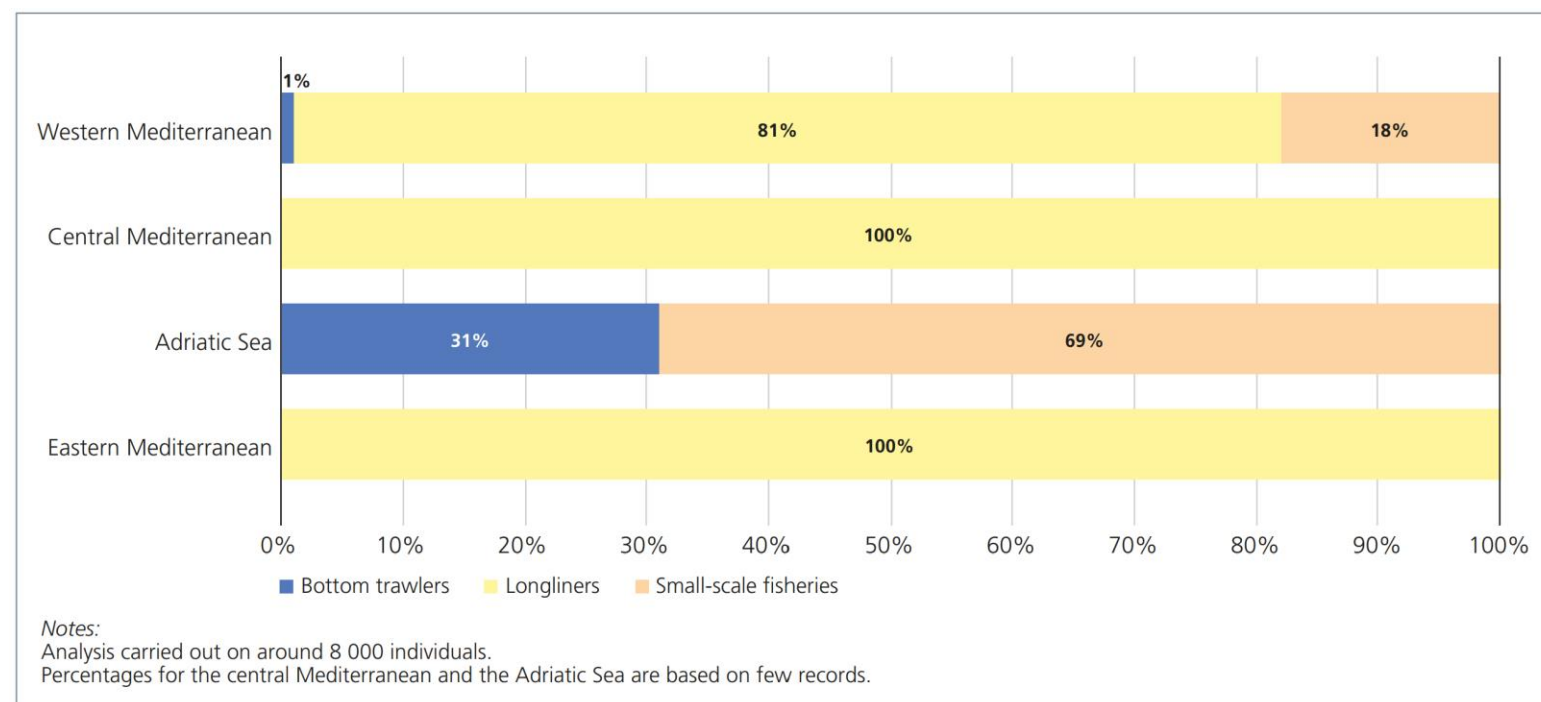


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SEA BIRDS

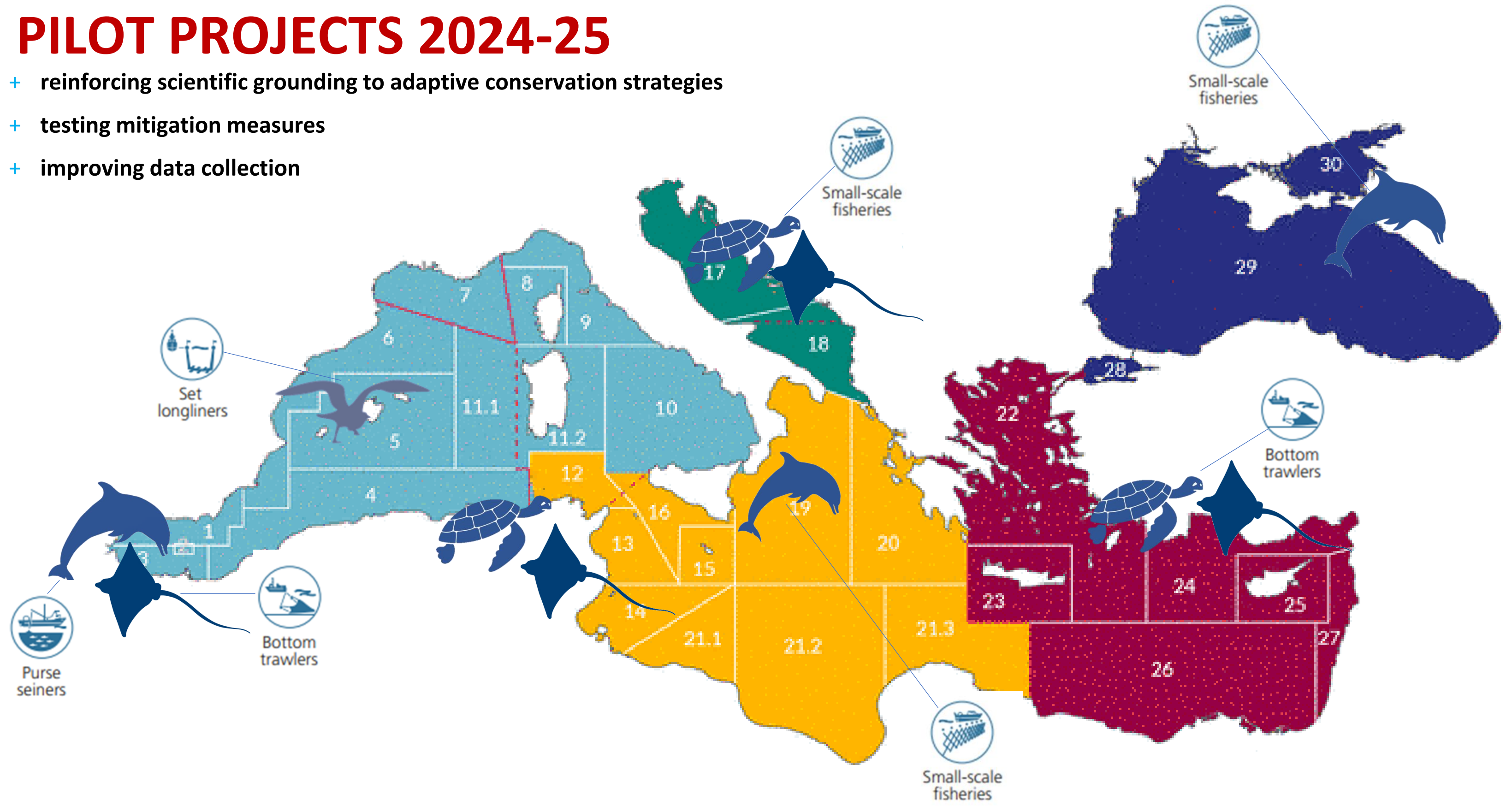


CETACEANS

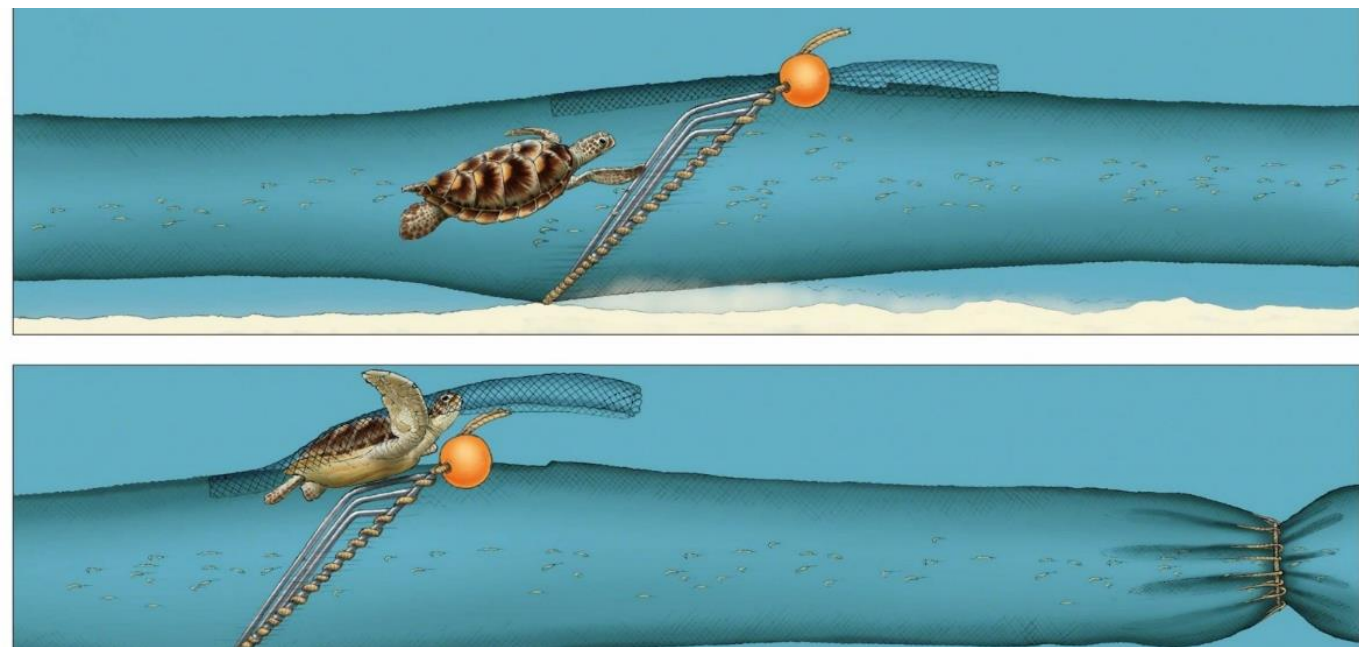


PILOT PROJECTS 2024-25

- + reinforcing scientific grounding to adaptive conservation strategies
- + testing mitigation measures
- + improving data collection



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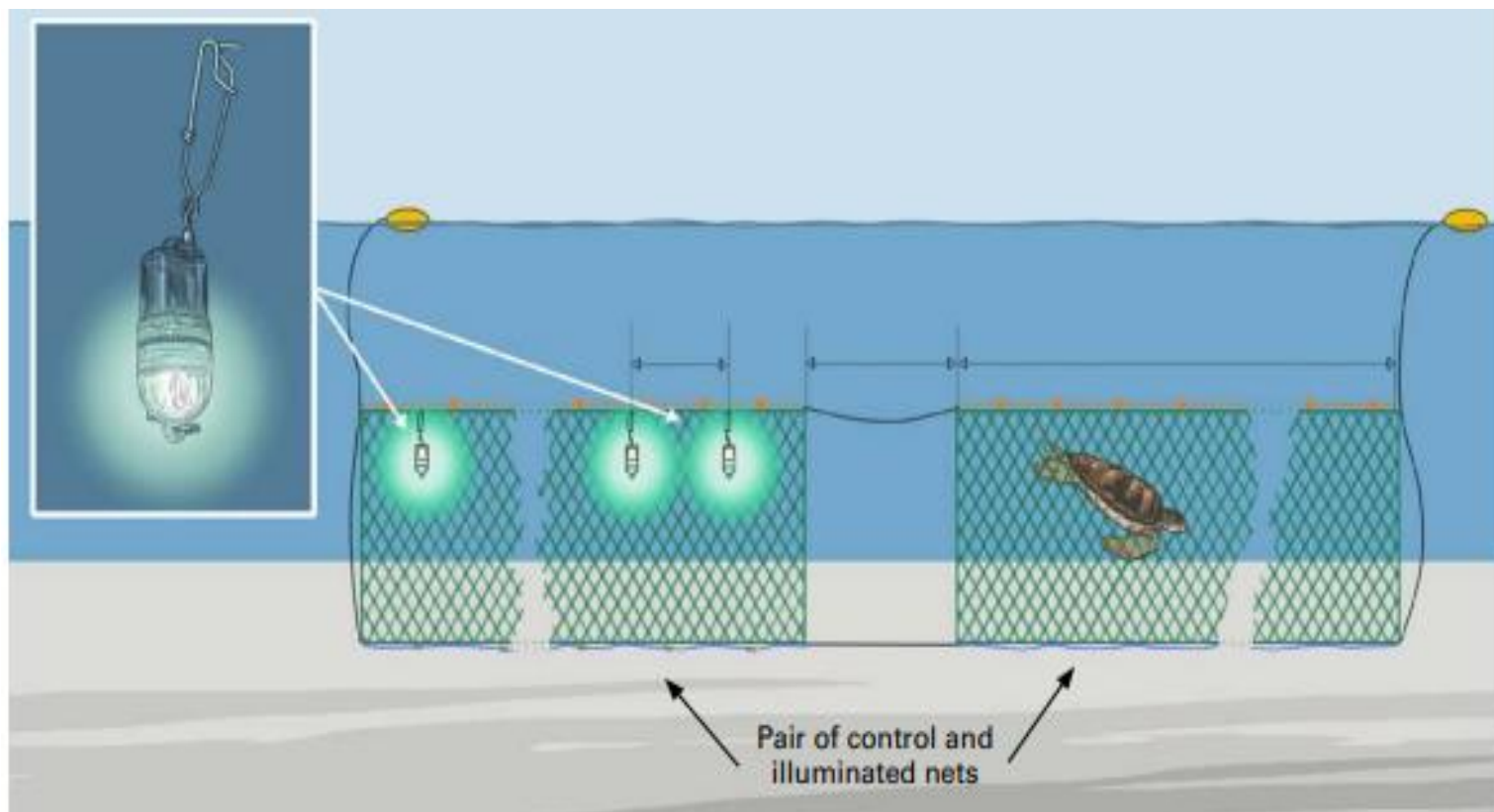
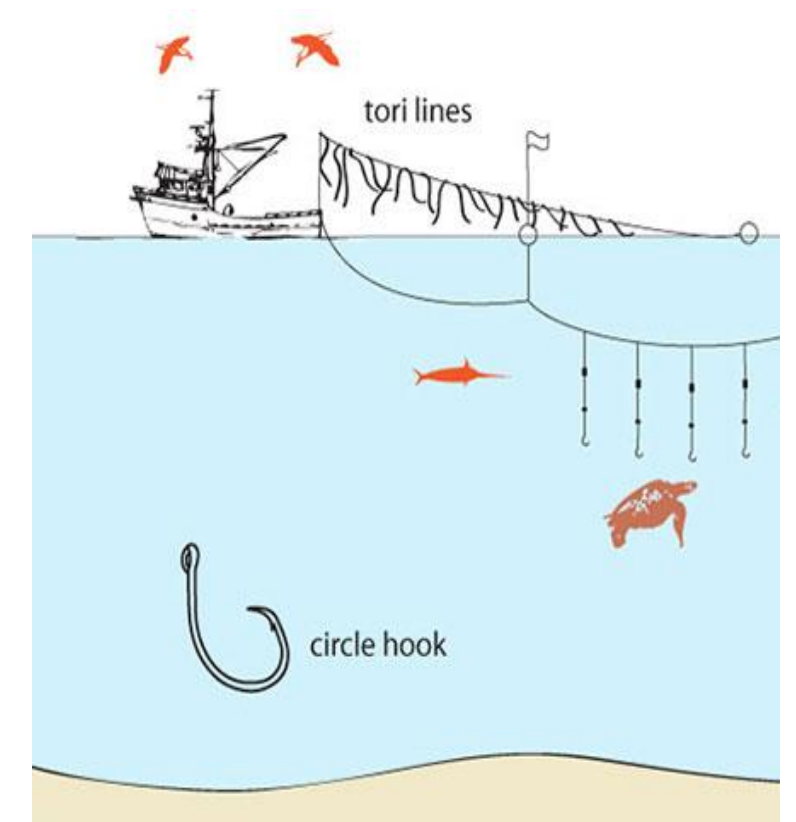
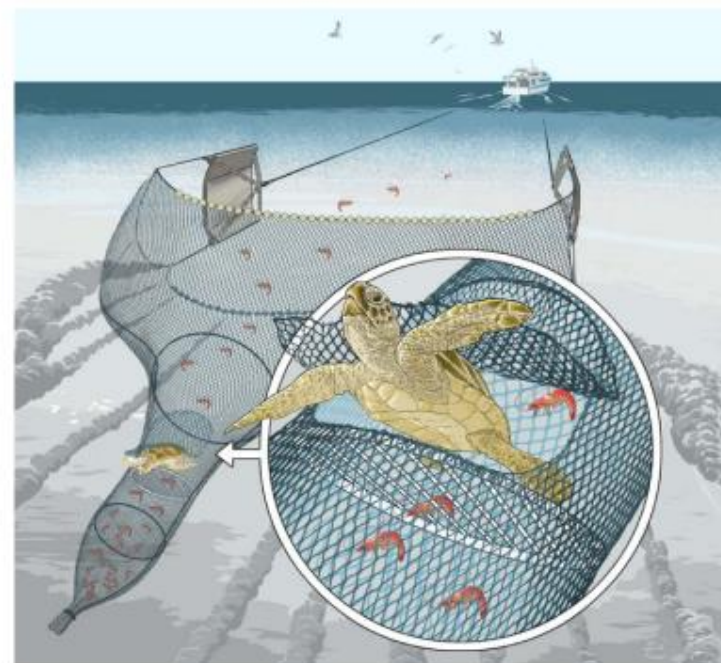


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General Fisheries Commission
for the Mediterranean
Commission générale des pêches
pour la Méditerranée

STUDIES AND REVIEWS 100

OVERVIEW OF MITIGATION MEASURES TO REDUCE THE INCIDENTAL CATCH OF VULNERABLE SPECIES IN FISHERIES



GFCM actions to monitor and mitigate bycatch

- Despite improvements in data collection quantity and quality, there is still a need for better discard data collection and reporting in several countries and areas. Estimates for some vessel groups and commercial species in the Mediterranean and Black Sea remain incomplete and may lack precision.
- The information collected so far, particularly over the last twenty years, provides an overview of the high-risk areas where interactions between vulnerable species and fishing activities have been most frequently reported.
- The analysis highlights the challenges in obtaining reliable estimates of incidental catch of vulnerable species due to issues such as the absence of onboard observer programs, difficulties in species identification, and inadequate spatial and temporal coverage, all of which contribute to uncertainty
- Despite the fragmented data, it is clear that the bycatch in the Mediterranean and Black Sea is significant, particularly for certain species, areas, vessel groups, and gear types.

+ *SOMFI 2025 will include updated bycatch description in the Mediterranean and Black Sea*

Thank you for your attention

www.fao.org/gfcm

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