



# Updates on GFCM WG VUL about vulnerable species

**FAO, Rome, Italy**  
30–31 March 2026

# Objectives of the WG

## BACKGROUND

- Support the GFCM Scientific Advisory Committees (SAC and ACBS) in the implementation of :
  - GFCM recommendations on the mitigation of fisheries impacts on vulnerable species
  - GFCM regional plan of action for vulnerable species (RPOA-VUL)
- Improve **monitoring systems**, strengthen **data collection**, reduce **incidental catch** and depredation, and support the **conservation status of vulnerable species** in the Mediterranean and Black Sea.

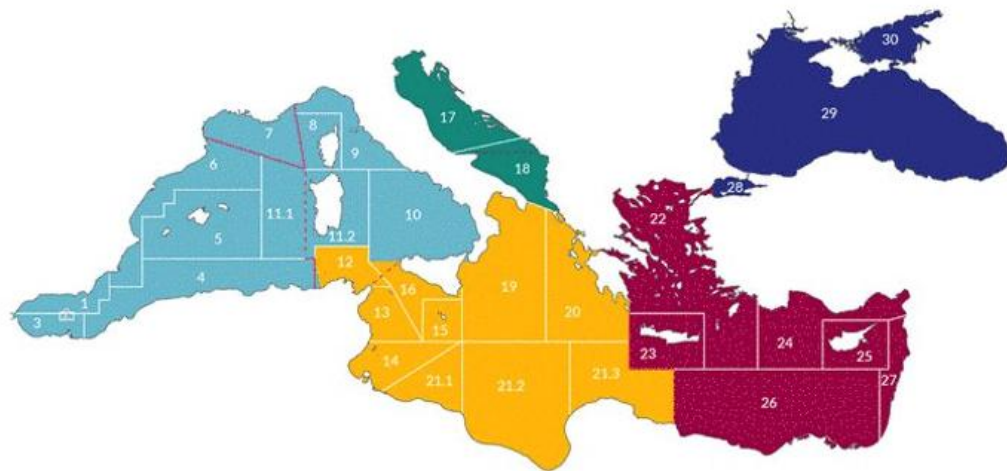
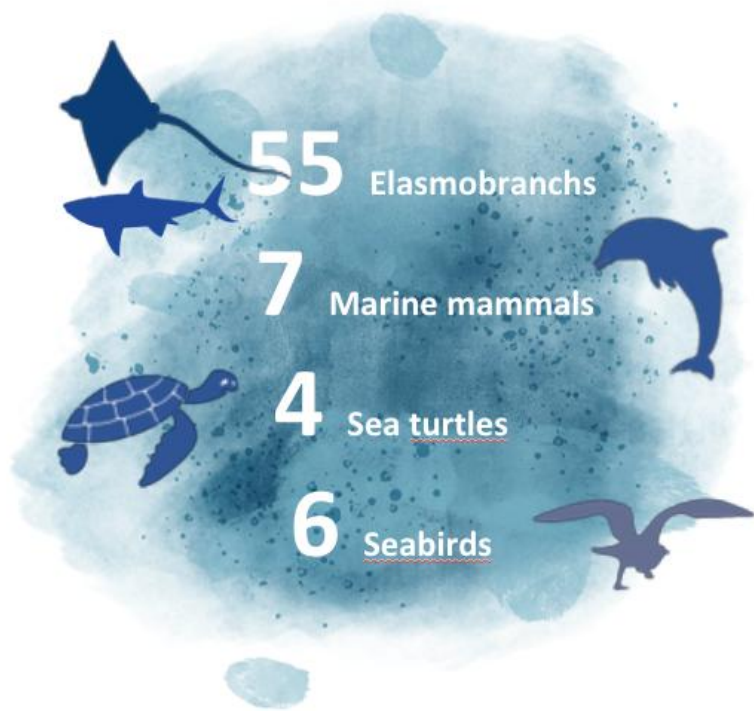
## AIMS OF THE MEETING

- Review the **subregional risk analyses** and scientific information on interactions between fisheries and vulnerable species.
- **Identify high-risk areas, periods and gear types**, and address key knowledge gaps related to monitoring, mitigation measures, data collection.

→ Define **technical elements** to inform the formulation of advice by the SAC and to support the sustainable management of fisheries interacting with vulnerable species.

# Achievements of the WG

Review of the risk analysis conducted at GFCM level : **quantitative approach**



Data source (SoMFi 2025) : DCRF (task III), scientific literature, MedBycatch project

Bycatch data : species, vessel group, GSA

Fishing effort data : DCRF (task V)

= **Bycatch rates, expanded to fleet-level, for each species x vessel group x GSA**

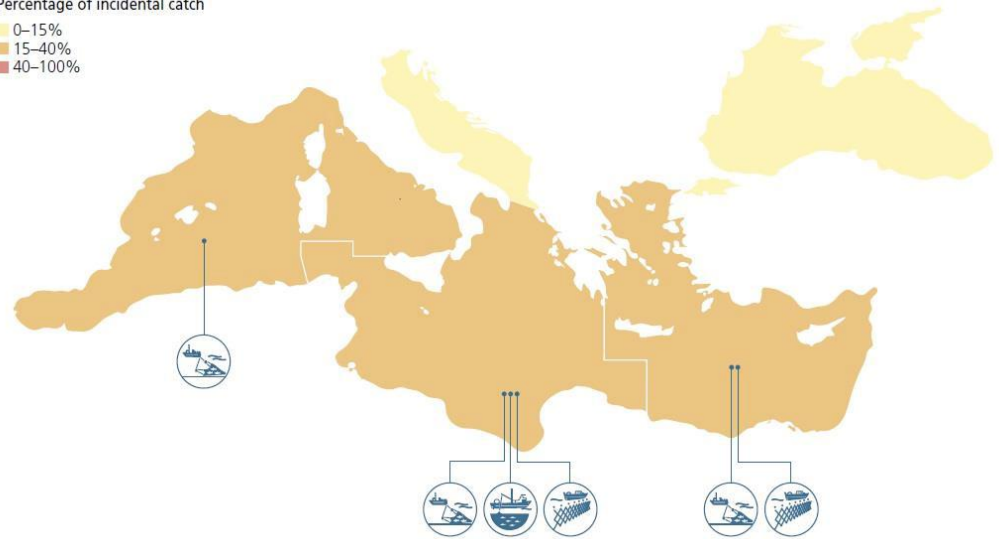
# Achievements of the WG

## Review of the risk analysis conducted at GFCM level : quantitative approach

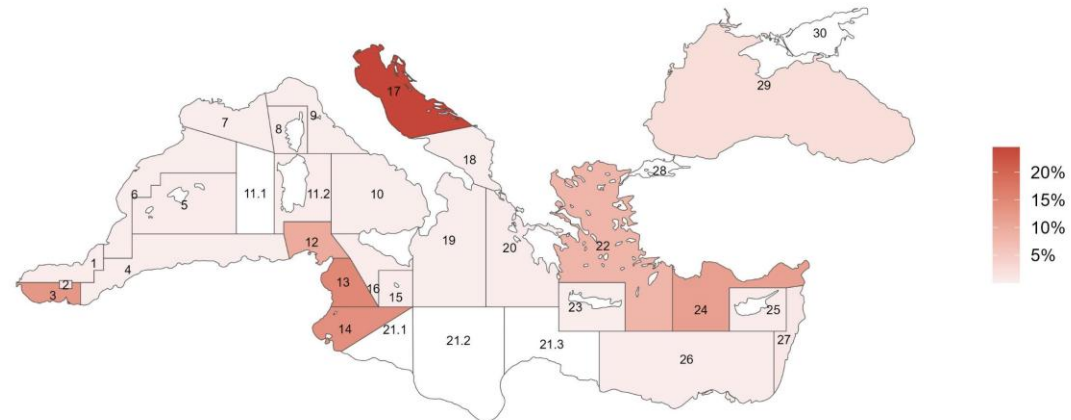
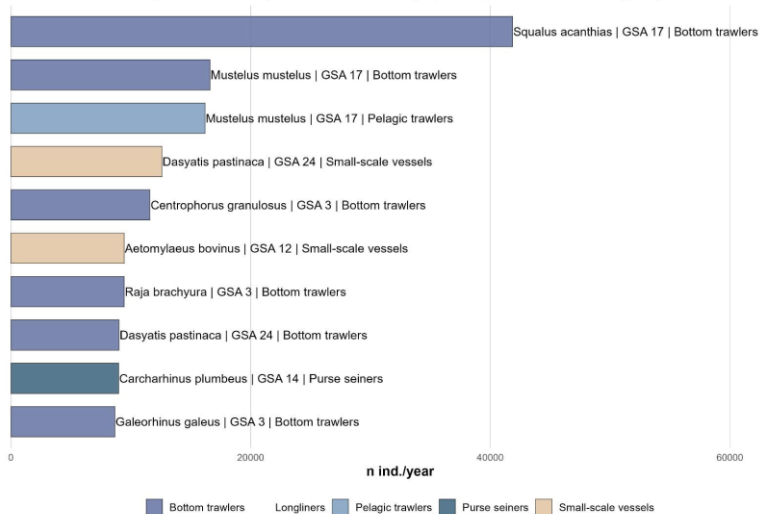


Bycatch overspread, mainly driven by bottom trawlers and SSF  
**4 hotspots : GSA 17, 3, 24, 12/14**

Percentage of incidental catch



Highest annual bycatch estimates by species, GSA and vessel group



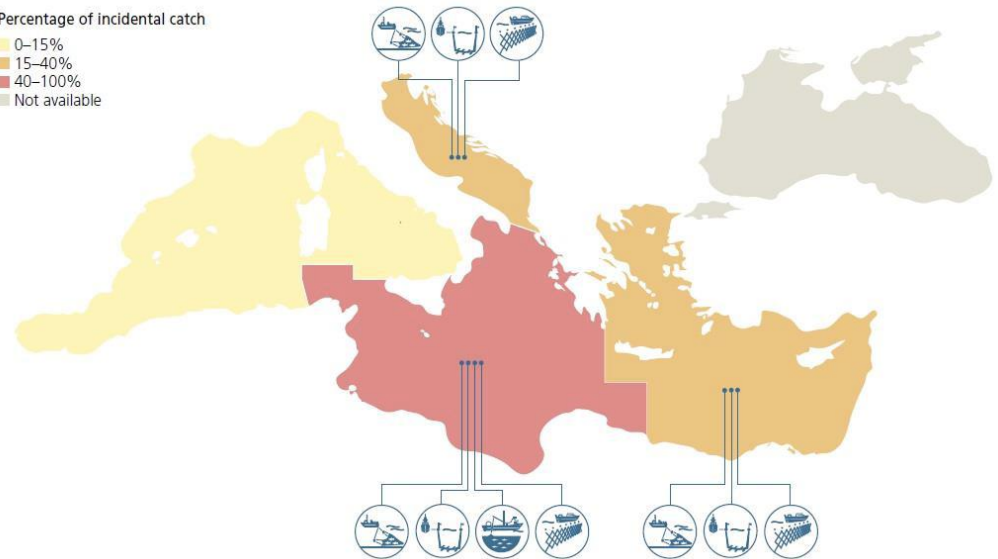
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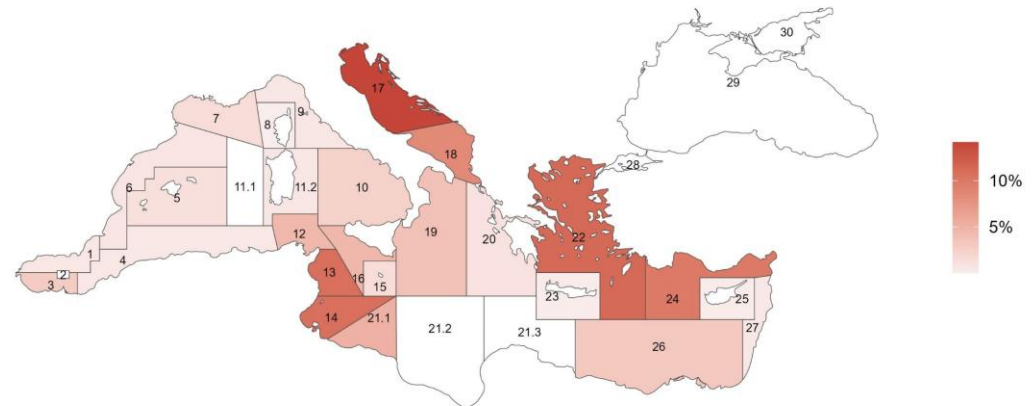
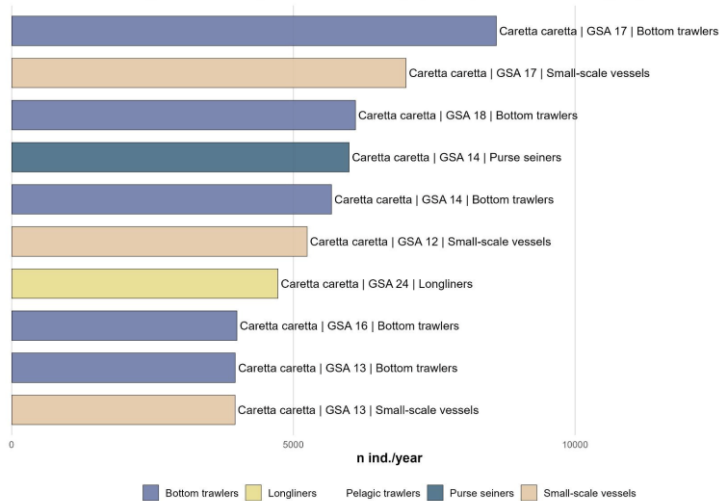


Bycatch widespread, mainly driven by longlines and trawlers  
**Key hotspots : GSA 17/18, 13/14, 22-24**

Percentage of incidental catch



Highest annual bycatch estimates by species, GSA and vessel group



# Achievements of the WG

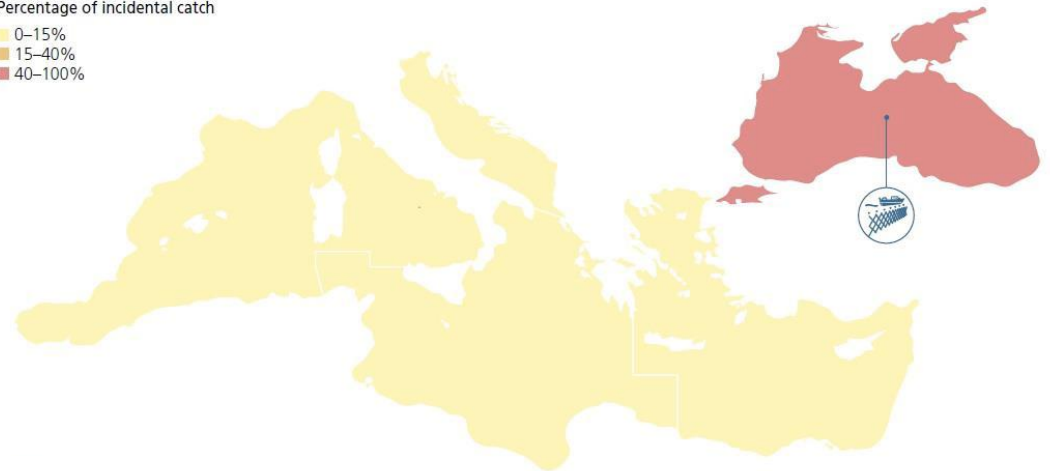
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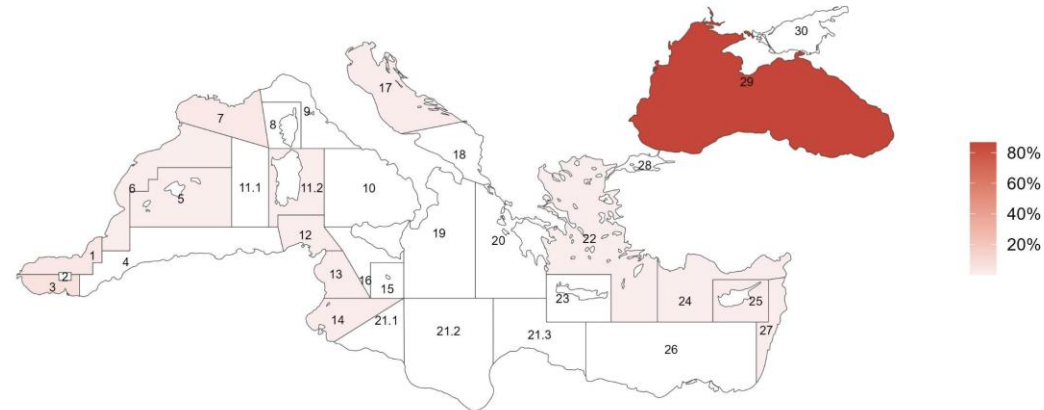
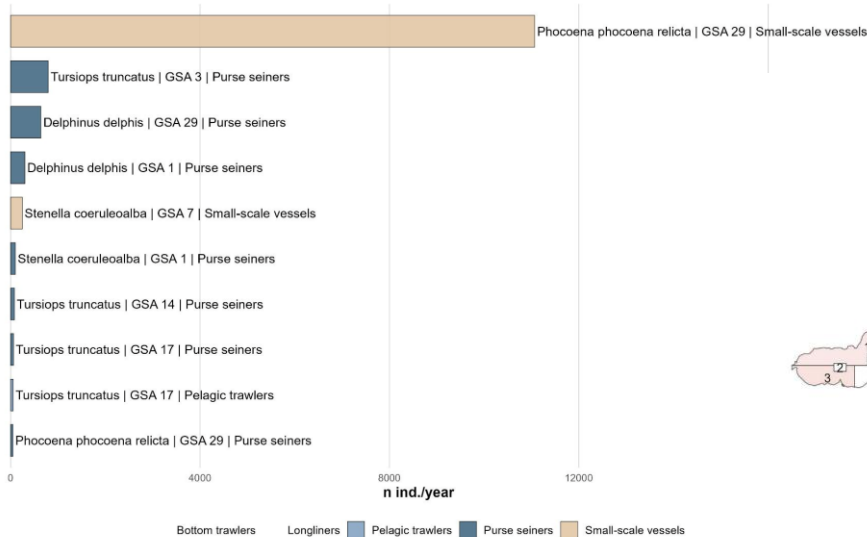
**Black Sea is the main hotspot (SSF)**  
**Outside : lower risk but not negligible**  
**(purse-seine, pelagic trawlers)**

Percentage of incidental catch

- 0-15%
- 15-40%
- 40-100%



Highest annual bycatch estimates by species, GSA and vessel group



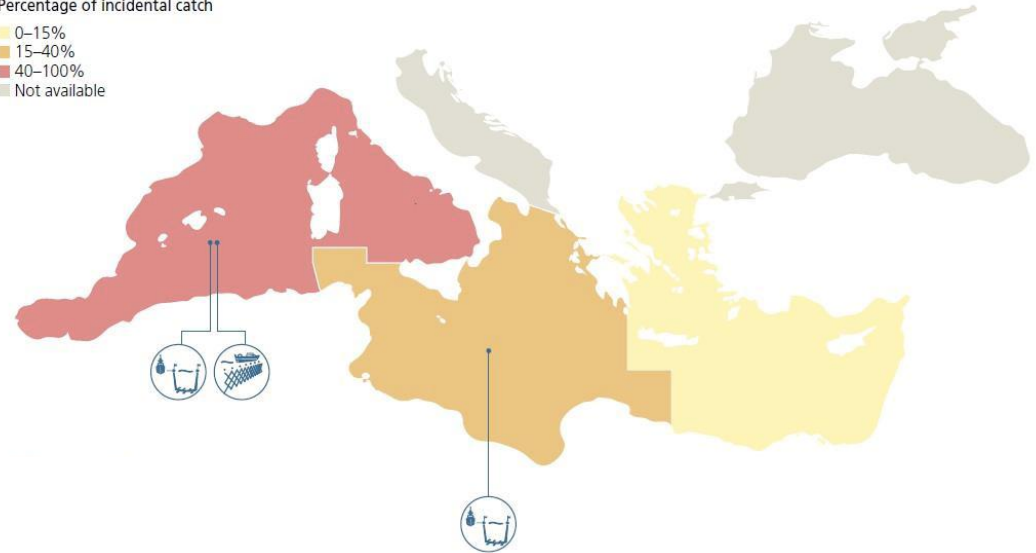
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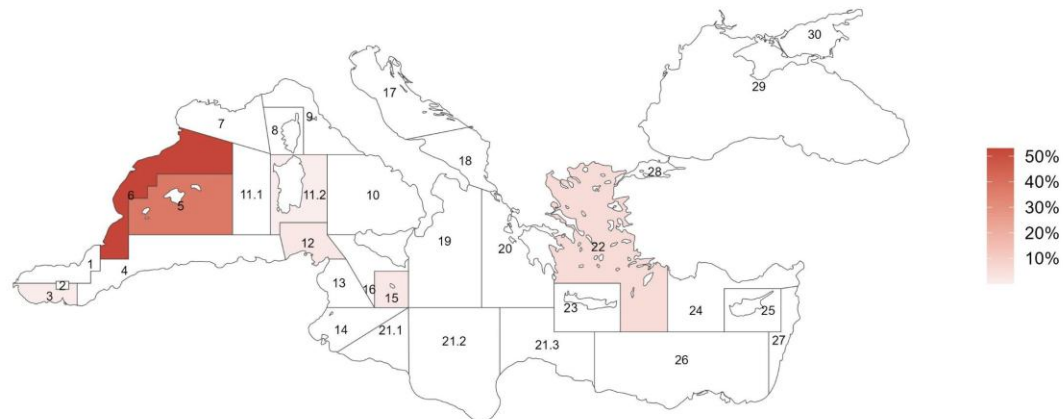
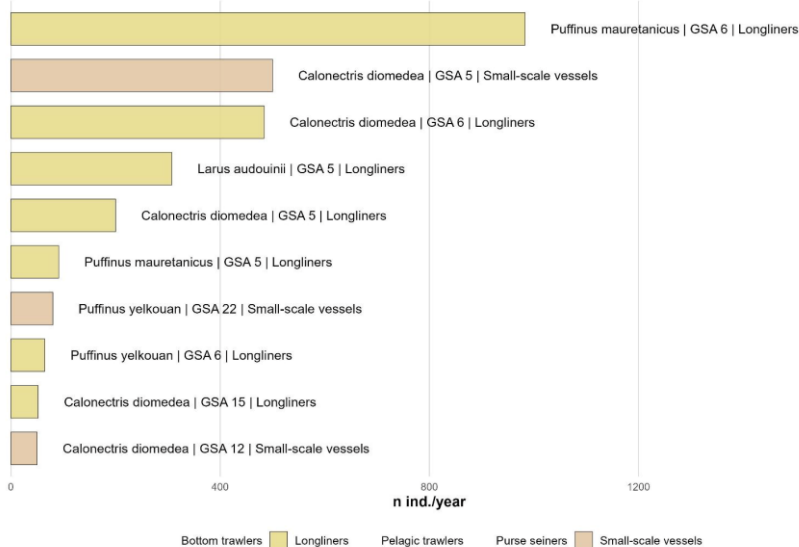


**Bycatch localized** (WEST MED, Balearic Islands), driven by longliner and SSF  
 /!\ Limited data availability

Percentage of incidental catch



Highest annual bycatch estimates by species, GSA and vessel group

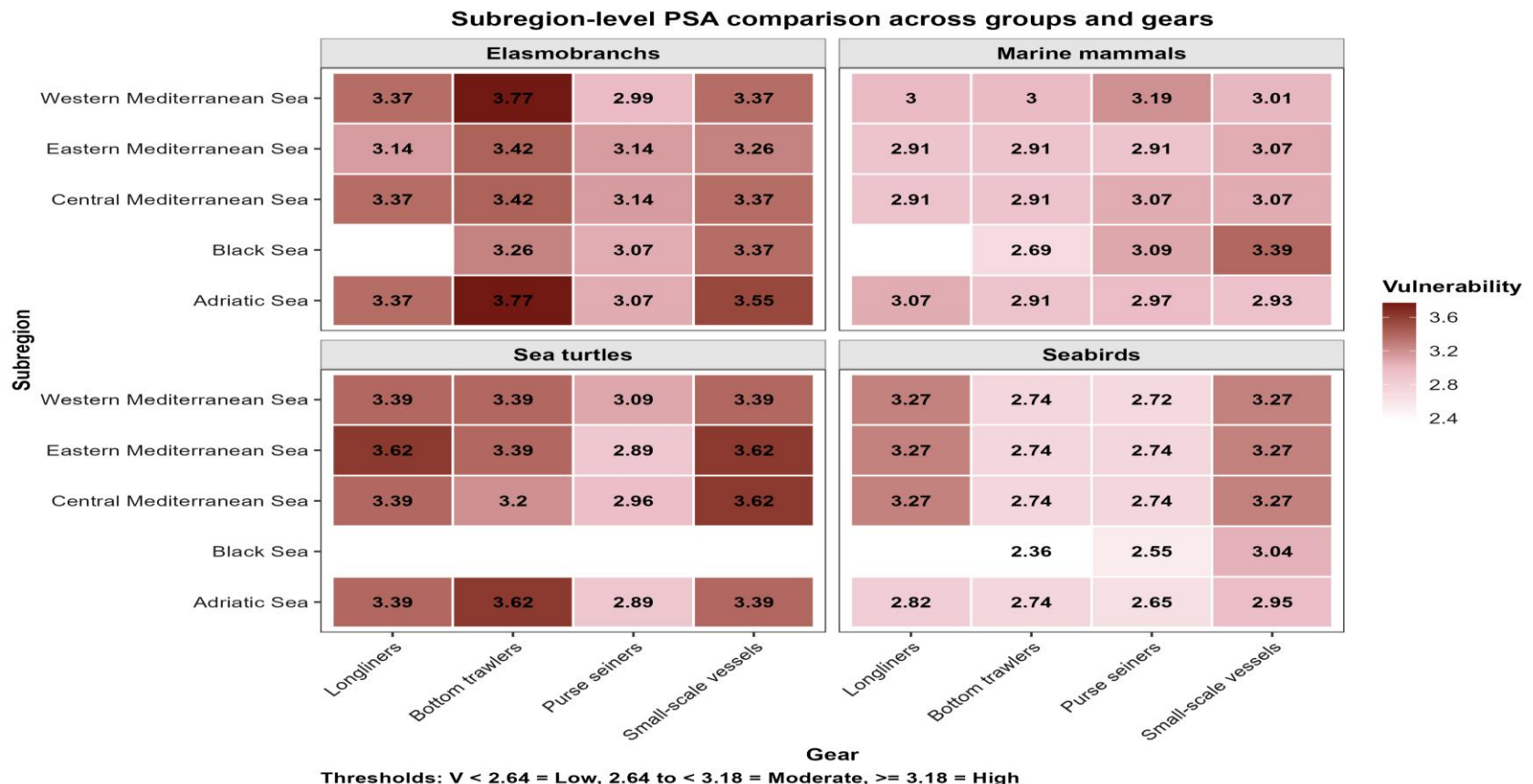


# Achievements of the WG

Review of the risk analysis conducted at GFCM level : **qualitative approach**

Productivity (life-history traits) x Susceptibility (exposure) Analysis

= **Vulnerability scores** for each species group \* vessel group \* subregion

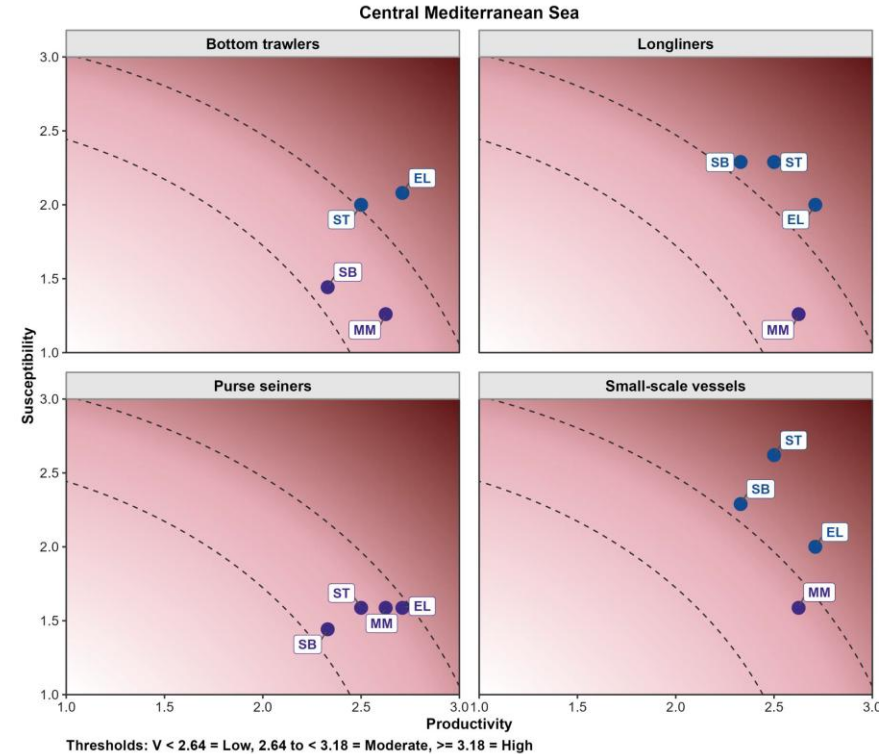
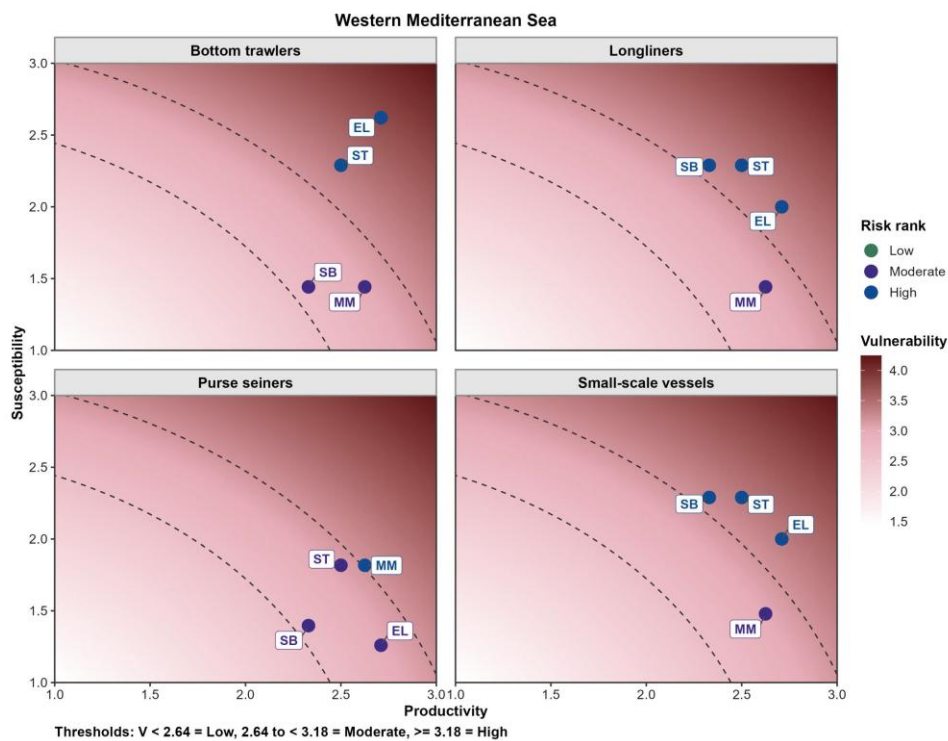


# Achievements of the WG

Review of the risk analysis conducted at GFCM level : **qualitative approach**

Productivity (life-history traits) x Susceptibility (exposure) Analysis

= Vulnerability scores for each species group \* vessel group \* subregion



# Achievements of the WG

## Numerous scientific contributions

- Presentation of the results of **interactions monitoring projects** : address knowlegdes gaps about fisheries, species, methods, scientific evidence.
- Presentation of the results of **mitigation trials projects** : spatial or temporal closures, gear modifications, any other actions tailored to specific areas or species.

## Written MEDAC advice

- **Existing MEDAC advice** that help improve vulnerable species conservation:
  - 212/2025 : joint advice for ICCAT to craft a clear definition of driftnets, and ensure illegal driftnets are not used anymore.
  - 177/2025 : MEDAC advice for ICCAT to strengthen ICCAT-GFCM cooperation to combat IUU, including characterize banned gears
  - 212/2025 : MEDAC advice for ICCAT on the use of trap-line in swordfish fishery : assess the functioning and impact of innovative gears that are more selective

# Conclusions of the WG

## SCIENCE :

- Progress in **assessing the interactions between fisheries and vulnerable species** : *quantitative and qualitative approaches, local projects, integration of CPC data...*

- Priorities :**

Elasmobranchs	Sea turtles	Seabirds	Mammals
<u>OTB</u> : GSA 17, 13-14, 24, 3	<u>OTB</u> : GSA 17-18, 12-13-14-16, 22-24	<u>SSF</u> : GSA 5	<u>SSF</u> : GSA 29
<u>SSF</u> : GSA 12, 24	<u>SSF</u> : GSA 17, 12-13	<u>LL</u> : GSA 6	
	<u>LL</u> : GSA 24		

- But must be interpreted with caution (limited data, heterogeneous geographic and temporal coverage, lack of standardized monitoring) : **future results must be incorporated to refine risk assessments**
- Some key issues :*
  - *Standardizing fishing efforts across fleets to improve comparability of observed catch rates*
  - *Species-level studies needed to design more targeted mitigation measures : biological traits based, distribution ranges, seasonality, mortality/survival rates...*

# Conclusions of the WG

## MITIGATION MEASURES :

- Identification of relevant mitigation initiatives : a gradual **transition from test to application** is possible, while remaining flexible to local ecological and socio-economic conditions
  - Need to strengthen the effectiveness assessment
  - Importance of **involving fishermen** in co-design, considering their field experience
- Support for appropriate **handling and release solutions** to increase post-capture survival : promote their dissemination, training, consistent application across fleets

- Development of a preliminary **toolbox** of technical and management measures : by *species group \* high-risk area \* gear type*
- To guide SAC and subregional comitees in identifying priorities, and **support planning and monitoring of mitigation actions in RPOAVUL**
- *Still to be refined and consolidated* → contributions needed

# WG VUL Toolbox



## SPECIES GROUP

## ELASMOBRANCHS

## SEABIRDS

## MARINE MAMMALS

## SEA TURTLES

High-risk area (priority) (1)

Adriatic Sea (GSA 17-18); Eastern Mediterranean (GSA 24); Central Mediterranean (GSA 12-14)

Western Mediterranean (e.g. GSA 5, GSA 6)

Black Sea (GSA 29); Western Mediterranean (GSA 3);

Central Mediterranean (GSA 13-16); Adriatic Sea (GSA 17-18); Eastern Mediterranean (GSA 24)

Gear / fishery (1)

Bottom trawlers; gillnets; demersal longliners and pelagic longliners (for blue shark)

Longliners (demersal and pelagic)

Small-scale fisheries (e.g. gillnets); purse seiners

Bottom trawlers; longliners (demersal and pelagic)

Main interaction type

Incidental capture across different fishing gear; interactions with critical habitats (including nursery areas) due to fishing activities

Incidental capture in longlines (hooking) and collisions with fishing gear during setting and hauling operations

Incidental capture in fishing gear; depredation of catches (e.g. by dolphins) in SSF and purse seiners; entanglement in static gear

Incidental capture through entanglement in nets and hooking in longlines

Other relevant areas (to be further assessed) (2)

Western Mediterranean

Central Mediterranean

Central Mediterranean

Western Mediterranean

Gear / fishery (2)

Longliners; small-scale fisheries

Longliners

Small-scale fisheries; gillnets; trawlers

Longliners; coastal gear

Evidence sources

Case studies and trials presented at WGVUL (from Adriatic, Central, Western and eastern Mediterranean); SoMFi 2025 regional analyses; qualitative and quantitative assessments

Case studies and trials presented at WGVUL (from Western Mediterranean); SoMFi 2025 regional analyses; qualitative and quantitative assessments

Case studies and trials presented at WGVUL (from Black Sea, Western and Eastern Mediterranean); SoMFi 2025 regional analyses; qualitative and quantitative assessments

Case studies and trials presented at WGVUL (from Eastern Mediterranean and Adriatic); SoMFi 2025 regional analyses; qualitative and quantitative assessments

# WG VUL Toolbox - *summary*



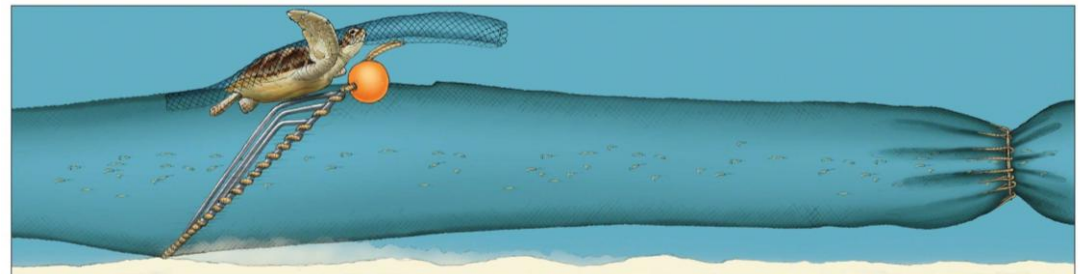
*NB : only for ETP species, not applicable on commercial species*

High-risk area	Fishing gear	Management tool
GSA 24	Bottom trawlers	Bycatch reduction devices : selective grids (/!\ commercial losses) Safe handling and release practices
GSA 12, 13, 14, 16, 17 (Croatia)	Bottom trawlers	Bycatch reduction devices (seasonally and zoning in Croatia) Safe handling and release practices Spatio/temporal closure Protection of critical habitats and nursery areas
GSA 3, 5	Bottom trawlers	Spatial closure : nursery protection Effort limitation
GSA 17 (Italy)	Pelagic trawlers	Safe handling and release practices Spatio/temporal closure Protection of critical habitats and nursery areas
GSA 13, 14, 16	Longliners	Reduced soak time Safe handling and release practices Spatio/temporal closure
GSA 12, 17 (Croatia), 21	SSF (trammel net, gillnet)	Gear modification to increase visibility (seasonally and zoning in Croatia) Reduced soak time Safe handling and release practices Spatio/temporal closure

# WG VUL Toolbox - *summary*



Hight-risk area	Fishing gear	Management tool
GSA 24	Bottom trawlers	Bycatch reduction devices : TED grid (/!\ commercial losses)
GSA 13, 14, 16, 17, 18	Bottom trawlers	Bycatch reduction devices : TED grid (/!\ commercial losses) Safe handling and release practices Spatio/temporal closure
GSA 24	Longliners	Reduced soak time Safe handling and release practices Spatio/temporal closure
GSA 12, 13, 17, 19	SSF (trammel net)	Gear modification for visibility, LEDs (seasonaly and zoning in Croatia) Reduced soak time Safe handling and release practices Spatio/temporal closure



# WG VUL Toolbox - *summary*



*NB : lack of complete available data*

Hight-risk area	Fishing gear	Management tool
GSA 5 (Balearic Islands), 6	Longliners (set and drifting)	Deployment of bird-scaring lines (tori lines, buoys)
GSA 16 (Strait of Sicily), 15 (Malta), 22 (Greece)	Longliners	Test of bird-scaring lines (tori lines, buoys)
GSA 22 (Greece)	SSF (trammel net)	Contrast panels



# WG VUL Toolbox - *summary*



Hight-risk area	Fishing gear	Management tool
GSA 29 (Black Sea)	SSF (turbot gillnet)	Mesh size modification Monofilament twine Acoustic deterrent devices : PALs, pingers (/!\ costs, long term effects) Spatio/temporal closure
GSA 3	Purse seiner	Acoustic deterrent devices : pingers Reinforcement of net
GSA 19	SSF (gilnet, trammel net) Longliners	Acoustic alert systems (AAS) Deterrent device

