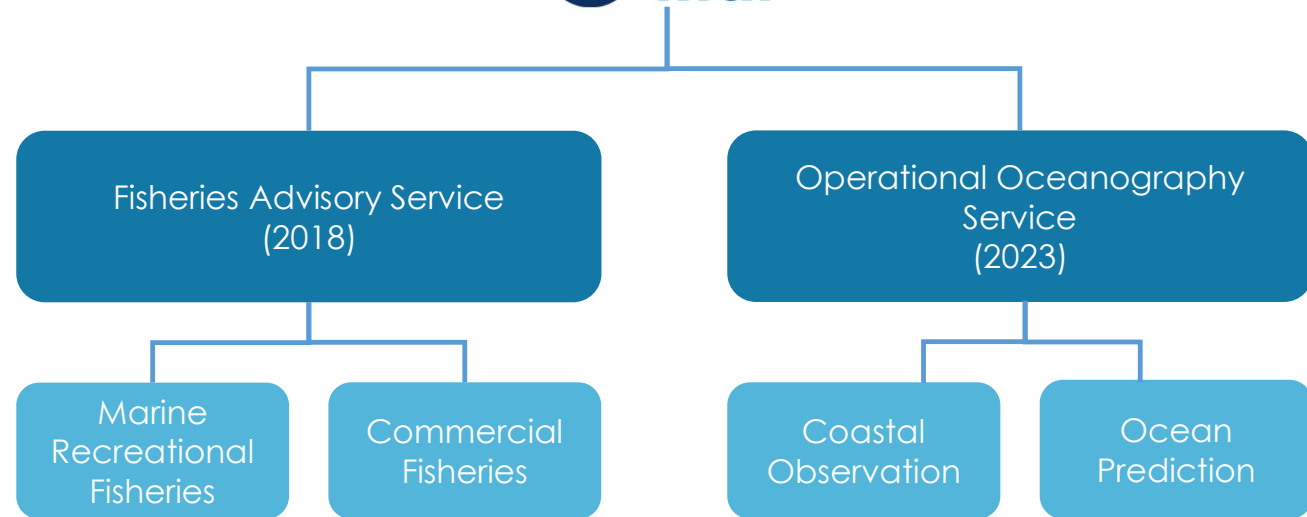
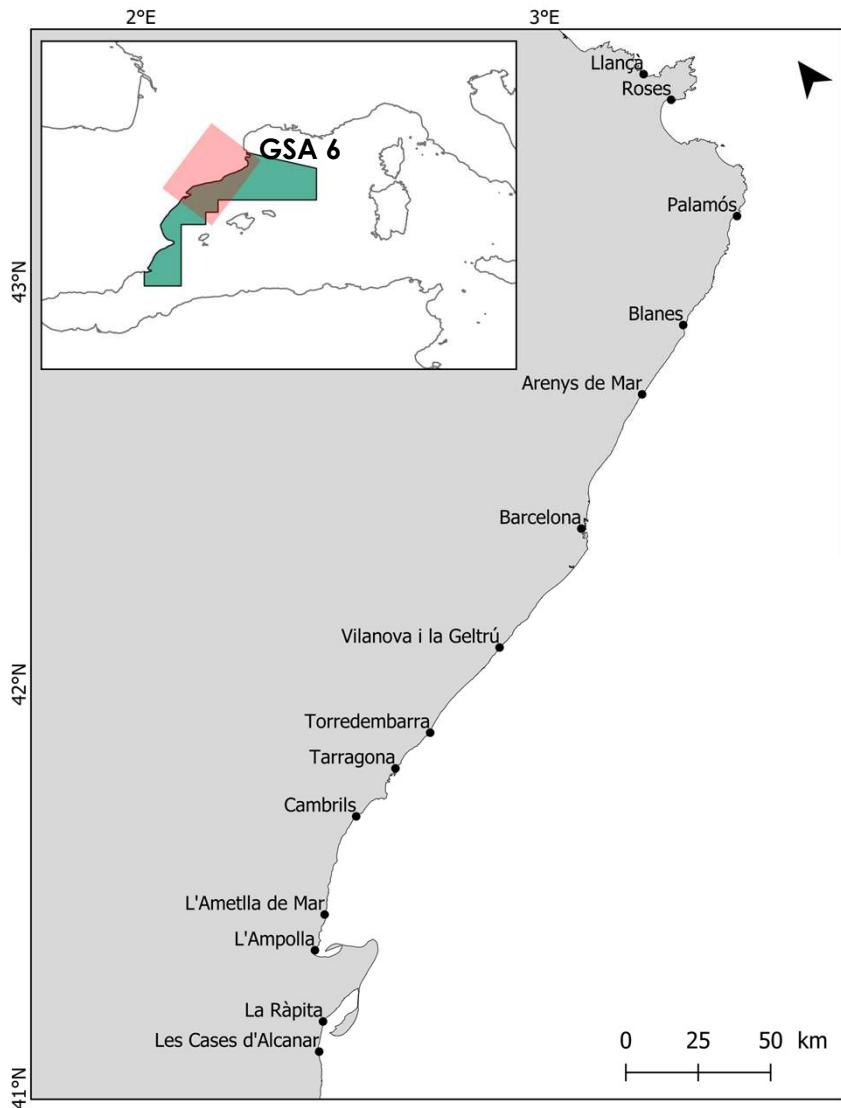


# State of Fisheries in Catalonia 2023 (Northern GSA 6)

Technical Meeting  
Brussels, September 20th 2024



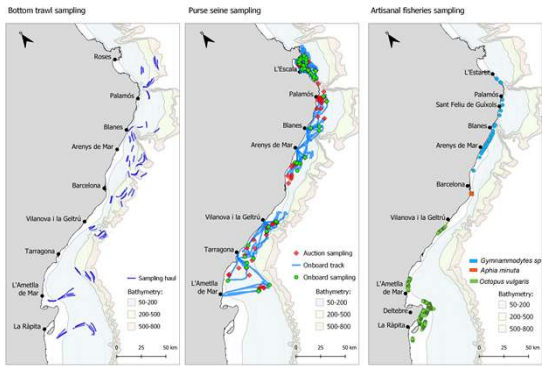




## Fisheries Advisory Service (2018)



### Fisheries governance based on scientific data



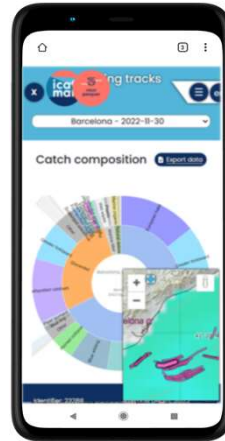
Administration



Society



Scientific community

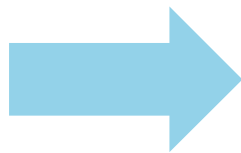


**1 Continuous monitoring** of commercial and recreational fisheries resources

**2 Technical reports and scientific articles**

**3 Participation in co-management committees**

**4 Knowledge transfer** to stakeholders



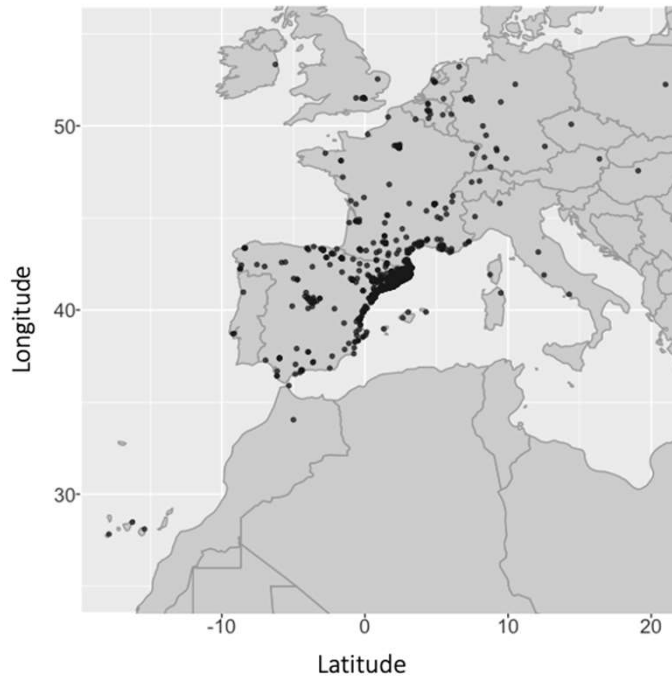
**Scientific advice** to the administrations in fisheries management



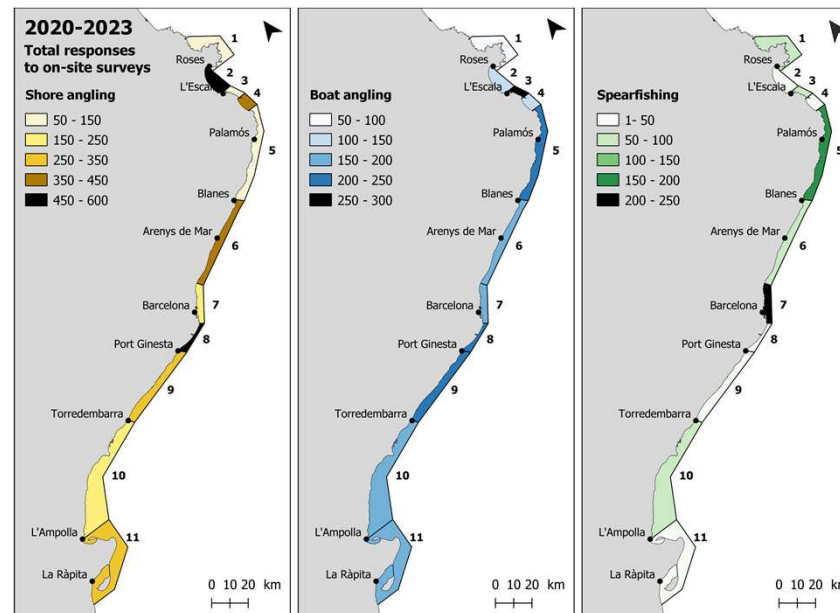
# Marine recreational fisheries (2020-present)

45,000 licences for MRF in Catalonia, yearly

## Online surveys



## On-site surveys



25,000 surveys

1/4 Diari Oficial de la Generalitat de Catalunya Núm. 9247 - 13.9.2024  
CIV-DOGC-A-24254050-2024

**ALTRES DISPOSICIONS**

**DEPARTAMENT D'AGRICULTURA, RAMADERIA, PESCA I ALIMENTACIÓ**

**RESOLUCIÓ ARP3253/2024, de 10 de setembre, per la qual es fixen les talles mínimes de captura, quotes i vedes d'aplicació a la pesca marítima recreativa a les aigües interiors del litoral de les comarques de Girona per al període 2024-2026.**

La Llei 2/2010, del 18 de febrer, de pesca i acció marítimes, estableix entre les seves finalitats vetllar per l'exploració racional i responsable dels recursos marins, afavorir-ne el desenvolupament sostenible i adoptar les mesures necessàries per protegir i regenerar aquests recursos i llur ecosistema, amb respecte a la normativa ambiental.

D'acord amb l'article 27.1 del Decret 109/1995, de 24 de març, de regulació de la pesca marítima recreativa, el departament competent en matèria de pesca, mitjançant la direcció general competent en matèria de pesca marítima, publicarà la relació de talles mínimes i vedes per a determinades espècies.

Tenint en compte l'interès creixent per la pesca marítima recreativa, el nombre actual de llicències de pesca recreativa, la convivència d'aquesta activitat amb la pesca marítima professional, l'eficàcia ecosistèmica de la gestió de la pesca, i la situació dels ecosistemes i dels recursos pesquers presents en les aigües del litoral de Girona:

Atesos els informes de seguiment de la pesca marítima recreativa a Catalunya elaborats per l'Institut Català de Recerca per a la Governança del Mar (ICATMAR) des de 2019, es considera necessari establir limitacions temporals i zones a la pesca marítima recreativa practicada a les aigües del litoral de Girona, consistentes a fixar les talles mínimes de captura, quotes màximes per persona i dia i períodes de vedes biològiques en què no es permet la pesca de determinades espècies, tendents a garantir una explotació racional de les poblacions afectades per aquesta activitat i l'adequada conservació i regeneració d'aquests recursos, així com la seva sostenibilitat a llarg termini en el temps.

Valorades les propostes presentades per la Taula de Coposetó de la Pesca Marítima Recreativa de Catalunya, per avançar en la sostenibilitat de la pesca recreativa a Catalunya amb la implementació de limitacions temporals i zones en la pesca marítima recreativa que han d'aplicar-se de forma complementària a les mesures previstes al Decret 109/1995, de 24 de març, a l'Ordre ARP/166/2020, d'1 d'octubre, per la qual s'aprova el Pla de gestió per al marisqueig professional de la sepia (*Sepia officinalis*) de les badies de Pals i Roses i s'estableixen una veda anual i una limitació de captures en la pesca recreativa, i a l'Ordre ACC/157/2022, de 27 de juny, per la qual s'estableixen determinades mesures de gestió de la pesca professional i recreativa en l'àmbit marí del Parc Natural de Cap de Creus i en la badia de Cadaqués, que afecten la pesca marítima recreativa.

Vist l'informe de l'Institut Català de Recerca per a la Governança del Mar emès en el marc del programa temporal de recopilació de dades en suport de la gestió pesquera professional i recreativa de l'Estratègia marítima de Catalunya:

A proposta de la Subdirecció General de Política Marítima,

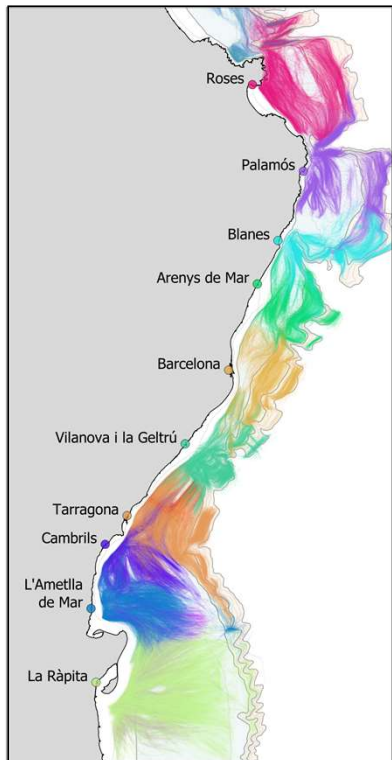
Resolc:

- Establir les següents limitacions d'aplicació a la pesca marítima recreativa a les aigües marítimes entre els municipis de Portbou i Blanes competència de la Generalitat de Catalunya:
  - Fixar les talles mínimes de captura, quotes i vedes especials que consten a l'annex d'aquesta Resolució.
  - No es permet l'ús d'esquer viu, entenent per esquer viu l'ús de peixos i/o cefalòpodes vius.
  - No es permet la pesca dirigida i la trinxera a bord de qualsevol espècie de la classe dels condriots o peixos cartilaginosos (aurons i rajades).

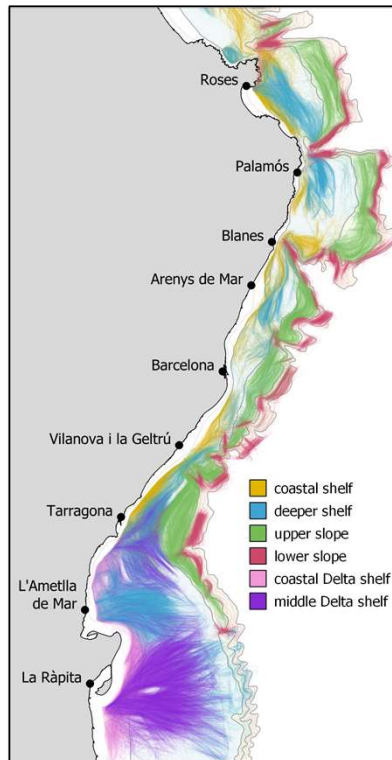
ISSN 1989-269X <https://www.gencat.cat/diari> DL 6/9014-2007

# Commercial fishing

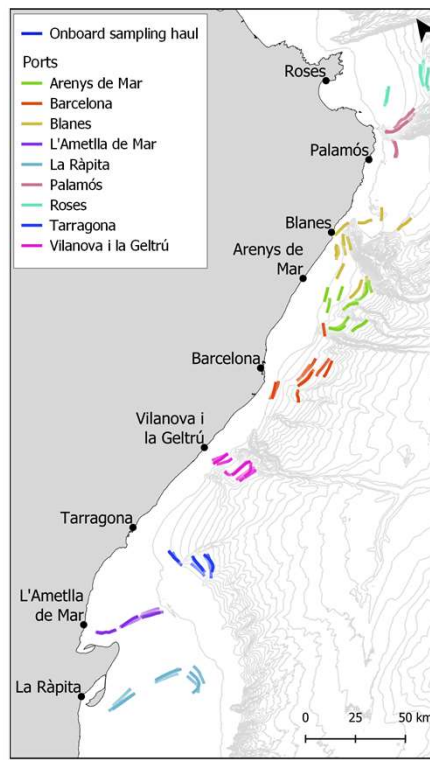
Locally-based fishery



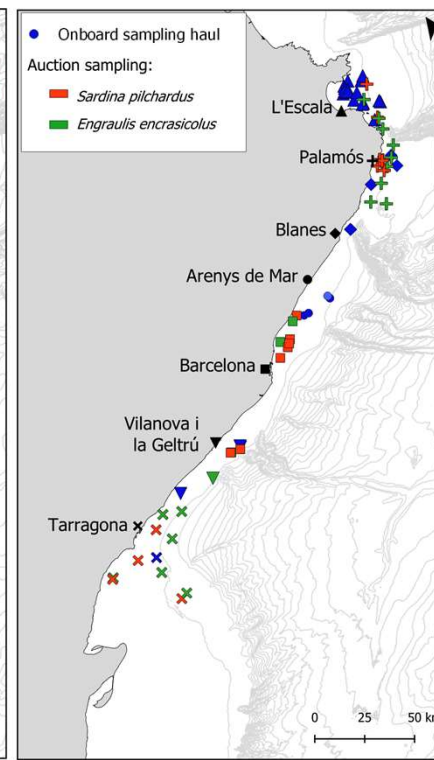
Métiers



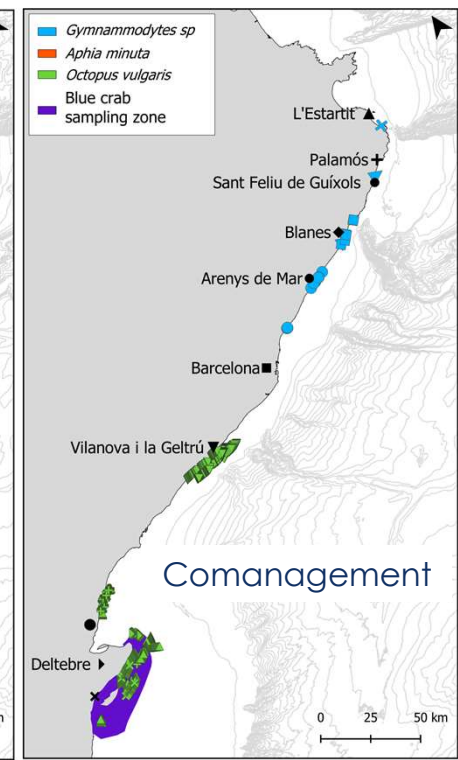
Bottom trawl



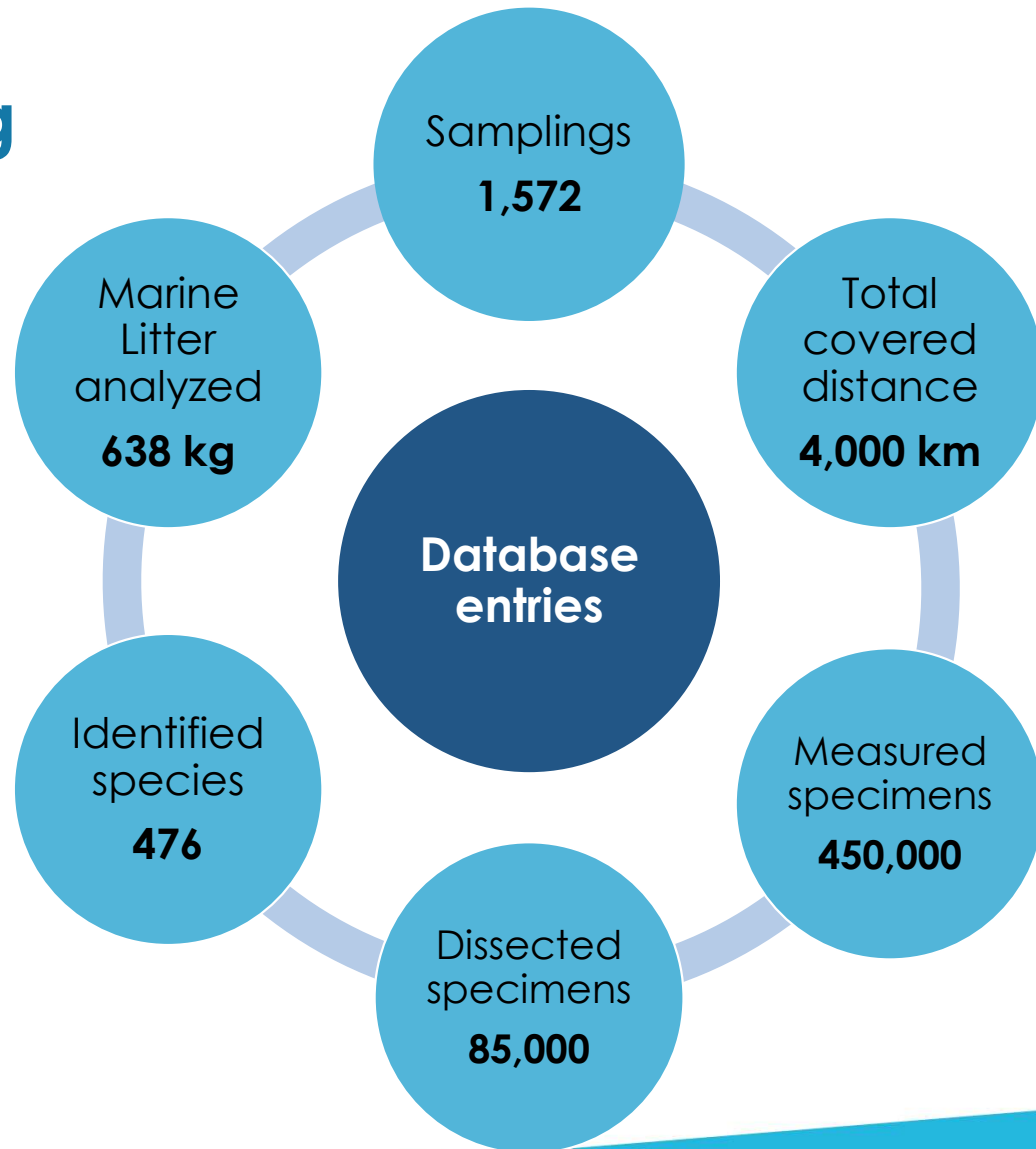
Purse seine



Small-scale fisheries



# Continuous monitoring 2019 - 2023



# Periodic publications

March

## Catches and revenues report

Generalitat de Catalunya  
Departament d'Acció Climàtica,  
Alimentació i Agenda Rural



June

## Marine Recreational Fisheries report

Generalitat de Catalunya  
Departament d'Acció Climàtica,  
Alimentació i Agenda Rural

July

## State of Fisheries report

Part I: Biological monitoring  
Part II: Stock assessment

Generalitat de Catalunya  
Departament d'Acció Climàtica,  
Alimentació i Agenda Rural



September

## Fisheries advisory reports

Generalitat de Catalunya  
Departament d'Acció Climàtica,  
Alimentació i Agenda Rural







# Commercial Fisheries (WMMAP) Advisory Report for the Northern GSA 6 2024

1. **Benchmark** (hake)
2. **Regionalization** (management by smaller, locally-based administrative units)
3. **Fisheries management advice**

WMMAP  
EU, 2019

Adoption by Spain  
20/05/2020

Fishing effort

Delay in the Spanish fishing opportunities (days), i.e. 3-9 months

Closure areas

43 areas published in 3 different rules (response to MAP 11.2 and 11.3)  
2 more rules for coordinates corrections

Changes in  
compensation  
mechanisms  
(yearly)

Selectivity

Low implementation, sector does not see the advantage

Low-contact  
otter boards

Low implementation, sector does not see the advantage

Temporal closure  
areas

4-week closures published and ammended twice  
800 m closure

...

**TOTAL: ~20 regulations / modifications in 4 years**

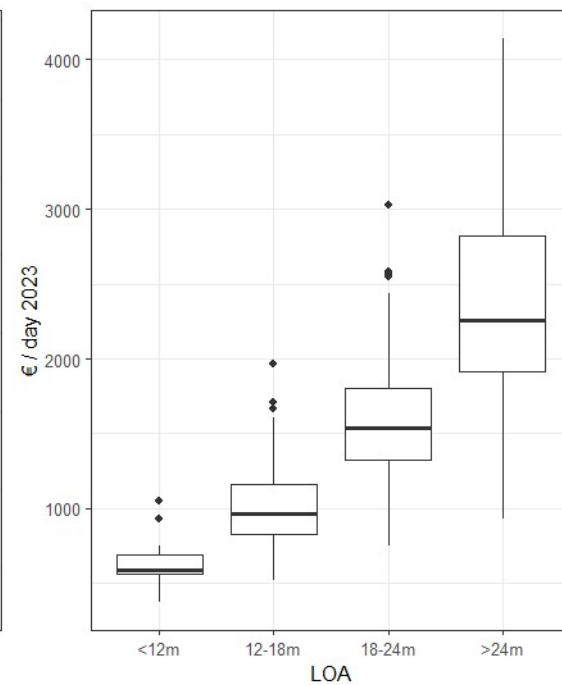
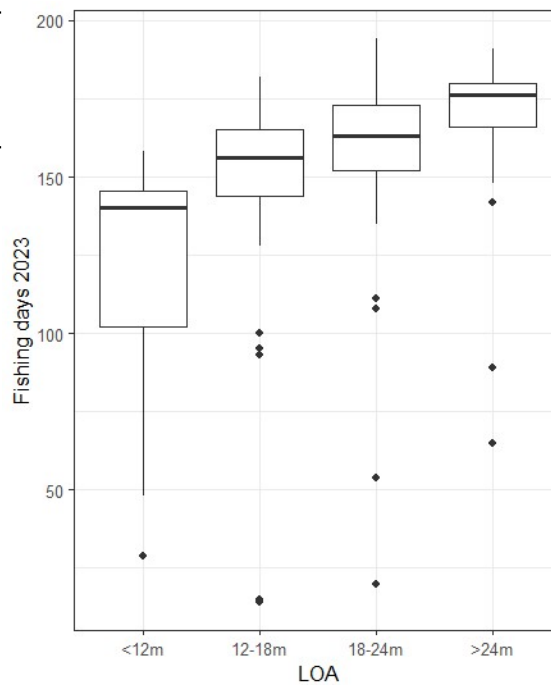
# Income by LOA segment

## OTB Catalonia 2023

	N° vessels	Mean annual fishing days / vessel	Mean € / fishing day	Mean annual revenues (€)
<12m	11	117	651	76.251
12-18m	61	149	1015	151.184
18-24m	81	159	1594	253.269
>24m	49	169	2460	416.268

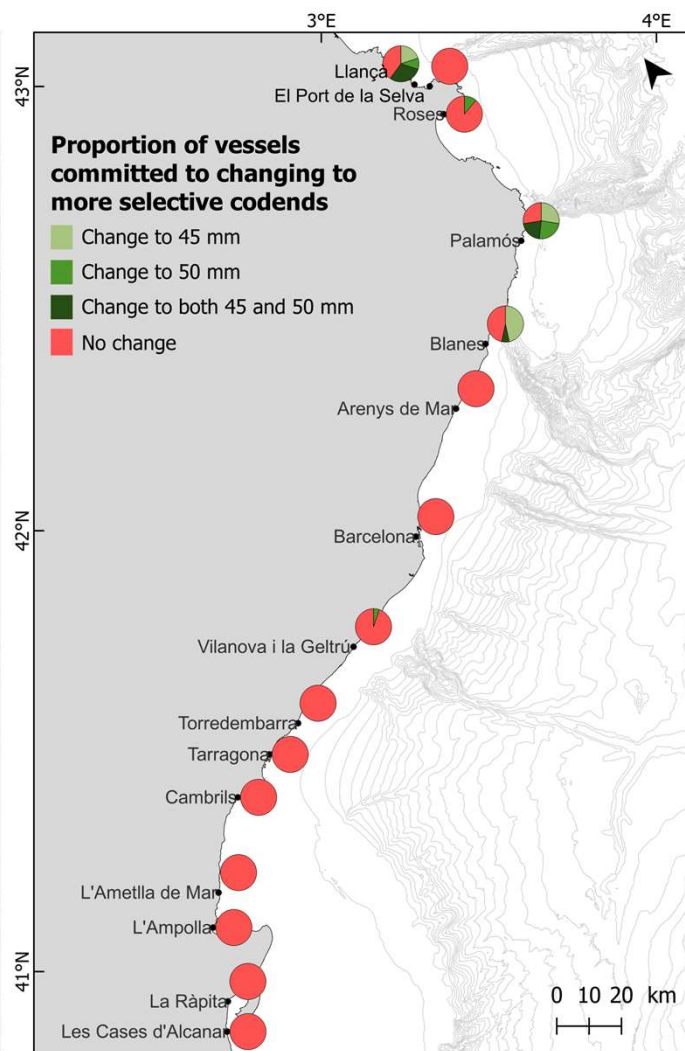
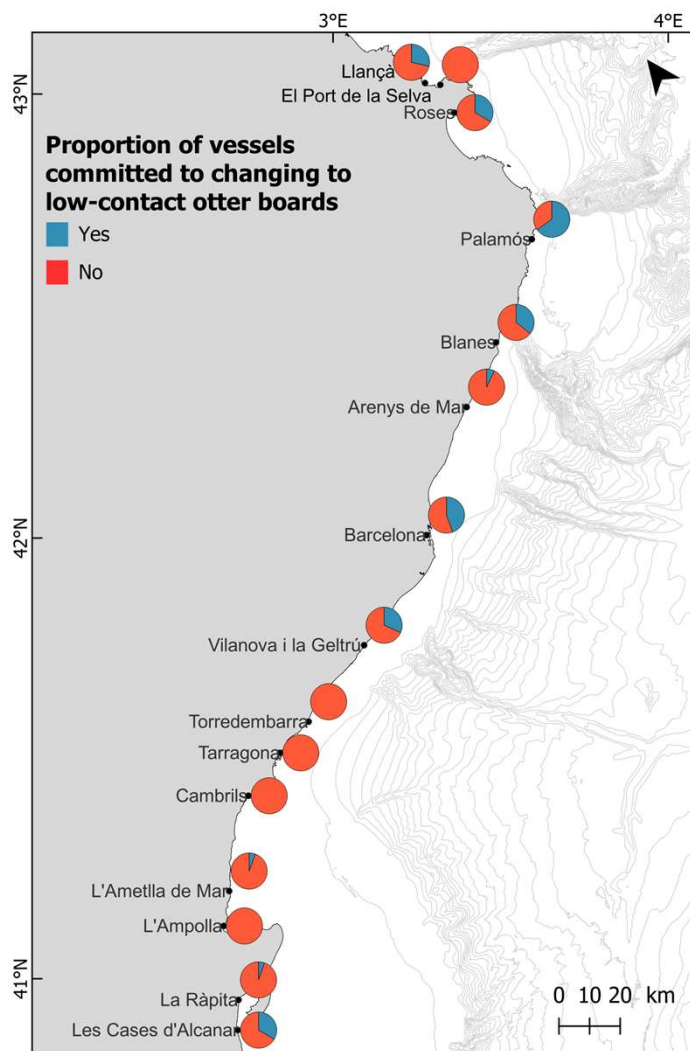


1,118.58 GT vs 57.83 GT



# Low implementation of other management measures besides fishing days

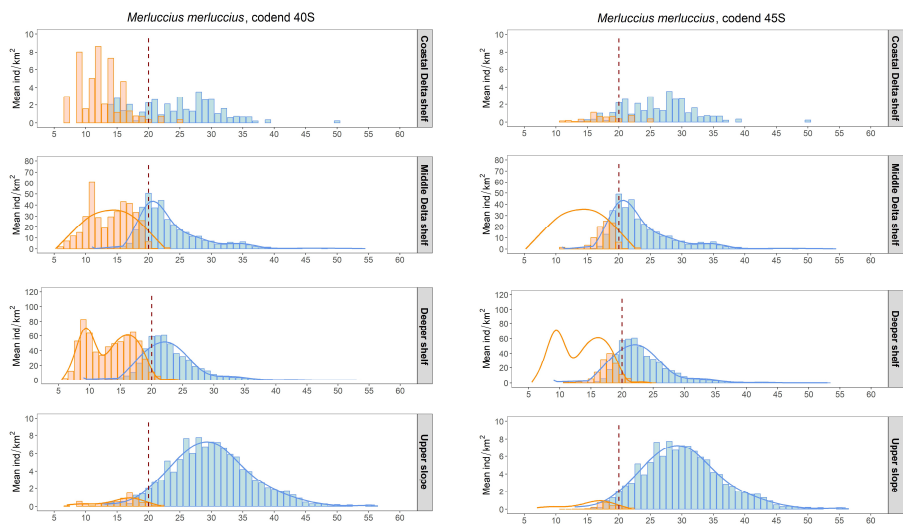
## Changes in fishing gear



# Benefits in population dynamics with lower socio-economic impacts

## Changes in fishing gear: selectivity

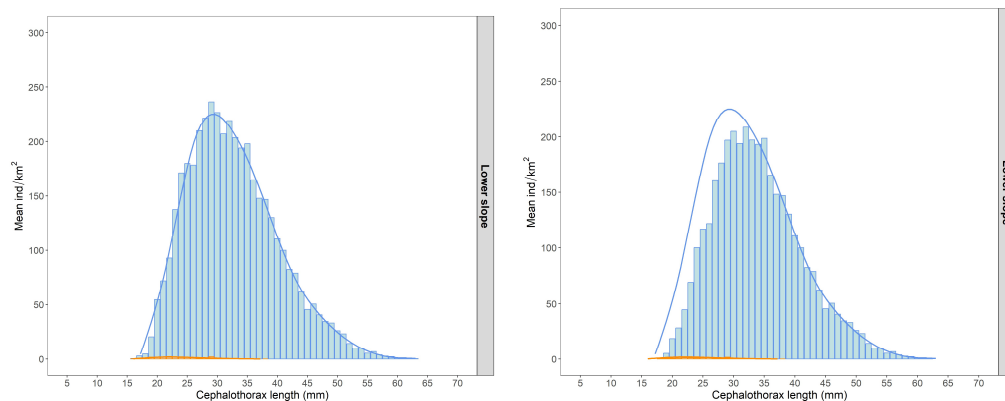
### Coastal métiers – 45S– European hake - Catalonia



	% kg	% €
Coastal Delta shelf	39.90	4.31
Middle Delta shelf	50.41	1.97
Deep shelf	5.55	0.95
Upper slope	53.14	2.68

% reduction individuals below MCRS

### Deep-sea métier – 50S – Blue and red shrimp - Catalonia



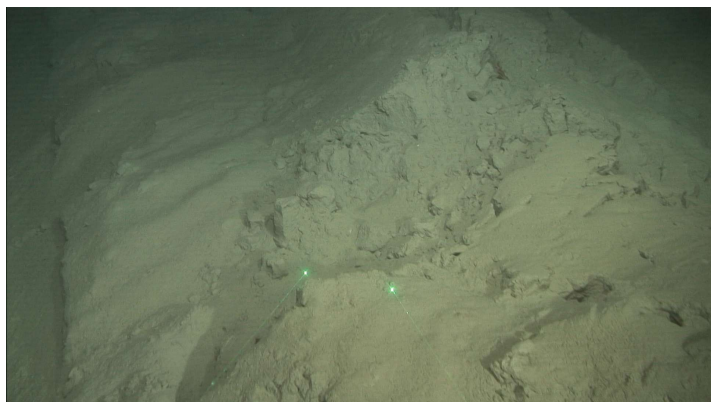
All catch is sold

	% kg	% €
Lower slope	10.9	11.02

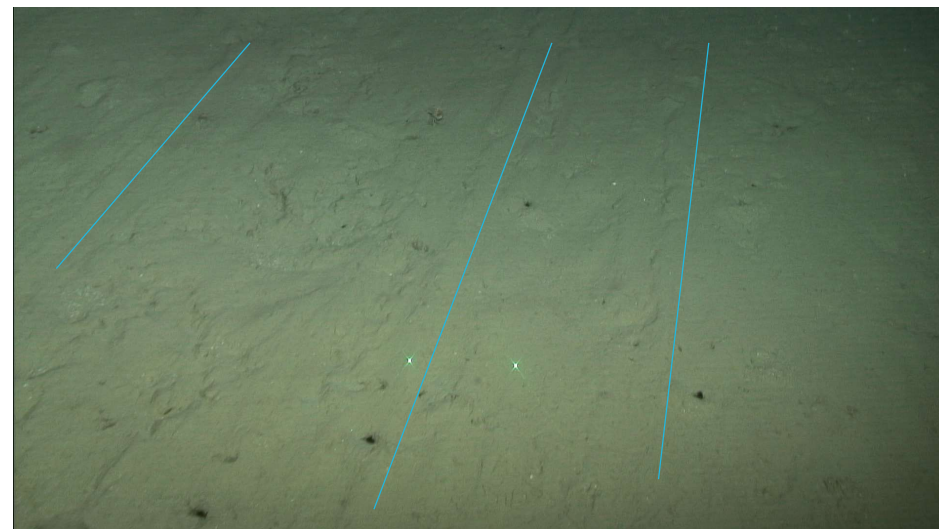
% reduction total catch

## Benefits in ecosystem functioning with lower socio-economic impacts

Changes in fishing gear: low-contact offer boards



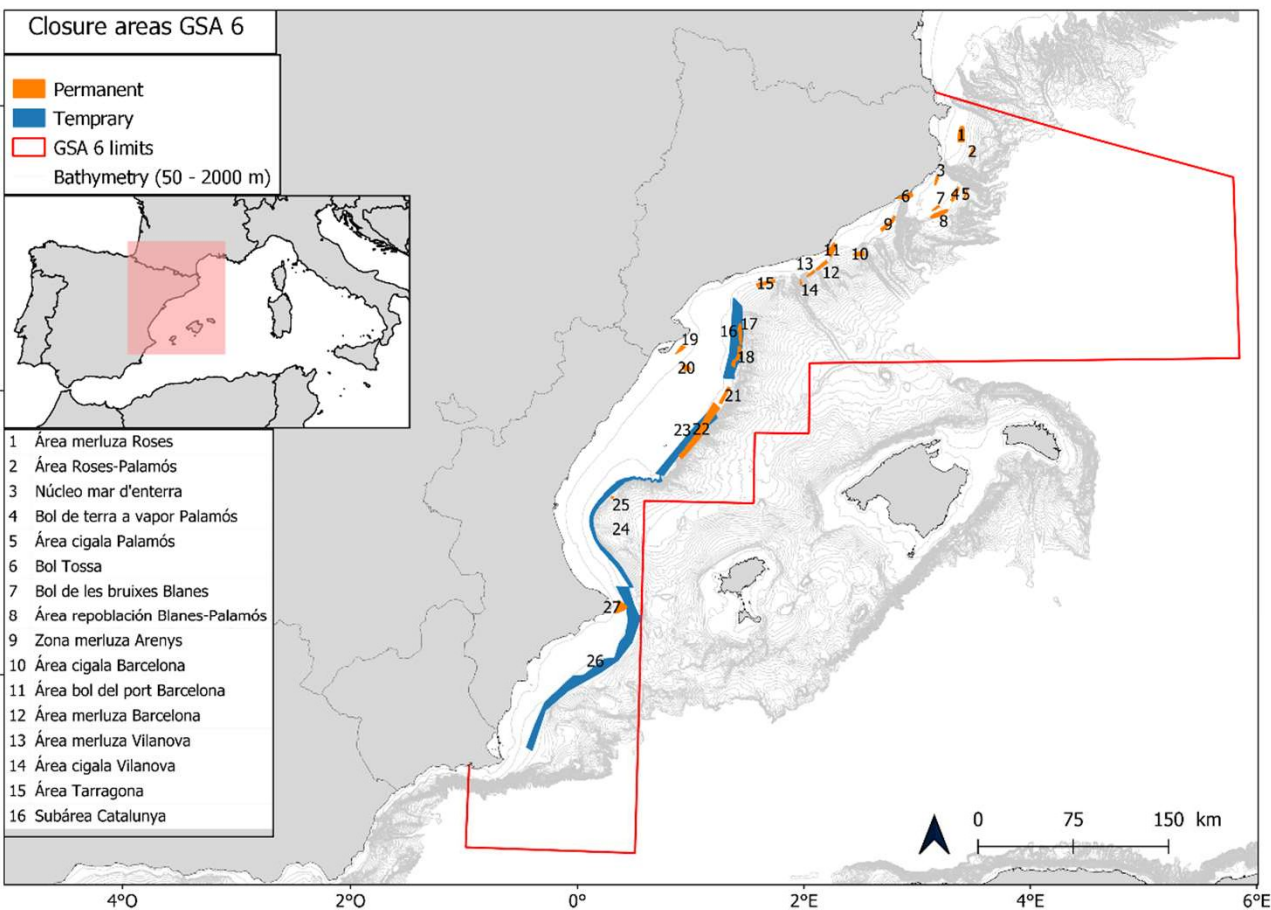
**Conventional**



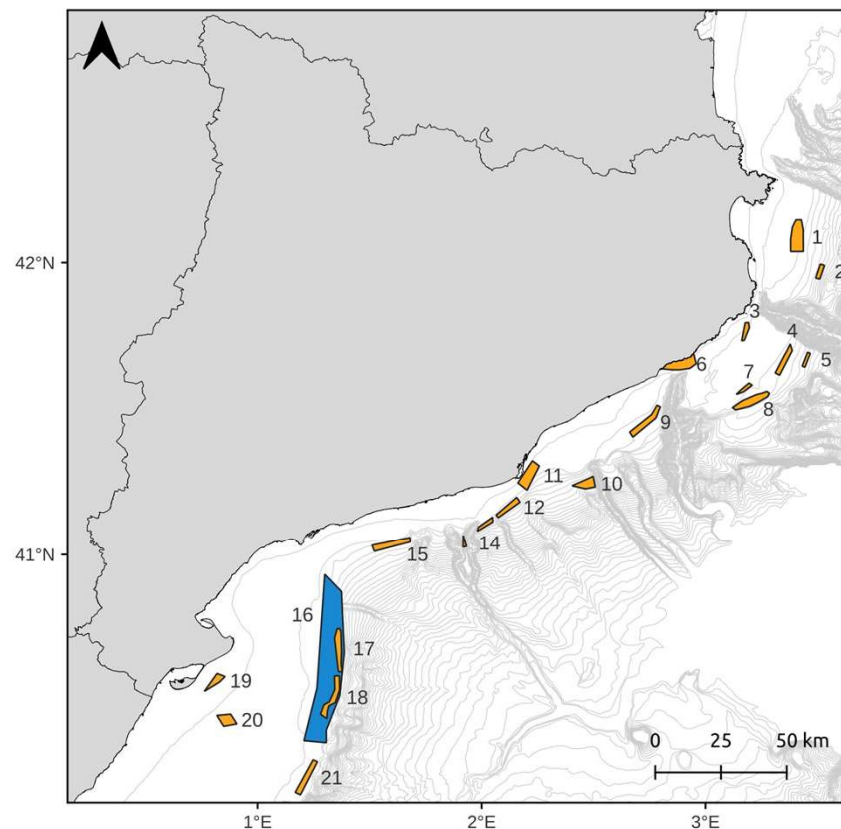
**Low-contact**

# Benefits in ecosystem functioning with lower socio-economic impacts

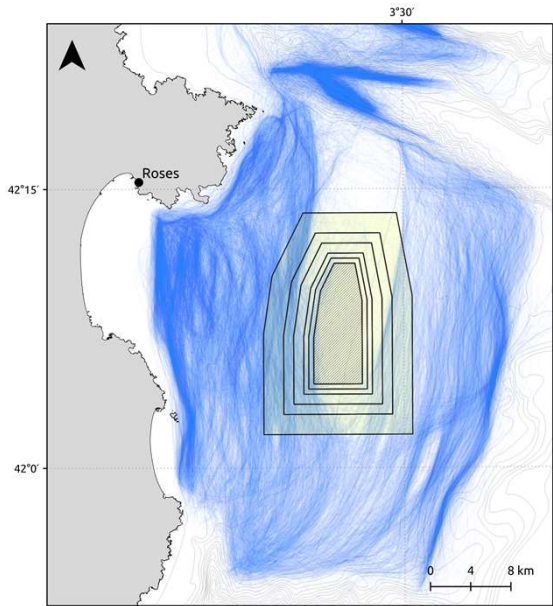
## Consolidating the fishing closures network



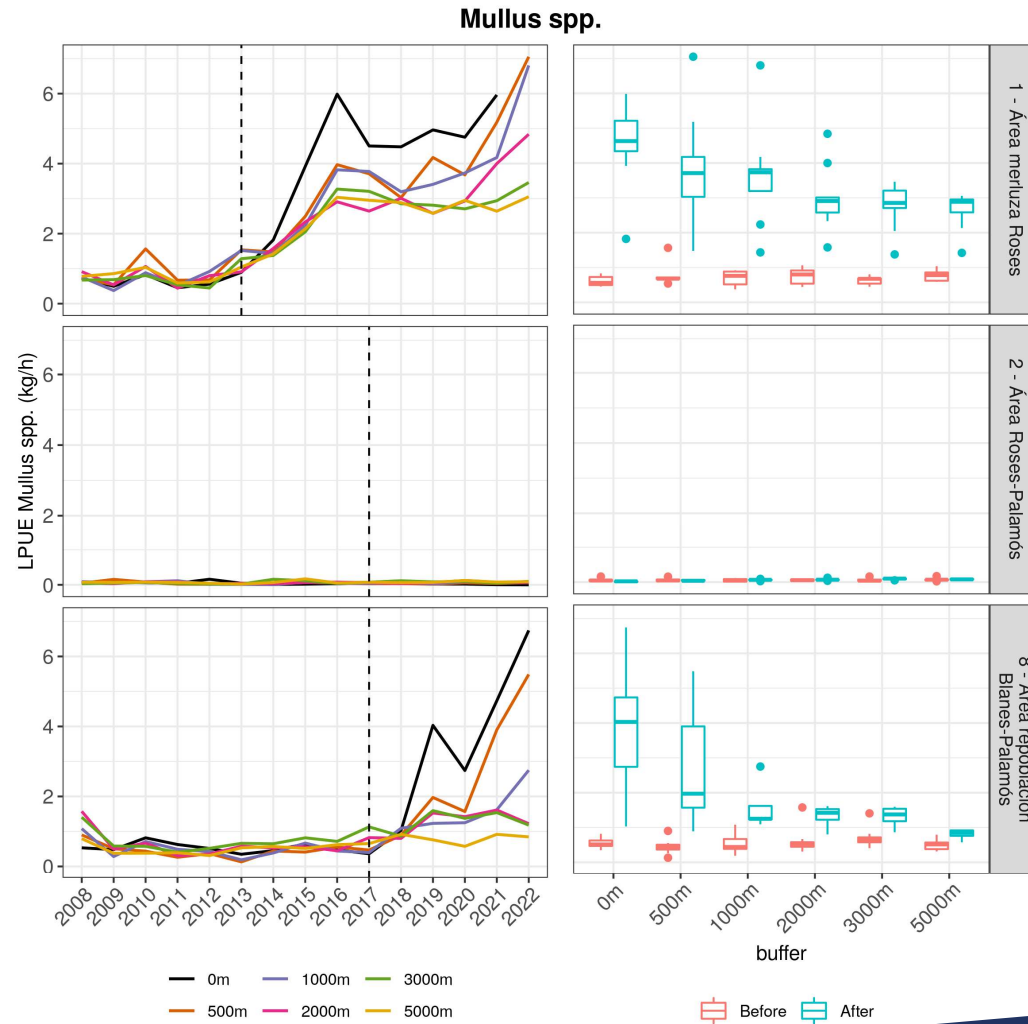
**3 %** of total fishable area in Catalonia  
(50m – 1000m)



# Commercial biomass spillover



- Bathymetry (50m)
- Fishing port
- ▨ Closed area
- ▭ Study buffers
- Trawling tracks (19-21)



Recruitment and spawning area

(no *Mullus* spp. habitat)

Spawning area

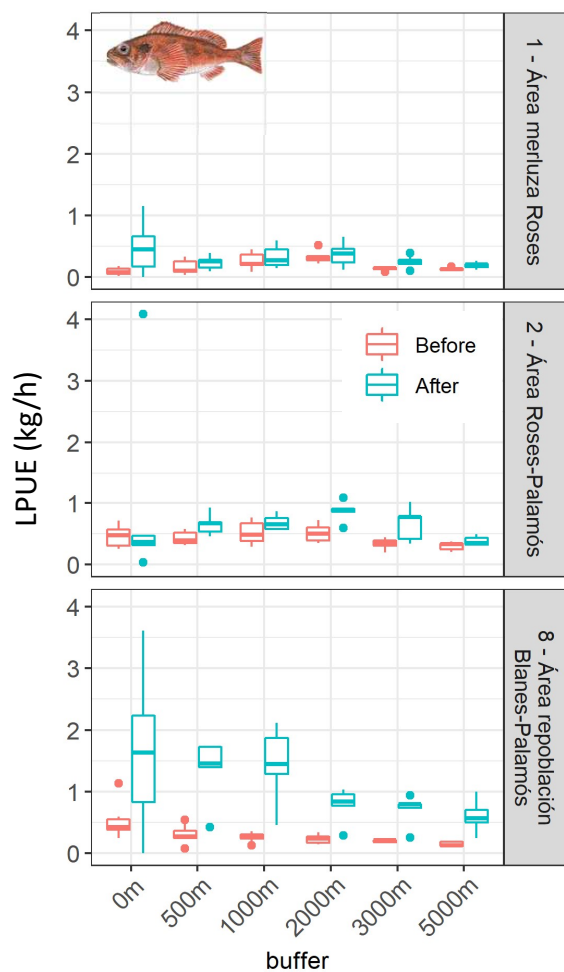
- Blue and red shrimp
- Deep-water rose shrimp
- Norway lobster
- Hake



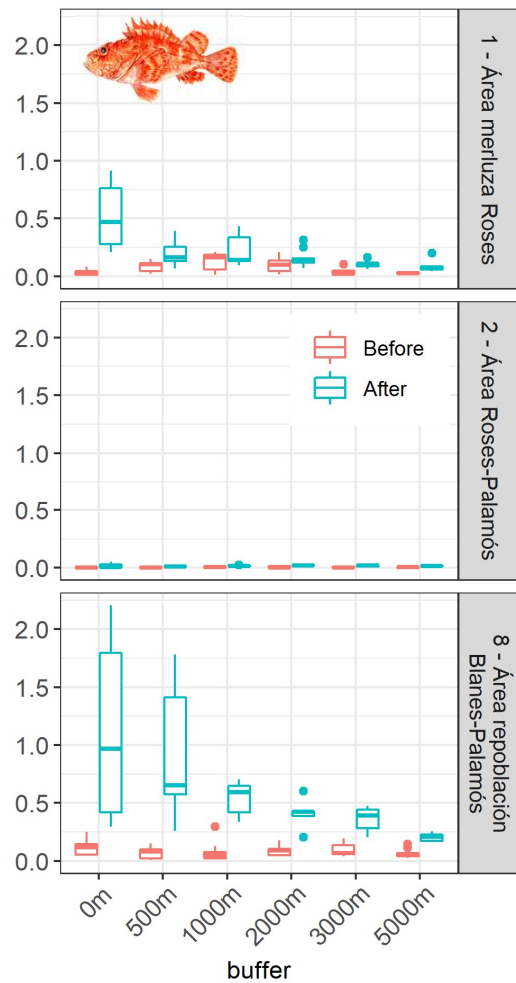
# Commercial biomass spillover

+ habitat recovery

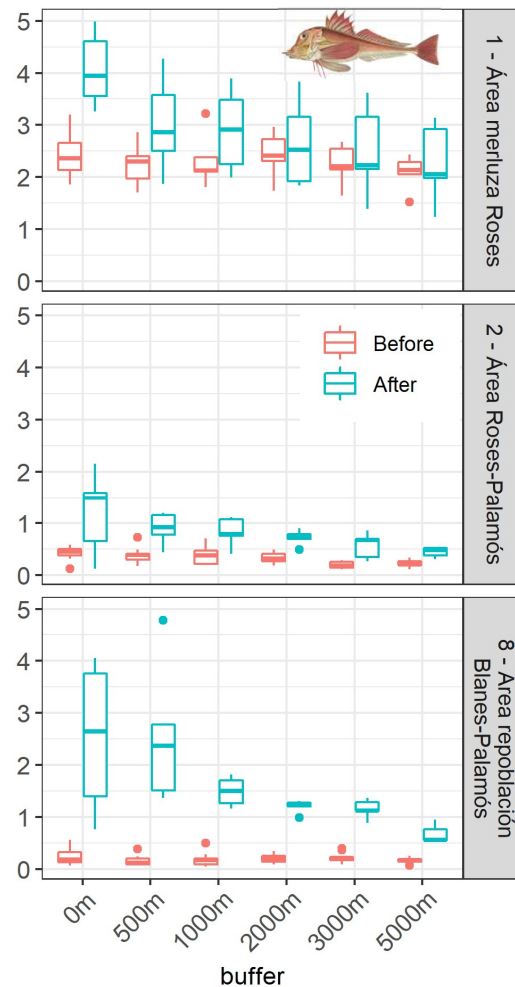
*Helicolenus dactylopterus*



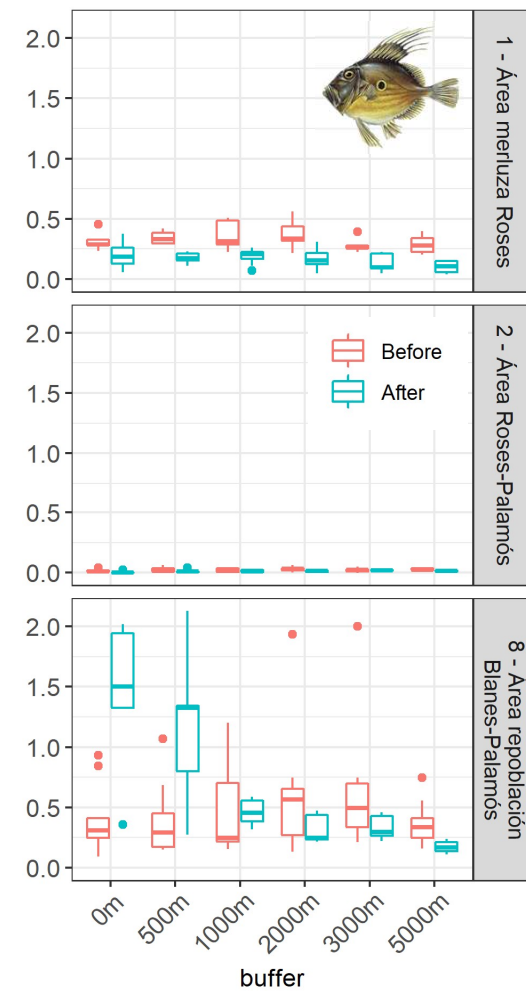
*Scorpaena spp.*



Triglidae



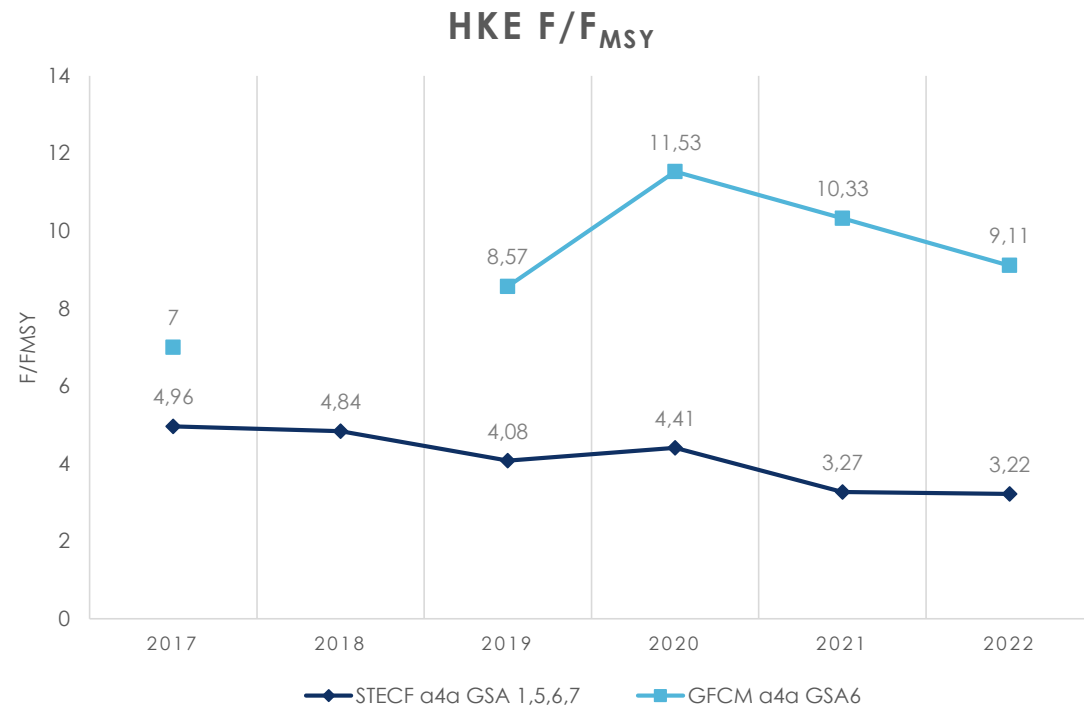
*Zeus faber*





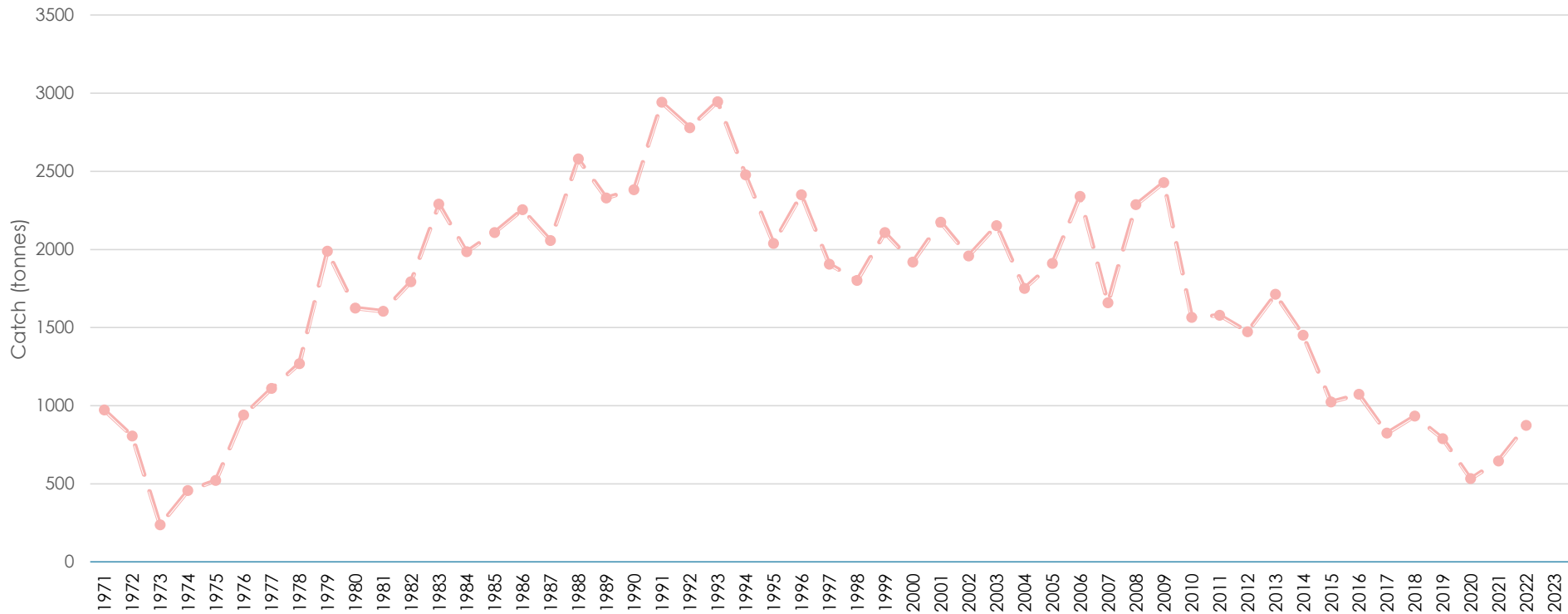
# Benchmark for European hake (HKE)

## Stock assessment



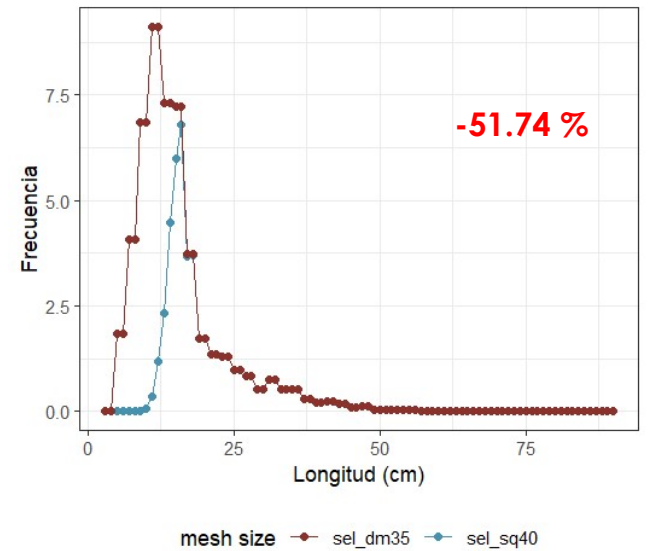
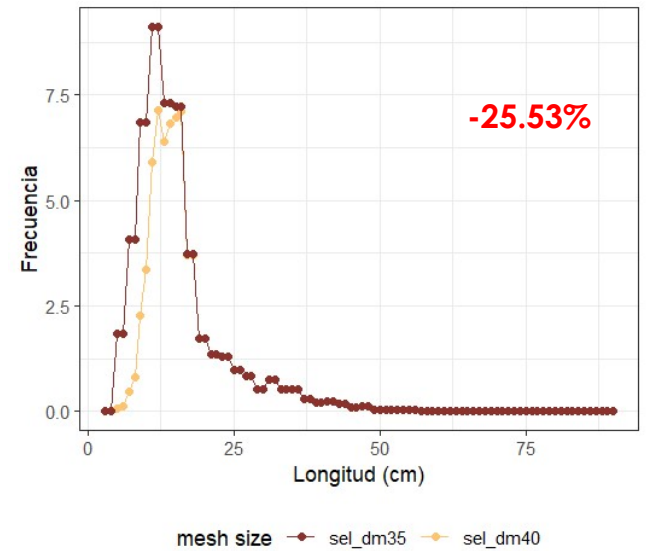
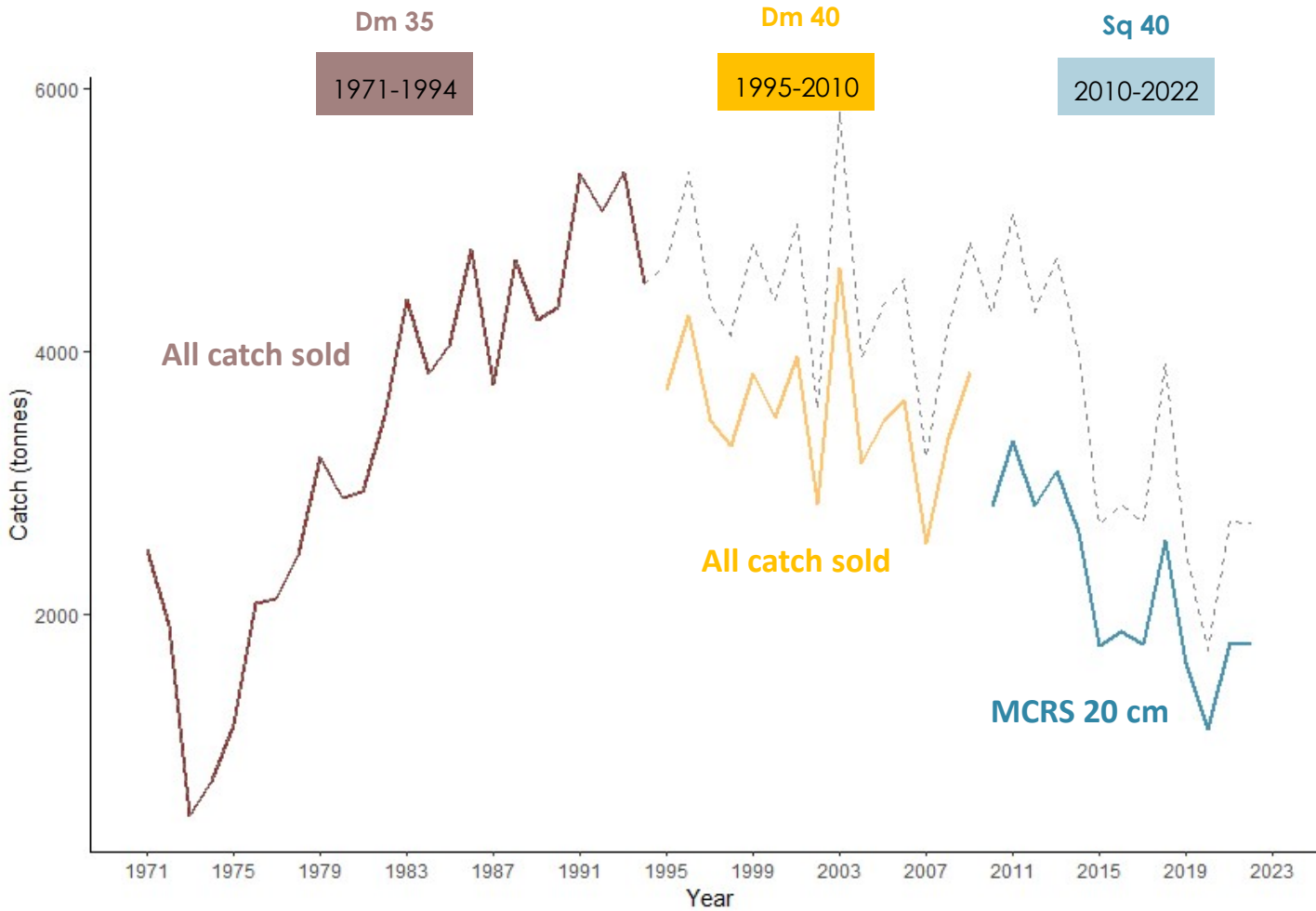


### Decrease in catches in the time series GSA 6





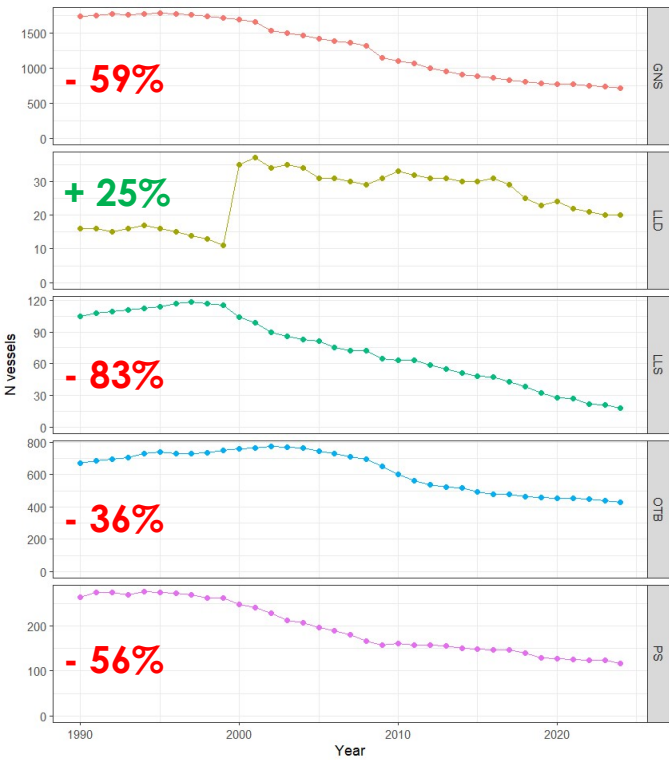
# 1 Selectivity changes through time GSA 6



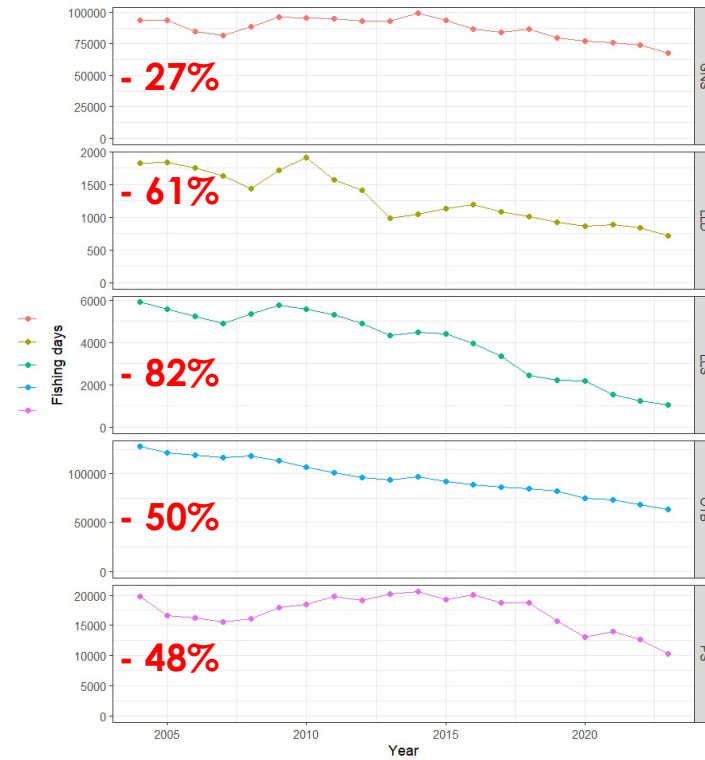


2 Reduction of **fishing effort** GSA 6 (1990 – 2023)

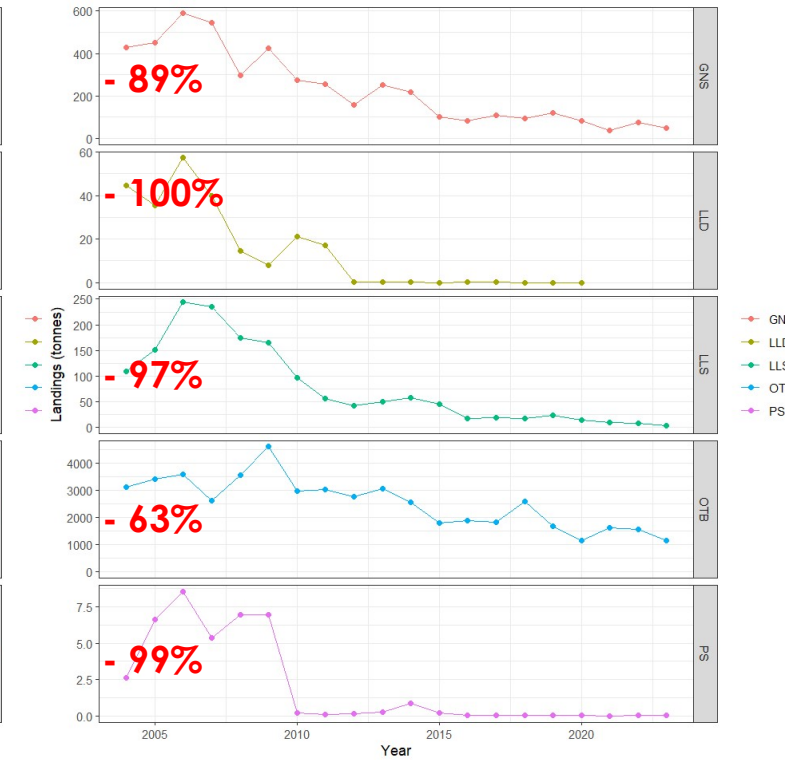
Number of vessels



Fishing days

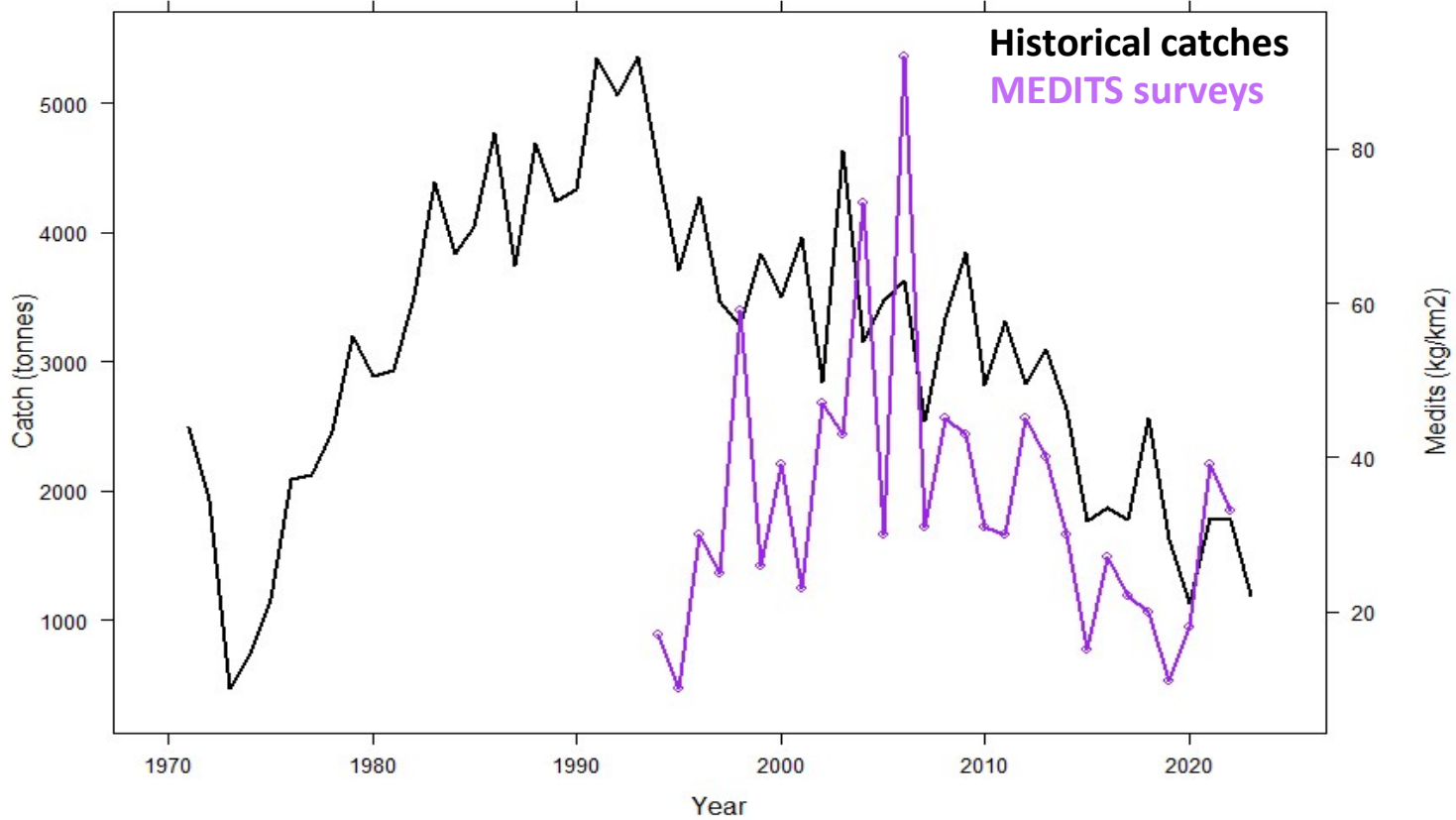


HKE Landings





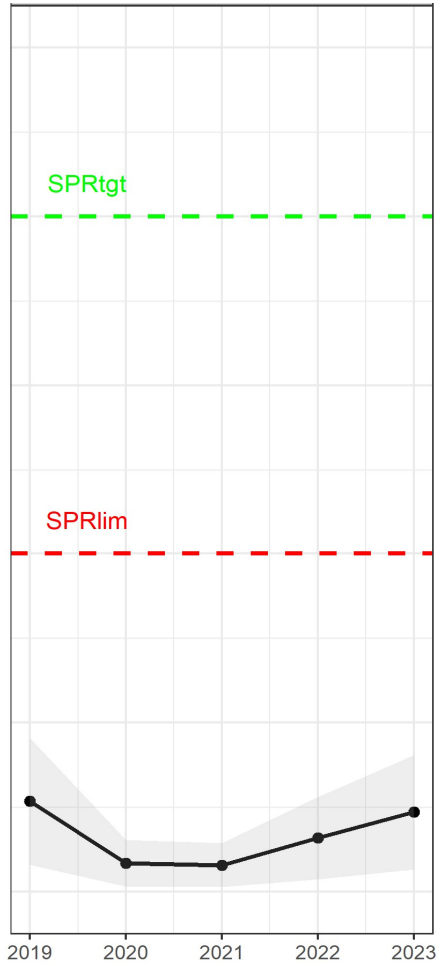
3 Biomass at sea shows **no clear trend** (MEDITS) GSA 6



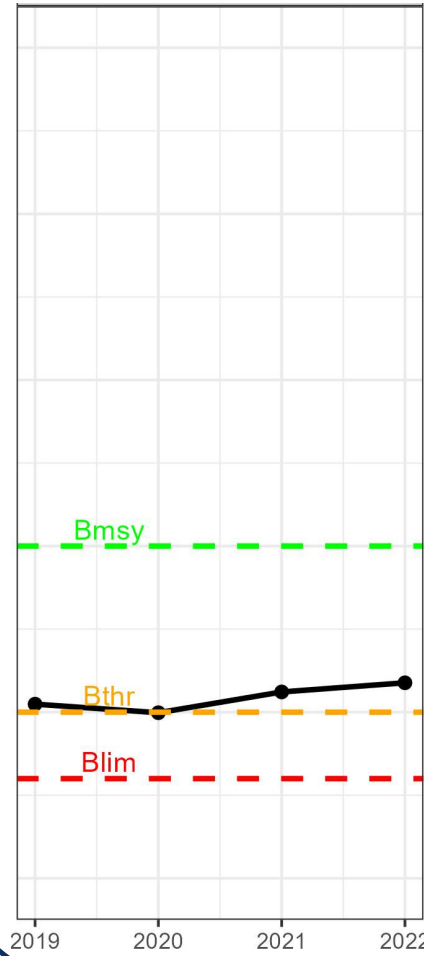


### LBSPR

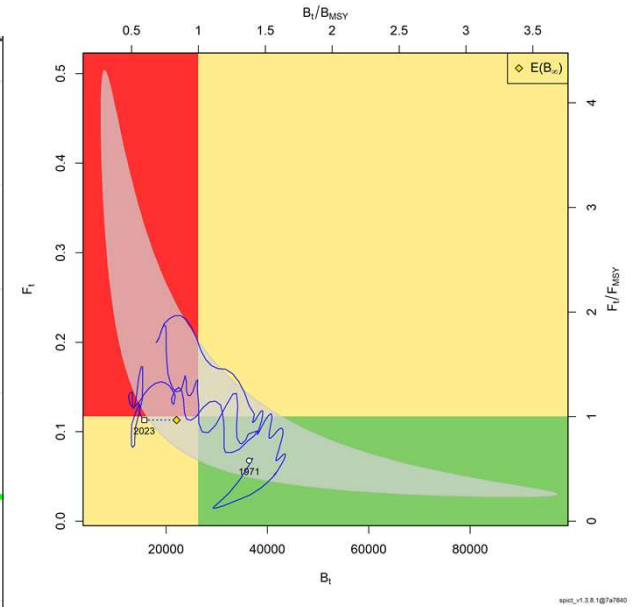
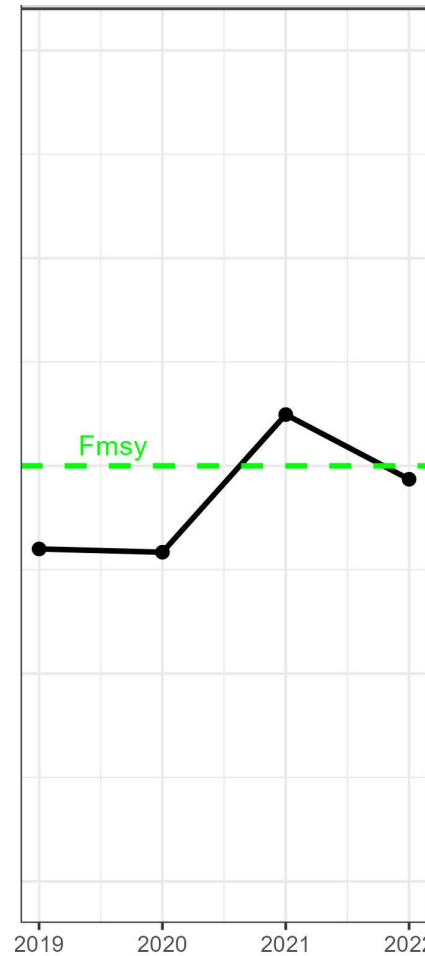
#### SPR



#### Biomass



#### Fishing mortality

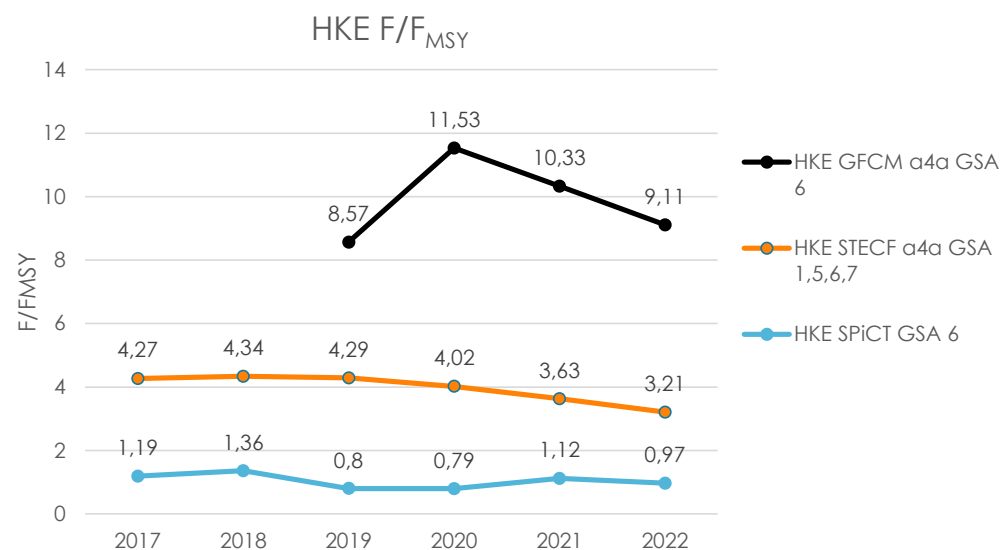




# Need for benchmark

Last benchmark for HKE GSA1,5,6,7 in 2019

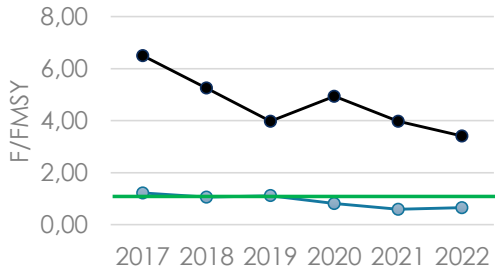
- Good practices in stock assessment**
- **Alternative models**
  - **Use of historical time series which include**
    - Changes in selectivity
    - Changes in fleet
  - **Updated biological parameters**
  - **Complementary data**



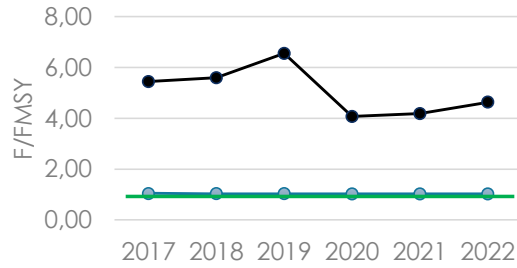


Considerations for a benchmark

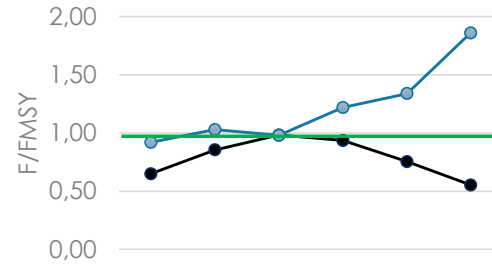
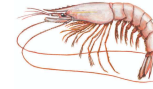
Results comparison: a4a (STECF) vs. SPiCT (ICATMAR)



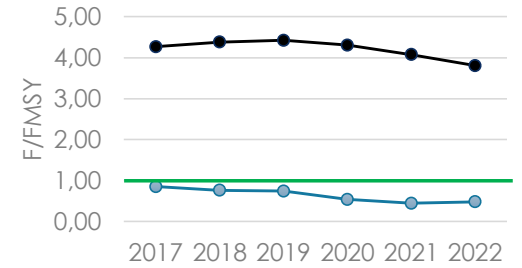
● MUT GSA6 a4a  
● MUT GSA6 SPiCT



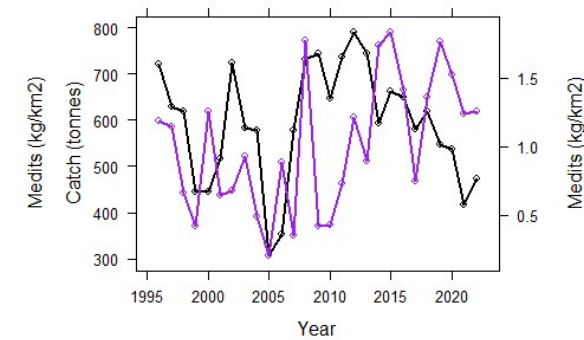
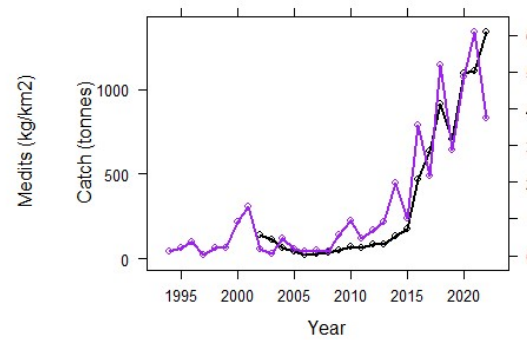
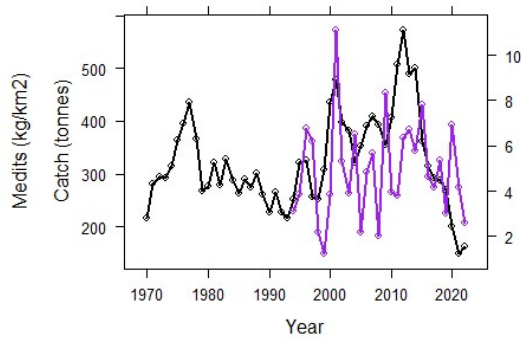
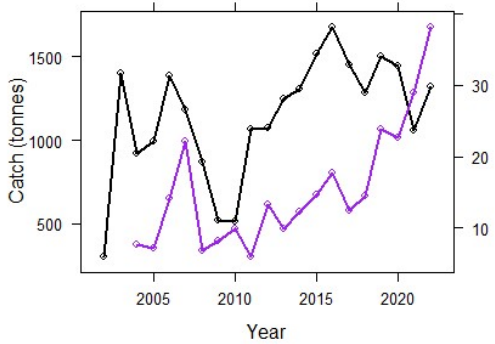
● NEP GSA6 a4a  
● NEP GSA6 SPiCT



● DPS GSA5,6,7 a4a  
● DPS GSA6 SPiCT

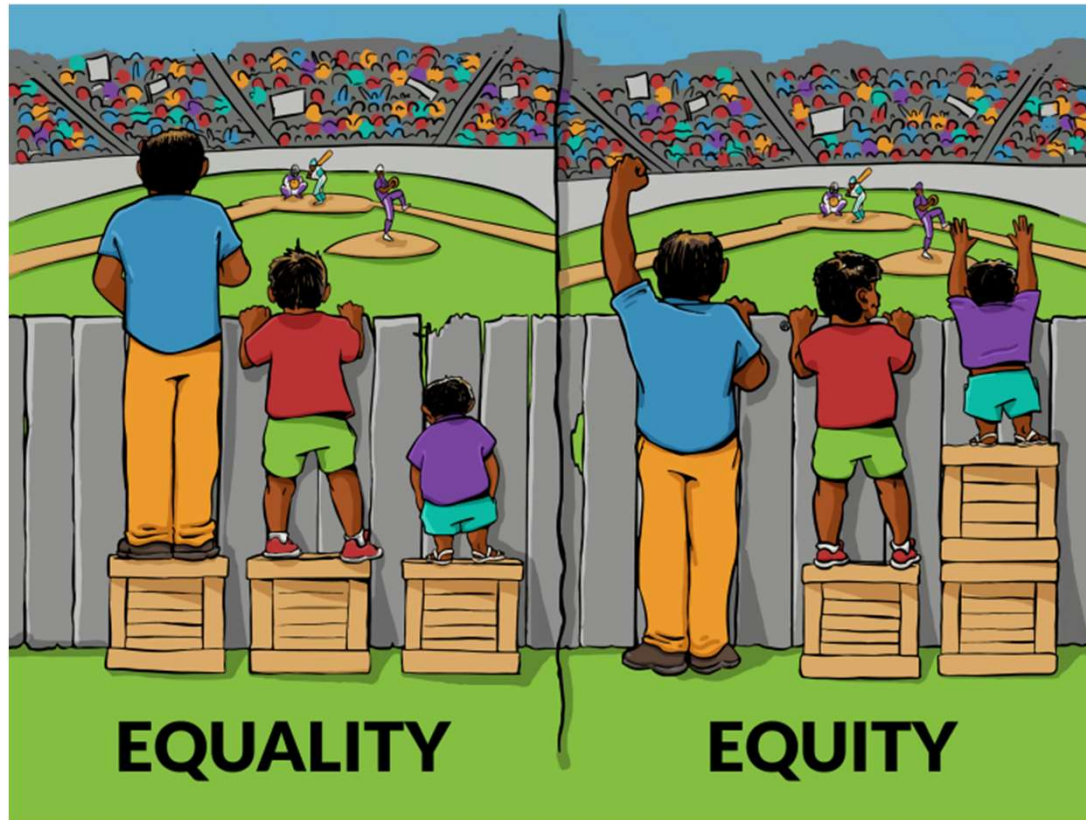


● ARA GSA6,7 a4a  
● ARA GSA6 SPiCT



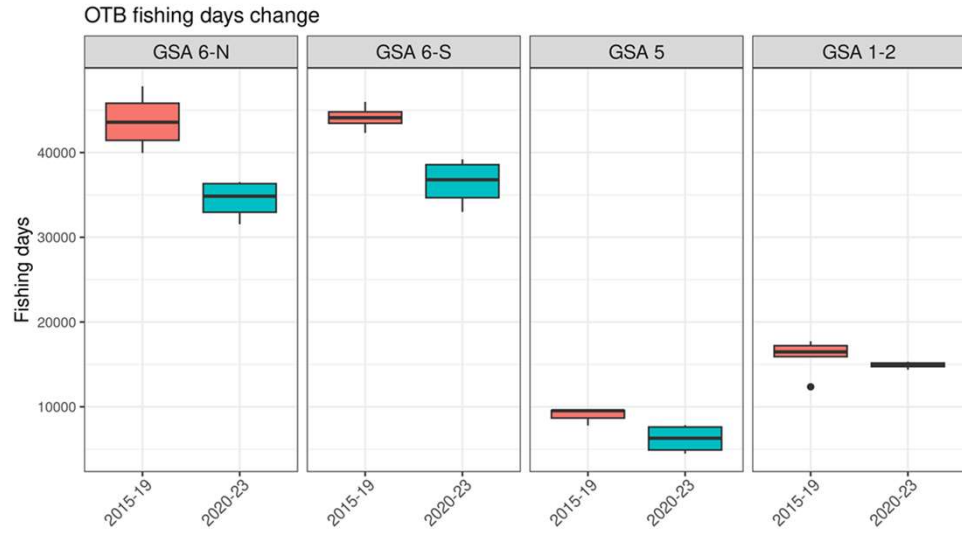
# Regionalization

Is it time to consider smaller management areas?



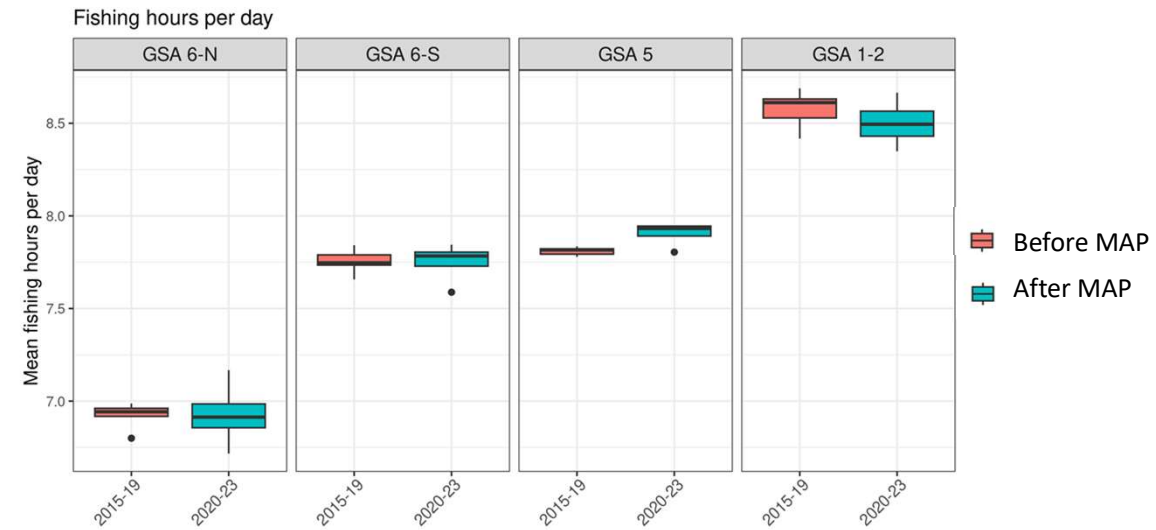
## Regionalization

### Fishing days vs fishing hours: Spanish Mediterranean GSAs



Before MAP  
After MAP

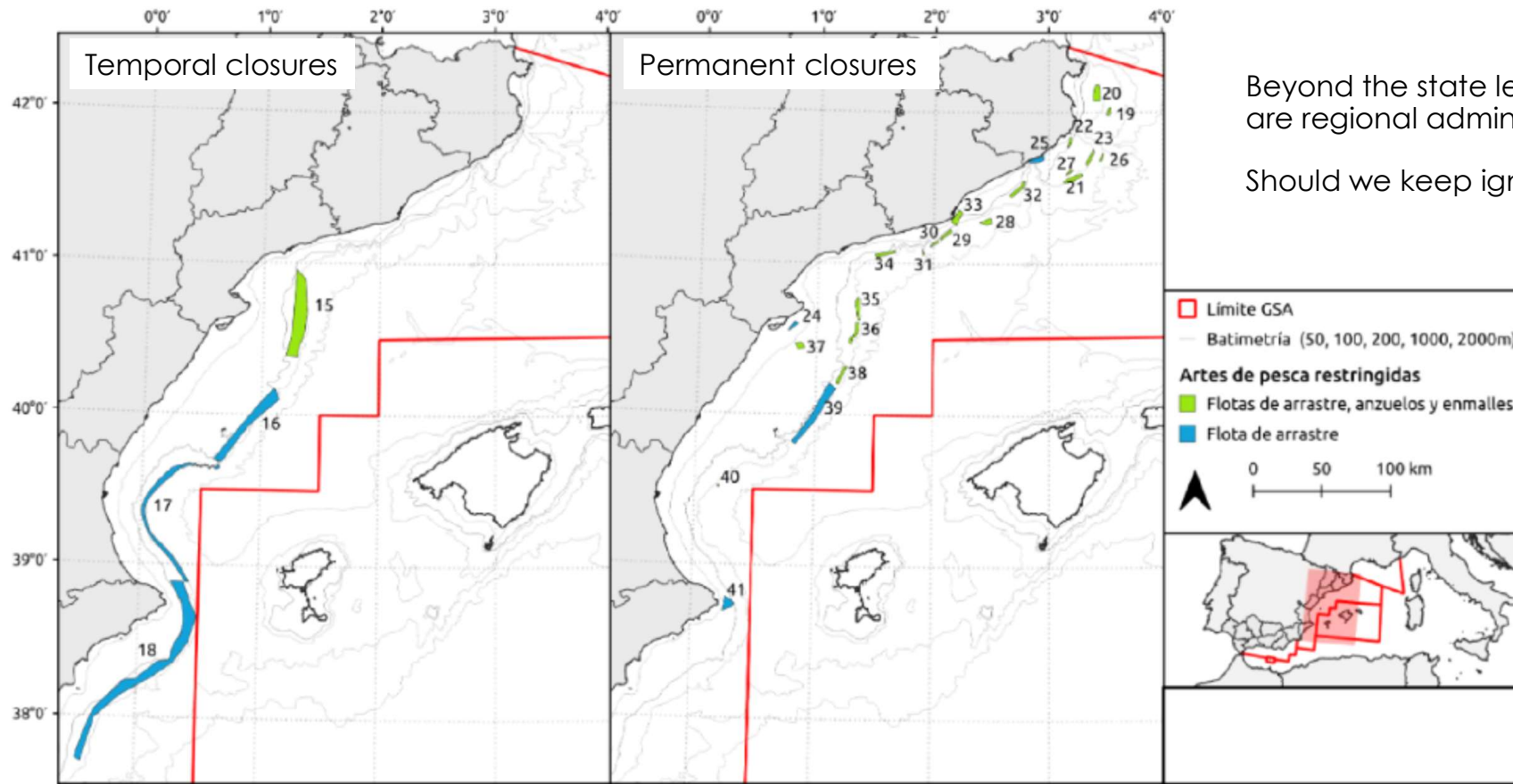
% reduction fishing days	
GSA 6-N	-21.2
GSA 6-S	-17.4
GSA 5	-31.0
GSA 1-2	-6.4



Before MAP  
After MAP

Regionalization

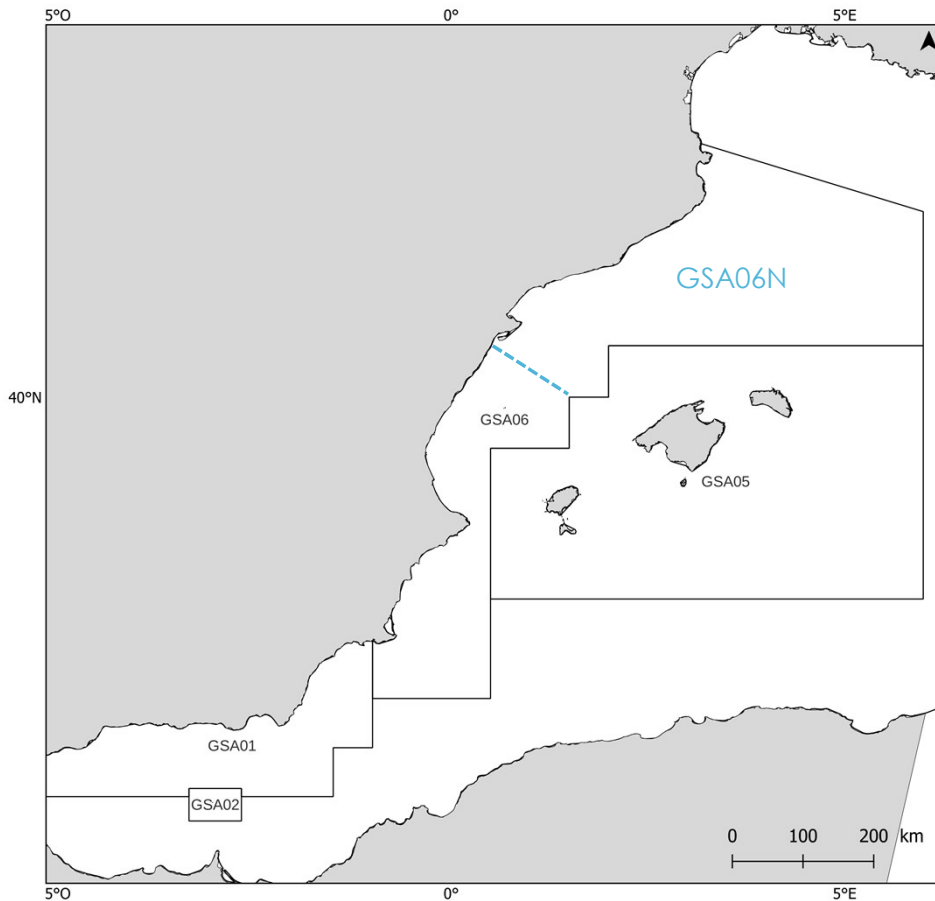
Permanent vs temporal closure areas: GSA 6



Beyond the state legislations, there are regional administrations.

Should we keep ignoring reality?

# Need for regionalization



It would allow to:

- Resize the GSA 6 to a more easily management size
- Acknowledge the geo-political reality of the GSA

## Proposed management measures for the Northern GSA 6

### Baseline measures

Bringing **job security** to the sector

1. **Rollover of fishing opportunities** (days)
2. **No further licenses** during a specific period of the plan

### Measures beyond reduction of fishing days

Applying effective measures for **population and ecosystem protection** compatible with socioeconomic sustainability

Population  
recovery

1. **More selective gear** (45 and 50 mm square)
2. **2.5-month closure** for all small-scale vessels catching over 20% hake during proposed period

Ecosystem  
recovery

3. **Low-contact offer boards**
4. **Increase MPAs** (from 3% to 5% fishable area)

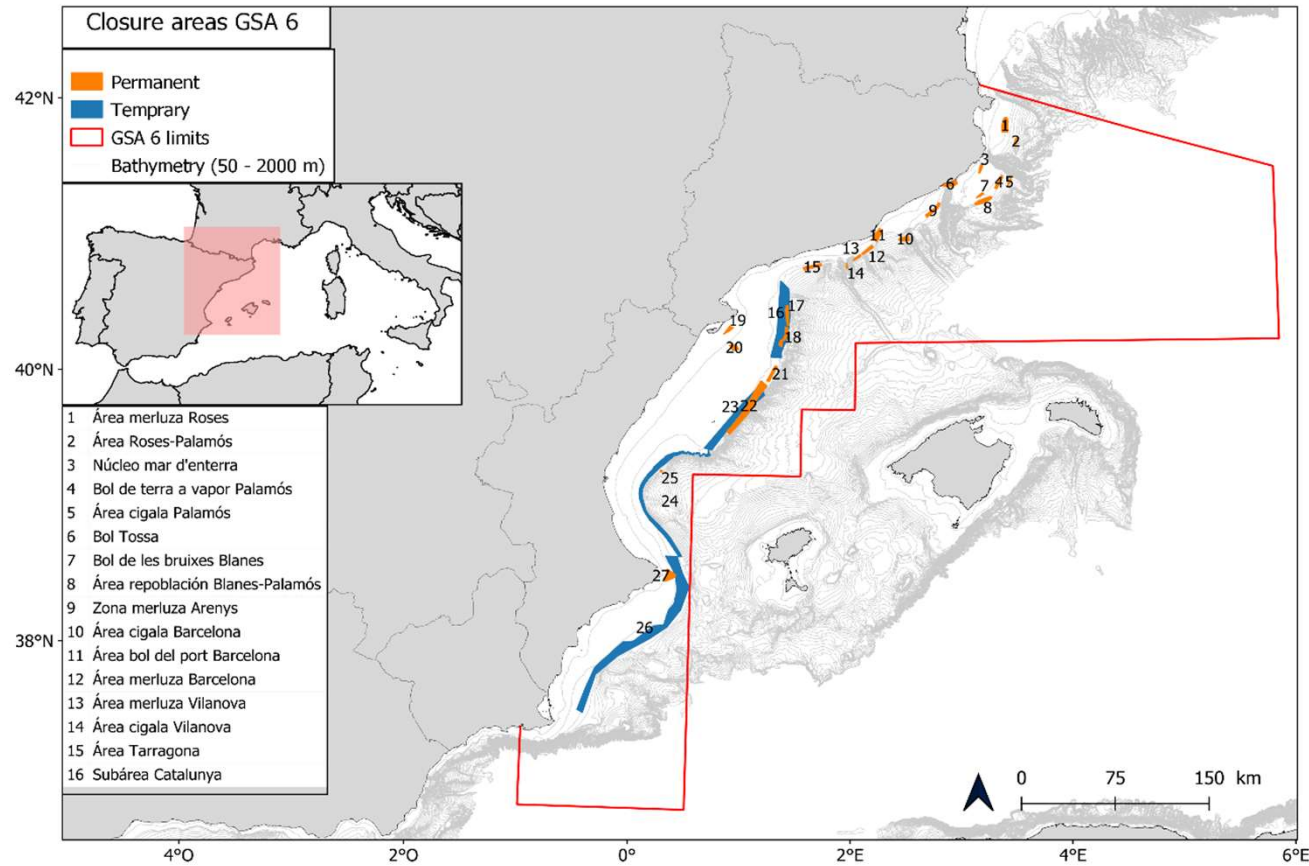
@icatmar1

<https://icatmar.cat>



## Regionalization

### Permanent vs temporal closure areas: GSA 6



Beyond the state legislations, there are regional administrations.

Should we keep ignoring reality?