



Food and Agriculture  
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United Nations



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for the Mediterranean  
Commission générale des pêches  
pour la Méditerranée



Building a future for sustainable small-scale fisheries in the Mediterranean and the Black Sea Regional  
Conference (7–9 March 2016, Algiers, Algeria)

## Panel 3

# **Recreational fishing vs. Artisanal fishing: biological and socioeconomic standpoints**

the case of the MPA of Cap de Creus

Panel 3

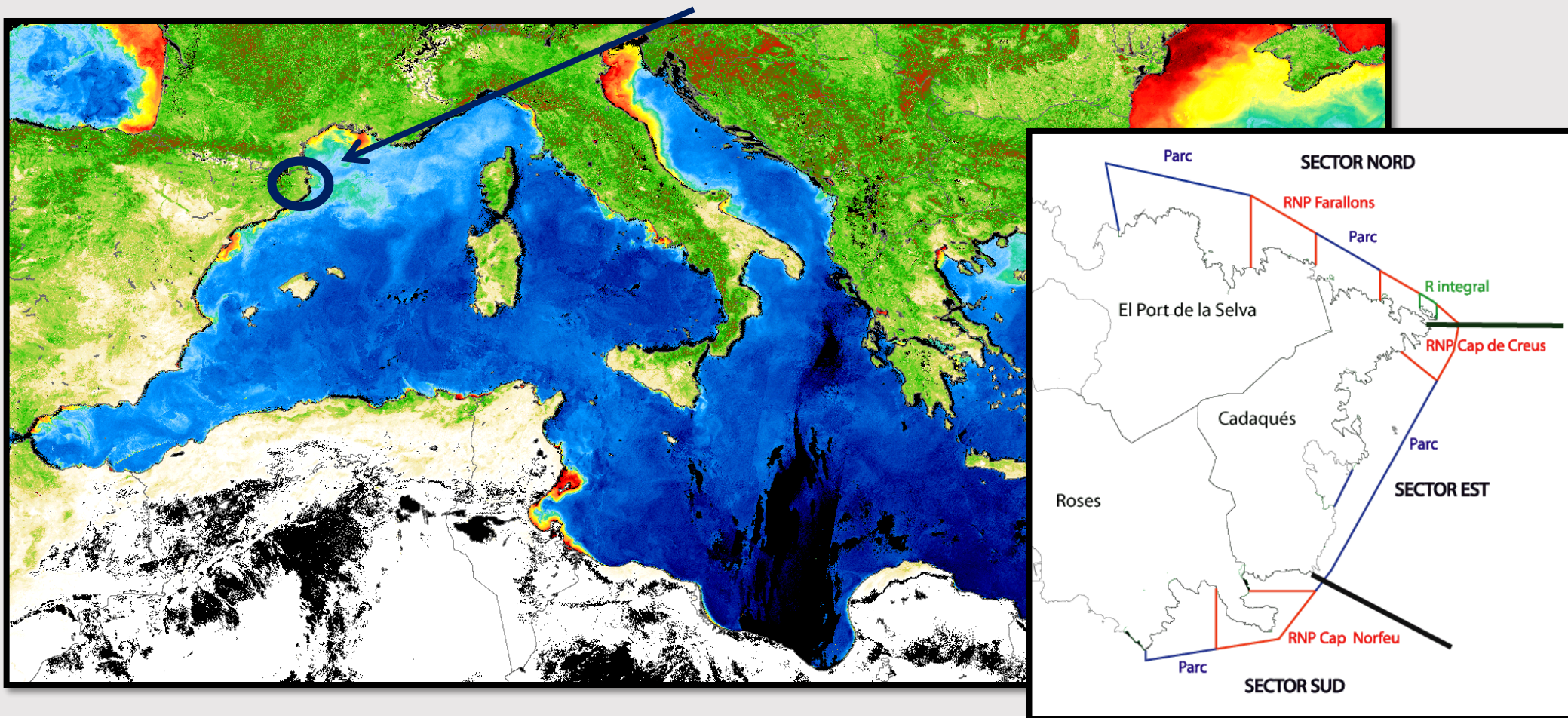
By Toni Font & Josep Lloret

University of Girona



## Panel 3 : "Improve the efficiency of Marine Protected Areas (MPAs) as fisheries management tools and benefits from involving the small scale fisheries sector"

### Natural Park of Cap de Creus



## Panel 3 : "Improve the efficiency of Marine Protected Areas (MPAs) as fisheries management tools and benefits from involving the small scale fisheries sector"

### General considerations

- Similar biological impacts on exploited species

- High pressure on fish resources, particularly vulnerable sp.
- Truncation of the natural age and size structure
- Discards
- Loss of genetic variability



- Similar ecological impacts on the aquatic ecosystem

- Loss of fishing gear
- Changes in trophic cascades
- Use of problematic baits (non-marine or exotic)



## General considerations



- Increasing levels of disturbance by recreational fisheries in coastal areas and especially in MPAs
- The conflict is an increasing problem reported by MPA managers and fishermen themselves, especially in multi-use MPAs
- Professional fishermen report unfairness
- Very few studies integrating and comparing the biological impacts and socioeconomic characteristics

## Competition issues



- Competition for space

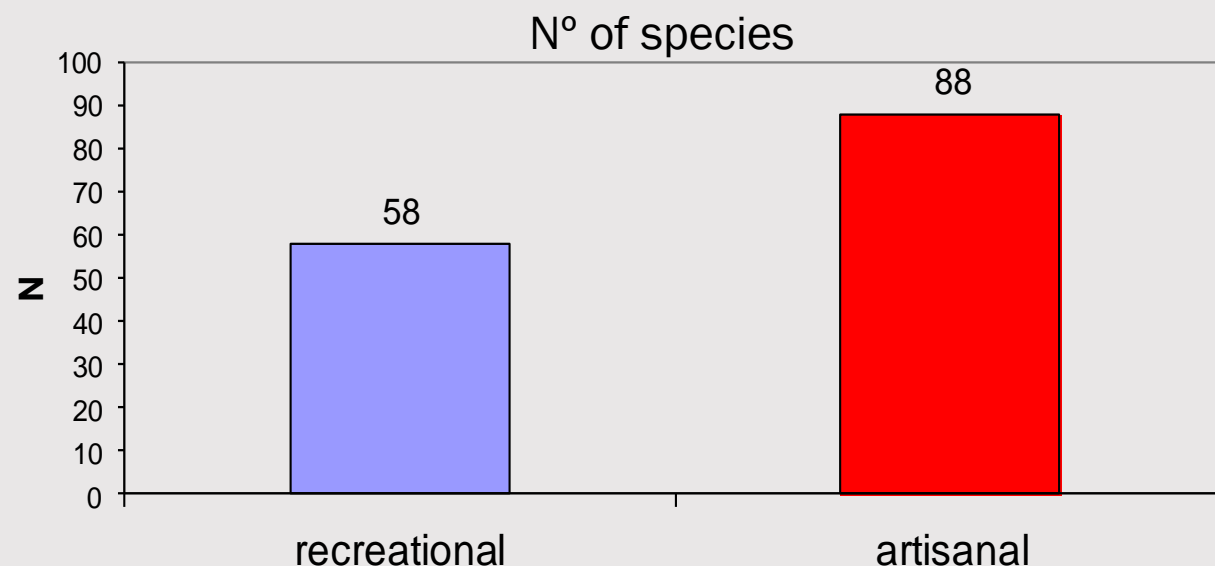
- Same fishing areas

- "Fishing the line"



### Competition issues

- Competition for resources
  - Specific richness
    - Total of 98 species
    - 51 species (52% of the total) caught by both sectors

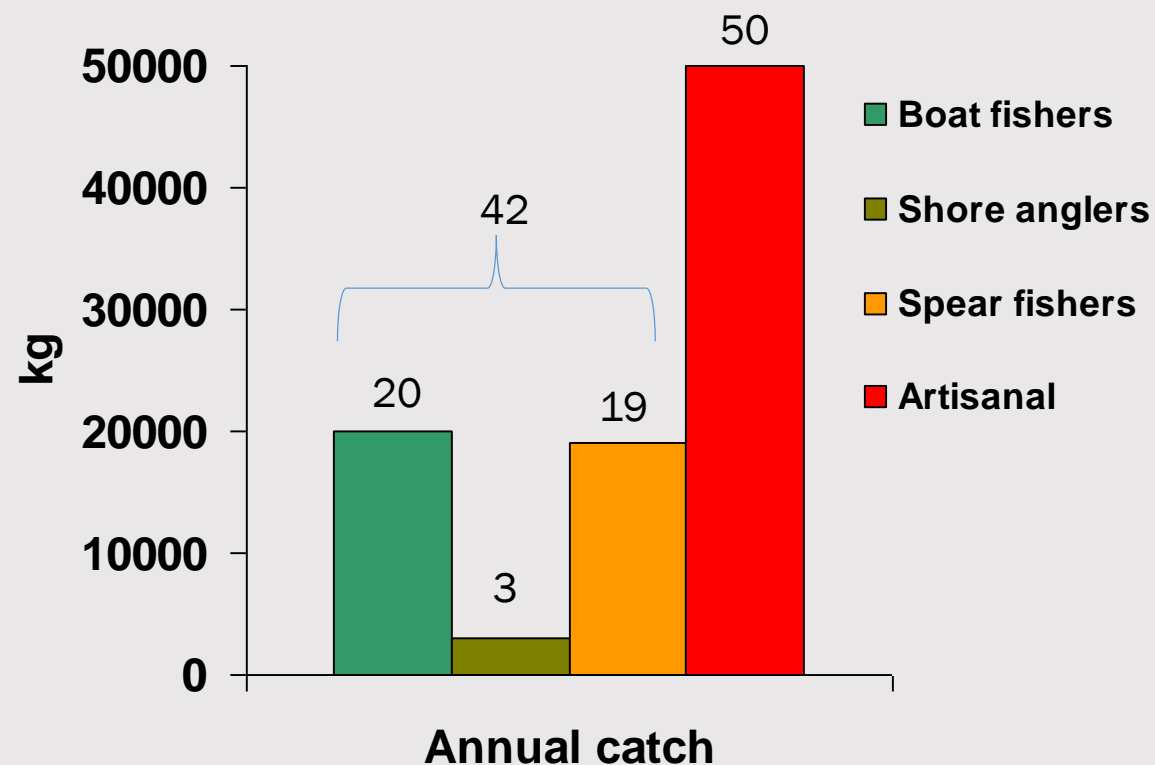


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### Competition issues

Nearly 50%

- Total estimated annual catch (tons) by both sectors





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### Biological issues

- Discards
  - Artisanal: 16% of the total
  - Recreational: none species (systematically)
- Reproductive potential
  - Below MLS and size at first maturity
  - Large spawners

- Baits

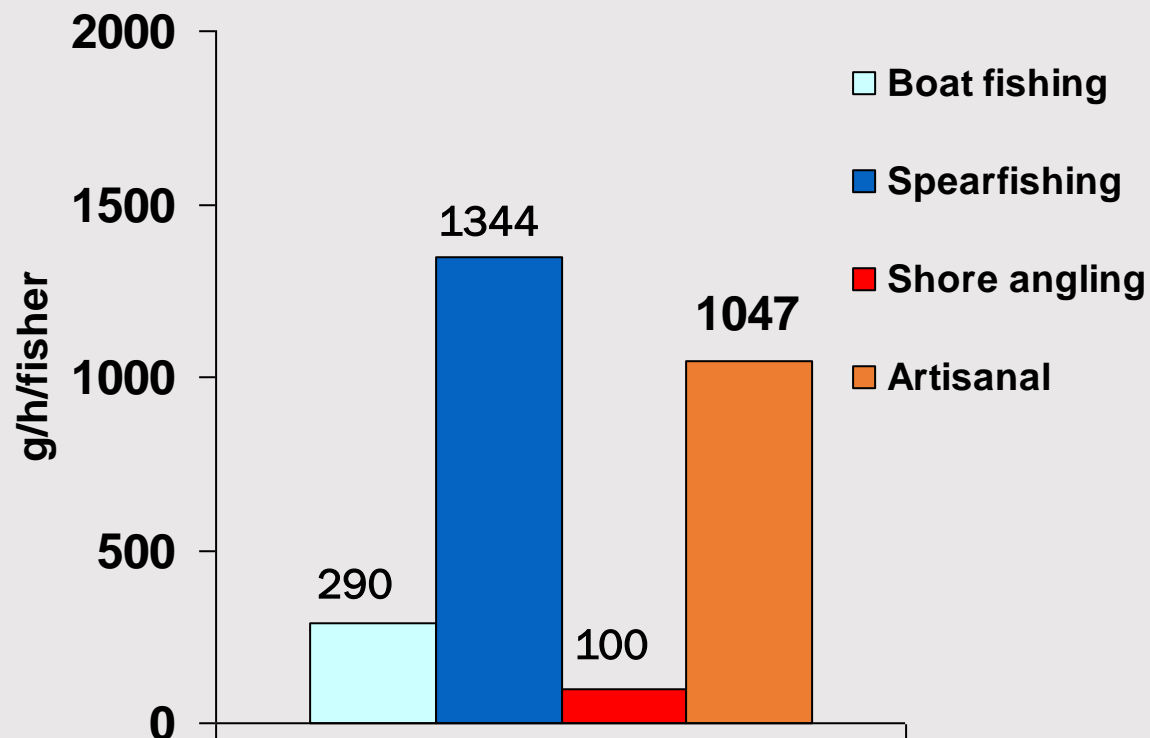
- Artisanal: non marine
- Recreational: exotic



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### Biological issues

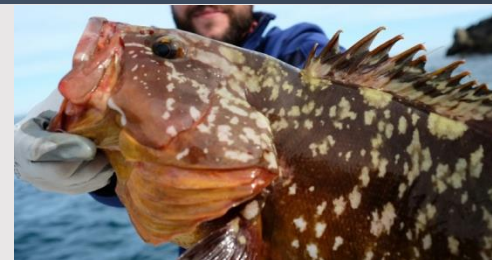
- Catch per unit effort (CPUE)



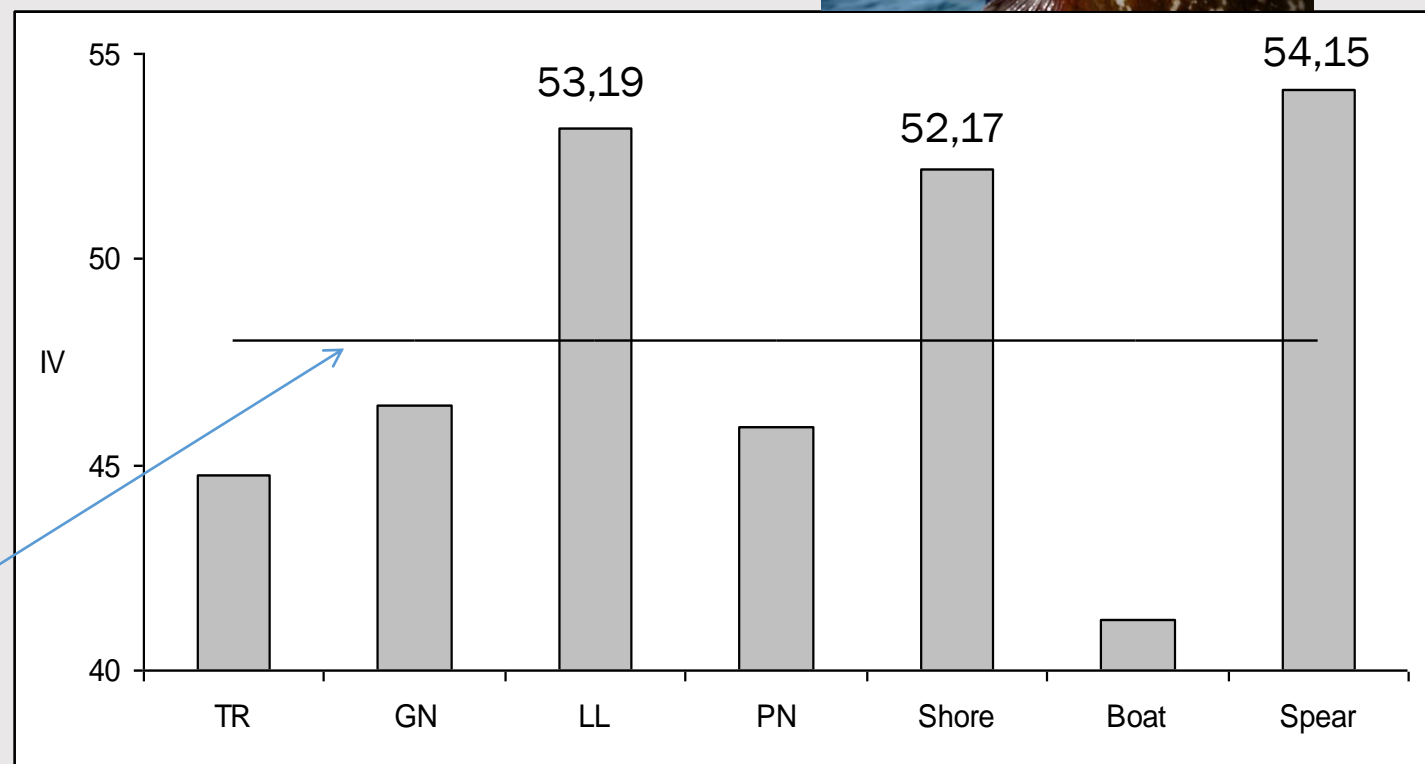
## Biological issues

- Pressure on vulnerable species

- longline
- shore angling
- spearfishing



World average value= 48





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### Social issues

- Recreational fishing & related fishing modalities



Estimation n° of fishers  
1700 annually

17 modalities considering  
all types of fishing



- Artisanal fishing & related fishing gears



36 art. fishers in 2003  
12 art. fishers in 2010

14 fishing gears in 70-80s  
9-5 fishing gears 2000s



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### Social issues

- Fishermen profile

- Average age
    - artisanal fishermen – 51,2 years old
    - recreational fishermen
      - 36,3 spearfishers
      - 39,8 shore fishers
      - 44,4 boat fishers



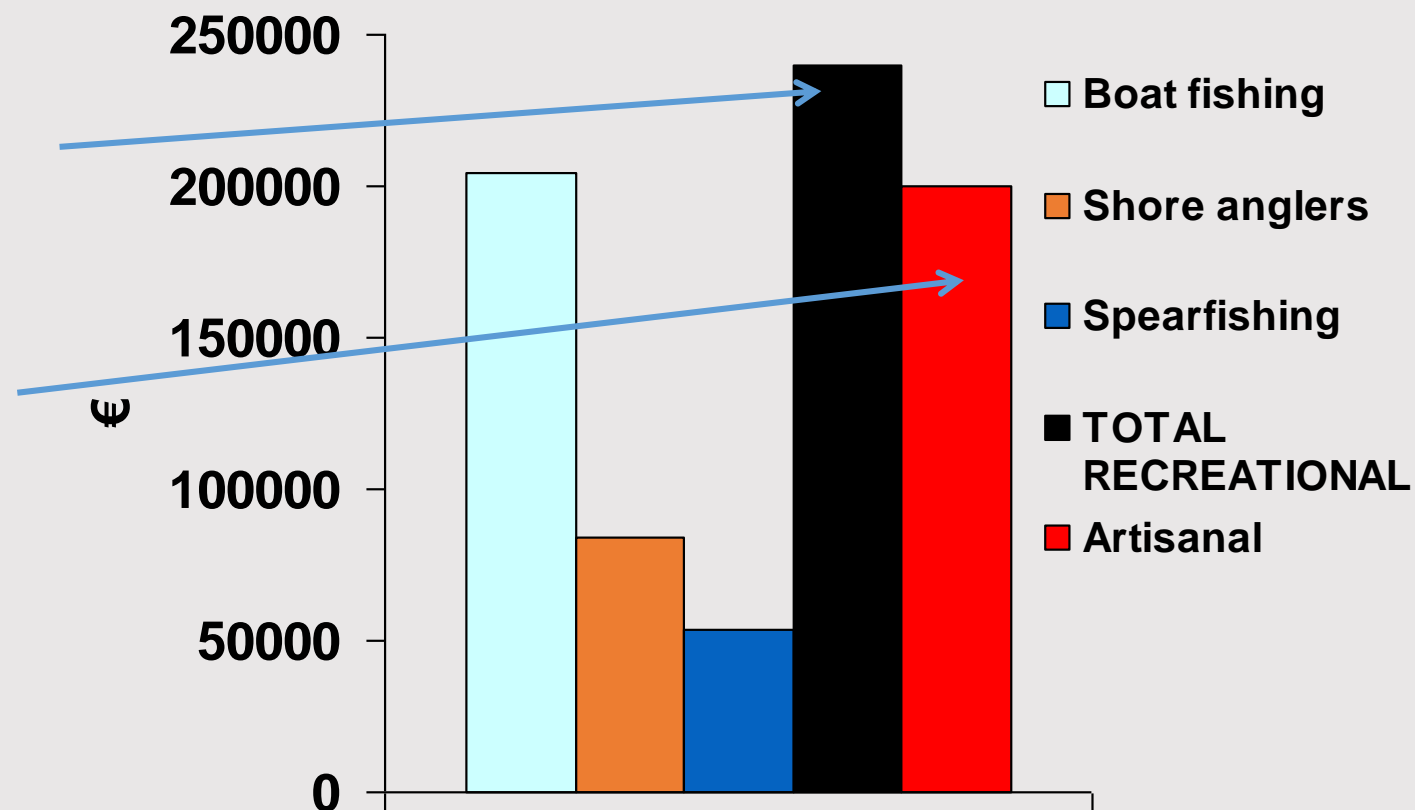
- Compliance with regulations

- Artisanal: high compliance with regulations (few exceptions but large threat!)

- Recreational
      - 25% fishermen without required license
      - 40% shore anglers used more than 2 fishing rods
      - shore anglers capture, for some species, a large proportion of undersized/juvenile specimens

## Economic issues

- Recreational: total amount of expenditures (aprox.)
- Artisanal: total value of sales (aprox.)





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### Some specific recommendations

- Managers should be particularly aware of the pressure and impact of spearfishing, trammel nets and longlines → enforce adequate measures to curb/eliminate the impacts
- Establishment of new measures (e.g. closed seasons, maximum landing sizes, enlargement of no-take zone, banning of fishing gears)
- Collaboration of the recreational sector in the management of the MPA and co-management between MPA managers and artisanal fishers play an essential role
- Improve control, enforcement and compliance with regulations for both sectors and increase these regulations for recreational fishers



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**Thank you**

**Merci**

**شكرا جزىلا**

**Gracias**

