

Climate-driven changes in Norway lobster landings: long-term trends and implications for fisheries in the Spanish Mediterranean basin

MEDAC FG West Med



Context

Effort reduction conducted during the last years

Number vessels, days at sea and landings

Reduction during the last 20 years (2004 – 2024)

- 42% reduction number trawlers
- 50% reduction total days at sea
- 35% reduction landings

Effort reduction during WM-MAP (2020 to 2024)

- 20% reduction in number of vessels (trawlers)
- 20% reduction in total days at sea
- 23% reduction in landings
- 25% reduction in number fishers

2025 situation

- **27 days** + compensation up to 2024 assigned days (approx. 130)
- Most of the fleet was out of fishing days
- Multispecific fishery is being driven by one single species (European hake)



Catch limit on blue and red shrimp (Spain)

- 2022: **872 t**
- 2023: **828 t**
- 2024: **787 t**
- 2025: **708 t**
- 2026: **708 t**



Fishing opportunities for 2026

Fishing opportunities COM proposal for 2026

- **9 days** + compensation
- Multispecific fishery is being driven by one single species (Norway lobster)



Final fishing opportunities for 2026

- Fishing days and blue and blue and red shrimp catch limit is **maintained at 2025 levels**

COM (2025) 509: “*STECF was unable to fully address the different outcomes of the selectivity measures in 2025. In order to allow for additional time for scientific review of the selectivity efforts made in 2025 and 2024, **the fishing effort level should be maintained at the level set for 2025 by Regulation (EU) 2025/219.***”

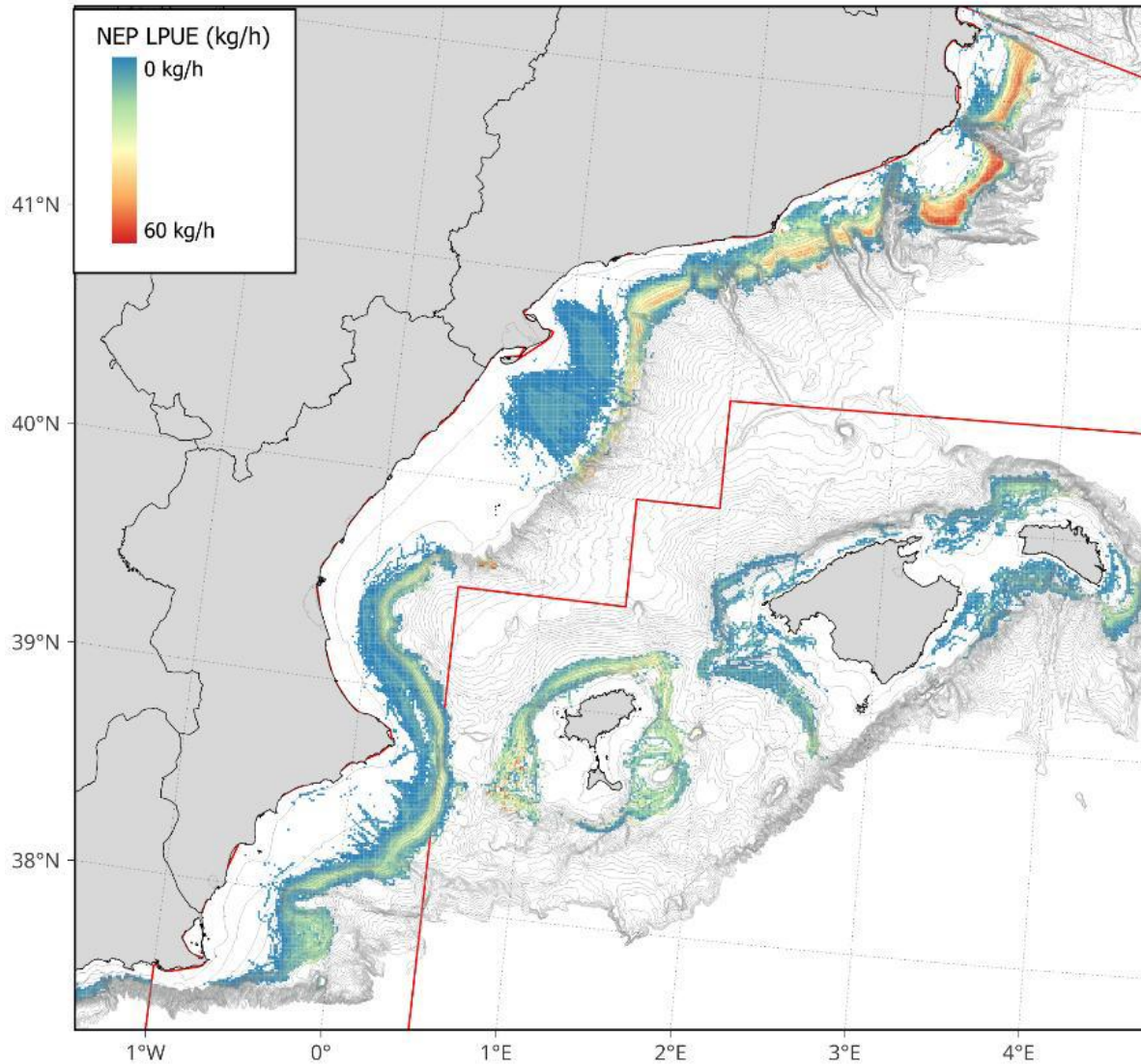
COM's reply to MEDAC advice

COM's reply to the advice from MEDAC on the Commission's Communication on sustainable fishing in the EU: state of play and orientations for 2026:

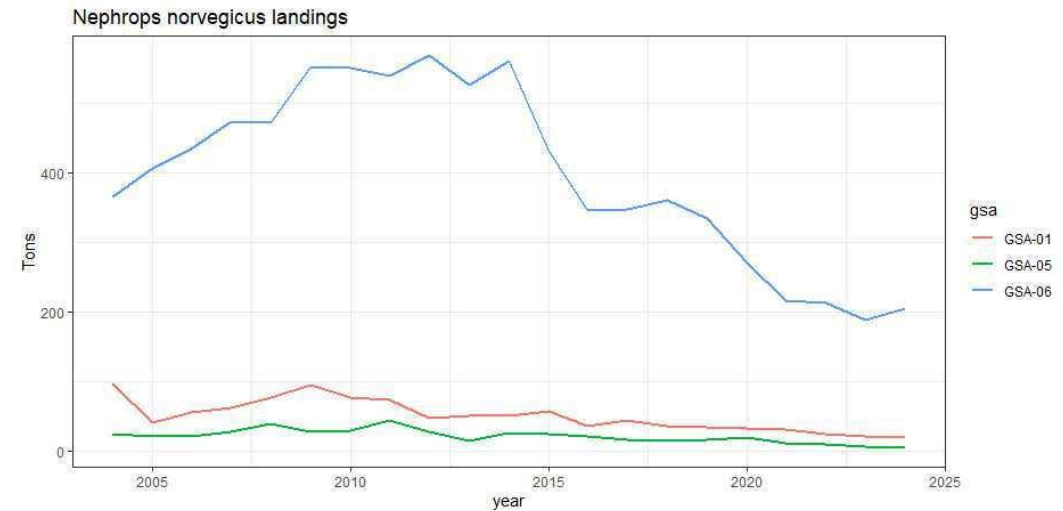
- **Science tells us that for 2026 Norway lobster is the most vulnerable stock on both sides of the Western Mediterranean.** Consequently, the **fishing effort reduction for trawlers must be driven by this species** in each effort management unit (EMU).
- Considering that the most vulnerable stock in each EMU is not present in all GSAs, **the Commission proposed to compensate**, in the respective GSAs, **fishing vessels not fishing the most vulnerable stock.**
- **The Commission could not support the Presidency compromise tabled at the end of the Agriculture and Fisheries Council of 11-12 December 2025.** While the Commission is yet to fully analyse the political agreement reached, it considers that it is not in line with the multiannual management plan for the western Mediterranean and not applying the MSY objective. Moreover, the compromise disregards the best scientific advice. **The final result undermines the implementation of the management plan.**

Climate-driven changes in Norway lobster landings

Norway lobster landings distribution (GSA 5 & 6)



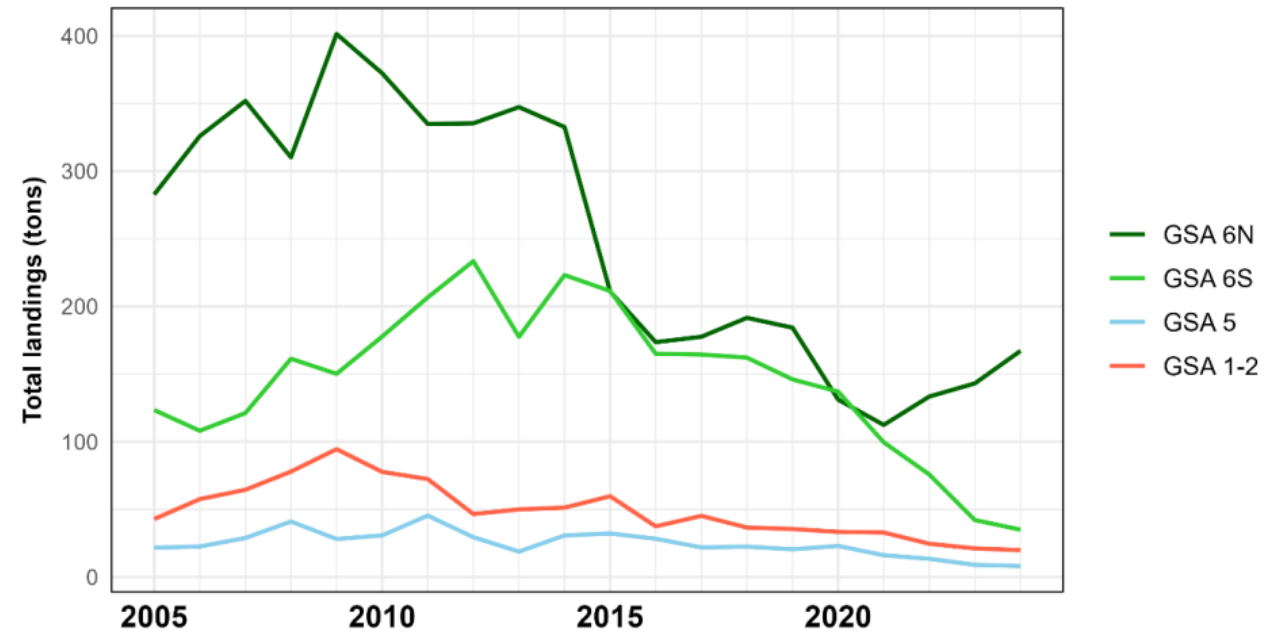
Spatial distribution of *Nephrops norvegicus* landings per unit effort (LPUE, in kg/h) along the Spanish Mediterranean coast



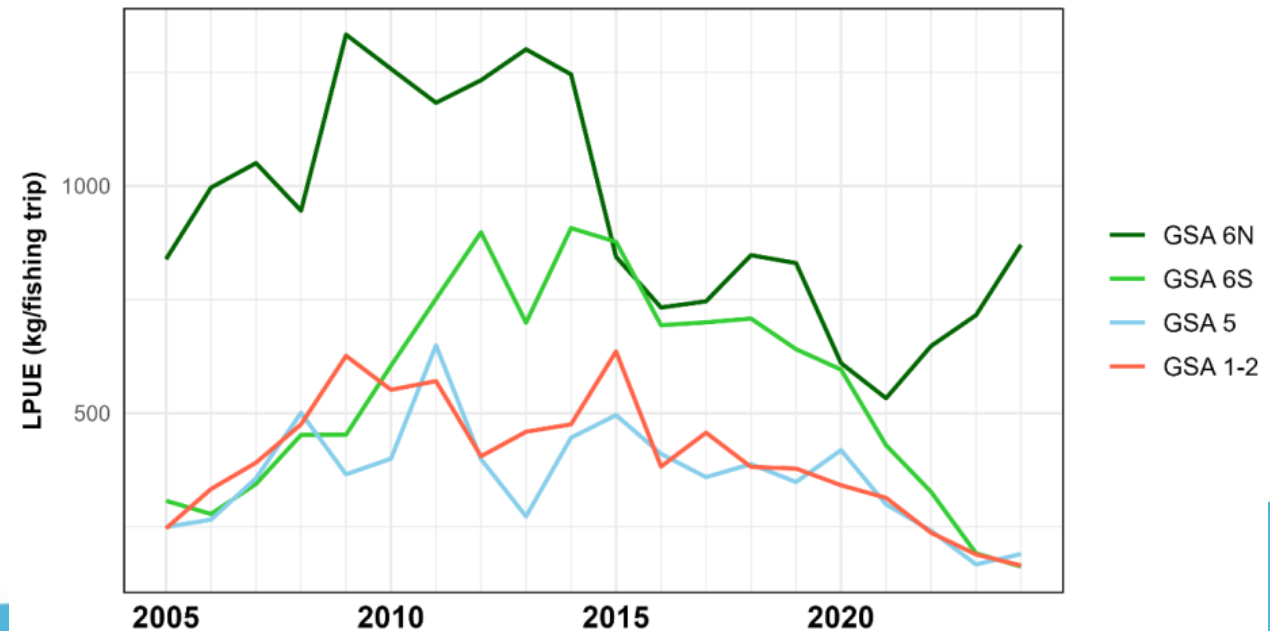
Norway lobster landings evolution in the Spanish Mediterranean

- This species was exploited along the entire Spanish Mediterranean coast (GSAs 1-2, 5, and 6)
- Landings and LPUE have decreased over the last two decades in all areas **except the north of the GSA 6**
- Exploitation is either not relevant anymore (GSAs 1-2) or the state of the stock could not be assessed (GSA 5, STECF 25-09).

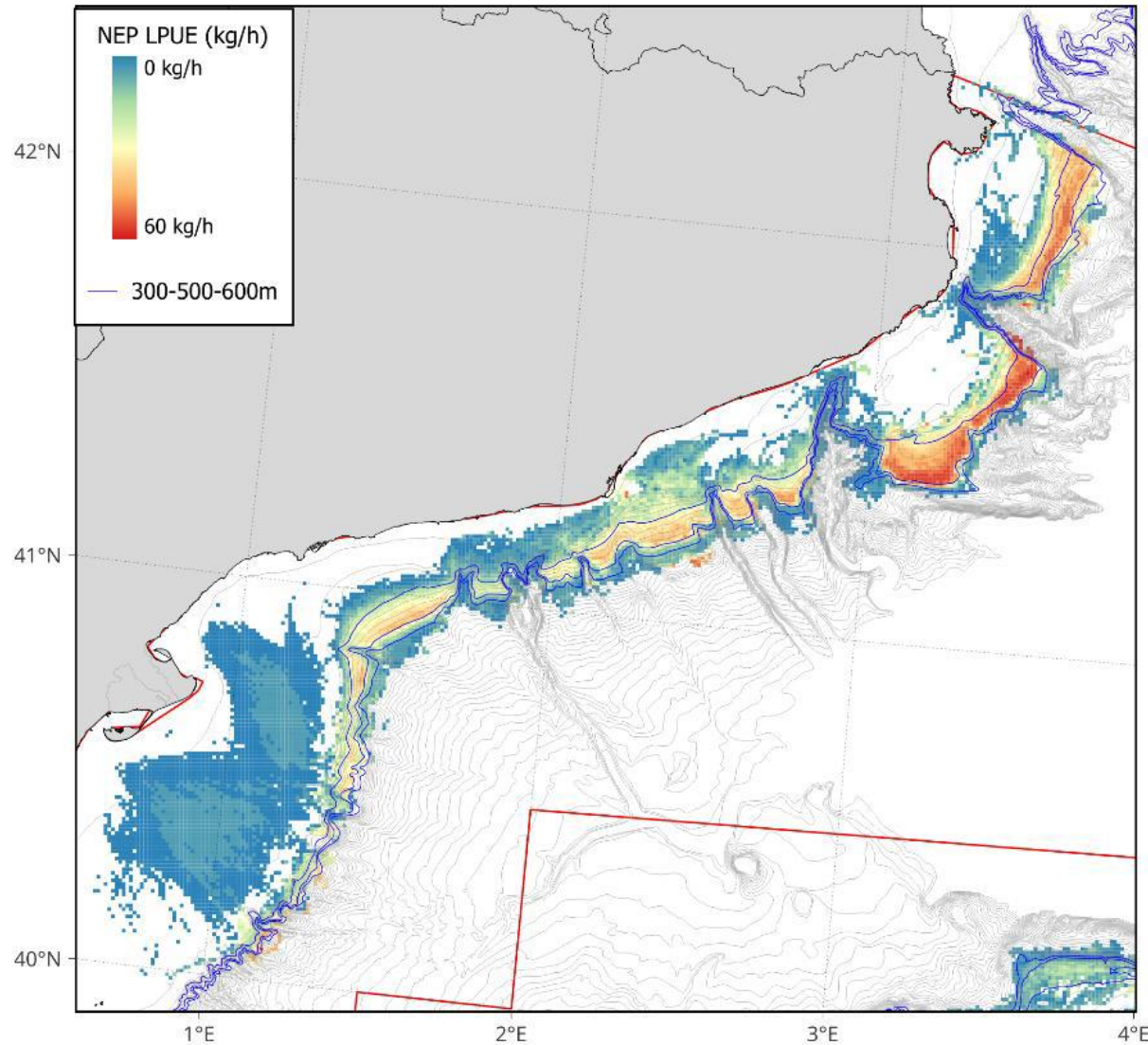
Nephrops norvegicus total landings



Nephrops norvegicus LPUE



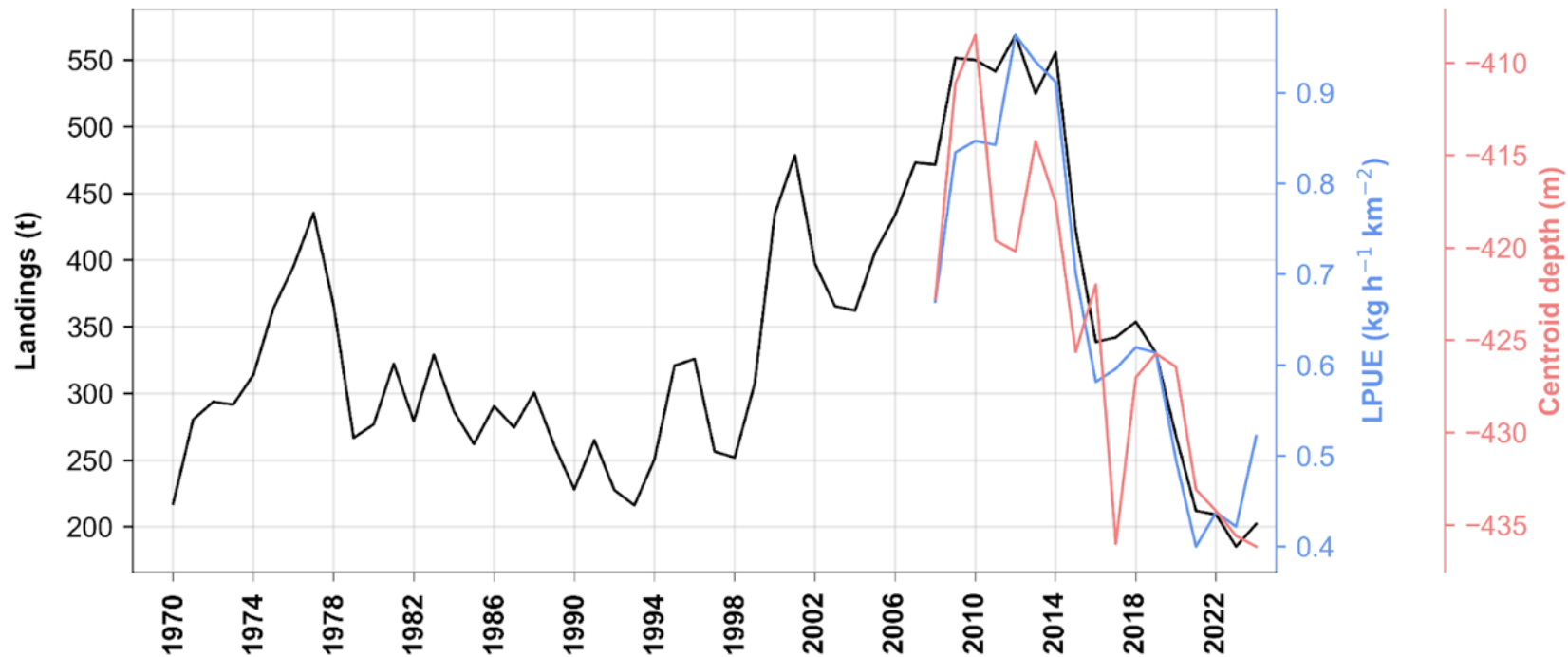
Norway lobster landings distribution (GSA 6N)



Spatial distribution of *Nephrops norvegicus* landings per unit effort (LPUE, in kg/h) along the Catalan coast (GSA 6N). Blue lines indicate bathymetry at 300, 500 and 600 m.

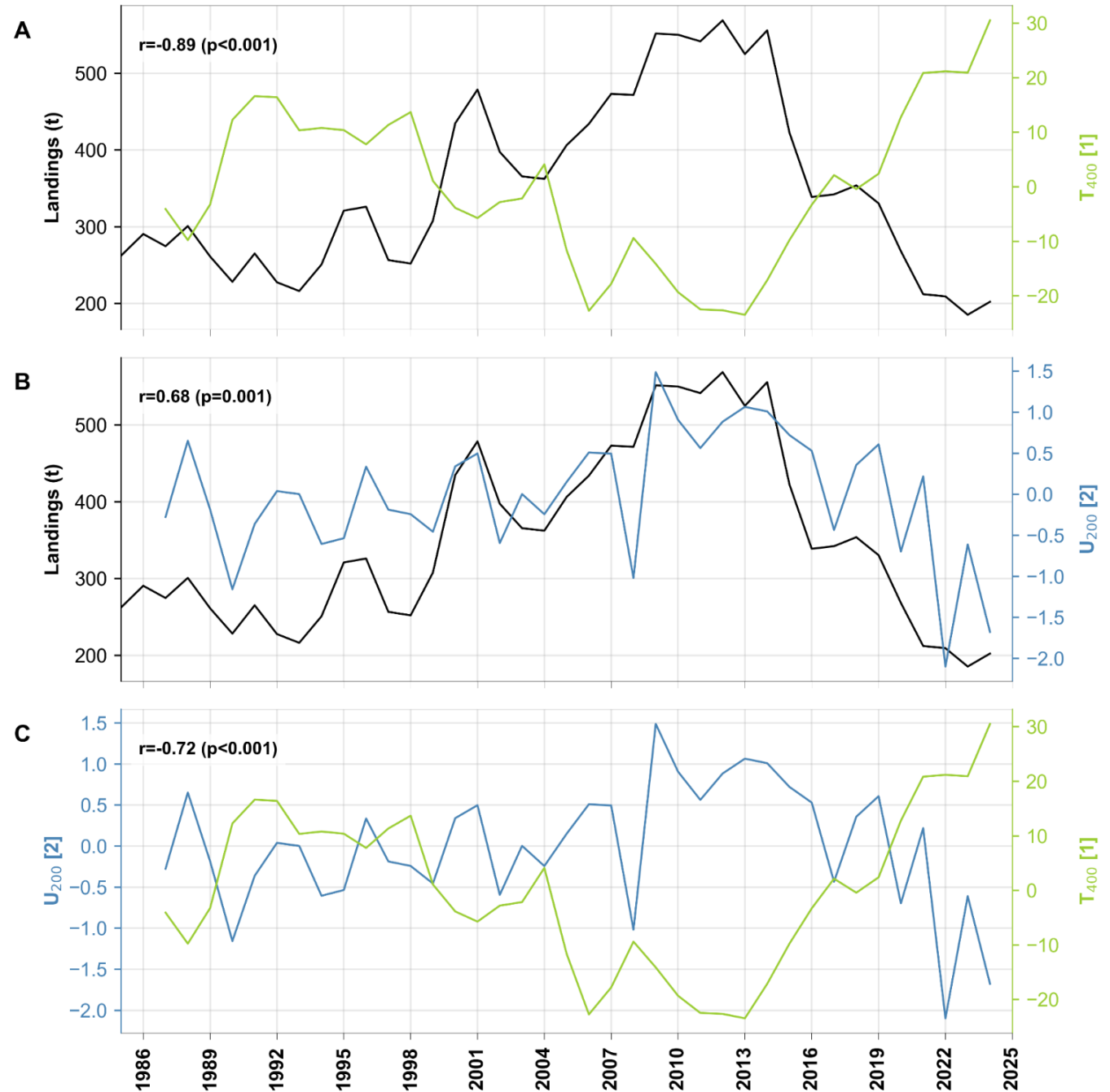
Norway lobster landings evolution since 1970 (GSA 6)

- Landings and LPUE decrease since 2014
- LPUE moves to greater depths



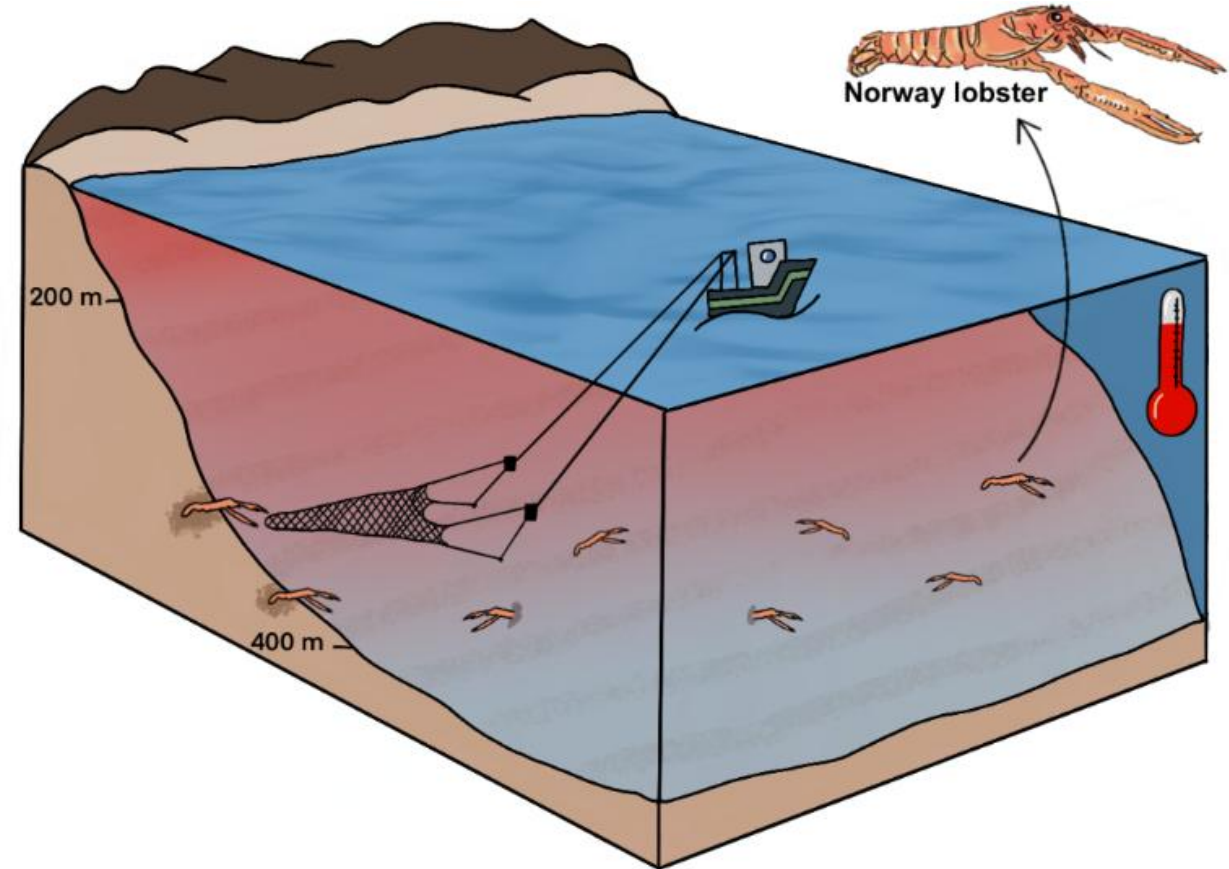
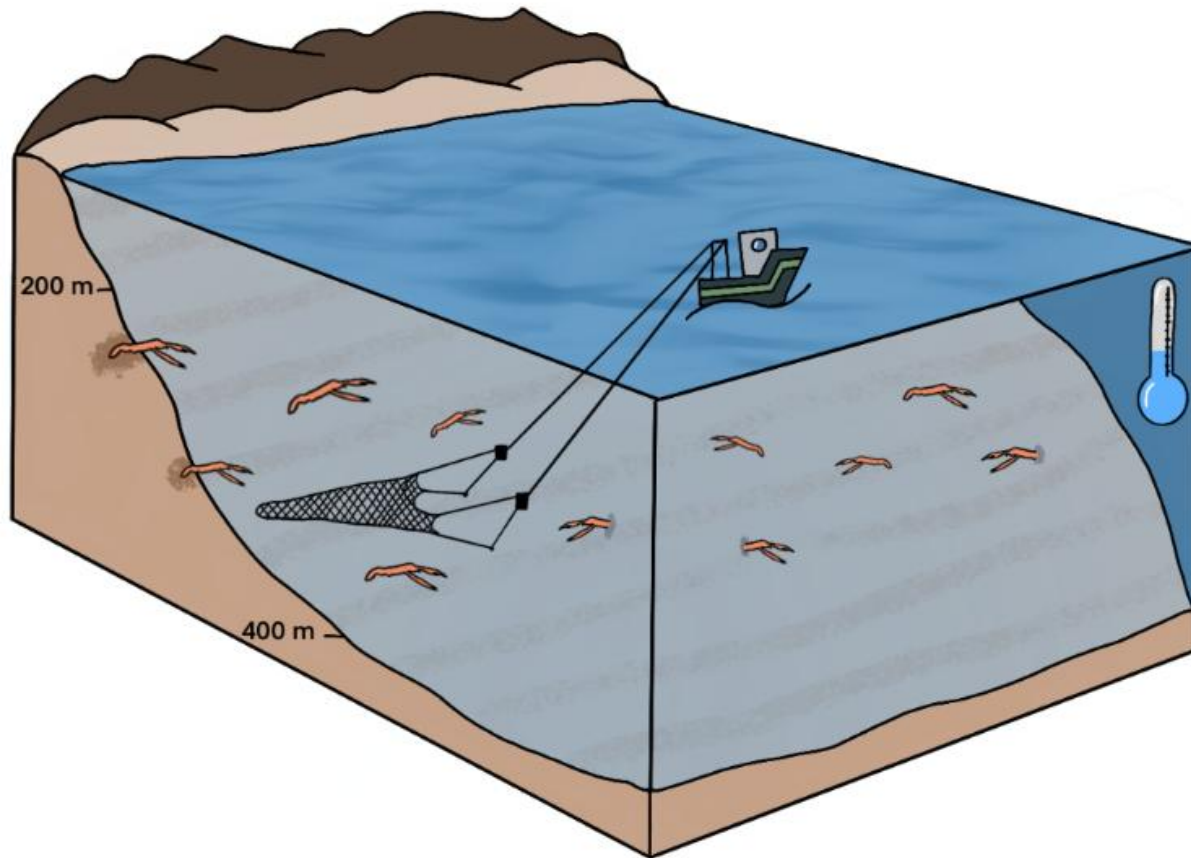
Climate-driven changes

- **Temperature and salinity at 400 m** explain 78% and 68% of variance
- **Surface and 200m current** explain less variability but are also relevant
- Norway lobster landings ↓ when temperature and salinity ↑
- Norway lobster ↓ when the intensity of the Liguro-Provençal-Catalan current ↓



Summary

- LPUE moves to greater depths in warmer years
- Norway lobster landings are inversely correlated with temperature and salinity at 400m
- Norway lobster landings decrease when the current's intensity decrease
- Decline linked to environmental changes (temperature, salinity, currents), not explained solely by fishing



Key messages

- **Norway lobster abundance is inversely correlated with sea water temperature increase**, and the species distribution and fisheries trends along the GSA 6 are particularly unequal. In addition, the Norway lobster species only represents around 2% of the total landings of the bottom trawl fleet in a multi-species fishery. To have this species determine the reduction of fishing effort in days will lead to impractical and unbalanced consequences along the territory. **The constraints of a “choke species” embedded in the WestMed MAP must be reconsidered.**
- In case the article of the “choke species” is removed from the WestMed MAP, which will be the alternative?
- Fishing effort is not always linearly correlated with fishing mortality, and so **a sharp reduction in fishing effort in days cannot be presented as the only way to recover a stock. Alternative measures must be considered**, prioritizing those that significantly contribute to the recovery of the stock without jeopardizing the continuity of fishing activity. A **proposal** tailored to the improvement of the state of the Norway lobster stock in the N GSA 6 **is the increase of the closure areas surface in the species main distribution range.**

Thank you

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