



BATHYAL MEGABENTHIC ASSEMBLAGES IN THE SE IBERIAN PENINSULA (WESTERN MEDITERRANEAN SEA)

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Introduction

The Iberian SE is an interesting transition and connectivity zone between the Alboran Sea and the Algerian-Balearic basin. It hosts important deep water fisheries targeting mostly red shrimp (*Aristeus antennatus*). The area comprises a complex system of tectonic canyons (Mazarron Escarpment), seamounts, knolls and hills (Palos, Planazo, Plis-Plas), and pockmark fields (Acosta *et al.*, 2013). Few studies have been conducted on the bathyal megabenthos, unlike in the neighbouring Chella Bank (De la Torriente *et al.* 2018) and Balearic Islands (Massuti *et al.* 2022). The LIFE IP Intemares project is filling this gap.

Material and Methods

The study area is in the Iberian SE region, off the Alicante and Murcia coasts (Fig. 1). Based on detailed cartography obtained with a multibeam echosounder and prior faunal sampling by diverse methods, a selection of sites was prospected in August 2020 with IEO ROV Liropus-2000 in 27 transects, between 183 and 1735m depth.

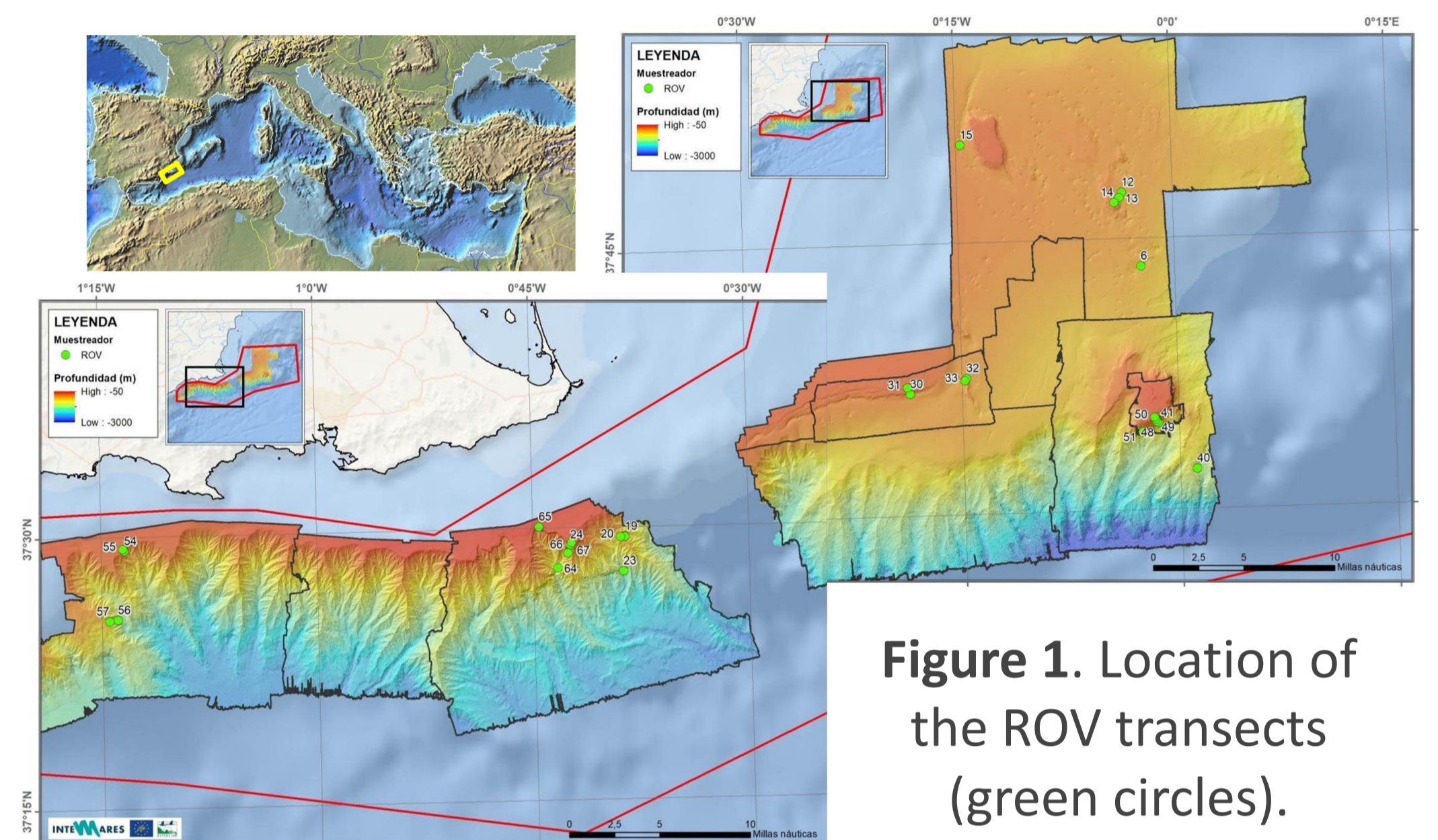


Figure 1. Location of the ROV transects (green circles).

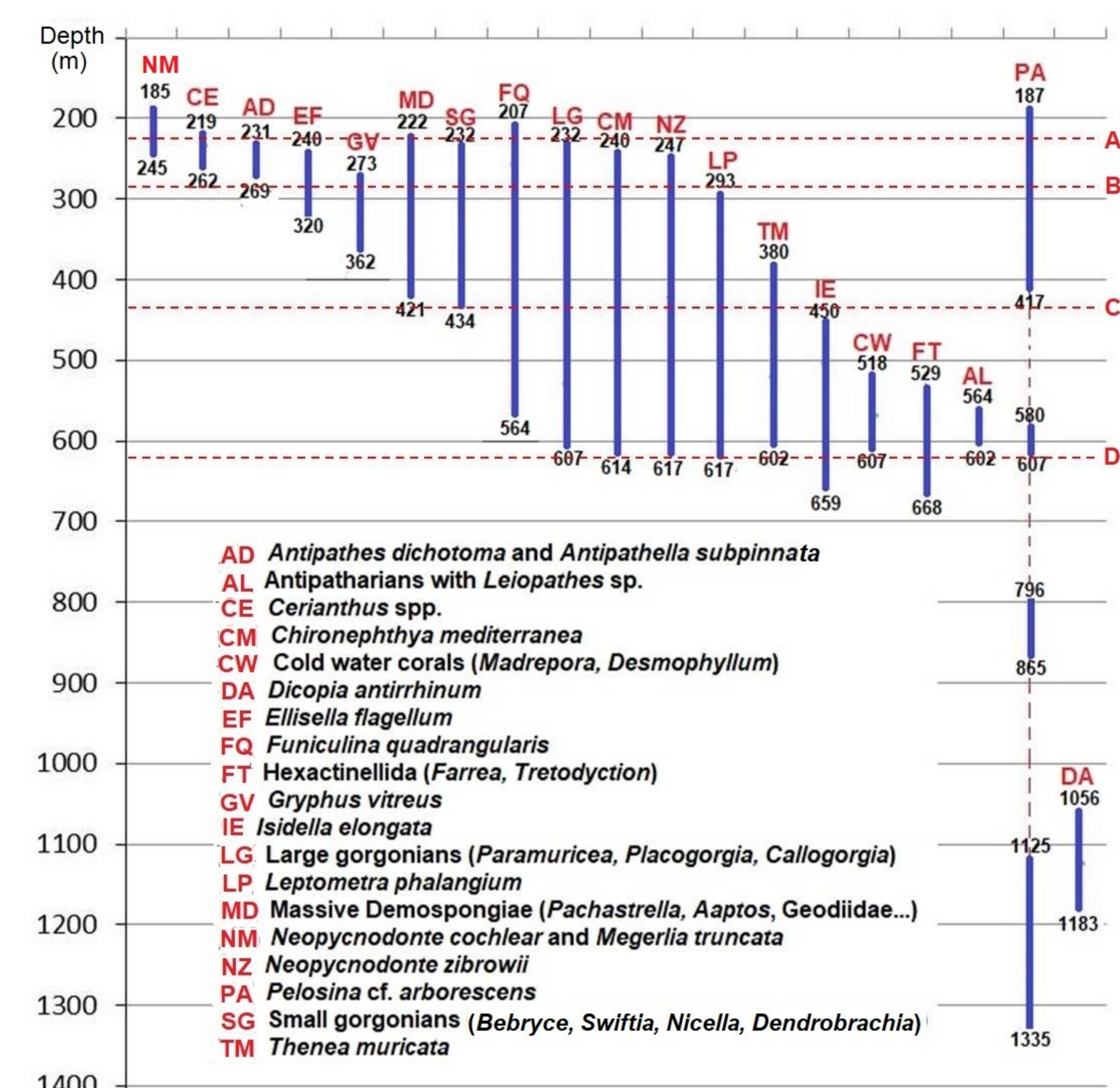


Figure 2. Megabenthic assemblages with depth ranges. (A-D) possible ecotones

Acknowledgements

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References

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Results and Discussion

The bathyal zone of the SE Iberian Peninsula is topographically complex and 19 megabenthic assemblages have been observed on hard/soft substrata and horizons (abbreviations, Fig. 2):

Hard substrata:

- Upper bathyal horizon (180-350m depth): NM,AD,EF
- Middle bathyal horizon (350-650m): MD,SG,LG,CM, NZ,LP,CW,FT,AL
- Lower bathyal horizon (> 650m): DA

Soft substrata:

- Upper bathyal horizon (180-350m): CE,GV
- Middle bathyal horizon (350-650m): FQ,IE,TM
- Lower bathyal horizon (> 650m): PA

The assemblages are similar to neighbouring areas (De la Torriente *et al.*, 2018; Massuti *et al.*, 2022) but with certain peculiarities. *Asconema setubalense* (present in Chella Bank) has not been detected.

The assemblages including cold-water corals, antipatharians, sponges, *Funiculina* and *Isidella*, habitat-forming species, fall within the category of Natura 2000 priority habitats (1170, 1180) and Vulnerable Marine Ecosystems (FAO, 2016). Other species are listed as threatened or endangered in Annex II of UNEP/MAP-SPA/RAC (2018).

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