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

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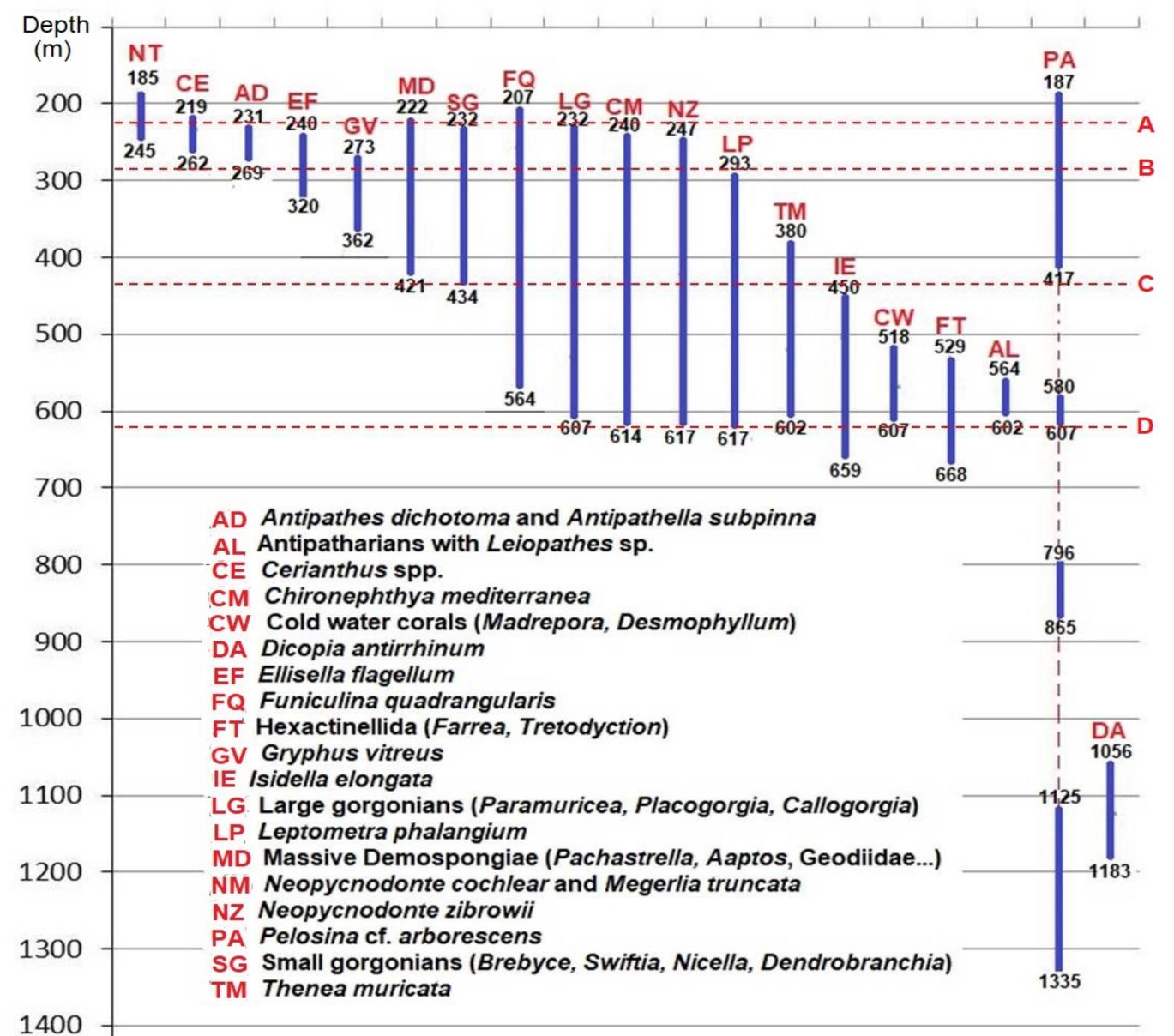


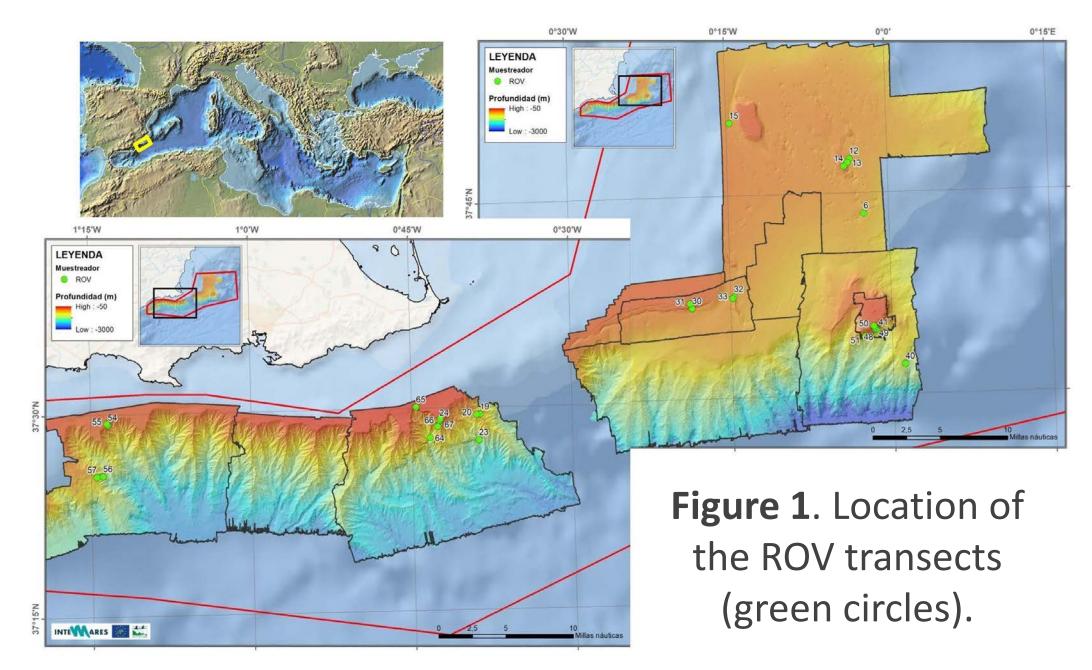


The Iberian SE is an interesting transition and connectivity zone between the Alboran Sea and the Algerian-Balearic basin. It hosts important deep water fisheries targeting mostly red shrimp (Aristeus antennatus). The area comprises a complex system of tectonic canyons (Mazarron Escarpment), seamounts, 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.





Results and Discussion

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

Acknowledgements

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

Hard substrata:

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

Soft substrata:

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

The assemblages are similar to neighbouring areas (De la Torriente et al., 2018; Massutí 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).

Study carried out within the EU-funded project LIFE IP Intemares (https://intemares.es/)

References

Acosta et al. (2013). The morpho-tectonic setting of the Southeast margin of Iberia and the adjacent oceanic Algero-Balearic Basin. *Mar. Petrol. Geol.* 45: 17–41. **De la Torriente et al**. (2018)- Identifying epibenthic habitats on the Seco de los Olivos Seamount: Species assemblages and environmental characteristics. *Deep Sea Res. I* 135: 9–22. Massutí et al. (2022). Improving Scientific Knowledge of Mallorca Channel Seamounts (Western Organized by Mediterranean) within the Framework of Natura 2000 Network. *Diversity* 14 (1): 4

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