

# Bathyal megabenthic assemblages in the south-eastern Iberian Peninsula (Western Mediterranean)

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The SE Iberian sector represents an interesting transition and connectivity zone between the Alboran Sea and the Algerian Balearic basin, and the area comprises a system of tectonic canyons (Mazarron Escarpment), seamounts and pockmarks fields. Despite this, relatively few studies have been conducted on the bathyal zone. During the LIFE IP Intemares A2.2-Mu0820 survey, the continental slope was observed by ROV Liropus-2000, between 183 and 1735m depth following bathymetric mapping using a multibeam echosounder. A combination of multivariate analysis of still imagery and video ground-truthing have been able to discriminate some megabenthic assemblages.

On hard bottoms of the upper bathyal horizon: i) *Neopycnodonte cochear-Mergelia truncata* facies, 193-244m depth; ii) *Ellisella flagellum* facies, 2441-320m; iii) *Antipathes dichotoma* facies, 259-270m. Middle horizon: i) Demospongiae facies (*Pachastrella*, *Phakellia*, *Aaptos...*), 241-494m; ii) gorgonian assemblage (*Callogorgia*, *Paramuricea*, *Placogorgia*), 294-624m; iii) *Leptometra phalangium* facies 293-611m; iv) cold-water corals (*Desmophyllum*, *Madrepora*), 516-607m; Antipatharia facies (*Antipathella*, *Leiopathes*, *Parantipathes*), 519-624m. Lower bathyal horizon:; *Dicopia antirrhinum* facies, 645-1167m. On soft bottoms (mud, sandy-mud) of the upper bathyal horizon: i) Ceriantharia facies, 213-219m depth. Middle horizon: i) Pennatulacea facies (*Funiculina*, *Kophobelemnion*, *Pteroeides...*), 219-541m; ii) *Thenia muricata* facies, 418-814m; iii) *Isidella elongata* facies, 462-681m. Lower horizon: i) *Pelosina* fields, 235-1321m.

The results reveals that the bathyal zone of the SE Iberian Peninsula is topographically complex and harbours diverse benthic assemblages, some of which fall within the category of Vulnerable Marine Ecosystems; and some species are listed in annex II of the RAC/SPA list of endangered or threatened species.