abyssal plain, and (3) mesoscale environmental heterogeneity is more important in structuring foraminiferal assemblages compared to small-scale patchiness. Preliminary results suggest that benthic foraminiferal density and diversity on the abyssal hills is comparable to that on the neighbouring abyssal plain. However, the assemblages on the hills harbour some species not found on the plains, thereby enhancing foraminiferal diversity at regional scales.

Nematode community structure along the Blanes submarine canyon (NW Mediterranean Sea) P51

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Submarine canyons are probably among the most dynamic systems along continental margins resulting in high seafloor heterogeneity. Since nematode assemblages are strongly related to changes in seafloor characteristics such as sediment composition and food supply, they are expected to vary significantly along submarine canyons. By studying nematodes in Blanes Canyon (Iberian margin of the NW Mediterranean), we identified the major environmental drivers in the canyon system for the taxonomical and functional nematode diversity. Replicate multicore samples were collected along the axis of Blanes Canyon, from 500 to 2000 m depth. Additional subcores were used to analyze the main sediment characteristics (including grain size, organic content and phytopigments). Nematode densities did not show a clear decreasing pattern with bathymetry, since peaks occurred at 1200 and 1750 m depth. Overall, the community composition was similar from 500 to 1200 m depth, dominated by non-selective deposit feeders. The abundance of selective deposit feeders progressively increased in the deepest stations, especially at 1750 m depth. The highest trophic diversity was detected at 900 m depth. The presence of the mouthless *Astomonema* genus in all samples (except at the deepest ones) is of particular interest its occurrence being restricted to the deepest sediment layers (2–5 cm). Higher and lower values of diversity were found at 500 and 2000 m depth respectively. Differences in nematode communities were mainly explained by proxies for food quantity and quality such as Chl-a, CPE and Chl-a:phaeo, as well as by total carbon and grain size (clay and sand contents).