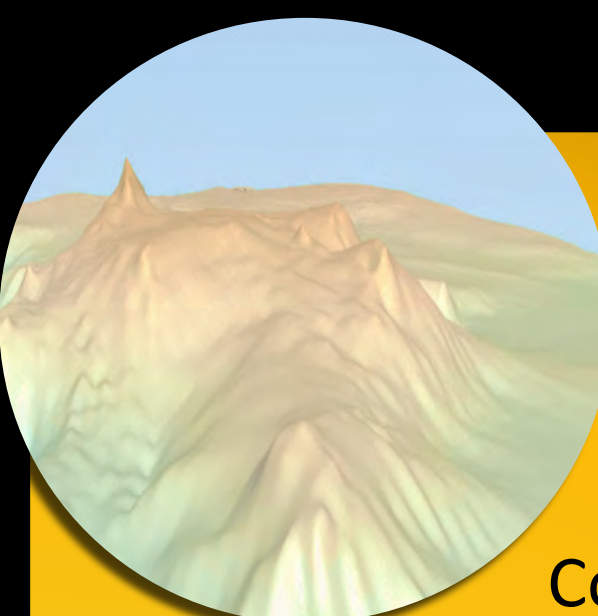


Bo Marzia, Coppari Martina, Betti Federico, Canese Simonepietro, Costantini Federica, Massa Francesco, Bavestrello Giorgio



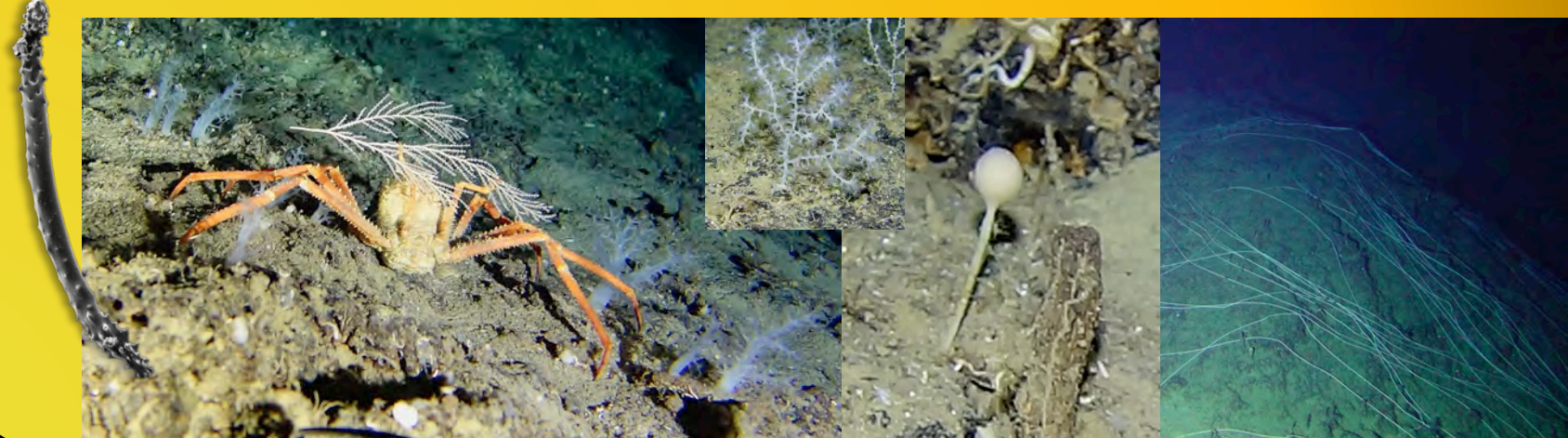
ULISSE SEAMOUNT 397-730 M

Exploited by long-liners since the 1970s, this mount belongs to the so-called Genoese triad. It is dominated by a diversified assemblage of sponges and small-sized octocorals (including *Swiftia pallida*, *Muriceides lepida*, *Bebryce mollis* and a nephtheid alcyonacean) with the peak hosting a dense forest of *Callogorgia verticillata*. Broken colonies and juveniles of this fragile species along the flanks suggest heavy impact as demonstrated also by the numerous lost gears. Deep pirosome blooms were observed over the peak.

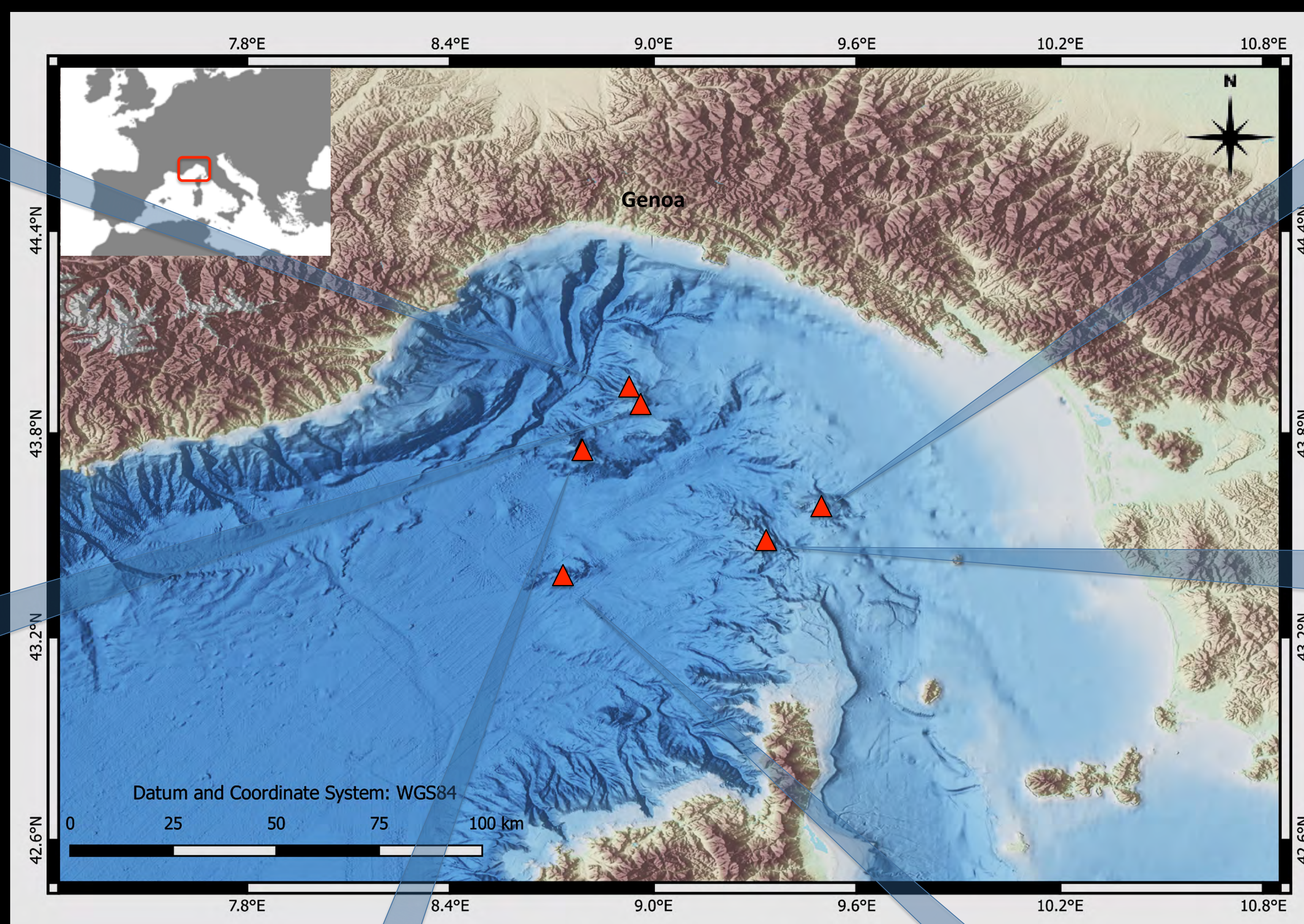


PENELOPE SEAMOUNT 447-730 M

Considered a twin peak of the Ulisse Seamount, this structure is equally heavily frequented and impacted. The dead coral framework is home to crabs (*Paromola cuvieri*) and spiny lobsters (*Palinurus mauritanicus*). Patches of the gorgonians *Muriceides lepida* and *Dendrobrachia bonsai* are mixed with a nephtheid alcyonacean, the black coral *Antipathes dichotoma* and the sponge *Tretodictyum* sp. A dense population of the lollipop sponge *Stylocordila pellita*, undescribed for the Mediterranean Sea, was found on the summit.



The Ligurian Sea (NW Mediterranean Sea) embraces six large underwater mountains (IUCN Atlas, 2015) investigated for the first time within the BioMount-SIR Project (2017-2018). Dives, carried out on the top of the mounts by means of a MultiPluto ROV, revealed rich sponge and coral communities mainly thriving on extended white coral tanatocoenoses. Deep Atlantic waters inflow in the basin supports larval settling of non-Mediterranean bathyal species; additionally, canyon upwelling supports flourishing communities on the mounts offshore Genoa. Deep planktonic blooms and occasional top predators were observed around the peaks confirming their important ecological role. Artisanal and recreational fishermen frequent the mounts leading to different degrees of fishing impact depending on the accessibility of the peaks.



Fish colours express different degrees of vulnerability, from high (red) to low (blue)



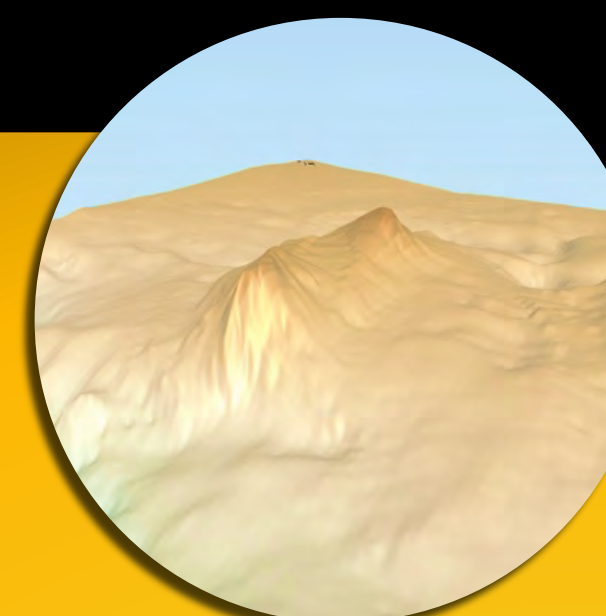
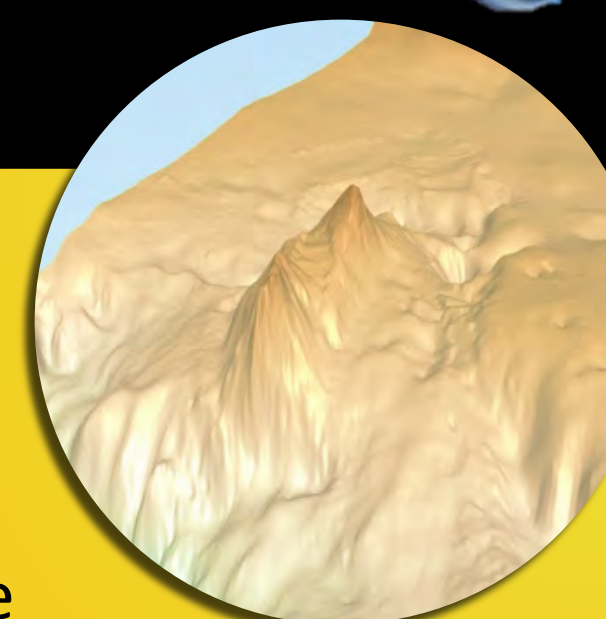
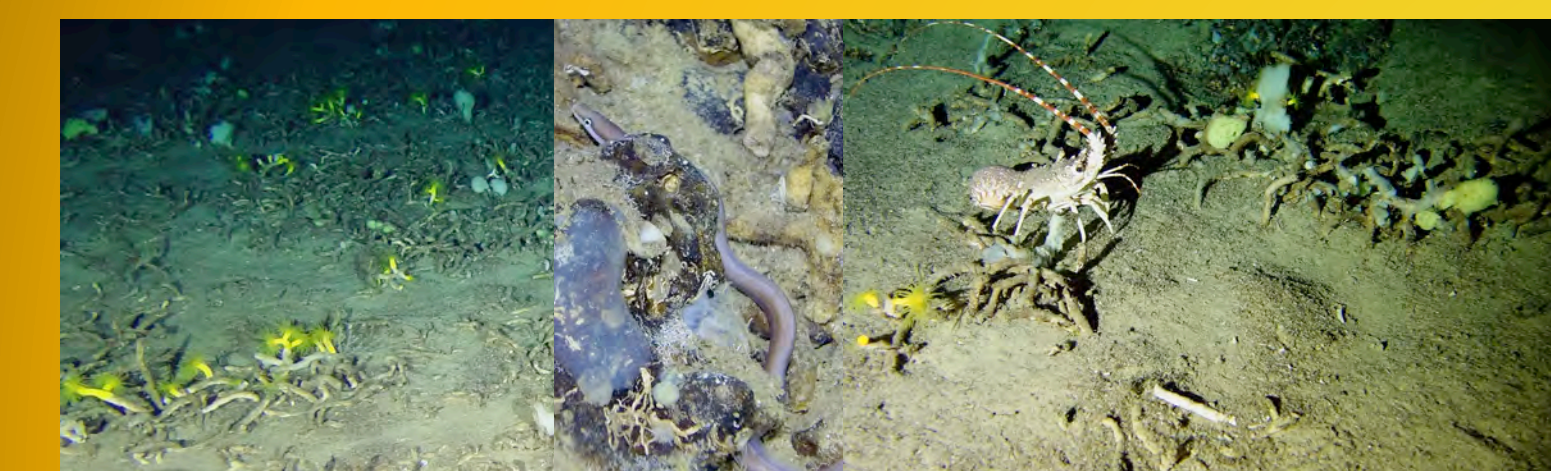
ST. LUCIA BANK 135-530 M

St. Lucia is the shallowest offshore bank of the Ligurian Sea and its topography includes two peaks penetrating in the mesophotic zone. The low light levels favour deep coralligenous assemblages dominated by *Antedon mediterranea* and *Eunicella cavolini*. In the deepest part, lush black coral forests (especially *Antipathella subpinnata* and *Leiopathes glaberrima*), dense *Viminella flagellum* meadows and sponge patches (*Poecillastra compressa*) are common. The area is subjected to intense recreational long line fishing.

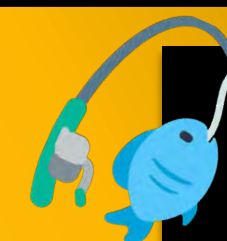


OCCHIALI SEAMOUNT 280-1030 M

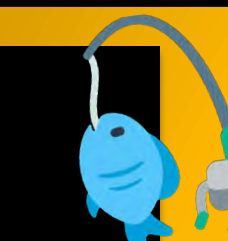
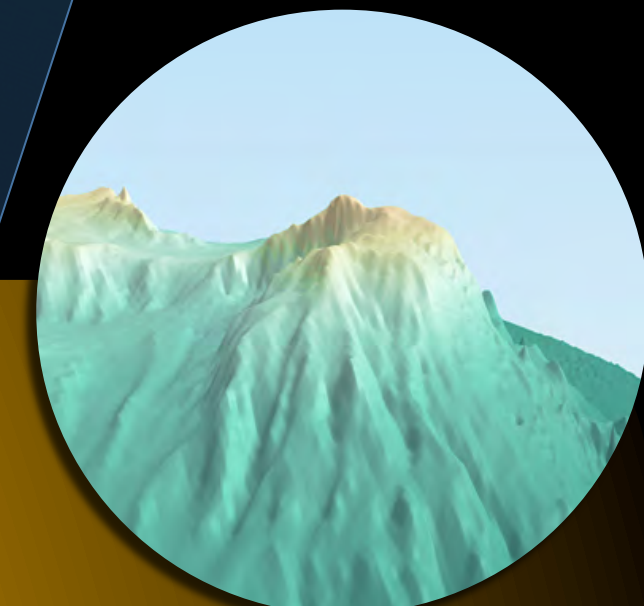
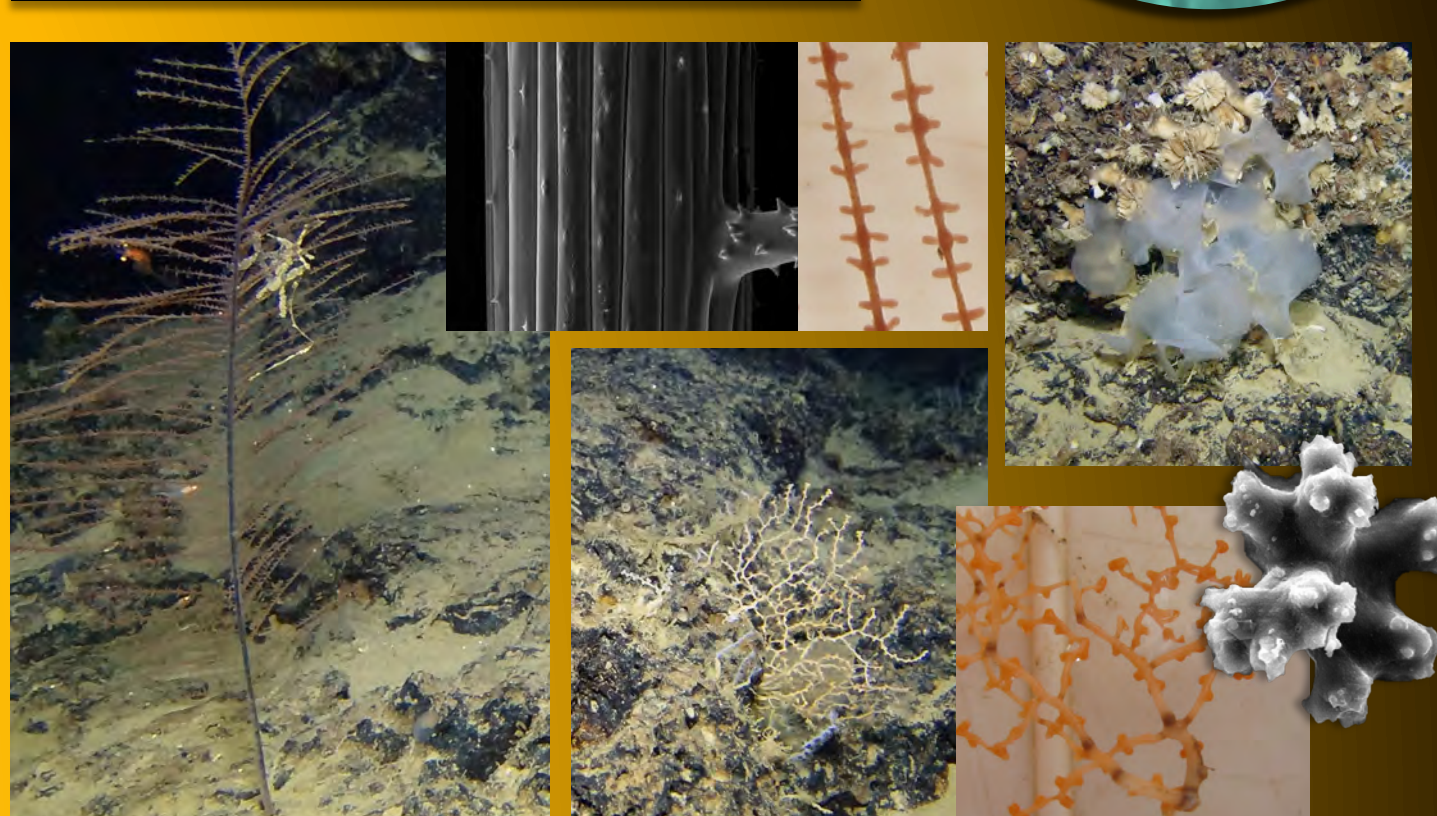
This seamount is characterized by two twin peaks culminating in the upper bathyal zone. Deep muddy flats hosting Norway lobster *Nephrops norvegicus* give way to patchy hardgrounds covered by encrusting sponges. Sandy slopes on the summit host *Dendrophyllia cornigera* dead and alive meadows. Branches are covered by sponges and the framework is home to crustaceans, gorgonians (*Bebryce mollis*) and rare fishes (i.e. *Chlopsis bicolor*). Large specimen of the shark *Hexanchus griseus* are observed and fishing traces are modest.



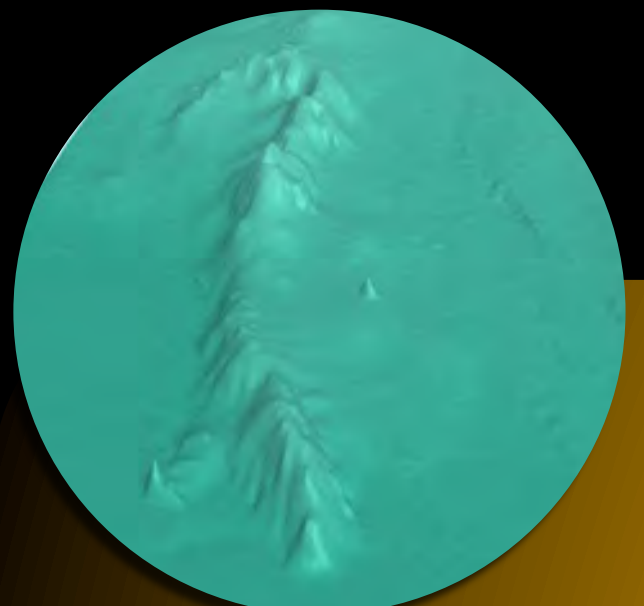
Wide patches of dead *Lophelia pertusa* and *Desmophyllum dianthus* are found on the mount otherwise covered by a FeMg crust. This habitat hosts small patches of the rare, Atlantic fan-like isidiid *Chelidonisis aurantiaca*, observed here for the first time in the Mediterranean Sea. Sparse colonies of an unidentified bottle-brush species of black coral, *Parantipathes* sp., are mixed with sponges, such as *Geodia* sp. and fragile individuals of the hexactinellid *Farrea* cf. *bowerbanki*. Sharks and commercial species (*Lophius* sp.) are observed while lost gears are extremely rare. Differently from the shallower explored peaks, this mesobathyal seamount hosts a completely new benthic assemblage.



JANUA SEAMOUNT 810-1280 M



SPINOLA SPUR 1870-2150 M



This rocky elevation represents the deepest mount of the Ligurian basin. Neither biological nor geological surveys have ever been conducted on this spur, which represents a unique habitat due to its low silting levels and its extreme bathymetric location. The deep water mass entering the Ligurian basin nourishes a rich bathyal coral assemblage characterized by previously unseen features including a candelabrum/whip-like undetermined *Antipathes* species, an unidentified bottle-brush *Parantipathes* antipatharian, as well as a bed of the gorgonian *Acanthogorgia* sp. Small-sized gorgonians are also present, but no dense white corals patches nor massive sponges were observed. The site is completely litter-free.