Epibenthic communities of a NE Atlantic deep seamount

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The Galicia Bank (GB) is the deepest SAC of the Spanish Natura 2000 Network proposal. GB is a large seamount located at 150 miles far from the west coast of Galicia, with a flat summit with slight slopes from 600 m to the bank break around 1,000 m. Deeper 1,500 m on its western flank, slope increases sharply until it reaches the abyssal plain, at around 5,000 m deep. Epibenthic fauna was collected with a beam trawl (10 mm mesh size) Multivariate analyses show the existence of 4 benthic assemblages. The shallowest one (750-780 m) is characterised by ophiuroids of the family Ophiacanthidae *(Ophiacantha* sp. and *Ophiomyces grandis),* the solitary corals *Deltocyathus moseleyi* and *Flabellum chuni,* and the bivalve *Limopsis minuta.* The second assemblage (780-1000 m) is characterised by the presence of cold-water coral communities dominated by *Lophelia pertusa* and *Madrepora oculata,* and an associated fauna of solitary corals *(Desmophyllum dianthus),* small crustaceans *(Uroptychus* spp., *Munidopsis* spp.), and antipatharians. These two assemblages are located on the flat sedimentary area of the bank summit, with low organic matter content and sandy sediments. The third assemblage, located on the bank break (1,000-1,100 m), in carbonate seafloor areas with scarce sedimentary coverage, is typified by benthopelagic shrimps *(Systellaspis debilis, Sergia robusta, Aristaeopsis edwardsianus),* the sponge *Thenea muricata* and the urchin *Cidaris cidaris.* Finally, the deepest assemblage dwells in muddy sediments of the flanks of the bank (1,500-1,800 m). The epibenthic fauna of this assemblage is dominated by the elasipodid holothurid *Benthogone rosea,* the giant sea spider *Colossendeis colossea* and the crab *Neolithodes grimaldii.* The three top of the bank assemblages are associated to the Mediterranean outflow waters (MOW), whereas the flank assemblage is affected by the Labrador Sea Water (LSW).