

Accepted Manuscript

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PII: S1385-1101(16)30297-0
DOI: doi: [10.1016/j.seares.2017.03.004](https://doi.org/10.1016/j.seares.2017.03.004)
Reference: SEARES 1521

To appear in: *Journal of Sea Research*

Received date: 4 November 2016
Revised date: 1 March 2017
Accepted date: 10 March 2017

Please cite this article as: A. Serrano, J.E. Cartes, V. Papiol, A. Punzón, A. García-Alegre, J.C. Arronte, P. Ríos, A. Lourido, I. Frutos, M. Blanco, Epibenthic communities of sedimentary habitats in a NE Atlantic deep seamount (Galicia Bank). The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. Seares(2017), doi: [10.1016/j.seares.2017.03.004](https://doi.org/10.1016/j.seares.2017.03.004)

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Epibenthic communities of sedimentary habitats in a NE Atlantic deep seamount (Galicia Bank)

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ABSTRACT

Galicia Bank is a deep seamount included as Site of Community Importance (SCI) in the Spanish Natura 2000 Network proposal. In the present study, epibenthic assemblages of sedimentary habitats have been described, together with the main environmental factor explaining species and communities distribution. Five epibenthic assemblages have been identified. Depth was the main factor explaining assemblage distribution, and the role of sediment type, water masses, and coral framework presence is also discussed. Three assemblages are located in the summit: the shallowest one (730-770 m, in the boundary between Eastern North Atlantic Central Water (ENACW) and Mediterranean Overflow Water (MOW) water masses is typified by ophiuroids and characterized by medium sands. The second assemblage (770-800 m) typified by the bivalve *Limopsis minuta* and the solitary coral *Flabellum chunii* correspond with medium sands and MOW core; and the third typified by the presence of cold-water coral communities dominated by *Lophelia pertusa* and *Madrepora oculata*, also on the MOW influence. In the border of the summit, in the bank break, an assemblage located in the range 1000-1200 m is dominated by the urchin *Cidaris cidaris* and the sponge *Thenea muricata*. In the flat flanks around the bank, the deepest assemblage (1400-1800 m) is dominated by the holothurian *Benthogone rosea*, in a depth range dominated by the Labrador water (LSW) and in fine sands with highest contents of organic matter.

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