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Orientation: Sustainable Use of Marine Resources  
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Research Area: 2.2. Assessment of the ecological state of ocean systems



**PhD project: Study and evaluation of the circalittoral and bathyal sedimentary habitats of the Cantabrian Sea and Galicia affected by trawling gear**

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**Summary:** Circalittoral and bathyal sedimentary habitats of the Cantabrian Sea and Galicia host an enormous biological diversity, despite the fact that their great ecological importance is threatened by different pressures of human origin, among trawling, due to its extension and intensity, stands out. Currently, there is growing concern about the impacts of this type of fishing on circalittoral and bathyal habitats, and especially about its impact on the most sensitive biological communities, such as sponge fields or pennatulacean aggregations, which have been described as vulnerable marine ecosystems, and currently being protected by different supranational organizations such as the FAO or OSPAR. In addition to these vulnerable marine ecosystems, the integrity of the seabed as a whole is currently protected to a certain extent by the European Union's Marine Strategy Framework Directive (Directive 2008/56/EC), which the main objective is to achieve a good environmental status of the marine environment through 11 descriptors, and the descriptor 6 being precisely the integrity of the seabed. This doctoral thesis aims to address the implementation of this descriptor in the study area, through the characterization, mapping and evaluation of circalittoral and bathyal sedimentary habitats and the biological communities that inhabit them, using a combination of latest generation models and the application of indices and indicators developed for this purpose.

