



Título: WEIGHT-OF-EVIDENCE APPROACH IN ENVIRONMENTAL QUALITY ASSESSMENT

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- > PROCESOS LITORALES Y SUBLITORALES

El fichero de tesis no ha sido incorporado al sistema.

Resumen: This Doctoral Thesis addresses an important issue of sediment contamination in aquatic ecosystems. Sediment is a home for benthic animals through which energy and material transfer in an ecosystem takes place. Sediment is affected by a multitude of processes of natural and anthropogenic origin, over centuries storing and accumulating contaminants immobilizing them in usually anoxic layers. However, if favorable conditions are created (dredging, acidification), the sediment can become a source of contaminants releasing them into the overlying water. That is why it is important to have robust tools for sediment quality assessment. The aim of this work was to investigate methods of assessing the quality of sediment disturbed by two anthropogenic processes ¿ dredging as a regular routine work carried out to maintain navigation routes and acidification, which may accidentally results from CO₂ gas injection activities either during operations or at later stages through cracks in geological storage sites.

Results indicated that the use of two lines of evidence (environmental chemistry and ecotoxicology) under an integrative, weight-of-evidence (WOE) approach is able to characterize the risk associated with dredged material for its management. Also the use of these two lines of evidence under a WOE has been shown as a powerful tool to risk characterization of sediment acidification associated with CO₂ leakages in aquatic environments.

