The KOS Interoperability in aquatic science field through mapping processes.

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The present work is part of a European Subject Gateway project in the aquatic sciences domain. Previous studies fulfilled in this research show that each aquatic science information system use different knowledge organization systems (KOS) to describe their subject content (thesaurus, subject headings, classification schemes, keyword lists and metadata) and to retrieve the information.

The main objective of this research is to solve the information integration in the aquatic sciences domain with a KOS system that integrates different thesauruses and taxonomies. It will focus in two methodologies. On one hand, develop mapping methods for aligning ontologies through automatic processes. In this stage the aquatic sciences thesaurus will be converted to data schemes, mainly SKOS-Core language with RDF or XML format, and will be mapped to find the equivalence relationships among languages, the thematic depth, accuracy and consistency.

On the other hand, main findings show us that aquatic science field it isn't enough represented in the controlled vocabularies. The main reason is because we are in front of multilingual and multidisciplinary collections (marine science, oceanography, limnology, ecology, environmental science, etc.). Consequently, the other methodology studied is build a new multilingual thesaurus on aquatic sciences, in which the establishment of cross-concordances among controlled vocabularies and terminologies will be the basic element to solve the heterogenic semantic problem.