EurOBIS, an online atlas for European marine species distribution data

Appeltans Ward, *Flanders Marine Institute, ward.appeltans@vliz.be, (Belgium)*
Costello Mark *J.*, *University of Auckland; Leigh Marine Laboratory, m.costello@auckland.ac.nz*
Vanhoorne Bart, *Flanders Marine Institute, bart.vanhoorne@vliz.be*
Hernandez Francisco, *Flanders Marine Institute, francher@vliz.be*
Mees Jan, *Flanders Marine Institute, jan.mees@vliz.be*
Vanden Berghe Edward, *Rutgers University; Institute of Marine and Coastal Sciences, evberghe@iobis.org*

The Ocean Biogeographic Information System (OBIS) is a distributed system that allows users to search multiple datasets simultaneously for biogeographic information on marine organisms. This distributed system integrates individual datasets on marine organisms into one large consolidated database. The European node of OBIS (EurOBIS) has been developed within the EU-FP6 Network of Excellence 'Marine Biodiversity and Ecosystem Functioning' (MarBEF). MarBEF is the largest network in Europe on marine biodiversity and integrates around 700 scientists from 92 institutes and 22 countries. Within the EurOBIS architecture, the European Register of Marine Species (ERMS) is the taxonomic backbone, the European Marine Gazetteer is the geographical reference list, and the Integrated Marine Information System (IMIS) is the inventory of relevant experts, datasets, publications and other relevant information. EurOBIS came online in June 2004. At the end of December 2007 there were over 3,500,000 distribution records for more than 15,000 validated species, coming from 49 different quality-controlled data collections. 40 % of the data providers choose to submit their data for storage on the dedicated EurOBIS servers at VLIZ, while 60 % of the data providers make use of the platform-independent DiGIR (Distributed Generic Information Retrieval) protocol. DiGIR can be installed on any computer that has PHP and a web server running. The DiGIR records are available in a standardised XML format and are transferred via HTTP. For performance reasons, we also store a local copy of all remotely-held data. Regular queries guarantee the data integrity of the system. An interactive layered map is available for comparing and visualising the biogeographic data on the web. The ultimate goal of EurOBIS is to provide the end-user with a fully searchable biogeographic database, focused on three main parameters of a distribution record: taxonomy, temporal and geographical cover. Future developments will focus on the use of EurOBIS as a platform for data quality control and the display of additional information such as distribution patterns, range extensions and possible threats posed by species (e.g. potential invasiveness). For further details see www.eurobis.org.