

The World Register of Marine Species – A decade of taxonomy and experience

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The World Register of Marine Species (WoRMS) celebrated its 10th anniversary in 2017. WoRMS is a unique database: there is no comparable global database for marine species. The World Register of Marine Species (WoRMS) provides an authoritative and comprehensive list of names of marine organisms, including information on synonymy. While highest priority goes to valid names, other names in use are included so that this register can serve as a guide to interpret taxonomic literature.

The content of WoRMS is controlled by taxonomic experts, not by database managers. WoRMS has an editorial management system where each taxonomic group is represented by an expert who has the authority over the content, and is responsible for controlling the quality of the information. Each of these main taxonomic editors can invite several specialists of smaller groups within their area of responsibility to join them.

Over the past ten years, the content of WoRMS has grown steadily, and the system currently contains more than 243,000 accepted marine species (1). WoRMS has not yet reached completeness: approximately 2,000 newly described species per year are added, and editors also enter the remaining missing older names, an effort amounting to approximately 20,000 taxon name additions per year. WoRMS is used extensively and is accepted as an international standard for marine taxonomic information.

An actively collaborating editor community and Data Management Team are indispensable in keeping a database like WoRMS alive, and mean that WoRMS is now regarded as the standard marine species taxonomic backbone for numerous other initiatives. It is imbedded in a lot of European and international initiatives such as e.g. LifeWatch, EMODnet, (Eur)OBIS, Catalogue of Life, Encyclopedia of Life and GBIF. WoRMS is also a key component of the LifeWatch Taxonomic Backbone, which aims to (virtually) bring together different component databases and data systems, all of them related to taxonomy, biogeography, ecology, genetics and literature. By doing so, the LW-TaxBB standardises species data and integrates biodiversity data from different repositories and operating facilities and is the driving force behind the species information services of the Belgian LifeWatch.be e-Lab and the Marine Virtual Research Environment (Marine-VRE) that are being developed.

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