



Israel Marine Bio-geographic Database (ISRAMAR-BIO)

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The knowledge of the space/time variations of species is the basis for any ecological investigations. While historical observations containing integral concentrations of biological parameters (chlorophyll, abundance, biomass...) are organized partly in ISRAMAR Cast Database, the taxon-specific data collected in Israel has not been sufficiently organized. This has been hindered by the lack of standards, variability of methods and complexity of biological data formalization. The ISRAMAR-BIO DB was developed to store various types of historical and future available information related to marine species observations and related metadata. Currently the DB allows to store biological data acquired by the following sampling devices such as: van veer grab, box corer, sampling bottles, nets (plankton, trawls and fish), quadrates, and cameras. The DB's logical unit is information regarding a specimen (taxa name, barcode, image), related attributes (abundance, size, age, contaminants...), habitat description, sampling device and method, time and space of sampling, responsible organization and scientist, source of information (cruise, project and publication). The following standardization of specimen and attributes naming were implemented:

Taxonomy according to World Register of Marine Species (WoRMS: <http://www.marinespecies.org>).

Habitat description according to Coastal and Marine Ecological Classification Standards (CMECS: <http://www.cmeccatalog.org>)

Parameter name; Unit; Device name; Developmental stage; Institution name; Country name; Marine region according to SeaDataNet Vocabularies (<http://www.seadatanet.org/Standards-Software/Common-Vocabularies>).

This system supports two types of data submission procedures, which support the above stated data structure. The first is a downloadable excel file with drop-down fields based on the ISRAMAR-BIO vocabularies. The file is filled and uploaded online by the data contributor. Alternatively, the same dataset can be assembled by filling online forms and then submitted to the DB. Online access to the ISRAMAR-BIO is available through taxon search page, where one can get both biological and geographical data regarding a certain taxon. Further development of the online data access is ongoing. It will include interactive geographical map interface where data may be queried, analyzed and downloaded.