
MANUELA: an RMP on meiobenthos. Plans and Progress

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Within MANUELA, scientists 14 institutes from 9 countries are working together on integrating knowledge and expertise on meiobenthos (all metazoans living in the sediment, passing a 1 mm-sieve and being retained on a 38µm-sieve). Within the RMP, three main objectives have been set: (1) To integrate the currently fragmented information on the dynamics and functional role of meiofaunal; (2) To improve understanding of how the activities of meiobenthic organisms, population dynamics and community assemblages are linked to ecosystem processes and (3) To facilitate meiobenthic research within the MARBEF community and stimulate the interest in meiobenthology.

During the kick-off meeting in Gent, organised in September 2006, we decided to dedicate the first months of the RMP on (1) collecting and integrating meiobenthic datasets and (2) setting up structures to facilitate meiobenthic research.

Data collection was performed in close cooperation with VLIZ. At the moment, 42 datasets were submitted, containing information on 1185 species. Some of these datasets were only available as paper version and were transformed to a digital version. The bulk of these species belong to the nematodes and harpacticoid copepods which are the dominant taxa within the meiobenthos. The geographical area covers the NE Atlantic, the Mediterranean Sea and Polar-Arctic Sea. Data originate from the intertidal until the deep sea. At the moment, the species list is being checked for synonyms, typing errors...and corrected. Scientific analysis of this database will be performed on a workshop at Ghent University in January 2007.

Quite some time and effort was spent in providing the scientific community with tools facilitating meiobenthic research. Nematode identification is not possible using classical dichotomous keys: original species descriptions are needed to correctly identify individuals. Since this taxonomical literature is often very old and quite voluminous, access to a complete inventory of species description is limited to only a few institutes worldwide. In order to overcome this problem, all taxonomical literature on nematodes was transformed to PDF and made available on-line (<http://intramar.ugent.be/nemys/start.asp?group=2&c=1>).

Next to opening the taxonomical literature world-wide, we constructed an easy to use on-line key to marine nematode genera. In some cases, keys to species levels were provided. These keys are polytomic and fully illustrated, providing the user with a relatively easy tool for identification of marine nematodes. Moreover, possible results are linked with the taxonomical literature, a feature offering the possibility to check the identification.

Future activities include an update of ERMS and EUROBIS for nematode species, based on the species list compiled in the MANUELA database. Integration of experimental expertise and planning of experimental work (Theme 2-related) will be done during a workshop in Poland (September 2006), while a workshop in Gent (January 2007) is planned in order to test several hypotheses concerning meiobenthic ecology. Later in 2007, a training workshop on meiobenthic techniques will be organised in Wilhemshaven.