

## **Maltese offshore benthic habitats and biota**

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### **Abstract**

Research work carried out by the Marine Ecology Research Group (MERG) at the Department of Biology, University of Malta, focuses on four areas: (1) inventories of selected groups of marine invertebrates; (2) studies of the ecology of particular habitats; (3) general biology of selected species of marine animals; (4) human impact on local ecosystems. Some past projects, which are relevant to the present expert consultation, are to be reviewed. These include: a pilot study on the evaluation, designation and management of a Marine Conservation Area on the NW coast of Malta, as part of the Coastal Area Management Programme for Malta (CAMP–Malta) financed by the UNEP Mediterranean Action Plan; research on seagrass ecosystems, particularly on the macrofauna associated with meadows of *Posidonia oceanica*; the BIOMAERL project funded by the European Commission of the European Union, in which the biodiversity, functional structure and conservation of a Maltese deep-water maerl ground was investigated; and the MAT project funded by UNESCO, in which the benthic assemblages of the lower infralittoral to upper circalittoral transition zone were studied by means of video transects.

Gaps and problems concerning knowledge of the benthic biotopes and biocoenoses of the Maltese Islands are identified. These include: poor knowledge of many groups of benthic organisms; lack of local taxonomic expertise and of taxonomic resources; limited benthic-habitat mapping, especially for deep water; limited human and material resources; and lack of research vessels.

It is proposed to carry out a more detailed investigation of the deeperwater benthic assemblages of the Maltese Islands than has hitherto been possible with the available equipment and techniques. This would extend scientific knowledge of the sea bed and its biotic assemblages and other resources to depths greater than 40 m, the limit of present capability using SCUBA. The expected outputs would be to: (1) map the bottom types present in deeper water; (2) discover the nature of the biotic assemblages they support; (3) assess their importance as fishery and other resources; (4) assess any impacts of human activities on these bottom types and their biota; and (5) make recommendations for their conservation.

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