



LIFE Nature project “Marine Protected Areas in the Eastern Baltic Sea”  
Reference number: LIFE 05 NAT/LV/000100

## **Executive summary: Action A2– Benthic habitat inventory** **Action leader P4, Estonian Marine Institute, University of Tartu**

Goal of action according to project proposal: to perform detailed inventarisation of Annex I habitat types of Habitat Directive in the three Baltic states at chosen pilot areas.

### **Activities implemented:**

- All activities in this action were directed towards the stated goal. Benthic habitat inventories were performed in all three countries. For this purpose the methodology was developed and tested based on the combination of traditional sampling and observation techniques as well as innovative methodologies as UW video systems. Series of workshops were conducted with purpose of development and harmonisation of underwater observation techniques, defining the target habitats, development of new approaches for classification of benthic habitats.
- Actual field inventories took place during the summer season of 2006 and 2007. During these activities total area of seabottom covered by inventories was in Estonian coastal waters 2387 km<sup>2</sup>, in Latvian coastal waters 1772 km<sup>2</sup> and in Lithuania waters 1849 km<sup>2</sup>. Direct observations were carried out in more than 3000 locations.
- Habitat classification system was developed to utilise the information collected during the field studies. New classification system was developed in consensus between project teams from all three countries and the project areas were classified according to this classification system so giving additional input information for development of management plans of already existing marine protection sites or enabling to develop such plans for new, planned areas.

### **Results achieved:**

- Sea bottom and distribution of benthic habitats and Habitat Directive Annex I habitat types was mapped for 2 project areas in Lithuanian territorial waters, 2 areas in Latvian territorial waters and 6 areas in Estonian coastal sea.
- Habitat classification system was developed for Eastern Baltic Sea area being fully comparable with EUNIS classification system.
- New geological features as underwater moraine ridges were discovered in Lithuanian coastal waters. Distribution of reefs and sandbanks were specified for all project areas.
- Detailed inventories showed that such underwater habitats as reefs and sandbanks are very rare and vulnerable in Eastern Baltic Sea area while their existence support high degree of biological diversity.
- Protection of habitat type „reefs“ is crucial as at present most of this habitat type is located outside of existing protected areas

### **Main lessons learned**

- New methodology developed during the project (combination of UW video with traditional investigation techniques) is suitable for large-scale benthic habitat inventories and gives great amount of useful scientific information.
- Experience in organising large-scale underwater inventories show that careful planning and especially weather factor is crucial in achieving the success.