

Abstract ID – 1509

Theme 1: Coastal habitats and ecosystem services

Invited speaker

The 2nd International Symposium on
Integrated Coastal Zone Management
Arendal, Norway
3 – 7 July 2011

Mapping and valuating of marine habitats – a basic knowledge for coastal management and surveillance

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Abstract

For many years, the planning and management of terrestrial areas has been supported by a detailed knowledge of the distribution of habitats and their associated species. However, the detailed mapping of biological resources in extent coastal areas, such as the Norwegian coastal zone, is unrealistic due to its enormous coastline. But, through the activities in “National program for mapping of marine habitats” a broad-scale overview of marine habitats and fish resources for about 50% of the Norwegian coast are established. The first generation of this method was developed in conjunction with a pioneer study conducted along the southern coast of the Skagerrak. The identification of the location of the habitat is based on combined knowledge gathered from local fishermen with scientific knowledge of important species and nature types. Valuations of these habitats are done by estimating the ecological value of different characteristics of the habitat and then summarize these values in an index. GIS modeling tools are used in both the mapping program and to integrate local and scientific knowledge into digital maps made available to local area management. As a tool for conservation of vulnerable species and/or habitats, establishing Marine Protected Areas (MPA) has been a very popular method the last years. To be able to choose an area with the habitats needed to achieve the necessary results, a map of the actual habitats with a valuation is a very useful tool. But, choosing the best area for a MPA, it is important to also reduce conflicts with both professional fishermen, recreational fishers and other users to a minimum. It is therefore necessary to have a very close contact with the local stakeholders throughout the process.