

Research Horizons in the Coastal Region

Hamburg, 13 – 15 February 2002

The symposium on "New research horizons in the coastal region" was a kick-off event to introduce the recently established „Institute of Coastal Research" at the GKSS Research Center in Geesthacht (Germany). The three day symposium in Hamburg from 13 – 15 February 2002 was organized in cooperation with 19 German research institutes and attended by about 150 scientists and managers.

Representatives from policy and administrations set the frame for this symposium by defining their expectations of a future coastal research strategy as part of an "Integrated Coastal Zone Management" (ICZM). Coastal research should support strategic environment assessments and focus more on practical results, e.g. with regard to biodiversity conservation strategies, water quality improvement and erosion-sedimentation aspects. It should serve as a service provider for stakeholders, managers and public media, as well as for commercial purposes, and should be based on a reliable data management structure.

The scientific lectures addressed estuarine and coastal developments starting with the development of the Wadden Sea 7000 years ago up to recent projects like the deepening of the Elbe estuary (incl. embankment of the Mühlenberger Loch) and wind energy plants off the coast. New strategies to understand the biochemical interactions between water and sediment in the Wadden Sea were presented. A more global perspective was given on how to organize coastal research

in the framework of the LOICZ program (Land-Ocean-Interaction in the Coastal-Zone). Another lecture focused on the comparison of the Wadden Sea with other muddy coast of the world and showed that the Wadden Sea may not be as unique as often said. Other contributions described the coast as a social and cultural construct and discussed the role of nature science as one of the protagonists in an integrated coastal management, as well as the different perceptions on the coast of inhabitants and visitors, and the ranking of nature in terms of economic values.

The symposium elucidated how diverse the competing perception of the coasts are: the coast as a resource, as a natural environment and a cultural landscape, a coast which is threatened but also threatening, the coast as a research object and as an area where people live and work. Efficient coastal research must bear in mind these different ideas and integrate them in its strategy. It was also obvious that socio-economic and cultural aspects are still insufficiently integrated into the present coastal research strategy which is still dominated by nature sciences although a lot has been achieved in the past 15 years on the way to interdisciplinary coastal research

The symposium showed that future coastal research has to address the increasing demands from policy and society in giving concrete advice and support to policy and management decisions, e.g. with regard to offshore development and fisheries management.

TMAP Blue Mussel Workshop

Ameland, 8 – 10 April 2002

In the framework of the Trilateral Monitoring and Assessment Program (TMAP), an expert workshop on monitoring of intertidal blue mussel beds was organized on the island of Ameland from 8 to 10 April 2002. It was attended by experts from the Institute for Fisheries Research (RIVO) and Alterra, Texel in the Netherlands; the National Park Administration Tönning and Fishery Department Kiel of Schleswig Holstein; the National Park Administration in Wilhelmshaven and the University of Oldenburg in Lower Saxony; and the Institute for Fisheries Research (DFU) of Denmark.

The meeting was a follow-up of the TMAP blue mussel workshop in Tönning in October 2000 (CWSS 2001).

The workshop illustrated that a lot of detailed knowledge has been gained during the last decade. The quality of monitoring data has been improved by using GPS techniques and aerial photographs together with GIS analyzing tools. However, because the ongoing monitoring programs have been designed for different national blue mussel management schemes (e.g. fisheries permission and setting of quota) there are differenc-

es in the monitoring strategies and sampling techniques which makes it difficult to compare the results directly. The main objective of the workshop was to discuss the possibilities to standardize the monitoring and whether the results from the existing monitoring programs can be compared and used for a trilateral assessment like a QSR.

The application of aerial photographs in combination with GPS measurements in all three countries allows for a comparable trilateral overview on the exact location, shape and size of all intertidal mussel beds. The workshop concluded that the data on biomass and coverage of beds were comparable for larger areas. There are still methodological difficulties to exactly define the borders and to make statistically firm statements on the biomass development of a mussel bed within a year or between years.

The workshop was not able to find a common classification for different types of mussel beds or to determine what "stable beds" or "stable sites" are. The discussion on this issue has to be continued in the framework of the trilateral evaluation the national blue mussel management schemes (Esbjerg Declaration 2002, §§ 9-10).

The workshop agreed on a number of follow-up activities to further optimize the blue mussel monitoring, i.a. to carry out a cross check of aerial photographs between the three countries, to test different spatial scales in mapping of mussel beds, to compile blue mussel GIS data for the TMAP data unit, and to explore the possibilities to also apply the Dutch habitat model (Brinkman et al.) to other parts of the Wadden Sea. The next workshop will focus on an optimized application of aerial photographs in blue mussel monitoring and will be carried out in Wilhelmshaven in spring 2003.

TMAP Salt Marsh Workshop

Mandø, 22 – 23 May 2002

After a first meeting in Haren (The Netherlands) in November 2000, trilateral salt marsh experts met for a second salt marsh workshop in the framework of the Trilateral Monitoring and Assessment Program (TMAP) on the Danish island of Mandø. The workshop was attended by experts from Alterra (Texel) and the Survey Department (RWS MD, Delft) from the Netherlands, the Lower Saxon Institute for Ecology (NLÖ Wilhelmshaven), the National Park Administration of Schleswig-Holstein (NPA Tönning), the Danish National Research Institute (DMU Kaløe) and the Danish Counties of Ribe and South-Jutland.

The main objective of the workshop was to develop common classification system for salt marsh vegetation on the basis of the existing national classification schemes which could be used for the TMAP. Comprehensive information about salt marsh development (vegetation, grazing, drainage) is available in the Netherlands and Germany from regular, complete surveys, based on aerial photographs and vegetation mapping, e.g. mapping of salt marshes in Schleswig-Holstein in 1988 and 1996 (ongoing survey 2000–2002), complete biotope mapping in Lower Saxony in 1991 and 1997 (next in 2003), and a number of detailed surveys in the Dutch Wadden Sea (about every 5–7 years). In Denmark, a national monitoring scheme for terrestrial habitats is under devel-

opment in the framework of the EU Habitat Directive. A recent inventory of salt marshes in Ribe County (location, size, grazing) was presented at the workshop ("Strandenge i Ribe Amt – Status 2000").

The workshop concluded that, for the time being, a common trilateral classification which has to be based on the available data sets is limited to the description of six salt marsh zones: pioneer zone, low marsh, mid/high marsh, dunes and beach ridges, reedbeds and grassland. Grazing and drainage activities have already been classified into three intensities (high, medium, low).

For the future, the workshop recommended to apply a more detailed classification based on 16 vegetation types. In the Netherlands and Schleswig-Holstein, the prerequisites for such a classification have already been fulfilled whereas in Lower Saxony and Denmark more detailed vegetation mapping would be necessary.

The workshop furthermore agreed on several follow-up activities (e.g. data delivery, remote sensing work, documentation of vegetation types, information exchange, preparation of trilateral GIS maps) and will meet again on Spiekeroog in April 2003 to start the work on a salt marsh status report as outlined in § 8 of the Esbjerg 2001 Declaration.