

BALANCE Newsletter

▲ No. 3 ▼ July 2007

Information from the BALANCE Secretariat to partners, sub-contractors and members of the Steering Group

Edited by Jesper H. Andersen (tha@dhi.dk) & Johnny Reker (jyr@sns.dk)

News from the BALANCE Secretariat

Winter and spring are long gone. Despite a few showers, there are lots of signs that we are likely to have a wonderful summer. The justification for these expectations is not only related to the weather. In fact, we are thrilled since we are of the opinion that a number of key BALANCE products are developing into what we think will be acknowledged as successes.

Firstly, WP2 is very close to publishing the first ever marine landscape maps covering the whole Baltic Sea as well as the Kattegat and parts of Skagerrak. Many BALANCE partners have contributed to this work and it seems it has been worth the efforts. You can read more about this work and see the draft map on page 2.

Secondly, we sense a first-class spirit among the BALANCE partners. In addition, we are aware that the fine atmosphere within BALANCE has led to several "sister" projects. This is good for everyone and should keep all of us motivated during coming 6 months.

Thirdly, BALANCE partners are working hard on a suite of other key products. Although these are still drafts, they seem to match the above outlined successes. Among these products are:

- A final WP1 report,
- a comprehensive WP2 report on habitat mapping,
- a very meticulous and interesting WP3 report on MPA representativity, and
- a promising WP4 report on zoning.

All these products and more will be presented at the BALANCE End Conference at the Danish National Museum on the 25th and 26th of October 2007 in Copenhagen. We hope to see you all at this conference.

Furthermore, the WP leads and the Secretariat have discussed and agree on a process that ultimately will result in a BALANCE Final Report which will summarise activities and results of BALANCE and is expected to be published in December 2007.

Keep up the good work!

Johnny & Jesper



In this issue

News from the BALANCE Secretariat	p. 1
The BALANCE Data Portal	p. 1
Developing the marine landscape concept	p. 2
BALANCE Interim Reports	p. 3
The BALANCE End Conference	p. 3
Getting the measure of biodiversity in the Baltic	p. 3
BALANCE in "The Parliament"	p. 4

The BALANCE Data Portal

The BALANCE Data Portal is now up and running!

The purpose of the BALANCE Data Portal is:

- 1) to create a portal through which the BALANCE habitat maps and the data layers involved in developing the habitat maps are made public available and,
- 2) to enable stakeholders to get an overview of data holders and data available for the various regions of the Baltic Sea and Kattegat.

The portal follows the technical requirements necessary to implement the EU INSPIRE Directive and is hosted by the Swedish Geological Survey.

Though some meta-data and several maps now are published at the web site more are needed to make a proper representation of what environmental data is truly available for the Baltic Sea and Kattegat. Therefore, both BALANCE partners as well as other data holders are invited to publish either metadata and/or any environmental maps available from regions of their responsibility.

In order to create a long-term overview of the myriad of activities and data holders in the Baltic Sea Region your help is needed. Please go to the BALANCE Data Portal (<http://maps.sgu.se/Portal/>) and register as a data publisher.

BALANCE WP2 has worked hard to produce the first generation of marine landscape maps for the Baltic Sea. The report on this issue will be published within a few weeks as BALANCE Interim report no. 10: “Towards marine landscapes in the Baltic Sea ecoregion” (Edited by Z. Al-Hamdani & J. Reker).

The marine landscape concept is a broad scale classification of the marine environment based on geophysical and hydrographical features. It is a cost-effective and suitable for describing offshore marine areas where biological data often are sparse. It was first developed by Roff & Taylor (2000)¹ for predicting species assemblages in Canadian territorial waters based on geophysical and oceanographic data only.

The concept is based on the assumption that geophysical and hydrographic features in the sea are correlated with the distribution of the marine habitats (biotopes). Thus, non-biological features can be used as surrogates in predicting the distribution of assemblages of marine organisms.

The BALANCE basic GIS layers for producing the BALANCE marine landscape maps include: (1) Seabed sediments, (2) bottom salinity, and (3) photic depth. These layers were the sub-divided into 5, 6 and 2 classes, respectively.

By combining the data set, a total of 60 Baltic Sea specific marine landscapes were produced.

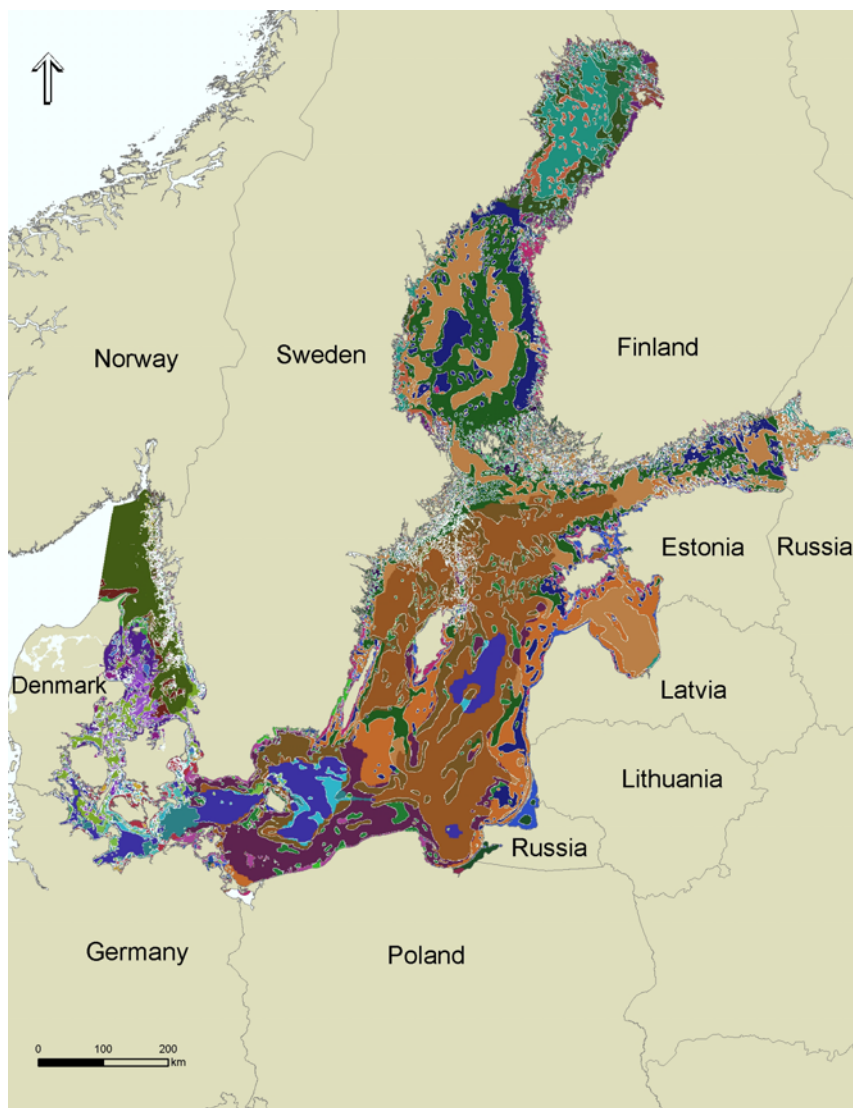


Fig. 1: First draft marine landscape map for the Baltic Sea. Source: Al-Hamdani & Reker, 2007.

Application of marine landscapes in BALANCE

- Identifying the complexity of the physical environment and thus the potential diversity of habitats at different localities within an eco-region.
- Assessing the representativity of marine protected areas (MPAs). A marine landscape map can therefore be an important tool for guiding environmental managers when aiming to develop an ecological coherent MPA network within an eco-region.
- If a confidence assessment is made for the map it can also provide information on areas where lack of knowledge is obvious, thus serving as a strategic tool for planning field surveys.
- The maps could also be used as an informative tool for assessing human activities and their potential impact on marine environment (e.g. pipeline, offshore wind farming).
- Marine landscape mapping could also assist the implementation of European Directives such as the EC Habitats Directive, the EU Water Framework Directive and the proposed EU Marine Strategy Directive and regional marine conventions such as HELCOM.

Please note that the BALANCE End Conference will include a special session on marine landscapes.

¹ Roff, J.C. & Taylor, M.E. (2000): National frameworks for marine conservation – a hierarchical geophysical approach. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 10: 209-223.

BALANCE Interim Reports

A wide range of other BALANCE activities has also delivered some high-quality products. Many of these products are now available as individual reports within the BALANCE Interim Reports Series. The reports cover many things from survey methodology, data management and harmonisation, marine landscape and habitat mapping/modelling, MPA analysis, blue corridors to stakeholder involvement.

The list of BALANCE Interim Reports now includes:

- Lindeberg et al. (2006): Delineation of BALANCE pilot areas. BALANCE Interim Report No. 1.
- Andersson & Liman (Eds.) (2006): Developments of a methodology for selection and assessment of a representative MPA network in the Baltic Sea. BALANCE Interim Report No. 2.
- Vahtmäe et al. (2006): Feasibility of hyperspectral remote sensing for mapping benthic macroalgal cover in turbid coastal waters of the Baltic Sea. BALANCE Interim Report No. 3.
- Martin et al. (2006): Literature review of the "Blue Corridors" concept and its applicability to the Baltic Sea. BALANCE Interim Report No. 4.
- Wennberg et al. (2006): Evaluation of remote sensing methods as a tool to characterize shallow marine habitats. BALANCE Interim Report No. 5.
- Kotilainen & Reijonen (2006): BALANCE Cruise Report: The Archipelago Sea. BALANCE Interim Report No. 6.
- Dahl et al. (2006): BALANCE Cruise Report - The Kattegat. BALANCE Interim Report No. 7.

Getting the measure of biodiversity in the Baltic

The countries surrounding the Baltic Sea have through HELCOM started a process that ultimately will lead to publication of an integrated thematic assessment of biodiversity in the Baltic Sea.

This HELCOM assessment (HELCOM BIO) will in particular focus on:

- 1) marine landscapes,
- 2) thriving and balanced communities, and
- 3) protected species.

A detailed working plan has been agreed and a Core Groups has been established. Project Manager is Dr. Ulla Li Zweifel, Kalmar University, Sweden.

BALANCE is assumed to provide information on marine landscapes and how to apply this concept in an assessment and management context.

Read more at <http://www.helcom.fi>.

- Feucht & Lamp (2006): BALANCE Stakeholder Communication Guide. BALANCE Interim Report No. 8.
- Bendtsen et al. (2007): Model simulations of blue corridors in the Baltic Sea. BALANCE Interim Report No. 9.
- Al-Hamdani & Reker (2007): Towards marine landscapes in the Baltic Sea ecoregion. BALANCE Interim Report No. 10. (Preview).
- Bergström et al. (2007): Fish habitat modelling in the Archipelago Sea. BALANCE Interim Report No. 11.
- Wennberg et al. (2007): Evaluation of remote sensing methods as a tool to characterize shallow marine habitats II. BALANCE Interim Report No. 12.
- Erlandsson & Lindeberg (2007): Harmonizing marine geological data with the EUNIS habitat classification. BALANCE Interim Report No. 13.
- Reijonen & Kotilainen (2007): Intercalibration of sediment data from the Archipelago Sea. BALANCE Interim Report No. 14.
- Jäänheimo (Ed.) (2007): Marine spatial planning in the Baltic Sea – an interim report. BALANCE Interim Report No. 15.
- Haldin (2007): The stakeholder - nature conservation's best friend or its worst enemy? BALANCE Interim Report No. 16.

More BALANCE Interim Reports are currently being edited. When finalized and approved, these reports will also be available at <http://www.balance-eu.org>.

BALANCE End Conference

The BALANCE End Conference will be held at the National Museum on the 25th and 26th of October 2007 in Copenhagen, Denmark.

At the conference the various BALANCE activities and products will be presented based upon these sessions:

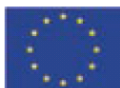
- Setting the scene (~ Introduction)
- Towards better marine spatial planning
- Marine landscape maps
- Marine habitat maps
- MPAs and the Blue Corridors concept
- Zoning and management
- Lessons learnt by BALANCE

The conference fee will be free for the 150 participants who register before the 1st of September 2007 of which 75 is reserved for the BALANCE partnership. For the next 50 participants the conference fee will be 100 EUR.

Please register via balance@sns.dk.

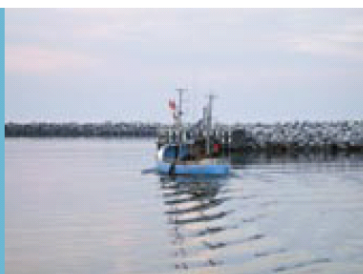
The presentation of BALANCE below appears in the June 2007 issue of The Parliament, which is the official magazine of the EU Commission and the EU Parliament. Reprinted by courtesy of The Parliament (www.eupolitix.com).

This is just an example of the outreach of the BALANCE dissemination activities, which also include BALANCE Interim Reports, peer-reviewed scientific papers and stakeholder interviews. The BALANCE partnership is reminded to publish all their dissemination activities at the BALANCE web page in order for official acknowledgement.



DISSEMINATION

BALANCE – a cross-sectoral and transnational approach to marine spatial planning



Hidden beneath the waves of the Baltic Sea are a unique and largely undiscovered world of marine landscapes and habitats ranging from extensive sea grass meadows in shallow coastal lagoons to offshore basins with schools of spawning Cod. Visible at the surface are a myriad of signs of the thriving coastal communities whether they be large cruise ships, offshore wind farms, fisheries or small leisure boats, divers and anglers. Together with land-based sources of pollution these anthropogenic activities are placing a still increasing pressure on the vulnerable habitats and natural resources of the Baltic Sea. Conflicting sectoral priorities and insufficient integration of spatial planning and management is a key obstacle for resolving this current state of affairs.

An ecosystem-based approach to marine management based on spatial planning and transnational co-ordination would be a strong tool to meet this challenge. Marine spatial planning, which combine data on the distribution of natural, economic and social values with information on user practices and stakeholders dependence on natural resources, would be a powerful tool for informed decision-making. This can be discussed, but not denied. Implementing spatial planning will contribute to sustainable development within the Baltic Sea Region whether it is on land or at sea.

Today, a set of technical constrains hinders the use of an ecosystem-based approach to the management of the Baltic Sea. These include the inaccessibility to data, tedious data exchange, inconsistent data formats, lack of ecological maps (the "aerial photographs of the sea") and inadequately co-ordinated efforts between stakeholders. The aim of the BALANCE project is to provide the Baltic Sea Region with marine spatial planning tools to overcome these constrains by building upon transnational and cross-sectoral co-operation and understanding.

The tools developed include guidance to standardised data, ecological relevant marine landscape maps covering the entire Baltic Sea, and analysis of the coherence of the Baltic Sea network of marine protected areas. A priority has been to illustrate the cross-sectoral value of applying ecological relevant maps, while maintaining a balance between the commercial use of the sea and the need to protect our natural heritage. These tools are combined into a management template for implementing cross-sectoral spatial planning for the marine environment. The template clarifies synergies and, where possible, promote convergence between EU legislation such as the Habitats Directive, the Water Framework Directive and the proposed Marine Strategy Directive and provide guidance to the development of a Baltic Sea Action Plan.

The BALANCE legacy will be to pave the way towards an informed, ecosystem-based approach to management of the Baltic Sea through marine spatial planning based upon cross-sectoral co-operation and existing EU policies. BALANCE thus provides a transnational solution to a transnational challenge.

Key messages:

Sustainable development based on an ecosystem-based approach to management requires:

- Cross-sectoral marine spatial planning
- Transnational co-operation
- Public data access
- Standardised data collection and presentation
- One characterisation of the marine ecosystem, not a *one nation – one approach*
- Stakeholder involvement

Facts:

- Aim: Development of a transnational and cross-sectoral approach to marine spatial planning for the Baltic Sea
- Lead partner: The Danish Forest and Nature Agency
- Partnership: 26 partners consisting of universities, NGOs, national and regional authorities from 9 Baltic countries and Norway
- Project Period: 1st July 2005 – 31st December 2007
- Budget: €4.7 mio. co-financed by the EU BSR INTERREG III B Neighbourhood Programme
- End Conference: 25–26th October 2007 in Copenhagen, Denmark
- More information: www.balance-eu.org

Contact:

Johnny Reker
The Danish Forest and Nature Agency
Haraldsgade 53
2100 Copenhagen Ø
Denmark
Tel: (+45) 72542915
E-mail: jyr@sns.dk

ADVERTISEMENT