

# COASTAL & MARINE



Pedro Veiga©

**Coastal & Marine  
Management in the EU  
*Projects and Activities***

# Editorial

## Tackling coastal and marine challenges through partnerships

Dear reader,

This special issue of "Coastal & Marine" presents some of EUCC's most important projects and activities. This publication serves as an annual report 2011 and provides an outlook towards 2012. The Coastal & Marine Union - EUCC has worked hard to engage in partnerships to become more effective in tackling the many coastal and marine challenges in Europe.

At a European level, a legal basis was created for the cooperation with ECNC - European Centre for Nature Conservation (Tilburg, NL) and the Centro Mediterraneo EUCC (Barcelona), through the establishment of the "ECNC Land & Sea Group". This is a European Economic Interest Grouping (EEIG), a legal status that has been created by the European Economic Community - now EU - to facilitate cooperation (between legal entities established in different member states) in working throughout the community.

Together with our experts of the EUCC Marine Team and the Venice Platform, EUCC is continuing to support the European Commission in the joint implementation process of the Marine Strategy Framework Directive (MSFD). We are especially focusing on the need to reduce marine litter and underwater noise.

EUCC has always preferred finding integrated solutions rather than fighting against sectoral threats. We strongly believe that much can be achieved by following the principles of ICZM, also in the marine domain.

At a national level, EUCC's national branches are still very active, often also in partnership with like-minded organisations. These efforts are also reported in this publication, this year with a special focus on EUCC-Germany and the Baltic Sea.

This brief publication doesn't allow us to report on all our work. More extensive and up-to-date information can be found in our website and in our newsletters, please check out in: [www.eucc.net](http://www.eucc.net).



Johan Vande Lanotte,  
President



Albert Salman,  
Director General

## Coastal & Marine Union (EUCC)

The Coastal & Marine Union is dedicated to conserving and maintaining healthy seas and attractive coasts for both people and nature. EUCC advocates best practice by developing coastal and marine policies, mobilising experts and stakeholders, providing advice and information, and implementing demonstration projects.

### Membership dues for 2012

€ 24 for Friends of the Coast;  
€ 48 (€ 80 / 3 years) for Student and Private Members;  
€ 65 (€ 120 / 3 years) for Professional Members and Non-profit NGOs;  
€ 300 (€ 500 / 3 years) for Full Member Organisations;  
€ 1000 for Communication Partners;  
€ 2000 for Programme Partners.

All EUCC members are entitled to a free subscription to 'Coastal&MarineE-News' and our e-letters in Dutch, French, German and Spanish.  
For info: [www.eucc.net](http://www.eucc.net).

### EUCC Coastal & Marine Magazine

Coastal & Marine is free for EUCC members (except Friends of the Coast). Conferences and meetings are listed on [www.coastalguide.org/meetings](http://www.coastalguide.org/meetings)

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## Colophon

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# PROMOTING SUSTAINABLE COASTS

## Measuring Sustainable Development

Humankind is attempting to move towards a sustainable future. To determine whether this is being done successfully, an Indicator Set is needed that will measure the Progress towards a sustainable future. Unfortunately, sustainability is more of a generalised concept than a fundamental truth. It does not have defined parameters that can be scientifically determined. Neither is it constant but continuously changing. Indicators that are applied to determine sustainability today rarely take this into account and, paradoxically, use data that has been precisely measured. Many of the indicators are very specific and many measure parameters which are beyond the sphere of influence of regional/local authorities.

Twelve partners are working together, including eight regional and local authorities under the coordination of EUCC, on this 3-year project called SUSTAIN funded by the ERDF through the INTERREG IVC programme ([www.sustain-eu.net](http://www.sustain-eu.net)). At the end of the project, it is the intention to have a fully implementable policy tool applicable to all coastal EU Member States that will finally allow sustainability to be measured in a meaningful way. This will be done through the application of an agreed indicator set to measure sustainability in the four generally accepted pillars of Economics, Environmental Quality, Governance and Social well-being.

The challenge is great. The partners are breaking new ground but they know that if the effort is not made, success will never be achieved. "Our working motto is that if you always continue to do what you have always done in the past, you will always finish up with what you already have; nothing will change. To do something new is a great risk but to do nothing, is failure. We have embarked upon a journey, we don't know what the end-point will be but we are confident of success" said Patrick McCluskey (Down District Council).

*By Alan Pickaver, EUCC International*

## CoastLearn is being updated and adapted to the Black Sea context

The ICZM distance training tool "CoastLearn", developed since 2001 through a series of international projects led by EUCC, will receive a major boost in the coming two years. The Turkish Leonardo da Vinci Agency has recently approved the project "CoastLearn – Black Sea (CLBS)" led by the Turkish Province of Sinop. This "transfer of innovation" project counts on the participation of the EUCC Mediterranean Centre which will be responsible for updating the existing English version at [www.coastlearn.org](http://www.coastlearn.org) and guide international communication. Five selected CoastLearn modules (Principles of ICZM, Policy Analysis, Public Participation, Biodiversity Conservation and Sustainable Tourism) will be updated in order to reflect latest policy developments and practices.

New methodologies such as the Systems Approach Framework (SAF) developed and tested through the EU FP6 project SPICOSA will be introduced, as well as tools to enable cooperation towards sustainability, like as the QualityCoast programme. The project will further adapt these CoastLearn modules to the training systems, culture, needs and requirements of the Black Sea as well as to their environmental, socio-economic and political context, and become accessible at [www.coastlearnblacksea.org](http://www.coastlearnblacksea.org) in Turkish, Romanian and Bulgarian. The initiative counts on the participation of the EUCC Black Sea Coastal Centre in Romania and the Union of Bulgarian Black Sea Local Authorities. CLBS will be tested in local workshops in the partner countries. The project will go on until December 2012.

*By Carolina Perez, EUCC - Mediterranean Centre*





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### Collaboration of science & management in coastal adaptation

During 4 years, scientists and practitioners involved in coastal management from Ireland, the UK, France, Belgium and Netherlands have worked closely together to develop local adaptation strategies in respect to climate change. This has been done under the auspices of IMCORE (Innovative Management for Europe's Changing Coastal Resource), an Interreg IVB project, which will be concluded by the end of 2011.

The 9 Expert Couplets have developed and tested innovative approaches, methods and tools, to demonstrate how they can be effective and useful to coastal managers and decision makers who need to visualise the future and plan how to respond to the changes happening on their coasts. These approaches and tools are now being made available to others, through an online guidance system ([www.coastaladaptation.eu](http://www.coastaladaptation.eu)).

A fundamental issue in coastal management is the capacity to fruitfully integrate science in the decision making process. Though it is widely accepted that these two fields need to be integrated, there are often seemingly incompatible differences between them. In IMCORE, EUCC has been looking at the collaborative relationship within each couplet and identified key aspects that reflect the effectiveness of such collaboration. For example, it is important that the collaboration is built on a shared vision and goals are clearly defined but also that knowledge is seen as a process that feeds on the expertise and views of both parts. These indicators and guidelines are part of the resources that managers and scientists can use to develop local adaptation strategies or simply improve their working relationship.

*By Joana M. Veiga, EUCC International*

### ICZM training in the Med

Mediterranean coastal areas have usually a low resource base and at the same time are under severe anthropogenic pressure: over-exploitation and inefficient management, especially in tourist areas, coupled with the impacts of climate change are the characteristics. There is a gap in information, training and capacity building on how to manage these issues at the local level. Local Authorities and NGOs are usually not well informed, not trained and thus not able to take action and decisions that promote sustainable development or compile the impacts of climate change with the principles of Integrated Coastal Zone Management. The EU ICZM Recommendation suggests to the Member States to determine how appropriate national training and education programmes can support implementation of integrated management principles in the coastal zone.

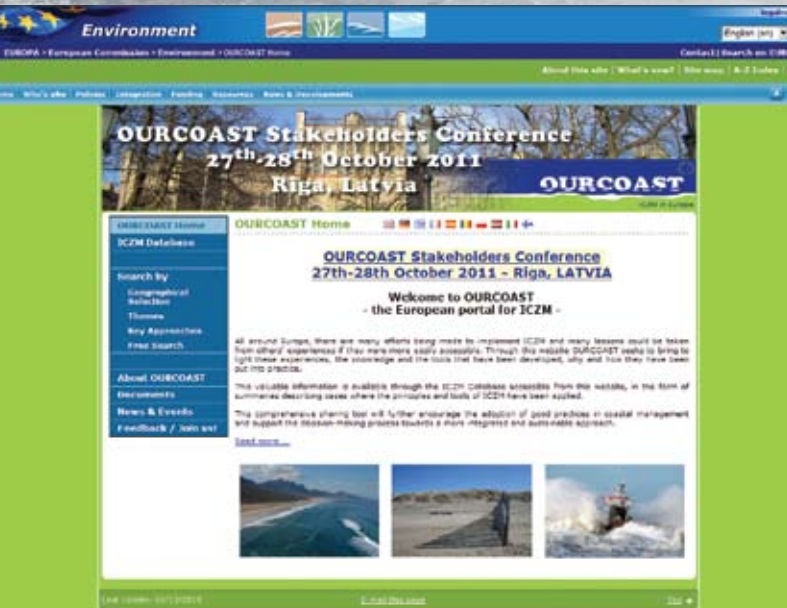
"LitusGo, funded by the Leonardo programme, aims at filling this training gap through the development of a well-structured, innovative, interactive, work-linked vocational training programme, directly focused on Mediterranean Local Authorities and NGOs and through them to practitioners, tuned to accommodate Mediterranean particularities and needs especially in touristic coastal areas" said Project Manager, Ms Xenia Loizidou. "The methodology is problem-solving oriented including the development of two training Manuals, implementation of interactive IC tools, on-the-job trainings, dedicated workshops, test-training sessions and field visits" she added. The results will be translated in English, Greek, Maltese and Turkish. [www.litusgo.eu](http://www.litusgo.eu)

*By Alan Pickaver, EUCC International*





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## Enhancing the sharing of best practices for Europe's coastal management – the OURCOAST initiative

Europe's coastal areas are of fundamental importance to the EU due to their high socio-economic, environmental and cultural value. At the same time these areas are in danger caused by climate change and anthropological pressures. Coastal authorities are faced with the complex task of balancing development and managing coastal risks.

The OURCOAST Integrated Coastal Zone Management (ICZM) database with 350 cases of coastal management best practices is available online in a single multilingual portal. This database presents coastal experiences and practices in a wide range of topics, themes, key approaches and ICZM tools. Coastal authorities, managers, decision-makers and other stakeholders will be able to have access to, and learn from, experiences and practices on issues such as:- adaptation to risks regarding climate change, natural and human-made hazards, sustainable use of resources, sustainable economic growth regarding sustainable development of the seas as well as improving competitiveness.

Coastal authorities and interested stakeholders can easily find a variety of experiences and learn from their successes so that better informed decisions can be taken in their own territory. OURCOAST is a three-year initiative commissioned by the Directorate General (DG) Environment of the European Commission to support and ensure the exchange of experiences and best practices in coastal planning and management.

EUCC is actively involved in this initiative and has been responsible both for the collection of 350 ICZM case studies throughout Europe, as well as for the coordination of the dissemination and communication activities of the project. The most relevant activity under our responsibility was the organization of a major stakeholder conference to celebrate the conclusion of OURCOAST "Integrated Coastal Zone Management in Europe: the way forward" that took place on 27th-28th October 2011 Riga, Latvia. This was an ideal opportunity to reflect, at high level, on cross-sectoral themes and policies affecting the seas and coasts.

All information about the OURCOAST conference can be found at: [www.ourcoastconferenceriga.eu/](http://www.ourcoastconferenceriga.eu/)

Visit the OURCOAST ICZM Portal – <http://ec.europa.eu/ourcoast/> - explore, share, provide feedback and become part of the OURCOAST community!

By Maria Ferreira, EUCC International



### Book “Climate of Coastal Cooperation”

The CCC Book is written for professionals and policymakers who are or will be responsible for applied research, spatial planning, management and sustainable development of coastal resources around the world. It illustrates the results of many coastal programmes executed in the valuable but vulnerable low-lying coastal zones of Europe and Asia.

This book and the more extended, freely downloadable CCC Internet edition ([www.coastalcooperation.eu](http://www.coastalcooperation.eu)) has been produced by 101 authors. The CCC production has three unique features:

- It provides conclusive evidence of the feasibility, effectiveness and benefits of coastal cooperation planned in an integrated fashion. It gives a unique overview of diverse activities and concepts and examples of innovative, adaptive and applied coastal measures;
- It provides several Coastal Management Tools facilitating integrated spatial planning. Demo versions are downloadable, and their developers can easily be contacted;
- Four valuable Training Manuals and the list of all CCC Authors are provided on the CCC website facilitating communication. Sharing experiences in integrated coastal cooperation will contribute to sound long-term development of coastal resources and to finding resilient, adaptive responses to the impacts of climate change.

Misdorp, Robbert (editor), 2011: *Climate of Coastal Cooperation*; 208 pages; Publisher: Coastal & Marine Union - EUCC (Leiden, the Netherlands), [www.eucc.net](http://www.eucc.net), ISBN number: 978-90-75502-09-1



### MARINE LITTER: a common synthetic species in our oceans?

The issue of Marine Litter – human-made material that is found in the marine environment, from which plastic is the most abundant and persistent fraction – is a complex and multi-sectorial problem that reflects the way we use and dispose items, disposables and packaging. These can be deliberately discarded or accidentally lost in the sea or be carried from land by rivers, effluents or wind. It is estimated that 80% of marine litter comes from land sources.

Many of us are aware of the impacts marine litter may pose in the ocean, recalling a charismatic picture of a sea-bird entangled in a lost fishing-net or a turtle mistakenly chewing on a plastic bag. But marine litter has also economic implications, including for example ones associated to impacts on shipping, fishing and other maritime activities or the loss of aesthetic value in coastal areas, with subsequent high costs of beach clean-ups during bathing season. Virtually non-biodegradable in oceanic conditions, plastic can remain in the sea for undetermined periods of time, where it will simply fragment into gradually smaller pieces. Research is providing evidence that is raising further concern on the issue: chemical additives incorporated during manufacture may be leaching-out from plastic; plastic tends to accumulate hydrophobic pollutants dissolved in the seawater; and fragmented microplastics may be entering the marine food-web.

EUCC has been dealing with this issue as part of its extensive work in ICZM and is currently one of the developing areas of focus and expertise of the international branch, from public awareness activities, to EU-policy support (see MSFD text on page 9) and collaboration projects with other organisations and stakeholders. Starting in 2012, EUCC will work with a consortium of 20 partners Europe and sectorial-wide, in the 3 years project *MARLISCO* - Marine Litter in Europe's Seas – Social Awareness and Co-responsibility. This project will address both the problems and the potential solutions related to marine litter in the four European Sea and one of its main objectives is to facilitate social engagement in order to inspire changes in attitudes and behaviour, while providing a series of mechanisms for bringing together key stakeholders in several EU coastal countries. The project foresees activities in 15 EU countries that include national facilitated debates, a European video contest for school students and other educative initiatives.

By Joana Mira Veiga, EUCC International

# TOWARDS HEALTHY SEAS

## Towards an Integrated Marine and Maritime Science Community (MARCOM+)

One of the more strategic projects currently being implemented is the MARCOM+ project on research governance. In 2008, the EU Commission recognised that there is a need for an all-embracing maritime policy aimed at developing a thriving maritime economy, in an environmentally sustainable manner. Such a policy should be supported by excellence in marine scientific research, technology and innovation. Consequently, the large number of ongoing research activities needs coordination and cross-sectoral integration in order to address system complexity and interactions, and to introduce new forms of governance in research through consensus and continuous dialogue.

The European research networks dealing with the marine and maritime research sectors transport and maritime industries, tourism, coastal development, security, living resources, fisheries and aquaculture, decided to join forces and form a consortium in order to take further steps in integrating their science activities. Such a consortium comprises the key representative marine and maritime research stakeholders in the European Union and is developing a long-term and self-sustaining European Marine and Maritime Science and Technology Forum. They are working to test and improve modalities in order to achieve long-term sustainability, based on shared interests and shared leadership. The Forum will continue its core activity of guiding the implementation of the European Strategy for Marine and Maritime Research beyond the support action and will serve the two-way feedback needs of dialogue between marine science and maritime policy. The Coastal & Marine Union's tasks in this very strategic project include: reviewing regional research governance frameworks and partnerships; and assessing important mechanisms and tools for research governance. The assessments include all of Europe's regional sea basins.

*By Mike Mannaart, EUCC International*

## KnowSeas: Ecosystem-approach to the management of our seas

The ocean is no longer seen as such a wide and robust system that will resist all human pressures. On the contrary, the sea brings back to us the repercussions of decades of over-exploitation, pollution and poor management. Only recently, the economic impacts on activities that depend on healthy seas have started to be estimated, with convincing conclusions.

Some of the sectors negatively influenced are not directly related to the source of impacts - e.g., there may be high costs for beach-tourism due to litter that is discarded by maritime activities; or an important commercial fish stock may be threatened by the eutrophication caused by agricultural run-off. On the other hand, certain policies may not be tuned with the geographical or temporal scales of the issues they try to address and may therefore be destined to ineffectiveness from the onset.

However, considering an ecosystem-based (EB) management is as important as it is challenging to apply such a complex approach in decision-making! The main objective of the FP7 project KnowSeas is precisely to develop tools and methodologies to assist the implementation of the MSFD and required EB approach. A complete team of social and natural scientists is working since 2009 to bring together ecological, economic and social data in a way that the costs & benefits of ecosystem services and the effectiveness of a certain approach become clear to policy-makers and managers. EUCC has been contributing to the identification of issues of concern in Europe's regional Seas and among different stakeholders and how these issues are translated into policy.

More information can be found in [www.knowseas.com](http://www.knowseas.com).

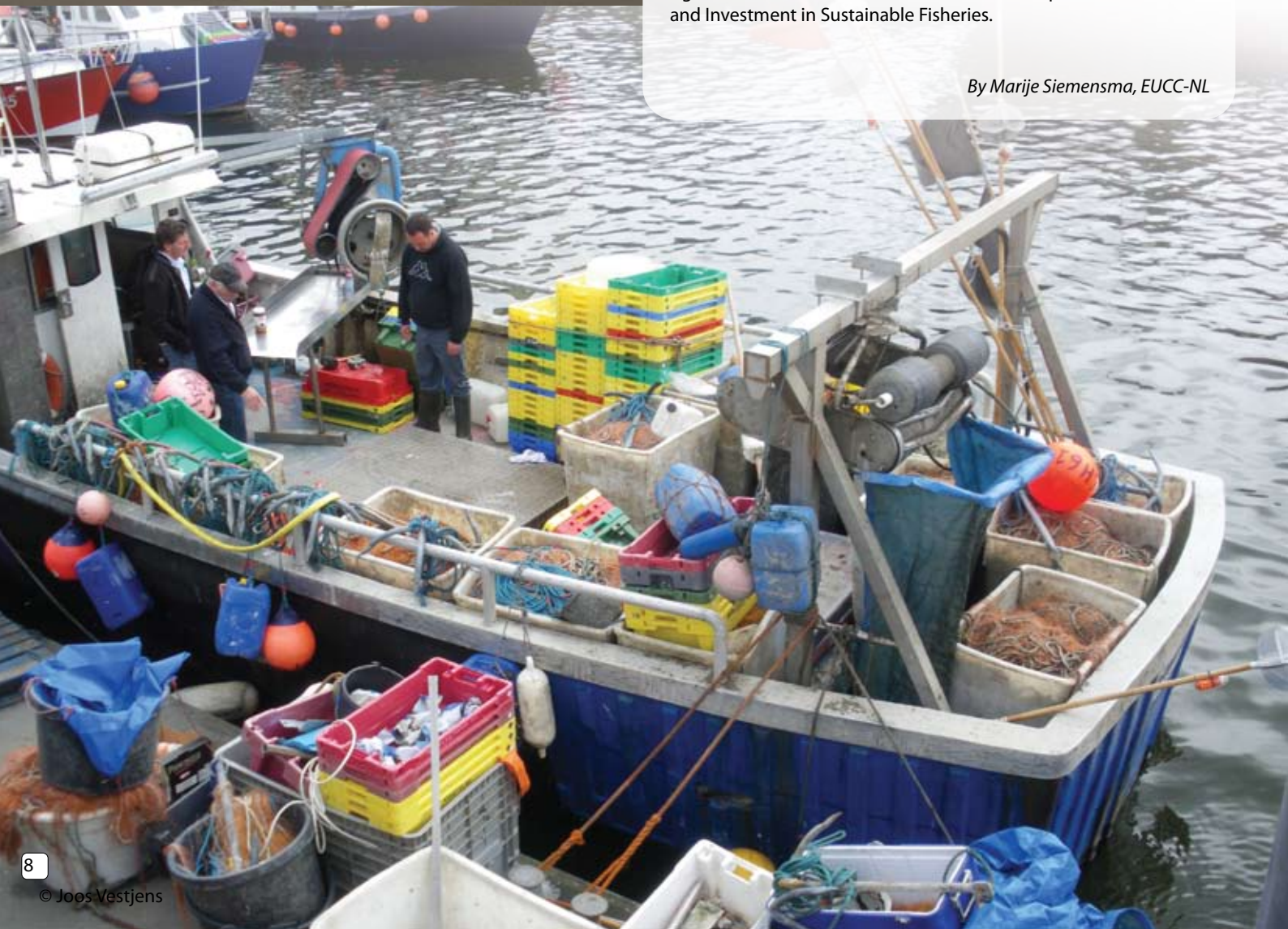
*By Joana M. Veiga, EUCC International*



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## Keeping Harbour Porpoises away from fishing nets

The Coastal & Marine Union (Eucc) is continuing its pilot study to investigate the workability and efficiency of a new acoustic device (pinger). As a previously tested pinger (Dolphin Saver) had some major faults in applicability and effectiveness, the project is now aiming to test a set of other devices (DDD and Fishtek BananaPinger).

This pilot study is part of a larger project aiming to mitigate bycatch of harbour porpoises in the winter set net fisheries, mainly cod, turbot and brill. The project monitors the bycatch and facilitates the landing of caught individuals from the smallest cetacean inhabiting Dutch coastal waters. In parallel, exchange of knowledge and experience with similar pinger trials is taking place, together with the exploration of innovative methods to reduce bycatch.

The project is a close collaboration between the Dutch Fisheries Association (Nederlandse Vissersbond), the expert group on set net fishery (Kenniskring Staandwant) and the Dutch winter season set net fishermen, which participate voluntarily. The Coastal & Marine Union (Eucc) is in charge of the coordination.

The fishermen, recognizing the risk of incidental bycatch, voluntarily cooperate by sharing their experience and expertise at sea. The first preliminary results show that fishermen are positive about the practical workability of the new BananaPinger. This year, the pingers will also be tested *in situ*, to investigate the effect of the acoustic output on harbour porpoises. In cooperation with the Research Institute IMARES, porpoise detectors are being installed on the fishing nets to measure the efficiency of the pingers. These data will be analysed at the end of 2011.

The study is funded by the Dutch Ministry of Economic Affairs, Agriculture and Innovation (EL&I) and the European Fisheries Fund and Investment in Sustainable Fisheries.

By Marije Siemensma, EUCC-NL



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### Economic environmental tools for the MSFD

The project “ECONAS - Economic assessment of policy measures for the implementation of the Marine Strategy Framework Directive (MSFD)”, is a study assigned by the European Commission (DG Environment). A consortium (Arcadis-Belgium, EUCC and Bath University) was selected to collect information on implemented or planned marine measures, with specific attention to economic measures, in order to support Member States in implementing the MSFD.

The project is aiming to identify a list of measures addressing issues that impact the marine environment, be it land-based, coastal or maritime. The geographical scope of the research is the European Union, including all its regional sea basins. Although the emphasis is on economic instruments, other measures are of interest as well. The overall objective will be to identify a set of measures at least to address the largest pressures and impact of the predominant uses on the different European marine environments. These measures are of utmost importance, since the MSFD defines that European Member States need to implement measures to protect the marine environment in order to reach a Good Environmental Status.

EUCC is investigating what knowledge key-stakeholders have on measures in the regional sea basins. One of the outcomes of the project will be a database with measures for the protection of the marine environment, which will be available to all EU Member States.

*By Mike Mannaart, EUCC International*

### Contributing to the initial steps of the MSFD Implementation

In 2008 the European Marine Strategy Framework Directive (MSFD - 2008/56/EC of the European Parliament and of the Council) was adopted. The MSFD is seen as the environmental pillar of the EU Maritime Policy. The overall objective of the MSFD is to promote the sustainable use of the seas and to preserve the marine ecosystems by providing the parameters within which the Member States must shape their policy for the marine environment. These need to define targets and implement national strategies to achieve Good Environmental Status (GES) of their marine environment in 2020.

In order to provide guidance on the criteria for GES, 11 Quality Descriptors have been identified (Annex I of MSFD) and Task Groups set up to describe their general definitions, indicators and monitoring methodology, which can be used and adapted by the Member States within the scope of their regions. Conclusions on these aspects are to be agreed within the Working Group on GES meetings, which have been taking place since 2009. EUCC has been following the process of discussions of the MSFD, including the definition of GES, through participation in this Working Group. In support of the ongoing efforts, EUCC has provided written input to the discussion on descriptors 4 (food web), 10 (marine litter) and 11 (energy and underwater noise) and reiterated its concern for: the impact of by-catch of top predators in fishing gear, derelict fishing gear (ghost gear) and the cumulative impacts of underwater noise.

Expert staff individuals from EUCC have also been appointed to integrate the Technical Subgroups under the GES working group of Marine Litter and Underwater Noise, a think-tank of experts formed to provide some guidance on standardised monitoring methodologies to Member States but also propose targets and objectives regarding GES in respect to these two issues. More information can be found in the EUCC Marine Team website: <http://marine-team.eucc-d.de/marine-strategy.html>.

*By Marije Siemensma (EUCC-NL, EUCC Marine Team)  
and Joana M. Veiga (EUCC International)*

# ENGAGING PEOPLE

## Sustainable Tourism: QualityCoast

**With the QualityCoast programme EUCC has established an international network of coastal communities promoting sustainable development, caring for their local identity, a clean environment, natural and cultural heritage, at the same time maintaining high standards in the quality of their tourism.**

More and more people are interested in these issues when selecting their holiday destination. But how to find these quality hotspots? This is exactly what QualityCoast aims for: it enables tourism destinations to have their efforts certified by an independent jury and communicated in a transparent way to a broad public. Whilst the Blue Flag specifically applies to individual beaches, and Travelife and Green Key to accommodations, QualityCoast is taking into account the whole territory of the destination: towns, small regions and islands.

Tourism destinations making progress in sustainability can apply for a QualityCoast Award. Performance throughout the destination's territory is evaluated by an independent jury.

Since 2007, 40 coastal communities from 15 European countries have received the QualityCoast Award. QualityCoast Destinations are monitored through 20 different criteria. More than 120 indicators are used to make these criteria operational. The 2011 Awards have been presented at the QualityCoast Ceremony and Workshop, 13 May 2011 in Kouklia, Cyprus.

In 2010, EUCC started to develop a database for 600 mainstream tourism destinations in Europe: the QualityCoast BasiQ database. We collected information on 30 indicators in the fields of nature, environment, local identity and cultural heritage. Most of this information comes from European databases, statistics and satellite imagery. The 10% best scoring destinations have been evaluated and nominated for a QualityCoast BasiQ Award. All awarded destinations are combined into:

- a QualityCoast 2011 Southern European Top 50
- a QualityCoast 2011 Netherlands Top 10.

These are the best mainstream destinations from the point of view of visitors interested in natural and cultural heritage, local identity and environment. A map of these destinations is available on [www.qualitycoast.info](http://www.qualitycoast.info).

Participation of local authorities in the QualityCoast programme improves their awareness, performance and achievements in an international context. The comparison with other QualityCoast communities provides the community with a good picture of its strengths and weaknesses. The international assessment and recommendations by the QualityCoast Jury provide the local authority with a guidance to be considered in an agenda for improvement.

The community's own international tourism marketing can profit from the status of QualityCoast Destination. Award winners can widely disseminate the international QualityCoast brochure and refer to the QualityCoast public website. Such sustainability based marketing efforts will increase the "green profile" of the destination, both externally and internally, and this will help mainstreaming sustainability on local policy and decision making.

International travel agencies and tour operators have shown interest in the QualityCoast programme. TUI-The Netherlands, a major tour operator, has decided to mention the QualityCoast Award Destinations in its travel brochures.



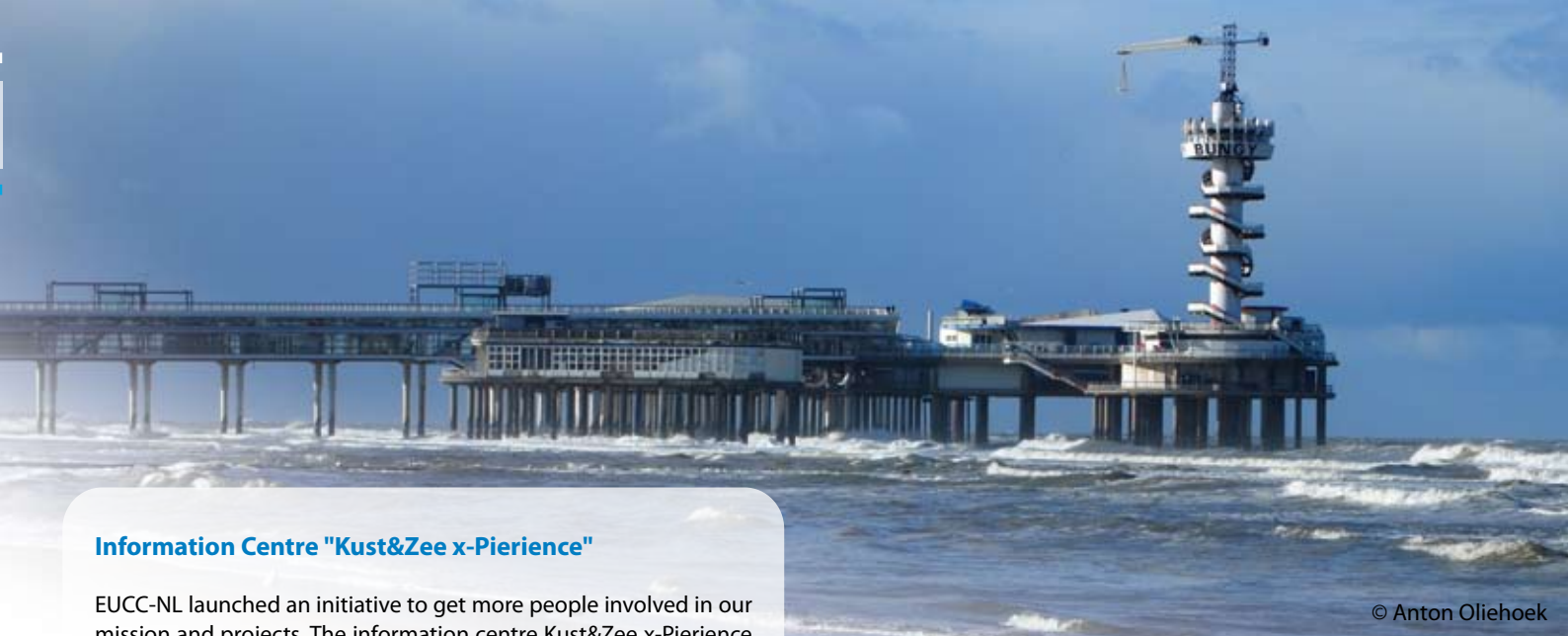
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## Information Centre "Kust&Zee x-Pierience"

EUCC-NL launched an initiative to get more people involved in our mission and projects. The information centre Kust&Zee x-Pierience was inaugurated in early 2011 and is situated on the touristic pier of Scheveningen, a coastal suburb of The Hague (NL). "It is great to see how surprised people are when they got to know more about the North Sea. For most of them it is an unknown area", says Lotte Kauffman, our coordinator.

The Centre has an interpretative character with a small exhibition, a North Sea aquarium, a meet-and-greet table and some office facilities. In the exhibition, the story of the harbor-porpoise 'Dolf' and his friends tell the young people about their underwater adventures: how they live, their needs to survive, challenges and threats. In this way it is easier to explain different, complex ecological and environmental problems to children and their parents.

The main subjects for these coming years are related to raising public awareness about the European Marine Strategy Framework (with themes such as marine pollution, litter, eutrophication, sustainable fishery and biodiversity) and the protection of ship wrecks as biological hot spots.

The Centre is funded by the Dutch Postcode Lottery and other Dutch and European projects.

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By Hanneke Mesters, EUCC-NL



## "ZeeWijzer": ten tips for a healthy ocean at our reach

Part of EUCC-NL's healthy oceans campaign is the 'ZeeWijzer'. This short film provides the Dutch public with tips to contribute to a healthy ocean in daily life choices; something you can do yourself! For example, one can look for a certification label when deciding to eat a good fish without contributing to the collapse of a species or damaging aquaculture practices; use less harmful alternatives to lead-plummet in recreational fishing; or who to call when faced with a beached whale. These are some tips to help the ocean stay healthy, worldwide! And when on holiday, why not choose a sustainable destination, a certified whale watching company and refuse to buy coral-based souvenirs. [www.kustenzee.nl/zeewijzer](http://www.kustenzee.nl/zeewijzer) (in Dutch)

The production of the short-film was sponsored by the Dutch Biodiversity Fund and Ministry of Environment.

By Joos Versfelt, EUCC-NL



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## EUCC's Cooperations Partners

### Dutch Dune Water Companies

The Dutch coastal dunes have been used to supply drinking water since 1853. During the last twenty years, the negative impacts of drinking water production have been mitigated by EUCC's Programme partners, the dune water companies: NV PWN - Drinking water company North Holland; Waternet – manager of the Amsterdam Water Supply Dunes; and Dunea - Dune and Water, South Holland. Nowadays the management strategy is based on principles of landscape ecology. [www.coastalguide.org/dune/](http://www.coastalguide.org/dune/)

In the **Amsterdam Water Supply Dunes** restoration projects are being implemented to restore the dune slack landscape. They have optimized the system of infiltration and recovery and as a result the groundwater level has risen. A channel for water abstraction has been filled with the same sand that once was dug out here.

[www.waternet.nl](http://www.waternet.nl)



**Dunea** has reduced the infiltration area and restored about 45 ha of wet dune slacks. Deep well drilling was introduced. River water is pumped into deeper soil layers and extracted at the same deep level. In this way the phreatic groundwater table is not disrupted.

[www.dunea.nl](http://www.dunea.nl)



**PWN** introduced a new water purification system in 1999 and combined this in 2005 with ultraviolet light. One of the restoration projects of PWN as counteraction for dense scrub vegetation is grazing by the European bison in the National Park South Kennemerland.

[www.pwn.nl](http://www.pwn.nl)

**PWN. Puur water en natuur.**



### Consorci Colls i Miralpeix



EUCC has since April 2010 a new Communication Partner, the Consorci Colls i Miralpeix in Catalunya, Spain. The Consortium was created in 2006 with the aim to sustainably manage the coastal, marine and land area of the county of Garraf, following the European Recommendation on ICZM. It comprises the municipalities of Sitges, Sant Pere de Ribes, Vilanova i Cubelles; Garraf Regional Council and two departments of the Government of Catalonia: Territory and Sustainability; and Agriculture, Food, Rural Action and Environment. It aims to enhance the protection and conservation of Garraf's coastal area, the mitigation and adaptation to climate change, the integration of environmental and biodiversity conservation with an economic and recreational use of the coast, and finally, institutional and citizen coordination. The consortium is meant to be a laboratory for governance experiences, with the involvement and coordination of different institutional, social and economic stakeholders.

The consortium is currently engaged on a number of challenging activities like the completion of the county green belt; the connection of the coastal zones of Colls, Platja Llargueta and the Foix river mouth with the nature parks of Garraf, Olerdola and Foix; the protection of the coastal and marine zone with emphasis on marine biodiversity through the development of the Marine Conditioning Area; mitigation of climate change, through the promotion of renewable energies, energy saving, sustainable mobility and the reduction of CO<sub>2</sub> emissions; recovery of the historical memory, through the study and conservation of sailors' traditions, fishing gear and nautical equipment. All these efforts should result in positive steps for the development of a responsible and sustainable tourism which makes use, promotes and values the natural and cultural heritage of this area. In this context, Sitges has been recognised as one of the "QualityCoast 2011 - Southern European Top 50" destinations.

Emphasis has also been given to education and awareness raising activities and research, paving the path to establishing a Coastal and Marine Observatory. These works and opportunities will be enhanced by collaborating with other institutions and entities. In this sense, the consortium has consolidated its cooperation with EUCC by becoming a communication partner which has placed the consortium at an international level.

# WORKING FOR BIODIVERSITY

## Reducing the gap between Natura 2000 and sectors with economic interests

The majority of Natura 2000 sites in Europe have now been identified, with over 26,000 sites, covering about 18% of Europe's land surface. With the network coming into full shape, a range of sectors with economic interests are gaining experience in the Netherlands and elsewhere in the EU on what Natura 2000 means and what are the implications and opportunities for them.

An important question to be asked in this respect is whether the perceived barriers can be quantified and supported by evidence and facts, and how different sectors deal with the observed barriers and restrictions. Does this approach differ between EU member states? What lessons can be learned from experiences across the EU? The project that seeks an answer to these questions is currently being run jointly by the European Centre for Nature Conservation (ECNC) and the Coastal & Marine Union (EUCC). It focuses on agriculture, tourism & recreation, and forestry. Within these sectors, it is trying to identify the main bottlenecks being faced with respect to Natura 2000 and is analysing best practices and solutions to deal with those bottlenecks in 5 EU Member States. Both consortium partners are doing literature reviews, interviews and analysis of the acquired information, resulting in a report with recommendations.

*By Mike Mannaart, EUCC International*

## MOSSELWAD: recovery of mussel beds in the Dutch Wadden Sea

Mussel beds play an important role in the ecosystem of the Dutch Wadden Sea. Unfortunately, the existing mussel-beds cover just a fraction of the area they used to occupy and it is believed that this is due mainly to over-exploitation.

The Dutch government is interested in working towards a sustainable recovery of mussel-beds in the Wadden Sea but in order to develop recovery plans, more knowledge is needed concerning the survival, growth and maintenance factors affecting mussel-beds. The project MOSSELWAD is focusing on understanding these factors, in both littoral and sub littoral beds. The initiative makes use of video poles to get a 24/7 image coverage of wave patterns, storm influences, and bird predation. Alongside other information will be collected and interpreted, e.g. biodiversity, sediment transport and attachment strength. With this knowledge MOSSELWAD aims to build and monitor experimental mussel-beds.

As a first research result, the sub littoral beds show a high predation rate by starfish. The first littoral research site has been chosen just off the shore of the island of Texel. In 2014, all the results and recommendations will be available for the managers in the "Handbook for sustainable development of mussel-beds".

This multidisciplinary research is a cooperation between the Coastal & Marine Union (EUCC), Wageningen IMARES, Utrecht University, Royal Netherlands Institute for Sea Research (NIOZ, Texel), SOVON Dutch Centre for Field Ornithology and The Netherlands Institute for Ecological Research (NIOO-CEME, Yerseke). The project is funded by the Dutch Waddenfonds, whilst 10% comes from the Directorate-General for Public Works and Water Management (Rijkswaterstaat) and the provinces Friesland and North Holland. More information can be found at [www.mosselwad.nl](http://www.mosselwad.nl) (in Dutch, with English summary)

*By Joos Versfelt, EUCC-NL*



## 16 years operation of EECONET Action Fund: Contributing to the accomplishment of key objectives of the European nature conservation policy

The EECONET Action Fund (EAF) ([www.eeconet.org](http://www.eeconet.org)) is a joint fund of the Coastal & Marine Union (EUCC), EUROSITE (European Union of site management organisations), EURONATUR Foundation (European Nature Heritage Fund) and the ECNC (European Centre for Nature Conservation). The EAF Secretariat is hosted and supported by the EUCC.

Since its establishment in 1995, the EAF has supported 97 projects on land lease or purchase and urgent conservation actions aiming at securing the protection of biodiversity and landscape. The projects have been implemented in 13 countries in Central and Eastern Europe, and the total budget was €6.3 M. The focus of the EAF work has been to support strategic land acquisition and restoration measures, securing the protection of much larger areas than only the project sites. In this way the EAF has resulted in the protection of more than 160,000 ha of land. The added value of the EAF work is the important contribution it has provided to the fulfilment of key objectives of the European nature conservation policy (e.g. the establishment of the Natura 2000 network and the Pan-European Ecological Network), the creation of new protected areas, efforts to reduce biodiversity decline, capacity building of local NGOs and initiation of local sustainable development.

Restoration and conservation of internationally and nationally important wetland and dry grassland areas, which are especially important for breeding and migrating birds, is the most significant contribution of EAF for halting biodiversity decline.

- At the Baltic Sea coast, EAF support of projects started as early as 1996 and was in time for the sustainable conservation of unique nature sites, as e.g. Rusne Island at the Nemunas Delta in Lithuania, Lake Kanieris in Latvia, Karsiborska kepa island and Oder delta in Poland and others;
- At the Black Sea coast and the Danube basin, EAF supported the conservation of the internationally important nature sites of Dnester Delta in Ukraine, Shabla and Durankulak lakes and their surroundings in Bulgaria; Vadu and Chituc wetlands and Caraorman fishery at the Danube delta, Romania; Kalimok marsh on the Danube in Bulgaria; and Danube Floodplain forests in Slovakia. Land lease and conservation projects are now on-going at Tarkhankut Peninsula and Kersh Peninsula in Crimea, Ukraine.

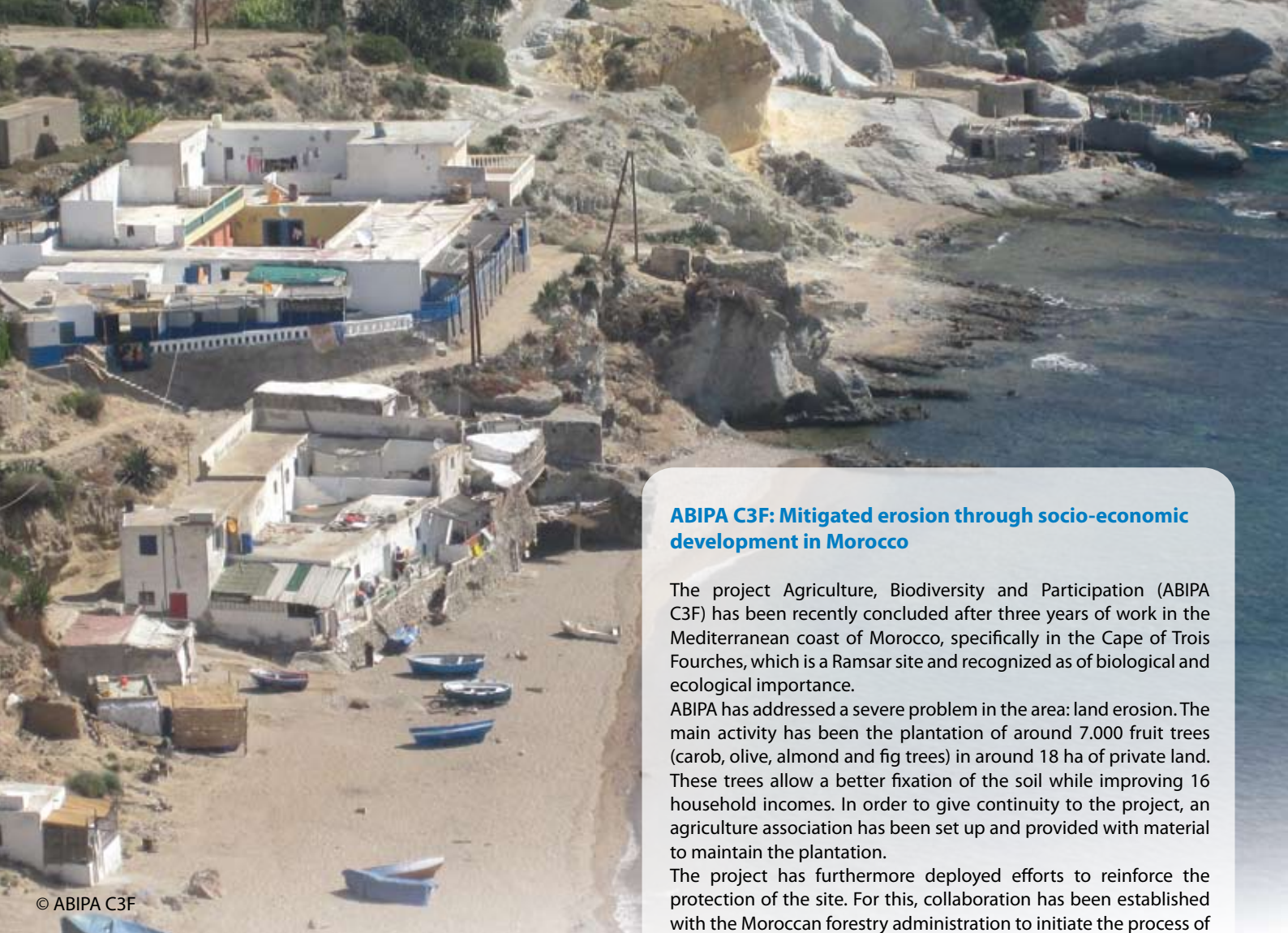
- At Polesia: the largest wetland system in central Europe, formed by the Pripyat river and its tributaries, thanks to EAF support actions for the restoration of Krymna lake and the extension of Shatsk National Park in Ukraine, together with the conservation of the best preserved open meadows at the Pripyat floodplain of Mid-Polesia and Turau meadows, in Belarus has been realised.

The inclusion of important nature sites in the Natura 2000 network and the creation of new protected areas under national legislation are important spin-off effects of the EAF support to strategic land acquisition and restoration measures. The partner NGOs and the EAF have worked for many years, and on certain areas for over a decade, on the establishment of National Parks, Nature Parks, and Nature Reserves. Examples of new protected areas, that have been designated following EAF projects are: the establishment of Lake Prespa National Park in Albania (27,750 ha), the extension of Shatsk National Park in Ukraine from 35,000 ha to 50,000 ha, the establishment of Dnester Delta National Park in Ukraine (21,311 ha), the establishment of Oder Delta Nature Park in Poland (4000 ha) and the establishment of Regional Nature Reserve "Turau meadows", in Belarus (400 ha).

The EAF work has proven to have a significant additional value in building capacity of local NGOs and attracting of new funding for project areas. For example, thanks to the support of EAF provided to the Society for the Coast (EUCC-Poland) the first Park run by an NGO was established in Poland (Oder Delta Nature Park). The EAF support to BirdLife –Belarus for land lease at Turau meadows was the first case of land lease by an NGO in Belarus and has resulted in the recently established Regional Nature Reserve "Turau meadows" - the first NGO-run nature reserve in Belarus. Other example of support to strategic land acquisition and capacity building is the recently concluded project at Slano Kopovo Special Nature Reserve (and a Ramsar Site) in Serbia, where the purchase of 75 ha of private land supported by the EAF allows the improvement of the water regime in the whole core area of the reserve: ca 500 ha, and consequently the restoration of this unique wetland site. Additional national funding has been later channelled for the restoration of the ground water table. Also as a result of the project an environmental monitoring and environmental education programme has started.

*By Daniela van Elburg – EUCC International & EAF Secretariat*





© ABIPA C3F

### ABIPA C3F: Mitigated erosion through socio-economic development in Morocco

The project Agriculture, Biodiversity and Participation (ABIPA C3F) has been recently concluded after three years of work in the Mediterranean coast of Morocco, specifically in the Cape of Trois Fourches, which is a Ramsar site and recognized as of biological and ecological importance.

ABIPA has addressed a severe problem in the area: land erosion. The main activity has been the plantation of around 7.000 fruit trees (carob, olive, almond and fig trees) in around 18 ha of private land. These trees allow a better fixation of the soil while improving 16 household incomes. In order to give continuity to the project, an agriculture association has been set up and provided with material to maintain the plantation.

The project has furthermore deployed efforts to reinforce the protection of the site. For this, collaboration has been established with the Moroccan forestry administration to initiate the process of the declaration of a protected site. The studies carried out by the project provide the basis for such a process.

Other remarkable activities have been a women's literacy course, a farmer's training and the celebration of the world forest day.

The project, led by EUCC in partnership with the Commune of Beni Chiker and the local association FUED, has been funded by the Dutch Ministry of Nature, Agriculture and Food Quality. For more information, please visit [www.abipac3f.org](http://www.abipac3f.org).

By Pedro Fernandez, EUCC International

### Common Stonechat *Saxicola torquatus*



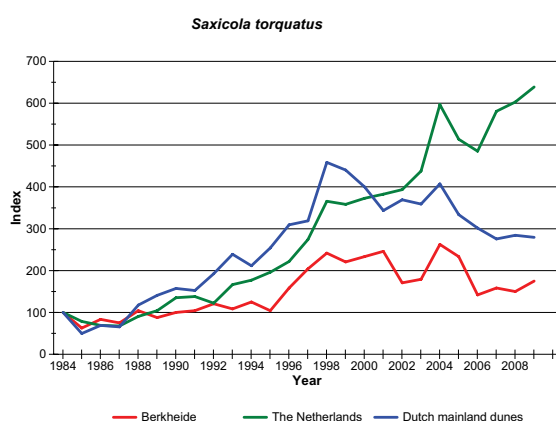
© René van Rossum

### Bird monitoring in the dunes of The Netherlands

Three decades of bird monitoring in the dunes of The Netherlands EUCC-NL has published the book "Vogels in een veranderend duin - Broedvogelmonitoring in Berkheide van 1984-2010" (Birds in a changing dune landscape- monitoring of breeding birds of Berkheide from 1984 – 2010).

Volunteers of the working group Berkheide-Coepelduynen yielded an impressive set of data after 35 years of monitoring. Trends per species with those of the other dune areas and the Netherlands of the last 25 years are presented. Together with other experts, the author Joost van Reisen, addresses the influence of changes in vegetation, climate and management.

ISBN 978-90-75502-08-4, in Dutch, € 24,95.





### Ship wrecks: cultural heritage and biodiversity hotspots are worthy to be protected

During the last centuries thousands of vessels have sunk in the North Sea. Many hundreds of interesting wrecks are still to be found at the sea-bottom or buried in the sand. These wrecks are interesting from a biological and historical point of view, not only because they represent cultural heritage but also work as biodiversity micro hotspots.

Though wrecks attract many marine species as a place for establishment, refuge and feeding, they also become the place of attachment of another "marine drifter", as discovered by divers who frequently visit them – fishing nets and lines. Due to the abundance of fish around the wrecks, professional fisherman often fish near and around them but sometimes the nets or fish lines are caught in the hard structures of the wrecks and end up being abandoned. However, nets continue to catch fish and the more material or animals they retain, the more easy it is for new lost nets fishes and hooks to be entangled.

For this reason, in 2009, a volunteer team of divers from the 'Clean the North Sea' Divers Team, started to untangle still-living caught animals (mainly fishes and crabs) and remove lost nets from wrecks. They also contacted EUCC-NL to start fundraising to fulfill this difficult and expensive work. Together, they've began to raise public awareness and by lobbying to influence policymaking.

In early 2011 the Dutch Postcode Lottery attributed funding to this initiative and between 2011 and 2013, EUCC-NL, the divers team, the Dutch Sport Fishing Union and the Dutch North Sea Foundation are working together to monitor the biodiversity and cultural heritage of selected wrecks, conduct cleaning actions and develop a shipwreck protection plan. This plan will contain a list of proposed wrecks to be protected and recommendations for agreements, legislation or guidelines. To support this process, public awareness will be targeted with beautiful underwater films, made during special North Sea dives or expeditions (to Doggersbank and Klaverbank) and an 'Adopt a ship wreck programme'. Furthermore, alternatives for the use of lead as weight and biodegradable lines will be explored, as these materials can remain for undetermined periods in the sea and result in contamination of the marine environment.

By Hanneke Mesters, EUCC-NL



Marieke van Schaik  
Dutch Postcode Lottery

*"It really is heart-warming to see how these divers are committed to free the animals from the wrecks. This team of volunteers do this work in difficult circumstances, as diving in the North Sea is job for a specialist. The Dutch Postcode Lottery is fond to support this type of initiatives."*



# BALTIC ACTIVITIES AND CHALLENGES



© Matthias Mossbauer



© Anna-Marie Klamt



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## Coastal Seas in a changing world

**Climate Change is a challenge for the future, but it is not the only ongoing change. Political, social, economic and agricultural transformation processes are ongoing in the world, with a very different regional intensity and impact. These developments interact with Climate Change and both can be summarized under the label 'Global Change'. The strong geographical variability in Global Change calls for a regional focus.**

In the Baltic Sea region, Climate Change and transformation processes in economy and agriculture, especially in the new EU member states Poland, Lithuania, Latvia and Estonia as well as in Russia, will have strong and multiple impacts. Numerous investigations on these topics have been conducted. During the last years the focus of activities shifted from analysis and evaluation of consequences via mitigation strategies towards adaptation approaches. This is well reflected in national initiatives and projects. The German 'KLIMZUG' funding activity, initiated in 2009, is one example. The background was the perception that an urgent demand for society, economy and politics exists to develop new and improved methods for adaptation. This initiative particularly stresses the regional aspect of adaptation by funding seven large regional projects. One of them is RADOST (Regional Adaptation Strategies for the German Baltic Coast). Similar large international projects, like BALTCICA (Climate Change: Costs, Impacts and Adaptation in the Baltic Sea Region) or BALTADAPT (Baltic Sea Region Climate Change Adaptation Strategy) have their focus on pan-Baltic cooperation.

Adaptation strategies and measures are urgently needed but require a thorough and spatially differentiated understanding of underlying ecological, economic and social processes. Research projects like AMBER, IKZM-ODER, VECTORS and SPICOSA create this sound scientific basis, by applying spatially integrated modelling and analysis methods and by using a systems approach, which links different disciplines and stakeholders. The following pages show some of the results and future challenges.

Regardless of the strong spatial variability of Global Change, the resulting problems, challenges and, thus, possible solutions may show similarities for different regions in the world. Awareness of the fact that concrete adaptation measures and their implementation have to be tailor-made and fitted to the special situation of a locality, an exchange of experiences in dealing with Global Change seems appropriate. Closer co-operation between scientific, administrative and political actors as well as between different regions is required. Learning how the problems are addressed in different parts of the world, how different strategies and solutions look like and how basic approaches can be transferred to other regions are important educational issues today.

The Leibniz-Institute for Baltic Sea Research, located in Rostock, Germany is dedicated to interdisciplinary marine research with a focus on the Baltic Sea ecosystem. The research programme includes the cross cutting activity "Coastal Seas and Society". Within this activity, the Coastal and Marine Management Group carries out this type of applied, interdisciplinary coastal and marine research to support practical management and the implementation of national and international policies. A recent output is the book "Global Change and Baltic Coastal Zones" which addresses this complex topic from very different perspectives.

## Changes in river basins drive the Seas

### Regional land-use changes and water quality

In the future, politically induced land-use changes will play a major role for nutrient emissions in the river catchment of the Baltic Sea and may even interact with climate change. Transformation processes in several Baltic Sea states have led to drastic changes in e.g., land-use and thereby changing nutrient emissions and water quality in the recent past. Several future development directions are possible. Next to politically induced changes of agricultural land-use in general, specific aspects such as cultivation of maize for energy, increasing animal stocks and fertilizer use are possible. Similar developments took place (and are still ongoing) in the older EU member states such as Denmark and Germany. In several projects, agricultural development research is combined with a catchment nutrient emission model as a prerequisite for assessment and modelling of effects on coastal and marine water quality and biology.

In our ongoing research we showed that in many regions around the Baltic Sea, nitrogen emissions are likely to increase due to agricultural land-use changes whereas phosphorus emissions will not change or even decrease according to the application of the EC-Urban Waste Water Treatment Directive. A good status of the catchment – lagoon – coastal sea system according to EC-Directives is very unlikely to be achieved under these circumstances. Political actions have to be undertaken to include knowledge on nutrient emissions of different land-use for decision-making and financial subsidies. For more information please visit the AMBER project website.

*Inga Krämer*

### Climate change or nutrient load reductions?

Computer simulation models are important tools to estimate the global and regional intensity of Climate Change. Further, models are able to take into account socio-economic scenarios, as well. The marine ecosystem model ERGOM is applied to simulate Climate Change in combination with riverine nutrient load reductions according to the HELCOM Baltic Sea Action Plan (BSAP). The BSAP, adopted by the riparian countries in 2007, is a programme to restore the good ecological status of the Baltic marine environment. The model ERGOM is able to estimate the ecological state of the Baltic Sea ecosystem in the year 2100. Climate Change might cause an increase of the water temperature up to 3 °C and a salinity decrease of 0.15 % in the western Baltic Sea. However, nutrient load reductions resulting from an implementation of the BSAP would have a much stronger effect on the ecosystem than Climate Change. The model suggests that the western Baltic Sea would shift from a nitrogen towards a phosphorus limited system. As a consequence, the problematic and potentially toxic cyanobacteria blooms (blue-green algae) would strongly decrease. The full implementation of the BSAP would ensure a better ecological state in 2100, but it would cause imbalances in the Baltic Sea over decades before a new steady state is reached in the ecosystem. Climate Change and the BASP require a reconsideration of existing environmental objectives and indicators describing a good status. These model results form the basis for adaptation measures in the project RADOST.

*Gerald Schernewski, René Friedland & Thomas Neumann*



© Gerald Schernewski



© EUCC-DE



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## Challenges and options for water quality

### New management strategies

The EU Water Framework Directive (WFD) is the major tool to implement a joint European water policy. The overall aim is to reach a good ecological status in all aquatic systems within this decade. The eutrophication of surface waters, as a result of excessive nutrient inputs, is still a major problem. To fight eutrophication the WFD follows an integrative approach that links river basins with coastal waters into management units, the river basin districts. Most important are measures to reduce nutrient emissions into the environment and measures to increase the retention in river basins. However, in many cases these measures, even if combined, are not sufficient to ensure a good surface water quality. To protect our coastal waters and the sea, additional strategies to remove nutrients in coastal waters have to be considered. Mechanical measures like groyne rows to support sedimentation, dredging of sediment and dumping on land or sediment capping to prohibit nutrient release from sediments are under discussion. In small systems the precipitation of nutrients can be considered. However, most promising are biological measures, like bio-manipulation (selective fisheries), macro algae cultivation, the enlargement and management of macrophyte areas as well as the enlargement of natural mussel beds and mussel cultivation. Especially mussel cultivation is of increasing interest even in countries without a mussel tradition, like Germany.

Gerald Schernewski

### Mussel farming in the southern Baltic Sea – a feasible future option?

Climate Change might increase water temperatures in the Baltic Sea by 3-5 °C by the end of this century. Winters especially will become warmer and the dense ice covers along the southern Baltic coasts become unlikely. Today, drifting ice is a threat for many coastal water uses like shipping and fisheries. Increasing ice-free periods will not only be a benefit for most existing economic uses but might enable new activities, e.g. mussel farming.

Mussel Farming is not a traditional practice in the southern Baltic but many experiences can be adopted from *Mytilus*-culture (blue or common mussel). A local species in coastal waters is the zebra mussel (*Dreissena polymorpha*) and thus well adapted to salinity conditions. Mussels are effective filterers and able to significantly improve water quality. Increasing water transparency delivers macrophytes (aquatic plants), reduces algal blooms and hence makes bathing water more attractive. Harvesting the mussels provides an environment-friendly marketable product and contemporaneously removes excess nutrients which facilitate compliance with the objectives of EU-Water Framework Directive. Current research is analysing optimal farm size, required material, possible places of location, costs and expected yields. Different ways to bring the harvested mussel to the market will be identified, for instance, using them for human consumption, as animal feed and shells as fertilizer. Furthermore cost-efficiency and possible funding are being investigated. Ecological impacts and environmental risks will be regarded as well. First results were obtained within the project SPICOSA. The Baltic Sea Region Programme project AQUAFIMA will continue the work.

Anna-Marie Klamt & Gerald Schernewski

### Mussel farming workshop

On the 8th of June 2011, the first workshop about “Mussel farming in the Baltic: experiences and perspectives” took place in the Institute for Baltic Sea Research. 26 participants exchanged opinions about recent developments and future possibilities in mussel farming. Topics covered field reports about mussel cultivation studies through nutrient recycling to financial aspects. As mussel farming is a relatively new topic to some regions (e.g. German and Polish Baltic coast), animated discussions assured a knowledge exchange.

Mara Ort



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## Micro-organisms – an increasing problem?

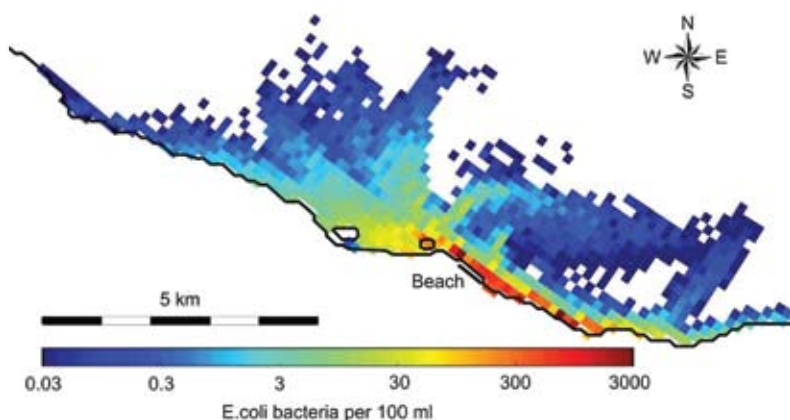
### Heavy rains spoiling bathing water quality?

Some years ago, a high concentration of *Vibrio*- and *E. Coli*-bacteria was found in the Oder/Odra-Estuary. These bacteria pose a threat to human health and thus are leading to beach closures if detected in certain numbers. As this can have negative impacts on tourism – who likes closed or unhealthy beaches? – it is important to find out why and when there is too much bacteria. Within the Genesis-project, a case study was conducted to develop a decision support tool for local authorities. An online GIS-application delivers water quality information on the basis of models. It was found that especially heavy rain events intensify eutrophication (an abundance of nutrients which allows bacteria to grow faster) because of the surface runoff. To have a functioning tool at hand is increasingly important as climate change could have a reinforcing effect on the eutrophication state of the Oder/Odra-estuary. Genesis is a European project to develop an information database for environmental management and health actors. The goal is to provide all necessary information in just one database. The software structure is thematic-neutral and can easily be customized for different interests as well as geographical regions. Case studies are conducted in the field of air quality, fresh surface water and coastal bathing water.

*Mara Ort, Gerald Schernewski, Bianca Schippmann*



EUCC Germany is a potential end user of the GENESIS web service, so one representative attended the GENESIS end user event on the 15th of June in Cannes, France. All case studies concerning both water and air quality were presented to the audience as well as information about the technical background was provided.



## Challenges for coastline management

### Stranded seaweed – more than a nuisance?

“Algae vegetation or natural debris should be left on the beach” is a criterion for good environmental management because stranded biomass is crucial for intact beach ecosystems. Beach management meeting this approach is rare along European coasts. From today’s perspective, stranded eelgrass and seaweed is a nuisance for a fraction of beach users and results in decreasing bathing tourism and negative press reports. As a consequence, most spa resorts clean their beaches. The removal of accumulated biomass with heavy machinery is cost intensive and causes a degradation of habitats for beach flora and fauna, sand losses as well as beach erosion.

But why do beach managers disregard the consequences of current management practice and carry on business as usual? There is nothing else which can be done because basic knowledge and baseline criteria are missing. Here we start our work by conducting interviews with beach managers, stakeholders and beach users to learn about the problems arising through natural debris on beaches. We developed a beach monitoring with outdoor webcams to determine the extent of the problem along the German Baltic coast. Ecosystem modelling and near shore drift simulations enable us to learn more about the processes leading to beach strand. An interdisciplinary synthesis of our data provides fundamentals for future decision making. The results of our work can keep impacts on the sensitive beach ecosystem to a minimum and will further allow the development of regional adaptation strategies against the impacts of climate change.

Matthias Mossbauer

### The shipworm – conquering the Baltic Sea?

Since 1993, timber structures in the Baltic Sea have a permanent natural enemy: the common shipworm *Teredo navalis*, a mollusc and as such a marine borer. Drifting with the flow as larvae, the clam starts its destructive work immediately after settling on a piece of wood. In Mecklenburg-Western Pomerania, damages count up to a total value of 30 m Euro in the last 18 years.

If living conditions for the shipworm improve by a significant increase of water temperature induced by climate change, the spread of larvae into new areas of the Baltic is to be feared. This is because the tolerance of lower salinities is higher than normal by elevated temperatures. In this way, *Teredo navalis* has already spread to the islands of Hiddensee and Rügen. Thus many groyne systems and port constructions are potentially at risk, especially those being processed with native wood instead of more solid wood from the tropics.

To estimate potential future costs for Mecklenburg-Western Pomerania, a range of projects has been started. One of them uses a climate model to simulate the potential distribution areas of the shipworm, aiming at developing an appropriate action plan. Another one looks at the approach to cover groyne piles with geotextiles. Both are with high practical relevance and could save a lot of money in coastal protection in the next few years if the estimated results should be confirmed.

Ronny Weigelt

The projects RADOST and BALTCICA develop coastal management strategies and measures to deal with future changes and challenges.



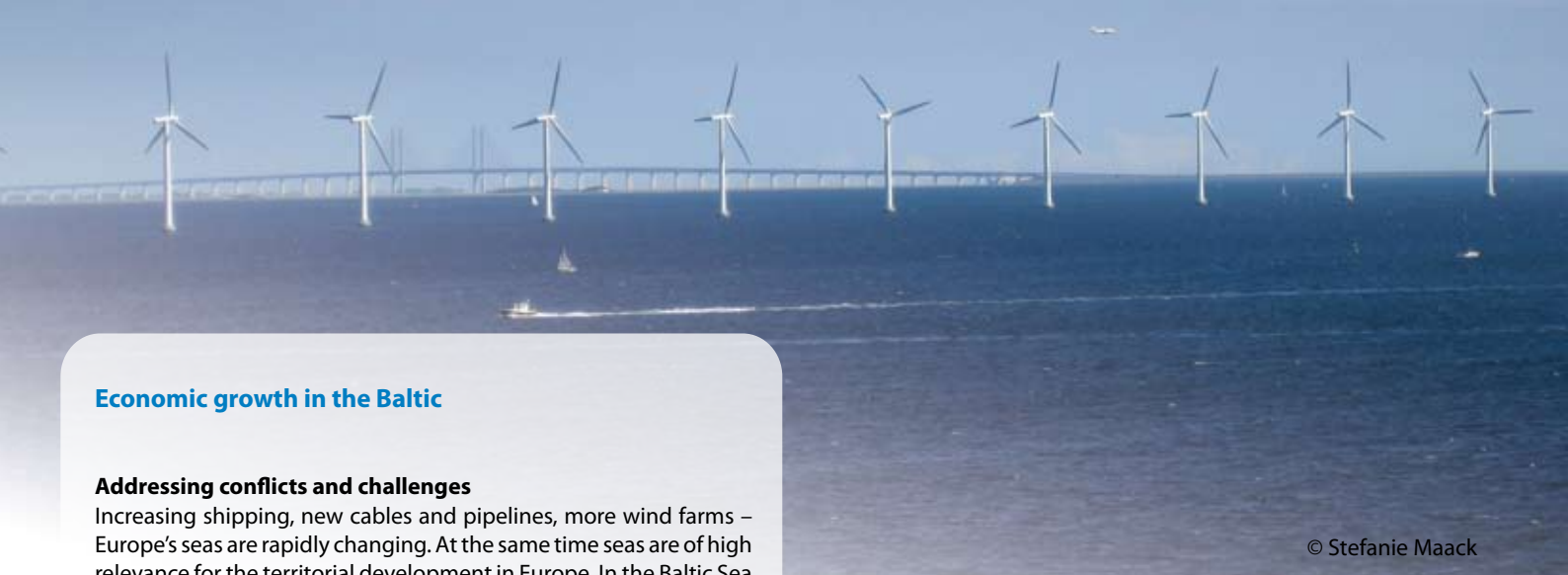
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## Economic growth in the Baltic

### Addressing conflicts and challenges

Increasing shipping, new cables and pipelines, more wind farms – Europe's seas are rapidly changing. At the same time seas are of high relevance for the territorial development in Europe. In the Baltic Sea countries e.g. more than 660,000 people are employed in traditional maritime sectors. Nearly all maritime uses are prospering while only fishing is in decline in many regions. But how will intensified use of marine resources impact the Baltic Sea of tomorrow? Increased shipping could further introduce alien species into the Baltic Sea as the Ballast Water Convention is still not ratified. New habitats formed by fixed structures (e.g. wind farms) along the shipping routes could help to form a new pathway into the Baltic Sea for those species. In addition, rising water temperatures of approx. 3°C due to climate change would allow more exotic species to spread here. But at the same time, a decrease of salinity in large parts of the Baltic Sea, again due to climate change, could limit this impact to western areas where marine conditions will remain, while freshwater conditions could become dominant in the long run for eastern and northern parts. To research these "Vectors of Change in Oceans and Seas Marine Life, Impact on Economic Sectors" is the task of the VECTORS project (EU-FP7) where IOW contributes to the Baltic Sea case study.

*Holger Janssen*

### A need for adaptation strategies?

More than 90 million passengers have passed through over 50 Baltic Sea ports in 2010, with an upward trend from year to year. Additionally, in the course of climate change, more tourists will be attracted to the Baltic Sea Region due to higher temperatures, less rain in summer and especially by a prolonged summer season in the next decades. Consequently, the amount of sewage produced on cruise ships will increase in the future. Until now it has rarely been left in port reception facilities, and the common procedure of onboard treatment does not target the removal of nutrients. Furthermore, the highest amount of sewage is produced during summer when water temperatures are high and mixing in the water column is reduced.

Nitrogen and phosphorous from sewage might therefore directly affect algae blooms. The HELCOM Baltic Sea Action Plan has tackled this problem in 2009 by submitting a proposal to the International Maritime Organization (IMO) with the goal to declare the Baltic Sea as a Special Area for sewage. Now the nutrients have either to be directly removed onboard or the sewage will have to be delivered to port reception facilities. The ports need to adapt their infrastructure to the new demands and install fixed reception points connected to the public sewage system. The adaptation has to take place simultaneously to avoid unfair competition; otherwise cruise lines will choose ports with requirements less strict.

This procedure is a good example of how problems can be successfully treated on a transnational scale. Usually, adaptation strategies in the Baltic Sea Region are fragmented and an overarching framework is missing. The project Baltadapt addresses this problem and aims at creating a coherent set of adaptation policies and actions from the transnational to the local level.

*Svenja Karstens*



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# MANAGING BALTIC LAGOONS



## Transitional waters – a common challenge to researchers and managers

The term “transitional waters” was introduced in 2000 with the publication of the Water Framework Directive of the European Communities (European Communities, 2000) to describe the continuum between freshwaters and coastal waters. In the Official Journal of the European Communities 43 (L327), “transitional waters” are defined as “bodies of surface water in the vicinity of river mouths which are partially saline in character as a result of their proximity to coastal waters but which are substantially influenced by freshwater flows”. These areas are considered diverse, highly productive, ecologically important systems on a global scale and highly valuable for the services they provide to human societies since at least the Neolithic age. Transitional waters are also considered to be under very heavy anthropogenic impact, while being the sites of major cities and ports. Because of this, these waters have been historically degraded by port activities, pollution from urban, industrial and agricultural areas, aquaculture and fishing and subsequently, received special attention from the European legislators. These problems have a profound impact on human wellbeing since the goods and services provided by these particular ecosystems are affected as well.

Despite the fact that the technical typology defined in the Water Framework Directive proved to be essential for defining a set of environmental descriptors and reinforcing environmental protection, the transitional waters are still a very complicated and often disguising term in this typology. This definition is even more problematic when applied to the three largest European transboundary lagoons situated in the Baltic region. The situation is especially complicated because two of these transitional water bodies are shared with the Russian federation, which is not a part of the EU and, therefore, the term “transitional waters” has no legislative consequences in the Russian parts of the lagoons. Even in the Oder lagoon, the Polish and German parts belong to different typologies that is confusing for both research and management matters.

The project ARTWEI is focused on the improvement of cross-border efforts to make the use of politically divided - but physically integrated - transitional water bodies environmentally sustainable. That could be accomplished by creating cross-border stakeholder committees, preparing the code of conduct for transboundary management, educating the stakeholders and, finally, by creating a common WebGIS information and management tool.

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## WebGIS Szczecin Lagoon – easy access to cross-border geographical information

In recent years, it has been observed that WebGIS are increasingly used in the internet to inform practitioners about coastal and marine issues. WebGIS facilitates access to spatial information and can serve as decision support system.

WebGIS Szczecin Lagoon (<http://gis.eucc-d.de/ikzm/>) has been developed within the German research project 'IKZM-Oder' (2004-2010) as part of the German-Polish coastal information system on the Oder estuary. Therein, the WebGIS supports the dissemination of information using various sources of spatial data. Different layers show conditions, shapes, patterns of cross-sectoral and cross-border data and allow to understand correlations and problems in the lagoon. Using WebGIS Szczecin Lagoon, stakeholders, decision makers and the public have an easy access to spatial information of the region. To ensure a long-lasting utilization linked with continuous enhancements, EUCC-Germany has hosted and maintained the WebGIS since 2010. The system can be regarded as best practice of a cross-sectoral, cross-border information tool of land, coastal and marine waters.

In ARTWEI, the WebGIS Szczecin Lagoon can be linked or extended to other lagoons of the Baltic Sea. Therefore, it will be further developed into the “WebGIS Baltic Lagoons”. Multilingualism is intended.

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## The Oresund

Oresund is a narrow water body separating the Swedish province Scania from the Danish province Zealand and, at the same time, connecting the Baltic Sea with the Kattegat, the latter being a part of the North Sea. Approximately 30% of the water exchange between these two water bodies occurs through Oresund making it critically important for the sensitive environment of the Baltic Sea. The Sound is 118 km long from north to south and between 4 and 28 km wide. Water depth varies from 50m in the central parts to just below 10m in the southern parts. The total human population around Oresund is approximately 2,5 million people, 700 000 inhabitants on the Swedish side and 1,8 millions on the Danish side.

From a hydrodynamic perspective, Oresund is mostly characterized by discharge circulation in combination with an estuarine circulation mode. Surface water usually runs in a northerly direction, bringing brackish water from the Baltic Sea to the Kattegat. Salinity in the surface water ranges between 10-12 PSU in the southern parts to more than 20 PSU in the northern parts. The bottom conditions are more stable and salinity is usually more than 30 PSU (parts per thousand or ‰). An underwater ridge between Malmö and Copenhagen forms a sill with an average depth of only 8-10 meters. This threshold, called Drogden/Limhamn, limits the inflow of oceanic salty water from the Kattegat to the Baltic Sea. Only on a few occasions each year, purely oceanic water manages to push over the threshold and into the Baltic Sea. The Drogden/Limhamn threshold thus also constitutes a border for many marine species. Common species of fish in Oresund include cod, herring, flounder and a number of purely marine species. An agreement between the Swedish and Danish governments in the early 1930's put a ban on trawling in Oresund. As a result, cod populations in Oresund are much more abundant and have higher age diversity than in the adjacent Kattegat.

One of the major environmental challenges in Oresund in recent years has been the construction of the fixed link between Malmö and Copenhagen. One concern among many people was whether the fixed link would affect the exchange of water and oxygen between the Kattegat and the Baltic Sea which, in turn, would affect the marine life in the Baltic Sea. Hydrodynamic modelling carried out during and after the completion of the construction has however showed that the fixed link did not impact the exchange of water, salt or oxygen between the Baltic Sea and the Kattegat. A second major challenge is the maritime safety. Oresund is heavily trafficked by large ships often carrying oil or other hazardous substances which, in case of an accident, could have a severe impact on coastal areas and the marine environment. A joint Swedish/Danish vessel traffic service (VTS) was recently established in Malmö to improve the efficiency of navigation and increase the protection of marine environments. The VTS central broadcasts important information to ships in Oresund in order to alert them on the risks of collisions, groundings and other hazards.

The Sound Water Cooperation is a cooperation agreement between the Swedish and Danish municipalities and county administrations bordering Oresund. It aims to improve the marine environment of Oresund and was established in 1995. Within the ARTWEI project, World Maritime University is cooperating with the Sound Water Cooperation, particularly on the issue of marine protected areas (MPA) with the aim to extend the areas of protection in Oresund.

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### Odra River affects water quality of the lagoon

The Szczecin Lagoon, a large (687 km<sup>2</sup>) and shallow (average depth of 3.8 m) coastal system in the southern Baltic Sea, belongs to oligohaline inner coastal waters. The Odra discharge contributes with at least 94% of the lagoon's water budget. These riverine loads control ecosystem processes and keep the lagoon in a high state of eutrophication. Current values of nutrient and Chl-a concentration are far above values for a good water quality demanded by the European Water Framework Directive (WFD). The low water transparency, usually below 50 cm, and heavy blue-green algae blooms are a common feature, especially in summer. The poor water quality hampers regional development, especially tourism, which is a major source of income on both the German and Polish sides.

### Management measures

It was discovered that with respect to nitrogen and phosphorus that nutrient load reductions in the Odra river basin alone would not be sufficient to ensure good coastal water quality according to the WFD. Therefore, a more comprehensive management in coastal waters including nutrient removal is required. A promising measure seems to be the enlargement of mussel beds and cultivation of mussels. Zebra mussels (*Dreissena polymorpha*) distributed in small beds have currently a biomass of about 8,000 t in the western part (Kleines Haff) and 60,000 t in the eastern part (Wielki Zalew). Artificial hard substrates, such as vertical line or net systems, could be used for continuous cultivation. A periodic harvest of zebra mussels may reduce the total amount of nutrients in the lagoon. High investment, operating and processing costs as well as an uncertain commercial use are major obstacles for mussel cultivation. Innovative and creative solutions have to be developed and discussed.

### Cross-border cooperation

Internal measures in the lagoon can help to fulfill the aims of the WFD and the Baltic Sea action plan. However it is necessary to manage the lagoon within the EU Maritime Spatial planning framework and to prevent spatial conflicts. To ensure proper environmental integrity of the lagoon, the cross-border cooperation of local and regional interest groups, citizens and politicians is crucial. Within ARTWEI, a cross-border platform is provided, one which enables stakeholders to communicate and to learn from each other in a transboundary way.



Regional workshops, excursions and bilateral communication have been organized to discuss current issues such as water quality, tourism / regional development and spatial planning. Joint action plans and cross-border project initiatives are the final results of ARTWEI. Listed institutions support the Polish-German stakeholder body. Further cooperation agreements are being planned.

- Society for the Coast (EUCC - Poland)
- Regional Bureau of Spatial Planning
- Wolinski National Park
- Maritime Office in Szczecin
- County Office in Kamień Pomorski
- Regional Water Management in Szczecin
- University of Greifswald
- Regional Authority for Spatial Planning Western Pomerania

To involve the public and raise awareness of specific features of the lagoon, a transnational photo competition was organized in 2011. The main goal was to emphasise the Szczecin Lagoon as a significant reservoir and as a transitional zone between inland waterways and the Baltic Sea, and to highlight its importance linking two nations. Moreover, the focus was on awareness raising regarding NATURA 2000 sites and nature protected areas surrounding most of the Szczecin Lagoon (e.g. Woliński National Park, Naturpark Stettiner Haff).

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## Vistula Lagoon

### Introduction – Info/background on the lagoon

The Vistula Lagoon is one of the three largest lagoons located along the southern coastline of the Baltic Sea. It is a transboundary inner coastal waters shared by Russia (Kaliningrad Oblast, 471 km<sup>2</sup>) and Poland (367 km<sup>2</sup>). The only connection with the Baltic Sea is the Baltiysk Strait located in the Russian part, as the lagoon is separated from the Baltic Sea by a stable sandy barrier. The Polish part of the Vistula Lagoon has been designated a NATURA 2000 area (both habitat as well as bird one).

The lagoon was historically formed as an estuary of the Vistula River. In 1916 after regulation, when the Vistula River runoff was mostly directed to the Baltic Sea, hydrological and sedimentation regimes of the lagoon changed dramatically - it evolved from a freshwater plain estuary toward an estuarine lagoon with significant influence from the Baltic Sea. Nowadays, the Pregolia River is the largest river discharging its waters to the lagoon. It flows through the biggest city in the drainage basin, the City of Kaliningrad (former Königsberg). A navigational canal, with a depth as much as twice deeper than the lagoon, passes along the northern shore from the lagoon inlet up to City of Kaliningrad.

### Current aspects – Conditions, problems, challenges

Hydrological and meteorological factors are controlling the horizontal distribution of water quality parameters in the lagoon. The most important driver is the exchange of water masses with the Gulf of Gdańsk. As a consequence, the concentrations of nutrients in the area close to the Baltiysk Strait are lower in comparison with those in remote parts of the lagoon. Despite the continuous nutrient loading from the catchment area (rivers as well as point and diffuse sources), the high internal potential for eutrophication is caused by significant sources of nitrogen and phosphorus that have accumulated in the sediments and are released from them. The present trophic state has been evaluated as polytrophic/eutrophic. Light and nutrient availability are the most important parameters controlling primary production. Phytoplankton growth is limited mainly by light and nitrogen; phosphorus limitation is only observed during early spring. Three phytoplankton groups dominate in terms of abundance - cyanobacteria, green algae, and diatoms. Cyanobacteria blooms have been observed from June to September in the central part of the lagoon as well as in the Russian part.

Vistula Lagoon provides favorable conditions for many fish species. Fish assemblages are dominated by freshwater species with fewer brackish water ones. Fluctuation in herring catches has had a major impact on total catches over the last thirty years. In addition to herring, the most important fish species are eel, pikeperch, and bream.

### Future prospects – main approaches and projects, focused themes

Three major transboundary issues have been selected at the meetings with the Vistula Lagoon stakeholders: water quality problems, fisheries management, and the potential impact of large hydro-technical constructions on lagoon environment. The ARTWEI project will facilitate the co-operation between the Vistula Lagoon stakeholders to reinforce the exchange of information and collaboration regarding those issues.

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## The Curonian lagoon

The Curonian lagoon is the largest lagoon in Europe (over 1200 km<sup>2</sup>), shared between the Russian Federation and Lithuania.

It is an estuarine coastal lagoon, dominated by the Nemunas river discharges, which represents up to 90 % of the total runoff. The area of land draining into the Curonian Lagoon covers 100.5 km<sup>2</sup>, of which 48% lies in Byelorussia, 46% in Lithuania, and 6% in the Kaliningrad district, with a total population of about 5 million inhabitants. Given such a large drainage basin, the lagoon receives enormous amount of nutrients resulting in a hyper-eutrophic status and occurrences of cyanobacterial blooms. There is an existing agreement on data exchange between Lithuanian and Russian organizations regarding the Nemunas river water quality. However, the exchange of environmental monitoring data of the Curonian lagoon is not implemented.

The Curonian lagoon area consists of a number of protected territories and quite recently, it has been proposed to be established as a biosphere reserve, in order to protect the habitats of fish and cyclostome species (twaiter shad (*Alosa fallax*), salmon (*Salmo salar*), zieg (*Pelecus cultratus*), asp (*Aspius aspius*) and river lamprey (*Lampetra fluviatilis*)). There are also two National parks covering the whole area of the Curonian spit – barrier island separating the lagoon from the Baltic Sea. The Lithuanian part of the Curonian lagoon has been designated a NATURA 2000 area (both habitat and bird one) and contains Nemunas Delta Regional Park and Svencelė Botanical Reserve. In the Russian part there is also a state combined reserve in the Nemunas delta area and a zoological reserve along the eastern coast of the Curonian lagoon.

The Curonian lagoon, especially the Curonian spit, is an important touristic and holiday destination in both countries. The recreational use of the Curonian lagoon is expected to increase further, especially the recreational fishery and water tourism, providing favorable background for the cross-border co-operation. There is an agreement on transboundary navigation in the Curonian lagoon, which opens the possibility to water tourism across the whole area of the lagoon. However, it is not yet practically implemented, due to the absence of checkpoints in the Curonian lagoon.

Fishery regulation, including catch limits, could serve the region; more than 100 small private fishing enterprises are licensed to fish, so the proper control of landed catch becomes difficult, resulting in a substantial uncontrolled fish landing, up to 60% of the yield (Breber et al., 2008). There is a transboundary Russian-Lithuanian fisher committee, which on its annual meetings deals mostly with fishery quotas and some aspects of dredging activity in the Nemunas' delta.

Within the ARTWEI project a cross-border stakeholder committee was created bringing together organizations from both Lithuania and Russia:

- Immanuel Kant State University
- Federal Service for Hydrometeorology and Environmental Monitoring
- Kaliningrad branch of Ministry of Natural Resources and Environmental Protection of the Russian Federation
- Atlantic Research Institute of Marine Fisheries and Oceanography (Kaliningrad, Russia)
- Baltic Sea Maintenance Administration
- Institute of Ecology and Sustainable Development of the Kaliningrad State Technical University
- Kintai sailing club "Marių burės"
- Rusne Nature Fund
- Sustainable Development Agency
- EUCC Baltic Office
- National Park of Curonian Spit.

The priority directions of collaboration between the stakeholders for the Curonian lagoon are the improvement of water quality, fishery management, climate change adaptations, conservation of biodiversity, strategic environmental assessment of regional development project, joint environmental monitoring efforts, integrated waste management and treatment, and promotion of ecotourism in the area.

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# EUCC Tour d'Europe

## EUCC-UK

The past year has generally been a relatively quiet although active one for the **EUCC-UK** branch. A number of the regular annual activities have continued. These include ECNC meetings, the annual International Blue Flag Jury meeting in Copenhagen, and the Keep Scotland Beautiful awards meeting in Stirling, Scotland, UK. David R. Green has also been active in a number of related activities that allow the EUCC and ECNC to be represented. These include the following projects: IMCORE, SIC Adapt Cluster, Living North Sea (LNS), and Nature SDIPlus. Conference papers, magazine articles, seminar, workshops and posters have all been generated to highlight the outcome of this research. Conferences attended include: Coastal GeoTools 2011 in Myrtle Beach, South Carolina, USA, Coastal Zone 2011 in Chicago, USA, ICAN and CoastGIS 2011 in Belgium, and the MASTS (Marine Alliance for Science and Technology) for Scotland: annual science meeting 2011 in Edinburgh, Scotland, UK. Finally, the Journal of Coastal Conservation, Planning and Management (JCCPM) has gone from strength to strength in 2011, with increased paper submissions, Springer's online first service, more thematic Special Issues, and the recognition of its standing in the scientific community with the allocation of an impact factor.

## EUCC – The Netherlands

The Dutch Branch of EUCC, “**Kust & Zee**”, is actively committed in local activities towards a more balanced management of North Sea resources. One of the main focuses for the next couple of years is the Project Healthy North Sea (2011-2013), in collaboration with the divers team ‘Duik de Noordzee schoon’, the Dutch Sport Fishing Union and the North Sea Foundation. This project intends to: develop a framework for the legal protection of shipwrecks in the North Sea, which function as biodiversity and cultural heritage hotspots; the cleaning and monitoring of sea biodiversity around these wrecks; raising awareness with an underwater film programme and other informative activities. In parallel, Kust & Zee will seek to inform the public about the European Marine Strategy Framework, in particular regarding marine pollution, litter and eutrophication, sustainable fishery and biodiversity but also promoting the use of alternatives for lead and biodegradable lines in recreational and commercial fishing.

Additional on-going projects include the research project MosselWad (2010-2015) and a follow-up project on mitigating the bycatch of harbor-porpoises, in which a new “Pinger” is being tested. Finally, Kust & Zee continues to collaborate closely with Dutch coastal Municipalities in the QualityCoast Programme.

## EUCC – Belgium

The LITTORAL conference will have another edition in 2012, with a focus on ICZM. Littoral is a biennial international conference organised by the EUCC, Eurocoast and a third organization. Johan Vande Lanotte, as president of the EUCC, has asked **EUCC-Belgium** to organize the 2012 edition, together with federal, regional, provincial and local partners in Belgium. During the autumn of 2012 you are very welcome to Ostend, Belgium, for this 3-day conference, where links will be made with scientific developments regarding ICZM and the European policy processes. Not only information will be shared and knowledge transferred but there will also be several types of field-trips along the Belgian coast, where you can see *in situ* the achievements of working together in an integrated way.



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## EUCC – Denmark

On 25 February 2011, **DANCORE (the Danish Coastal & Marine Network)** hosted its second Young Professionals Day at the Department of Geography and Geology of the University of Copenhagen. For the 40 participants, the purpose of the day was to meet and hear about coastal research topics studied among Danish research institutes and universities. There was a total of 5 presentations by postdocs and PhD fellows in a wide variety of coastal subjects.

DANCORE currently assists the Danish Coastal Authority in organising the Danish Coastal Conference 2011 which took place on 21-22 September 2011, in Kolding. This conference was focused on the national strategy for coastal protection, which is embedded with a more holistic way, encouraging the coastal community in Denmark to work in a more integrated manner. This was also stressed by the two other subjects at the conference, i.e. implementation of the EU Flooding Directive and the work on climate change adaptation. More than 130 stakeholders met and discussed how to strengthen their collaboration under the above challenges.

Danish Coasts and Climate Adaptation (COADAPT) is funded by the Danish Council for Strategic Research (DFS)/Energy and Environment and is one of the research programs which uses DANCORE to disseminate news. Read more about COADAPT on <http://coadapt.dhigroup.com/>.

Finally, quarterly eNews are disseminated to our 240 members and coastal and marine news and events are disseminated through our website [www.dancore.dk](http://www.dancore.dk).

## EUCC - Germany

**EUCC-Germany** currently has a strong focus on climate change and the development of adequate adaptation measures. Coastal tourism stakeholders work together with scientists and municipalities to get prepared for future challenges. Related projects are RADOST, BaltCICA and BaltADAPT. The last one aims to develop a Baltic Sea Region wide climate change adaptation strategy. Another important field of activity is environmental education. In 2011 and 2012 more than 20 classes and 400 pupils will participate in "Meer im Fokus", an extracurricular education project. During coastal field trips scholars learn about facts and issues of the German Baltic Sea coast, document their new knowledge in online modules and get the public involved in regional photo competitions. Recent activities of the German Branch are on beach litter and sustainable fishery and aquaculture; the related projects Marlisco and Aquafima just started in 2011. Additional to the successful bi-monthly 'Küsten Newsletter' EUCC-Germany will publish a new issue of Meer & Küste in 2012, an illustrated magazine similar to the Dutch Kust&Zee Gids. Coastal and marine tools as databases and WebGIS will be further developed in cooperation with North Sea and Baltic Sea institutions. Thanks to all of them.

## EUCC - Baltic States

The key activities of **EUCC Baltic States Office** include coordinating a Latvian-Lithuanian cross-border co-operation project GERME (Geothermal Energy for Rural Municipalities and Estates in the Lithuanian-Latvian Cross-Border Coastal Region), as well as active participation in a South Baltic regional cooperation project ARTWEI (Action for the Reinforcement of the Transitional Waters' Environmental Integrity).

GERME project addresses cross-border challenges in the sector of supporting local energy production, creating renewable energy and alternative energy sources, since deep geothermal energy is a clean renewable resource and is available in the Lithuanian-Latvian cross-border coast. The project objective is to develop a cooperation platform and necessary know-how for the deep geothermal energy utilization in small rural municipalities and estates of Klaipeda County and Kurzeme region. Four cross-border regions of the transitional coastal waters of the South Baltic Area are the target areas of ARTWEI project: Curonian Lagoon (LT/RU), Vistula Lagoon (RU/PL), Odra Lagoon (PL/DE) and Oresund Sound (DK SE). ARTWEI is based on existing experiences from the EU and international Baltic Sea cooperation networks and will develop local and regional methods for effective management of the transitional waters from two perspectives: first, cross-border cooperation and second, environmental integrity of river basins – transitional waters – open sea.

## EUCC - Poland

With the support of EECONET Action Fund, land has been purchased to improve the practical aspects of implementation of the NATURA 2000 network in Poland but also as the challenge of managing the site in a changing environment. Particularly in the area of Odra Delta Nature Park, the **Society for The Coast (EUCC-Poland)** has successfully finished very practical groups of activities covered by the project: "Park for People – People for Park". These activities included the preparation of a hydrological management plan in order to preserve the high natural values, which include preliminary investments. Practical management actions were also put in place, related to extensive agriculture, which is recognized as a conservation tool for the Odra Delta Nature Park. A fundamental element of this project is education, reflected in the development of a visitor Centre, a new watch tower and information panels. Furthermore a series of workshops and training courses have been organized for local youngsters. The dissemination materials, such as leaflets, guidebook and films became very popular in the region. It is worth mentioning that this project has been carried out by a limited group of volunteers and was managed by Dr. Malgorzata Torbé, Vice Chairman of Society for The Coast.



# EUCC Tour d'Europe

## EUCC-France

**EUCC-France** main activities are field workshops in coastal sites of special interest in respect to ICZM. In 2011, the Spring workshop took place in Brittany, on the Sillon du Talbert, a long shingle spit belonging to the Conservatoire du Littoral. A 5-days exceptional workshop will be held in the new French Département of Mayotte (Indian Ocean) in September 2011. Currently, the main challenge of Mayotte is to combine coastal environment conservation with the sustainable development needed by a fast growing population. In 2012, two workshops are planned, in Noirmoutier and in Arcachon. EUCC-France has just published a collective book « *Les ateliers de l'EUCC-France. De la connaissance des systèmes littoraux à la gestion intégrée des zones côtières* » which combines 10 years of field workshops (price : 20 €, contact [c.clus.euccfrance@gmail.com](mailto:c.clus.euccfrance@gmail.com)), the PhD thesis of Pierre Stephan's and the 2009 3rd winner of the "Roland Paskoff / EUCC-France/ Fondation Procter&Gamble pour la protection du littoral" award. The 4th award-call has just been launched. EUCC-France was officially approved by the French authorities to provide training courses to local elected authorities and is about to be officially recognized as an environment conservation NGO.

## EUCC - Portugal

After the successful events of the International Conference on Coastal Conservation and Management in the Atlantic and Mediterranean held in Tavira (Portugal, 2005), Hammamett (Tunisia, 2007), **EUCC-Portugal** was highly involved with the organization of ICCCM 2010, held from 11th to 17th April, 2010 in Estoril, Cascais (Portugal).

This multi-disciplinary international conference was convened as a forum for scientists, engineers, planners and managers to discuss recent and new advances in scientific, technical, and socio-economic understanding of environmental issues related to coastal processes. The conference included an interesting programme, with several field trips to the diverse and scenic coastal environment of the Lisbon area. International experts offered a post-conference short course and thematic workshops.

It was also an objective of this conference to promote international exchange of knowledge among researchers, managers and technicians, as well as other professionals working in coastal zones conservation and management. The Conference also aimed at sharing experiences and developing contacts and networks among all the practitioners.

The next ICCM event, in which EUCC-Portugal will be involved, is planned for the island of Gozo-Malta in cooperation with EUCC-Malta, during May of 2013. Further information will be send soon. EUCC-Portugal is also planning to organize its first Field Coastal Workshop in the northern region of Portugal, in principle during the month of January.

## EUCC - Italy

In the last years, **EUCC-Italy** had the opportunity to gather with those of other networks and projects, giving more emphasis and visibility to the themes run by EUCC International office. This is occurring in particular: in Tuscany region, thanks to the efforts of Luigi Cipriani; in Venice, through the solid partnership with CORILA; and nationwide jointly with LaguNet - the Italian network of lagoon researchers.

In May 2011, EUCC was present in San Rossore (Pisa, Tuscany region) at the International Conference for the presentation of RES MAR project, a EU-funded trans-border project between Italy and France, which aimed to develop a common policy in the High Tyrrhenian Sea, in the field of the environment and of rural and marine production. In April 2011 in the Lagoon of Venice, CORILA has been invited by the Veneto region to initiate a "monitoring plan of the water bodies for defining the ecological status", in order to meet the requirements of Water Framework Directive. The Monitoring Plan is a part of a more general plan, which is implementing an adaptive management approach, i.e. using management as a tool not only to change the system, but also to learn about the system.

The 5th Congress of LaguNet will be held in Lesina (FG), from the 19th to the 22nd October 2011 and will be an occasion also to promote QualityCoast in Italy.

## EUCC - Malta

The activities of **EUCC-Malta** started with the QualityCoast Programme. All involved parties were informed through an extensive informative campaign. With the assistance of the government and the Gozo Business Chamber all needed data were collected. As a result, the whole island of Gozo - sister island of Malta - received the QualityCoast Basiq Bronze Award. The specific Gozo culture and identity played an important role in the nomination. The Award got much publicity, both on television and in the newspapers. Environmental awareness is increasing, also in local councils, and some, like Mgarr (Malta), are considering to apply for a QC award. Gozo is to become an ECO-island by 2020. Strategic elements: the improvement of the quality of life through education, economic development and social progress; the reduction of carbon and water footprints; the protection of the environment, resources, culture and identity. EUCC Malta will assist in the implementation of the EcoGozo Strategy, of an Environmental Educational Centre for Gozo and in getting a higher QC award for the coming year.

A study on the sudden increase of some sandy beaches is underway. A principle agreement was reached on the co-operation between EUCC-Malta and the International Ocean Institute. Discussed subjects are environmental education, beach dynamics and the possible effects of a tsunami.





## EUCC - Mediterranean Centre

**EUCC Mediterranean Centre** continues supporting the Coastal & Marine Union (EUCC) mission in the Mediterranean through three different types of activities: 1) Development and implementation of sustainable coastal management policies with especial attention to climate change; 2) Capacity building and 2) Providing information to experts and the public and facilitating stakeholder involvement. Med Centre is a partner to the EU MED Programme project APICE - "Common Mediterranean Strategy and Local Practical Actions for the Mitigation of Port, Industries and Cities Emissions", led by Arpa Venetto and running from June 2010 until November 2012. Med Centre is mainly focused on stakeholders' involvement (especially the Port, the environmental authorities and key enterprises), the development of scenarios, revising and improving air pollution policies. The Med Centre is moreover following closely the developments of Mediterranean policy and in particular those under the Barcelona Convention and the Union for the Mediterranean. Building capacity as a basis for sound, participative and competent management is another pillar of Med Centre work. Its staff has enhanced the ICZM Distance Training tool CoastLearn for its use in the Mediterranean, leading its translation and adaptation, in cooperation with local partners, to Arab and Albanian. The tool is moreover being updated and adapted to the Black Sea context through the project CoastLearn Black Sea. Together with EUCC France, the Centre delivered the concept and design for a distance training tool on adaptation to climate change in coastal areas for the French Network of Coastal Research (RFRC).

In the field of communication and stakeholders involvement Med Centre was the leader of the Work Package Dissemination and Communication of the EU FP 6 Project SPICOSA (Science and Policy Integration for Coastal Systems Assessment) which ended early 2011. Within this WP, the project informed relevant policy makers, related EU project teams and policy initiatives, the broader coastal community and the public about the concepts, progress, and results of the project. For example, The Med Centre was responsible for producing a quarterly e-newsletter and the project website [www.spicosa.eu](http://www.spicosa.eu). EUCC also steered and monitored the communication activities of the SSAs (Study Site applications) which are 18 European sites confronting coastal and marine issues relevant to science and to policy. Med centre also led the Work Package Dissemination and Communication of the recently closed FP6 project "Concepts and Science for Coastal Erosion Management" (CONSCIENCE) and organized the public outreach of these projects, in terms of meetings, workshops, press conferences and the participation of the project in relevant events.

The Med Centre continues publishing a quarterly electronic newsletter "EUCC Euro-Mediterranean Newsletter" (EN, ES, FR) which is distributed to about 400 readers in the Mediterranean and updates on coastal and marine relevant politic, scientific and research developments.

## EUCC -Black Sea Coastal Centre (BSCC)

EUCC, together with the **Black Sea Coastal Centre (BSCC)** in Romania, is working on the identification of new project opportunities in the Black Sea Basin. For this purpose, during last year, a number of enthusiastic experts from both BSCE's and EUCC's networks has enforced their networks in Romania, Bulgaria, Turkey and the Ukraine. The venture was received in a very positive way. As a result, we together with these important contacts will further investigate the opportunities of which we hope joint projects in the Black Sea Basin will be the outcome.

# EUCC - The Organisation



## 10 Reasons to be an EUCC Member

Are you a scientist or practitioner, student or politician with an interest in coastal and marine issues? Then please give me a chance to convince you to join the largest European coastal & marine organisation!

**1) Care.** EUCC membership is the best way to express your commitment to the identity and integrity of our coasts, their landscapes, biodiversity, social and cultural values. EUCC has a broad awareness raising programme and we help prepare and implement EU policies.

**2) Integration.** EUCC has been championing innovative and integrated approaches to coastal management since 1991!

**3) Involvement.** Members participation is our rule, for every EUCC-project. Since EUCC is the largest European coastal & marine network, as to membership, number of projects and projects volume, so EUCC offers the best opportunities for involvement.

**4) Wide Network.** Members can profit from EUCC's close collaboration with many other coastal, marine, maritime, and nature networks. We have also taken the initiative to establish a joint platform of coastal organisations and networks.

**5) Member services.** EUCC provides excellent member services: Coastal & Marine magazine; free online access to the Journal of Coastal Conservation: Planning and Management; inclusion of your news in e-mail newsletters; and participation in our activities and projects.

**6) Bottom-up.** EUCC is a society, governed by its members. Your opinion makes a difference. Besides, in various countries you can be involved in activities of an EUCC national branch.

**7) Free for all.** EUCC is the oldest European coastal network. We have always tried to join forces with others, because fragmentation is in contradiction to the spirit of ICZM. That is why EUCC provides many information services free for all in the coastal community: distance training, websites, databases, and newsletters.

**8) Multilingual.** EUCC communicates with all coastal practitioners and politicians in Europe by issuing websites, magazines and newsletters in 15 languages. Your ideas will reach a large audience.

**9) Expansion.** EUCC is establishing partnerships and cooperation efforts beyond Europe and is looking for the most prominent coastal and marine institutions world wide who are interested to become EUCC's core network

**10) Value for money.** Please compare the membership rates on this page and in [www.eucc.net](http://www.eucc.net). Members will be offered a reduced registration fee for EUCC supported conferences.

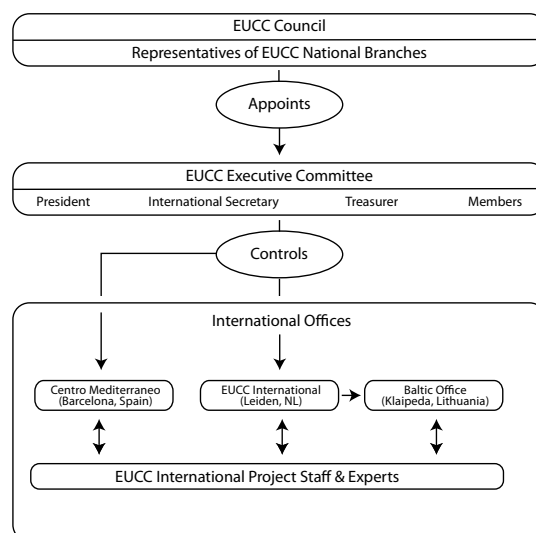
## EUCC's Mission

The Coastal & Marine Union (EUCC) - is dedicated to conserving and maintaining healthy seas and attractive coasts for both humankind and nature.

To this end, EUCC seeks to:

- promote integrated marine and coastal management, combining development with the protection of biodiversity, social, historical and cultural values;
- work to limit the impacts of climate change;
- provide advice, information, communication and policy instruments;
- partake in coastal and marine research projects;
- raise awareness of environmental issues;
- develop partnerships with stakeholders.

## EUCC's Structure



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