HELCOM news

1/2008 Newsletter

In this issue:

Message from the HELCOM Executive Secretary

We are proud to have recently passed a historic milestone in marine environmental protection: the creation of a major strategic action plan to cease excessive inputs of pollution and restore the health of the Baltic Sea by 2021. This programme, drawn up through intensive co-ordination and consultations by the nine countries bordering on the Baltic Sea and the European Community - all members of HELCOM - heralds a new era in environmental protection.

The comprehensive, ambitious and at the same time realistic and specific HELCOM Baltic Sea Action Plan provides a practical example of the implementation of the innovative ecosystem approach, including a programme of measures derived from a common vision of the desired status of the Baltic. The plan quantifies the characteristics of a healthy Baltic Sea, and sets out the measures needed to realise this vision. One such example concerns the definition of ceilings for maximum allowable inputs of nutrients for sub-regions of the Baltic Sea, and the subsequent distribution of nutrient emission quotas among the HELCOM countries, including a pool for inputs from non-HELCOM States in the catchment area.

The creation of this plan has focused on the main environmental threats facing the Baltic Sea as identified through HELCOM's work. The plan highlights an integrated approach to the protection of the Baltic Sea which combines environmental objectives with sectoral goals, acknowledging the value of more holistic measures covering areas such as fisheries, agriculture and maritime transportation. It also includes a system of measurable parameters that will make it possible to evaluate the efficiency of the measures taken, and to check whether we are really on our way towards reaching the desired state of the Baltic Sea.

In the development of the action plan, two factors in particular were stressed; namely the need to be able to predict the effects of various policy scenarios, and the need for information on the cost-effectiveness of these alternatives. This work has required

the use of models. These models do not claim to be all encompassing in either scientific or economic terms, but their results still give a clear picture of the magnitudes of risk and the urgent need for strong action, especially at an international level.

Acknowledging the need for a cross-sectoral approach and the integration of environmental objectives into other sectoral policies, other international organisations and stakeholders with sectoral competence have been deeply involved in the development of the HELCOM Baltic Sea Action Plan. Non-HELCOM countries in the catchment area have also participated.

We are confident that the HELCOM Baltic Sea Action Plan will be a crucial stepping stone for wider and more efficient actions to combat the serious deterioration of the marine environment resulting from human activities.

Anne Christine Brusendorff

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HELCOM news is the official newsletter of the Helsinki Commission, or HELCOM, which is an intergovernmental organisation of the Baltic Sea coastal countries and the European Community for the protection of the marine environment of the Baltic Sea from all sources of pollution.

Contents

HELCOM makes history with an ambitious plan to restore the Baltic

At a HELCOM Ministerial Meeting, held on 15 November 2007 in Krakow, Poland, the Ministers of the Environment and Senior Government Officials of the HELCOM Member States adopted an ambitious overarching action plan to drastically reduce pollution in the Baltic Sea and restore the sea's good ecological status by 2021. The programme of action was approved by representatives of Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden and the European Community, which is also a HELCOM Member. Denmark adopted the plan later following the formation of the new cabinet.

"After 18 months of drafting and negotiating, the coastal countries have reached broad consensus on the concrete and meaningful measures that are needed to achieve our common goal of a healthy marine environment," said Prof. Mieczyslaw Ostojski, HELCOM's Chairman.

"The adoption of the Baltic Sea Action Plan represents a milestone in our join efforts to restore the Baltic marine environment," said Ostojski. "The plan is the first attempt by a regional marine protection convention to implement the ecosystem approach defined by the 1992 Rio Declaration and the 2002 World Summit on Sustainable Development in Johannesburg. It will lead to profound, innovative changes in the ways the coastal countries manage the environment in the Baltic Sea region."

This cross-sectoral plan is designed to solve all the major environmental problems affecting the Baltic Sea. It sets an ambitious target of achieving a good ecological status for the Baltic Sea - a sea with diverse biological components functioning in balance and supporting a wide range of sustainable human economic and social activities. The plan contains concrete and meaningful actions to curb eutrophication, prevent pollution involving hazardous substances, improve maritime safety and accident response capacity, and halt habitat destruction and the decline in biodiversity.

The environmental state of the Baltic Sea is rapidly deteriorating and requires urgent and comprehensive actions in order to prevent an irreversible environmental catastrophe," pointed out Ostojski, who emphasised that failure to act now would undermine both the prospects for the future recovery of the sea, and a vital resource for the future economic prosperity of the whole region. "If we continue the same way as today, the cost of non-action will be tenfold higher than the cost of action," he said.

Clearly realising this, the Baltic Sea countries have come together in an unprecedented spirit of cooperation to devise a recovery strategy that lists joint goals for the future of the

Baltic, and sets out a commitment to achieve these goals through specific actions that the coastal countries will jointly undertake.

Of the many environmental challenges, the most serious, and the most difficult to tackle with conventional approaches, is the continuing eutrophication of the Baltic Sea, caused by the excessive nutrient loads of the nitrogen and phosphorus that are entering the sea. These excess nutrients mainly originate in runoff from farmland and untreated sewage. This phenomenon leads to problems like increased algal blooms, murky waters, oxygen depletion and lifeless sea bottoms. Compared to pristine conditions in the 19th century, nitrogen inputs into the Baltic Sea have increased ninefold, resulting in extensive summer algal blooms, as can be seen almost everywhere in the main basin of the Baltic Sea.

"The results that we get from modeling are encouraging, and show that it really is possible to restore the Baltic Sea and achieve a good ecological status," says Anne Christine Brusendorff, HELCOM's Executive Secretary. "We will perhaps not be able to restore absolutely pristine conditions, but it should be possible to create quite favourable conditions through the more effective treatment of municipal wastewater, the use of phosphorus-free detergents and the adoption of best practices in agriculture. But we can also see that if we continue business as usual, the future does not look good for the Baltic Sea. Algal blooms could become twice as intense as today, for instance."

HELCOM has estimated that for good environmental status to be achieved, the maximum allowable annual nutrient pollution inputs into the Baltic Sea would be 21,000 tonnes of phosphorus and about 600,000 tonnes of nitrogen. In recent years, average annual inputs have amounted to 36,000 tonnes of phosphorus and 737,000 tonnes of nitrogen, so annual reductions of some 15,000 tonnes of phosphorus and 135,000 tonnes of nitrogen would be required to reach the plan's crucial "clear water" objective.

To achieve these overall reductions, the action plan duly proposes provisional country-wise annual nutrient input reduction targets for both nitrogen and phosphorus (see table below).

	Phosphorus (tonnes)	Nitrogen (tonnes)
Denmark	16	17,210
Estonia	220	900
Finland	150	1,200
Germany	240	5,620
Latvia	300	2,560
Lithuania	880	11,750
Poland	8,760	62,400
Russia	2,500	6,970
Sweden	290	20,780
Transboundary Common pool*	1,660	3,780

**Non-HELCOM countries*

Continues on the following page

The greatest reductions are required in the sub-basins of the Baltic Proper, the Gulf of Finland, the Danish Straits, and the Kattegat.

The concept of the HELCOM Baltic Sea Action Plan has already been widely supported by politicians at various forums, and heralded as a pilot project for European seas in the context of the proposed EU Marine Strategy Directive. The European Community has described HELCOM's plan as a cornerstone for further action in the Baltic Sea region, emphasising that the plan will be instrumental to the successful implementation of the EU Marine Strategy Directive in the region.

The EU Marine Strategy Directive foresees such an action plan for each eco-region, including the Baltic. HELCOM is in a unique position to deliver such a plan already, since it embraces all the countries in the Baltic Sea catchment area. HELCOM is also in a unique position to ensure that the special characteristics of the Baltic Sea are fully accounted for in European policies.

As a pioneer in the application of the ecosystem approach, the innovative HELCOM action plan will also serve as a model example to be followed by the Regional Seas Conventions and Action Plans under the auspices of the UNEP Regional Seas Programme.

The HELCOM Baltic Sea Action Plan is available at http://www.helcom.fi/BSAP/ActionPlan/en_GB/ActionPlan/

Extracts from official statements made at the HELCOM Ministerial Meeting

"HELCOM is the international organisation which is the key player that has clearly taken the lead in the protection of the Baltic Sea…

The adoption of the Baltic Sea Action Plan is an initiative of the highest political importance for the protection of the Baltic Sea. Compared to previous initiatives, it implies a new orientation by making a strong commitment to reaching good environmental status by 2021, by focusing on specific actions in four key areas: eutrophication, biodiversity, hazardous substances and maritime transport…

The EU Marine Strategy Directive recognises a central role to regional seas conventions as the privileged forum where our Member States will coordinate among themselves, and cooperate with our privileged partners such as the Russian Federation, to achieve its ambitious environmental objectives…

The Baltic Sea Action Plan will certainly be a central reference for the future efforts of the EU in all the regional seas surrounding Europe, and in the other regional seas conventions…

In many respects the Baltic Sea Action Plan is clearly a model for what the future programmes of action might look like under the EU Marine Strategy Directive, and with it the Baltic Sea has established itself as a forerunner in the implementation of the Directive…"

Peter Gammeltoft
Head of the Water and Marine Unit, Directorate General for Environment, European Commission (on behalf of the European Community)

"Our today's endeavour attempting to treat such a highly sensitive marine area through integration of many spheres, conveys an excellent example to the world. The current Baltic Sea Action Plan is a compact and structured arrangement scheme with a well-developed aim to improve the health of the Baltic Sea. As we know, today the preparation of several European Union initiatives incorporating the principles of integrated thinking such as the Marine Strategy Directive and the Maritime Policy is still underway. The HELCOM Contracting Parties, by drawing up this Action Plan, have placed themselves in the forefront - while we are implementing the Action Plan the rest of the EU and the global community will be able to learn from our successes and failures. Thus, this combined effort is of great value."

Jaanus Tamkivi
Minister of the Environment of the Republic of Estonia

"HELCOM has been the forum for international collaboration for over thirty years. Its strength is in Contracting Parties that function as equal artners. HELCOM has an acknowledgeable amount of experience and knowledge of the problems of the Baltic Sea. Today, I am glad to note that HELCOM is probably the first marine convention in the world to have a truly overarching Action Plan for recovery and protection. The Action Plan is exceptional in the sense that it is based on the ecosystem's needs for recovery and protection, it covers the most important environmental issues and it contains tailor-made solutions for the different challenges…

In my opinion, the Action Plan opens a new era in marine environment protection by including the concept of maximum allowable nutrient input. It also contains the provisional country-wise nutrient reduction needs that are shared among the countries in a fair manner. This approach enables countries to choose in a flexible and cost-effective manner measures that are most suitable to them..."

Kimmo Tiilikainen
Minister of the Environment of Finland

"Having observed the HELCOM work very carefully during the last years I would like to stress that the HELCOM Baltic Sea Action Plan sets out a clear signal: HELCOM has moved from a purely scientifically driven organisation to a scientifically and politically driven one. HELCOM has developed to the trademark in the Baltic Sea. As the environmental focal point in the Baltic Sea region it is the adequate lobby organisation for promoting the Baltic Sea's interests…

… The example of the Baltic Sea Action Plan should be fed into the system of the UNEP Regional Seas Programme. The HELCOM Baltic Sea Action Plan deserves to be spread as an example for efficient and issue-oriented marine protection policy…"

Fritz Holzwarth
Head of the German Delegation, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, Germany

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"Denmark strongly supports the efforts to protect the Baltic Sea environment and has - together with the other Contracting Parties - been actively involved in the process of preparing the Baltic Sea Action Plan."

Helle Pilsgaard
Deputy Director-General, Danish Ministry of Environment

"I strongly believe that our Ministerial Meeting is a milestone in global, EU and regional environmental policy as there are not many other such challenging examples at all levels of protection of the marine environment currently. I do hope that our experience will be useful for other regional seas conventions and their Parties, and will provide them with good and well-tested instruments for cooperation with third countries in the implementation of EU water policy. I feel that this is a good momentum for new policy adoption as many scientists and active and progressive people already support our agreed goal – a healthy and productive Baltic Sea in visible time. But we, politicians, should propose the right steps tailored in the adequate time, rather than adding one more declaration to the hundreds made around the world. Good policy should be simple, democratically agreed and measurable…"

Martins Jirgens
Parliamentary Secretary, Ministry of Environment of the Republic of Latvia

"… It should be stressed, that this is just the beginning of the long way to improve the environmental status of the Baltic Sea. The most difficult part, the implementation period of the Action Plan is still ahead of us.

It is also very important to ensure good cooperation and coordination in order to jointly implement the agreed actions as well as programmes and later, to review their implementation.

The vision of a clean Baltic Sea will become a reality only on the condition that this ambitious strategy is fully implemented and does not exist only on a paper but also in practice...

I strongly believe that due to our enormous effort to prepare and later to implement the HELCOM Baltic Sea Action Plan, our children will again swim in very transparent and clean water, free from eutrophication and without high concentration of hazardous substances, with high natural biodiversity and environment friendly maritime activities at sea..."

Mariusz-Orion Jedrysek
Undersecretary of State, Ministry of the Environment of Poland

"We consider that the adoption of this document, which is very important for the Baltic, confirms that only our joint activity helps us to find an effective and balanced approach for the successful resolution of all priority tasks, and to find an adequate and good answer to this historical challenge, as HELCOM has already repeatedly proved...

The HELCOM Baltic Sea Action Plan will not only become the new basis for interrelation between the HELCOM Contracting Parties, but also take into account the current geopolitical situation between the Russian Federation and the EU in the Baltic Sea region…

The Baltic Sea Action Plan is based on the ecosystem approach, and declares that the management of human activities and common ecological priorities and the economic effectiveness of the implementation of actions will be the integral part of such approach. This is necessary to ensure the proper ecological status of the Baltic Sea, as well as to support a wide spectrum of sustainable types of social and economic activities…"

Leonid Korovin
Head of the Russian Delegation

"The ceiling for nutrient discharges to the Baltic Sea and the burden sharing we have agreed on today is an innovative measure. For the first time we are agreeing on a reduction of the pollution load based on the ecological requirement of the Baltic Sea…

Our Action Plan shows the rest of the world, and in particular the EU, that we are committing ourselves to take on the leadership for one of the most polluted enclosed seas in the world. Implementing all relevant EU legislation will improve the environment of the Baltic Sea, but the serious state of the Baltic Sea demands that we take further steps. The Action Plan will go ahead with reducing the nutrient load to the Baltic by introducing stricter phosphorous removal in wastewater treatment plants and substituting phosphates in detergents…

We are very satisfied that the Baltic Sea is high on the Commission's agenda. It gives us the possibility to assign the Baltic Sea as a pilot area within the marine directive. The EU is also working on a special strategy for the Baltic Sea which will promote sustainable development by deeper integration and competitiveness of the Baltic Sea region, and addressing the acute ecological challenges…"

Andreas Carlgren
Minister for the Environment of Sweden

HELCOM Baltic recovery plan wins European Regional Champions Award

Michel Delebarre, President of the Committee of the Regions, greeting winners of the European Regional Champions Awards 2007

The HELCOM Baltic Sea Action Plan has received the European Regional Champions Award 2007 in the environment category. These awards have been developed to showcase and celebrate the very best in regional innovation and examples of best practice throughout EU regions in 10 different categories. They highlight champion programmes and projects that can serve as examples to other regions.

The winners of the inaugural European Regional Champions Awards, hosted by Brussels magazine *Regional Review* in association with the European Union's Committee of the Regions (CoR), were unveiled at a ceremony attended by CoR President Michel Delebarre at the Chatelain Hotel in Brussels on 27 November.

There were more than 150 nominations for the awards. A jury including CoR Secretary General Gerhard Stahl, MEP Catherine Stihler, European Policy Centre Chief Executive Hans Martens, and the Editor of *Regional Review*, Chris Jones, drew up a shortlist of 30 finalists – including the three strongest nominations in each category. Then CoR members and regional offices then took part in a vote to select the top 10 – one for each category.

"We feel honored by this award recognising our Baltic Sea Action Plan as an outstanding example of an innovative project developed by a regional marine convention," said Anne Christine Brusendorff, Executive Secretary of HELCOM. "With the creation of our ambitious but very pragmatic programme of actions to restore the health of the sea by 2021, HELCOM will continue its long record of respected leadership in marine environmental protection."

Nikolay Vlasov and Kaj Forsius of HELCOM receiving the award

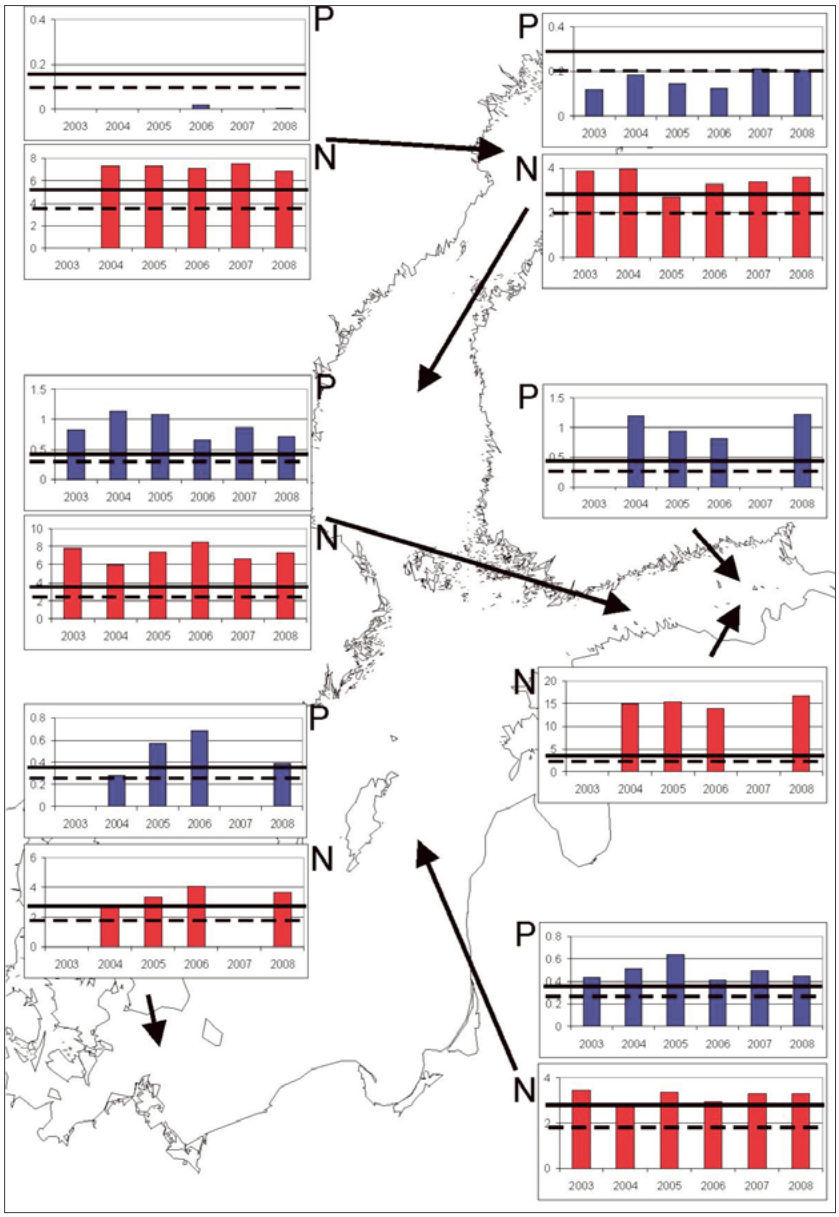
Wintertime nutrient concentrations exceed HELCOM target levels

by Hannu Haahti, Janne Bruun, Mika Raateoja (FIMR)

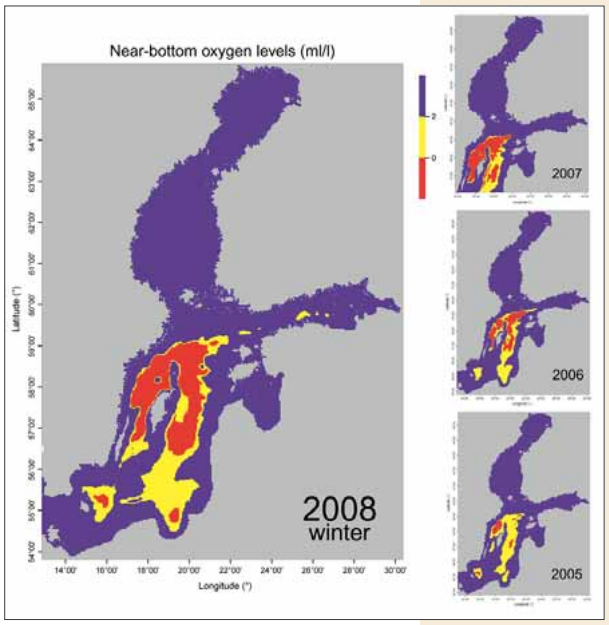
The research vessel Aranda of the Finnish Institute of Marine Research returned on 1 February 2008 from its annual winter HELCOM COMBINE monitoring cruise, having sailed through all of the main open waters of the Baltic Sea. During the cruise, scientists analysed readings of various environmental parameters including concentrations of nutrients and oxygen.

Surface concentrations of both inorganic phosphorus and nitrogen clearly exceeded reference levels defined by HELCOM, except for phosphorus in the Bothnian Bay. Target levels for good ecological status were widely exceeded, especially in the Gulf of Finland.

Little or no oxygen was detected in the deep bottoms of the Baltic Proper, Bornholm Basin and the Bay of Gdansk, but winter storms had mixed the waters of the Gulf of Finland, improving both the oxygen situation on the sea bed and concentrations of phosphorus.



Wintertime bioavailable phosphorus (PO_4) and nitrogen (NO_2+NO_3) levels as µmol per litre in the Baltic Sea, 2003-08. The solid horizontal lines show target levels and the broken lines mark reference levels assigned by HELCOM. The figure is based on data collected by the Finnish Institute of Marine Research.



Near-bottom oxygen levels in the Baltic Sea based on data collected by the Finnish Institute of Marine Research. Red: anoxic bottoms; yellow: oxygen concentrations below 2 ml/l.

Alien comb jelly surviving the Baltic winter

by Maiju Lehtiniemi, Satu Viitasalo, Tarja Katajisto (FIMR)

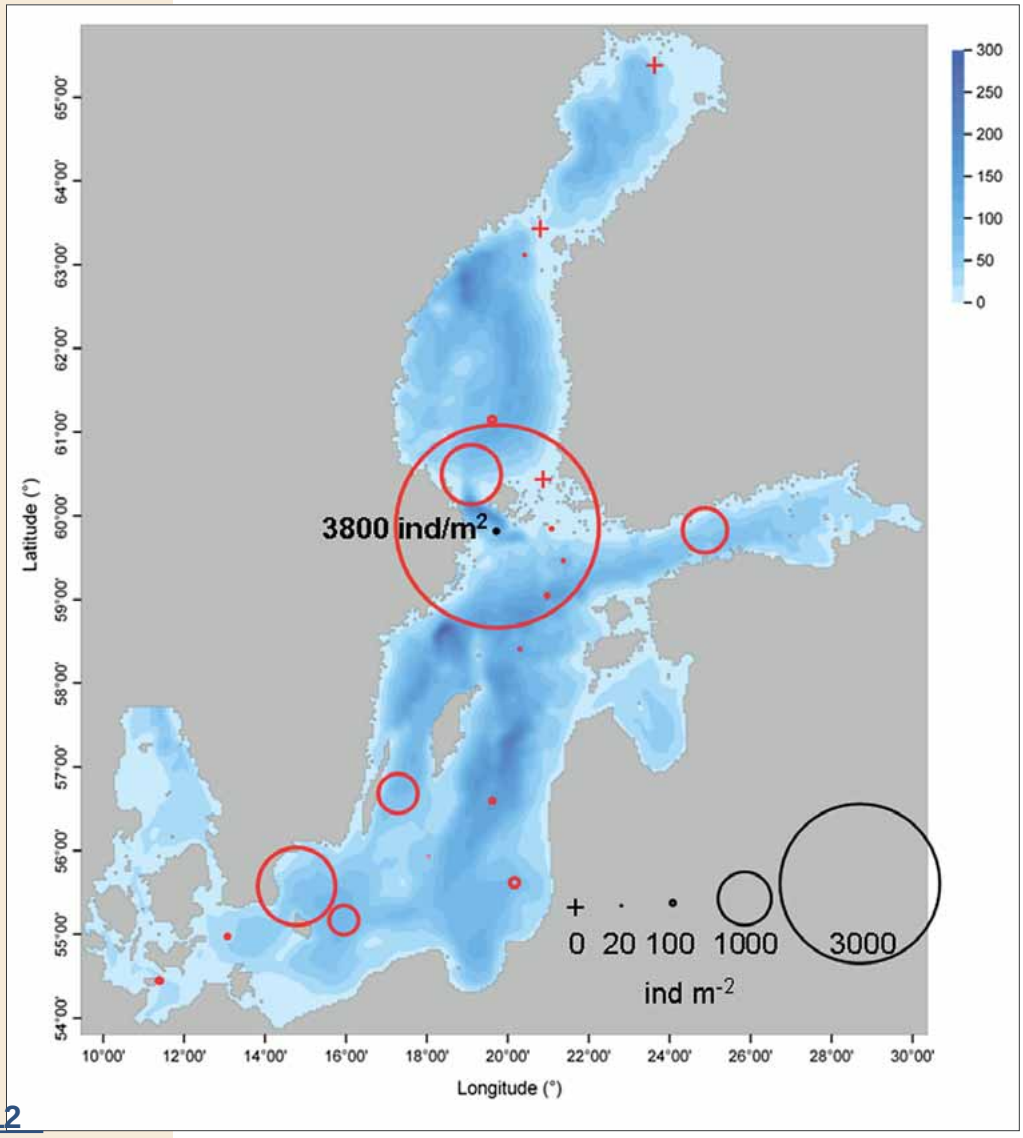
An invasive alien ctenophore, the American comb jelly *(Mnemiopsi leidyi)*, has been observed overwintering in large numbers in the Baltic Sea.

New information from the Finnish Institute of Marine Research shows that the species, which first invaded the southern Baltic Sea in late autumn 2006, has spread in just one year throughout the Baltic Sea – with the exception of the Bothnian Bay, where is seems to be unable to survive.

The distribution and abundance of the American comb jelly throughout the Baltic Sea were surveyed in January 2008 by scientists on board R/V Aranda, the research vessel of the Finnish Institute of Marine Research.

The jellies were exceptionally abundant in the well-oxygenated Åland Sea deep, where up to 3,800 individuals could be found per square metre. The current densities are over six times higher than those recorded in late summer 2007, indicating that eggs produced during the autumn have successfully hatched to release many individuals now in their larval stage. American comb jellies have evidently now become numerous in the Gulf of Finland, as well in the southern Baltic Sea, where the largest specimens (approx. 4 cm in length) were observed. Most of the overwintering *M. leidyi* were much smaller, however, at less than 2 mm long.

The survey results show that the American comb jelly can survive ice-free winter conditions in the northern Baltic Sea as well as further south. It is now likely that the species has established a permanent population in the Baltic Sea.



Distribution and abundance of the American comb jelly *(Mnemiopsis leidyi)* in the Baltic Sea as surveyed in January 2008 from the research vessel R/V Aranda by scientists from the Finnish Institute of Marine Research

St. Petersburg, Russia

VIII International Environmental Forum “The Baltic Sea Day”

More than 400 participants from all the Baltic Sea countries, including government officials, diplomats, scientists and business leaders, as well as representatives of the European Commission, major regional organisations, and NGOs took part in the VIII International Environmental Forum “The Baltic Sea Day” on 22-23 March 2007 in St. Petersburg. Discussions focused on the joint international actions needed to reduce the pollution of the Baltic Sea and restore its good ecological status.

The Baltic Sea Day, held annually on the anniversary of the signing of the Helsinki Convention, is considered as an important regional forum to stimulate public awareness of the state of the Baltic marine environment, to enhance political attention to existing problems, and to boost support towards actions needed to protect our common sea. In recent years the Forum has been a big success, attracting hundreds of participants from all of the countries in the Baltic Sea region, and beyond. Established to support and promote the work of HELCOM, it has done a great deal of valuable work in increasing public concern for the state of the Baltic Sea, and strengthening international cooperation among the Baltic Sea countries.

The Baltic Sea Day, which has been observed annually in St. Petersburg since 2000, was established on the basis of a decision made by HELCOM. It is organised by the St. Petersburg NGO Ecology and Business with active support from the Ministry of Natural Resources of the Russian Federation, and the local governments of St. Petersburg and the Leningrad Region, as well as the governments and financial institutions of the Baltic Sea countries.

Continues on the following page

The programme of the Forum included plenary sessions and round tables on a wide range of topics. One of the major themes was HELCOM's new Baltic Sea Action Plan. Participants also looked into such issues as the trilateral cooperation in the Gulf of Finland, sustainable agriculture in the Baltic Sea region, eutrophication problems in the Gulf of Finland and the related need to reduce nutrient loads, tourism and ecology, the EU Marine Strategy and Water Framework Directive, the new Northern Dimension Policy, and the environmental impact assessment of the Nord Stream gas pipeline project.

Keynote speakers at the main plenary session included senior officials of the Government of St. Petersburg, the Ministry of Natural Resources of the Russian Federation, the Federal Environmental, Industrial and Nuclear Supervision Service of the Russian Government (Rosprirodnadzor), the Ecology Committee of the State Duma, the European Commission, the Nordic Investment Bank, the Nordic Council, the Baltic Sea Parliamentary Conference, the European Bank for Reconstruction and Development, the Nordic Environment Finance Corporation, COWI consulting group, and Vodokanal St. Petersburg.

Wastewater treatment boosted in St. Petersburg - cooperation to improve the state of the Gulf of Finland continuing

An efficient phosphorus removal system has been commissioned at St. Petersburg's Central Wastewater Treatment Plant. The new facility will reduce eutrophication in the Gulf of Finland. Participants at the inauguration held on 1 October 2007 in St. Petersburg included (on photo from right to left) the President of Finland Tarja Halonen, the Minister of the Environment of Finland Kimmo Tiilikainen, St. Petersburg's Deputy Governor Mikhail Oseyevski, the Chairman of the John Nurminen Foundation, Juha Nurminen, and Vodokanal St. Peterburg General Director Felix Karmazinov. The total price tag for the phosphorus removal investment at the central treatment plant is around €1.9 million, including funding of about €0.6 million provided by the Finnish Ministry of the Environment.

The project is part of an ongoing long-term cooperation programme between Vodokanal St. Petersburg, the city's water and wastewater utility, and the Finnish Ministry of the Environment. A Memorandum of Understanding between the Finnish Ministry of the Environment and the St. Petersburg Central Wastewater Treatment Plant was signed by Environment Minister Kimmo Tiilikainen and Vodokanal's General Director Felix Karmazinov.

Finnish President Tarja Halonen and St. Petersburg's Deputy Governor Mikhail Oseyevski together pressed the button to start up the new phosphorus removal facility

Phosphorus removal a cost-effective method of combating blue-green algae

The enhanced phosphorus removal process of the St. Petersburg Central Wastewater Treatment Plant is, according to research, the single most cost-effective measure available for improving the ecological state of the Gulf of Finland. It will reduce the phosphorus loads entering the Gulf of Finland by 300-500 tonnes per year, corresponding to some 5-8% of the total phosphorus input into the Gulf.

Vodokanal's objective for all of its treatment plants is to reduce phosphorus concentrations in effluent to below the 1.0 mg/l maximum level required by the EU. This is considerably lower than the 1.5 mg/l target level recommended by HELCOM.

Phosphorus removal at St. Petersburg's treatment plants is carried out in cooperation with a number of actors. The John Nurminen Foundation's Clean Baltic Sea Project has secured funding from various Finnish companies and private donors, and the Finnish Ministry of the Environment has funded the necessary equipment deliveries, as well as on-site tests conducted to determine how to maximise the cost-effectiveness of joint chemical and biological phosphorus removal. The tests aim to find ways to reduce post-treatment phosphorus levels in wastewater to less than 0.5 mg/l.

Cooperation with Vodokanal to continue

The primary objective of the new Memorandum of Understanding concerning the years 2008-2011 is to further reduce wastewater loads from the city of St. Petersburg. The Finnish Ministry

Continues on the following page

The new phosphorus removal system at St. Petersburg's Central Wastewater Treatment Plant will reduce the phosphorus loads entering of the Gulf of Finland by 300 - 500 tonnes per year, corresponding to some 5-8% of the total phosphorus input

of the Environment will continue to prioritise support for projects that have an immediate impact on improving the state of the Gulf of Finland. Such projects include the construction of the Neva river sewer tunnel, halting the discharges of untreated wastewater, and improving the efficiency of wastewater treatment.

Cooperation is being based on a comprehensive study of various cost-effective water protection investments in St. Petersburg.

Since the establishment of the cooperation programme in 1991, Vodokanal St. Petersburg has implemented nearly 100 projects designed to enhance water supply and wastewater treatment operations. The Finnish Ministry of the Environment has contributed some 28 million euros as project financing.

President of Latvia visits HELCOM Headquarters

Valdis Zatlers signing HELCOM's guest book

The President of Latvia, Valdis Zatlers, paid a visit to HELCOM's Headquarters in Helsinki on 22 August 2007 as part of a more extensive working visit to Finland.

President Zatlers and his delegation were welcomed by the Executive Secretary of HELCOM Anne Christine Brusendorff and senior staff from the HELCOM Secretariat. During the Meeting, the Executive Secretary briefed the Latvian Head of State

Latvia's President with the HELCOM Secretariat staff

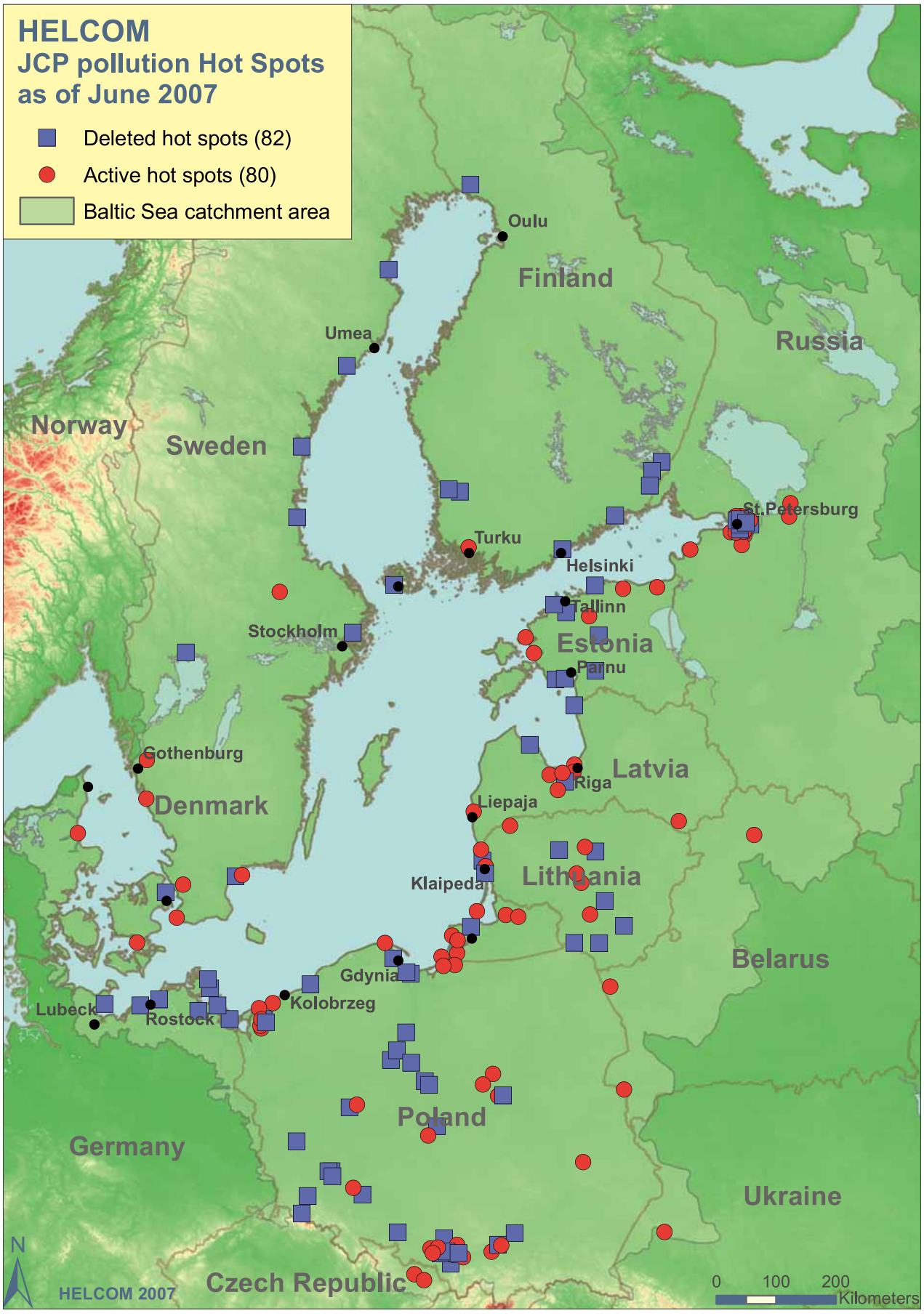
on the current situation in the Baltic marine environment, and the joint measures envisaged by the HELCOM Member States to reduce marine pollution, focusing particularly on the strategic HELCOM Baltic Sea Action Plan to restore the good ecological status of the sea by 2021.

President Zatlers stressed that the protection of the Baltic marine environment today "is an important issue for all the coastal countries, including Latvia". Latvia currently holds the Presidency of the Council of the Baltic Sea States (CBSS), and considering the widespread concern about the high levels of pollution in the Baltic Sea, Zatlers would like CBSS, as an overall political forum for regional intergovernmental cooperation, to be more involved in solving such problems and providing support to the work of HELCOM. "We would like to hear HELCOM's opinion, proposals on how CBSS could be involved in solving the environmental and maritime safety problems in the region, and ideas about what we can do to help improve the overall situation in the Baltic Sea," said President Zatlers.

The President of Latvia, Valdis Zatlers, and his delegation meeting with senior staff from HELCOM's Secretariat

Executive Secretary Brusendorff reiterated that HELCOM, as the environmental policy-maker in the Baltic Sea area, has the requisite environmental knowledge and technical expertise to devise the necessary measures for the recovery of the troubled sea, but is looking to CBSS primarily for political support in order to "get HELCOM's actions through".

President Zatlers' first visit to HELCOM was seen as symbolically important, reflecting Latvia's support for HELCOM and commitment to the overarching HELCOM Baltic Sea Action Plan.


HELCOM
JCP pollution Hot Spots
as of June 2007
Deleted hot spots (82)
Active hot spots (80)
Baltic Sea catchment area
Oulu
Finland
Umea
Russia
Norway
Sweden
St.Petersburg
Turku
Helsinki
Tallinn
Stockholm
Estonia
Parnu
Gothenburg
Latvia
Riga
Denmark
Liepaja
Klaipeda
Lithuania
Belarus
Gdynia
Kolobrzeg
Lubeck
Rostock
Poland
Germany
Ukraine
Czech Republic
N
HELCOM 2007
0
100
200
Kilometers

HELCOM passes the halfway mark in the elimination of Baltic Sea pollution hot spots

The Heads of Delegation of the HELCOM member countries, meeting in the Finnish capital on 20-21 June 2007, approved the removal of another major hot spot from the list of the Baltic Sea's most significant pollution sources. This latest development means that more than half of the designated 162 pollution hot spots in the region have now been eliminated.

The most recently deleted hot spot is a wastewater treatment plant at Tychy Urbanowice, near Katowice, in Poland. This plant has made major investments that have resulted in significant reductions in pollution, and achieved compliance with HELCOM requirements for municipal wastewater.

The Hot Spots List of the most significant point sources of pollution around the Baltic Sea was first drawn up under the HELCOM Baltic Sea Joint Comprehensive Environmental Action Programme (JCP) in 1992. The hot spots were designated by an international group of scientists, engineers, environmental managers, bankers and national representatives, according to practical economic considerations as well as the seriousness of their impact on the environment and human health.

The objective of the JCP is to facilitate the implementation of pollution reduction measures at the most polluted sites in the Baltic Sea catchment area. This programme, which should be completed by 2012 at the latest, specifies a series of actions to be undertaken at pollution hot spots. The most notorious hot spots are point sources such as municipal facilities and industrial plants. But the programme also covers pollution from agricultural areas and rural settlements, and sensitive areas, such as coastal lagoons and wetlands where special environmental measures are needed.

Photo: Sergey Vlasov

Certain hot spots have been split into sub-hot spots in order to facilitate their management and actions to reduce pollution. After the latest deletion, a total of 80 hot spots and sub-hot spots remain on the list, following the deletion of 82 of the earlier identified 162 hot spots/sub-hot spots.

Alleviating pollution at hot spots involves considerable investments. In 1992, it was estimated that total funding of ECU 18 billion would be needed to finance the necessary measures at all the hot spots. Today, rough estimates of the total clean up costs for the remaining hot spots amount to €9-11 billion.

Investments and remediation projects carried out at pollution hot spots around the Baltic Sea have contributed substantially towards overall pollution load reductions in the Baltic Sea catchment area. Water quality in many coastal waters of the Baltic Sea has improved considerably since 1992, reflecting welcome progress in the treatment of municipal and industrial wastewater.

Latest data on pollution inputs into the Baltic Sea

The Baltic marine environment is still being degraded, as economic activities in the region generate serious pollution and overexploit fragile ecosystems, according to the latest HELCOM Indicator Fact Sheets. At a Meeting on 8-12 October 2007 in Helsinki HELCOM's Monitoring and Assessment Group (HELCOM MONAS) presented new information on sources and quantities of inputs of harmful substances into the Baltic Sea, as well their effects on the state of the marine environment.

Experts from the coastal countries have compiled a set of new and updated Indicator Fact Sheets showing current trends in pollution loads and their impacts on Baltic ecosystems. The reports, 37 in all, particularly provide the latest data on inputs of nutrients and hazardous substances, which are largely responsible for the ongoing degradation of the marine environment. The data includes details of concentrations of heavy metals and dioxin in fish, shifts in the Baltic Sea summer phytoplankton communities, the distributions and quantities of recently arrived aquatic invasive species, and illegal oil discharges at sea. One of the newest Indicator Fact Sheets approved at the Meeting is dedicated to liquid discharges of artificial radionuclides from local nuclear installations.

HELCOM's indicators provide a crucial background to help shape the management of environmental problems. These indicators are compiled by dedicated research institutions around the Baltic Sea, and approved by HELCOM MONAS. They are primarily based on variables studied in HELCOM monitoring programmes. Each indicator only provides limited information on a specific issue, but when combined, the indicators can reflect conditions and trends in the whole ecosystem.

The latest Indicator Fact Sheets are available at http://www.helcom.fi/environment2/ifs/ifs2007/en_GB/cover/.

Photo: Ilkka Lastumäki, FIMR

Photo: Maija Huttunen, FIMR

Eutrophication intensifies phytoplankton blooms

Eutrophication is the result of excessive nutrient inputs, and is an issue of major concern almost everywhere around the Baltic Sea. Satellite-derived measures of chlorophyll-like pigments in the Baltic Sea are clearly higher than in the Skagerrak and North Sea. Average biomass production has increased by a factor of 2.5 compared to natural levels, leading to decreased water clarity, exceptionally intense algal blooms, more extensive areas of oxygen-depleted sea beds, degraded habitats, and changes in species' abundance and distribution.

Annual integrated rates for the sedimentation of organic matter in the Gotland Sea show no significant trends between 1995 and 2003. The bacterioplankton growth rate in the deep waters of the Gulf of Bothnian suggests that oxygen consumption conditions have been at least good during the past decade. However, reductions in water clarity have been observed in all Baltic Sea sub-regions over the last century, especially in the Northern Baltic Proper and the Gulf of Finland.

No rising trend can be detected in spring blooms from 1992 to 2006 in the Gulf of Finland, the northern Baltic Proper or the Arkona Basin. In 2006, the spring bloom in the Gulf of Finland was less than half the size of last year's bloom, and blooms in the Arkona Basin were negligible.

Chlorophyll *a* concentrations exceeded 3mg m^{-3} for more than 60% of the days during the summer period 2006 (June-September) in the Arkona, Bornholm, Eastern Gotland and Northern Gotland Basins, and in the Gulf of Riga and the Gulf of Finland. Patterns of dissolved inorganic nutrients in the winter nutrient pool may reflect reductions in nutrient inputs in the 1990s, as well as the high rainfall and runoff experienced at the beginning of 2007. Dissolved inorganic nitrogen concentrations remain below the 1993 - 2002 average, except in the Belt Sea, the Kattegat and southern Swedish coastal waters. Dissolved inorganic phosphorus concentrations remain high in the Baltic Proper. The natural Baltic outflow through the Sound and Belt Sea has also led to higher dissolved inorganic phosphorus levels even in the eastern Kattegat.

Over the decade since 1997, cyanobacteria have been most abundant in 1999 and 2000. Large variations were observable in consecutive years. In 2006, the index for toxic *Nodularia spumigena* rank-based abundance was almost at the same level as in the previous five years, while *Aphanizomenon flos-aquae* showed a minor increase during 2006 in comparison to the previous

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year. In the summer of 2007, however, the normalised indexes for cyanobacteria bloom intensity, duration and extent were the lowest recorded during the period 1997-2007. Nevertheless, blooms were detected in most parts of the Baltic region, with the exception of the Bothnian Bay. The low incidence of blue-green algal blooms during the summer of 2007 is mainly the result of unfavourable weather conditions for cyanobacteria. Cold, windy and rainy weather conditions generally prevailed, preventing the formation of surface accumulations of cyanobacteria.

Life pulsates according to seawater inflows

The present state of the Baltic Sea is not only the result of anthropogenic pressures, but is also influenced by hydrographic forces such as the varying natural exchange of water between the Baltic Sea and the North Sea. After the major inflow of January 2003, which renewed most of the deep water in the Baltic Sea, a new stagnation period started in 2004 for the deep basins of the Baltic. The subsequent period has been characterised by low inflows, and, except in the southern Baltic, the stagnation experienced since 2004/2005 is intensifying.

Hydrogen sulphide is present in a large area of the East Gotland Basin, and below 70 metres in the West Gotland Basin and Northern Baltic Proper. Deep anoxic water even extends up into the Gulf of Finland. This deep water, however, does not make it over the sill into the Gulf of Bothnia and therefore, despite its depth, the Åland Sea remains well oxygenated, even during autumn.

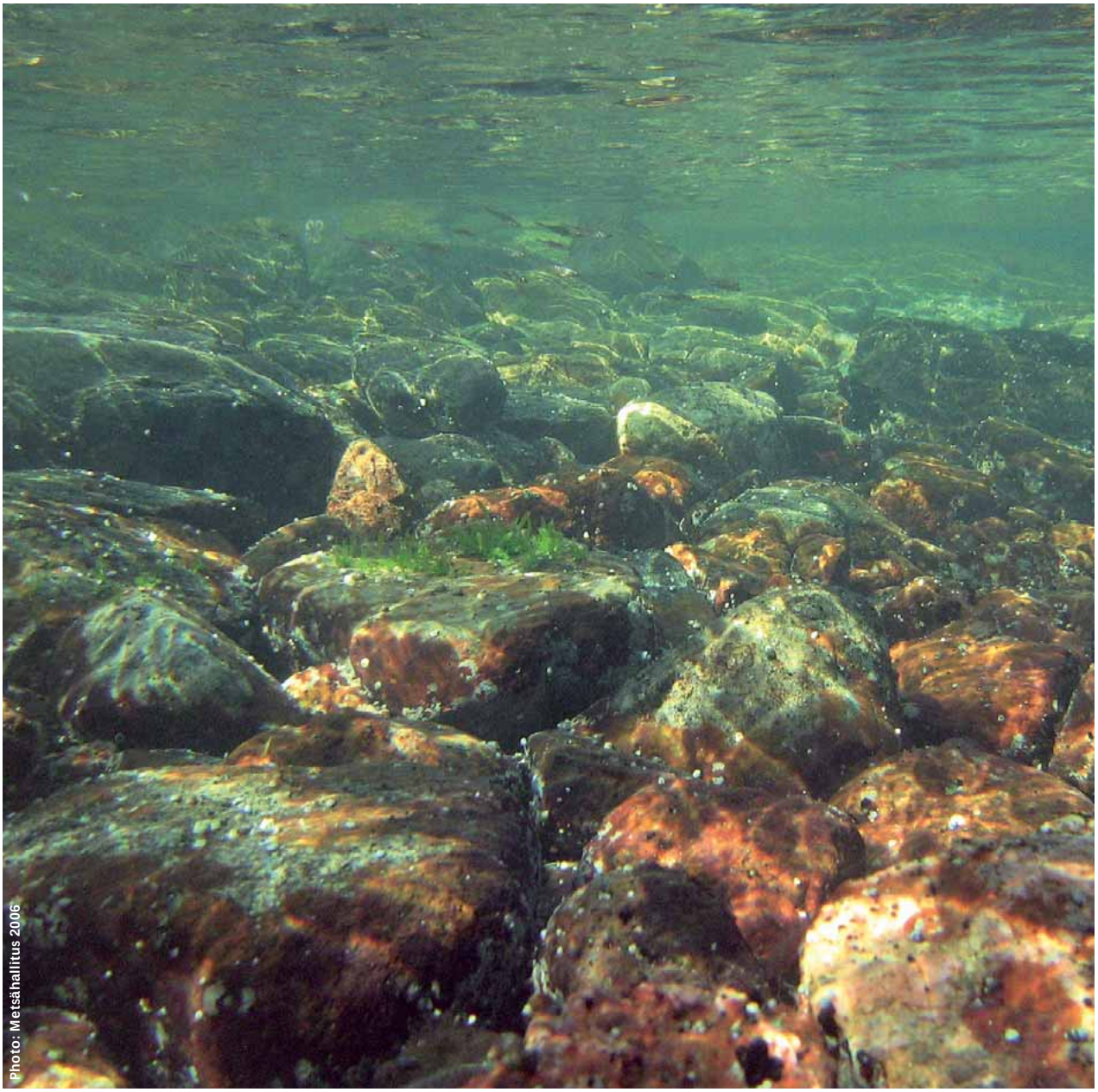

Photo: Metsähallitus 2006

The Baltic Sea continues to suffer the impacts of human activities

The Baltic Sea's habitats and species are threatened by eutrophication and elevated amounts of hazardous substances as a result of decades of human activities in the sea and its surrounding catchment area.

The inputs of some hazardous substances to the Baltic Sea have been reduced considerably over the past 20 to 30 years. In particular discharges of heavy metals have decreased. Significant proportions of heavy metals enter the Baltic via rivers or as direct discharges: 47% for lead, 78% for mercury and 87% for cadmium. The remaining share of inputs is mainly from atmospheric deposition of these heavy metals. Dioxin emissions to the air from the Baltic coastal states have decreased by 24% during the period 1994-2005, whereas atmospheric depositions of dioxins to the Baltic Sea during the same period has decreased by up to 50%.

A wide range of economic activities contribute significant nutrient inputs which enter the sea either via runoff and riverine input or through direct discharges. Although nutrient inputs from point sources such as industrial and municipal facilities have been cut significantly, the total input of nitrogen to the Baltic Sea is still almost a million tonnes per year, of which approximately 25% enters as atmospheric deposition and 75% as waterborne inputs. The total input of phosphorus to the Baltic Sea in 2005 was about 29,000 tonnes, mainly as waterborne input, with the contribution of atmospheric deposition being only 1-5 % of the total. The main source of nutrient inputs is agriculture.

The 2005 waterborne loads for nitrogen and phosphorus were in most countries at the same level as in the previous year because riverine runoff was almost equal to the runoff in 2004. Compared with the 10 year average for 1996-2005, both nitrogen (-5%) and phosphorus (-11%) waterborne loads in 2005 were lower, most probably reflecting the implementation of load reduction measures in the catchment area. Annual emissions of nitrogen from the HELCOM Contracting Parties were lower in 2004 than in 1995. Emissions from outside the Baltic Sea region add to the nitrogen loads entering the Baltic, as do emissions from the ships. In 2005, 16% of nitrogen oxides (NOx) emissions from international shipping traffic were deposited to the Baltic Sea. Mainly because of annual weather variations, no significant temporal patterns can be detected in nitrogen deposition rates for the Baltic Sea and its sub-basins for the period 1995-2000. Nevertheless, a clear decline after the year 2000 can be observed, with reductions of 17%, 13% and 15% in the deposition of oxidized, reduced and total nitrogen, respectively, between 1995 and 2005.

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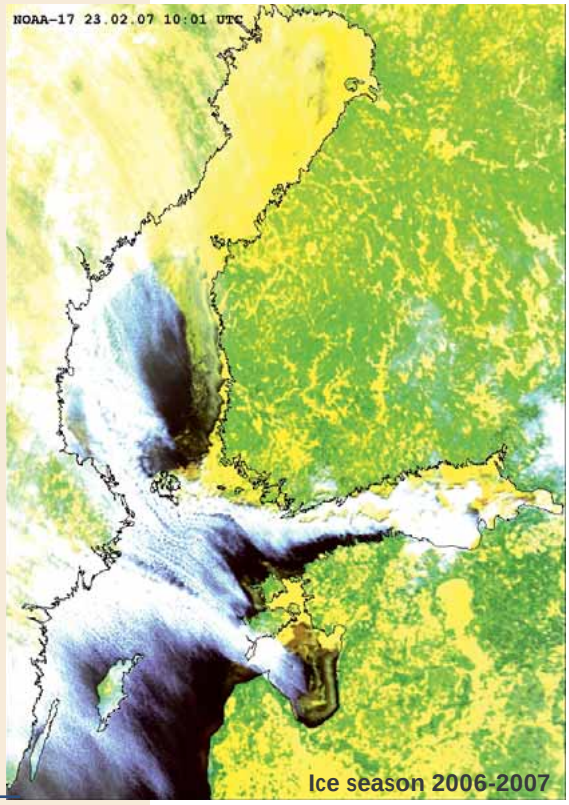
Heavy metals and organic pollutants still persistent in the marine environment

Despite considerable reductions in the inputs of some hazardous substances to the Baltic Sea, the concentrations of heavy metals and organic pollutants in seawater are still several times higher in the Baltic Sea compared to waters of the North Atlantic.

Concentrations of contaminants in fish vary according to substance, species and location. Concentrations of cadmium, lead, PCBs and lindane have all decreased, but there is no general trend observable for mercury concentrations. Dioxins show declining trends due to measures taken to reduce emissions between 1969 and 1985, but after that, this decline has ceased. As for the concentrations of flame retardant HBCD, a significant increase of about 3% per year can be observed in Guillemot eggs, although no general trend is evident for HBCD levels in herring muscle during the monitoring period 1999-2005.

Photo: Riku Lumiaro, FIMR

Levels of radioactivity in Baltic sea water and biota have generally shown declining trends since the Chernobyl accident in 1986, which caused significant fallout throughout the region. Discharges of radionuclides from local nuclear power plants into the Baltic Sea have generally shown decreasing trends during the last decade, and such emissions contribute less than 1% of total inputs of radioactivity into the Baltic Sea. Radioactivity is now slowly transported from the Baltic Sea to the North Sea via Kattegat. The amounts of caesium-137 in Baltic Sea sediments remain largely unchanged, however, with the highest concentrations recorded in the Bothnian Sea and the Gulf of Finland.



Ice season 2006-2007

Changing seasons

Sea surface temperatures in 2006 were characterised by comparatively warm months in July, October and December, and the annual average for 2006 was the warmest during the period 1990-2006. The months February - May were comparatively cold, however. Seasonal variations in the wave climate in the Baltic Sea, Kattegat and Skagerrak in 2006 were rather typical, and no extreme events were measured.

The ice season 2006-2007 was very late, short and mild, in terms of ice extent. The largest total ice cover, 139,000 km², was reached on 23 February. The sea ice broke up about a week earlier than normal in most waters, and by 25 May the Baltic Sea was entirely ice-free.

Ecosystem effects

Variables such as climate-induced changes in temperature and salinity, fishing pressure, and bottom water oxygen conditions (climate and eutrophication induced) have significant impacts on the structures of marine ecosystems.

In 2005, the marine phytoplankton species *Cerataulina pelagica*, *Chaetoceros brevis* and *Dactyliosolen fragilissimus* penetrated far northwards into the Baltic Proper and up to the Lithuanian coast in late autumn, possibly indicating warm water inflows that cannot be identified on the basis of salinity measurements. Statistical analysis reveals contrasting biomass trends for some taxonomical groups of phytoplankton (cyanobacteria, dinophytes, prasinophytes and chlorophytes) in dif-

ferent sub-basins; for example cyanobacteria decreased in the Baltic Proper during last decade, but increased in the Bothnian Sea.

Despite a lack of consistency, high water temperatures during growth seasons in recent years may have affected coastal fish communities in Bothnian Sea. This is reflected in the increased recruitment success and/or increased individual growth rates of species associated with warmer waters. Furthermore, the effects of changes in fishing pressure were observed in the Gulf of Riga and in the southern Baltic Proper. In the Gulf of Riga the high exploitation rate of piscivorous fish during mid 1990s was clearly recognisable, and in the Baltic Proper, flounder (*Platichthys flesus*) increased during the period possibly due to a population recovery after a previous high exploitation rate.

The degenerating state of the Baltic Sea affects marine life in many ways. Macrobenthic communities have been severely degraded by increased eutrophication throughout the Baltic Proper and the Gulf of Finland, and they remain below their long-term averages. Populations of the amphipod *Monoporeia affinis* have crashed in the Gulf of Bothnia and the invasive polychaete *Marenzelleria viridis* has spread.

The appearance and proliferation of alien invasive species has been identified as one of the major threats to marine ecosystems, causing biodiversity loss and adverse environmental, economic and social impacts from the local level upwards. The Baltic Sea is a young and simple ecosystem, which makes it vulnerable to ecological changes. Invasive species often have an opportunity to find a free ecological niche, and consequently establish permanent populations. The present eutrophic conditions and rapid intensification of shipping traffic both make it easier for alien species to invade the Baltic. This increases the related threats to existing ecosystems.

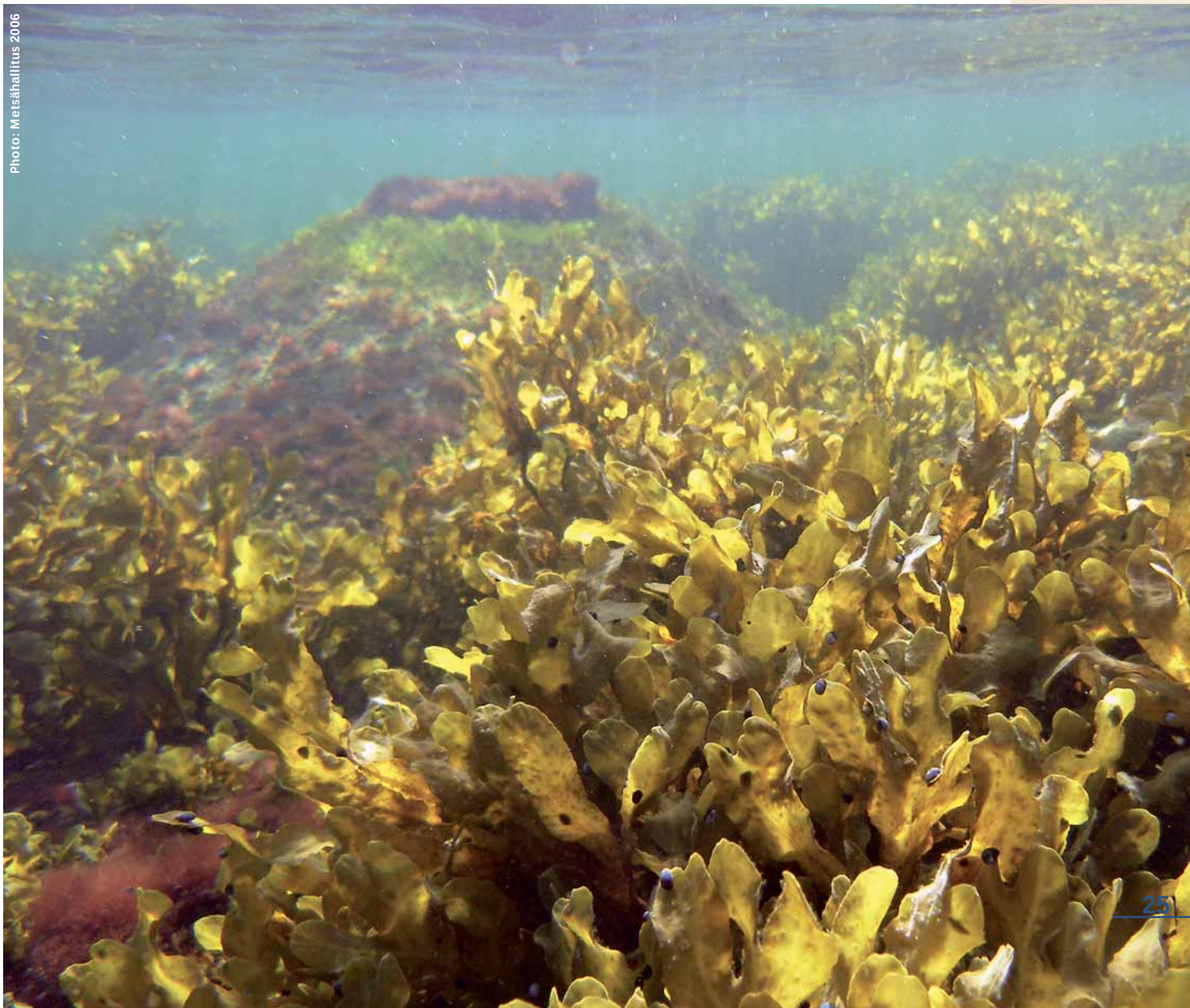


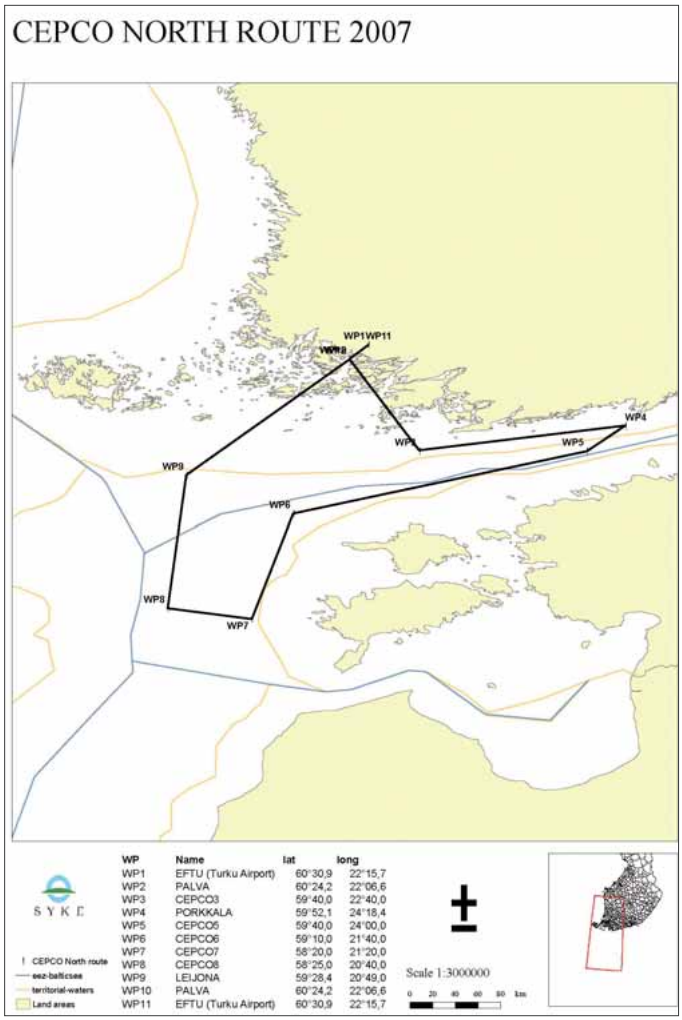
Photo: Metsähallitus 2006

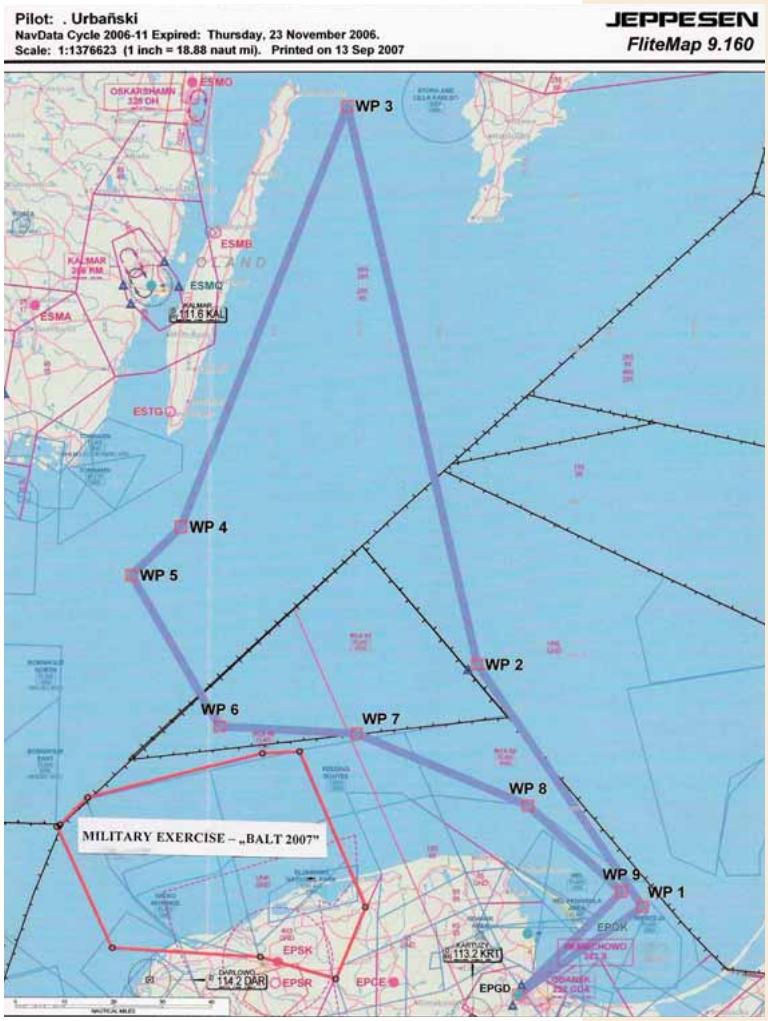
More than 30 illegal oil discharges detected during CEPCO flights in 2007

26 illegal oil discharges were detected during the Helsinki Commission's international CEPCO South 2007 aerial surveillance exercise, which took place on 2-3 October over the south-eastern parts of the Baltic Sea.

Five aircraft from Denmark, Finland, Poland and Sweden participated in the flights, during which they continuously, for 24 hours, surveyed the agreed route for oil pollution. The operation was supported by two vessels from Poland and Sweden in case any investigation would have to be made onboard of ships detected to illegally discharge oil to the sea. And the European Maritime Safety Agency through its CleanSeaNet service provided satellite images of the flight area.

Photo: Sergey Vlasov





CEPCO South Route 2007

Two suspects have been identified in the Swedish waters. The collected evidence was transferred to the Swedish Coast Guard for further investigation.

The exercise was organised by the Maritime Office in Gdynia. The base airport for CEPCO South flights was in Gdansk (Poland). Remote sensing equipment, such as side-looking airborne radars (SLAR), infrared (IR) and ultraviolet (UV) cameras, was used during the operation.

In 2007, HELCOM also held an aerial surveillance exercise in the north-eastern parts of the Baltic Sea. The base airport for CEPCO North flights which were organized on 29-31 May by the Finnish Border Guard and the Finnish Environment Institute was in Turku. The surveillance exercise involved participation of four aircraft from Estonia, Finland, Latvia and Sweden. Five possible oil spills were detected, using mainly satellite imagery as thunderstorms in the Gulf of Finland and the Archipelago Sea hampered the operation during the first two days.

Two CEPCO (Coordinated Extended Pollution Control Operation) flights are arranged annually by HELCOM in the Baltic Sea: one in the south and one in the north. During CEPCO flights several HELCOM countries jointly carry out continuous aerial surveillance activities for 24 hours or more along the predetermined routes in areas where operational spills are likely. CEPCO flights are also planned to support national aerial surveillance data by detecting illegal discharges which would not be disclosed by routine national surveillance activities. This enables a realistic estimation of the total number of oil spills discharged into the Baltic Sea during one randomly selected day.

Illegal oil discharges in the Baltic increase slightly, but still near record lows

The total number of illegal oil discharges from ships annually observed by national surveillance planes in the Baltic Sea area increased slightly, but still remains near record lows, according to a HELCOM study released last June.

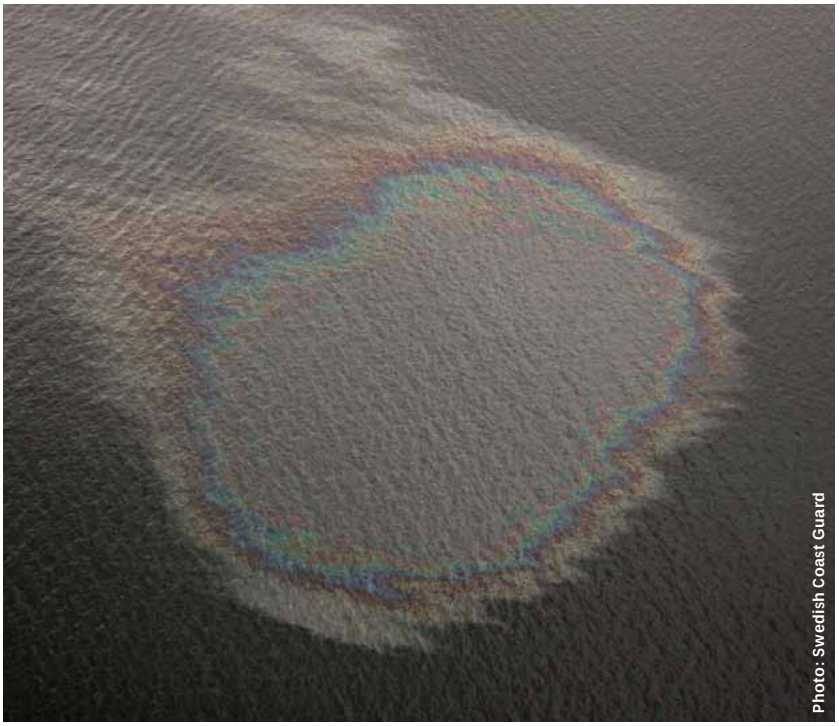


Photo: Swedish Coast Guard

According to the latest national annual reports provided by the Member States to HELCOM, 236 illicit oil spills were detected during a total of 5,128 hours of surveillance flights conducted by the coastal countries over the Baltic Sea during 2006, compared to 224 discharges observed during 5,637 air patrol hours in 2005. Despite the increase, this is still the second lowest number since 1999, when 488 discharges were detected during 4,883 air patrol hours.

"Over the past eight years we have achieved a 50% reduction in the number of illegal oil discharges despite the rapidly growing density of shipping in the Baltic Sea," said Anne Christine Brusendorff, HELCOM's Executive Secretary. "We attribute this to the success of the complex set of measures known as the Baltic Strategy to prevent illegal discharges of oil and waste into the Baltic Sea, which the HELCOM Member States have been implementing since the late 1990s."


Photo: Swedish Coast Guard

Deliberate oil discharges from ships have been regularly observed during surveillance flights over the Baltic Sea since 1988. One of the peak years was 1989, when 763 spills were detected during 3,491 flight hours. Since 1999 the number of discharges has been steadily decreasing.

In 2006, most of the illegal oil discharges were detected along major shipping routes. Up to 86% of the discharges were smaller than one cubic metre. Only one discharge of more than 100 cubic metres of oil (in the south-western Baltic) and two of over ten cubic metres (in the Gulf of Finland) were detected last year, compared to two discharges of over 100 cubic metres and four of over ten cubic metres in 2005.

Regular aerial surveillance flights have contributed significantly to the decrease in discharges, as ships are aware that their illicit polluting activities can be detected. The HELCOM aerial surveillance fleet today consists of more than 20 airplanes and helicopters, many of them equipped with remote sensing equipment such as side-looking airborne radar (SLAR), infrared (IR) and ultraviolet (UV) cameras, photo and video equipment. HELCOM also uses satellite surveillance to detect illegal polluters.

The main objectives of the Baltic Strategy, which was operationalized by the HELCOM Ministerial Meeting in 1998, are to ensure ships' compliance with global and regional discharge regulations and to eliminate illegal discharges into the sea of all wastes from all ships, and thus

prevent pollution of the Baltic Sea. Another objective is to ensure the environmentally sound treatment of ship-generated wastes when these wastes have been delivered to port reception facilities ashore.

A blanket ban today covers all discharges into the Baltic Sea of oil or diluted mixtures containing oil in any form, including crude oil, fuel oil, oil sludge, or refined products. This prohibition stems from the international designation of the Baltic Sea as a "special area" under the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78).

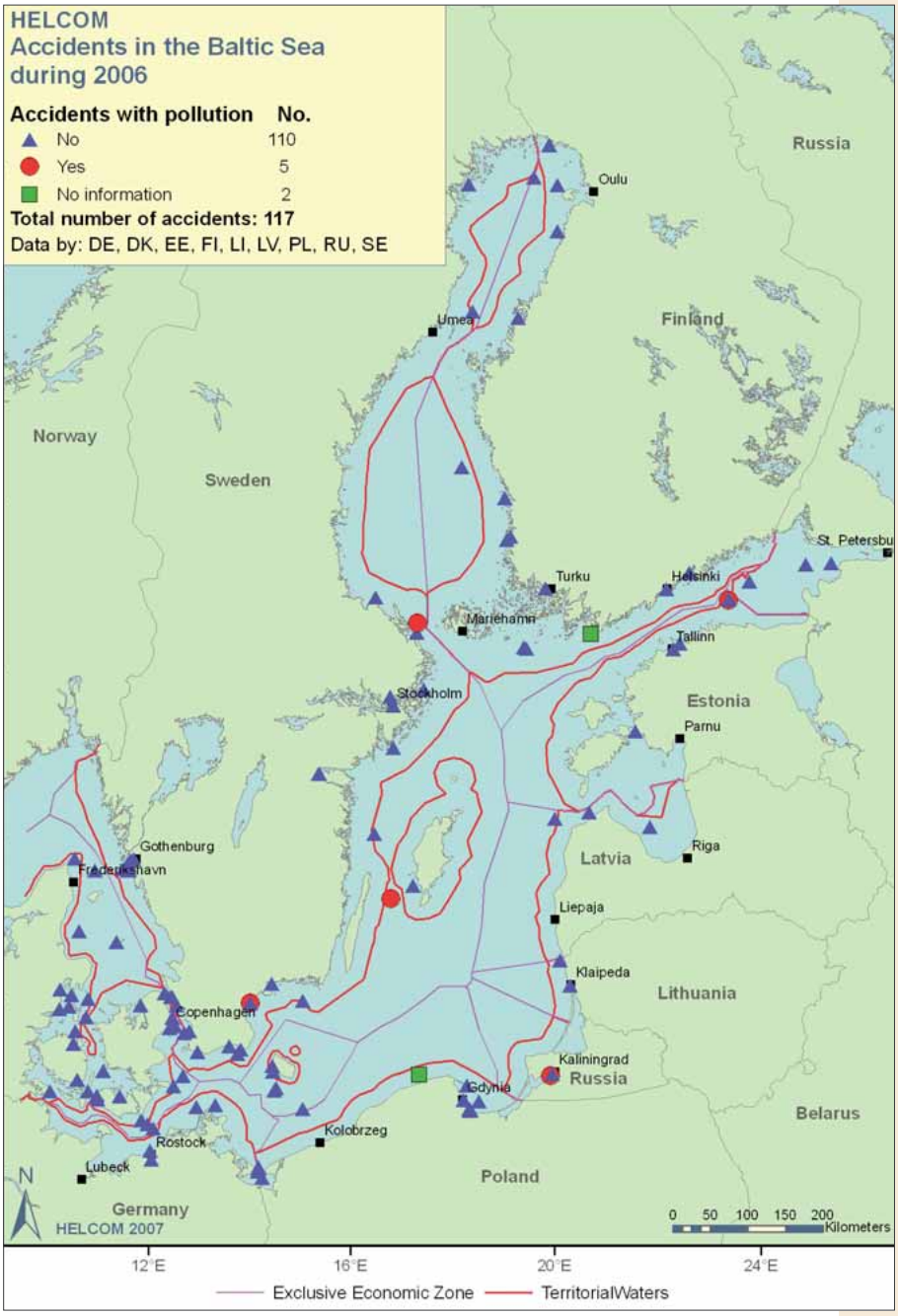
To uphold this prohibition, HELCOM requires all ships, with a few exceptions, to deliver all such oily wastes to reception facilities before leaving port. To further encourage delivery, the countries bordering the Baltic Sea have agreed that ships should not be charged for using such reception facilities, under the "no-special-fee" system. Costs are instead recovered from general harbour fees or general environmental fees, for instance.

The increased amounts of wastes now being delivered to the Baltic Sea ports illustrate that more and more ships are delivering their oily wastes to port reception facilities rather than illegally discharging them into the Baltic Sea.

HELCOM reports a noticeable drop in shipping accidents in the Baltic

The annual number of shipping accidents in the Baltic Sea area, including accidents resulting in oil spills, has significantly decreased for the first time since 2004, although it is still almost twice as high as four or five years ago, according to the latest study released by HELCOM in June 2007.

Analysis of the data contained in the latest national annual reports provided by all the Baltic Sea coastal countries to HELCOM reveals that there were 117 accidents in 2006, compared to 146 in 2005, and 142 in 2004. In 2006, only 5 accidents resulted in small-scale pollution, compared to 13 similar cases in the previous year. Over



the period 2000-2003 there were on average only around 60 accidents recorded each year in the Baltic.

"The latest noticeable decrease in the number of accidents at sea, despite the rapidly growing maritime traffic in the region, is a very welcome development, and we very much hope that this will constitute the beginning of a downward trend," said Anne Christine Brusendorff, Executive Secretary of HELCOM. "Nevertheless the current annual number of accidents is still unacceptable, especially taking into account the 100% increase in 2004 compared to the 2000-2003 data."

According to HELCOM experts, one possible explanation for the apparent increase back in 2004 is the introduction of HELCOM's new reporting requirements for shipping accidents. However, rapidly growing maritime traffic in the region could clearly have contributed to a real increase in the number of accidents.

The Baltic Sea today is one of the busiest seas in the world, accounting for more than 15% of the world's cargo transportation. According to the HELCOM Automatic Identification System (AIS) for monitoring maritime traffic, each month 3,500-5,000 ships ply the waters of the Baltic Sea. Approximately 60-70% of these ships are cargo vessels, and 17-25% are tankers. There are about 2000 ships in the Baltic marine area at any given moment. Forecasts indicate that due to economic growth, especially in the eastern part of the region, the amount of cargo shipped on the Baltic will double from 500 million tonnes a year to 1,000 million tonnes annually by 2015. The transportation of oil and other potentially hazardous cargoes is growing steeply and steadily. By 2015 a 40% increase is expected in the amounts of oil being shipped on the Baltic, which currently stand at 160 million tonnes of oil a year. The use of much bigger tankers is also expected to rise – there will be more tankers in the Baltic carrying 100,000-150,000 tonnes of oil.

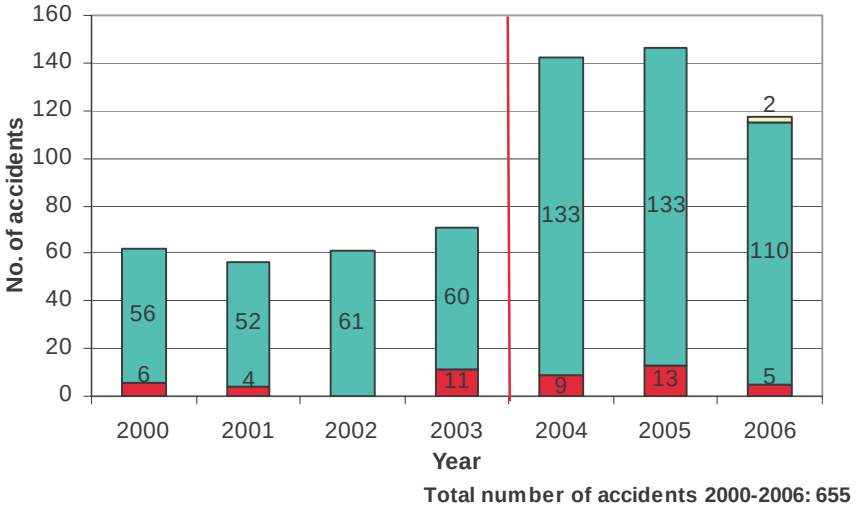
"The latest report shows that most of the accidents occurred in the south-western Baltic Sea," said Monika Stankiewicz, HELCOM's Professional Secretary. "Collisions were the most common type of accidents in the Baltic, accounting for almost a half of all reported cases (46%). For the second year in a row collisions surpassed the number of groundings (39% of all accidents). The share of both types of accidents has increased as much as 10% for collisions and 2% for groundings compared to 2005. Other major types of accidents included fires/explosions (6%) and machinery damage (4%). Collisions between two ships accounted for 52% of all collisions (29 cases) in 2006, and the other collisions involved fixed or floating structures such as piers or navigation signs."

Cargo vessels (56%), tankers (15%) and passenger ferries (17%) were the main types of vessels involved in the accidents. The main cause of accidents in 2006 is not as clear as the year before, due to the lack of information in 35% of all cases. Human error (36%) still seems to continue to be the main factor, followed by technical factors (15%).

Of the five small oil spills which occurred as a result of accidents in 2006, the largest contained 150 cubic metres of oil (following a collision involving two cargo vessels in the Gulf of Finland), the second largest released 10 cubic metres of oil (following a grounding of a vessel in the port of Kaliningrad), and the other spills were no more than 0.1 cubic metres in volume.

Fortunately, most of the accidents in the Baltic do not cause notable pollution, but even one large-scale accident would seriously threaten the marine environment. Over the period 2000-2006, an average of 7% of all reported accidents resulted in some kind of pollution. Two of the five most serious accidents in the Baltic marine area have occurred since 2001 – involving "Baltic Carrier" in 2001 (2,700 tonnes of oil spilt), and "Fu Shan Hai" in 2003 (1,200 tonnes of oil spilt).

Number of reported accidents in the Baltic Sea during the period 2000-2006



Marine litter a concern, but not a major problem in the Baltic

Marine litter is a cause of concern almost everywhere around the Baltic Sea area, but is not seen by experts as a major problem for the marine environment, which is suffering much more seriously from excessive pollution loads of phosphates and nitrates originating from agriculture and untreated sewage. According to the findings of the HELCOM project on marine litter, the Baltic can be considered as one of Europe's less littered seas, thanks to a set of environmental protection measures established by the Helsinki Commission, as well as many clean-up operations conducted by local municipalities and NGOs.

Photo: Lyudmila Romanyuk

The amounts of litter reported by the HELCOM countries and the information provided by NGOs suggest that currently there is no clear trend in the quantities of marine litter found on coasts of the Baltic Sea. The amounts can be substantial in some specific sites near the sources of litter (e.g. shipping routes, rivers, public beaches). The highest amounts in the data from the Baltic Sea were between 700 and 1200 items per 100 m of shoreline, which is similar to the quantities found on beaches around the northern North Sea. However, in many cases the average amounts of litter found along Baltic shores varied between 6 and 16 pieces of litter per 100 m. The amounts of litter found in the Baltic Sea itself are also quite low, compared to other seas. According to some estimates, there may be no more than one item of litter per hectare of sea surface.

"It can be said that litter is not as big a problem in the Baltic Sea as in the North Sea area. But attention should still be paid to the specific places were littering is more extensive and has harmful effects on the environment, or creates a risk or economical losses to the people living on the coast or using coastal areas," said Monika Stankiewicz, HELCOM's Professional Secretary.

The HELCOM project on marine litter was the first effort in the region to look into the scale of this problem, and the actions needed in order to develop and implement specific measures. The project was carried out as part of the Global Marine Litter Initiative of UNEP (GPA and the Regional Seas Programme). The problem of marine litter, also known as marine debris or marine garbage, is widely recognised around the world, and considered to be one of the major threats to our oceans. Globally the US Academy of Sciences has estimated the total input of marine litter into the oceans to be approximately 6.4 million tonnes per year. It is commonly assumed that up to 70% of the marine litter that enters the sea sinks to the bottom, 15% washes up on seashores, and 15% floats on the water surface.

The main sources of marine litter in the Baltic Sea area are tourism and recreational use of the coasts, as well as commercial shipping (fishing boats, cargo ships, tankers, passenger ships) and pleasure craft. The importance of various sources and the amounts of litter involved

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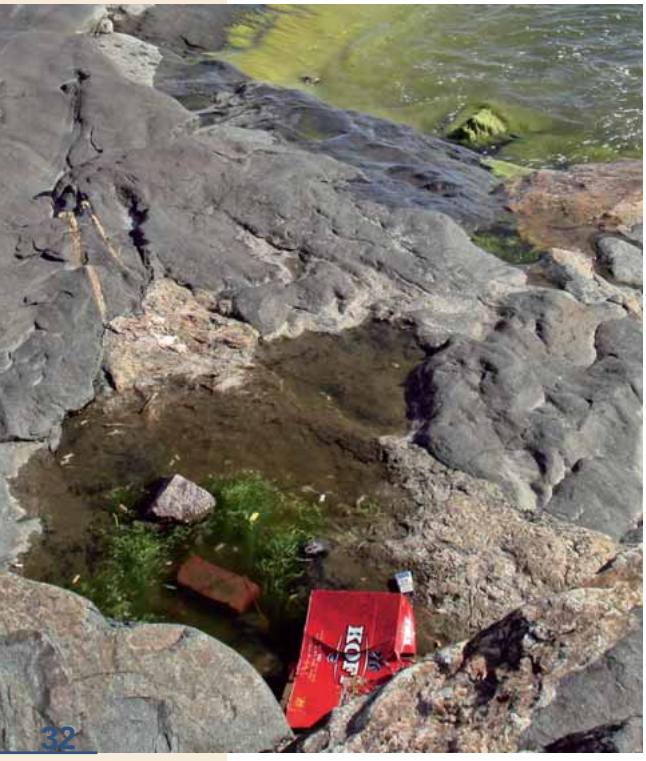
vary in different parts of the region. In the waters around Pärnu in Estonia it is estimated that the total amount of marine litter has decreased from 100-200 tonnes in 1995-1996 to one tonne in 2006. The total amount of marine litter collected during summer months in 2006 in four major Polish ports was 9,300 kg, corresponding to and average of 23 kg per hectare. In 2005 a total of 1,016 m^3 of litter was collected in the waters of the port of St. Petersburg. Figures for Vyborg/Vysotsk and Kaliningrad were 19 m^3 and 132 m^3, respectively. Clean-up operations are often quite expensive. It was estimated that the costs for cleaning up the beaches in Bohuslän on the West Coast of Sweden in 1997 were at least SEK 10 million (€1,125,000). Poland reported that the cost of beach cleaning in five municipalities and the removal of litter from two harbours in 2006 amounted to around €570,000.



In the Gulf of Bothnia and the Åland archipelago most of the items of litter that could be identified originated from cruise liners going between Finland and Sweden, or recreational boating. In the western part of the Gulf of Finland litter was mainly from cargo ships. According to the texts on labels, most items originated from Russia, the Baltic States and Poland. In the eastern Gulf of Finland most litter originated from shipping. Items of litter related to fishing activities were abundant everywhere in the Baltic Sea.

Based on the outcomes of the marine litter project, HELCOM has developed new measures which are now part of the new HELCOM Baltic Sea Action Plan. The plan requires that marine litter caught in the fishing nets and trawls should also be covered by the "no-special-fee" system for ship generated wastes. It also includes measures to raise public awareness of the environmental and economic effects of marine litter, and to support regular beach clean-up activities.

HELCOM fleet stages live disaster exercise off Estonia

A fleet of oil-combating ships from the Baltic Sea countries working jointly under HELCOM's flag conducted a successful operation to contain and recover a simulated massive oil spill from a 100,000 tonne tanker grounded off the Estonian capital, Tallinn, as part of the international oil spill response exercise BALEX DELTA, held on 6 September 2007.

Seventeen oil pollution response ships and smaller vessels from six HELCOM Member States - Estonia, Denmark, Finland, Latvia, Poland, Sweden - and the European Maritime Safety Agency (EMSA) took part in this annual operational exercise designed to test the coastal states' capabilities to deal collaboratively with a major environmental disaster at sea.

BALEX DELTA, the largest maritime emergency and counter-pollution drill of its kind in the Baltic marine area, and one of the largest worldwide, involved the release of simulated oil from a grounded tanker, the deployment of pollution response vessels from the coastal countries, the establishment of a unified command structure and communication system, and a full-scale oil recovery operation at the site of the accident, including the actual deployment of oil containment booms and skimming equipment.

"The exercise was a success, and the assigned mission was fully accomplished, despite the rough weather conditions at sea, which tested both equipment and personnel" said Thomas Fagö, Chairman of the HELCOM Response Group. "As expected, it also uncovered some issues that will have to be addressed in order to make this operation even more efficient. But overall the results of BALEX DELTA 2007 demonstrate

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that we have considerably improved our response capabilities over the past years, and are now more than ever prepared and capable of dealing with a major oil accident at sea," added Fagö.

The main aim of the exercise was to test HELCOM's response system, command structure and communication system, as well as the cooperation and coordination between the various response units of the Baltic Sea countries. Another main goal of the exercise was to test response times. A prompt response within hours of an oil accident can be critical, and may well prevent a serious situation developing into an environmental disaster.

Fagö underlined the crucial importance of such exercises for maintaining the coastal countries' preparedness to deal with a major oil accident at sea. "Timely, effective and joint response to such disasters requires constant practice. BALEX DELTA provides us with an important opportunity to test and improve the capabilities of the response units of the HELCOM Fleet before a real oil accident occurs. It also gives the host nation an excellent opportunity to test its own capacity to command and control an international operation with a large response fleet," said Fagö.

This year's HELCOM annual exercise was organised by the Estonian Border Guard. The exercise involved a scenario where a large oil tanker carrying a cargo of around 100,000 tonnes of crude oil runs aground off the west coast of the Estonian island of Naissaare, near Tallinn. As a result of the grounding the oil tanker looses around 20,000 tonnes of its cargo, which drifts towards the Estonian coastline. Units from the HELCOM countries were tasked to jointly prevent the oil slick from coming ashore. The oil spilled during the exercise was simulated by the release of a large amount of popcorn at the site of hypothetical grounding.

BALEX DELTA operational response exercises have been held annually since 1989. Throughout this time HELCOM has steadily improved the readiness of the countries around the Baltic to jointly respond to oil spills at sea. The Baltic Sea countries now have a total of more than 30 response vessels located around the region. These vessels are able to reach any place in the Baltic Sea within 6 to 48 hours of notification of an accident.

The issue of response to accidents at sea has a high priority within the Baltic Sea region. Very specific hydrographic, chemical and physical conditions make the Baltic Sea extremely sensitive to pollution. Any large-scale oil spill could lead to an environmental catastrophe. The risk of such a spill occurring has increased substantially over the last decade, due to the rising number of cargo ships carrying large amounts of fuel, and the constantly increasing volumes of oil transported on the Baltic.

Polish team wins HELCOM Trophy

The Polish team from the oil pollution combating vessel Kapitan Poinc won the 12th annual HELCOM Trophy international rowing competition, which was held on 7 September in Tallinn, Estonia, following the pollution response exercise BALEX DELTA 2007.

Seven teams representing oil spill response vessels from Denmark, Estonia, Finland, Latvia, Poland and Sweden, as well as the European Maritime Safety Agency (EMSA), took part in this year's race, which was hosted by the Estonian Border Guard Sea Base.

The Polish victors of the 12th annual HELCOM Trophy international rowing competition

This year's event was not a straight race to be the first to cross the finish line. The teams had to post best combined time over two races to win the competition. Each team consisted of six rowers and a helmsman. In the qualifying race the best times were recorded by the teams from Poland (6min 40s), Finland (6min 52s) and EMSA (6min 59s). The final race was won by the Finnish team (6min19s), followed by the Polish (6min 28s) and EMSA (6min 57s) crews. But based on the fasted combined time (qualifying and final race) the Polish team was declared the winner. The Finnish crew from the response vessel Hylje, which won the HELCOM Trophy in 2006, posted the second best overall time, and EMSA's team took the third place.

Twelve HELCOM rowing competitions have now been held since 1990. The race has been won six times by Swedish teams, and twice each by Finnish, Lithuanian and Polish teams.

The next annual HELCOM Trophy rowing competition will be held in Russia – the host of the HELCOM BALEX DELTA 2008 oil pollution response exercise.

Winners of the HELCOM Trophy rowing competition:

2007 (Tallinn) – Poland
2006 (Gdynia) – Finland
2005 (Karlskrona) – Sweden
2004 (Warnemünde) – Sweden
2003 (Helsinki) – Sweden
2002 (Liepaja) – Lithuania
2001 (Rönne) – Lithuania
2000 (St. Petersburg) – Sweden
1998 (Gdynia) – Finland
1996 (Karlskrona) – Poland
1991 (Rönne) – Sweden
1990 (Gdynia) – Sweden

The Polish team from the oil pollution combating vessel Kapitan Poinc

HELCOM calls for tighter IMO regulations to prevent predicted increase in air pollution from ships

Tighter international regulations are needed to prevent a predicted sharp increase in nitrogen oxide (NOx) emissions from ships in the Baltic Sea, according to a joint document submitted by the HELCOM countries for the 57th session of the IMO Marine Environment Protection Committee in March 2008. This meeting is expected to approve new requirements for NOx and SOx emissions under Annex VI of the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78).

"The call for stricter IMO requirements is part of the HELCOM Baltic Sea Action Plan to drastically reduce pollution to the sea and restore its good ecological status by 2021," said Anne Christine Brusendorff, HELCOM's Executive Secretary. "This submission is based on a study prepared for HELCOM by the research programme ShipNODeff. It provides the first reliable estimates of the atmospheric emissions from shipping in the Baltic Sea, as well as includes a set of scenarios estimating how much NOx emissions from ships in the Baltic would be reduced if different proposed IMO emission control measures were adopted."

Several scenarios were calculated until the year 2030. The study reveals that with the projected annual 5.2% growth of maritime traffic in the Baltic Sea the proposed set of subsequent IMO measures – 19% reductions in emissions from diesel engines to be implemented after 2011, and 50% after 2015 - would not change

the situation, and could even lead to further increases in emissions in the region. Only the most challenging requirement – for an 80% reduction in emissions from marine diesel engines installed on ships on or after 1 January 2015 - would reverse the increasing trend of NOx emissions by 2030.

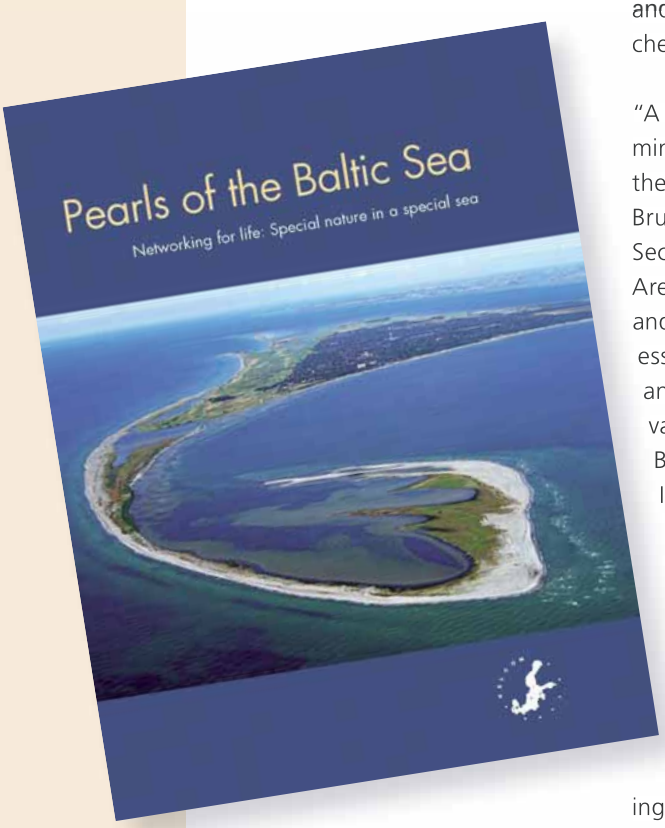
Atmospheric nitrogen deposition is one of the main contributors to the high nutrient concentrations that stimulate massive algae blooms in the Baltic. The most recent calculations identify shipping as the largest contributor to atmospheric nitrogen oxide deposition to the Baltic Sea, with a share of 16%. However, the study also shows that this contribution amounts to 50% in some areas and seasons. The total annual NOx emissions from ships are estimated at more than 370,000 tonnes. This estimate is based on information from the HELCOM Automatic Identification System for monitoring ship traffic in the Baltic Sea, verified against information on fuel consumption obtained from shipping companies and measurements of air quality near fairways.

NOx emissions from shipping in Finnish waters are higher than emissions from Finnish land-based traffic. The report estimates that emissions from shipping in the whole of the Baltic Sea are comparable to the combined land-based NOx emissions from Denmark and Sweden. Most of these emissions are concentrated on the southern part of the Baltic Sea, around the Danish straits and the Kiel Canal where shipping is intense, but significant emissions also occur throughout the Gulf of Finland.

Two vessel classes particularly produce significant amounts of NOx compared to the number of ships involved: passenger ships (20.5% of total annual emissions); and Ro-Ro cargo ships (16.5%). Vessels constructed after 1990 produce almost 60% of the total emissions.

New HELCOM book takes readers on a grand tour of the Baltic Sea Protected Areas

In November 2007, HELCOM published a new book entitled "Pearls of the Baltic Sea". This first comprehensive regional overview takes readers on an exciting grand tour around the Baltic Sea to discover nearly 100 marine and coastal landscapes that form the string of pearls known as the network of Baltic Sea Protected Areas (BSPAs).



A journey through this mosaic of coastal landscapes and underwater worlds is also a journey through the fascinating history of the Baltic Sea region. The book forms a beautifully illustrated field lesson in geology, geomorphology, glaciology, plate tectonics, brackish-water ecology and much more.

The Baltic Sea and the land around it have been shaped by various interacting natural forces on a colossal scale. All of the stages in this dramatic process have played a part in creating the features and characteristics we can see today: the natural features and ecosystems of the Baltic Sea region. Changes and transformations have taken place over thousands, millions, indeed billions, of years, and formed special, in some cases globally unique, formations and environments for us to enjoy, cherish and protect.

"A tour of these areas is also a reminder of how much is at stake for the future," says Anne Christine Brusendorff, HELCOM's Executive Secretary. "The Baltic Sea Protected Areas delight the eye and the soul, and at the same time constitute essential habitats for plants and animals. Alarmingly, however, the valuable natural features of the Baltic Sea and its coasts are at risk. If we take them for granted, these natural pearls will gradually lose their lustre. Nature conservation is only partly about protecting nature for the sake of nature itself. Preserving, cherishing and generously extending this network of protected areas is not just a matter of maintaining the grandness and beauty of the highly special environments in the Baltic Sea region. It is truly networking for life."

Photographers from all of the countries around the Baltic Sea have contributed well over 180 photos (including many fascinating underwater images). Many of these photos are from areas that are very dear to these photographers, many of whom are also professional nature conservationists, so readers of this 200-page hardcover book will see a selection of memorable images that have an experienced yet personal touch.

The book's accessible description of the colourful natural history of the Baltic Sea region – this young sea in an ancient cradle – is complemented by facts and figures about the Baltic Sea's many diverse biotopes and the Baltic Sea as a whole.

The book was written and edited by the Swedish environment and science writers Britt Hägerhäll Aniansson and Bertil Hägerhäll, in close collaboration with a team of HELCOM experts.

To order the book, please visit www.helcom.fi/press_office/en_GB/bookorder/.

Latest HELCOM Publications

HELCOM Baltic Sea Action Plan

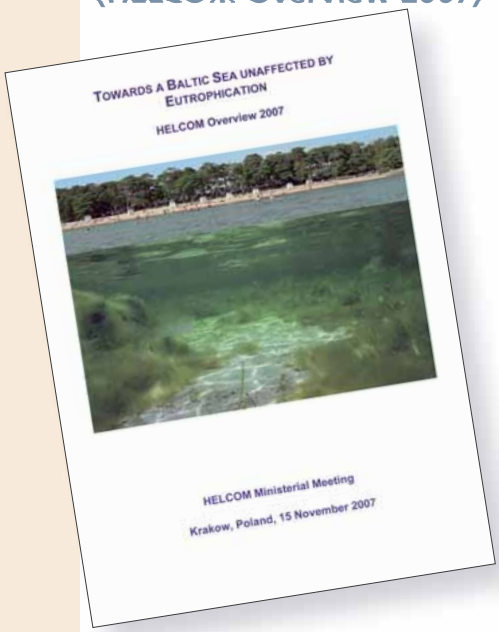
This is a full version of the Baltic Sea Action Plan, which was adopted at the HELCOM Ministerial Meeting on 15 November 2007 in Krakow, Poland. The 100-page plan consists of nine major sections, as well as a set of supporting HELCOM Recommendations and other documents. The preamble explains the plan's purpose and describes its core policy, which is based on the application of the innovative ecosystem approach to environmental management. The next four segments describe the measures that can be taken to solve all major environmental problems affecting the Baltic Sea - to curb eutrophication, prevent pollution involving hazardous substances, improve maritime safety and accident response capacity, and halt habitat destruction and the decline in biodiversity. Each of these four segments contains 1) a short description of the problem area; 2) a listing of the ecological objectives and indicators with target levels that will be used to monitor and evaluate the implementation of the plan; and 3) a set of actions needed to achieve the desired state of the marine environment. The next major sections of the plan detail an evaluation mechanism to measure the implementation status of actions, and a review mechanism for the plan itself, as well as actions for awareness raising, capacity building and financing. For the online version of the HELCOM Baltic Sea Action Plan, please visit http://www.helcom.fi/BSAP/en_GB/intro/.

HELCOM Ministerial Meeting in Krakow

This comprehensive set of on-line materials relates to the Meeting of the Ministers of the Environment and Senior Government Officials of the Member States of HELCOM, which was held on 15 November 2007 in Krakow, Poland. This historic meeting involved the adoption of HELCOM's new action plan to drastically reduce pollution to the Baltic Sea and restore its good ecological status by 2021. The

materials include all of the documents adopted at the Ministerial Meeting, as well as background information materials, a Summary of the Baltic Sea Action Plan, statements by the high-level officials, and photos from the Meeting. The materials are available on the HELCOM website at http://www.helcom.fi/BSAP/MinisterialMeeting/en_GB/Ministerial_Meeting_2007/.

Towards a Baltic Sea unaffected by Eutrophication (HELCOM Overview 2007)



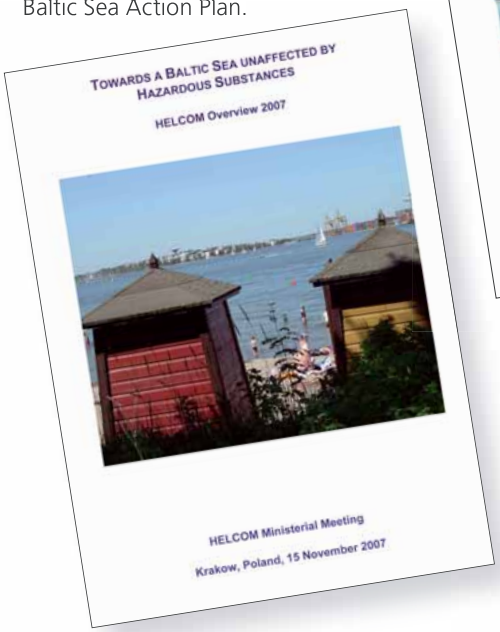
The aim of this concise overview, which was submitted as background information material for the HELCOM Ministerial Meeting in November 2007, is not to provide a comprehensive assessment on the status of eutrophication in the Baltic Sea, but rather to make a first attempt to:

- show how ecological objectives can be used as basic assessment tools for evaluating whether the Baltic Sea has reached a good status with respect to eutrophication,
- present a set of scenarios for future nutrient inputs to the Baltic Sea and their consequent effects on the environment,
- present definitions for the nutrient reductions needed over the Baltic Sea as a whole and also by sub-region, as well as the country-specific allocations of load reductions included in the HELCOM Baltic Sea Action Plan that will be needed to reach good environmental status according to the Baltic NEST model, and
- outline the current state and trends in the marine environment with respect to eutrophication, thus justifying the actions included in the HELCOM Baltic Sea Action Plan.

Towards a Baltic Sea unaffected by Hazardous Substances (HELCOM Overview 2007)

The aim of this concise overview, which was submitted as background information material for the HELCOM Ministerial Meeting in November 2007, is not to provide a comprehensive assessment of the extent of the impacts of hazardous substance on Baltic Sea environment, but rather to make a first attempt to:

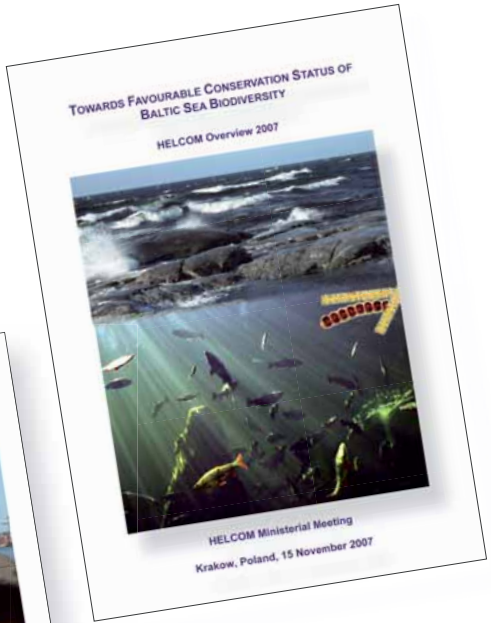
- show how ecological objectives can be used as basic tools when assessing the degree to which the Baltic Sea ecosystem is affected by hazardous substances,
- outline the current state and trends in the marine environment with respect to hazardous substances, and
- present the development of actions for the hazardous substances of specific concern included in the HELCOM Baltic Sea Action Plan.



Towards Favourable Conservation Status of Baltic Sea Biodiversity (HELCOM Overview 2007)

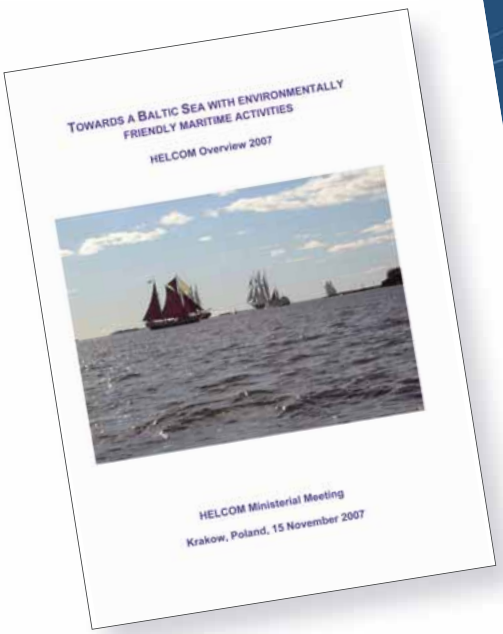
The aim of this concise overview, which was submitted as background information material for the HELCOM Ministerial Meeting in November 2007, is not to provide a comprehensive assessment on the status of biodiversity and nature protection in the Baltic Sea, but rather to outline an indicator-based biodiversity assessment in order to:

- show how ecological objectives could be used as basic assessment tools when assessing the favourable status of marine landscapes, communities and species, and
- highlight targets and indicators in the HELCOM Baltic Sea Action Plan.



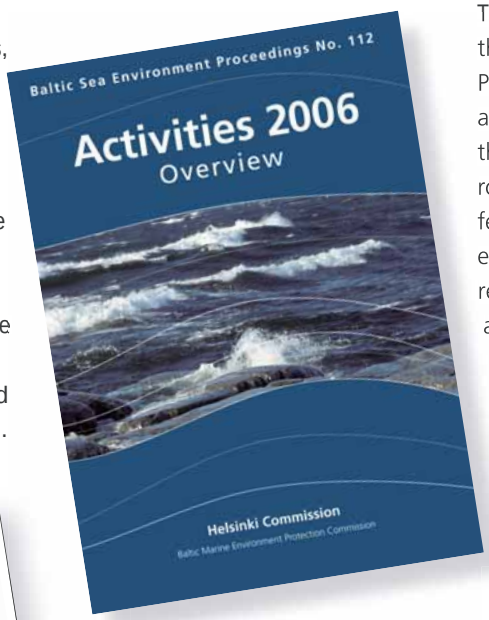
Towards a Baltic Sea with environmentally friendly maritime activities (HELCOM Overview 2007)

The aim of this topic-oriented overview, which was submitted as background information material for the HELCOM Ministerial Meeting in November 2007, is to present the types of further actions needed to bridge the gaps in existing national, regional and international legal regimes, policies, practices and monitoring programmes, so as to ensure the good environmental performance of shipping and other uses of the Baltic Sea. The ultimate goal is to contribute towards the achievement of a good ecological and environmental status for the Baltic marine environment. The necessary new measures described in this report have already been included in the HELCOM Baltic Sea Action Plan.



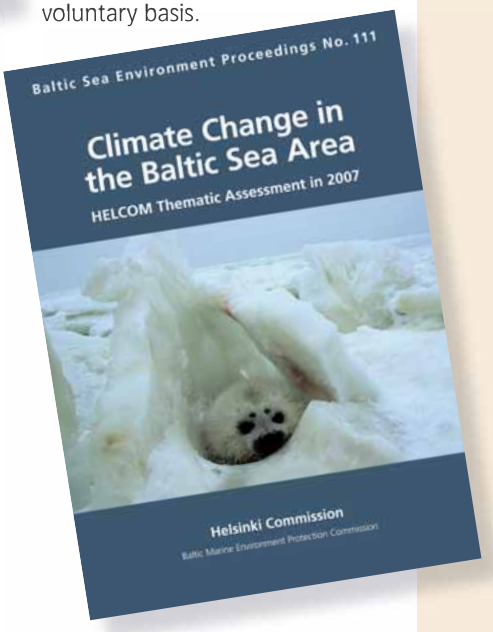
HELCOM Activities 2006 Overview

This report summarises the activities of the Helsinki Commission related to the protection of the Baltic Sea marine environment over the period from March 2006 to March 2007, also reviewing these activities together with current trends related to the main environmental issues.



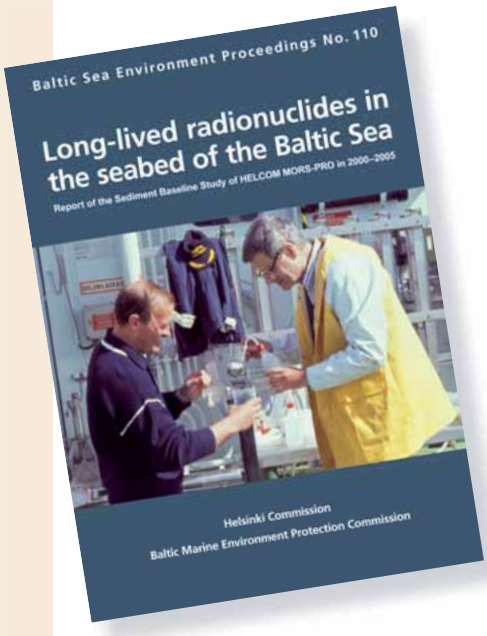
Climate Change in the Baltic Sea Area

This HELCOM Thematic Assessment on Climate Change in the Baltic Sea Area is based on the Assessment of Climate Change for the Baltic Sea Basin Project (The BACC Project). It integrates the most significant available knowledge of historical, current, and expected future climate change. The BACC Project is a joint venture of the BALTEX (Baltic Sea Experiment) Program and HELCOM, and is thus an example of a dialogue between the scientific community and environmental policy makers. The unique feature of BACC is its combination of evidence on climate change and the related impacts on marine, freshwater, and terrestrial ecosystems in the Baltic Sea basin, including the entire catchment area. It is the first systematic scientific effort for assessing climate change in a European region. More than 80 scientists from 12 countries have contributed to this work on a voluntary basis.



Long-lived radionuclides in the seabed of the Baltic Sea

This report presents the results of a Sediment Baseline Study carried out by the HELCOM Project Group for Monitoring of Radioactive Substances in the Baltic Sea (HELCOM MORS-PRO) over the years 2000–2005. The goal of the study was to complement existing knowledge and inventories of long-lived radionuclides in the seabed of the Baltic Sea by providing additional data on the so-called "white areas" for which data was lacking, and on radionuclides not measured in earlier surveys.



HELCOM Red list of threatened and declining species of lampreys and fishes of the Baltic Sea

Many threatened and declining fish species live in the Baltic Sea area, and several of these fish are important locally, regionally or even globally. The HELCOM Red List includes the following items:

- A HELCOM Priority List of Threatened and Declining Species of Lampreys and Fishes
- A HELCOM List of Threatened and Declining Species of Lampreys and Fishes using IUCN Red List criteria
- A synopsis of the HELCOM countries' national Red Lists for fish.

Heavy Metal Pollution to the Baltic Sea in 2004

This report is based on the latest available information on emissions and loads of cadmium, lead and mercury to the Baltic Sea in 2004. As heavy metals are long-range transboundary air pollutants, measures taken in the Baltic region to reduce emissions are not alone sufficient to reach HELCOM's objective of continuously reducing discharges, emissions and losses towards the target of their cessation by the year 2020. The report's findings suggest that in order to be able to reach this target, further measures will be needed, not only at regional level, but also at European and global levels. Some recommendations for further actions to tackle the Baltic's problems with regard to heavy metal pollution are presented in the report's conclusions.

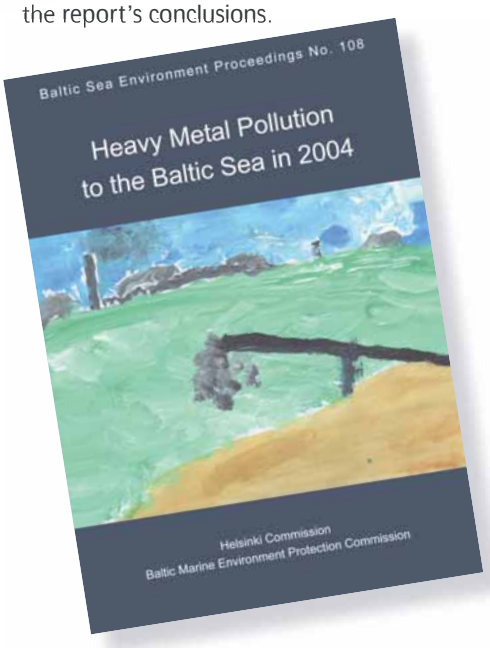
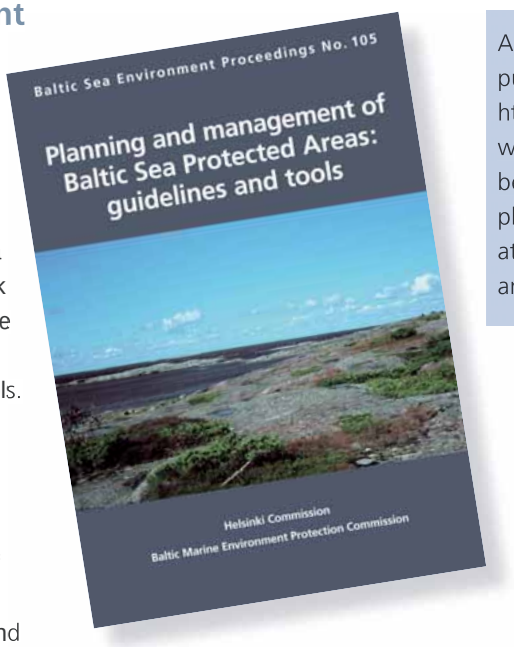


Photo: Ingolf Stodian

Planning and management of Baltic Sea Protected Areas: guidelines and tools



The main purpose of this document is to facilitate the planning and management of those Baltic Sea Protected Areas (BSPAs) that still lack proper management and/or expertise to implement them effectively, by providing practical guidance and tools. The provisions of the Natura 2000 network sites have been acknowledged when relevant, but guidance has otherwise been kept on a more general level. The additional value of these guidelines lies in the comprehensive set of literature references and other complementary tools, which can be used to support BSPA management work in accordance with the upcoming marine Natura 2000 guidelines.

A complete list of HELCOM publications is available at: http://www.helcom.fi/publications, where these publications can also be viewed. To order a printed copy, please call the HELCOM Secretariat: +358 (0)207 412 649 or send an e-mail to info@helcom.fi.

Upcoming HELCOM meetings and events

22 - 23 January 2008
25th Meeting of the Heads of Delegation (HELCOM HOD 25/2008), Helsinki, Finland

4 - 5 February 2008
Sixth Meeting of HELCOM Project to elaborate the HELCOM Baltic Sea –wide integrated thematic assessment on eutrophication (HELCOM EUTRO-PRO 6/2008), Copenhagen, Denmark

6 - 7 February 2008
Fourth Meeting of HELCOM Project to produce the HELCOM thematic assessment on biodiversity and nature conservation (HELCOM BIO 4/2008), Copenhagen, Denmark

6 - 7 February 2008
Meeting of the HELCOM Informal Working Group on Aerial Surveillance (IWGAS), Helsinki, Finland

18 - 20 February 2008
First Meeting of the HELCOM Project for Expert Network on Monitoring and Protecting of Coastal Fish and Lamprey Species (HELCOM FISH 1/2008), Riga, Latvia

4 March 2008
Third HELCOM Stakeholder Conference on the Baltic Sea Action Plan, Helsinki, Finland

5 - 6 March 2008
29th Meeting of the Helsinki Commission (HELCOM 29/2008), Helsinki, Finland

11 - 13 March 2008
IX International Environmental Forum "The Baltic Sea Day", St. Petersburg, Russia

11 - 13 March 2008
Second Meeting of the ad hoc HELCOM Seal Expert Group (HELCOM SEAL 2/2008), Finland

[27- 28 March] 2008
12th Meeting of the Expert Working Group on Transit Routeing (TRANSIT ROUTE EWG 12/2008), Denmark

[April 2008]
Workshop concerning revision of HELCOM monitoring (MON-PRO), Helsinki, Finland

5 - 9 May 2008
Tenth Meeting of the Nature Protection and Biodiversity Group (HELCOM HABITAT 10/2008), [Leba], Poland

19 - 21 May 2008
13th Meeting of the Land-based Pollution Group (HELCOM LAND 13/2008), Kaliningrad, Russia

27 - 29 May 2008
13th Meeting of the Project Group for Monitoring of Radioactive Substances in the Baltic Sea (HELCOM MORS-PRO 13/2008), St. Petersburg, Russia

28 - 29 May 2008
17th Meeting of the Expert Working Group for Mutual Exchange and Deliveries of AIS data (AIS EWG 17/2008), Gdynia, Poland

4 - 5 June 2008
26th Meeting of the Heads of Delegation (HELCOM HOD 26/2008), Helsinki, Finland

26 - 27 June 2008
Seventh Meeting of the HELCOM Project to elaborate the HELCOM Baltic Sea – wide integrated thematic assessment on eutrophication (HELCOM EUTRO-PRO 7/2008), [Tallinn, Estonia]

27 August 2008
HELCOM BALEX DELTA 2008 exercise, Kaliningrad, Russia

[Autumn 2008]
Workshop concerning revision of HELCOM monitoring (MON-PRO)
Helsinki, Finland

October 2008
Seventh Meeting of the Maritime Group (HELCOM MARITIME 7/2008),
St. Petersburg, Russia

29 - 31 October 2008
Tenth Meeting of the Response Group (HELCOM RESPONSE 10/2008),
[Cuxhaven], Germany

3 - 7 November 2008
11th Meeting of the Monitoring and Assessment Group (HELCOM MONAS 11/2008), Sweden

New staff at the HELCOM Secretariat

In January 2008, two new staff members have joined the HELCOM Secretariat located in Helsinki, Finland.

Ms. Maria Laamanen, from Finland, has been recruited as a new Professional Secretary coordinating the work of the Monitoring and Assessment Group (HELCOM MONAS), as well as the Nature Protection and Biodiversity Group (HELCOM HABITAT). In this position, she replaces Mr. Juha-Markku Leppänen, who has left the Secretariat.

Mr. Mikhail Durkin, from Russia, has been recruited as a new Professional Secretary coordinating the work of the Land-based Pollution Group (HELCOM LAND). He succeeds Mr. Kaj Forsius, who has left the Secretariat.