

# Baltic Sea Region

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# 1 About

## 1.1 Overview

The Baltic is a young sea and one of the world's most extraordinary for the beauty and variety of its marine environment and surrounding landscapes. The Baltic Sea is home to many species of plants, animals and micro-organisms in a great variety of different habitats. Most of these are at risk from human activity, and many Baltic fish populations are now dangerously low. Among the main threats the region faces are: eutrophication; pollution by hazardous substances including pesticides; heavy metals and industrial wastes; habitat destruction; the use of harmful fishing equipment; and the introduction of alien invasive species.

In 1974 the Baltic Sea States signed the Convention on the Protection of the Marine Environment of the Baltic Sea Area, also known as the Helsinki Convention. This was a pioneering agreement on many fronts. It was the first regional agreement ever to cover all sources of pollution, whether from land, sea or air. In its first two decades, the Convention oversaw considerable progress with significant reductions in discharges of organochlorine compounds from industry and of lead emissions from land-transport, and rehabilitation of some formerly endangered living species. The Helsinki Convention has since been replaced by the new Convention on the Protection of the Marine Environment of the Baltic Sea Area, signed in 1992. In the same year the Baltic Sea Joint Comprehensive Environmental Action Programme (JCP) was established. HELCOM is the coordinating body for the Helsinki Convention and the Action Plan.

One important action under the JCP is the identification and cleaning up of serious pollution areas, "Hot Spots". Since 1992 about 50 of the 132 Hot Spots identified around the Baltic Sea have been cleaned up. Nevertheless, concentrations of PCBs and DDT still remain high. HELCOM put together a Hazardous Substances Project team to work to reduce discharges, emissions and losses of hazardous substances in the Baltic Sea drainage basin and selected 42 hazardous substances for immediate priority action. Following this, in 2004 an updated strategy on Hazardous substances was adopted. The Baltic region is also under threat from maritime pollution incidents. In 2001 the HELCOM Copenhagen Declaration was signed to ensure the safety of navigation and a swift national and trans-national response to maritime pollution incidents. In 2003 a HELCOM Ministerial Meeting decided that all HELCOM actions must be based on an "ecosystem approach" to the management of human activities. In order to facilitate this development Ecological Quality Objectives that express "good quality status" are being developed.

For the foreseeable future, the focus of HELCOM's work will be to limit discharges of nutrients and hazardous substances from land-based activities, prevent pollution by shipping, ensure response to accidents at sea, conserve natural habitats and biological diversity, and bring about the long-term restoration of the ecological balance of the Baltic Sea in keeping with the overall goal of the Helsinki Convention to bring about sustainable development and use of natural resources in the Baltic Sea Area.

## 1.2 Key Dates

1974	The Baltic Sea States signed the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 22 March 1974 (Helsinki Convention)
1988	Ninth Meeting Declaration on the Protection of the Environment of the

	Baltic Sea (15 February 1988)
1990	Baltic Sea Declaration - Ronneby Declaration (3 September 1990)
1992	A new Helsinki Convention was signed. The Baltic Sea Joint Comprehensive Environmental Action Programme (JCP) was established. Baltic Sea Environmental Declaration (9 April 1992)
1993	Declaration on Resource Mobilisation for the Baltic Sea Joint Comprehensive Environment Action Programme - Gdansk Declaration (24-25 March 1993)
1994	15th Meeting of the Helsinki Commission (11 March 1994)
1998	Communiqué of the Ministerial Session on 26 March 1998
2000	The new Helsinki Convention entered into force on 17 January 2000
2001	Declaration on the Safety of Navigation and Emergency Capacity in the Baltic Sea Area -HELCOM Copenhagen Declaration (10 September 2001)
2003	HELCOM Ministerial meeting June 2003 in Bremen, Germany HELCOM Bremen Declaration
2004	Jubilee session "30th anniversary of HELCOM" (HELCOM Ministerial Meeting, 4 March 2004)

### 1.3 Geographic and General Information

**Region:** Baltic Sea

**Participating States:** Denmark, Estonia, European Union, Finland, Germany, Latvia, Lithuania, Poland, Russian Federation and Sweden (UNEP 2001)

**Total Population:** Approximately 584 million in 2002

**Area:** 415,266 km<sup>2</sup> (HELCOM 2004)

**GIWA Regions:** Subregion: 17

**Large Marine Ecosystems:** LME #23: Baltic Sea

#### 1.3.1 Oceanographic Information

The Baltic Sea has an area of 374,000 km<sup>2</sup> and an average depth of 57 m, although there are a number of basins where the sea reaches depths of 200-450 m. The majority of the Baltic's water comes from the many rivers of bordering countries, however, there are also periodic and ecologically significant inflows of saline water through the Kattegat. The drainage basin of the Baltic Sea is more than four times the area of the sea itself. River inflow totals about 430-470 km<sup>3</sup>, with the northern areas contributing the greatest proportion of the total inflow. Annual precipitation over the whole Baltic Sea roughly equals evaporation so that freshwater input can be equated to river runoff (although there are regional and seasonal departures from this pattern) (Voipio 1981, referred by Esping and Grönqvist 1995).

One of the main characteristics of the Baltic Sea is the salinity gradient running from north to south, with low salinity in the Bothnian Bay and high salinity in the Skagerrak. The input of freshwater generates an outgoing, low-salinity (mean of 8.7o/oo) surface current into the Kattegat and North Sea. There is an incoming bottom current of higher salinity (mean of 17.4o/oo). Persistent westerly winds can generate voluminous short-term inflows of higher salinity. The interval between such episodes may be several years, but their ecological implications can be very significant. Between the low-salinity outflow and higher salinity inflow is a permanent pycnocline<sup>1</sup> comprising a primary halocline<sup>2</sup> usually reinforced by a

<sup>1</sup> pycnocline is a layer of water exhibiting a relatively rapid increase in density with increasing depth.

<sup>2</sup> halocline is a layer exhibiting a relatively rapid increase in salinity with increasing depth.

thermocline<sup>3</sup> at 15-20 m. The depth of the pycnocline varies, similarly the surface salinity varies. Occasionally, as a result of a major inflow from the Kattegat, a secondary halocline may develop. The stratification of the water column forms barriers that prevent oxygenated surface water from mixing downward in the water column. The variations in salinity and the stratification of the water masses profoundly influence the distribution of plant and animal species throughout the Baltic Sea (Voipio 1981, referred by Esping and Grönqvist 1995).

The surface water temperature in the Baltic proper ranges from about 1-2°C in February-March to about 16-17°C in July-August. In the Bothnian Bay the range is about from 0 -15°C. The Bothnian Bay usually becomes completely ice-covered in January (Voipio 1981, referred by Esping and Grönqvist 1995).

### 1.3.2 Coastal Geography and Geology

The Baltic Sea is one of the world's smallest seas, being almost entirely cut off from the open ocean. Its only links with more open sea areas are the Sound and the Danish Belts, the Great and Little Belts. Of these straits, the Great Belt is the widest, and about two-thirds of the water flowing to or from the Baltic Sea passes through it. The Little Belt is very narrow, and the majority of the remaining flow occurs through the Sound. The Baltic Sea area includes the whole of the Kattegat, to the north of the Kattegat is the Skagerrak, which is regarded as part of the North Sea. There is no clear boundary between the Kattegat and the Skagerrak (Esping and Grönqvist 1995).

A characteristic feature of the geomorphology of the Baltic Sea is the presence of basins (in most cases filled with Quaternary sediments) separated by shallow sills. In the region of the Danish Straits and the Sound, bottom sediments consist mainly of sand and moraine, with mud in deeper areas. In the southern and central parts of the Baltic Sea muds dominate the deeper parts, while sandy sediments occur along the southern and eastern coastal zones. In the northern Baltic Sea, sand and silt deposits occur around Gotland, Hiiumaa, Saaremaa and Åland, whereas in deeper areas, below 80 m, soft bottoms occur. The Gulf of Finland is characterized by an extremely varied distribution of bottom types. Extensive glacial drift deposits occur in the northwestern part of the Bothnian Sea whilst sand predominates in the northeastern part, and muddy sediments in the deeper central and western areas (Esping and Grönqvist 1995).

Another very characteristic feature of the geomorphology are the archipelagos along the Swedish and Finnish Baltic Coasts. They are mostly formed as a peneplain<sup>4</sup> sloping gently toward the open sea, which is crossed by fissure valleys with sediment bottoms separated by ridges of rock. In the larger archipelagos, such as those outside Stockholm and Turku, there are a multitude of islets, rocks and skerries<sup>5</sup> and some bigger islands (about 30,000 in the Stockholm archipelago). Also specific for the region is the phenomena of crustal uplift and submergence. In the Bothnian Bay crustal uplift is 9 million/yr, in the south the uplift is zero, whilst in the Belt Sea there is crustal submergence (Esping and Grönqvist 1995).

### 1.3.3 Ecosystem Diversity

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<sup>3</sup> thermocline is a layer exhibiting a relatively rapid decrease in temperature with increasing depth.

<sup>4</sup> A low, nearly featureless tract of land of undulating relief, esp. one formed by long subaerial erosion of land undisturbed by crustal movement, representing the penultimate stage in the cycle of erosion in a humid climate.

<sup>5</sup> A reef or rocky island covered by the sea at high tide or in stormy weather.

### 1.3.3.1 Seagrass Beds

There are areas where eel grass (*Zostera marina*) meadows are encountered on sandy bottoms of the Baltic Sea for example Landsort, Hartsö, Askö, Landsort Deep in Sweden and the Nadmorski Landscape Park, in Poland (Esping and Grönqvist 1995).

### 1.3.3.2 Wetlands

#### The Ramsar List of Wetlands of International Importance (2004)

Participating States	Wetlands Of International Importance
<b>Denmark</b>	<ol style="list-style-type: none"> <li>1. Ertholmene</li> <li>2. Bornholm</li> <li>3. Filsø</li> <li>4. Hirsholmene</li> <li>5. Horsens Fjord &amp; Endelave</li> <li>6. Karrebæk, Dybsø &amp; Avnø Fjords</li> <li>7. Læsø</li> <li>8. Lillebælt</li> <li>9. Maribo Lakes</li> <li>10. Næra Coast &amp; Æbelø area</li> <li>11. Naskov Fjord &amp; Inner Fjord</li> <li>12. Nissum Bredning with Harboøre &amp; Agger Tange</li> <li>13. Nissum Fjord</li> <li>14. Nordre Rønner</li> <li>15. Præstø Fjord, Jungshoved Nor, Ulvshale &amp; Nyord</li> <li>16. Randers &amp; Mariager Fjords &amp; the adjacent sea</li> <li>17. Ringkøbing Fjord</li> <li>18. Sejro Bugt, Nekselø Bugt &amp; Saltbæk Vig</li> <li>19. South Funen Archipelago</li> <li>20. Stadil &amp; Veststadil Fjords</li> <li>21. Stavns Fjord &amp; adjacent waters</li> <li>22. Ulvedybet &amp; Nibe Bredning</li> <li>23. Vadehavet (Wadden Sea)</li> <li>24. Vejlerne &amp; Løgstør Bredning</li> <li>25. Waters between Lolland &amp; Falster, including Rødsand,</li> <li>26. Waters north of Anholt</li> <li>27. Waters south of Zealand, Skælskør Fjord, Glænø and</li> <li>28. Waters southeast of Fejø &amp; Femø islands</li> </ol>
<b>Estonia</b>	<ol style="list-style-type: none"> <li>1. Alam-Pedja Nature Reserve</li> <li>2. Emajõe Suursoo Mire and Piirissaar Island</li> <li>3. Endla Nature Reserve</li> <li>4. Hiiumaa Islets and Käina Bay</li> <li>5. Laidevahe Nature Reserve</li> <li>6. Matsalu Nature Reserve</li> <li>7. Muraka Nature Reserve</li> <li>8. Nigula Nature Reserve</li> <li>9. Puhto-Laelatu-Nehatu Wetland Complex</li> <li>10. Soomaa National Park</li> <li>11. Vilsandi National Park</li> </ol>
<b>Finland</b>	<ol style="list-style-type: none"> <li>1. Aspskär Islands</li> <li>2. Björkör &amp; Lågskär Archipelago</li> <li>3. Koitelainen Mires</li> <li>4. Krunnit Islands</li> <li>5. Martimoaapa-Lumiaapa-Penikat Mires</li> <li>6. Patvinsuo National Park</li> <li>7. Porvoonjoki Estuary-Stensböle</li> <li>8. Signilskär-Market Archipelago</li> <li>9. Söderskär &amp; Långören Archipelago</li> <li>10. Valassaaret &amp; Björkögrunden Archipelago</li> <li>11. Vanhankaupunginlahti and Laajalahti Bays</li> </ol>
<b>Germany</b>	<ol style="list-style-type: none"> <li>1. Aland-Elbe-Niederung und Elbaue Jerichow</li> <li>2. Ammersee</li> <li>3. Bodensee: Wollmatinger Ried, Giehrenmoos &amp;</li> <li>4. Chiemsee</li> <li>5. Diepholzer Moorniederung</li> <li>6. Donauauen &amp; Donaumoos</li> <li>7. Dümmer</li> <li>8. Elbauen, Schnackenburg-Lauenburg</li> <li>9. Galenbecker See</li> <li>10. Hamburgisches Wattenmeer</li> <li>11. Helmestausee Berga-Kelbra</li> </ol>

	<ol style="list-style-type: none"> <li>12. Ismaninger Speichersee &amp; Fischteichen</li> <li>13. Krakower Obersee</li> <li>14. Lech-Donau-Winkel</li> <li>15. Mühlenberger Loch</li> <li>16. Niederelbe, Barnkrug-Otterndorf</li> <li>17. Niederung der Untere Havel/Gülper See, Schollener See</li> <li>18. Ostseeboddengewässer Westrügen-</li> <li>19. Ostufer Müritz</li> <li>20. Peitzer Teichgebiet</li> <li>21. Rheinauen zwischen Eltville und Bingen</li> <li>22. Rieselfelder Münster</li> <li>23. Schleswig-Holstein Wadden Sea and adjacent areas</li> <li>24. Starnberger See</li> <li>25. Steinhuder Meer</li> <li>26. Unterer Inn, Haiming-Neuhaus</li> <li>27. Unterer Niederrhein</li> <li>28. Unteres Odertal, Schwedt</li> <li>29. Wattenmeer, Elbe-Weser-Dreieck</li> <li>30. Wattenmeer, Jadebusen &amp; westliche</li> <li>31. Wattenmeer, Ostfriesisches Wattenmeer</li> <li>32. Weserstaustufe Schlüsselburg</li> </ol>
<b>Latvia</b>	<ol style="list-style-type: none"> <li>1. Lake Engure</li> <li>2. Lake Kanieris</li> <li>3. Lubana Wetland Complex</li> <li>4. Northern Bogs (Ziemelu purvi)</li> <li>5. Pape Wetland Complex</li> <li>6. Teicu and Pelecares bogs</li> </ol>
<b>Lithuania</b>	<ol style="list-style-type: none"> <li>1. Cepkeliai</li> <li>2. Varena</li> <li>3. Kamanos</li> <li>4. Nemunas Delta</li> <li>5. Viesvilé</li> <li>6. Zuvintas</li> </ol>
<b>Poland</b>	<ol style="list-style-type: none"> <li>1. Biebrza National Park</li> <li>2. Jezioro Karas</li> <li>3. Jezioro Luknajno</li> <li>4. Jezioro Siedmiu Wysp</li> <li>5. Jezioro Swidwie</li> <li>6. Slonsk Reserve</li> <li>7. Slowinski National Park</li> <li>8. Stawy Milickie Nature Reserve (Milicz fishponds)</li> </ol>
<b>Russian Federation</b>	<ol style="list-style-type: none"> <li>1. Area between the Pura &amp; Mokoritto rivers</li> <li>2. Berezovye Islands, Gulf of Finland</li> <li>3. Brekhovsky Islands in the Yenisei estuary</li> <li>4. Chany Lakes</li> <li>5. Gorbita Delta</li> <li>6. Islands in Ob Estuary, Kara Sea</li> <li>7. Islands in Onega Bay, White Sea</li> <li>8. Kama-Bakaldino mires</li> <li>9. Kandalaksha Bay</li> <li>10. Karaginsky Island, Bering Sea</li> <li>11. Khingano-Arkharinskaya Lowland</li> <li>12. Kuban Delta: Akhtaro-Grivenskaya group of limans</li> <li>13. Kuban Delta: Group of limans between</li> <li>14. Kurgalsky Peninsula</li> <li>15. Lake Bolon &amp; the mouths of the Selgon &amp;</li> <li>16. Lake Khanka</li> <li>17. Lake Manych-Gudilo</li> <li>18. Lake Udyl &amp; the mouths of the Bichi, Bitki &amp;</li> <li>19. Lower Dvuobje</li> <li>20. Moroshechnaya River</li> <li>21. Mshinskaya wetland system</li> <li>22. Oka &amp; Pra River Floodplains</li> <li>23. Parapolsky Dol</li> <li>24. Pskovsko-Chudskaya Lowland</li> <li>25. Selenga Delta</li> <li>26. Southern coast of the Gulf of Finland, Baltic Sea</li> <li>27. Svir Delta</li> <li>28. Tobol-Ishim Forest-steppe</li> <li>29. Torey Lakes</li> <li>30. Upper Dvuobje</li> <li>31. Utkholok</li> <li>32. Veselovskoye Reservoir</li> <li>33. Volga Delta</li> <li>34. Wetlands in the Lower Bagan area</li> <li>35. Zeya-Bureya Plains</li> </ol>
<b>Sweden</b>	<ol style="list-style-type: none"> <li>1. Aloppekölen-Köpmankölen</li> <li>2. Ännsjön</li> </ol>

	3. Asköviken-Sörfjärden
	4. Åsnen
	5. Blekinge archipelago
	6. Dalälven-Färnebofjärden
	7. Dättern
	8. Dumme mosse
	9. Emån
	10. Falsterbo-Foteviken
	11. Fylleån
	12. Gammelstadviken
	13. Getterön
	14. Gotland, east coast
	15. Helgeån
	16. Hjälstaviken
	17. Hornborgasjön (lake)
	18. Hovran area (river)
	19. Kallgate-Hejnum
	20. Kilsviken
	21. Klingavälsån-Krankesjön
	22. Komosse
	23. Kvismaren
	24. Laidaure
	25. Lundåkra Bay
	26. Mörrumsån-Pukavik Bay
	27. Mossaträsk-Stormyran
	28. Nordre älv estuary
	29. Öland, eastern coastal areas
	30. Oldflån-Flån
	31. Östen
	32. Ottenby
	33. Persöfjärden
	34. Sjaunja
	35. Skälderviken
	36. Södra Bråviken
	37. Stigfjorden
	38. Stockholm, outer archipelago
	39. Store Mosse & Kävsjön
	40. Storkölen
	41. Sulsjön-Sulån
	42. Svartån (river)
	43. Tåkern
	44. Tärnasjön
	45. Tavvuoma
	46. Tjälmejaure-Laisdalen
	47. Tönnersjöheden-Årshultsmyren
	48. Träslövsläge-Morups Tånge
	49. Tysjöarna
	50. Umeälv delta
	51. Västra Roxen

(Ramsar List of Wetlands of International Importance 2004)

The percentage of wetlands coverage in the Baltic Sea is plotted on a map and can be seen at the link: [http://www.grida.no/baltic/pdf/baltic\\_wetland.pdf](http://www.grida.no/baltic/pdf/baltic_wetland.pdf).

### **1.3.3.3 Beaches, Dunes and Cliffs**

The region boasts some of the most spectacular beaches and scenic coastline. For example the Kullaberg area in Sweden has a coastline comprised of horst formations with dramatic and varying topography such as steep cliffs, caves, islands and stone pillars. The Vorpommern lagoon area and waters around Westrugen in Germany hosts lagoon habitats, salt meadows, sand dunes, cliffs, boulder beaches, submarine stony grounds, wet forests and reeds. The Southern Archipelago Sea in Finland is an archipelago comprised of numerous small islands and skerries, underwater eskers, and a unique mosaic of islands and water (Esping and Grönqvist 1995).

### 1.3.4 Species Diversity

The Baltic region has a characteristic salinity gradient running from north to south, with low salinity in the Bothnian Bay and high salinity in the Skagerrak. The distribution of marine flora and fauna follows this salinity gradient. The Baltic Sea is unique in that there are areas where freshwater, brackish water and marine species are all present (Voipio 1981, referred by Esping and Grönqvist 1995).

#### 1.3.4.1 Benthic Fauna

The main benthic communities within the Baltic region are the bivalve molluscs *Abra alba*, *Cyprina islandica*, *Astarte borealis*, *Hydrobia ulvae*, *Mysella bidentata* and *Macoma* spp and the amphipods *Pontoporeia affinis* and *Harmonthoe impar*. The *Abra alba* mollusc is mostly confined to areas of the Belt Sea, in muddy sediments around 15 m. *Cyprina islandica* and *Astarte borealis* communities occur in the western areas of the Baltic. *Macoma baltica* and *Macoma calcerea* inhabit a range of sediments independently of depth and are common throughout the Baltic, they have different tolerances to salinity and temperature variations (Esping and Grönqvist 1995).

In the northwest Bornholm Sea at 5-79 m depths the fauna is characterized by, *M. baltica*, *Diastylis rathkei*, *Harmonthoe sarsi* and *Halicryptus spinulosus*. The amphipods *Pontoporeia affinis* and *Pontoporeia femorata* are abundant at 40-50 m depths. The *M. baltica* community in the southern Bothnian Sea also contains *Potamopyrgus jenkinsi* and *Theodoxus fluviatilis* as conspicuous species (Esping and Grönqvist 1995).

On the Gulf of Bothnia where good oxygen conditions are present *P. affinis* is dominant, however, *M. baltica* and *Mesidothea entomon* also occur. In the northwest Baltic proper, parts of the Gulf of Finland, the Gulf of Riga and northern half of the Central Basin, the community also contains *Harmonthoe sarsi*, *Halicryptus spinulosus* and *Pontoporeia femorata*. At shallower depths on predominantly sandy bottoms, *P. affinis* and *M. entomon* are most common, while on the siltier, deeper bottoms *P. femorata* predominates (Esping and Grönqvist 1995).

In the deepest parts of the Bornholm Basin, Danzig Basin, Central Basin, Kiel Bay, and Gulf of Finland polychaetes dominate such as *Harmonthoe sarsi*, *Scoloplos armiger* and *Capitella capitata* (Esping and Grönqvist 1995). In the Baltic proper, mussels frequently make up 90 % of the biomass on shallow bottoms, however, in the Bothnian Bay they are entirely absent except for freshwater mussels. The main distribution of the baltic endemic mussel *Cerastobyssum hauniense* and *Ciona intestinalis* (tunicata) is in Wismar Bight and Salzhaff area in Germany. The common mussel *Mytilus edulis* can be found in Trysunda, Ulvöarna, Ullånger and Ulvö Deep areas in Sweden (Esping and Grönqvist 1995). There are no starfish and sea urchins in the Baltic Sea (Esping and Grönqvist 1995).

#### 1.3.4.2 Benthic Vegetation

The southern Baltic has a variety of hard and soft-bottom vegetation types. Along southern and southeastern coasts that are less sheltered, the vegetation is more impoverished than that in southwestern areas. In areas with suitable substrata, benthic vegetation can be found to depths of approximately 30 m. On a hard substratum a typical vegetation profile includes blue-green algae, *Ulothrix* or *Bangia*, *Enteromorpha*, *Porphyra*, *Urospora*, *Fucus vesiculosus*, *Dumontia*, *Scytosiphon*, *Ceramium*, *Polysiphonia* and *Lamaria*. The presence of the eel grass *Zostera marina* is characteristic on soft sediments in the southwestern Baltic at depths of about 2.5-6.5 m (Esping and Grönqvist 1995).

In the northern Baltic proper, the benthic vegetation reaches depths of about 18-25 m. The vegetation on a typical semi-exposed rocky shore includes species in the geolittoral zone: *Verrucaria maura*, *Calothrix scopulorum*, *Ulothrix subflaccida* and *Urospora penicilliformis*. The hydrolittoral zone largely corresponds with a belt of filamentous algae including *Enteromorpha*, *Cladophora glomerata* and *Dictyiphon foeniculaceus*. In the sublittoral zone there is an upper belt with *Fucus vesiculosus*, *Pilayella littoralis*, *Ectocarpus siliculosus*, *Ceramium tenuicorne* and *Stictyosiphon* and a lower red algal belt including *Phyllophora*, *Furcellaria fatigiata*, *Sphacelaria arctica*, *Polysiphonia nigrescens* and *Rhodomela confervoides*. On semi-exposed sandy bottoms, *Zostera marina* occurs in sparse. At a depth of 0.2-2 m *Potamogeton pectinatus*, *Ruppia maritima*, *R. spiralis* and *Zostera marina* occur on sandy shores. *Chara* meadows are typical on muddy bottoms to 4-5 m as well as *Maja marina*, *P. pectinatus*, *P. filiformis* and *Myrophyllum spicatum* (Esping and Grönqvist 1995).

Low salinity in the Gulf of Bothnia causes a reduction in the number of species of marine algae together with an increase in the abundance of freshwater species. On moderately to fully exposed hard bottoms in the northeastern Bothnian Bay there is a hydrolittoral belt with *Calothrix scopulorum*, *Ulothrix* spp. and *Cladophora glomerata*. After that, at 3-8 m the sublittoral contains *C. aegagropila*. Species found on sheltered sand and silt bottoms are *Eleocharis acicularis*, *Potamogeton* spp., *Zannichellia palustris* and *Chara aspera*. The littoral zone consists of soft sediment with stones and pebbles. Species found in muddy areas include *Isoetes lacustris*, *Potamogeton gramineus*, *P. perfoliatus* and *Vaucheria dichotoma* and in sandy areas *Cladophora glomerata*, *C. aegagropila* and *Nitella flexilis* (Esping and Grönqvist 1995).

#### **1.3.4.3 Algal Blooms**

There are essentially two annual blooms in the Baltic Sea. The spring bloom takes place in early March-May, depending on the area and year. The blue-green algal blooms consisting of cyanobacteria occur mainly in late summer, in July to September. In addition there can be regional algal blooms in summer, depending on the weather and the nutrients available in the water. The spring bloom consists mainly of diatoms and dinoflagellates (Helcom 2004). For further information refer to: <http://www.helcom.fi/environment/algalbloss.html>.

#### **1.3.4.4 Fish**

The Baltic region is an important area for commercial fishing. The Haparanda archipelago in Sweden provides spawning and nursery ground for species such as pike, roach, nuffe, perch, Baltic herring and armed bullhead. The Holmö Islands in Sweden are a spawning and nursery grounds for whitefish and Baltic herring. Cod can also be found in the area (Esping and Grönqvist 1995). Whereas Kopparstenarna, Gotska Sandön and Salvorev-NR, Sweden are important breeding and feeding areas for the flatfish (Esping and Grönqvist 1995). Spawning grounds for sprat can be found in the Slupsk Bank-proposed National Park, Poland. The same area lies on the migratory route for herring and salmon. Northern Vidzeme Region in Latvia is the most important spawning area for salmon in the eastern Baltic (Esping and Grönqvist 1995).

#### **1.3.4.5 Birds**

The Baltic region is an important area for birds, particularly in the shallow coastal lakes and lagoons in the south, and further north, in the thousands of islands of the archipelagos on the Finnish and Swedish coasts. Typical bird species include cormorant, mute swan, grey lag goose, goosander, red-breasted merganser, shelduck, mallard, tufted duck, velvet scoter, common gull, herring gull, great black-backed gull, common tern, arctic tern and waders such as oyster-catcher, redshank and turnstone. The small islands and skerries contain an

estimated 600,000 pairs of eiders, and southern areas of the Baltic are very important wintering areas for species such as the long-tailed duck. Among the birds of prey the white-tailed eagle can be seen and the osprey has strong populations along the Swedish and Finnish coasts. The Swedish Haparanda archipelago is an important breeding and resting sites for migratory birds. The coastal grayling is unique for the northern Bothnian Sea and Bothnian Bay. Kaltene-Engure in Latvia is an important moulting and wintering area for ducks (including *Bucephala clangula* and *Melanitta fusca*) (Esping and Grönqvist 1995).

#### **1.3.4.6 Mammals**

The archipelagos are the main habitat for the three species of seal present in the Baltic: the grey seal (3,500-4,000 individuals), the harbor seal (a few hundred animals in the southern Baltic) and the ringed seal (about 10,000 animals in the Bothnian Sea). The Grey Seal and Ringed Seal occur regularly around Sandskar in the Haparanda archipelago, Sweden (Esping and Grönqvist 1995). The common seal (*Phoca vitulina*) often occurs around Wolinski National Park in Poland. Otters can be found in the Gräsö/Singö-Archipelago, Sweden. Harbor porpoise can also be found in the southern Baltic region (Esping and Grönqvist 1995).

### **1.3.5 Information on Participating States**

#### **1.3.5.1 Denmark**

**Total Population:** 5,374,000 (World Bank 2002)

**GDP (current US\$):** 172,927,900,000 (World Bank 2002)

**Maritime Claims:**

Territorial sea: 12 NM

Exclusive economic zone: 200 NM

Continental shelf: 200-m depth or to the depth of exploitation (CIA 2004)

**Length of Coastline:** 7,314 km (CIA 2004)

**Marine Protected Areas**

- Bornholm
- Adler Grund
- Smålandsfarvandet
- Waters around Saltholm
- Stavns Fjord
- Hesselö
- Store Middlegrund
- Randers Fjord
- Laesö
- Hirsholmene
- Laesö Trindel/Tønnerberg Banke/Kummelbanke
- Herthas Flak

(Esping and Grönqvist 1995).

#### **1.3.5.2 Estonia**

**Total Population:** 1,358,000 (World Bank 2002)

**GDP (current US\$):** 6,507,445,760 (World Bank 2002)

**Maritime Claims:**

Territorial sea: 12 NM

Exclusive economic zone: limits fixed in coordination with neighbouring states (CIA 2004)

**Length of Coastline:** 3,794 km (CIA 2004)

**Marine Protected Areas**

- Lahemaa National Park
- Matsalu Nature Reserve
- Kopu Peninsula
- Vilsandi National Park
- Hiiumaa Islets Reserve

(Esping and Grönqvist 1995).

### 1.3.5.3 Finland

**Total Population:** 5,199,000 (World Bank 2002)

**GDP (current US\$):** 131,508,166,656 (World Bank 2002)

**Maritime Claims:**

Territorial sea: 12 NM

Exclusive economic zone: 200 NM

Continental shelf: 200-m depth or to the depth of exploitation (CIA 2004)

**Length of Coastline:** 2,389 km (CIA 2004)

**Marine Protected Areas**

- Bothnian Bay National Park
- Outer Bothnian Threshold Archipelago
- Southern Archipelago Sea
- Tammisaari Archipelago/Hankoniemi/Pojo Bay
- Eastern Gulf of Finland

**Proposed new MPAs:**

- Oura Archipelago
- Uusikaupunki Archipelago
- Åland Sea

(Esping and Grönqvist 1995).

### 1.3.5.4 Germany

**Total Population:** 82,495,000 (World Bank 2002)

**GDP (current US\$):** 1,984,094,928,896 (World Bank 2002)

**Maritime Claims:**

Territorial sea: 12 NM

Exclusive economic zone: 200 NM

Continental shelf: 200-m depth or to the depth of exploitation (CIA 2004)

**Length of Coastline:** 2,389 km (CIA 2004)

**Marine Protected Areas**

- Jasmund National Park
- Vorpommern Lagoon
- Wismar Bight/Salzhaft
- Graswarder/Westcoast of Fehmar
- Hochwater Bay
- Oehe Schleimunde
- Geltinger Birk

**Proposed new MPAs:**

- Strelasund Sound/Greifswald Lagoon/Isle Greifswalder

(Esping and Grönqvist 1995).

### 1.3.5.5 Latvia

**Total Population:** 2,338,000 (World Bank 2002)

**GDP (current US\$):** 8,405,593,600 (World Bank 2002)

**Maritime Claims:**

Territorial sea: 12 NM

Exclusive economic zone: 200 NM

Continental shelf: 200-m depth or to the depth of exploitation (CIA 2004)

**Length of Coastline:** 531 km (CIA 2004)

**Marine Protected Areas**

- Northern Vidzeme Region Nature Protection Complex

Proposed new MPAs:

- Coastal section Kaltene-Engure
- Coastal section Lielirbe-Kolka
- Coastal section Pape-Pérkone

(Esping and Grönqvist 1995).

### 1.3.5.6 Lithuania

**Total Population:** 3,469,000 (World Bank 2002)

**GDP (current US\$):** 13,796,476,928 (World Bank 2002)

**Maritime Claims:**

Territorial sea: 12 NM (CIA 2004)

**Length of Coastline:** 99 km (CIA 2004)

**Marine Protected Areas/**

- Kursiu Nerija (Curonian Spit) National Park
- Pajuris Regional Park
- Nemunas Delta Regional Park

(Esping and Grönqvist 1995).

### 1.3.5.7 Poland

**Total Population:** 38,626,000 (World Bank 2002)

**GDP (current US\$):** 189,021,405,184 (World Bank 2002)

**Maritime Claims:**

Territorial sea: 12 NM

Exclusive economic zone: defined by international treaties (CIA 2004)

**Length of Coastline:** 491 km (CIA 2004)

**Marine Protected Areas:**

- Slowinsky National Park

**Proposed new MPAs:**

- Vistula Spit Landscape Park
- Redlowo Reserve
- Nadmorski Landscape Park
- Slupsk Bank-proposed National Park
- Wolinski National Park

(Esping and Grönqvist 1995).

### 1.3.5.8 Russian Federation

**Total Population:** 144,071,008 (World Bank 2002)

**GDP (current US\$):** 346,519,928,832 (World Bank 2002)

**Maritime Claims:**

Territorial sea: 12 NM

Exclusive economic zone: 200 NM

Continental shelf: 200-m depth or to the depth of exploitation (CIA 2004)

**Length of Coastline:** total coastline as well as the coastline of the Baltic Sea is 37,653 km (CIA 2004)

**Marine Protected Areas:**

- Curonian Spit State Environmental National Park
- Vistula Spit Landscape Park

**Proposed new MPAs:**

- Finskiy Zaliy and associated islands

(Esping and Grönqvist 1995).

### 1.3.5.9 Sweden

**Total Population:** 8,924,000 (World Bank 2002)

**GDP (current US\$):** 240,312,729,600 (World Bank 2002)

**Maritime Claims:**

**Length of Coastline:**

Territorial sea: 12 NM

Exclusive economic zone: agreed boundaries or midlines

Continental shelf: 200-m depth or to the depth of exploitation (CIA 2004)

**Marine Protected Areas:** 3,218 km (CIA 2004)

- Haparanda Archipelago
- Holmö Islands
- Kopparstenarna/Gotska Sandön/Salvo Rev
- Falsterbo Peninsula with Måkläppen
- Kullaberg
- Gullmar Fjord

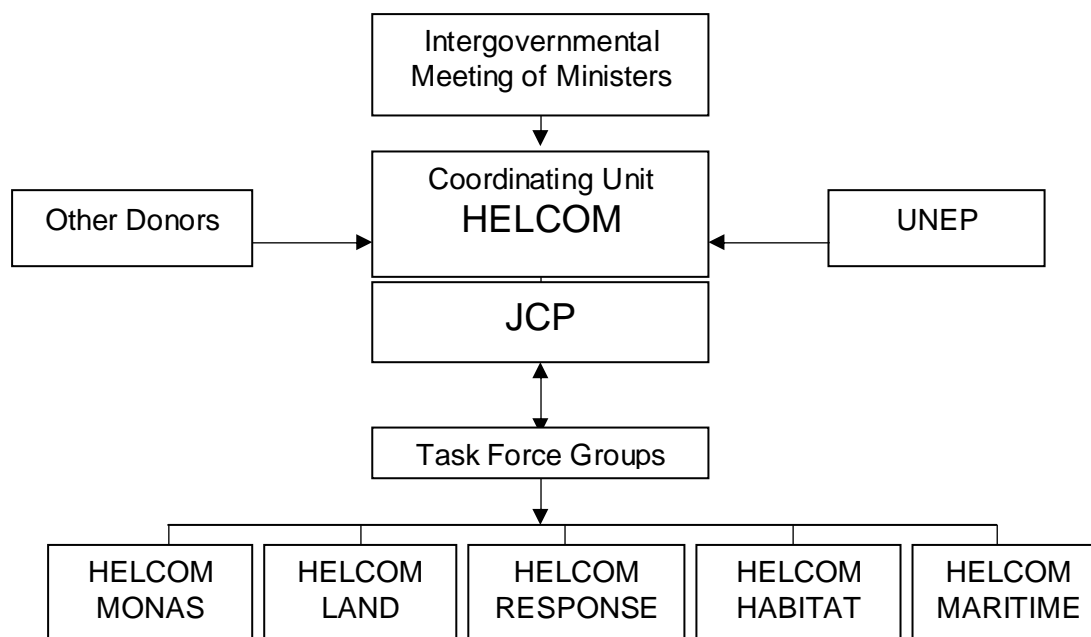
**Proposed new MPAs:**

- Bjuröklubb Area
- Trysunda/Ulvöarna/Ullånger/Ulvö Deep
- Gräsö/Singö-Archipelago
- St. Bockö/St. Nassa/Sv. Högarna/Sv. Björn
- Landsort/Hartsö/Askö/Landsort Deep
- St. Anna/Missjö Archipelago
- Torhamn Archipelago
- Nidingen/Sönnerbergen/Mönster
- Koster Archipelago/Koster Channel/Tjärnö Archipelago/Väderöarna

(Esping and Grönqvist 1995).

## 1.4 Organization

### 1.4.1 Institutional Structure



JCP: The Baltic Sea Joint Comprehensive Environmental Action Programme

HELCOM: Baltic Marine Environment Protection Commission

HELCOM MONAS: Monitoring and Assessment Group

HELCOM LAND: Land-based Pollution Group

HELCOM RESPONSE: Response Group

HELCOM HABITAT: Nature Protection and Biodiversity Group

HELCOM MARITIME: Maritime Group

### 1.4.2 Ministerial Meetings

#### HELCOM Ministerial Meeting, June 2003 in Bremen, Germany

The HELCOM Ministerial Meeting (MM) agreed that the Helsinki Commission should continue to serve as the voice of the Baltic Sea region on issues related to environmental protection, both in the EU, and in other international forums. The Ministers indicated that areas of special priority for the Helsinki Commission should include: joint monitoring and assessment, combating eutrophication and hazardous substances, maritime safety including emergency response, and nature conservation and biodiversity. These issues should be tackled according to an ecosystem approach to the management of all economic activities.

Special emphasis was given to the changes in environmental regulations that are likely to occur in connection with the forthcoming accession of the three Baltic Republics and Poland to the EU. From May 2004 onwards, eight of the nine countries around the shores of the Baltic Sea will be EU members. The Ministers additionally resolved that a working plan for the new role of the Helsinki Commission should be adopted at HELCOM's annual meeting in March 2004.

The Ministers emphasised the importance of HELCOM's work in co-ordinating regional issues related to the environmentally sustainable use of the Baltic Sea, and in ensuring co-operation on the integrated management of human activities in coastal areas and at sea. The MM unanimously adopted ten new HELCOM Recommendations and a Ministerial Declaration.

## **Joint HELCOM/OSPAR Ministerial Meeting on 25-26 June, in Bremen, Germany**

The OSPAR Commission held its annual meeting in Bremen in conjunction with HELCOM, and the two Commissions held a Joint HELCOM/OSPAR MM on 25-26 June. The holding of such discussions at the highest level indicates the importance of co-operation on environmental protection for the adjoining marine waters of the North-East Atlantic and the Baltic Sea.

The ministerial representatives from the Helsinki and OSPAR Commissions stressed the following topics:

- The need for an ecosystem approach to the comprehensive management of all human activities that affect the marine environment;
- The opportunity to contribute to the EU initiative for a European Marine Strategy to enable all authorities involved in protecting the marine environment – on national and international level to collaborate effectively; and
- The need for joint action to protect threatened and declining species and habitats.

The two Commissions pledged to create by 2010 an ecologically coherent network of managed marine protected areas covering the North-East Atlantic and the Baltic Sea. A Joint Ministerial Declaration was also adopted.

For further information link to: <http://www.helcom.fi/helcom/ministerial.html>.

## **Last Ministerial Meeting**

### **Jubilee session “30th anniversary of HELCOM” (HELCOM Ministerial Meeting, 4 March 2004)**

For a full report link to:

[http://www.helcom.fi/dps/docs/folders/COMMISSION%20MEETINGS%20\(HELCOM\)/HELCOM%2025%202004.html](http://www.helcom.fi/dps/docs/folders/COMMISSION%20MEETINGS%20(HELCOM)/HELCOM%2025%202004.html).

### **Next Meeting: 26th Meeting of the Helsinki Commission, 1-2 March 2005**

## **1.4.3 Coordinating Unit**

### **Baltic Marine Environment Protection Commission (Helsinki Commission or HELCOM)**

HELCOM is the governing body of the Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention) HELCOM works to protect the marine environment of the Baltic Sea from all sources of pollution through intergovernmental co-operation between the member states.

#### **HELCOM Secretariat**

**New Chairman:** Dr. Arturas Daubaras

Head of the State Environmental Protection Inspectorate of the Ministry of the Environment of Lithuania

Dr. Arturas Daubaras took over the chairmanship of the Helsinki Commission on 1 July 2004 until 30 June 2006.

**Executive Secretary:** Ms. Anne Christine Brusendorff

## **Contacts**

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Tel: +358-9-6220 220  
Fax: +358-9-6220 2239  
Website: [www.helcom.fi](http://www.helcom.fi).

## **1.4.4 Task Force Groups**

### **1.4.4.1 Monitoring and Assessment Group**

The main role of HELCOM MONAS Monitoring and Assessment Group is to assess the inputs of nutrients and hazardous substances and their effects in the marine environment. HELCOM MONAS also co-ordinates national monitoring programmes and collects the resultant data.

#### **Contact**

##### **Chairman**

Ms. [Heike Herata](#)  
Federal Environmental Agency  
P.O.Box 33 00 22  
D-14191 Berlin  
Tel: +49-30-8903 0  
Fax: +49-30-8903 2965

**Website:** <http://www.helcom.fi/helcom/groupstaskforce/helcommonas.html>.

### **1.4.4.2 Land-based Pollution Group**

The HELCOM LAND Land-based Pollution Group is responsible for reducing pollution from all sources on land within the Baltic Seas catchment area, by promoting investment and practical measures to limit emissions. HELCOM LAND works to promote environmentally sound practices and technologies - Best Available Techniques (BAT) and Best Environmental Practices (BEP).

#### **Contacts**

##### **Chairman**

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Denmark  
Tel: +45-3266 0506  
Fax: +45-3266 0500

**Website:** <http://www.helcom.fi/helcom/groupstaskforce/helcomland.html>

### **1.4.4.3 Maritime Group**

The Maritime Group of the Helsinki Commission (HELCOM MARITIME) works to prevent any pollution from ships - from operational discharges as well as accidental pollution.

## **Contacts**

### **Chair**

Ingelore Hering  
Federal Maritime and Hydrographic Agency  
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Germany  
Tel: +49 40 31902000  
Fax: +49 40 31901004

**Website:** <http://www.helcom.fi/helcom/groupstaskforce/helcommaritime.html>

### **1.4.4.4 Response Group**

HELCOM RESPONSE Group works: to ensure swift national and international response to maritime pollution incidents; to ensure that in case of an accident the right equipment is available and routines are in place to respond immediately and in co-operation with the neighboring states; to analyze the developments in maritime transportation in the Baltic and investigates possible impacts on the international response cooperation; and to coordinate the aerial surveillance of maritime shipping routes to provide a complete picture of the sea-based pollution in the area and to reveal suspected polluters.

## **Contacts**

### **Chairman of HELCOM RESPONSE**

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Sweden  
Tel: +46 455 353455  
Fax: +46 455 10521

**Website:** <http://www.helcom.fi/helcom/groupstaskforce/helcomresponse.html>.

### **1.4.4.5 Nature Protection and Biodiversity Group**

HELCOM HABITAT Nature Protection and Biodiversity Group aims: to conserve natural biotopes and species and to protect the biological diversity and ecological processes; to manage and use coastal and marine resources sustainably; and to promote the development of Integrated Coastal Zone Management, e.g. for coastal lagoons and wetlands.

## **Contacts**

### **Chairman**

[Jan Ekebom](#)  
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Finland

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Fax: +358 20 5644350

**Website:** <http://www.helcom.fi/helcom/groupstaskforce/helcomhabitat.html>

### 1.4.5 National Focal Points

Country	Contact
Bulgaria	To come
Romania	To come
Russian Federation	To come
Georgia	To come
Turkey	To come
Ukraine	To come

## 1.5 Financial Arrangements

### 1.5.1 Trust Fund

Scale of assessment: To come  
2002-2003 budget: To come  
Counterpart contributions: To come

### 1.5.2 Other Funding

To come

## 1.6 Wider Cooperation

### 1.6.1 Agreements and Other Legal Instruments

#### **Baltic and East African Regional Seas Sign Twinning Arrangement**

On 30 May 2000 the Helsinki Commission for Baltic Marine Environment Protection and the UNEP's Regional Seas Programme for the Eastern African Region signed a Twinning Arrangement during the Global Ministerial Environment Forum in Malmo, Sweden. The Arrangement will help to strengthen efforts by East African countries to protect the western part of the Indian Ocean by giving them fuller access to the experience and knowledge gained by the Helsinki Commission in protecting the Baltic Sea.

#### **Intergovernmental Agreement on the Conservation of Small Cetaceans of the Baltic and North Sea (ASCOBANS)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

#### **Convention on Fishing and Conservation of the Living Resources in the Baltic Sea and the Belts**

The objective of the Gdansk Convention, adopted in 1973, entered into force in 1974, is to have its members cooperate closely with a view to preserving and increasing the living resources of the Baltic Sea and the Belts and obtaining the optimum yield, and, in particular

to expanding and co-ordinating studies towards these ends. The International Baltic Sea Fisheries Commission, IBSFC, is the governing body of the Convention.  
For further information link to: <http://www.ibsfc.org/doc/WS-4-1.htm>.

### **UN Economic Commission for Europe, ECE**

The Environment and Human Settlements Division is part of the secretariat of the UN ECE. It brings together economists, scientists, urban planners and other experts, and organizes the regular intergovernmental meetings of the Committee on Environmental Policy, the Executive Body for the Convention on Long-range Transboundary Air Pollution, the Meeting of the Parties to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes and the Committee on Human Settlements. At these meetings, government representatives from Europe, North America, Central Asia and Israel address environmental and human settlements issues, such as environmental impact assessment, air and water pollution, urban renewal or land registration.

For further information link to: <http://www.unece.org/>

### **Convention on Long-range Transboundary Air Pollution**

For further information link to: [http://www.unece.org/env/lrtap/lrtap\\_h1.htm](http://www.unece.org/env/lrtap/lrtap_h1.htm).

### **Convention on the Protection and Use of Transboundary Watercourses and International Lakes**

For further information link to: <http://www.unece.org/env/water/>.

### **Baltic 21 - An Agenda for the Baltic Sea Region**

Link to for further information link to: <http://www.helcom.fi/helcom/observers.html>. Or <http://www.baltic21.org/?a.76>.

### **Baltic Sea Parliamentary Conference (BSPC)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

### **Bonn Agreement**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

### **Ramsar Convention**

For further information link to: [www.ramsar.org](http://www.ramsar.org).

### **World Heritage Convention**

For further information link to: [http://whc.unesco.org/world\\_he.htm](http://whc.unesco.org/world_he.htm)

## **1.6.2 Partners and Other Organizations**

### **Visions and Strategy 2010 VASAB 2010**

For further information link to: <http://www.vasab.org.pl/>.

### **Baltic Operational Oceanographic System – BOOS**

For further information link to: <http://www.helcom.fi/helcom/observers.html>. Or [www.boos.org](http://www.boos.org).

### **Council of Europe Development Bank (CEB)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

### **International Atomic Energy Agency (IAEA)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>. Or [www.iaea.org](http://www.iaea.org).

### **International Baltic Sea Fishery Commission (IBSFC)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>. Or [www.ibsfc.org](http://www.ibsfc.org).

**International Council for the Exploration of the Sea (ICES)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>. Or [www.ices.dk](http://www.ices.dk).

**International Maritime Organization (IMO)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>. Or [www.imo.org](http://www.imo.org).

**Oslo and Paris Commissions (OSPAR)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>. Or [www.ospar.org](http://www.ospar.org).

**UNEP/The African-Eurasian Waterbird Agreement (AEWA)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

**United Nations Environment Programme (UNEP)**

For further information link to:

<http://www.helcom.fi/helcom/observers.html>. And [www.unep.org](http://www.unep.org).

**United Nations Economic Commission for Europe (UN/ECE)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

**World Health Organization Regional Office for Europe**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

**World Meteorological Organization**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

**Alliance for Maritime Regional Interests in Europe (AMRIE)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

**Baltic Farmers' Forum on Environment**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

**Baltic Ports Organisation (BPO)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>. Or [www.bpoports.com](http://www.bpoports.com).

**Baltic and International Maritime Council (BIMCO)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>. Or [www.bimco.dk](http://www.bimco.dk).

**BirdLife International**

For further information link to: <http://www.helcom.fi/helcom/observers.html>. Or [www.birdlife.net](http://www.birdlife.net).

**The European Chemical Industry Council (CEFIC)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

**Coalition Clean Baltic (CCB)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

**Conference of Peripheral Maritime Regions of Europe - Baltic Sea Commission (CPMR)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

**European Boating Association (EBA)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

**European Chlor-Alkali Industry (EURO CHLOR)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

#### **European Fertilizer Manufactures Association (EFMA)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

#### **European Sea Ports Organisation (ESPO)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

#### **European Union for Coastal Conservation (EUCC)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

#### **EUREAU (European Union of National Associations of Water Suppliers and Waste Water Services)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

#### **International Association of Oil and Gas Producers (OGP)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

#### **International Council for Local Environmental Initiatives (ICLEI)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

#### **Union of the Baltic Cities (UBC)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

#### **World Wide Fund for Nature (WWF)**

For further information link to: <http://www.helcom.fi/helcom/observers.html>.

## **2 Our Work**

### **2.1 Programme Strategy**

Link to Regional Seas Strategic Directions 2004-2007, downloadable document: To come

### **2.2 Action Plan**

#### **The Baltic Sea Joint Comprehensive Environmental Action Programme (JCP)**

**Year Adopted:** 1992 (UNEP 2001)

**Participating Countries:** (10) Denmark, Estonia, European Union, Finland, Germany, Latvia, Lithuania, Poland, Russian federation and Sweden (UNEP 2001)

The main objective of the JCP is to support both "preventive" and "curative" measures in the Baltic drainage basin to restore the ecological balance of the Baltic Sea by reducing pollution loads. This involves identifying pollution sources and carrying out measures to reduce the inputs of nutrients and other harmful substances. Identifying and cleaning up pollution hot spots is a particularly important part of this work (Helcom 2004).

In addition to the HELCOM Contracting Parties, the group includes the governments of Belarus, Czech Republic, Norway, Slovak Republic and Ukraine, the Council of Europe Development Bank, the European Bank for Reconstruction and Development, the European Investment Bank, the Nordic Environment Finance Corporation, the Nordic Investment Bank, the World Bank and the International Baltic Sea Fishery Commission. A range of non-governmental organisations also takes part in the activities (Helcom 2004).

**Main elements:**

- Policies, laws and regulations;
- Institutional strengthening and human resource development;
- Investment activities addressing point and non-point source pollution;
- Management programmes for coastal lagoons and wetlands;
- Applied research; and
- Public awareness and environmental education.

For full information link to: <http://www.helcom.fi/helcom/groupstaskforce/helcompitf.html>.

## 2.3 Convention

**The Baltic Sea States signed the Convention on the Protection of the Marine Environment of the Baltic Sea Area**

**Short Title:** Helsinki Convention

**Year adopted:** 22 March 1974 (UNEP 2001)

**Year entered into force:** 1980 (UNEP 2001)

**Replaced:** 1992 (UNEP 2001)

**In force:** 17 January 2000 (UNEP 2001)

**Contracting Parties:** (10) Denmark, Estonia, European Union, Finland, Germany, Latvia, Lithuania, Poland, Russian Federation and Sweden (UNEP 2001)

**Depositary State:** Finland (UNEP 2001)

### Ratification

Participating Country	Date of Ratification
European Community	1994
Germany	1994
Latvia	1994
Sweden	1994
Estonia	1995
Finland	1995
Denmark	1996
Lithuania	1997
Poland	1999
Russia	1999

Helcom (2004)

For full text link to: <http://www.helcom.fi/helcom/convention.html>.

### 2.3.1 Annexes

Annex I Harmful substances

Annex II Criteria for the use of Best Environmental Practice and Best Available Technology

Annex III Criteria and measures concerning the prevention of pollution from LBS

Annex IV Prevention of pollution from ships

Annex V Exemptions from the general prohibition of dumping of waste and other matter in the Baltic Sea Area

Annex VI Prevention of pollution from offshore activities

Annex VI Response to pollution incidents

For full text to Annexes link to: <http://www.helcom.fi/helcom/convention/annexes.html>.

## 2.4 Issues and Threats

## 2.4.1 Habitat and Species Loss

A number of marine mammal species in the Baltic region are under threat from anthropogenic activities. Until recently there was a fairly large population of harbour porpoise in the southern Baltic, however their numbers have decreased tenfold since the 1950s, due to toxic pollutants, fisheries by-catch, hazardous substances, acoustic disturbances, shipping, electro-magnetic fields around marine cables; and disturbance during the construction and operation of offshore wind farms (Helcom 2004).

In the Baltic region, harbour seal and grey seal populations are affected by contaminants, habitat destruction and fishing. A very large number of female grey seals and ringed seals are sterile due to PCB poisoning. Otters inhabited the archipelagos but have decreased dramatically in number in the last few decades, also due to PCB poisoning (Esping and Grönqvist 1995).

There is an ongoing debate about the competition between seals and fishermen. Fishermen are increasingly calling for seal culls to keep their competitors in check. Reduced salmon catches in the Gulf of Finland are regularly blamed on seals taking fish from nets or traps, at the same time causing expensive damage to fishing equipment. In the Kattegat and the southern Baltic, seals compete with fishermen for eel and cod, while in the Gulf of Bothnia and the Estonian archipelago, seals are thought to be affecting coastal salmon and whitefish fisheries. Current research is aiming to develop fishing tackle that can withstand the attention of seals, but meanwhile the calls for seal hunting to be reinstated grow louder. Seal hunting may soon be resumed in places. At present seal hunting is still banned, but a special Seal Project Group set up in 1998 to co-ordinate the management and conservation of seal populations has proposed changes in the recommendations to permit the controlled hunting of seals in certain areas (Helcom 2004).

For further information link to:

Helcom webpage: <http://www.helcom.fi/environment/marinemammals.html>

## 2.4.2 Land Based Sources of Pollution

The Baltic region is faced with large amounts of pollutant inputs from land based sources such as agricultural and industrial activities. Agriculture is a major source of nutrient input to the Baltic Sea and the agricultural production is expected to increase. Excessive amounts of nutrients entering the Baltic are disturbing the ecological balance of the sea. This process known as eutrophication, makes a visible difference to the water, which becomes murky and in warm summers is more often clogged up with dense algal blooms, some of them poisonous. Eutrophication can seriously affect the entire marine food web, including valuable fish stocks. Reducing nutrient loads from agriculture is more complicated than cutting loads from point sources. The implementation of agri-environmental measures is expected to promote reductions in nutrient loads from agriculture, but there is evidently a considerable time lag between the implementation of agricultural water protection measures and any visible effects in water bodies. In addition there is an urgent need to reduce airborne inputs of nitrogen from both land-based and sea-based sources (Helcom 2004).

Based on a list of numerous substances of concern, HELCOM selected 42 hazardous substances for immediate priority action. These include pesticides and biocides from agricultural practices such as lindane and pentachlorophenol, metals and metal compounds (mercury and lead), and industrial substances including short-chained chlorinated paraffins and nonylphenol (Helcom 2004). Since 1992 about 50 of the 132 Hot Spots identified around the Baltic Sea have been cleaned up. Nevertheless, concentrations of PCBs and DDT still remain high. For a current map showing the current hotspots designated by HELCOM visit:

<http://www.helcom.fi/pitf/currenthotspots2004.pdf>

Another major concern is Cadmium. The amounts of cadmium in the atmosphere, in soils, lakes, streams and oceans, have increased alarmingly due to man's activities. Cadmium concentrations in herring and other organisms in the Baltic Proper and in the southern Gulf of Bothnia are evidently still rising, for reasons as yet unknown. Cadmium tends to accumulate up marine food webs and can also even affect people who eat seafood. It may lead to potentially fatal kidney and liver problems, brittle bones, and reproductive disorders. Cadmium and its compounds are highly toxic, and are listed for immediate priority action by HELCOM (Helcom 2004).

For further information refer to:

Helcom webpages: <http://www.helcom.fi/pollution/chemicalmunitions.html>.

<http://www.helcom.fi/pollution/hotspots.html>.

<http://www.helcom.fi/pollution/hazardous/cadmium.html>.

<http://www.helcom.fi/pollution/hazardous.html>.

<http://www.helcom.fi/pollution/eutrophication.html>.

### **2.4.3 Sea Based Pollution**

The Baltic region is crisscrossed by some of the busiest shipping routes in the world. HELCOM has compiled a detailed inventory on the current and future state of maritime transportation. The inventory confirms that the Baltic is among one of the busiest seas in the world, accounting for 15 % of the world's maritime cargo. It is expected that the amount of goods being transported each year will double from 500 million tonnes to 1000 million tonnes, including a tripling in general cargo and container traffic and a 40% increase in oil transportation. There is a clear tendency for ever larger vessels to be used, particularly for oil transportation, and this is reflected in the construction and expansion of oil terminals.

Based on data on accidents in the Baltic Sea, three high-risk areas have been identified – the Gulf of Finland; the South-western part of the Baltic, including the Danish Straits; and the entrances to harbours. These areas are all characterised by limited space for manoeuvring, high ship densities and a high risk of grounding due to varying water depths. An overall assessment of the statistical risks of accidents in the Baltic Sea is now being elaborated, in combination with detailed accident scenarios covering the main oil transportation routes and entrances to major oil terminals.

The Baltic region is under permanent threat from maritime pollution incidents. Oil spills contaminate the surface water, smothering marine plants and animals. Many chemicals in oil spills are toxic, and can have serious cumulative effects as they build up in ecosystems. Spills can also have severe repercussions for tourism and fisheries, while the necessary clean-up operations may themselves unavoidably harm marine life and coastal habitats (Helcom 2004). In September 2001 nine Baltic countries and the EU launched an extensive package of measures, the HELCOM Copenhagen Declaration, to ensure the safety of navigation and a swift national and trans-national response to maritime pollution incidents.

For further information refer to:

Helcom website: <http://www.helcom.fi/pollution/oil.htm>.

### **2.4.4 Exploitation of Resources**

The populations of commercially important species such as cod and salmon are declining due to overexploitation and environmental degradation. Current levels of fishing for the most commercially important species are unsustainable (Helcom 2004).

For further information refer to:

Helcom webpages: <http://www.helcom.fi/manandsea/fisheries.html>

## **2.4.5 Alien Species**

Alien species have been increasingly invading the Baltic Sea in recent years, and many non-native plants and animals have established permanent populations. These invaders can significantly affect the populations of native species, and even entire marine ecosystems (Helcom 2004).

For further information refer to:

Helcom webpages: <http://www.helcom.fi/helcom/projectsmeetings.html#alienspecies>.

## **2.5 Current Activities**

### **2.5.1 Eutrophication and Hazardous Substances**

To get a clear overall picture of trends concerning dioxins and PCBs in the Baltic Sea, it is important to integrate studies of human health with the close monitoring of concentrations in the environment and seafood, in order to investigate any linkages. In co-operation with the European Commission, HELCOM have therefore launched the "Integrated Dioxin and PCB Monitoring Pilot Project in the Baltic Region" to collate information from existing and planned national and international dioxin/PCB monitoring activities, including monitoring of the environment, seafood and human health.

A HELCOM Hazardous Substances Project Group has compiled all available data on sources, pathways, markets and the legal situation relating to selected hazardous substances, in order to assess the exposure situation and identify suitable cost-effective measures. Special documents covering mercury, cadmium, short-chained chlorinated paraffins, nonylphenol and nonylphenoethoxylates, dioxins and PCBs have been prepared. These guidance documents are designed to help policy makers to choose the most efficient instruments and measures to eliminate the emissions, discharges and losses of these hazardous substances.

A major study has been conducted to assess progress towards the strategic 50% reduction target for nutrient load reductions. The review shows that the progress in reducing nutrient loads from point sources has been rather good, with the goal achieved for phosphorus by almost all Contracting Parties. But the results also show that measures to reduce nutrients from agriculture have fallen short of their aims. The implementation of agri-environmental measures is expected to promote reductions in nutrient loads from agriculture, but there is evidently a considerable time lag between the implementation of agricultural water protection measures and any visible effects in water bodies.

#### **2.5.1.1 Projects**

Pollution Load Compilation. Link to:

<http://www.helcom.fi/helcom/projectsmeetings.html#pollution>.

Data Collection project on hazardous substances. Link to:

[http://www.helcom.fi/helcom/groupstaskforce/helcomland/data\\_coll\\_proj.html](http://www.helcom.fi/helcom/groupstaskforce/helcomland/data_coll_proj.html).

## **2.5.2 Biotopes and Habitats**

HELCOM has produced two major review reports with these goals in mind: a state-of-the-art report on Integrated Marine and Coastal Area Management activities and spatial planning systems in all Contracting Parties and a report on visions and strategies for Integrated Marine and Coastal Area Management in the Baltic Sea Area.

The network of marine and coastal Baltic Sea Protected Areas (BSPAs) has still not been fully implemented. In many cases the Contracting Parties have not yet managed to demarcate BSPAs or prepare management plans, and few concrete steps have been taken to include the 24 proposed offshore BSPAs in the network.

HELCOM is also actively co-operating with the International Baltic Sea Fisheries Commission (IBSFC) to mitigate the environmental effects of fisheries.

### **2.5.2.1 Projects**

Development of a Baltic waterbird monitoring strategy – Pilot Phase: evaluation of available data and conclusion on necessary follow-up activities (Mr. Henrik Skov, DHI Water & Environment) (2002 - 2004).

Development of a Common Approach to Integrated Coastal Zone Management (ICZM) within the nine riparian countries around the Baltic Sea (Mr. Alan Pickaver, EUCC-Coastal Union) (2002 – 2003).

Project on Seals (Mr. Palle Uhd Jepsen, Denmark) (1998 – 2001).

Save the Common Sturgeon in the Baltic Sea. Link to:  
<http://www.helcom.fi/helcom/projectsmeetings.html#sturgeon>.

Database on Alien Species in the Baltic Sea. Link to:  
<http://www.helcom.fi/helcom/projectsmeetings.html#alienspecies>.

## **2.5.3 Navigational Safety and Oil Spills**

A Joint IMO/HELCOM/EU Workshop assessed progress on the work implementing the measures proposed in the HELCOM Copenhagen Declaration. While noting that the main elements of the HELCOM Copenhagen Declaration have already been successfully implemented, the Joint Workshop stressed that there is still a need for continued commitment on a broad regional level towards achieving full implementation of all measures. The establishment of a joint monitoring system for maritime traffic in the Baltic Sea will both promote the implementation of established EU regulations, and set an example for other regions to follow.

Three Expert Groups have been established to examine the usefulness and feasibility of three potential measures to improve navigational safety: mandatory pilotage in specified high risk areas, a special transit route running right through the Baltic for ships carrying oil and other potentially harmful substances and, new regulations specifically for winter shipping traffic.

An investigation was conducted into the possible designation of the Baltic Sea as a Particularly Sensitive Sea Area (PSSA). The investigation concluded that the main benefits of PSSA designation would be a higher level of environmental awareness within the maritime industry concerning the sensitivity of the Baltic marine environment. This in turn could

increase the compliance rate with existing measures. It has not been possible to reach an agreement to apply in IMO for PSSA status for the Baltic Sea.

Co-operation on preparing to respond to serious pollution incidents is one of HELCOM's important activities. The annual joint HELCOM exercise was arranged in Finland in September 2003. 15 ships, several smaller boats, an aircraft and more than 50 observers from the HELCOM Contracting Parties participated in the international oil response exercise.

### **2.5.3.1 Projects**

The Implementation of EUROCRUDE in the Baltic (2000- ongoing). Link to: <http://www.helcom.fi/helcom/projectsmeetings.html#eurocrude>.

Assesment of the Risk for Oil Spills in the Baltic Sea Area (finalized in 2002). Link to: <http://www.helcom.fi/helcom/projectsmeetings.html#oilspills>.

Establishing an Information System on Port Reception Facilities in the Baltic Sea Area (finalized in 2004). Link to: <http://www.helcom.fi/helcom/projectsmeetings.html#infoport>.

## **2.5.4 Management of the Coastal Marine Environment**

### **2.5.4.1 Projects**

#### **The Baltic Sea Regional Project**

**Cost:** \$12 million (World Bank, on behalf of the GEF, Finland, Norway, Sweden, the United States and the NEFCO)

**Partners:** HELCOM, International Council for Exploration of the Sea (ICES), the Swedish University of Agricultural Sciences (SLU), the World Wildlife Fund (WWF) the Nordic Environment Finance Corporation (NEFCO) and the International Baltic Sea Fisheries Commission (IBSFC).

**Period:** completed by June 30, 2006

**Goals:**

- Introduce ecosystem-based assessments to strengthen the management of Baltic Sea coastal and marine environments through regional cooperation
- Reduce the pollution from non-point sources (farms, agricultural activities etc.)
- Increase sustainable agriculture and fisheries

<http://www.helcom.fi/helcom/projectsmeetings/GEF-BSRP.html>.

## **2.5.5 Environmental Monitoring and Reporting**

In order to provide scientifically reliable information on the state of the Baltic marine environment, HELCOM co-ordinates monitoring programmes and produces major assessments of pollution loads and the status of the marine environment. The following reports have been finalised: Indicator Reports covering topics from hydrographical background forcing to plankton blooms and pollution loads, "The Baltic Marine Environment 1999-2002" – an overall assessment of the state of the Baltic Sea and a detailed scientific background assessment: "Radioactivity in the Baltic Sea 1992-1998".

HELCOM is currently reviewing reporting and monitoring procedures. This review takes into account the ecosystem approach to the management of human activities and the need to ensure these activities are compatible with the requirements of the EU Water Framework Directive, pan-European reporting and other such activities. A pilot study into the

development of a road map for the establishment of Ecological Quality Objectives (EcoQOs) for the Baltic Sea within HELCOM has been initiated.

### **2.5.5.1 Projects**

Development of ecological quality objectives within HELCOM for the Baltic Sea in the process of regional implementation of ecosystem approach and European Marine Strategy (2003- ongoing). Link to: <http://www.helcom.fi/helcom/projectsmeetings.html>

Pilot study in the development of a road map for the establishment of ecological quality objectives (EcoQOs) within HELCOM for the Baltic Sea (Ms. Eeva-Liisa Poutanen, Finland (2003 - 2005).

Zooplanktologist expert network (Mr. Lutz Postel, Germany) (2003 – 2005). Link to: <http://www.helcom.fi/helcom/projectsmeetings.html#zooplanktologist>.

Integrated Dioxin and PCB Monitoring Pilot Project in the Baltic Region” (Ms. Birgit van Tongelen, European Commission). (2003 - 2004).

Ad Hoc Working Group on Sediment Monitoring (Mr. Thomas Leipe, Germany) (2001 - 2004). Link to: <http://www.helcom.fi/helcom/projectsmeetings.html#sediment>.

Monitoring of Radioactive Substances in the Baltic Sea (MORS) (Mr. Sven P. Nielsen, Denmark) (1996 – 2004). Link to: <http://www.helcom.fi/helcom/projectsmeetings.html>.

Validation of Algorithms for Chlorophyll Retrieval from Satellite Data for the Baltic Sea Area (Mr. Wolfram Schirmpf, European Union/JRC/IES) (2001 – 2003). Link to: <http://www.helcom.fi/helcom/projectsmeetings.html#validation>.

Quality Assurance of Phytoplankton Monitoring in the Baltic Sea (Ms. Irina Olenina, Lithuania) (1997 - ongoing). Link to: <http://www.helcom.fi/helcom/projectsmeetings.html#quality>.

Harmonised International Early Warning Reporting System on Abnormal Events in the Baltic Sea and its Drainage Area (Mr. Hans Dahlin, Sweden) (2000-2003). Link to: <http://www.helcom.fi/helcom/projectsmeetings.html#harmonised>.

Preparation of the Fourth Periodic Assessment of the state of the marine environment of the Baltic Sea (Mr. Tonny Niilonen, Denmark) (1999 – 2001).

Quality Assurance of Macrozoobenthos Monitoring in the Baltic Sea (Mr. Heye Rumohr, Germany) (1999 – 2001).

For further research projects undertaken in the Baltic Region link to: <http://www.giwa.net/areas/area17.phtml>.

## **3 Publications**

For a full comprehensive list accompanied by downloadable documents link to: <http://www.helcom.fi/helcom/publications.html>

### **3.1 Regional Seas Reports and Studies**

Link to the Regional Seas Reports and Studies:

[http://www.earthprint.com/show.htm??url=http://www.earthprint.com/cgi-bin/ncommerce3/CategoryDisplay?cgfnbr=21240&cgmenbr=27973&CGRY\\_NUM=&next=1](http://www.earthprint.com/show.htm??url=http://www.earthprint.com/cgi-bin/ncommerce3/CategoryDisplay?cgfnbr=21240&cgmenbr=27973&CGRY_NUM=&next=1)

### 3.2 Meeting Reports

For a full comprehensive list accompanied by downloadable documents link to <http://www.helcom.fi/dps.html>

### 3.3 Website Links

**Baltic Marine Environment Protection Commission (Helsinki Commission)**

<http://www.helcom.fi>

**EurOcean** <http://www.eurocean.org/>. is a recently created focal point for information in Europe on marine science and technology. The EurOcean Internet portal intends to be an electronic platform of communication and information for all actors with interest in marine science and technology in Europe. One of its functions is to be the IOC regional portal for Europe. Already, the EurOcean portal provides information in three main domains: marine research infrastructures, national and European RTD programmes.

**Gateway to Oceanographic and Marine Data and Information in Europe** <http://www.sea-search.net/>

**International Baltic Sea Fishery Commission** <http://www.ibsfc.org/>

**Stockholm County Administrative Board** <http://www2.ab.lst.se/infobalt/infooff.htm>.

**Checklist of phytoplankton in the Skagerrak-Kattegat**

<http://www.marbot.gu.se/SSS/SSShome.htm>

**Marine Biological Laboratory University of Copenhagen** <http://www.mbl.ku.dk/>.

**Danish Environmental Protection Agency** <http://www.mst.dk/homepage/>.

**The Danish National Environmental Research Institute (NERI)** <http://www.dmu.dk/>. (in Dutch)

**DHI Water and Environment** <http://www.dhi.dk/>.

Links to institutions and websites in Estonia

<http://www.helcom.fi/helcom/contractingparties/estonia.html>.

Links to institutions and websites in Finland

<http://www.helcom.fi/helcom/contractingparties/finland.html>

Links to institutions and websites in Germany

<http://www.helcom.fi/helcom/contractingparties/germany.html>

Links to institutions and websites in Latvia

<http://www.helcom.fi/helcom/contractingparties/latvia.html>.

Links to institutions and websites in Lithuania

<http://www.helcom.fi/helcom/contractingparties/lithuania.html>.

Links to institutions and websites in Poland

<http://www.helcom.fi/helcom/contractingparties/poland.html>.

Links to institutions and websites in Russia

<http://www.helcom.fi/helcom/contractingparties/russia.html>.

**Marine Pollution Control Salvage and Rescue Administration (MPCSA)**

<http://www.morflot.ru/>

**Oceanography and Marine Environment of the Far Eastern Region of Russia**

<http://www.pacificinfo.ru> Marine Oceanographic atlas of the Bering Sea, Okhotsk Sea and Japan/East Sea (full version CD-ROM on web) (<http://atlas.pacificinfo.ru>);

Hydro-chemical Atlas of the Sea of Okhotsk (US/Russia CD-ROM)

(<http://www.nodc.noaa.gov/General/NODC-cdrom.html#okhotsk>).

**V.I.II'ichev Pacific Oceanological Institute (POI)** <http://www.pacificinfo.ru> and [www.poi.dvo.ru](http://www.poi.dvo.ru)

**Regional Oceanographic Data Center (RODC)**, Far Eastern Regional Hydrometeorological Research Institute (FERHRI) <http://www.hydromet.com>  
Primorsky Territorial Office on Hydrometeorology and Environmental Monitoring  
<http://www.primpogoda.ru>

**The Inter-Institute Center for the Regional Satellite Monitoring (CRSM)** of the Environment of the Institute of Automation and Control Processes (IACP), FEB RAS  
<http://www.iacp.dvo.ru>

**Pacific Scientific Research Fisheries Center (TINRO-Center)**, State Fisheries Committee of the Russian Federation <http://www.tinro-centre.ru> and <http://www.tinro.ru>  
Links to institutions and websites in Sweden  
<http://www.helcom.fi/helcom/contractingparties/sweden.html>.

**Baltic 21** <http://www.baltic21.org/>

**International Baltic Sea Fishery Commission (IBSFC)** [www.ibsfc.org](http://www.ibsfc.org)

**Baltic Ports Organisation (BPO)** [www.bpoports.com](http://www.bpoports.com).

**Baltic and International Maritime Council (BIMCO)** [www.bimco.dk](http://www.bimco.dk).

For further links to international NGO and governmental organizations:  
<http://www.helcom.fi/helcom/observers.html>.

### **3.4 Newsletter**

HELCOM News

Link to: <http://www.helcom.fi/helcom/publications.html>.

## **4 Calendar of Events**

14-15 June 2004

15th Meeting of Heads of Delegation (HELCOM HOD) in Helsinki, Finland

8-10 September 2004

Fourth Meeting of the Response Group (HELCOM RESPONSE)

[13-14] September 2004

Third Meeting of the Expert Working Group on Transit Routeing (TRANSIT ROUTE EWG) in St. Petersburg, Russia

26-27 October 2004

Eighth Meeting of the Expert Working Group for Mutual Exchange and Deliveries of AIS data (AIS EWG) in Helsinki, Finland

28 October 2004

Lead Party Meeting on Agriculture in St. Petersburg, Russia

[1-3] November 2004  
Third Meeting of the Maritime Group (HELCOM MARITIME) in Denmark

1-2 March 2005  
26th Meeting of the Helsinki Commission (HELCOM 26/2005)

## 5 Professionals

To come

## 6 Advertisements

**New Chairman:** Lithuania took over the chairmanship of the Helsinki Commission on 1 July 2004. Dr. Arturas Daubaras, head of the State Environmental Protection Inspectorate of the Ministry of the Environment of Lithuania will lead, as chairman, the work of HELCOM during a two-year term, until 30 June 2006.

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