



Baltic Marine Environment Protection Commission

Working Group on the State of the Environment and Nature
Conservation

STATE & CONSERVATION
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Background

According to HELCOM Recommendation 35/1 'System of coastal and marine Baltic Sea protected areas (HELCOM MPAs)', the Governments of the Contracting Parties to the Helsinki Convention are individually and jointly recommended to take all appropriate measures to (Recommendation action a) reach the target set by the HELCOM 2010 Moscow Ministerial Declaration that at least 10% of the marine area in all sub-basins of the Baltic Sea including the EEZ areas beyond territorial waters is covered by MPAs where scientifically justified. In addition, where ecologically meaningful, coastal terrestrial areas can be included.

STATE & CONSERVATION 9-2018 took note of the current distribution and coverage of the HELCOM MPA network, and inclusion of sub-basin wise data, and noted that part of the sub-basins still have HELCOM MPA coverage below 10%. The meeting requested the Secretariat to include an additional column containing the total area covered by MPAs (HELCOM MPAs and Natura 2000 areas) in the overview.

To support the implementation of the Recommendation action a) STATE & CONSERVATION 9-2018 meeting invited the Secretariat to intersessionally provide calculations for the total area (HELCOM MPA's and N2000) coverage of MPA's by sub-basin and based on these calculations compile a list of those sub-basins with a total coverage of less than 10%, as well as identify the countries bordering the respective sub-basins. The results of this work were to be shared with the State and Conservation Working Group by 15 February 2019. The Meeting agreed that the relevant Contracting Parties will collate any additional information regarding spatial protection in the respective areas and present this at STATE & CONSERVATION 10-2019 for further discussion.

This document contains 1) the current coverage of protected marine areas including HELCOM MPAs and Natura 2000 sites and 2) their coverage including coastal terrestrial areas up to 20 km inland.

Based on the results presented in this document, the share of marine area covered by MPAs and Natura 2000s together was below 10 % in the Bothnian Bay, Bothnian Sea and the Northern Baltic Proper. The identified sub-basins are bordered by Estonia, Finland and Sweden.

Action requested

The Meeting is invited to

- take note of the information on the coverage of HELCOM MPAs and Natura 2000s in the sub-basins.
- taking into account the Recommendation 35/1 action a, consider whether the coverage of HELCOM MPAs and Natura 2000s could be presented only for marine areas in future meetings

Contracting Parties are invited to highlight and report any missing information and to inform the Meeting on any new or planned MPAs in territorial waters or EEZ areas beyond said waters.

Contracting Parties Estonia, Finland and Sweden are invited to present to the Meeting any additional information regarding spatial protection in the respective areas and provide information on spatial coverage or shape files to complement the information from the HELCOM MPAs and Natura 2000 sites.

The Meeting is invited to discuss scientifically justifiable reasons (if any) for why the goal of '10% coverage of marine MPAs in all sub-basins of the Baltic Sea' should not be applicable for the sub-basins which currently have coverage below 10%.

Coverage of HELCOM Marine Protected Areas and Natura 2000 areas in the Baltic Sea region in February 2019

Introduction

According to HELCOM Recommendation 35/1 'System of coastal and marine Baltic Sea protected areas (HELCOM MPAs)', the Governments of the Contracting Parties to the Helsinki Convention are individually and jointly recommended to reach the target set by the HELCOM 2010 Moscow Ministerial Declaration that at least 10% of the marine area in all sub-basins of the Baltic Sea including the EEZ areas beyond territorial waters is covered by MPAs where scientifically justified. In addition, where ecologically meaningful, coastal terrestrial areas can be included.

State and Conservation 9-2018 meeting noted that the current distribution and coverage of the MPA network is still below 10 % for part of the sub-basins (outcome para 3N.32, document 3N-17). In order to provide supporting information for the Recommendation, the meeting invited the Secretariat to provide subbasin-wise calculations for the total protected area, including both HELCOM MPAs and Natura 2000 areas (N2000s) and compile a list of those sub-basins with a less than 10 % total coverage of protected areas, as well as to identify the countries bordering the respective sub-basins. The information was agreed to be shared with State and Conservation Working Group.

State and Conservation 9-2018 further agreed that the identified Contracting Parties will collate and present to State and Conservation 10-2019 any additional information regarding spatial protection in the respective areas.

Calculation of the protected areas

The coverage of protected areas were analyzed for the following three cases:

1. MPA marine fraction (no mainland or island land areas), percentage of sub-basins
2. MPA + N2000 marine fraction (no mainland or island land areas), percentage of sub-basins
3. MPA + N2000 areas including islands and mainland up to 20 km, percentage of sub-basins which were buffered to reach 20km to mainland

Areas for the analyzes were delineated as follows:

CASE 1, MPA marine fraction (Fig.1): All land areas were removed from the MPA dataset. Removed areas included all areas on islands and mainland, regardless whether the islands were included in the original MPA delineation or cut out of it. Some MPAs have areas falling landward of the coastline and these were also removed. Normal version of the sub-basins was used.

CASE 2, MPA + N2000 marine fraction (Fig. 1): As above, but N2000 areas were included in the analysis. Same method was applied to remove mainland and islands from N2000 areas as in the MPA analysis. All overlapping areas were removed, and the dissolved areas were compared to the normal version of sub-basins.

CASE 3, MPA + N2000 areas including islands and mainland up to 20 km (Fig. 2): MPA areas were used in their full extent including island and mainland areas as they are in the official form. For N2000s, first areas that touch the sea were selected and after that the parts of the selected areas that reached further than the selected 20 km buffer, were removed from the selection. The 20 km buffer was selected based on the MPA that goes furthest to mainland, reaching 20 km to landward direction.

For sub-basin area, first the borders of the sub-basins were extended to reach 20 km inland and islands within the sea area were divided between the sub-basins. The coastline was also buffered to reach 20 km to mainland. Polygon was created that covers the whole sub-basin, reaches 20 km to mainland and doesn't include any islands. This was used as the reference area for each sub-basin and also used to cut N2000s, as described above. All overlapping areas were removed, and the dissolved areas were compared to the buffered version of sub-basins.

Results

The coverage of marine MPAs by sub-basin is presented in Figure 1 and Table 1. The share of marine area covered by HELCOM MPAs exceeded 10% of the total marine area in 11 of the 17 sub-basins. The coverage was below 10 % in the Sound, Eastern Gotland Basin, Western Gotland Basin, Northern Baltic Proper, Bothnian Sea and Bothnian Bay.

The combined coverage of HELCOM MPAs and N2000s together was below 10 % in the Bothnian Bay, Bothnian Sea and the Northern Baltic Proper. The identified sub-basins are bordered by Estonia, Finland and Sweden.

When also coastal terrestrial area covered by MPAs and N2000s was included (CASE 3; Table 2, Figure 2), the obtained shares for protected area were lower than when only marine areas were taken into account (Tables 1 - 2).

Table 1. Areas of HELCOM sub-basins, total areas of HELCOM MPAs including islands and mainland, MPA marine areas (CASE 1) and combined marine MPA and Natura 2000 areas (N2000s; CASE 2) by sub-basin, as well as shares of marine MPAs and MPAs + N2000s of the sub-basin area.

Subbasin	HELCOM ID	Subbasin Area km ²	MPA total area	MPA marine area	MPA marine area %	MPA + N2000 marine area	MPA + N2000 marine area %
Kattegat	SEA-001	23 973	5851	5644	24	8144	34
Great Belt	SEA-002	10 662	8054	4058	38	4099	38
The Sound	SEA-003	921	92	71	8	100	11
Kiel Bay	SEA-004	3 485	5018	1418	41	1425	41
Bay of Mecklenburg	SEA-005	4 620	2403	802	17	1328	29
Arkona Basin	SEA-006	17 600	5165	2589	15	5547	32
Bornholm Basin	SEA-007	42 014	21134	7332	17	12181	29
Gdansk Basin	SEA-008	5 876	4983	958	16	958	16
Eastern Gotland Basin	SEA-009	75 133	21697	5831	8	8690	12
Western Gotland Basin	SEA-010	34 528	3455	1333	4	3930	11
Gulf of Riga	SEA-011	18 787	13331	7698	41	8170	43
Northern Baltic Proper	SEA-012	32 831	5807	1058	3	1304	4
Gulf of Finland	SEA-013	29 877	5026	3970	13	4243	14
Åland Sea	SEA-014	16 829	5169	1839	11	2133	13
Bothnian Sea	SEA-015	59 349	5049	2617	4	3211	5
The Quark	SEA-016	8 159	1553	1374	17	1527	19
Bothnian Bay	SEA-017	32 225	1323	1222	4	1786	6
Baltic Sea		416 869		49814	12	68777	16

Table 2. Areas of HELCOM sub-basins with 20 km extension to the inland and combined areas of total MPAs (including mainland and islands) and Natura 2000 areas (N2000s) that touch the sea including up to 20 km buffer zones (CASE 3) into inland by sub-basin, as well as shares (%) of the combined MPAs + N2000s of the extended sub-basin area.

Subbasin	HELCOM ID	20 km buffered area of sub-basin	MPA + N2000 area inside buffered sub-basin	%
Kattegat	SEA-001	45 097	8 941	20
Great Belt	SEA-002	24 221	4 717	19
The Sound	SEA-003	3 016	122	4
Kiel Bay	SEA-004	8 147	1 546	19
Bay of Mecklenburg	SEA-005	9 613	1 629	17
Arkona Basin	SEA-006	24 781	6 493	26
Bornholm Basin	SEA-007	54 391	13 955	26
Gdansk Basin	SEA-008	11 245	1 159	10
Eastern Gotland Basin	SEA-009	86 200	9 551	11
Western Gotland Basin	SEA-010	49 845	4 431	9
Gulf of Riga	SEA-011	32 170	9 760	30
Northern Baltic Proper	SEA-012	37 576	1 555	4
Gulf of Finland	SEA-013	52 289	5 293	10
Åland Sea	SEA-014	26 121	2 353	9
Bothnian Sea	SEA-015	78 121	4 144	5
The Quark	SEA-016	13 240	1 760	13
Bothnian Bay	SEA-017	50 617	2 037	4
Baltic Sea		606 690	79 445	13

Figure 1. Marine fractions of HELCOM MPAs (HELCOM MPAs excluding areas on islands and mainland) and marine Natura 2000 areas in the Baltic Sea. These areas were used for calculating coverage of HELCOM MPAs (CASE 1) and combined coverage of HELCOM MPAs and Natura 2000s (CASE 2).

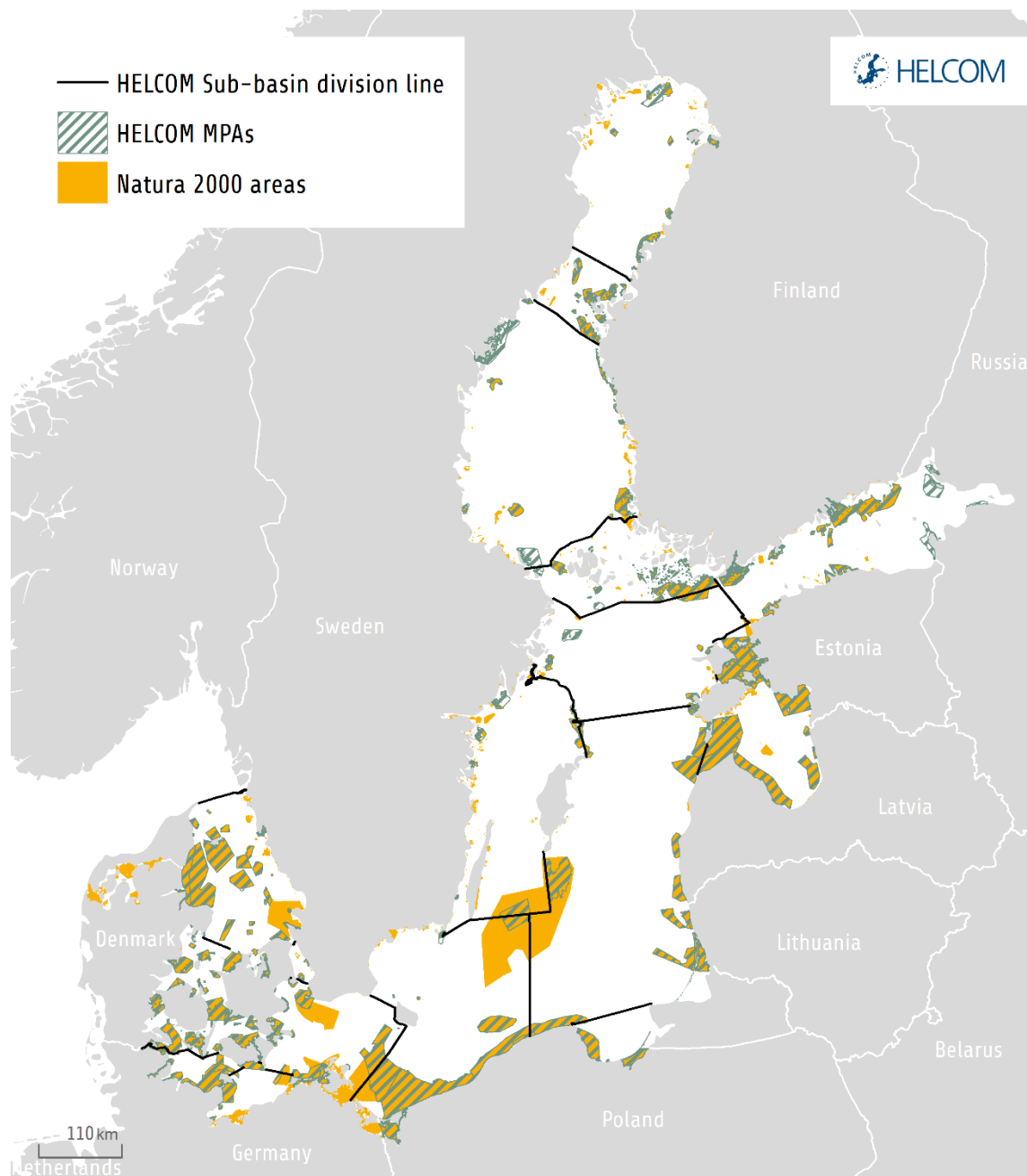


Figure 2. HELCOM MPAs including areas on mainland and islands and Natura 2000 areas touching sea and reaching up to 20 km to land, as well as HELCOM sub-basins with a 20 km extension to the mainland. These areas were used for estimating combined coverage of HELCOM MPAs and Natura 2000s in CASE 3.

