

BIOTOPE INFORMATION SHEET

English name: Boreal Baltic islets and small islands		Code in HUB: 1620	
Characteristic species:			
Past and Current Threats (Habitat directive article 17): Eutrophication (H01.05), Construction (dredging J02.02.02), Tourism (G01)		Future Threats (Habitat directive article 17): Eutrophication (H01.05), Construction (wind energy production C03.03, dredging J02.02.02), Tourism (G01), Oil spills (oil spills in the sea H03.01)	
Red List Criteria: C1	Confidence of threat assessment: M	HELCOM Red List Category:	NT Near Threatened
Previous HELCOM Red List threat assessments			
BSEP 75 (1998): "3" (Endangered) L – Solitary islands		BSEP 113 (2007):	
Higher concern stated by:			

Habitat and Ecology

The biotope complex is made up of groups of small skerries and islets that generally consist of bedrock or moraine. The biotope complex forms in shallow outer archipelago areas. The terrestrial vegetation is adapted to windy conditions and lack of soil cover, trees generally do not grow and any trees are low growing. The underwater macrophyte vegetation is characterized by attached macroalgae that generally form distinct belts, the green algae grow closest to the surface followed by a belt of brown algae and the deepest belt consists of red algae. Islets and skerries are very important nesting sites for birds and resting sites for seals.



Algal belts are a typical feature of the underwater environment on boreal Baltic islets and small islands (Photo: Julia Nyström, FINMARINET)

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Definition of the habitat according to the 'Interpretation manual of European Union Habitats' EUR27:

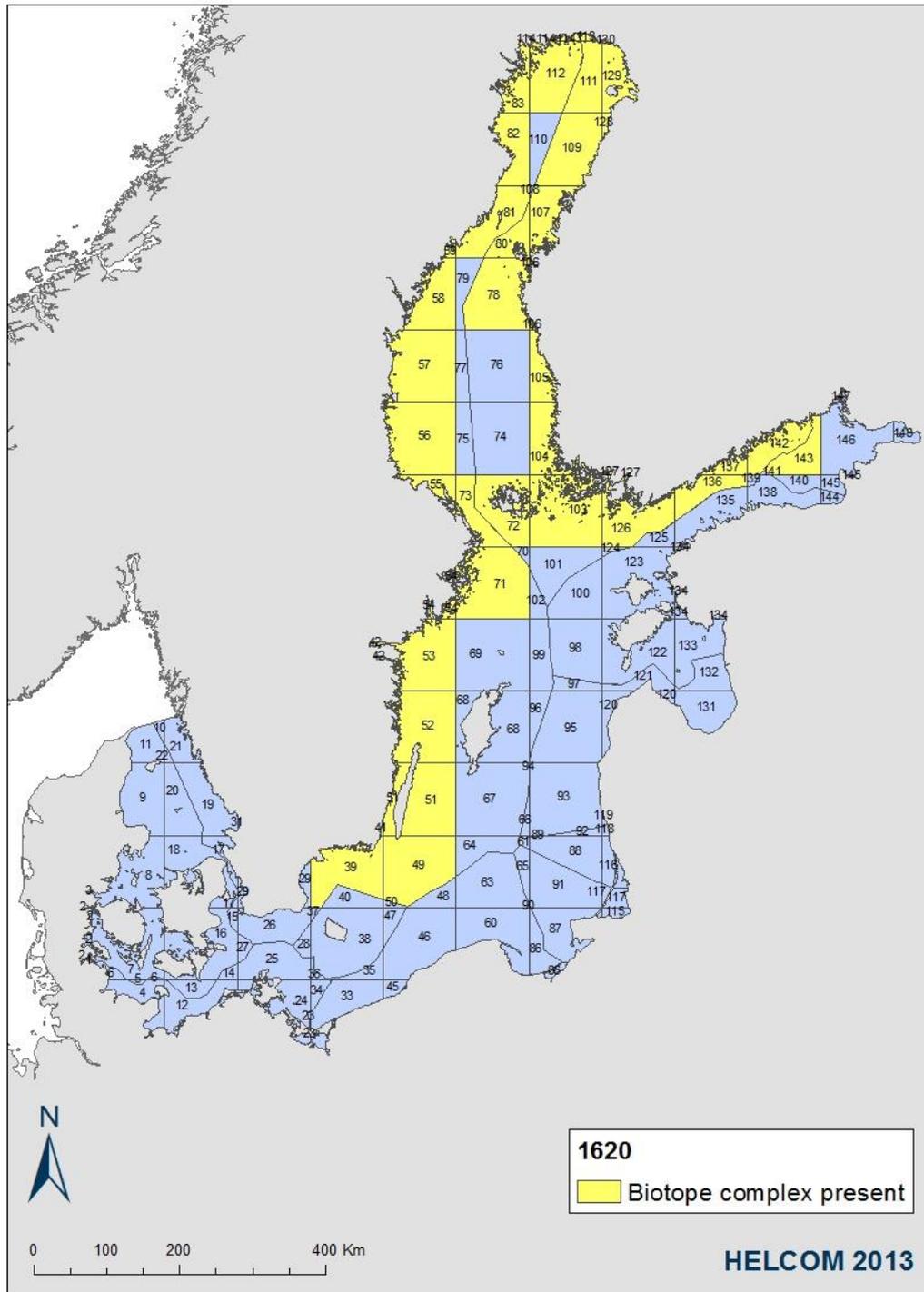
Groups of skerries, islets or single small islands, mainly in the outer archipelago or offshore areas. Composed of Precambrian, metamorphic bedrock, till or sediment. The vegetation of boreal Baltic islets and small islands is influenced by the brackish water environment, the ongoing land upheaval (in areas with intense land upheaval) and the climatic conditions. The vegetation types are influenced by wind, dry weather, salt and many hours of sunlight. Land-upheaval causes a succession of different vegetation types. Bare bedrock is common. A lot of small islands have no trees. The vegetation is usually very sparse and consists often of mosaic-like pioneer vegetation communities. On some islands the species diversity is increased by nitrogenous excrement from birds. Many of the plants are xerophytic and lichens are common. Temporary or permanent rockpools are common and these are inhabited by a variety of aquatic plant and animal species. Boreal Baltic islets and small islands are important nesting sites for birds and resting sites for seals. The surrounding sublittoral vegetation is also included in the type 1620.

Plants: *Agrostis stolonifera*, *Allium schoenoprasum*, *Angelica archangelica* spp. *litoralis*, *Cochlearia danica*, *Juniperus communis*, *Lemna minor*, *Puccinellia distans* ssp. *borealis*, *Sedum acre*, *Sedum telephium*, *Silene viscosa*, *Viola tricolor*. Algae: *Ceramium tenuicorne*, *Chorda filum*, *Cladophora glomerata*, *Cladophora rupestris*, *Fucus vesiculosus*, *Furcellaria lumbricalis*, *Pilayella littoralis*. Animals: Mammals- *Halichoerus grypus*, *Phoca hispida* Birds- *Alca torda*, *Arenaria interpres*, *Cepphus grylle*, *Larus fuscus*, *Stercorarius parasiticus*, *Sterna caspia*, *Uria aalge* Crustaceans- *Amphibalanus improvisus*, *Idotea* sp Molluscs- *Mytilus edulis*

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Distribution and status in the Baltic Sea region

The distribution map indicates the area in the 100 x 100 km grid where biotope is known to occur (Naturvårdverket 2011)



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Description of Major threats

The integrity of the zonal underwater vegetation is threatened by eutrophication. Eutrophication reduces water clarity, reducing maximum depth the algal belts can occupy and thereby reducing the available area. Eutrophication may also cause excessive growth of annual filamentous algae that can influence the community composition. Increased siltation may further affect the macroalgal community. Eutrophication may further cause oxygen depletion, especially along the seafloor between the islets and skerries where the filamentous algae that break off from the substrate become aggregated. Microbial decomposition of the organic material may cause oxygen depletion.

Future plans for constructing windmill parks in the shallow outer archipelago areas might pose a severe future threat to the biotope complex. Construction and tourism may have severe negative effects on the biotope complex. The terrestrial community is also especially sensitive to human activities, e.g. disturbance to nesting birds caused by tourism.

Oil- or other chemical spills are a threat to the biotope complex. Oil- or other chemical spills that occur on the open sea is likely to first affect the shoreline of the islets and skerries as the spill is being moved by the currents. In case of a large scale oil spill on open water in the northern Baltic Sea, the boreal skerries and islets may suffer severe loss of biodiversity.

Assessment justification

C1

The biotope complex is abundant and common, but has experienced moderately severe quality decline to a large extent of the original distribution in the past 50 years. The majority of the boreal Baltic islets and skerries that occur especially in the Archipelago sea and south of this area have been adversely affected by eutrophication. The algal zonation has become less distinct and the maximum depth of the algalbelts has decreased. In the boreal region, the islets and small islands have been affected by similar threats as the reef biotope complex (1170). Several species, especially birds, which are characteristic for the terrestrial part of the biotope complex are red-listed, and have been negatively affected, for example, by human disturbance, hunting, and contaminant pollution.

Recommendations for actions to conserve the biotope

All measures that reduce eutrophication in the whole Baltic Sea will benefit this wide spread biotope complex.

Common names

Denmark: Boreale holme og småøer i Østersøen, Estonia: -, Finland: Itämeren boreaaliset luodot ja saaret, Germany: Kleine und Kleinstinseln des borealen Baltikums, Latvia: -, Lithuania: -, Poland: -, Russia: -, Sweden: Boreala skär och småöar i Östersjön

References

Naturvårdsverket (2011) Vägledning för svenska naturtyper i habitatdirektivets bilaga 1, Blottade sand- och lerbottnar. Available at: http://www.naturvardsverket.se/upload/stod-i-miljoarbetet/vagledning/natura-2000/naturtyper/kust-och-hav/vl_1620_Skariostersjon.pdf. (Viewed July 19 2013)