

BIOTOPE INFORMATION SHEET

English name: Large shallow inlets and bays		Code in HELCOM HUB: 1160	
Characteristic species: <i>Chara baltica</i> , <i>Chara canescens</i> , <i>Tolypella nidifica</i> , <i>Ruppia spp.</i> , <i>Stukenia pectinata</i> , <i>Zostera marina</i>			
Past and Current Threats (Habitat directive article 17): Eutrophication (H01.05), Contaminant pollution (H03), Construction (dredging J02.02.02, dumping J02.11, marine constructions D03.03), Tourism (G05), Fishing (F02)		Future Threats (Habitat directive article 17): Eutrophication (H01.05), Contaminant pollution (H03), Oil spills (oil spills in the sea H03.01), Construction (dredging J02.02.02, dumping J02.11, marine constructions D03.03), Tourism (G05), Fishing (F02)	
Red List Criteria: C1	Confidence of threat assessment: M	HELCOM Red List Category:	VU Vulnerable
Previous HELCOM Red List threat assessments			
BSEP 75 (1998): "3" (Endangered) E – Fjords F – Fjards/fjord-like bays		BSEP 113 (2007): Regions where the biotope/habitat is under threat and/or in decline: The Bothnian Sea, Åland Sea, Archipelago Sea, Gulf of Finland, The Southern Baltic Proper.	
Higher concern stated by:			

Habitat and Ecology

Baltic large shallow inlets and bays are coastal features such as fjords and/or fjord like bays, shallow bights, but also specific subtypes of Bodden. The characteristic physiographic and biological features are more similar to the adjacent open Baltic Sea than it is, for example, the case in lagoons or estuaries.

Large shallow inlets and bays are of Baltic-wide importance. Some of them, e.g. the Bodden of the southern Baltic Sea coast, are of global importance. The physiographic features of sheltered bays provide important habitats for aquatic and coastal plants and animals (birds, fish, invertebrates). The benthic flora is often rich. In some cases the benthic and halophytic vegetation (mainly along the shores) may cover large parts of the seafloor of the bay. The plant vegetation provides habitat for many aquatic invertebrates and these are suitable food for larger animals such as fish or birds.

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

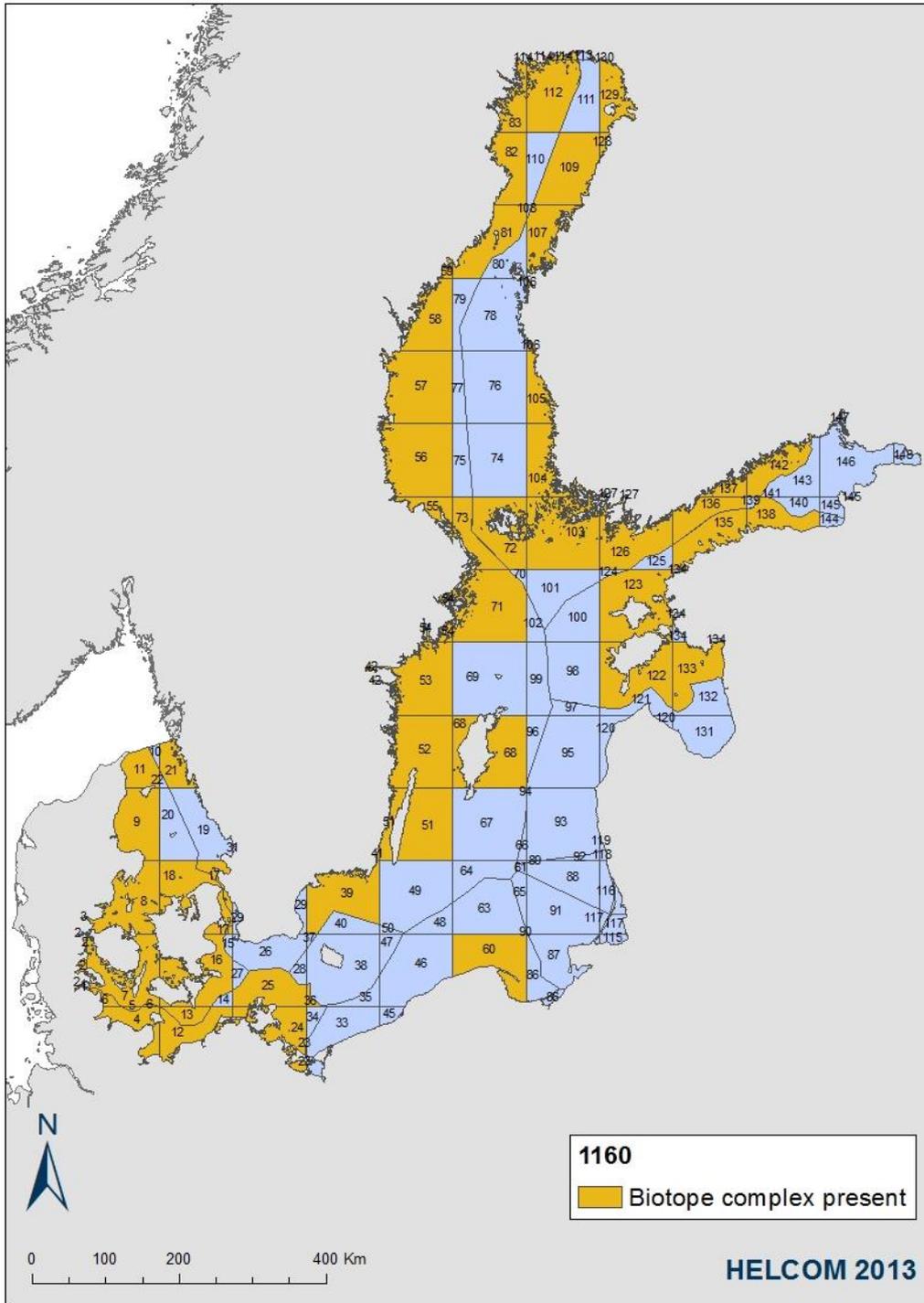
Large indentations of the coast where, in contrast to estuaries, the influence of freshwater is generally limited. These shallow indentations are generally sheltered from wave action and contain a great diversity of sediments and substrates with a well developed zonation of benthic communities. These communities have generally a high biodiversity. The limit of shallow water is sometimes defined by the distribution of the *Zosteretea* and *Potametea* associations. Several physiographic types may be included under this category providing the water is shallow over a major part of the area: embayments, fjards, rias and voes.

Plants: *Zostera spp.*, *Ruppia maritima*, *Potamogeton spp.* (e.g. *P. pectinatus*, *P. praelongus*), benthic algae. Animals: Benthic invertebrate communities.

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Distribution and status in the Baltic Sea region

Large shallow inlets and bays occur in all HELCOM sub-regions of the Baltic Sea area. The distribution map indicates the area in the 100x100 km grid where biotope is known to occur (Naturvårdverket 2011, EUNIS Database)



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Description of Major threats

Eutrophication and pollution by drainage from agriculture and forestry and other sources (like traffic and industry) are serious threats and factors for deterioration. The overgrowth of filamentous algae, which benefits from eutrophication, smothers the communities of vascular plants in the shallow inlets and bays. Furthermore, humans also use this habitat type for other activities such as fishing, offshore constructions, extractions, dredging, dumping of dredged material, tourism and recreation which all may cause visual, acoustic or physical disturbance to wildlife and the habitat (European Commission 2007b, EUNIS Database).

Assessment justification

C1

During the past 50 years the quality deterioration is assumed to have been severe on more than half of the original distribution of the large shallow inlets and bays. The quality degradation is mainly due to coastal exploitation of the shallow areas and nutrient run-off. Eutrophication has deteriorated the quality of the biotope complex in several areas. The decreased water clarity affects the characteristic macrophyte meadows. For example, in the southern and western areas of the Baltic Sea the species *Zostera noltii* that previously occurred in the macrophyte meadows has disappeared from many areas covered by the biotope complex.

The biotope complex is under threat or decline along many central and southern Baltic Sea coasts where the use of coastal areas for recreation is extensive. Coastal construction and physical disturbance has affected the quality negatively.

Recommendations for actions to conserve the biotope

Programs and measures for a drastic reduction of the eutrophication and pollution are needed. Additional protective measures could be: preservation of natural dynamics (HELCOM Rec. 16/3), restriction of building activities along the shores (HELCOM Rec. 15/1), restrictions for offshore constructions, introduction of ecologically sound fishing and farming methods as well as regulations for ship traffic, boating, unregulated growth of tourism and harmful recreational activities. As for all natural habitat types, an inventory and a monitoring and assessment programme (also for human activities) is obligatory for EU Member States. They are further obliged to take all appropriate steps to avoid further deterioration. This includes the obligation to protect this natural habitat type within the Natura 2000 network, and thus to designate as many SACs as necessary to guarantee its favourable conservation status. Member States have to follow Article 6 (3) of the Habitats Directive: Plans and projects which are not directly connected with or necessary to the management of a Natura 2000 site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications.

Common names

Denmark: Større, lavvandede bugter og vige, Estonia: - , Finland: Laajat matalat lahdet, Germany: Flache große Meeressarme und -buchten (Flachwasserzonen und Seegraswiesen), Latvia: - , Lithuania: - , Poland: - , Russia: - , Sweden: Stora grunda vikar och sund

References

European Commission. (2007a). Guidelines for the establishment of the Natura 2000 network in the marine environment. Application of the Habitats and Birds Directives. Appendix 1: Marine Habitat types definitions.
http://ec.europa.eu/environment/nature/natura2000/marine/docs/appendix_1_habitat.pdf

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European Commission (2007b). Guidelines for the establishment of the Natura 2000 network in the marine environment. Application of the Habitats and Birds Directives. (EU interpretation manual) Available at:

http://ec.europa.eu/environment/nature/natura2000/marine/docs/marine_guidelines.pdf (viewed 4 June 2013)

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_1160_Storavikarsund.pdf . (Viewed July 19 2013)

EUNIS Database. <http://eunis.eea.europa.eu/habitats.jsp> (Viewed July 19 2013)