# BIOTOPE INFORMATION SHEET

| English name: | Code in HELCOM HUB: |
|---|---|
| **Baltic photic or aphotic coarse sediment dominated by multiple infaunal polychaete species including *Ophelia* spp**<br>**Baltic photic or aphotic sand dominated by multiple infaunal polychaete species including *Ophelia* spp. and T*ravisia forbesii*** | **AA.I3L11, AB.I3L11, AA.J3L11, AB.J3L11** |

Characteristic species: *Ophelia rathkei, Ophelia limacina*, *Travisia forbesii*

Several bivalve species such as *Macoma calcarea* and *Mya truncata* often co-occur in the area but the biomass of these bivalves is to be disregarded when the characteristic polychaetes are present when delineating the biotope according to HUB

| Past and Current Threats (Habitat directive article 17): | Future Threats (Habitat directive article 17): |
|---|---|
| Construction (sand extraction C01.01, D03.03, oil and gas exploration and exploitation C02), Fishing (bottom trawling F02.02.01), Mining and quarrying (oil and gas exploration and exploitation C02), Contaminant pollution (H03) | Construction (sand extraction C01.01, D03.03, oil and gas exploration and exploitation C02), Fishing (bottom trawling F02.02.01), Mining and quarrying (oil and gas exploration and exploitation C02), Contaminant pollution (H03) |

| Red List Criteria: | Confidence of threat assessment: | **HELCOM Red List Category:** | |
|---|---|---|---|
| **A1** | **L** | | **NT Near Threatened** |

Previous HELCOM Red List threat assessments

| BSEP 75 (1998): | BSEP 113 (HELCOM 2007): |
|---|---|
| "3" Endangered:<br>2.4.1 Gravel bottoms of the aphotic zone<br>2.4.2.1 Sublittoral gravel bottoms with little or no macropyte vegetation of the photic zone<br>2.4.2.3 Sublittoral gravel banks of the photic zone with or without macrophyte vegetation<br>2.4.3.1 Hydrolittoral level gravel bottoms with little or no macrophyte vegetation<br>2.4.3.3 Hydrolittoral gravel banks with or without macrophyte vegetation<br>2.5.1 Sandy bottoms of the aphotic zone<br>2.5.2.1 Sublittoral level sandy bottoms with little or no macrophyte vegetation or the photic zone<br>2.5.2.3 Sand bars of the sublittoral zone<br>2.5.2.4 Sand banks of the sublittoral photic zone with or without macrophyte vegetation<br>2.5.3.1 Hydrolittoral level sandy bottoms with little or no macrophyte vegetation<br>2.5.3.4 Hydrolittoral sand banks with or without macrophyte vegetation | Gravel bottoms with *Ophelia* species are under threat and/or in decline everywhere where they occur |

Greater concern stated by:

## Habitat and Ecology

This biotope is characterized by sea bottoms consisting of usually well sorted medium to coarse sand, gravel or small shell fragments, often building small patches inside finer sediments. Biomass of infaunal polychaetes dominates when disregarding the biomass of bivalves.

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Due to the large variety of interstitial space, the biotope is inhabited by species of specialised fauna, e.g., of the polychaets *Ophelia limacina*, *O. rathkei*, *Travisia forbesii*. This fauna is restricted to the Belt Sea (sandbanks) and parts of the 'submerged belt' of the Arkona Basin. Gravel bottoms are generally exposed to currents and they are mainly found permanently at the same location (Similary to EUNIS classification A 5.111-5.113; A 5.143, A 5.144) (HELCOM Website)

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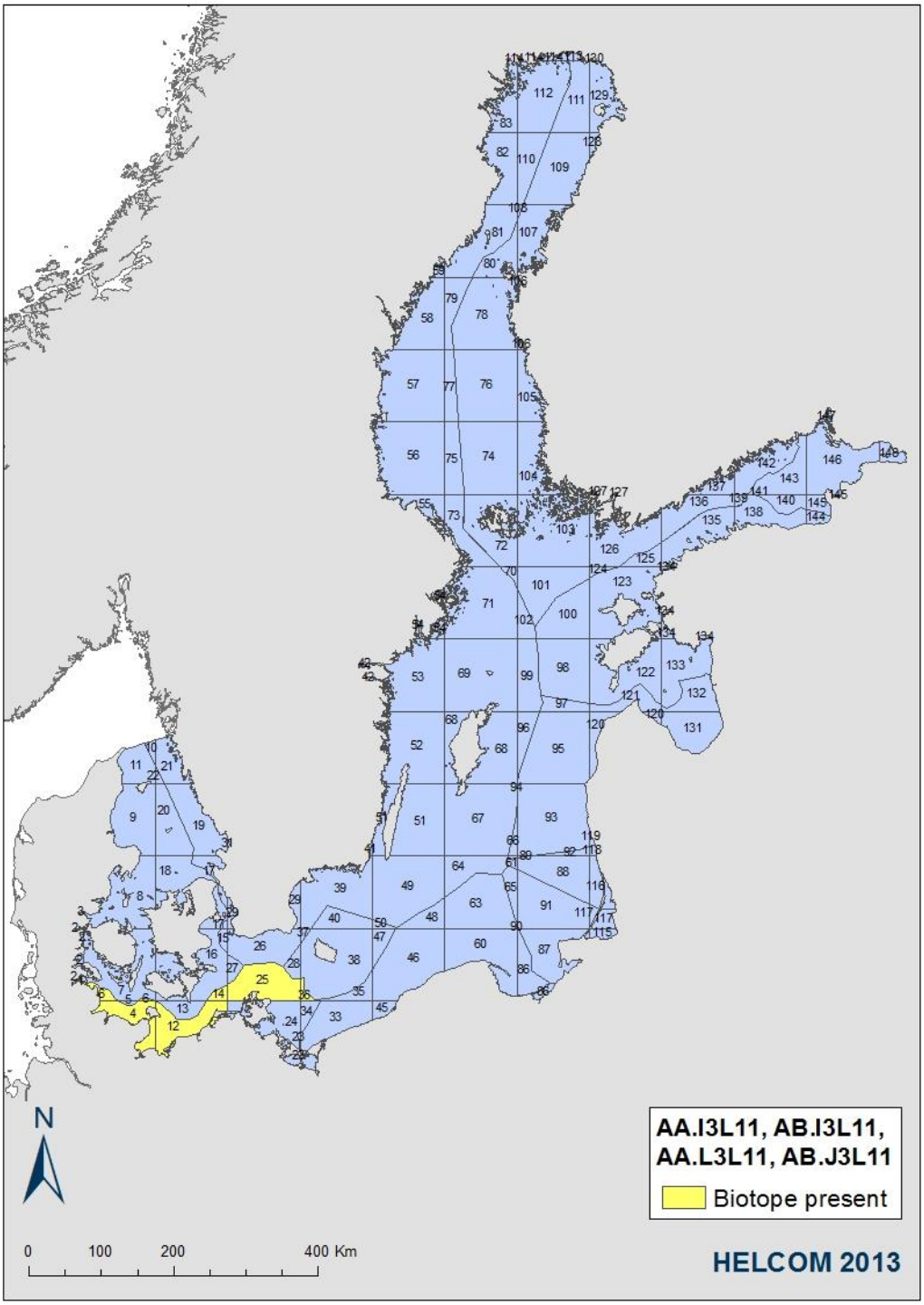
## Distribution and status in the Baltic Sea region

The biotope occurs mainly in the southern and western parts of the Baltic Sea area, but is very rare. They are found in exposed abrasion areas (sandbanks, near-shore wave exposed shallow sublittoral). Kiel bight to Darss sill. The distribution map indicates the area in the 100 x 100 km grid where biotope is known to occur.



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## Description of Major threats

Sand and gravel extraction, bottom trawling, oil and gas exploration and exploitation, pollution, offshore installations.

## Assessment justification

A1

Distribution and state of the biotope have been decreased within the last decade mainly due to sediment extraction and bottom trawling. Both activities change the structure of the substrate (sorting, size of interstitial spaces and potentially grain size distribution) affecting the community structure. (Krause 2000).

## Recommendations for actions to conserve the biotope

A Baltic-wide biotope inventory and a threat assessment is needed, for the time being this biotope should be considered as highly sensitive and worthy of protection.

## Common names

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## References

HELCOM website
http://www.helcom.fi/environment2/biodiv/endangered/Biotopes/en_GB/Gravel_bottoms_Ophelia/

Krause, J. Ch. (2000): Der Einfluss von Sand- und Kiesabbau auf bestandsgefährdete Makrofauna-Populationen in der südlichen Ostsee. PhD thesis University of Rostock.