

## Sparse or no macrofaunal community in Baltic upper circalittoral mixed sediment

### Summary

This habitat occurs in all the Baltic sub-basins. No pressures, threats, or specific conservation management measures have been identified for this habitat at the present time.

### Synthesis

The quantity and quality of this habitat is considered to have been stable over the last 50 years and no significant change is expected in the near future. The overall assessment for this EUNIS level 4 habitat has been based on the HELCOM (2013) assessments for the associated HELCOM HUB biotopes. Draft assessments were derived using a weighted approach whereby the HELCOM assessment outcomes were assigned a score. This was averaged across the relevant biotopes. The outcomes were reviewed by Baltic experts to reach a final conclusion. HELCOM (2013) assessed one relevant biotope (AB.M2T) as Least Concern (A1). Biotope AB.M4U was not evaluated. There is no additional data or information to update the assessment outcome past the HELCOM 2013 assessment. Current expert opinion is therefore an assessment of Least Concern for both the EU 28 and EU 28+.

Overall Category & Criteria			
EU 28		EU 28+	
Red List Category	Red List Criteria	Red List Category	Red List Criteria
Least Concern	-	Least Concern	-

### Sub-habitat types that may require further examination

None.

### Habitat Type

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#### Code and name

Sparse or no macrofaunal community in Baltic upper circalittoral mixed sediment

No characteristic photographs of this habitat

## Description

currently available.

## Habitat description

This Baltic Sea benthic habitat occurs in the aphotic zone with 10- 90% coverage of hard (rock/boulders/stone) and 10-90% soft substrata (e.g. muddy/coarse sediment/sand) according to the HELCOM HUB classification. Sessile/semi-sessile epibenthic fauna are present but cover less than 10% of the seabed or absent. It is typically present in a depth zone of 20 to 100 m.

Indicators of quality:

Both biotic and abiotic indicators have been used to describe marine habitat quality. These include: the presence of characteristic species as well as those which are sensitive to the pressures the habitat may face; water quality parameters; levels of exposure to particular pressure, and more integrated indices which describe habitat structure and function, such as trophic index, or successional stages of development in habitats that have a natural cycle of change overtime. There are no commonly agreed indicators of quality for this habitat, although particular parameters may have been set in certain situations e.g. protected features within Natura 2000 sites, where reference values have been determined and applied on a location-specific basis.

Characteristic species:

*Mytilus* spp., *Macoma balthica* may be present but this habitat is characterised by a scarce epibenthic fauna.

## Classification

EUNIS:

The closest correspondence in EUNIS (2004) level 4 is A5.41 Sublittoral mixed sediment in low or reduced salinity.

Annex 1:

The relationship between HUB biotopes and Annex 1 habitats has not yet been mapped by HELCOM, however this habitat may occur in the following Annex 1 habitats:

1110 Sandbanks slightly covered all the time

1160 Large shallow inlets and bays

1650 Boreal Baltic narrow inlets

MAES:

Marine - Marine inlets and transitional waters

Marine - Coastal

MSFD:

Shallow sublittoral coarse sediment

Shallow sublittoral mixed sediment

EUSeaMap:

Shallow coarse or mixed sediments

IUCN:

9.3 Subtidal loose rock/pebble/gravel

9.4 Subtidal sandy

9.5 Subtidal sandy mud

Other relationships:

Level 5 of the HELCOM HUB classification (2013):

AB.M2T: Baltic aphotic mixed substrate characterized by sparse epibenthic fauna

AB.M4U: Baltic aphotic mixed substrate characterised by no macrocommunity.

**Does the habitat type present an outstanding example of typical characteristics of one or more biogeographic regions?**

Unknown

Justification

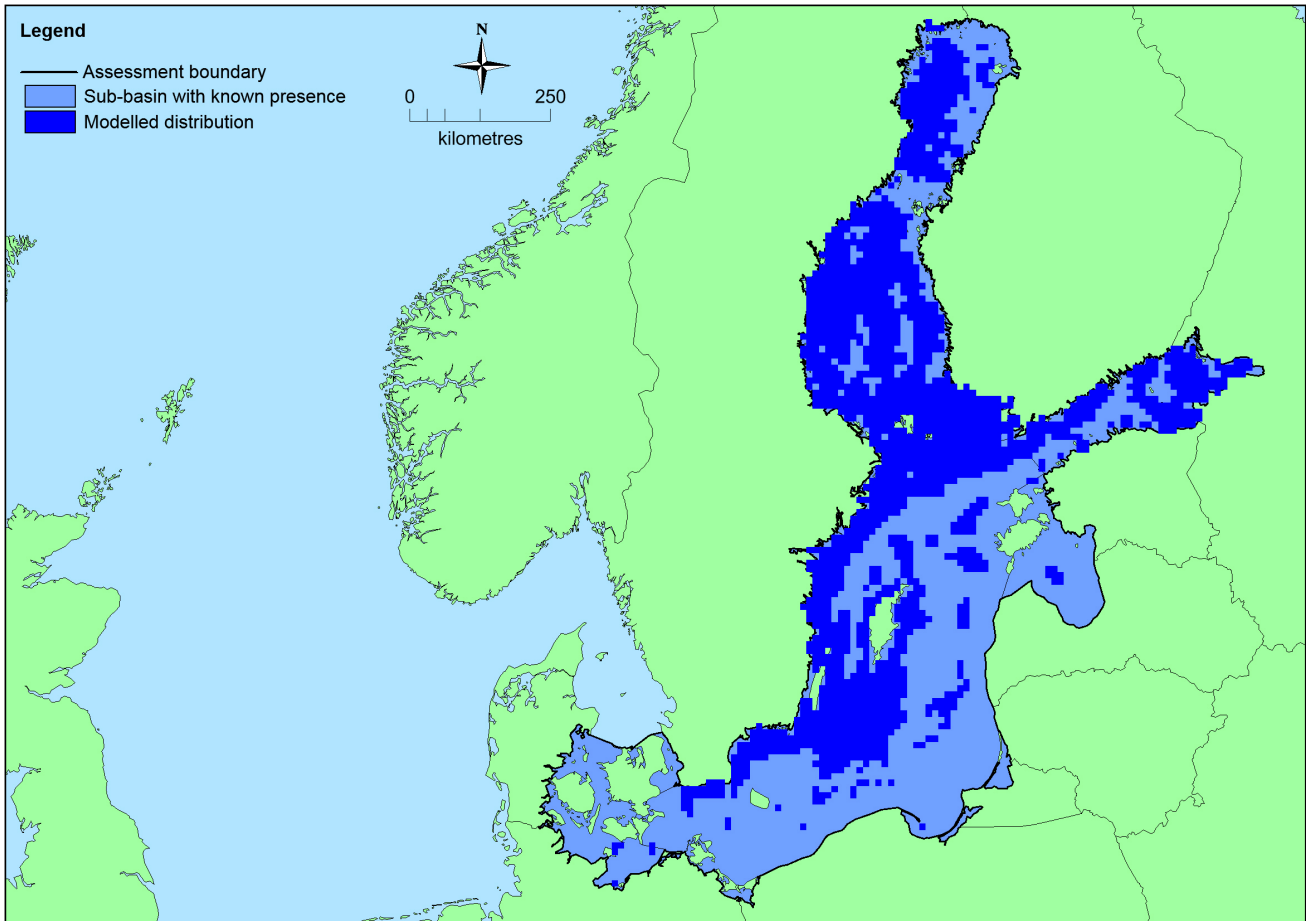
**Geographic occurrence and trends**

Region	Present or Presence Uncertain	Current area of habitat	Recent trend in quantity (last 50 yrs)	Recent trend in quality (last 50 yrs)
<i>Baltic Sea</i>	Baltic Proper: Present Belt Sea: Present Gulf of Bothnia: Present Gulf of Finland: Present Gulf of Riga: Present The Sound: Present	Unknown Km <sup>2</sup>	Stable	Stable

**Extent of Occurrence, Area of Occupancy and habitat area**

	Extent of Occurrence (EOO)	Area of Occupancy (AOO)	Current estimated Total Area	Comment
<i>EU 28</i>	>50,000 Km <sup>2</sup>	Unknown	Unknown Km <sup>2</sup>	This habitat is present in all the Baltic sub-basins.
<i>EU 28+</i>	>50,000 Km <sup>2</sup>	Unknown	Unknown Km <sup>2</sup>	This habitat is present in all the Baltic sub-basins

**Distribution map**



There are insufficient data to provide a comprehensive and accurate map of the distribution of this habitat. This map has therefore been generated using the modelled data available on EMODnet for EUNIS level 3 habitats in the Baltic Sea (EMODnet, 2010). This means it indicates potential areas in which this habitat may occur, not the actual distribution of this EUNIS level 4 habitat.

### **How much of the current distribution of the habitat type lies within the EU 28?**

This habitat occurs in the EU 28+ (Russia). The percentage hosted by EU 28 is therefore less than 100% but there is insufficient information to establish the proportion.

### **Trends in quantity**

This habitat is common in the Baltic Sea. There are no data indicating large changes in quantity in the recent or historic past. No estimates of future trends have been made.

- Average current trend in quantity (extent)  
EU 28: Stable  
EU 28+: Stable
- Does the habitat type have a small natural range following regression?  
No  
*Justification*  
This habitat occurs in all the Baltic Sea sub-basins so does not have a small natural range.
- Does the habitat have a small natural range by reason of its intrinsically restricted area?  
No  
*Justification*  
This habitat occurs in all the Baltic Sea sub-basins so does not have a small natural range.

### **Trends in quality**

The current habitat condition can be considered good.

- Average current trend in quality  
EU 28: Stable  
EU 28+: Stable

## **Pressures and threats**

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No pressure and threats specific to this habitat have been identified.

### **List of pressures and threats**

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## **Conservation and management**

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No conservation and management measures have been identified specifically for this habitat

### **List of conservation and management needs**

#### **No measures**

No measures needed for the conservation of the habitat/species

### **Conservation status**

Annex 1:

1110: MBAL U1

1160: MBAL U2

1650: MBAL U2

HELCOM (2013) assessments:

1110 VU C1

1160 VU C1

1650 VU C1

HELCOM (2013) assessed one biotope ABM2T as LC(A1). AB.M4U was not evaluated.

### **When severely damaged, does the habitat retain the capacity to recover its typical character and functionality?**

Unknown

### **Effort required**

## **Red List Assessment**

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### **Criterion A: Reduction in quantity**

Criterion A	A1	A2a	A2b	A3
EU 28	0 %	unknown %	unknown %	unknown %
EU 28+	0 %	unknown %	unknown %	unknown %

The area covered by this habitat is believed to have been stable over the last 50 years. It has therefore been assessed as Least Concern under Criteria A for both the EU 28 and EU 28+.

## Criterion B: Restricted geographic distribution

Criterion B	B1				B2				B3
	EOO	a	b	c	AOO	a	b	c	
EU 28	>50,000 Km <sup>2</sup>	Unknown	Unknown	unknown	unknown	Unknown	Unknown	unknown	unknown
EU 28+	>50,000 Km <sup>2</sup>	Unknown	Unknown	unknown	unknown	Unknown	Unknown	unknown	unknown

A lack of a comprehensive quantitative data on the area covered by this habitat in the Baltic means that precise figures for EOO and AOO could not be calculated although as it is present in all Baltic Sea sub-basins, the EOO is likely to exceed 50,000km<sup>2</sup>. This habitat has been assessed as Data Deficient under criterion B for both the EU 28 and EU 28+.

## Criterion C and D: Reduction in abiotic and/or biotic quality

Criteria C/D	C/D1		C/D2		C/D3	
	Extent affected	Relative severity	Extent affected	Relative severity	Extent affected	Relative severity
EU 28	unknown %	unknown %	unknown %	unknown %	unknown %	unknown %
EU 28+	unknown %	unknown %	unknown %	unknown %	unknown %	unknown %

Criterion C	C1		C2		C3	
	Extent affected	Relative severity	Extent affected	Relative severity	Extent affected	Relative severity
EU 28	unknown %	unknown %	unknown %	unknown %	unknown %	unknown %
EU 28+	unknown %	unknown %	unknown %	unknown %	unknown %	unknown %

Criterion D	D1		D2		D3	
	Extent affected	Relative severity	Extent affected	Relative severity	Extent affected	Relative severity
EU 28	unknown %	unknown %	unknown %	unknown %	unknown %	unknown %
EU 28+	unknown %	unknown %	unknown %	unknown %	unknown %	unknown %

Experts consider there to be insufficient data on which to assess Criteria C/D.

## Criterion E: Quantitative analysis to evaluate risk of habitat collapse

Criterion E	Probability of collapse
EU 28	unknown
EU 28+	unknown

There is no quantitative analysis available to estimate the probability of collapse of this habitat type.

## Overall assessment "Balance sheet" for EU 28 and EU 28+

	A1	A2a	A2b	A3	B1	B2	B3	C/D1	C/D2	C/D3	C1	C2	C3	D1	D2	D3	E
EU28	LC	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD
EU28+	LC	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD

Overall Category & Criteria	
EU 28	EU 28+

Overall Category & Criteria			
Red List Category	Red List Criteria	Red List Category	Red List Criteria
Least Concern	-	Least Concern	-

### Confidence in the assessment

Low (mainly based on uncertain or indirect information, inferred and suspected data values, and/or limited expert knowledge)

### Assessors

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### Contributors

HELCOM RED LIST Biotope Expert Team 2013 and Baltic Sea Working Group for the European Red List of Habitats 2014 and 2015.

### Reviewers

G. Saunders.

### Date of assessment

09/07/2015

### Date of review

05/01/2016

### References

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HELCOM. 2013. Red List of Baltic Sea underwater biotopes, habitats and biotope complexes. Baltic Sea Environment Proceedings 138 Helsinki Commission