

## A2.43: Species-poor Atlantic littoral mixed sediment

### Summary

This habitat is found in the littoral zone where the substrate is mixed and typically too mobile or disturbed to support a seaweed community. The overall species diversity associated with the habitat is also low. The pressures and threats include substratum loss, smothering of sessile and sedentary organisms and hydrocarbon pollution which in the short term might favour the extensive growth of green algae such as *Ulva* spp., significantly changing the nature of the habitat. Harvesting of key functional species such as *Littorina littorea* may also allow the proliferation of opportunistic green algae, on which it preferentially feeds.

Beneficial management measures for this habitat include some protection within Marine Protected Areas, water quality improvement programmes, the regulation of fishing methods which damage or disturb seabed communities, as well as regulation including restrictions on dredging, coastal development and hard coastal defence structures where they impact this habitat.

### Synthesis

This habitat has a large EOO and therefore qualifies as Least Concern under criterion B1. AOO is uncertain. This habitat is assessed as Data Deficient both at the EU 28 and EU 28+ levels given the lack of information on its extent and any trends in quantity and quality.

Overall Category & Criteria			
EU 28		EU 28+	
Red List Category	Red List Criteria	Red List Category	Red List Criteria
Data Deficient	-	Data Deficient	-

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

None.

### Habitat Type

#### Code and name

A2.43: Species-poor Atlantic littoral mixed sediment

No characteristic photograph currently available for this habitat.

#### Habitat description

This habitat is found in the littoral zone where the substrate is mixed and typically too mobile or disturbed to support a seaweed community. The overall species diversity associated with the habitat is low.

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 over time.

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:

The characterising species of this habitat are barnacles and winkles (*Littorina* spp.)

### Classification

EUNIS (v1405):

Level 4. A sub-habitat of 'Atlantic littoral mixed sediment (A2.4).

Annex 1:

1140 Mudflats & sandflats not covered at low tide

1160 Large shallow inlets and bays

MAES:

Marine - Marine inlets and transitional waters.

MSFD:

Littoral Sediment

EUSEaMap:

Not mapped

IUCN:

12.2 Sandy Shorelines and/or beaches, sand Bars, Spits etc.

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

Unknown

Justification

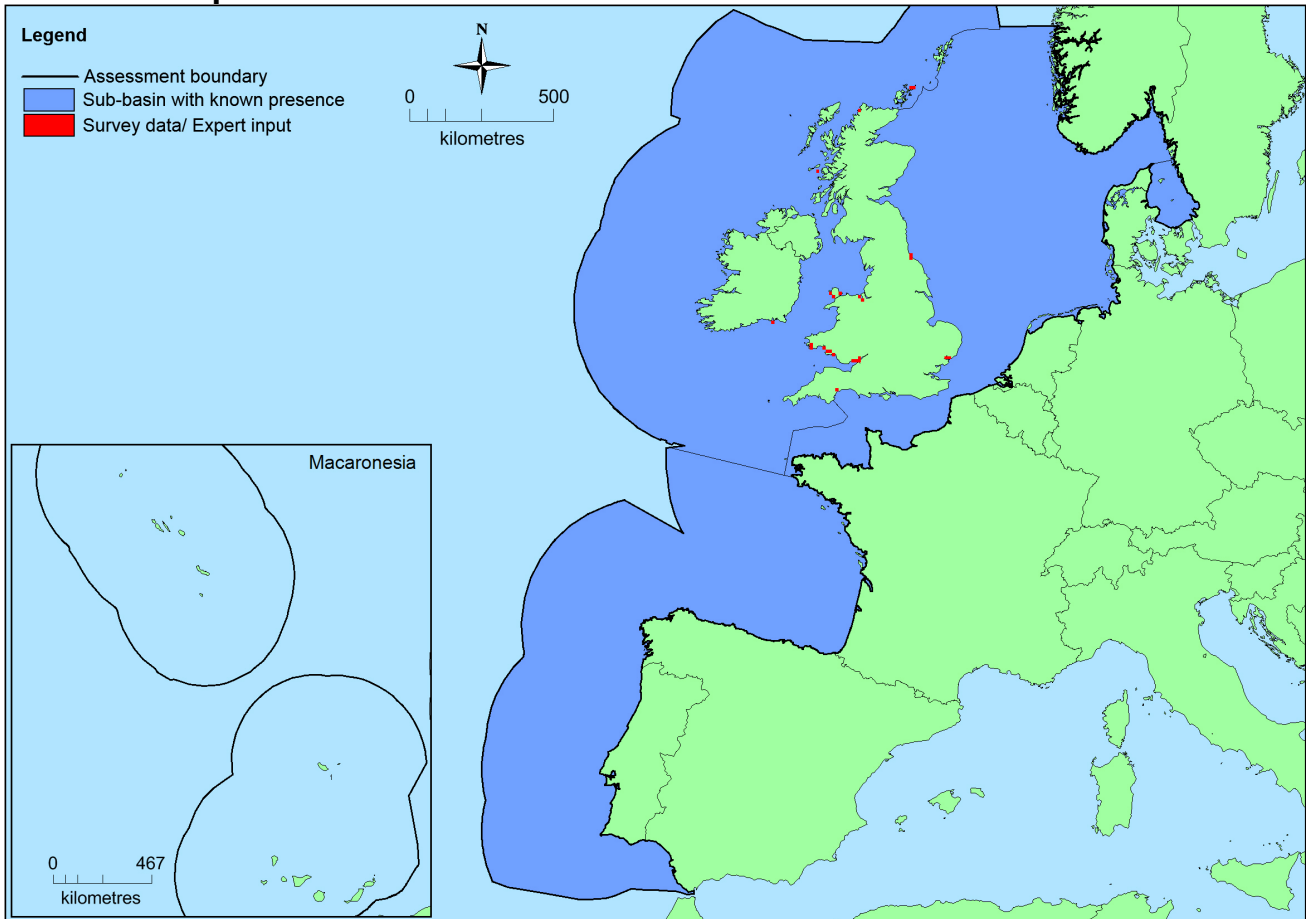
### Geographic occurrence and trends

Region	Present or Presence Uncertain	Current area of habitat	Recent trend in quantity (last 50 yrs)	Recent trend in quality (last 50 yrs)
<i>North-East Atlantic</i>	Celtic Seas: Present Greater North Sea: Present Bay of Biscay and the Iberian Coast: Present Kattegat: Present Macaronesia: Uncertain	Unknown Km <sup>2</sup>	Unknown	Unknown

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

	Extent of Occurrence (EOO)	Area of Occupancy (AOO)	Current estimated Total Area	Comment
EU 28	349,115 Km <sup>2</sup>	>25	Unknown Km <sup>2</sup>	Based on a limited data set. AOO is known to be an underestimate.
EU 28+	>349,115 Km <sup>2</sup>	>25	Unknown Km <sup>2</sup>	Based on a limited data set. AOO is known to be an underestimate.

## Distribution map



There are insufficient data to provide a comprehensive and accurate map of the distribution of this habitat. This map has been generated using EMODnet data from modelled/surveyed records for the North East Atlantic (and supplemented with expert opinion where applicable) (EMODnet 2010). EOO and AOO have been calculated on the available data presented in this map however these should be treated with caution as expert opinion is that this is not the full distribution of the habitat .

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

Unknown.

### Trends in quantity

Unknown

- Average current trend in quantity (extent)  
EU 28: Unknown  
EU 28+: Unknown
- Does the habitat type have a small natural range following regression?  
Unknown

### Justification

- Does the habitat have a small natural range by reason of its intrinsically restricted area?

Unknown

### Justification

## Trends in quality

Unknown

- Average current trend in quality

EU 28: Unknown

EU 28+: Unknown

## Pressures and threats

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This habitat is usually dominated by barnacles and *Littorina* spp, which are highly intolerant of substratum loss. Epifaunal grazers such as *Littorina littorea* and *Patella vulgata* are also likely to be affected because although mobile they cannot move rapidly enough to avoid being removed with the substratum. Oil pollution is another threat as *L. littorea* and *P.vulgata* are considered to be intolerant of hydrocarbon pollution. Following a loss of grazers such as these, algae may flourish, particularly the opportunistic greens such as *Ulva* in the early stages, significantly changing the nature of the habitat. Collection of *L. littorea* for human consumption is another pressure. In some areas, notably Ireland, collectors have noted a reduction in the number of large snails available. Large scale removal of *L. littorea* may allow a proliferation of opportunistic green algae, such as *Ulva*, on which it feeds preferentially.

## List of pressures and threats

### Biological resource use other than agriculture & forestry

Fishing and harvesting aquatic resources

Leisure fishing

Bait digging / Collection

### Pollution

Marine water pollution

Oil spills in the sea

Toxic chemical discharge from material dumped at sea

### Natural System modifications

Human induced changes in hydraulic conditions

Modification of hydrographic functioning, general

Dykes, embankments, artificial beaches, general

Sea defense or coast protection works, tidal barrages

## Conservation and management

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Beneficial management measures for this habitat would include the regulation of activities which damage or disturb seabed communities, as well as the regulation or avoidance of coastal developments and the construction of hard coastal defense structures where they are likely to impact the habitat.

## List of conservation and management needs

### Measures related to spatial planning

Other spatial measures

Legal protection of habitats and species

### Measures related to hunting, taking and fishing and species management

Other species management measures

Regulation/Management of hunting and taking

Specific single species or species group management measures

### Conservation status

Annex 1:

1140: MATL U2, MMAC XX

1160: MATL U2, MMAC FV.

### 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	unknown %	unknown %	unknown %	unknown %
EU 28+	unknown %	unknown %	unknown %	unknown %

There is insufficient information available on which to determine any historical, recent or potential future trends of this habitat. It has therefore been assessed as Data Deficient under criterion 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	No	>25	Unknown	Unknown	No	No
EU 28+	>50,000 Km <sup>2</sup>	Unknown	Unknown	No	>25	Unknown	Unknown	No	No

This habitat has a large natural range in the North East Atlantic region. The precise extent is unknown however as EOO >50,000<sup>2</sup> this exceeds the threshold for a threatened category on the basis of criteria B1. The distribution of the habitat is such that the identified threats are unlikely to affect all localities at once. This habitat has therefore been assessed as Least Concern under criteria B1(c) B2 (c) and B3 and Data Deficient for all other criteria due to lack of information on trends and uncertainty over the figure for AOO which is known to be an underestimate.

### 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	DD	DD	DD	DD	LC	DD	LC	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD
EU28+	DD	DD	DD	DD	LC	DD	LC	DD	DD	DD	DD	DD	DD	DD	DD	DD	DD

Overall Category & Criteria			
EU 28		EU 28+	
Red List Category	Red List Criteria	Red List Category	Red List Criteria
Data Deficient	-	Data Deficient	-

### 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

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## Reviewers

J.Leinikki.

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08/12/2015

## Date of review

14/01/2016

## References

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