

## A4.AA Invertebrate-dominated Marmara circalittoral rock

### Summary

This habitat occurs in the Sea of Marmara only. Circalittoral rock starts at the lower limit of distribution of photophilic algae. In the Sea of Marmara, a number of unique communities occur due to the high organic load characteristic of this region. In the upper levels (10-30 m) of outflowing Black Sea waters a thick layer of Ophiurids occurs. In the lower levels (30-50 m) of inflowing Mediterranean waters a thick layer of Crinoids occurs. Throughout all depths (2 - 60m) a fragile layer of tubeworms (Serpulid polychaetes) can be found attached to rock faces. No pressures or threats have been identified for this habitat. No current or future conservation measures have been identified for this habitat.

### Synthesis

Detailed information on the abundance and extent of this habitat is lacking. Information on the quantity and quality of this habitat including historical or recent trends is unknown. For the purposes of Red List assessment this habitat is considered to be Data Deficient.

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

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

None

### Habitat Type

#### Code and name

A4.AA Invertebrate-dominated Marmara circalittoral rock

There are currently no photographs of this habitat available.

#### Habitat description

Circalittoral rock starts at the lower limit of distribution of photophilic algae. In the Sea of Marmara a number of unique communities occur due to the high organic load characteristic of this region. In the upper levels (10-30 m) of outflowing Black Sea waters a thick layer of Ophiurids occurs. In the lower levels (30-50 m) of inflowing Mediterranean waters a thick layer of Crinoids occurs. Throughout all depths (2 - 60m) a fragile layer of tubeworms (Serpulid polychaetes) can be found attached to rock faces.

Indicators of quality:

Both biotic and abiotic indicators have been used to describe marine habitat quality. These include: the presence of characteristic species and those which are sensitive to the pressures the habitat may face, water quality parameters, levels of exposure to particular pressure as well as 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:

*Serpulid polychaetes, Crinoids and Ophiurids.*

### **Classification**

This habitat may be equivalent to, or broader than, or narrower than the habitats or ecosystems in the following typologies.

EUNIS (v1405):

Level 4. A sub-habitat of 'Circalittoral rock' (A4)

Annex 1:

1170 Reefs

8330 Submerged or partially submerged sea caves

MAES:

Marine - Shelf

MSFD:

Shelf sublittoral rock and biogenic reef

EUSeaMap:

Shelf rock or migenic reef

IUCN:

9.2 Subtidal rock and rocky reefs

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

No

#### Justification

The Sea of Marmara has distinct environmental conditions compared to the Black Sea, with conditions more similar to those of the Mediterranean Sea. As such this habitat does not represent an outstanding example of the typical characteristics of the Black Sea region.

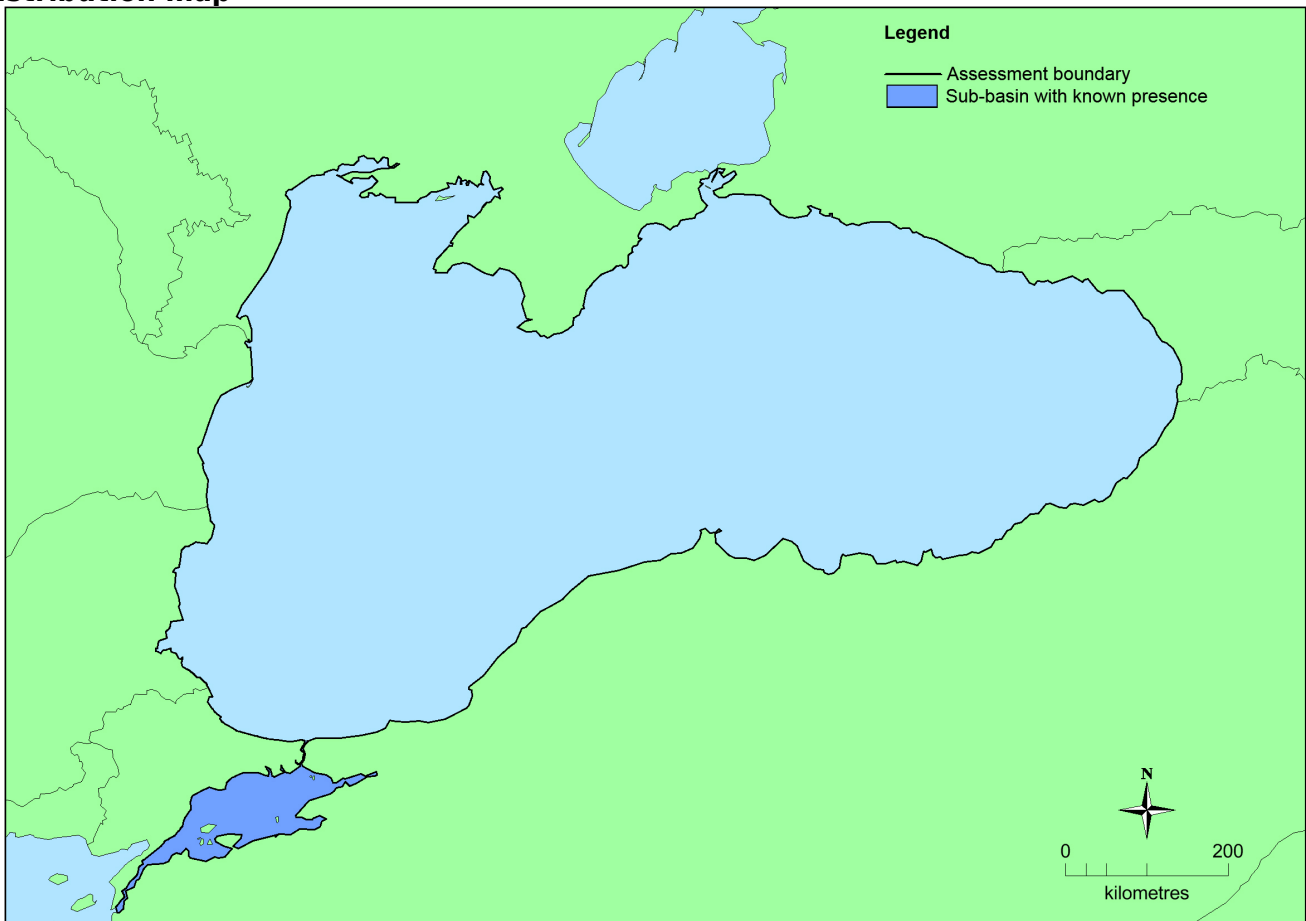
### **Geographic occurrence and trends**

Region	Present or Presence Uncertain	Current area of habitat	Recent trend in quantity (last 50 yrs)	Recent trend in quality (last 50 yrs)
<i>Black Sea</i>	Sea of Marmara: Present	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	N/A Km <sup>2</sup>	N/A	N/A Km <sup>2</sup>	This habitat is only present in the Sea of Marmara therefore it does not occur in the EU28
EU 28+	Unknown Km <sup>2</sup>	Unknown	Unknown Km <sup>2</sup>	The habitat is known to occur in the Black Sea but there is insufficient data to accurately calculate EOO and AOO.

### Distribution map



There is insufficient data to produce a map of the distribution of this habitat. However the sub-basins of which this habitat is likely to occur have been indicated.

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

None of this habitat is hosted by the EU 28 in the Black Sea; it occurs only in the Sea of Marmara.

### Trends in quantity

There is insufficient data to accurately assess changes in quantity of the habitat

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

The habitat is known to occur in the Sea of Marmara but there is insufficient data to accurately calculate EOO and AOO. There is insufficient data to accurately assess whether the habitat has undergone an important decline in the last 50 years.

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

Unknown

*Justification*

There is insufficient data and knowledge on this habitat to state whether it has a small natural range by reason of an intrinsically restricted area.

**Trends in quality**

There is insufficient data to accurately assess changes in quality of the habitat

- Average current trend in quality

EU 28: -

EU 28+: Unknown

**Pressures and threats**

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No pressures or threats have been identified for this habitat

**List of pressures and threats**

**No threats or pressures**

No threats or pressures

**Conservation and management**

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No current or future conservation measures have been identified for this habitat.

**List of conservation and management needs**

**No measures**

No measure known / impossible to carry out specific measures

**Conservation status**

Annex 1:

1170: MBLS U1, MMED XX

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

There is insufficient data and knowledge of this habitat to assess its capacity to recover

**Effort required**

10 years
Unknown

**Red List Assessment**

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**Criterion A: Reduction in quantity**

Criterion A	A1	A2a	A2b	A3
EU 28	n/a %	n/a %	n/a %	n/a %
EU 28+	unknown %	unknown %	unknown %	unknown %

There is insufficient data on changes in quantity of this habitat to undertake an assessment using criterion A.

### Criterion B: Restricted geographic distribution

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

The precise extent of the habitat is unknown. Therefore there is insufficient data to produce EOO and AOO figures.

### 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	n/a %	n/a %	n/a %	n/a %	n/a %	n/a %
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	n/a %	n/a %	n/a %	n/a %	n/a %	n/a %
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	n/a %	n/a %	n/a %	n/a %	n/a %	n/a %
EU 28+	unknown %	unknown %	unknown %	unknown %	unknown %	unknown %

Experts consider there to be insufficient data to conduct an assessment using criteria C/D.

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

Criterion E	Probability of collapse
EU 28	n/a
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	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	DD	DD	DD	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
n/a	-	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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### Reviewers

S. Gubbay

### Date of assessment

19/03/2015

### Date of review

20/01/2016

### References

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There are no references available relating to this habitat.