

Cumbria Coast (RMCZ11) Evidence Review

Region	Irish Sea Conservation Zones	
Site Name/number	Cumbria Coast rMCZ ISCZ11	
ENG Features present and proposed for inclusion within MCZ designation	BSH	<ul style="list-style-type: none"> • High energy intertidal rock • Intertidal sand and muddy sand • Intertidal biogenic reefs • High energy infralittoral rock.
	Habitat FOCI	<ul style="list-style-type: none"> • Blue Mussel beds (including intertidal beds on mixed and sandy sediments) • Intertidal under boulder communities • Peat and clay exposures • Honeycomb worm <i>Sabellaria alveolata</i> reefs.
	Species FOCI	-
ENG Features present but not proposed for inclusion within MCZ designation	BSH	<ul style="list-style-type: none"> • Intertidal coarse sediment • Intertidal mud • Intertidal mixed sediments • Subtidal sand • Subtidal mud.
	Habitat FOCI	<ul style="list-style-type: none"> • Subtidal sands and gravels.
	Species FOCI	-
Non-ENG Features (Geological/geomorphological/biological)		<ul style="list-style-type: none"> • <i>Cephus grille</i> • Narrow leaved eelgrass <i>Zostera angustifolia</i>.

Evidence Summary – data provided by Regional MCZ Projects

Feature	Evidence Summary	Key Sources
High energy intertidal rock	The presence of this broadscale habitat feature is based on two survey data polygons (GB001070, GB000286,) and 11 survey data points from MESH (I.D. JNCCMNCR10000363, JNCCMNCR10009994) and CCO 2010 aerial photography	MESH CCO
Intertidal sand and muddy sand	Evidence for this broadscale habitat feature within the rMCZ was provided by two survey data polygons (GB001070, GB000286, MESH Confidence score 1 and 42 respectively), supported by three survey points sourced from MESH. CCO 2010 aerial photography	MESH CCO
Intertidal biogenic reefs	This broadscale habitat feature was represented in the rMCZ by a data polygon (I.D. GB000286) and three validating survey points, sourced from MESH (Survey I.D.	MESH

	JNCCMNCR10000649).	
High energy infralittoral rock	Data polygon based on predictive modelling from UK SeaMAP (I.D. GB001055) supported by one validating survey data point, sourced from MESH (Survey I.D. JNCCMNCR10004250).	UKSeaMap MESH
Blue Mussel beds (including intertidal beds on mixed and sandy sediments)	No polygon data. One data point sourced from MESH/MB0102 (sample I.D. JNCCMNCR10301470).	MESH
Intertidal under boulder communities	Evidence for the presence of this habitat feature was provided by six survey data points sourced from MESH/MB0102 (Sample I.D. JNCCMNCR10300788 JNCCMNCR10308077 JNCCMNCR10301396 JNCCMNCR10300459 JNCCMNCR10301434 JNCCMNCR10308070)	MESH
Peat and clay exposures	No polygon data was available to support this habitat feature. One datapoint, sourced from regional project, St Bees site. Originated from Dominique de Moulins (English Heritage)	Regional project (English Heritage)
Honeycomb worm <i>Sabellaria alveolata</i> reefs	Four areas of data polygon from MESH (all I.D. GB000286) and multiple data polygons from project MB0102 (MPALAYERS000253 GB000286). Eleven survey data points from project MB0102 (Survey I.D. MPALAYERS000253 JNCCMNCR10000020 JNCCMNCR10000692) and two data points from MESH (no survey I.D.)	MESH MB0102

Description of New Evidence Identified by MB0116 project

Anecdotal evidence provided by NE to MB0116 project

Evidence Description	Source	Feature
ECS2_2002_Sabellaria_polys_MCZ" feature layer, which came with the Final Sabellaria Report 5	Institute of Estuarine & Coastal Studies	Intertidal biogenic reefs
Natural England MCZ specific survey report to confirm habitat extent of "IECS2_2002_Sabellaria_polys_MCZ	Browning and Lumb, 2012	Intertidal biogenic reefs Honeycomb worm <i>Sabellaria alveolata</i> reefs
Survey report 'Browning et al, 2012' produced for Natural England covering rMCZ ISCZ11 on the 05/07/2012. The survey was	Browning et al, 2012	Intertidal under boulder communities

comissioned by NE to specifically cover intertidal underboulder communities in rMCZ ISCZ11		
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Evidence That Could Not Be Acquired by MB0116 project

No new evidence identified

Confidence Assessment

Feature	Presence	Extent	Condition	Boundaries (site)
High energy intertidal rock	High	High	Low	Low
Intertidal sand and muddy sand	High	High	Low	
Intertidal biogenic reefs	Low	Low	Low	
High energy infralittoral rock	Low	Low	Low	
Blue Mussel beds (including intertidal beds on mixed and sandy sediments)	High	Low	Low	
Intertidal under boulder communities	High	Low	Low	
Peat and clay exposures	Low	Low	Low	
Honeycomb worm <i>Sabellaria alveolata</i> reefs	High	Low	Low	

The data polygons for 'high energy intertidal rock' were overlapped by a number of data points, 26% of these (4) were in agreement with this feature type. Aerial photography provides visual confirmation of the feature raising the confidence to 'high'. Overall the survey data points that support this feature were not well distributed over more than 50% of the feature polygon(s). However the aerial photography shows the feature habitat overlaps the modelled feature polygons with a coverage of >50%. Confidence in extent was therefore assessed as 'high'.

Confidence in the presence of the broadscale habitat feature 'intertidal sand and muddy sand', was assessed as 'high', because although only 20% (2) of the survey data points overlapped the feature polygons, the aerial photography gives visual confirmation of the feature. The three survey data points for this feature could not be considered to be well distributed across the feature i.e. less than 50%, however the aerial photography showing the feature habitat overlapped with the modelled feature polygons with a coverage of >50% of the feature and therefore the confidence in extent was assessed as 'high'.

Only 8% (1) of the data points that overlapped the 'intertidal biogenic reef' polygon supported this feature. The anecdotal evidence from a 2012 survey confirms the presence of the feature within the rMCZ although the reef is described as patchy and is therefore assessed as 'low' confidence. 13 data points overlap the feature polygons with 17% of these agreeing with the parent feature however the anecdotal evidence does not contain enough spatial detail to confirm the extent of the feature. Therefore the confidence in extent was also assessed as 'low'.

The assessments of the presence and extent of 'high energy infralittoral rock' were based on a single predicted modelled polygon with the feature being confirmed with a single data point from MESH and were therefore considered as 'low'.

No polygon data were found for 'Blue mussel beds' however a single data point agreed with the feature type and anecdotal evidence provides confirmation of the feature in 2011 within the rMCZ. The presence of this feature was therefore assessed as 'high'. Although the anecdotal evidence provides confirmation without being able to overlay these maps onto the existing polygon data extent cannot be confirmed, the confidence was therefore assessed as 'low'.

Six cluster data points were sourced from MESH to provide confidence in the presence of the 'Intertidal under boulder communities' as 'high'. This is confirmed by the anecdotal evidence confirms presence of the feature within the rMCZ with descriptions and photographic evidence. However the evidence does not give any confirmation or description of the features extent and this is therefore assessed as 'low'.

The presence and extent assessments of the habitat features 'peat and clay exposures' was based on multiple single, survey data points, confidence was therefore assessed as 'low'.

Although the presence of the 'honey comb worm reef', was supported by a number of survey data points, these did not coincide with the polygon data, however the anecdotal evidence from a 2012 survey confirms the presence of the feature although does describe the reef as patchy. The confidence assessment for the feature presence has been considered 'high', and while the anecdotal evidence does not contain enough spatial detail to confirm the extent of the feature, this is assessed as 'low'.

The condition assessment for all the features was based on a Vulnerability Assessment and could not be improved beyond a 'low' confidence score.

The confidence assessment in the boundary of the site was classified as low primarily because the site boundaries of the intertidal sand and muddy sand features were moderated to low.