

Beachy Head West (rMCZ13.2) Evidence Review

Region	Balanced Seas	
Site Name/number	Beachy Head West rMCZ BS13.2	
ENG Features present and proposed for inclusion within MCZ designation	BSH	<ul style="list-style-type: none"> • Intertidal coarse sediment • Subtidal sand • Subtidal mud • Subtidal mixed sediments.
	Habitat FOCI	<ul style="list-style-type: none"> • Blue Mussel beds (including intertidal beds on mixed and sandy sediments) • Littoral chalk communities • Subtidal chalk.
	Species FOCI	<ul style="list-style-type: none"> • <i>Hippocampus guttulatus</i> • <i>Hippocampus hippocampus</i> • <i>Ostrea edulis</i> • <i>Anguilla anguilla</i>.
ENG Features present but not proposed for inclusion within MCZ designation	BSH	-
	Habitat FOCI	<ul style="list-style-type: none"> • Ross worm <i>Sabellaria spinulosa</i> reefs • Subtidal sands and gravels.
	Species FOCI	<ul style="list-style-type: none"> • <i>Raja undulata</i>.
Non-ENG Features (Geological/geomorphological)		-

Evidence Summary – data provided by Regional MCZ Projects

Feature	Evidence Summary	Key Sources
Intertidal coarse sediment	Presence and extent based on predicted modelled polygon data from MB0102 Survey Id: GB001070 and MESH and parent feature data points from MESH. Aerial imagery from CCO.	MESH and MB0102 data. CCO
Subtidal sand	Presence and extent based on predicted modelled polygon data from MESH, polygon data from REC, polygon data from UKSeaMap, data points from MESH, data points from Regional Projects - BS,	Polygon data from UKSeaMap, MESH and REC. Point data from Regional Projects – BS, MESH
Subtidal mud	Presence and extent based on predicted modelled data points from MESH, data points from Regional Projects - BS. No polygon data.	Regional Projects – BS and MESH
Subtidal mixed sediments	Presence and extent based on predicted modelled polygon data from MESH, data points from MESH, data points from Regional Projects - BS, and data points from Sussex IFCA diver and video benthic surveys.	Regional Projects – BS and MESH surveys
Blue Mussel beds (including	Presence and extent based on predicted modelled polygon data from MESH, one data	MESH, MB0102

intertidal beds on mixed and sandy sediments)	point from MESH, one data point from MB0102, one data point from Regional Projects - BS	
Littoral chalk communities	Presence and extent based on predicted modelled polygon data from MESH/MB0102, data points from MESH, data points from MB0102	MESH, MB0102
Subtidal chalk	Presence and extent based on predicted modelled polygon data from MB0102 (Derived From BGS and OS data by MARLIN), data points from MB0102, data points from MESH, data points from Regional Project_BS	MESH, MB0102 and Regional Projects BS.
<i>Hippocampus guttulatus</i>	Presence and extent based on one data point from MB0102.	MB0102
<i>Hippocampus hippocampus</i>	Presence and extent based on one data point from MB0102, one data point from Regional Projects - BS	MB0102, Regional Projects – BS
<i>Ostrea edulis</i>	Presence and extent based on data points from MB0102, one data point from Regional Projects - BS	MB0102, Regional Projects – BS
<i>Anguilla anguilla</i>	No data available	No data available

Description of New Evidence Identified by MB0116 project

Anecdotal evidence provided by NE by MB0116

Evidence Description	Source	Feature
New data points from Sussex IFCA diver and video benthic surveys (survey ID: EID00000013).	Sussex IFCA	Subtidal sand Subtidal mud Subtidal mixed sediments Subtidal chalk
MarineRecorderSpecies_MCZ	Marine Recorder – MBA	<i>Hippocampus hippocampus</i> <i>Anguilla Anguilla</i> <i>Ostrea edulis</i>
BS_Sample_HOCI_1982_MCZ_2 and BS_Sample_HOCI_2011_MCZ_2	SeaSearch Surveys	Blue Mussel beds Littoral chalk communities Subtidal chalk <i>Hippocampus hippocampus</i> <i>Ostrea edulis</i> <i>Anguilla anguilla</i>
Titley, I., Spurrier, C.J.H., Fererro, T.J., Chimonides, P.J. (2010) Biological survey of the intertidal chalk reef at Seaford to Beachy	Contract No. FST20/75/026	Blue Mussel beds

Head and Brighton to Newhaven Cliffs Site of Special Scientific Interest (SSSI) to set a baseline for SSSI condition assessment.		
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Evidence That Could Not Be Acquired by MB0116 project

Evidence Description	Source	Feature
Rock and thin sediment.	British Geological Society	Broadscale habitats
Fish abundances from the Eastern English Channel and Southern North Sea. May include data on <i>Anguilla anguilla</i> , <i>Osmerus eperlanus</i> , <i>Raja undulata</i> .	Parker-Humphreys, M. (2005). Distribution and relative abundance of demersal fishes from beam trawl surveys in the eastern English Channel (ICES division VIIId) and the southern North Sea (ICES division IVc) 1993-2001. <u>Technical Reports</u> .	<i>Anguilla anguilla</i>
Abundances and regional distributional data of <i>Anguilla anguilla</i>	Cefas: ROGERS, S. I. AND MILLNER, R. S., 1996. Factors affecting the annual abundance and regional distribution of English inshore demersal fish populations: 1973 to 1995. ICES J. mar Sci., 53: 1094-1112.	<i>Anguilla anguilla</i> ,
Abundances and regional distributional data of <i>Anguilla anguilla</i>	Cefas: S.I. Rogers*, R.S. Millner* and T.A. Mead* (1998) Science Series, Technical Report, CEFAS, Lowestoft, 108: 130pp	<i>Anguilla anguilla</i>

Confidence Assessment undertaken by MB0116 projects

Feature	Presence	Extent	Condition	Boundaries (site)
Intertidal coarse sediment	High	High	Low	Low
Subtidal sand	High	Moderate	Low	
Subtidal mud	Low	Low	Low	
Subtidal mixed sediments	Low	Low	Low	
Blue Mussel beds (including intertidal beds on mixed and sandy sediments)	Moderate	Low	Low	
Littoral chalk communities	Low	Low	Low	
Subtidal chalk	Low	Low	Low	
<i>Hippocampus guttulatus</i>	Low	Low	Low	

<i>Hippocampus hippocampus</i>	Moderate	Moderate	Low	
<i>Ostrea edulis</i>	High	High	Low	
<i>Anguilla anguilla</i>	High	High	Low	

The confidence assessment for 'Intertidal coarse sediment' is given as 'high' for both presence and extent because although there is only one feature data point which does not overlap the feature polygon the aerial imagery provides visual confirmation of the feature and covers the polygon area .

A 'high' score was given for presence of 'Subtidal sand' since the polygon had a MESH confidence score of 86 along with multiple (17) data point samples (A5.2) overlapping/validating the feature polygon. A 'moderate' score was obtained for extent since the sample data was not distributed over >50% of the feature.

'Subtidal mixed sediments' resulted in 'low' scores for both presence and extent since there were no L3 feature data points overlapping the polygon feature. Only data points were available to assess the presence and extent of 'Subtidal mud' and therefore a 'low' score was obtained for both.

The 'moderate' confidence assessment for 'Blue Mussel beds' was based two feature data points of which one overlapped the feature polygon and anecdotal evidence which describes a patch of the feature within the MCZ however this does not cover the same area as the GI data. The extent assessment was considered therefore to be 'low'.

The 'Littoral chalk communities' HOCl has low confidence scores for presence and extent since only one validation data point overlaps the polygons.

The confidence assessment for 'Subtidal chalk' resulted in a 'low' score for presence and a 'moderate' score for extent since there were 6/29 (21%) of points within the HOCl polygons agreeing with habitat type and the sample data was not well distributed over more than 50% of the feature. However, the confidence score assigned to extent was reduced to 'low' to reflect the low confidence score assigned to the presence of this feature.

Hippocampus guttulatus has only 1 point record resulting in 'low' confidence of both presence and distribution within the rMCZ.

Ostrea edulis receive a 'high' confidence rating for presence and distribution since there are 18 specialist records, eight of which are < 6 years old.

A 'moderate' score was obtained for presence and 'high' score for extent of *Hippocampus hippocampus* since 3 specialist records were available which were less than 6 years old. However, the confidence score assigned to extent was reduced to 'moderate' to reflect the moderate confidence score assigned to the presence of this feature.

There are 13 specialist records of *Anguilla anguilla*, 8 of which are less than 6 years old resulting in 'high' confidence of both presence and extent.

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

considered in Project MB0102 to be sensitive to fishing activities. Confidence in condition is assessed as low, as the spatial footprint of benthic trawling and other fishing metiers did not overlap the entire site. To reflect uncertainties confidence was not raised to moderate. *Ostrea edulis* was considered in Project MB0102 to be sensitive to a range of activities. Confidence in condition is assessed as low, as either activities did not occur (aggregate extraction) there was no evidence for impacting activities (navigation dredging) or the spatial footprint did not overlap the entire site (waste disposal, some fishing metiers). Although shellfish harvesting does occur it was considered that management measures would be in place to prevent degradation of resource. To reflect uncertainties confidence was not raised to moderate.

The confidence assessment in the boundary of the site was classified as 'low' primarily because the overall confidence in the extent of the respective BSH and Habitat FOCI was determined as low.