

The Manacles (rMCZ32) Evidence Review

Region	Finding Sanctuary	
Site Name/number	The Manacles rMCZ FS32	
ENG Features present and proposed for inclusion within MCZ designation	BSH	<ul style="list-style-type: none"> Moderate energy intertidal rock Intertidal coarse sediment Intertidal sand and muddy sand Intertidal mud Intertidal mixed sediments Moderate energy infralittoral rock Moderate energy circalittoral rock Subtidal coarse sediment Subtidal sand Subtidal mixed sediments Subtidal macrophyte-dominated sediment.
	Habitat FOCI	<ul style="list-style-type: none"> Maerl beds.
	Species FOCI	<ul style="list-style-type: none"> <i>Amphianthus dohrnii</i> <i>Eunicella verrucosa</i> <i>Haliclystus auricula</i> <i>Leptopsammia pruvoti</i> <i>Palinurus elephas</i>.
ENG Features present but not proposed for inclusion within MCZ designation	BSH	
	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>Phocoena phocoena</i> <i>Cetorhinus maximus</i>.

Evidence Summary – data provided by Regional MCZ Projects

Feature	Evidence Summary	Key Sources
Moderate energy intertidal rock	Presence and extent based on predicted modelled polygon data from MESH/ MB0102. No data points available. Aerial photography from CCO	MB0102 and MESH CCO
Intertidal coarse sediment	Presence and extent based on predicted modelled polygon data from MB0102/ MESH No data points available. Point data from NE geo-referenced photographs for MCZ feature specific studies. Aerial photography from CCO	MB0102, MESH CCO NE

Intertidal sand and muddy sand	Presence and extent based on predicted modelled polygon data from MESH/ MB0102. No data points available. Aerial photography from CCO	MB0102 and MESH CCO
Intertidal mud	Presence and extent based on predicted modelled polygon data from MESH/ MB0102. No data points available. Aerial photography from CCO	MB0102 and MESH CCO
Intertidal mixed sediments	Presence and extent based on predicted modelled polygon data from MESH/ MB0102. No data points available. Aerial photography from CCO	MB0102 and MESH CCO
Moderate energy infralittoral rock	Presence and extent based on predicted modelled polygon data from MESH/ MB0102, Cornwall Wildlife Trust, and datapoints from MESH.	MESH, UKSeaMap and Cornwall Wildlife Trust
Moderate energy circalittoral rock	Presence and extent based on predicted modelled polygon data from MESH. No datapoints available.	MESH
Subtidal coarse sediment	Presence and extent based on predicted modelled polygon data from MESH and datapoints from MESH.	MESH
Subtidal sand	Presence and extent based on predicted modelled polygon data from MESH/UKSeaMap and datapoints from MESH.	MESH and UKSeaMap
Subtidal mixed sediments	Presence and extent based on predicted modelled polygon data from MESH. No datapoints available.	MESH
Subtidal macrophyte-dominated sediment	Presence and extent based on predicted modelled polygon data from MESH and parent feature datapoints from MESH.	MESH
Maerl beds.	Presence and extent based on predicted modelled polygon data from MB0102. No datapoints available.	MB0102
<i>Amphianthus dohrnii</i>	Presence and extent based on datapoints from Regional Projects – FS, MB0102	Regional Projects – FS, MB0102
<i>Eunicella verrucosa</i>	Presence and extent based on data points from Regional Projects - FS, MB0102	Regional Projects - FS, MB0102

<i>Haliclystus auricula</i>	Presence and extent based on one data point from Regional Projects – FS.	Regional Projects - FS
<i>Leptopsammia pruvoti</i>	Presence and extent based on data points from Regional Projects – FS.	Regional Projects - FS
<i>Palinurus elephas</i>	Presence and extent based on data points from MB0102.	MB0102

Description of New Evidence Identified by MB0116 project

Evidence Description	Source	Feature
County_Cornwall_Scilly_MCZ and Lizard_Legend_Apr_16_2010_MCZ	SW-Habitat_Mapping	Intertidal coarse sediment Moderate energy infralittoral rock
Polygon and point data	Cornwall Wildlife Trust	<i>Eunicella verrucosa</i>
Data points	Marine Recorder - MBA	<i>Eunicella verrucosa</i> <i>Amphianthus dohrnii</i>
Data points	SeaSearch	<i>Eunicella verrucosa</i>
Woods, C. (2008). "Seasearch pink sea fan surveys 2004/6.	A report for the Marine Conservation Society.	<i>Eunicella verrucosa</i>

Evidence That Could Not Be Acquired by MB0116 project

Evidence Description	Source	Feature
Rock and thin sediment	British Geological Society	Broadscale habitats
Compilation of all survey data carried out in the area. Exact content unknown.	ERCCIS (Cornwall Wildlife Trust)	<i>Padina pavonica</i> and other unknown features
EA MCZ Verification Survey - The Manacles	Environment Agency	Moderate energy circalittoral rock Moderate energy infralittoral rock Subtidal coarse sediment Subtidal macrophyte-dominated sediment Subtidal mixed sediments Subtidal sand
Geo-referenced photographic evidence	NE	Intertidal coarse sediment Moderate energy intertidal rock

Confidence Assessment undertaken by MB0116 project

Feature	Presence	Extent	Condition	Boundaries (site)
Moderate energy intertidal rock	Moderate	Moderate	Low	Low
Intertidal coarse sediment	Moderate	Moderate	Low	
Intertidal sand and muddy sand	Moderate	Moderate	Low	
Intertidal mud	Low	Low	Low	
Intertidal mixed sediments	High	High	Low	
Moderate energy infralittoral rock	Low	Low	Low	
Moderate energy circalittoral rock	Low	Low	Low	
Subtidal coarse sediment	Low	Low	Low	
Subtidal sand	Low	Low	Low	
Subtidal mixed sediments	Low	Low	Low	
Subtidal macrophyte-dominated sediment	Low	Low	Low	
Maerl beds.	Low	Low	Low	
<i>Amphianthus dohrnii</i>	Moderate	Moderate	Moderate	
<i>Eunicella verrucosa</i>	High	High	Moderate	
<i>Haliclystus auricular</i>	Low	Low	Low	
<i>Leptopsammia pruvoti</i>	Low	Low	Low	
<i>Palinurus elephas</i>	Moderate	Moderate	Moderate	

The confidence in 'Moderate energy intertidal rock' was assessed as 'moderate' for both presence and extent because although polygons exist they have a MESH score of less than 58 and there are no data points, however the aerial photography confirms the presence over half of the feature polygon. Similarly there are no features or parent data points which overlap the feature polygons of 'Intertidal sand and muddy sand' but the aerial photographs confirm the presence and extent of over half the feature polygon area and are therefore considered to both be 'moderate'.

Aerial photographs confirm the presence of 'Intertidal mixed sediments' within the feature polygons covering over 90% of their area. Additionally one data point overlaps the feature polygon therefore the presence and extent is considered to be 'high'.

The confidence assessments for 'Intertidal mud', 'Moderate energy infralittoral rock' and 'Moderate energy circalittoral rock' resulted in a 'low' score for presence since there were no data points agreeing with/validating feature polygons. Each obtained a 'low' score for extent since there were no validating data points overlapping/ agreeing with feature polygons.

Confidence assessment for 'Subtidal coarse sediment' and 'Subtidal sand' resulted in a 'low' score for presence since the polygon data had high MESH scores (>58) and one validating data point on the feature and parent feature polygons. Both obtained 'low' scores for extent since there was only one ground-truthed record and polygon data available.

The confidence assessments for 'Subtidal mixed sediments', and 'Subtidal macrophyte-dominated sediment' and resulted in a 'low' score for presence since there were 50% and 13% agreement of the feature polygons with the parent feature. Each also obtained a 'low' score for extent since there were no validating data points and the MESH score was 62.

The confidence in presence and extent of 'Maerl beds' was assessed using polygon data from MB0102 (survey ID: GB100002) but there were no data points available and therefore resulted in 'low' confidence scores for both HOCl presence and extent.

There were four records of '*Amphianthus dohrnii*'; all of these records were collected by specialists and 2 of these in 2005 resulting in 'moderate' confidence scores for both presence and distribution. '*Eunicella verrucosa*' obtained a 'high' confidence for both presence and distribution due to a total of 140 records, 71 of which were less than 6 years old and all 140 collected by specialists. Only one record of '*Haliclystus auricula*' was available to assess (collected in 1979) resulting in a 'low' confidence score for both presence and distribution.

Two records of '*Leptopsammia pruvoti*', both of which are older than 12 years, and therefore resulted in a confidence score of 'low' for both presence and distribution. Two records of '*Palinurus elephas*', one of which is less than 6 years old (both records collected by specialists) resulting in a 'moderate' score for presence and a high confidence score for distribution.

The condition assessment for majority of the features was based on a Vulnerability Assessment and could not be improved beyond a 'low' confidence score. '*Amphianthus dohrnii*', is considered sensitive (with moderate or high confidence) to pressures resulting from human activities by project MB0102. However, assessment protocol requires that confidence in condition is assessed as 'low' where confidence in extent is lower than moderate or high therefore scored 'Moderate' confidence score. '*Eunicella verrucosa*' is considered to be sensitive (by project MB0102) to a number of pressures caused by human activities. This species is sensitive to fishing activities that disturb the seabed and remove non-target species (bottom fishing gears and shellfish harvesting) and these were indicated by evidence gathered through Charting Progress 2 to occur across the site. Confidence in condition is therefore assessed as 'moderate' although it is acknowledged the resolution of this data is fairly coarse., '*Palinurus elephas*' was considered to be sensitive (by project MB0102) to a number of pressures caused by human activities. This species is sensitive to fishing activities that disturb the seabed and remove this target species (bottom gears and shellfish harvesting) and these were indicated by

evidence gathered through Charting Progress 2 to occur across the site. Confidence in condition is therefore assessed as '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.