

Isles of Scilly: Peninnis to Dry Ledge (FS rMCZ35j) Evidence Review

Region	Finding Sanctuary	
Site Name/number	Isles of Scilly: Peninnis to Dry Ledge (FS rMCZ35j)	
ENG Features present and proposed for inclusion within MCZ designation	BSH	<ul style="list-style-type: none"> • Moderate energy intertidal rock • Low energy intertidal rock • Intertidal coarse sediment • Intertidal sand and muddy sand • Intertidal mud • Intertidal mixed sediments • High energy infralittoral rock • Moderate energy infralittoral rock • High energy circalittoral rock • Moderate energy circalittoral rock • Subtidal coarse sediment • Subtidal sand • Subtidal mixed sediments
	Habitat FOCI	<ul style="list-style-type: none"> • Fragile sponge & anthozoan communities on subtidal rocky habitats • Intertidal under boulder communities
	Species FOCI	<ul style="list-style-type: none"> • <i>Gobius cobitis</i> • <i>Amphianthus dohrnii</i> • <i>Eunicella verrucosa</i> • <i>Haliclystus auricula</i> • <i>Leptopsammia pruvoti</i> • <i>Lucernariopsis campanulata</i> • <i>Palinurus elephas</i> • <i>Arctica islandica</i> • <i>Paludinella littorina</i>
ENG Features present but not proposed for inclusion within MCZ designation	BSH	-
	Habitat FOCI	-
	Species FOCI	-
Non-ENG Features (Geological/geomorphological)		-

Evidence Summary – data provided by Regional MCZ Projects

Feature	Evidence Summary	Key Sources
Moderate energy intertidal rock	The presence and extent of this broad-scale habitat was supported by polygon data derived from 9 Combined MESH/UKSeaMap GB001070 polygons and 83 MB0102 GB001070 polygons. Point data were available from 2 MESH	Combined MESH/UKSeaMap MB0102 MESH CCO

	points. Aerial imagery from CCO	
Low energy intertidal rock	No GI Aerial imagery from CCO	CCO
Intertidal coarse sediment	The extent of this broad-scale habitat was supported by polygon data derived from 6 Combined MESH/UKSeaMap GB001070 polygons, 18 MB0102 GB001070 polygons. No point data were available. Aerial imagery from CCO	Combined MESH/UKSeaMap MB0102 CCO
Intertidal sand and muddy sand	The extent of this broad-scale habitat was supported by polygon data derived from 4 Combined MESH/UKSeaMap GB001070 polygons and 18 MB0102 GB001070 polygons. No point data were available. Aerial imagery from CCO	Combined MESH/UKSeaMap MB0102 CCO
Intertidal mud	The extent of this broad-scale habitat was supported by polygon data derived from 3 Combined MESH/UKSeaMap GB001070 polygons and 9 MB0102 GB001070 polygons. No point data were available. Aerial imagery from CCO	Combined MESH/UKSeaMap MB0102 CCO
Intertidal mixed sediments	The extent of this broad-scale habitat was supported by polygon data derived from 2 Combined MESH/UKSeaMap GB001070 polygons and 4 MB0102 GB001070 polygons. No point data were available. Aerial imagery from CCO	Combined MESH/UKSeaMap MB0102 CCO
High energy infralittoral rock	The presence and extent of this broad-scale habitat was supported by polygon data derived from 9 Combined MESH/UKSeaMap GB001055 polygons. Point data were available from 18 MESH points.	Combined MESH/UKSeaMap MESH
Moderate energy infralittoral rock	The presence and extent of this broad-scale habitat was supported by polygon data derived from 8 Combined MESH/UKSeaMap GB001055 polygons. Point data were available from 14 MESH points	Combined MESH/UKSeaMap UKSeaMap MESH
High energy	Point data were available from	MESH

circalittoral rock	48 MESH points.	
Moderate energy circalittoral rock	The presence and extent of this broad-scale habitat was supported by polygon data derived from 1 Combined MESH/UKSeaMap polygon, 1 UKSeaMap GB001055 polygon. Point data were available from 9 MESH points.	Combined MESH/UKSeaMap UKSeaMap MESH
Subtidal coarse sediment	The presence and extent of this broad-scale habitat was supported by polygon data derived from 2 Combined MESH/UKSeaMap polygons. Point data were available from 1 MESH point.	Combined MESH/UKSeaMap MESH
Subtidal sand	The presence and extent of this broad-scale habitat was supported by polygon data derived from 1 Combined MESH/UKSeaMap polygon. Point data were available from 1 MESH point.	Combined MESH/UKSeaMap MESH
Subtidal mixed sediments	The presence and extent of this broad-scale habitat was supported by point data derived from 3 MESH points. No polygon data were available.	MESH
Fragile sponge & anthozoan communities on subtidal rocky habitats	The presence and extent of this habitat FOCI was supported by polygon data derived from 1 loS_LG_habitat_poly_NewIntersect polygon. Point data were available from 9 MESH points, 14 Isles of Scilly Wildlife Trust, SeaSearch points, 2 Habitat_HOCI_Points_NewIntersect points.	MESH Regional Project -FS
Intertidal under boulder communities	. Point data were available from 2 Isles of Scilly Wildlife Trust, Shoresearch points from Regional Project -FS.	Regional Project -FS
<i>Gobius cobitis</i>	The presence and extent of this species FOCI was supported by point data derived from 3 Non_mobile_Species_NewIntersect points, 2 Cornwall_FOCI_Species_NewIntersect points	MB0102 Regional Project -FS
<i>Amphianthus</i>	The presence and extent of this	MB0102 Regional Project -FS

<i>dohrnii</i>	species FOCI was supported by point data derived from 1 Non_mobile_Species_NewIntersect, 3 Cornwall_FOCI_Species_NewIntersect points. No polygon data were available.	
<i>Eunicella verrucosa</i>	The presence and extent of this species FOCI was supported by point data derived from 60 Cornwall_FOCI_Species_NewIntersect points and 16 Non_mobile_Species_NewIntersect points. No polygon data were available.	MB0102 Regional Project -FS
<i>Haliclystus auricula</i>	The presence and extent of this species FOCI was supported by point data derived from 1 Cornwall_FOCI_Species_NewIntersect. No polygon data were available.	Regional Project -FS
<i>Leptopsammia pruvoti</i>	The presence and extent of this species FOCI was supported by point data derived from 10 Cornwall_FOCI_Species_NewIntersect points, 7 Non_mobile_Species_NewIntersect points. No polygon data were available.	MB0102 Regional Project -FS
<i>Lucernariopsis campanulata</i>	The presence and extent of this species FOCI was supported by point data derived from 3 Cornwall_FOCI_Species_NewIntersect points and 2 Non_mobile_Species_NewIntersect points. No polygon data were available.	MB0102 Regional Project -FS
<i>Palinurus elephas</i>	The presence and extent of this species FOCI was supported by point data derived from 5 Cornwall_FOCI_Species_NewIntersect points, 2 Non_mobile_Species_NewIntersect points, 4 FS_Sample_Species_1982_NewIntersect. No polygon data were available.	MB0102 Regional Project -FS
<i>Arctica islandica</i>	The presence and extent of this species FOCI was supported by point data derived from 2 Cornwall_FOCI_Species_NewInt	MB0102 Regional Project -FS

	ersect points and 2 Non_mobile_Species_NewInters ect points. No polygon data were available.	
<i>Paludinella littorina</i>	The presence and extent of this species FOCI was supported by point data derived from 1 Non_mobile_Species_NewInters ect2. No polygon data were available.	MB0102

Description of New Evidence Identified by MB0116 project

Anecdotal evidence provided by NE to MB0116 project

Evidence Description	Source	Feature
Polygon data	SW Habitat Mapping	Intertidal coarse sediment
Irving, R.A. and Northern, K.O. (2012) Isles of Scilly SAC Diving Monitoring Studies, 2011.	Natural England Commissioned Reports, Number 104	High energy circalittoral rock Fragile sponge & anthozoan communities on subtidal rocky habitats
Isles of Scilly Intertidal Biotope Mapping Dataset (2010)	ERCCIS	<i>Amphianthus dohrnii</i> <i>Eunicella verrucosa</i> <i>Haliclystus auricular</i> <i>Leptopsammia pruvoti</i> <i>Palinurus elephas</i>
Marine BAP Habitats and Species of the Isles of Scilly - an update to the Isles of Scilly Environmental Audit 2008.	Gall, A. (2011)	High energy circalittoral rock Fragile sponge & anthozoan communities on subtidal rocky habitats <i>Gobius cobitis</i>
Point data	Marine Recorder -MBA	Fragile sponge & anthozoan communities on subtidal rocky habitats <i>Eunicella verrucosa</i> <i>Leptopsammia pruvoti</i>
Polygon data	Cornwall Wildlife Trust	High energy infralittoral rock High energy circalittoral rock Moderate energy circalittoral rock <i>Amphianthus dohrnii</i>
Point data	SeaSearch points	Fragile sponge & anthozoan communities on subtidal rocky habitats <i>Eunicella verrucosa</i> <i>Leptopsammia pruvoti</i> <i>Palinurus elephas</i>
Data point	Journal of Conchology	<i>Paludinella littorina</i>

Evidence That Could Not Be Acquired by MB0116 project

Evidence Description	Source	Feature
Isles of Scilly Intertidal Biotope Mapping Dataset (2010)	ERCCIS	Intertidal coarse sediment Intertidal mixed sediments Intertidal sand and muddy sand

Confidence Assessment undertaken by MB0116 project

Feature	Presence	Extent	Condition	Boundaries (site)
Moderate energy intertidal rock	High	Moderate	Low	Low
Low energy intertidal rock	No confidence	No confidence	No confidence	
Intertidal coarse sediment	Moderate	Low	Low	
Intertidal sand and muddy sand	Moderate	Low	Low	
Intertidal mud	Low	Low	Low	
Intertidal mixed sediments	Moderate	Moderate	Low	
High energy infralittoral rock	Low	Low	Low	
Moderate energy infralittoral rock	Low	Low	Low	
High energy circalittoral rock	Moderate	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	
Fragile sponge & anthozoan communities on subtidal rocky habitats	Moderate	Moderate	Low	
Intertidal under boulder communities	Low	Low	Low	
<i>Gobius cobitis</i>	Low	Low	Low	
<i>Amphianthus dohrnii</i>	Moderate	Moderate	Moderate	
<i>Eunicella</i>	High	High	Moderate	

<i>verrucosa</i>				
<i>Haliclystus auricula</i>	Moderate	Moderate	Low	
<i>Leptopsammia pruvoti</i>	High	High	Moderate	
<i>Lucernariopsis campanulata</i>	Low	Low	Low	
<i>Palinurus elephas</i>	Moderate	Moderate	Moderate	
<i>Arctica islandica</i>	Low	Low	Low	
<i>Paludinella littorina</i>	Low	Low	Low	

No geographic information was available to support the ENG feature 'Low energy intertidal rock'. Therefore, no confidence score was assigned.

Two broad-scale habitats, 'Intertidal coarse sediment and 'Intertidal sand and muddy sand', were supported by multiple combined MESH/UKSeaMap GB001070 polygons. None of these features had supporting point data, or corroborating modelled data, However, photographic evidence confirmed the presence of the features giving a confidence score of 'moderate' but the coverage was less than 50% of the feature polygons therefore the extent of these features was categorised as 'low'.

The 'Intertidal mud' BSH was supported by multiple combined MESH/UKSeaMap GB001070 polygons. However, none of these features had supporting point data, or corroborating modelled data. As such, confidence in the presence and extent of these features was categorised as 'low'.

The confidence assessment for 'Intertidal mixed sediments' was based on polygon data only from MESH/UKSeaMap and MB0102, however the aerial photography confirms the presence of the feature within the feature polygons, however it only covers some of the feature polygons therefore a 'moderate' score has been achieved for presence and extent.

The assessment for 'High energy circalittoral rock' was supported by polygon data derived from combined MESH/UKSeaMap and, in one instance, the Cornwall Wildlife Trust. Anecdotal evidence from Irving *et al.*(2012) and Gall (2011) confirms the presence of the feature at 2 locations which raises the confidence score to 'moderate', however the extent is considered to be 'low'.

Three broad-scale habitats, 'Moderate energy circalittoral rock', 'Subtidal coarse sediment' and 'Subtidal sand', whilst high MESH scores were available in some cases, no point data were present within the features' polygons, though verification points were present across the rMCZ. Therefore, confidence in both the presence and extent of these features was categorised as 'low'.

No polygon data was available to support the presence of the broad-scale habitat 'Subtidal mixed sediments'. 3 MESH points were available to verify the presence of the feature, so confidence in its presence and extent was categorised as 'low', accordingly.

The occurrence of the broad-scale habitat 'Moderate energy intertidal rock' was supported by polygon data derived from combined MESH/UKSeaMap GB001070 and MB0102. Only 1 validation sample was available within the feature polygon, however the aerial photography confirms the presence of the feature within the majority of the feature polygons, therefore the

confidence has been assessed as 'high', with the coverage of the feature polygons being between 50 and 90% thus making the confidence in extent being 'moderate'

The occurrence of the broad-scale habitat 'High energy infralittoral rock' was supported by polygon data derived from combined MESH/UKSeaMap GB001055. 11 MESH points were present within the feature polygons, though only 2 (18%) were in agreement with the broad-scale habitat type. 5 (45%) were in agreement with the parent type (EUNIS level 2), which ultimately resulted in confidence in the presence of this feature being categorised as 'low'. The presence of multiple validation points, spread over less than 50% of the feature polygons, meant that confidence in the extent of this feature was categorised as 'moderate'. However, the confidence score assigned to extent was reduced to 'low' to reflect the low confidence score assigned to the presence of this feature.

The occurrence of the broad-scale habitat 'Moderate energy infralittoral rock' was supported by polygon data derived from combined MESH/UKSeaMap GB001055. 102 points were present within the feature polygons, though only 14 (14%) were in agreement with the feature type and 39 (38%) in agreement with the parent type (EUNIS level 2). As such, confidence in the presence of this feature was categorised as 'low'. However, as multiple validation points were spread over greater than 50% of the feature polygons, confidence in the extent of the broad-scale habitat was categorised as 'high'. However, the confidence score assigned to extent was reduced to 'low' to reflect the low confidence score assigned to the presence of this feature.

The habitat FOCI 'Fragile sponge & anthozoan communities on subtidal rocky habitats' was supported by polygon data derived from 'IoS_LG_habitat_poly_NewIntersect'. 54 points were present within the feature polygon, of which 41 (76%) were in agreement with the feature type. As such, confidence in the presence of this habitat FOCI was categorised as 'moderate'. The same 54 points covered over 50% of the feature polygon, meaning confidence in the extent of the habitat FOCI was categorised as 'high'. However, the confidence score assigned to extent was reduced to 'moderate' to reflect the moderate confidence score assigned to the presence of this feature.

Two data points were available to verify the presence and extent of the habitat FOCI 'Intertidal under boulder communities' which did not overlap the supporting polygon data derived from 'SW_Habitat_Mapping_BAP' and 'SW_Habitat_Mapping' this resulted in confidence in both the presence and extent of the habitat FOCI being categorised as 'low'.

The species '*Gobius cobitis*' was supported by 8 points derived from 'Non_mobile_Species_NewIntersect' and 'Cornwall_FOCI_Species_NewIntersect'. All of the data were greater than 12 years old, hence confidence in both presence and extent being categorised as 'low'.

The species '*Amphianthus dohrnii*' was supported by 6 point samples derived from 'Non_mobile_Species_NewIntersect' and 'Cornwall_FOCI_Species_NewIntersect'. 1 point was collected by a specialist, and 6 points were less than 6 years old. As such, confidence in the presence of the species was categorised as 'moderate', and in the extent as 'high'. However, the confidence score assigned to extent was reduced to 'moderate' to reflect the moderate confidence score assigned to the presence of this feature.

The species '*Eunicella verrucosa*' was supported by 163 points derived from Non_mobile_Species_NewIntersect, 'FOCI_April_09_MCZ', 'FS_Sample_Species_1982_NewIntersect', and 'MarineRecorderSpecies_NewIntersect'. 54 of these points were collected by experts, of which 46 were less than 6 years old. As such, confidence in both the presence and extent of this species was categorised as 'high'.

The species '*Haliclystus auricula*' was supported by 4 points derived from 'Cornwall_FOCI_Species_NewIntersect'. 2 points were collected by experts, both of which were less than 6 years old. As a result, confidence in the presence of this species was categorised as 'moderate' and extent as 'high'. However, the confidence score assigned to extent was reduced to 'moderate' to reflect the moderate confidence score assigned to the presence of this feature.

The species '*Leptosammia pruvoti*' was supported by 26 points derived from Non_mobile_Species_NewIntersect, 'FOCI_April_09_MCZ', 'FS_Sample_Species_1982_NewIntersect', SeaSearch and 'Cornwall_FOCI_Species_NewIntersect'. 11 of these points were collected by a specialist, of which 5 were less than 6 years old. As such, confidence in both the presence and extent of this species was categorised as 'high'.

The species '*Palinurus elephas*' was supported by 12 points derived from 'FOCI_April_09_MCZ', 'FS_Sample_Species_1982_NewIntersect' and 'FOCI_April_09_MCZ', 'FS_Sample_Species_1982_NewIntersect'. 2 points were collected by specialists, both of which were less than 6 years old. Confidence in the presence of this species was categorised as 'moderate', whilst confidence in the extent of the species was categorised as 'high'. However, the confidence score assigned to extent was reduced to 'moderate' to reflect the moderate confidence score assigned to the presence of this feature.

The species '*Arctica islandica*' was supported by 4 points derived from 'Cornwall_FOCI_Species_NewIntersect' and Non_mobile_Species_NewIntersect, with all being over 12 years old. As such, confidence in both the presence and extent of this species was categorised as 'low'.

The species '*Paludinella littorina*' was supported by 2 points derived from Non_mobile_Species_NewIntersect and the Journal of Conchology, of which one was collected by a specialist. This point was over 12 years old however, so confidence in both the presence and extent of the species was categorised as 'low'.

The BSH, HOCl, *Gobius cobitis*, *Arctica islandica*, *Lucernariopsis campanulata* and *Paludinella littorina* features are not considered highly sensitive to any pressures considered within the MB0102 sensitivity X pressures matrix and hence confidence in condition, based on this, they were assessed as 'low'. The other SOCI features were considered to be sensitive (by project MB0102) to a number of pressures caused by human activities. These species are sensitive to fishing activities that disturb the seabed 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.

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'.