

Chesil Beach and Stennis Ledges MCZ

Seasearch Site Surveys 2015

This report summarises the results of surveys carried out during 2015 by Seasearch divers in the Chesil Beach and Stennis Ledges MCZ (designated in November 2013¹). In previous years, particular attention was paid to surveying undived sites within the area to augment the existing records of the Habitat and Species FOCI² identified in the Ecological Guidance on the designation of MCZs³. Unfortunately the latter objective was defeated by bad weather (high winds) which prevented us from diving the northern and Stennis Ledges sections and so the vast majority of the dives took place in the Chesil Cove area at the southern end of this MCZ.

Physical Features of the Area

The Chesil Beach and Stennis Ledges MCZ is an inshore site of *ca.* 38km² running along Chesil Beach from Abbotsbury in the north to Weston on the Isle of Portland in the south, extending seawards in a south-westerly direction to encompass the rocky reefs of Stennis Ledges (image below taken from jncc.defra.gov.uk/mczmap):

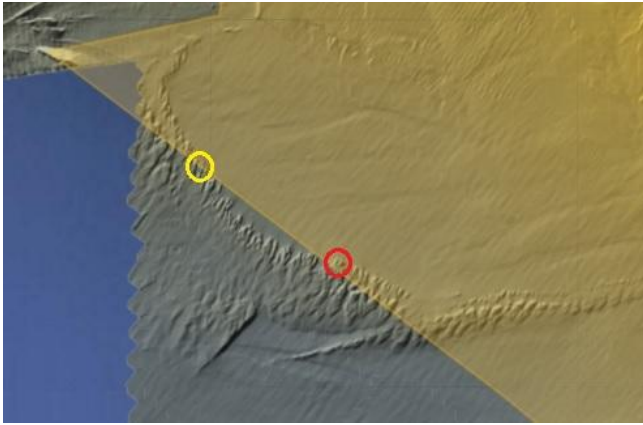


The site consists of both rocky ledges and massive boulders, supporting fragile reef species of pink sea fans, sponges and bryozoans, and subtidal mixed sediments which support a wide variety of marine life.

¹ http://www.legislation.gov.uk/ukmo/2013/5/pdfs/ukmo_20130005_en.pdf

² <http://jncc.defra.gov.uk/page-4527>

³ http://jncc.defra.gov.uk/PDF/100705_ENG_v10.pdf



A site in the north-west corner of the MCZ, as chosen from the DORIS bathymetric map and undived by Seasearch, was revealed (September 2014; red circle) to be a very rugged 3m-high exposure of Oxford clay with embedded oyster shells (typical habitat photo above right) and christened “Charlotte’s Clay” (not by me!). We returned to the northern part of this feature in June 2015 (yellow circle in the graphic above left) and have a drift dive planned for July 2016 to maximise coverage using GPS-tracked video footage. The priority habitat of ‘peat and clay exposures’ (HOCl_15) is not currently included on the feature list for this MCZ; the process by which MCZ boundaries can be altered in the light of new evidence is not clear.

The public consultation in early 2015 gave us the chance to submit additional evidence in support of features not included in the original designation. In the case of the Chesil Beach and Stennis Ledges MCZ the features was “high energy infralittoral rock”⁴, well-illustrated by photographs from Seasearch dives in 2008, 2011 and 2014. The summary of responses to the consultation⁵ shows that Seasearch data was considered in Natural England’s updated evidence assessment for the feature (the conservation advice is that it should be managed to ‘maintain in favourable condition’)⁶. This is the tangible result of your hard work!

Human Uses

Use of mobile bottom gear (trawls and dredges) in search of scallops has the potential to decimate reef habitats and the associated ecosystem, which are slow to recover. Further inshore, small-scale potting and recreational angling activities are attracted by the fish and crustacean populations; impacts in the form of lost fishing equipment (line, hooks, rope, pots) and other litter are often seen at sites along Chesil Beach. This litter, if stable and inert, can provide a useful substrate for marine life but has a more detrimental impact in terms of ghost fishing.

Benefits of Protection

Local potting and angling activities would both indirectly benefit from an increased population of fish and crustaceans in this area.

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https://consult.defra.gov.uk/marine/tranche2mczs/supporting_documents/Annex%20A%20Additional%20features%20recommended%20for%20inclusion%20in%20first%20tranche%20MCZs.pdf

⁵ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/492785/mcz-second-tranche-consult-sum-resp.pdf

⁶ <https://www.gov.uk/government/publications/conservation-advice-for-marine-conservation-zone-chesil-beach-and-stennis-ledges-fs19>

Features of the Marine Life

The rocks are densely covered with short animal turf (dominated by encrusting and cushion sponges, bryozoans and hydroids), while the large boulders at the southern end of Chesil Beach and the north-western coast of the Isle of Portland are densely covered in kelp. Crustaceans and molluscs are associated with the subtidal sediments and may occur in very dense aggregations at certain times of the year. Protected species such as the pink sea fans (*Eunicella verrucosa*) and native oyster (*Ostrea edulis*) have been reported within this MCZ, as well as uncommon species such as Baillon's wrasse (*Symphodus bailloni*; more southerly Lusitanian distribution though now frequently reported in Dorset throughout the year), the Weymouth carpet coral (*Hoplangia durotrix*; nationally rare) and the branching sponge *Adreus fascicularis* (nationally scarce). Seasonal visitors such as grey triggerfish (*Balistes capriscus*) are regularly reported at sites along Chesil Beach. Cuttlefish (*Sepia officinalis*) are found in large numbers in Chesil Cove, and male lumpsuckers (*Cyclopterus lumpus*) brooding eggs are sighted there on an annual basis. This year the first record of a stalked jellyfish in Chesil Cove was received, thanks to the sharp eyes of Hugh Waite (who also photographed a streaked gurnard), while Ben Robinson spotted the nationally rare nudibranch *Okenia elegans* (above right), proving that even the most popular sites can still yield surprises.



ABOVE: Stalked jellyfish (*Lucernariopsis cruxmelitensis*), pogge (*Agonus cataphractus*)

BELOW: Lumpsucker (*Cyclopterus lumpus*), streaked gurnard (*Trigloporus lastoviza*)





ABOVE: Local diver Alex Charlton captured this amazing sight of a cuttlefish with flatfish prey whilst diving in Chesil Cove



Acknowledgements

This report has been compiled by Charlotte Bolton (Dorset Seasearch Co-ordinator supported by Dorset Wildlife Trust) based on Seasearch survey records made by Lin Baldock, Charlotte Bolton, Ross Bullimore, Rik Girdler, Mike Markey, Cathryn Quick and Hugh Waite, and observation records made by Emma Christison, Christine Lissoni, Jess Mead, Ben Robinson and Hugh Waite. Photos as credited; copyright is retained by the photographers. Seasearch would like to thank the volunteer divers for their records and West Bay Dive Charters (“Ruby J”) for taking us to the “Charlotte’s Clay” site in the north of the MCZ.

Report published by Dorset Wildlife Trust (www.dorsetwildlifetrust.org.uk) for Seasearch (www.seasearch.org.uk).

Technical Appendix

This Appendix contains more detailed information about the surveys undertaken and records made. It includes:

- dive details
- habitat sketches
- biotope list
- species list

The data have been validated, verified and entered into the Marine Recorder database by Charlotte Bolton. A copy of the data in Snapshot format is available on request, or it can be viewed on the NBN Gateway Interactive Map Tool (<https://data.nbn.org.uk/imt/>).

MR Survey Name:

“2015 Seasearch Survey of Chesil Beach & Stennis Ledges MCZ”

MR Survey Key:

MRLRC015000000B

Dive details

Date	Site Name/Position (WGS84)	Surveyor(s)	Form(s)
15/4/2015	Chesil Cove 50° 33.540'N 002° 26.902'W to 50° 33.534'N 002° 26.976'W	Charlotte Bolton, Rik Girdler	DT15/003
19/4/2015	Chesil Cove 50° 33.53'N 002° 26.90'W	Hugh Waite, Cathryn Quick	NT15/029
21/4/2015	Chesil Cove 50° 33.57'N 002° 26.920'W to 50° 33.567'N 002° 27.002'W	Lin Baldock, Charlotte Bolton	DT15/005
11/6/2015	Chesil Cove 50° 33.537'N 002° 26.929'W	Cathryn Quick, Hugh Waite	DT15/028 DT15/029
14/6/2015	Chesil Cove 50° 33.5'N 002° 26.9'W	Ben Robinson	DT15/045
11/9/2015	Chesil Cove 50° 33.541'N 002° 26.913'W	Emma Christison	NT15/253
20/9/2015	Chesil Cove SZ 683 733 (OSGB36)	Christine Lissoni	DT15/098
25/9/2015	Chesil Cove 50° 33.541'N 002° 26.913'W	Emma Christison	NT15/262
25/10/2015	Chesil Cove 50° 33.53'N 002° 26.90'W	Hugh Waite, Cathryn Quick	DT15/117

Designated features and management approach:

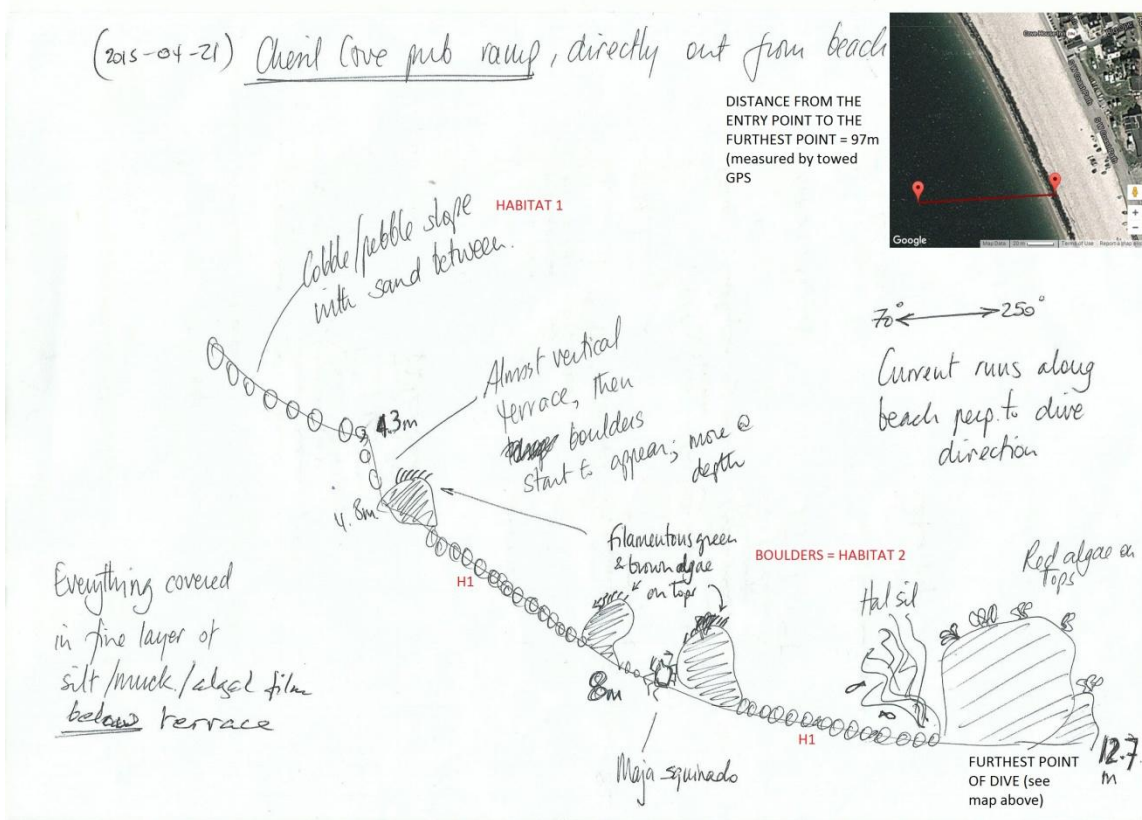
Broad Scale Habitats: Subtidal mixed sediments (maintain in favourable condition); moderate energy circalittoral rock (maintain); high energy infralittoral rock (maintain)

Species FOCI: Pink sea fan, *Eunicella verrucosa* (SOCl_8; recover to favourable condition); native oyster, *Ostrea edulis* (SOCl_22; recover)

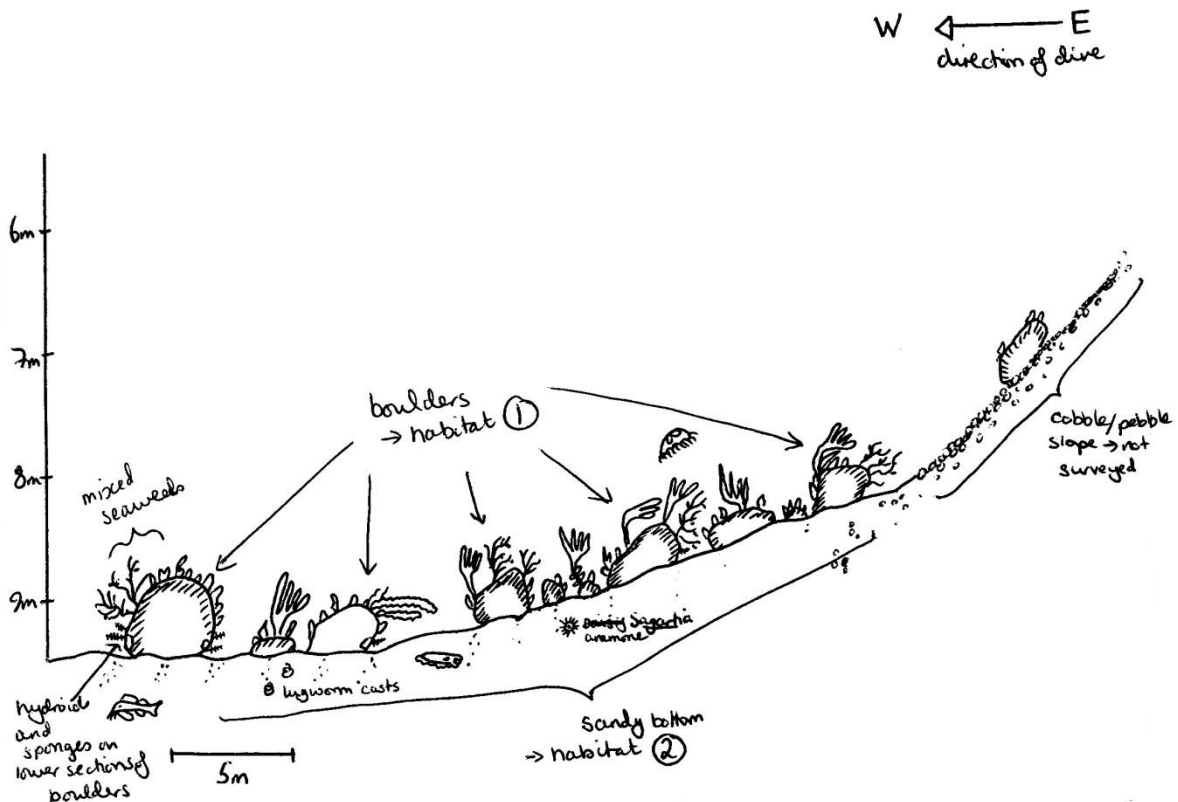
Habitat sketches

N.B. Depths shown on the sketches are bsl – below sea level – not corrected to Chart Datum.

1. Chesil Cove 'pub ramp' (DT15/003; Charlotte Bolton/Lin Baldock)



2. Chesil Cove (DT15/028; Cathryn Quick)



Sublittoral Habitats/Biotopes recorded

Description	MNCR 15.03 Biotope Code†
Infralittoral coarse sediment	SS.SCS.ICS
Sparse fauna on highly mobile sublittoral shingle (cobbles and pebbles)	SS.SCS.ICS.SSh
Foliose red seaweeds on exposed lower infralittoral rock	IR.HIR.KFaR.FoR
<i>Halidrys siliquosa</i> and mixed kelps on tide-swept infralittoral rock with coarse sediment	IR.HIR.KSed.XKHal

† The Marine Habitat Classification for Britain & Ireland (v15.03): jncc.defra.gov.uk/marinehabitatclassification

Species List

Number of species records = 340.

Number of unique taxa recorded = 151.

1. Porifera (sponges)

Scientific name	Common name	Notes
<i>Clathrina coriacea</i>	White lace sponge	
<i>Cliona celata</i>	Boring sponge	
<i>Dysidea fragilis</i>	Goosebump sponge	
<i>Halichondria panicea</i>	Breadcrumb sponge	
<i>Hemimycale columella</i>	Crater sponge	
<i>Hymeniacidon perlevis</i>		
<i>Pachymatisma johnstonia</i>	Elephant hide sponge	
<i>Polymastia penicillus</i>	Chimney sponge	
Porifera indet. crusts	Encrusting sponges	
<i>Suberites ficus</i>	Sea orange	
<i>Sycon ciliatum</i>	Purse sponge	

2. Cnidaria (anemones, hydroids, corals)

Scientific name	Common name	Notes
<i>Actinia equina</i>	Beadlet anemone	
<i>Actinia fragacea</i>	Strawberry anemone	
<i>Aglaophenia pluma</i>		
<i>Alcyonium digitatum</i>	Dead men's fingers	
<i>Anemonia viridis</i>	Snakelocks anemone	
<i>Aurelia aurita</i>	Moon jellyfish	
<i>Cereus pedunculatus</i>	Daisy anemone	
<i>Dynamena pumila</i>		
<i>Eunicella verrucosa</i>	Pink sea fan	FOCI species (SOCI_8) , WACA, BAP/NERC species, nationally scarce.
<i>Lucernariopsis campanulata</i>	Stalked jellyfish	FOCI species (SOCI_20) , BAP/NERC species
<i>Lucernariopsis cruxmelitensis</i>	Stalked jellyfish	FOCI species (SOCI_19) , BAP/NERC species
<i>Obelia geniculata</i>	Kelp fur	
<i>Peachia cylindrica</i>	Clock-face anemone	
<i>Sagartia</i> sp.		
<i>Sagartia elegans</i>	Elegant anemone	
<i>Sagartia troglodytes</i>	Mud Sagartia	
<i>Urticina felina</i>	Dahlia anemone	

3. Annelida (segmented worms)

Scientific name	Common name	Notes
<i>Bispira volutacornis</i>	Double spiral worm	
<i>Eulalia viridis</i> (eggs)	Green leaf worm (eggs)	
<i>Lanice conchilega</i>	Sand mason worm	
Sabellidae	Peacock worm	
Serpulidae	Bristleworms	
<i>Spirobranchus</i> sp. (used to be <i>Pomatoceros</i> sp.)	Keel worms	

4. Crustacea (crabs, lobsters, barnacles)

Scientific name	Common name	Notes
<i>Cancer pagurus</i>	Edible, brown crab	
Cirripedia	Barnacles	
<i>Homarus gammarus</i>	European lobster	
<i>Maja squinado</i>	Spiny spider crab	
Mysida	Opossum shrimps	
<i>Necora puber</i>	Velvet swimming crab	
Paguridae	Hermit crabs	
<i>Pagurus bernhardus</i>	Common hermit crab	
<i>Periclimenes sagittifer</i>	Snakelocks anemone shrimp	

5. Mollusca (snails, bivalves, nudibranchs)

Scientific name	Common name	Notes
<i>Aplysia punctata</i>	Sea hare	
<i>Calliostoma zizyphinum</i>	Painted topshell	
<i>Crimora papillata</i>		
<i>Doris pseudoargus</i>	Sea lemon	
<i>Facelina auriculata</i>		
<i>Flabellina ?browni</i>		
<i>Flabellina lineata</i> (used to be <i>Coryphella lineata</i>)		
<i>Gibbula</i> sp.	Topshell	
<i>Gibbula cineraria</i>	Grey topshell	
<i>Gibbula umbilicalis</i>	Flat topshell	
<i>Goniodoris nodosa</i>		
<i>Limacia clavigera</i>	Orange clubbed sea slug	
Loliginidae	Squid	
<i>Nassarius</i> sp.	Dog whelk	
<i>Nassarius reticulatus</i>	Netted dog whelk	
<i>Okenia elegans</i>	Elegant sea slug	Nationally rare
<i>Palio</i> sp.		
<i>Polycera quadrilineata</i>	Lined polycera	
<i>Rocellaria dubia</i> (used to be <i>Gastrochaena dubia</i>)	Shotgun piddock	
<i>Sepia officinalis</i>	Cuttlefish	
<i>Trivia</i> sp.	Cowries	

6. Bryozoa (sea mats/mosses)

Scientific name	Common name	Notes
Bryozoa indet. crusts	Encrusting bryozoans	
<i>Bugula</i>	Spiral bryozoans	

Scientific name	Common name	Notes
<i>Bugula turbinata</i>		
<i>Cellepora pumicosa</i>	Orange pumice bryozoan	
<i>Chartella papyracea</i>		
<i>Electra pilosa</i>	Frosty sea mat	
<i>Flustra foliacea</i>	Hornwrack	Indicator species
<i>Membranipora membranacea</i>	Sea mat	
Membraniporoidea		
Tubulipora		

7. Phoronida (horseshoe worms)

Scientific name	Common name	Notes
<i>Phoronis</i>		

8. Echinodermata (starfish, sea cucumbers)

Scientific name	Common name	Notes
<i>Asteria rubens</i>	Common starfish	
Cucumariidae	Sea cucumbers	

9. Tunicata (sea squirts)

Scientific name	Common name	Notes
<i>Aplidium punctum</i>	Club-head sea squirt	
<i>Botryllus schlosseri</i>	Star sea squirt	
<i>Clavelina lepadiformis</i>	Lightbulb sea squirt	
<i>Dendrodoa</i> sp.		
Didemnidae		
<i>Didemnum fulgens</i>		
<i>Didemnum maculosum</i>		
<i>Diplosoma spongiforme</i>	Sponge sea squirt	
<i>Distaplia rosea</i>		
<i>Lissoclinum perforatum</i>	White perforated sea squirt	
<i>Morchellium argus</i>	Four-spotted sea squirt	
<i>Phallusia mammillata</i>		Nationally scarce
<i>Polycarpa</i> sp.		
<i>Polycarpa scuba</i>		
<i>Polyclinum aurantium</i>		

10. Pisces (fish)

Scientific name	Common name	Notes
<i>Agonus cataphractus</i>	Pogge	
Ammotyidae	Sand eels	
<i>Callionymus</i> sp.	Dragonets	
<i>Callionymus reticulatus</i>	Reticulated dragonet	
<i>Centrolabrus exoletus</i>	Rock cook	
Gobiesociformes	Clingfish	
<i>Gobiusculus flavescens</i>	Two-spot goby	
Labridae	Wrasses	
<i>Labrus bergylta</i>	Ballan wrasse	
<i>Mullus surmuletus</i>	Red mullet	
<i>Parablennius gattorugine</i>	Tompot blenny	
<i>Pollachius pollachius</i>	Pollack	
<i>Pomatoschistus</i> sp.	Sand gobies	

Scientific name	Common name	Notes
<i>Pomatoschistus pictus</i>	Painted goby	
<i>Scyliorhinus canicula</i>	Lesser-spotted cat shark	
<i>Scyliorhinus stellaris</i>	Nursehound, bull huss	
<i>Symphodus melops</i>	Corkwing wrasse	
<i>Syngnathus acus</i>	Greater pipefish	
<i>Trigloporus lastoviza</i>	Streaked gurnard	
<i>Trisopterus luscus</i>	Bib, pout, pouting	

11. Algae (seaweeds)

Scientific name	Common name	Notes
Phaeophyceae	Brown seaweeds	
<i>Chorda filum</i>	Mermaid's tresses, bootlace weed	
<i>Desmarestia ligulata</i>	Desmarest's flattened weed	
<i>Dictyopteria polypodioides</i>	Netted wing weed	
<i>Dictyota dichotoma</i>	Divided net weed, brown fan weed	
<i>Halidrys siliquosa</i>	Sea oak (brown), pod weed	
Laminariales	Kelps	
<i>Laminaria digitata</i>	Oar weed, tangle	
<i>Laminaria hyperborea</i>	Forest kelp, cuvie	
<i>Saccharina latissima</i>	Sugar kelp	
<i>Saccorhiza polyschides</i>	Furbelows	
<i>Sporochnus pedunculatus</i>	Woolly seed weed	
<i>Zanardia typus</i>	Penny weed	Nationally scarce
Chlorophyta	Green seaweeds	
<i>Bryopsis</i>	Mossy feather weeds	
<i>Ulva</i>	Sea lettuces and gut weeds	
Rhodophyta	Red seaweeds	
<i>Brongniartella byssoides</i>	Brongniart's thread weed	
<i>Calliblepharis ciliata</i>	Beautiful eyelash, red fringed weed	
<i>Callophyllis laciniata</i>	Beautiful fan weed	
<i>Ceramium</i>	Banded pincer weeds	
<i>Chondria dasyphylla</i>	Diamond cartilage weed	
Corallinaceae (crusts)	Coralline algae	
<i>Corallina officinalis</i>	Common coral weed	
<i>Cordylecladia erecta</i>	Erect clublet	
<i>Delessaria sanguinea</i>	Sea beech	
<i>Dilsea carnosa</i>	Red rags	
<i>Drachiella heterocarpa</i>	Callused Drachiella	
<i>Gastroclonium ovatum</i>	Red grape weed	
<i>Halurus flosculosus</i>	Mrs Griffith's little flower	
<i>Hypoglossum hypoglossoides</i>	Under tongue weed	
<i>Nitophyllum punctatum</i>	Spotted scarf weed	
<i>Phycodrys rubens</i>	Sea oak (red)	
<i>Phyllophora crispa</i>	Sandy leaf bearer	
<i>Phyllophora pseudoceranoides</i>	Stalked leaf bearer	
<i>Plocamium</i> sp.		
<i>Plocamium cartilagineum</i>	Cock's comb, red comb weed	
<i>Schottera nicaeensis</i>	Shaded weed	

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Registered Charity No. 200222. For more information about DWT, our work and the Seasearch project, please visit www.dorsetwildlifetrust.org.uk or email seasearch@dorsetwildlifetrust.org.uk

Seasearch is a partnership between the Marine Conservation Society (MCS), The Wildlife Trusts, statutory nature conservation bodies and others, co-ordinated nationally by MCS and co-ordinated and delivered locally in England by Wildlife Trust and MCS local co-ordinators. For more information on Seasearch and to see all of the partners involved nationally, please visit www.seasearch.org.uk or email info@seasearch.org.uk

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