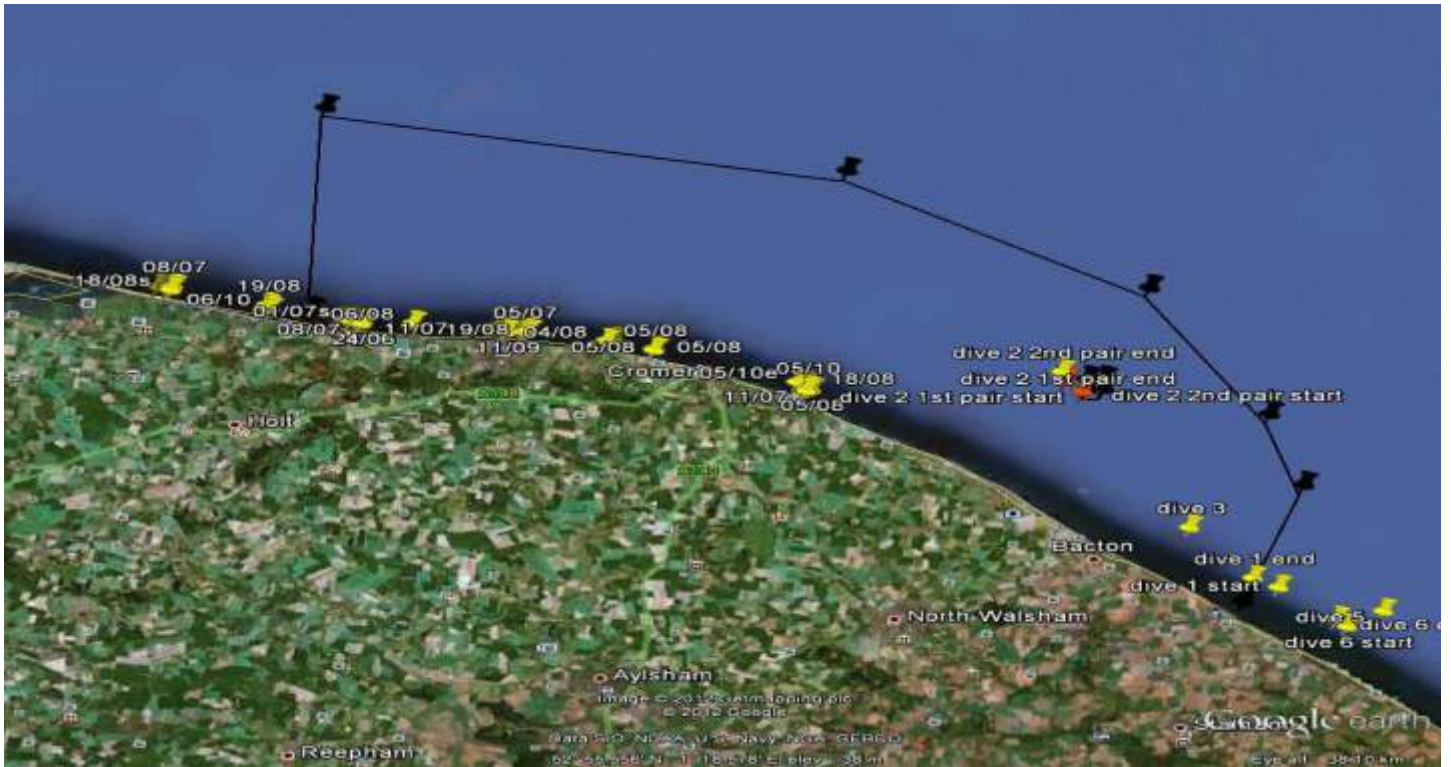


Cromer Shoal Chalk Beds recommended MCZ

Seasearch Site Surveys 2012

This report summarises the results of subtidal surveys carried out in and around the recommended Marine Conservation Zone by Seasearch volunteers between June and October 2012. The aim of the surveys was to add detail of the habitats and species found within the area to support the designation process and inform management. Poor weather prevented the use of small boats for most of the year, their use was concentrated on surveying the Blue Mussel rRef Area and comparable sites; see separate report.



Sites surveyed by Seasearch in 2012

Physical Features of the Area

The recommended Marine Conservation Zone currently lies 200m seaward from the low water mark adjacent to the North Norfolk Coast with its northwestern boundary between Weybourne and Salthouse, its southeastern boundary just South of Happisburgh and Cromer at its centre. Having the rMCZ start 200m seaward of the low water mark was intended to allow for easy sea defence maintenance, but this is now considered to be too far and a distance of 100m or less is now being recommended by the JNCC.

It extends three nautical miles out to sea, encompassing a mosaic of habitats and reaching depths of up to twenty metres. The seabed is composed of a variety of rock, sediment, chalk, blue mussel beds and peat and clay exposures. It is an



important site for benthic biodiversity (including 30 species of nudibranchs), and encompasses some of the best examples of subtidal chalk within the North Sea (approximately 2% of the coastline is chalk), forming part of the longest chalk reef in Europe with arch formations in chalk walls 550m from the beach. The site is likely to provide foraging opportunities for seabirds and has

frequent sightings of small cetaceans and pinnipeds (whales, dolphins, porpoises and seals). The area is a breeding ground for Whiting, Dover and Lemon sole.

Features of the Marine Life

The dives in the Northwest area cover Cley to Spalla Gap, less than a mile East of Weybourne. The area is mostly very fine sand which is muddy with dense lugworms or Sand mason worms at some sites. There are two inshore wrecks offering a stable environment to Plumose anemones and Dead mens fingers, as well as a variety of sponges, squirts and numerous hydroids and nudibranchs.



Shallow wreck at Weybourne densely covered in Plumose anemones

Chalk in the area tends to exist as separated outcrops and the exposed clay as large flat slabs with little biodiversity. The chalk outcrops are densely covered in hydroids such as Oaten pipes and Antenna hydroids, attracting various nudibranches.

The central area covers Sheringham to East Runton where the chalk reef is at its most rugged and spectacular. The inshore chalk plain has increasing gullies with depth, eventually leading to 3m high walls 2-400m offshore. All horizontal surfaces are



covered in lush mixed algae. The walls have encrusting sponges and squirts including the purple *Hymedesmia* sponge which was confirmed as being new to science in 2011. Dense *Polydora ciliata* worms line all overhangs, tunnels and caves, which give shelter to shoaling Bib and large Common lobsters. There is a large disused victorian sewer pipe running from Sheringham to Cromer, which attracts many sponge spider crabs.

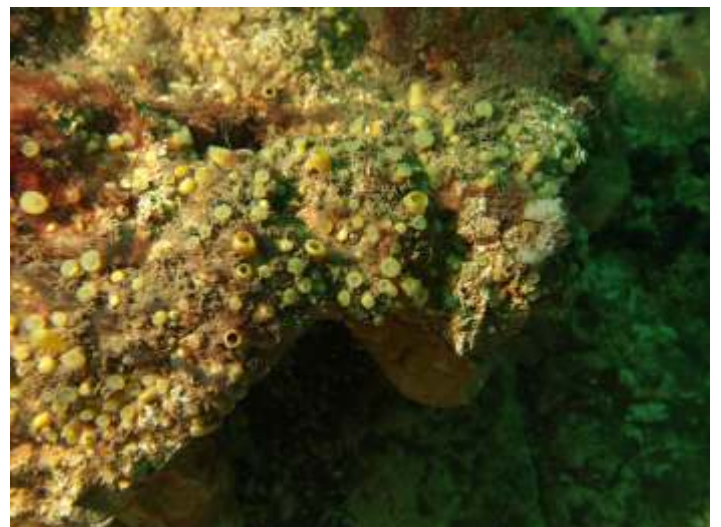
Typical chalk gully with mixed seaweed and small caves at Sheringham

The Southeast dives cover the area around Overstrand, a seabed of rippled sand leading to small chalk gullies and an exposed clay glacial lake bed. Little cuttlefish are common on the sand, along with Lesser weever fish, shore crabs and brown shrimps.

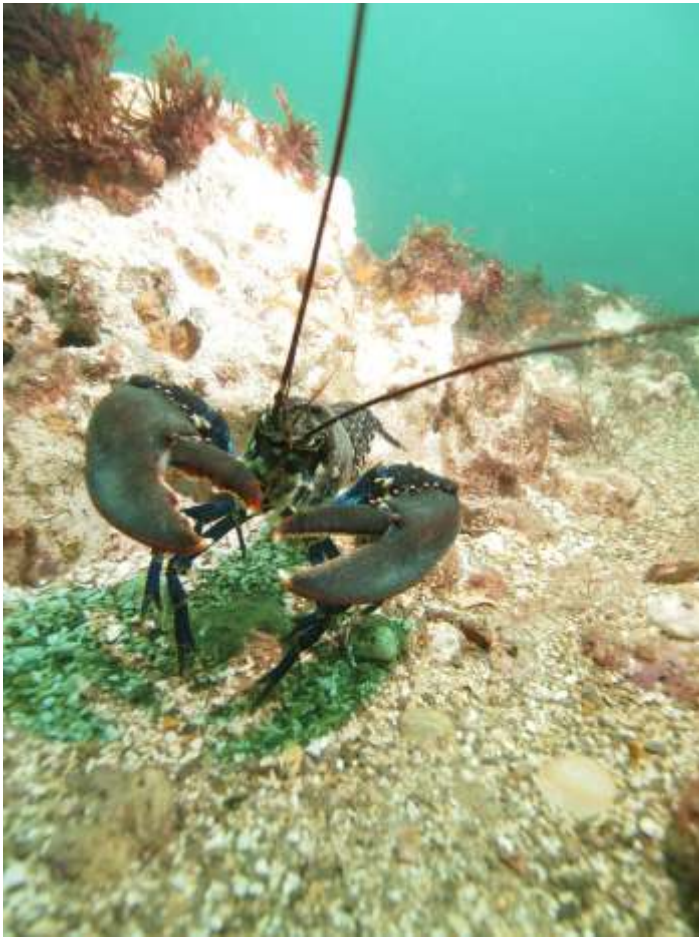
The clay exists as a flat plain and taller outcrops with very dense Oaten pipes and Piddocks.



Glacial lake bed sediments now present as exposed clay at Overstrand



Boring sponge on soft chalk



Common lobster



Peacock fanworms on a boulder



Beautiful Sea slug



Dahlia anemone with sponge spider crabs



Purple sponge confirmed as being new to science in 2011 and as yet not seen outside the Norfolk chalk reef.

Human uses and impacts

The main uses of the area are potting for crabs and lobsters, and sea angling from the shore.

Lead sinkers, lures, line and hooks were commonly found at both sites during the surveys and broken lobster pots, lost nets and cooked crab waste were recorded at most sites.



Shoal of juvenile Bib and Poor cod in a chalk gully



Lost lobster pot washed up on the beach

The area is very popular with birdwatchers, walkers and family groups and the cliffs at West Runton attract some fossil hunters. The landfall for a windfarm cable is at Weybourne, but does not seem to require maintenance.



Unusual animal – a foraminiferan – found growing on the windfarm cable



Even apparently barren sand hosts amazing animals like this Little cuttlefish, the size of a bumblebee.



Flounder

Benefits of Protection

The entire site is already subject to a year-round ban on trawling to protect the seabed habitats. The habitats proposed for protection within the site are all deemed vulnerable to abrasion and penetration caused by fishing gear towed along the sea bed.

The current level of potting does not cause a large amount of damage unless pots are lost, but additional levels of protection would prevent expansion of the industry and the setting of gill nets which are regularly lost.

Technical Appendix

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

- Dive details
- Intertidal survey details
- Habitat sketches
- Biotope list
- Species list

The data have been entered into Marine Recorder and are available as an MS Access 'snapshot' file on request from Seasearch. Data from surveys up to 2011 are publicly available on the NBN Gateway.

Current Proposal

The recommended MCZ boundary has been drawn to coincide with the boundary of the existing no trawl zone. The proposed MCZ extends from 200m seaward of the low tide mark to the three nautical mile limit, in order to allow sea defences to be maintained.

The features proposed for designation are:

Broad scale habitats	A3.1	High energy infralittoral rock
	A3.2	Moderate energy infralittoral rock
	A4.2	Moderate energy circalittoral rock
Habitat FOCI		Subtidal chalk
Geological feature		North Norfolk coast (subtidal)

Features within the area but NOT proposed for designation are:

Broad scale habitats	A5.1	Subtidal coarse sediment
Habitat FOCI		Blue mussel beds
		Peat and clay exposures
		Subtidal sands and gravels
Geological feature		Trimingham (subtidal)

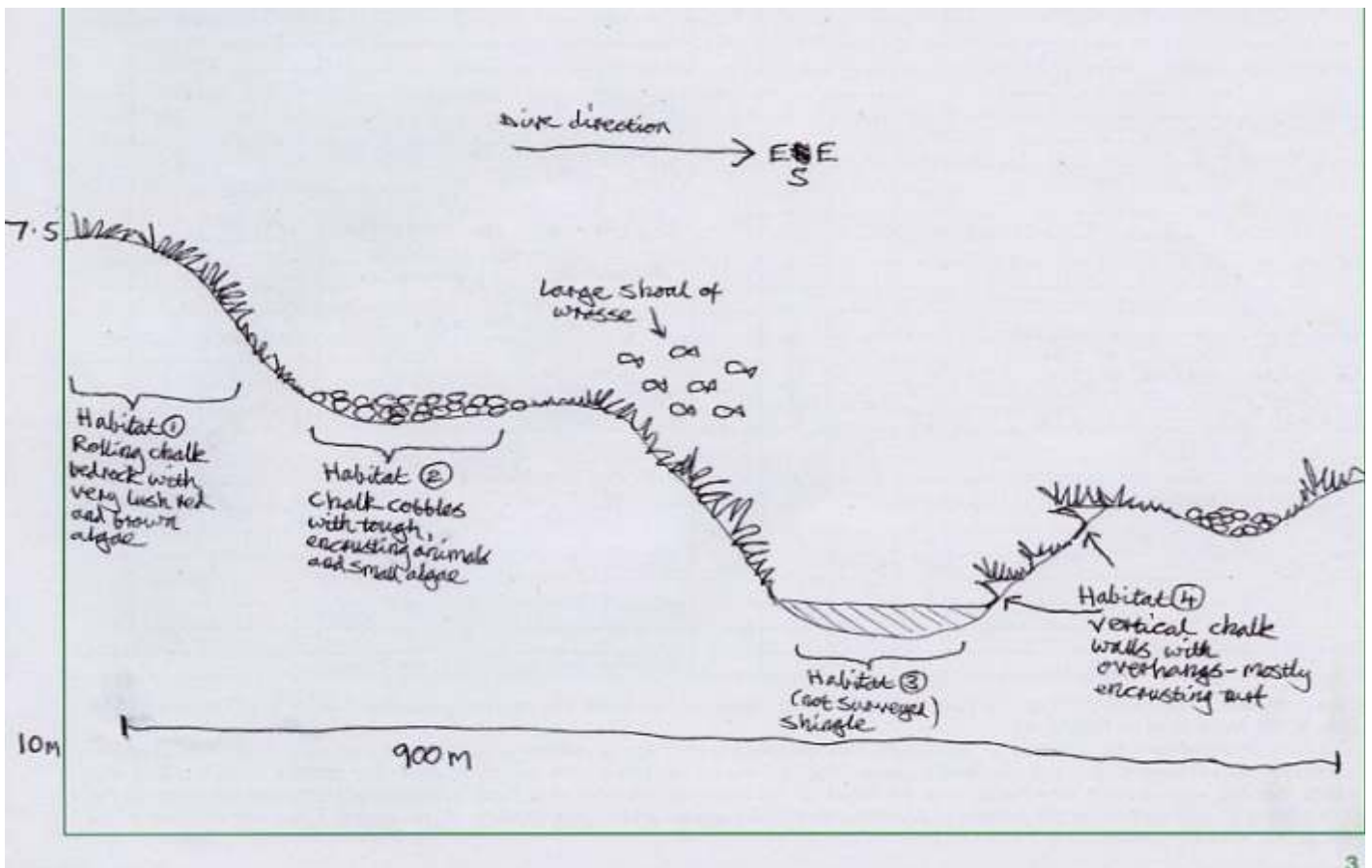
Survey details

A total of 43 Surveyor forms and 23 Observer forms (with an additional 7 and 5 respectively for the Blue Mussel rRef Area) have been produced so far for 53 diving events in and around this area. The season is not yet over and forms are still being received. Marks for the centre of each dive and the start/end positions for drifts can be seen on the map in the introduction and the more detailed maps below.





Habitat sketch



This is a typical habitat sketch from a drift dive in the Sheringham area.

Biotopes recorded

All sites	SS.SSa.IMuSa.AreISa	Lugworms (<i>Arenicola marina</i>) with hermit and harbour crabs, sand mason worms and burrowing anemones.
All sites	IR.FIR.IFou	Wrecks/concrete pilings/cable debris or other artificial substrata with dense seaweed covering on both vertical and upper faces.
All sites	Cr.HCR.XFa	Bedrock and boulders with strong to moderately strong tidal streams. A diverse range of hydroids, bryozoans and sponges forming an often dense mixed animal turf.
All sites	SS.SCS.ICs.SLan	Dense Sand mason worms (<i>Lanice conchilega</i>) in coarse to medium gravelly sand where there are strong tidal streams or wave action.
All sites	IR.HIR.KFaR.FoR.Dic	Dense foliose red seaweeds mixed with brown fan weed (<i>Dictyota dichotoma</i>).
North West and Central sites only	CR.MCR.SfR.Pol	Soft rock covered by <i>Polydora</i> tubes.
North West and South East sites only	SS.SMx.IMx	Infralittoral mixed sediment. Shallow mixed sediments with various animal dominated communities and few seaweeds.
North West and South East sites only	SS.SSa.IFiSa.IMoSa	Infralittoral mobile clean sand with sparse fauna. The sand often formed into dunes. There may be mobile species such as hermit crab, harbour crab, shore crab and starfish on the surface, but little infauna.
Central sites only	SS.SCS.ICs.Ssh	Sparse fauna on extremely exposed or exposed clean rounded unstable pebbles and sand.
Central sites only	SS.SMx.CMx	Circalittoral mixed sediment (generally deeper than 15m) containing mixed muddy gravelly sands, or a poorly sorted mixture of shell, cobbles and pebbles embedded in or lying on mud.
South East sites only	CR.MCR.SfR.Pid	Soft chalk or clay with abundant Piddocks (usually <i>Pholas dactylus</i>), and limited fauna, especially on upward facing surfaces.
South East sites only	SS.SSa.IFiSa	Infralittoral fine sand (generally down to not more than 15m) either on the open coast or in tide swept channels.
South East sites only	IR.MIR.KR.XFoR	Moderately exposed bedrock and boulders in areas of turbid water with dense red seaweeds and without kelp. Common in the English channel.

Species List

Scientific name	Common name	North West	Central	South East
Porifera	Sponges	Abundance		
<i>Halichondria panicea</i>	Breadcrumb sponge	R-F	O-C	O-F
<i>Dysidea fragilis</i>	Goosebump sponge	O-F	O-F	R-O
<i>Scypha ciliata</i>	Vase sponge	O-F	O	O
<i>Amphilectus fucorum</i>	Shredded carrot sponge	O-C	R-F	O
<i>Clathrina coriacea</i>	Spikey lace sponge	O		
<i>Haliclona oculata</i>	Mermaids glove	O-F		
<i>Cliona celata</i>	Boring sponge	O	O-F	O
<i>Leucosolenia sp</i>	Lace sponge	R-F	R	
<i>Encrusting porifera</i>	Yellow/orange crust	C	R-F	O
<i>Polymastia penicillus</i>	Chimney sponge	R		
<i>Hymedesmia sp</i>	Purple crust	O	O	

Scientific name	Common name	North West	Central	South East
<i>Grantia compressa</i>	Purse sponge	O		
<i>Haliclona cineraria</i>	Sponge	R		O
<i>Oscarella sp</i>	Sponge	O	R-F	
<i>Mycale macilenta</i>	crust	O	O-F	
Cnidaria	Hydroids and anemones			
<i>Tubula indivisa</i>	Oaten pipes	C-A	O-F	R-F
<i>Actinia equina</i>	Beadlet anemone	O	R-F	R-O
<i>Tubularia larynx</i>	Oaten pipes	C		O-C
<i>Urticina eques</i>	Horseman anemone		R	
<i>Urticina felina</i>	Dahlia anemone	O-F	R-F	R-C
<i>Sagartia elegans</i>	Elegant anemone	R-C	O	O
<i>Sagartia troglodytes</i>	Anemone	F		O
<i>Halecium halecinum</i>	Herringbone hydroid	R		
<i>Plumularia setacea</i>	Feathery hydroid	O-F	O-C	O-F
<i>Garvia nutans</i>	Hydroid	R-F		
<i>Coryne pusilla</i>	Hydroid		O	
<i>Coryne eximia</i>	Hydroid	O-C		R
<i>Dynamena pumila</i>	Hydroid	F		
<i>Hydractinia echinata</i>	Hermit fur	O		
<i>Eudendrium ramosum</i>	Hydroid	F		
<i>Eudendrium sp</i>	Hydroid	O-C	O	
<i>Chrysaora hysoscella</i>	Compass jellyfish	R	R	
<i>Metridium senile</i>	Plumose anemone	R-A		
<i>Clytia hemisphaerica</i>	Hydroid	F	F	
<i>Alcyonium digitatum</i>	Dead mens fingers	R-F		
<i>Nemertesia antenina</i>	Antenna hydroid	R-F		O
<i>Sertularia cupressina</i>	Squirrels tail hydroid			O
Annelida	Segmented worms			
<i>Arecola marina</i>	Lugworm	F-A	O-C	O-C
<i>Lanice conchilega</i>	Sand mason	O-A	R-A	R-A
<i>Pomatoceros sp</i>	Keelworm	R-C	R-C	O-C
<i>Polydora ciliata</i>	Worm	C-A	O-A	C
<i>Sabella pavonina</i>	Peacock fanworm	O-C	O	O
<i>Salmacina dysteri</i>	Coral worm	O	R-C	O-F
<i>Eulalia viridis</i>	Green leaf worm	R		
<i>Polynoid</i>	Scale worm	R	R	
<i>Oligocladus sanguinolentus</i>	Flatworm	R		
<i>Cirratulus cirratus</i>	Segmented worm		O	
<i>Spirorbis sp</i>	Spiral worm		F	
Crustacea	Barnacles, crabs, shrimp and lobsters			
<i>Cancer pagurus</i>	Edible crab	R-C	R-C	R-C
<i>Carcinus maenas</i>	Shore crab	O-C	R-C	R-C
<i>Mysid sp I</i>	Red mysid shrimp	F		
<i>Mysid sp II</i>	Clear mysid shrimp	F-A	O-C	O-C
<i>Cirripecta sp</i>	Barnacle	O-A	R-A	R-C
<i>Pagurus bernhadus</i>	Common hermit crab	R-O	R	
<i>Pagurus spp</i>	Other hermit crabs	O-C	O-F	O-C
<i>Hyas araneus</i>	Sea toad	R-F	R-F	R-O
<i>Homarus gammarus</i>	Common lobster	R-F	R-F	R-O

Scientific name	Common name	North West	Central	South East
<i>Palaemon serratus</i>	Common prawn	O-F	R-F	R-F
<i>Inachus sp</i>	Sponge spider crab	O-F	R-F	O
<i>Decapoda sp</i>	Transparent shrimp			F
<i>Caprella sp</i>	Skeleton shrimp	O-C		O
<i>Idotea sp</i>	Isopod	R-F	O	
<i>Amphipoda</i>	Amphipod in Tubularia	O		O-F
<i>Jassa falcata</i>	Amphipod	O-A	F-C	
<i>Pisidea longicornis</i>	Long clawed porcelain crab	R-O	O	
<i>Necora puber</i>	Velvet swimming crab	O-F	R-F	R-F
<i>Macropodia sp</i>	Long legged spider crab	R-C	R-O	R-C
<i>Portumnus latipes</i>	Pennants swimming crab	O		
<i>Crangon crangon</i>	Brown shrimp	O-C	R-F	R-C
<i>Pandalus montagui</i>	Northern prawn	R-O	R	R
<i>Hippolyte varians</i>	Chamaeleon prawn	R-O	R-O	R-O
<i>Liocarcinus depurator</i>	Harbour crab	R-O		R-O
<i>Galathea strigosa</i>	Squat lobster		R	
<i>Galathea squamifera</i>	Squat lobster	R-C	O-A	R-C
<i>Pilumnus hirtellus</i>	Hairy crab		O	O
Mollusca	Molluscs			
<i>Sepiola atlantica</i>	Little cuttlefish	R-F	R-F	R-F
<i>Gibbula cineraria</i>	Grey topshell	O-F	O-F	O
<i>Facelina auriculata</i>	Nudibranch	O-F		
<i>Facelina bostoniensis</i>	Nudibranch	R-O		R
<i>Sepia officianalis</i>	Common squid (eggs)	R		
<i>Janolus cristatus</i>	Crystal sea slug	R-F		R
<i>Acanthodoris pilosa</i>	Nudibranch	R-O		
<i>Flabelina pedata</i>	Violet sea slug	O-F		
<i>Calliosoma zizyphinum</i>	Painted topshell	R-O	R-O	R-F
<i>Archidoris pseudoargus</i>	Sea lemon	R-O	R-O	
<i>Pholas dactylus</i>	Piddock		F	R-C
<i>Onchidoris bilamellata</i>	Nudibranch	F		
<i>Mytilus edulis</i>	Blue mussel			R
<i>Nucella lapillus</i>	Dog whelk	R	O-F	O-F
<i>Eubranchus tricolor</i>	Nudibranch	R-O	R	
<i>Hydrobia sp</i>	Gastropod	C-A	F-A	
<i>Aplysia punctata</i>	Sea hare		R	
<i>Aeolidia papillosa</i>	Nudibranch	R-O		
<i>Buccinum undatus</i>	Common whelk	R		
<i>Ensis arcuatus</i>	Razor shell	O-C		
<i>Coryphella lineata</i>	Nudibranch	O		
<i>Crepidula fornicata</i>	Slipper limpet	O	R-O	O
<i>Goniodoris nodosa</i>	Nudibranch	R		
<i>Lomanotus marmoratus</i>	Nudibranch	R		
<i>Catriona gymnota</i>	Nudibranch	O-F		
<i>Chiton sp</i>	Coat of mail shell		O	
Bryozoa	Sea mats and sea mosses			
<i>Electra pilosa</i>	Frosty sea mat	R-C	O-F	R-C
<i>Alcyonidium gelatinosum</i>	Gelatinous crust		O-F	
<i>Alcyonidium diaphanum</i>	Finger bryozoan	R-A	O	O
<i>Bugula plumosa</i>	Spiral bryozoan	O-F	R	

Scientific name	Common name	North West	Central	South East
<i>Parasmittina trispinosa</i>	crust		F	
<i>Crisia sp</i>	White claw sea moss	F-A		
<i>Bugula flabellata</i>	Spiral bryozoan	O-F	F	
<i>Bugulla turbinata</i>	Spiral bryozoan	R		R-O
<i>Schizomavella linearis</i>	crust	F		
<i>Flustra foliacea</i>	Hornwrack	O-C	R	O
<i>Bicellariella ciliata</i>	Bryozoan	R-F		O
<i>Scrupocellaria scruposa</i>	Bryozoan	F		
<i>Encrusting bryozoan</i>	crusts	F	O-C	R-C
Echinodermata	Starfish, urchins and brittlestars			
<i>Asterias rubens</i>	Common starfish	O-C	R-F	R-F
<i>Crossaster papposus</i>	Common sunstar	R-O		R-F
<i>Henricia sp</i>	Bloody henry	R		R-O
<i>Ophiothrix fragilis</i>	Common brittlestar	R		
<i>Ophiura ophiura</i>	Sand brittlestar	O	R	
<i>Ophiura albida</i>	Sand brittlestar		R	
Tunicata	Sea squirts			
<i>Clavelina lepadiformis</i>	Lightbulb sea squirt	R-C	R-F	
<i>Diplosoma spongiforme</i>	Sponge sea squirt	O-C	R-A	O-F
<i>Diplosoma listerianum</i>	Sea squirt		F	
<i>Morchellium argus</i>	Club sea squirt	O-F	R-F	O
<i>Aplidium nordmani</i>	Sea squirt		O	
<i>Didemnum maculosum</i>	Colonial sea squirt	O-C	O-F	O
<i>Aplidium turbinatum</i>	Colonial sea squirt	O		
<i>Molgula sp</i>	Sea squirt	R-O		F
<i>Botryllus schlosseri</i>	Communal sea squirt	O	R-O	
<i>Botrylloides leachi</i>	Communal sea squirt		O	
<i>Perophora listeri</i>	Sea squirt		O-F	
Ascidian	Solitary sandy	R		
<i>Archidostoma aggregatum</i>	Sea squirt	F		
<i>Distaplia rosea</i>	Communal sea squirt	R-O	R-C	
<i>Polysincraton bilobatum</i>	Communal sea squirt	F	O-A	
<i>Lissoclinum perforatum</i>	Communal sea squirt		O-F	
<i>Synocium pulmonaria</i>	Sea squirt		R	
<i>Pycnoclavella stolonialis</i>	Pinhead sea squirt	R-O		
<i>Stolonica socialis</i>	Orange sea squirt			R
Pisces	Fishes			
<i>Taurulus bubalis</i>	Longspined sea scorpion	R-F	R-F	R-F
<i>Anguilla anguilla</i>	Common eel		R	
<i>Echiichthes vipera</i>	Lesser weever fish	R-C	R-F	R-F
<i>Platichthes flesus</i>	Flounder	R-F	R	R
<i>Ammodytes sp</i>	Sand eel	R-F	F	O
<i>Pholis gunnellus</i>	Butterfish	O	R-O	
<i>Cyclopterus lumpus</i>	Lumpsucker (juvenile)		R	
<i>Pomatoschistus sp</i>	Sand goby	O-C	O-C	R-C
<i>Trisopterus minutus</i>	Poor cod	F		
<i>Trisopterus luscus</i>	Bib	O-F	O	
<i>Pomatoschistus pictus</i>	Painted goby	O-F	R-F	R-O
<i>Pomatoschistus minutus</i>	Sand goby	O-F		O-C
<i>Labrus bergylta</i>	Ballan wrasse	R-O	R	

Scientific name	Common name	North West	Central	South East
<i>Dicentrarchus labrax</i>	Sea bass	R-F	C	
<i>Syngnathus rostratus</i>	Pipefish	R	O	
<i>Syngnathus acus</i>	Greater pipefish	R-O	R	R
<i>Gobiusculus flavescens</i>	Two spot goby	O-C	O-C	F
<i>Liparis sp</i>	Sea snail	R		R
<i>Liparis montagui</i>	Montagues sea snail		R	
<i>Agonus cataphractus</i>	Pogge	R		
<i>Pleuronectes platessa</i>	Plaice	R-O	R	R
<i>Lipophrys pholis</i>	Shanny	R	R	
<i>Callionymus reticulata</i>	Reticulated dragonet	O-F		O-F
<i>Crenilarus melops</i>	Corkwing wrasse	O	O-F	F
<i>Ciliata mustela</i>	Five bearded rockling		R	
<i>Mullus surmuletus</i>	Red mullet	R		
<i>Scophthalmus rhombus</i>	Brill		R	R
<i>Buglossidium luteum</i>	Sole	R		
<i>Callionymus lyra</i>	Common dragonet	R-C	R-F	O-F
<i>Myxocephalus scorpius</i>	Short spined sea scorpion	R-O	R	

Others

<i>Phoca vitulina</i>	Common seal	R		
<i>Haliphysema tumanowiczi</i>	Foramaniferan	O		
<i>Halichoerus grypus</i>	Grey seal			R

Algae

Seaweeds

<i>Taonia atomaria</i>	Dotted peacock weed	O-C	R-C	F
<i>Ceramium sp</i>	Pincer weed	O-C	O-F	
<i>Ceramium sp II</i>	Pincer weed		R	
<i>Chondria dasyphylla</i>	Diamond cartilage weed	R-C	R-F	O
<i>Rhodophycota</i>	Mixed red algae	R-A	C-A	R
<i>Ulva linza</i>	Gut weed	R-F	R-F	
<i>Gracilaria gracilis</i>	Slender wart weed	O-C	R-A	O-F
<i>Dictyota dichotoma</i>	Brown fan weed	R-F	O-F	O
<i>Cladophora rupestris</i>	Common green branched weed	O-C	O-F	O-F
<i>Polysiphonia elongata</i>	Elongate siphon weed	F-C	R-C	R
<i>Calliblepharis ciliata</i>	Beautiful eyelash weed	O-F	O-C	O-F
<i>Schottera nicaeensis</i>	Shaded weed	F	O-F	O
<i>Phyllophora pseudoceranoiodes</i>	Stalked leaf bearer	O	O	
<i>Bryopsis hypnoides</i>	Mossy feather weed	O	R	
<i>Bryopsis plumosa</i>	Mossy feather weed	O-C	R-O	
<i>Plocamium cartilaginum</i>	Comb weed	O-C	F-A	R-C
<i>Derbesia tenuissima</i>	Silky thread weed	O		
<i>Osmundea sp</i>	Fern weed	R	R-F	
<i>Halurus equisetifolius</i>	Sea horsetail	R-F	R-C	F
<i>Pelvetia caniculata</i>	Channel wrack	R		
<i>Coralina officianallis</i>	Common coral weed	R	O-F	
<i>Chondrus crispus</i>	Irish moss	O-C	R-C	O-F
<i>Polyides rotundus</i>	Discoid forkweed	F	R-C	
<i>Ulva lactuca</i>	Sea lettuce	O-F	R-F	
<i>Cladostephus spongiosus</i>	Hairy sand weed	O-F	O-C	O
<i>Brongniartella byssoides</i>	Brongniarts thread weed	F	O-C	F
<i>Scinaia sp</i>	Scinas weed	O-F	R-O	

Scientific name	Common name	North West	Central	South East
<i>Fucus sp</i>	Wrack	O-C		
<i>Fucus vesiculosus</i>	Bladderwrack		R	
<i>Fucus serratus</i>	Serrated wrack		R-C	
<i>Heterosiphonia plumosa</i>	Siphoned feather weed	O-F	R-F	O-F
<i>Gelidium spinosum</i>	Spiney straggle weed	O		
<i>Rhodophycota</i>	Red encrusting algae		O-C	
<i>Corallinacea</i>	Pink encrusting algae		F-A	O-F
<i>Ahnfeltia plicata</i>	Black scour weed		R-F	
<i>Chaetomorpha linum</i>	Flax brick weed		O-F	O
<i>Chylocladia verticellata</i>	Juicy whorl weed		O	
<i>Plumaria plumosa</i>	Soft feather weed		R-F	
<i>Derbesia marina</i>	Silky thread weed		O	
<i>Drachiella heterocarpa</i>	Callused drachiella		O	
<i>Gastroclonium reflexum</i>	Reflexed grape weed		O-F	
<i>Cryptopleura ramosa</i>	Fine-veined crinkle weed		O	
<i>Nacaria wiggii</i>	Naccaris hairy weed		O	
<i>Grateloupia filicina</i>	Grateloups fern weed		F	

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