

Sussex Seasearch

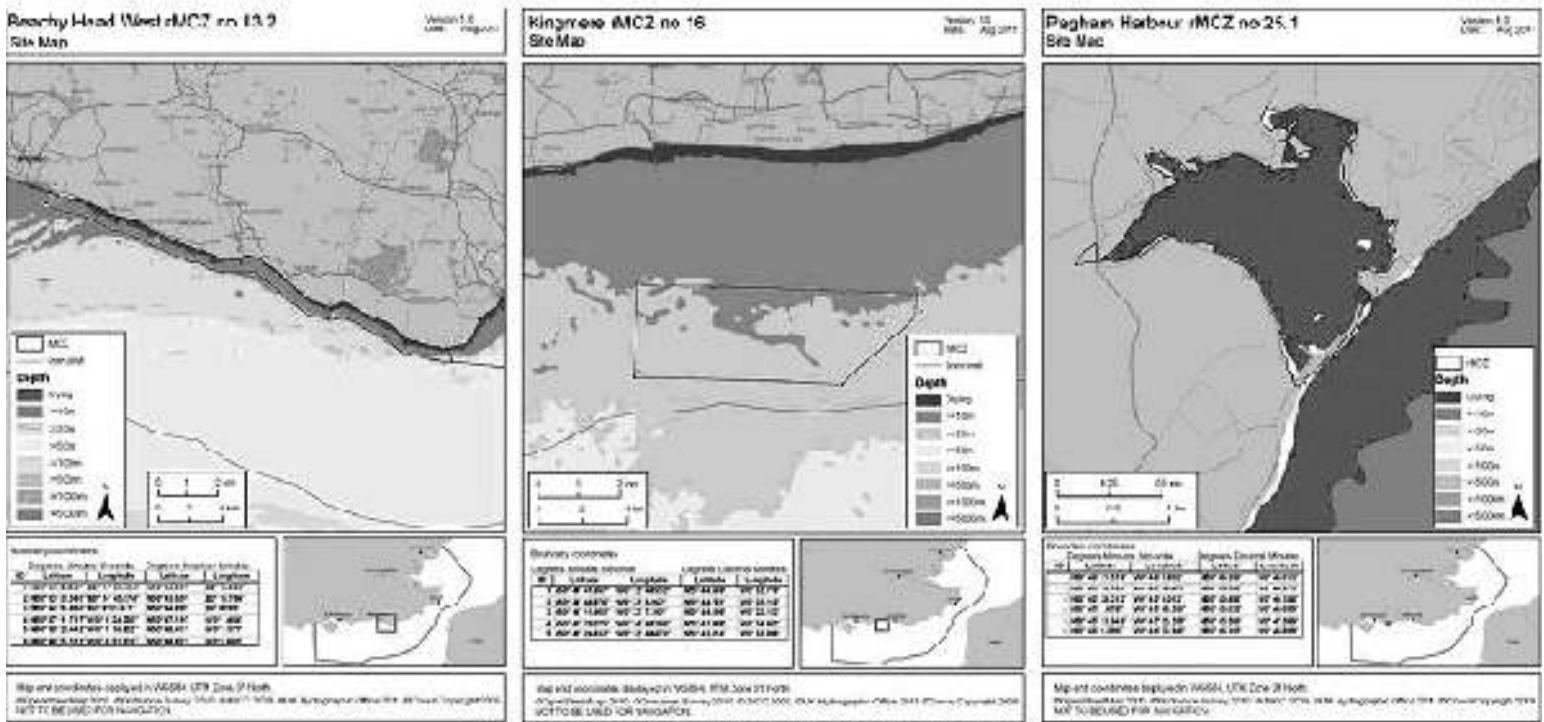
Ready to dive the Royal Sovereign Shoals
© Chris Williamson



Annual Report 2013

Marine Conservation Zones

The most significant occurrence during 2013 must be the designation of Marine Conservation Zones around the UK. Nationally, out of the 127 suggested only 31 were put forward and of these 27 designated which makes Sussex particularly fortunate in that three of these are along our coast.



From Balanced Seas draft final recommendations August 2011

Beachy Head West

The renowned Sussex chalk cliffs extend as subtidal chalk gullies and reefs from Beachy Head to Black Rock, Brighton. Seasearch records have revealed a rich and diverse associated fauna taking advantage of the wide range of available niches. Notable amongst these are the beds of Blue Mussels, *Mytilus edulis*.

Kingmere

Lying off-shore between Worthing and Littlehampton further exposures of chalk including the chalk cliff of Worthing Lumps. In addition to the chalk various coarse sediments provide additional niches. Of note is the presence of Black Bream, *Spondylus cantharus*, which exploit the shallow sediment deposits to make their 'nests'.

Pagham

This site, not one covered by Seasearch, is an important site for Eel Grass, *Zostera marina*. This is one of the three sites in England where Defolin's Lagoon Snail, *Caecum armoricum*, occurs as well as the rare Lagoon Sand Shrimp, *Gammarus insensibilis* which also occurs in Widewater Lagoon, Shoreham.

Despite this apparent success the governments aim 'for the establishment of an ecologically coherent network' of marine sites fall short and we must continue to gather information on these and other sites.



2013 Surveys

As is all too common to Sussex diving the weather and conditions hampered dives, however a total of 57 dives were recorded of which 33 produced Observation forms and 24 Survey forms. Some of the forms were combined as they were carried out at the same time by pairs of divers, which invariably occurs at Selsey Lifeboat Station where Seasearch training dives take place. Of these 15 were from Sussex Seasearch organised dives and the remaining 42 from independent divers who submitted their data through Seasearch nationally.

Training

There were two Observer Courses planned in Sussex in 2013. The one in Brighton became a refresher day as there were insufficient new people to run a course. A second course was run in Selsey in July with five participants and James Lucey as tutor. Two of the participants, Ellie Taylor and Erica Stirett, went on to complete the Observer qualification and two others, Barbara King and Christine Lissoni, who attended a course in Worthing in 2012, also became

Seasearch Observers during the year. Neil Watson who lives in Sussex has become a Seasearch Surveyor.

People

In 2012 Erin Pettifer got off to an exciting start in her role as Marine Conservation Officer at Sussex Wildlife Trust (SWT). As a keen diver she became involved with Seasearch. Then in May 2013 she moved to become the new Marine Protected Area Officer for the Sussex Inshore Fisheries Authority based in Shoreham and continues her interest in diving and recording.

Olle Åkesson, another enthusiastic diver, replaced Erin at the SWT as the Living Seas Officer and later took over the coordination of Seasearch in Sussex. His main responsibility is to help protect and conserve our valuable marine environment.





Special Dives

Specific dives were carried out on three of the, at the time, Recommended MCZs: Selsey & The Hounds, Kingmere and Beachy Head West (Royal Sovereign Shoals). Some images of these sites are provided below:

Unfortunately, neither Beachy Head West, which includes the Royal Sovereign Shoals, nor Selsey and the Hounds, made it through this time.



Working Lumps
 © Gerald Legg

Ampelisca in Sussex

Ampelisca is a genus of amphipod crustacean that, like many amphipods, produces tubes in which to live (other examples can be found on the chalk reefs and amongst mussels [if you've ever dived for mussels on vertical surfaces you get covered in them as you harvest the mussels]). *Ampelisca brevicornis* occurs around much of the UK (see <http://www.marlin.ac.uk/speciesinformation.php?speciesID=2485>) and in sufficient numbers produces mats or beds. In 2004 Dorset Seasearch (see <http://www.seasearch.org.uk/downloads/dorset2004report.pdf>) published a record of this species in Poole Bay. During a dive on the submarine A1 Alison Mayor recorded the presence of *Ampelisca* on the surrounding seabed. This is the first record of this a mat of this species for Sussex and warrants further investigation as this is an unusual biotope. Within the JNCC biotope classification system (see <http://jncc.defra.gov.uk/page-1584>) *Ampelisca* species crop-up in a number of biotopes notable:

SS.SSA.IFiSa.TbAmPo: Semi-permanent tube-building amphipods and polychaetes in sublittoral sand

SS.SMU.ISaMu: Infralittoral sandy mud

SS.SMU.ISaMu *Ampelisca* spp, *Photis longicaudata* and other tube-building amphipods and polychaetes in infralittoral sandy mud.

Sites/Events

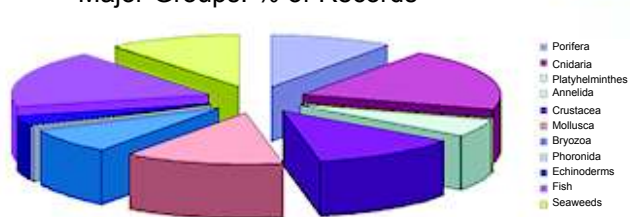
Anchor Lump	2
Inner Mulberry	1
Jenny Ground	1
Kingmere Rocks	1 combined
Looe Gate	2
Mixon Hole	2
Outer Mulberry	10
Outer Mulberry, drift	1 [over sediment]
Royal Sovereign Shoals	1
Seaford Gullies	1
Selsey East Beach	3
Selsey Lifeboat Station	9
Worthing Lumps	2
Wreck: HM Submarine A1	1
Wreck: Indiana	1
Wreck: Landing Craft	3
Wreck: Pentyrch	1
Wreck: Ramsgarth	1
Wreck: Steam Trawler	2
Wreck: Vale of Leven	1

Species

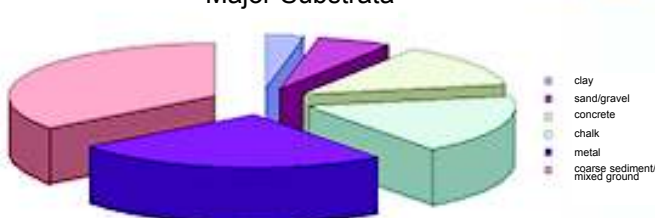
Porifera, Sponges		<i>Tubularia indivisa</i>	15
		<i>Tubularia larynx</i>	1
<i>Amphilectus fucorum</i>	22	<i>Urticina felina</i>	23
<i>Antho dichotomal</i>	1	Platyhelminthes, Flatworms	
<i>Cliona celata</i>	10	<i>Prostheceraeus vittatus</i>	7
<i>Dysidea fragilis</i>	22	Annelida, Segmented Worms	
<i>Grantia compressa</i>	1	<i>Arenicola marina</i>	6
<i>Halichondria bowerbanki</i>	2	<i>Bispira volutacornis</i>	16
<i>Halichondria panicea</i>	7	<i>Eulalia viridis</i>	4
<i>Halichondria sp.</i>	2	<i>Lanice conchilega</i>	15
<i>Haliclona oculata</i>	4	<i>Polydora ciliata</i>	2
<i>Haliclona simulans</i>	6	Polynoidae	1
<i>Hemimycale columella</i>	5	<i>Pomatoceros lamarcki</i>	2
<i>Leucosolenia variabilis</i>	1	<i>Pomatoceros triquetter</i>	17
<i>Microciona atrasanguinea</i>	2	<i>Sabella pavonina</i>	14
<i>Myxilla rosea</i>	1	<i>Salmacina dysteri</i>	4
<i>Myxilla sp.</i>	1	<i>Spirorbis spirorbis</i>	1
<i>Pachymatisma johnstonia</i>	2	Crustacea, Amphipods,	
<i>Phorbas fictitious</i>	1	Barnacles, Prawns, Crabs,	
<i>Polymastia sp.</i>	1	Lobster	
<i>Polymastia boletiformis</i>	1	Amphipoda	1
<i>Polymastia penicillus</i>	1	<i>Cancer pagurus</i>	30
Porifera indet crusts	14	<i>Carcinus maenas</i>	4
Porifera indet	2	<i>Cirripedia</i>	4
<i>Raspailia ramosa</i>	1	<i>Galathea squamifera</i>	4
<i>Scypha ciliata</i>	2	<i>Homarus gammarus</i>	17
<i>Scypha elegans</i>	1	<i>Hyas araneus</i>	4
<i>Suberites carnosus</i>	8	<i>Inachus phalangium</i>	3
<i>Suberites ficus</i>	24	<i>Inachus sp.</i>	16
<i>Tethya aurantium</i>	4	<i>Macropodia sp.</i>	4
Cnidaria Seafirs, Anemones,		<i>Macropodia tenuirostris</i>	2
Softcorals, Corals		<i>Maja squinado</i>	13
<i>Actinia equina</i>	4	<i>Necora puber</i>	30
<i>Actinothoe sphyrodeta</i>	26	<i>Pagurus bernhardus</i>	28
<i>Adamsia carciniopados</i>	1	<i>Pagurus prideaux</i>	1
<i>Aglaophenia pluma</i>	7	<i>Palaemon serratus</i>	4
<i>Alcyonium digitatum</i>	25	<i>Pandalus</i>	1
<i>Anemonia viridis</i>	35	<i>Porcellana platycheles</i>	1
<i>Cereus pedunculatus</i>	14	<i>Pseudoprotella phasma</i>	2
<i>Cerianthus lloydii</i>	2	<i>Semibalanus balanoides</i>	1
<i>Clava multicornis</i>	1	Mollusca, Limpets, Snails,	
<i>Clytia hemisphaerica</i>	1	Seaslugs, Mussels and Clams,	
<i>Clytia paulensis</i>	1	Cuttlefish	
<i>Corynactis viridis</i>	9	<i>Acanthodoris pilosa</i>	1
<i>Diadumene cincta</i>	3	<i>Aeolidia papillosa</i>	3
<i>Halecium halecinum</i>	2	<i>Aequipecten opercularis</i>	4
<i>Hydrallmania falcata</i>	3	<i>Aplysia punctata</i>	1
Hydroids indet.	22	<i>Archidoris pseudoargus</i>	7
<i>Laomedea angulata</i>	1	<i>Buccinum undatum</i>	19
<i>Metridium senile</i>	4	<i>Calliostoma zizyphinum</i>	26
<i>Nemertesia antennina</i>	10	<i>Coryphella sp.</i>	2
<i>Nemertesia ramosa</i>	1	<i>Crepidula fornicata</i>	35
<i>Obelia geniculata</i>	6	<i>Ensis sp.</i>	1
<i>Sagartia troglodytes</i>	2	<i>Gibbula cineraria</i>	11
<i>Sertularia rugosa</i>	1	<i>Hinia reticulata</i>	16
<i>Sertularia argentea</i>	2	<i>Mytilus edulis</i>	13
<i>Sertularia cupressina</i>	2	<i>Nudibranchia indet.</i>	3

Summaries of the Records

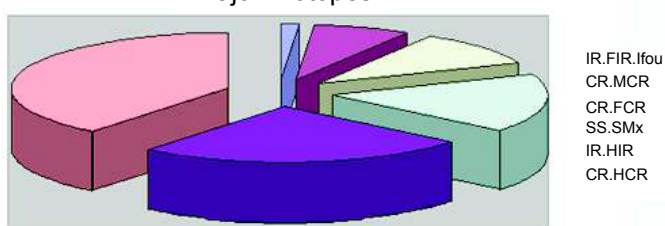
Major Groups: % of Records



Major Substrata



Major Biotopes



Infralittoral fouling seaweed communities: IR.FIR.Ifou, Moderate energy circalittoral rock: CR.MCR, Features of circalittoral rock: CR.FCR, Sublittoral mixed sediment: SS.SMx, High energy infralittoral: IR.HIR, High energy circalittoral rock: CR.HCR.

<i>Ostrea edulis</i>	22	<i>Botrylloides leachi</i>	2
<i>Patella vulgata</i>	1	<i>Botryllus schlosseri</i>	14
<i>Pecten maximus</i>	8	<i>Ciona intestinalis</i>	2
<i>Pholas dactylus</i>	12	<i>Clavelina lepadiformis</i>	16
<i>Polycera quadrilineata</i>	1	<i>Dendrodoa grossularia</i>	7
<i>Sepia officinalis</i>	8	<i>Didemnum maculosum</i>	1
<i>Trivia arctica</i>	7	<i>Diplosoma listerianum</i>	5
Bryozoa, Seamats		<i>Diplosoma spongiforme</i>	13
<i>Alcyonidium diaphanum</i>	5	<i>Lissoclinum perforatum</i>	1
Bryozoa in.det.	3	<i>Morchellium argus</i>	5
Bryozoa indet crusts	8	<i>Styela clava</i>	22
<i>Bugula avicularia</i>	3	<i>Tunicata indet.</i>	4
<i>Bugula flabellata</i>	1	Pisces, Fish	
<i>Bugula plumosa</i>	10	<i>Aspitrigla cuculus</i>	3
<i>Bugula sp.</i>	11	<i>Callionymus lyra</i>	24
<i>Bugula stolonifera</i>	2	<i>Centrolabrus exoletus</i>	1
<i>Bugula turbinata</i>	2	<i>Conger conger</i>	9
<i>Cellaria sp.</i>	1	A clingfish	1
<i>Cellepora pumicosa</i>	7	<i>Crenilabrus melops</i>	17
<i>Chartella papyracea</i>	11	<i>Ctenolabrus rupestris</i>	18
<i>Crisia denticulata</i>	2	<i>Cyclopterus lumpus</i>	2
<i>Crisia sp.</i>	3	<i>Dicentrarchus labrax</i>	4
<i>Disporella hispida</i>	2	<i>Gobius niger</i>	8
<i>Electra pilosa</i>	10	<i>Gobiusculus flavescens</i>	12
<i>Escharella variolosa</i>	1	<i>Hyperoplus lanceolatus</i>	1
<i>Flustra foliacea</i>	34	<i>Labrus bergylta</i>	32
<i>Membranipora membranacea</i>	6	<i>Labrus mixtus</i>	4
<i>Pentapora foliacea</i>	9	<i>Parablennius gattorugine</i>	22
<i>Plagioecia patina</i>	1	<i>Pleuronectes platessa</i>	8
<i>Securiflustra securifrons</i>	2	<i>Pollachius pollachius</i>	15
Phoronida, Horseshoe Worms		<i>Pomatoschistus pictus</i>	3
<i>Phoronis hippocrepia</i>	7	<i>Pomatoschistus sp.</i>	4
Echinodermata, Starfish, Sea Urchins		<i>Raja clavata</i>	3
<i>Asterias rubens</i>	38	<i>Raja undulata</i>	2
<i>Henricia sanguinolenta</i>	2	<i>Scyliorhinus canicula</i>	6
<i>Ophiura ophiura</i>	2	<i>Spondyliosoma cantharus</i>	5
<i>Psammechinus miliaris</i>	2	<i>Symphodus bailloni</i>	1
Tunicata, Sea Squirts		<i>Syngnathus acus</i>	7
<i>Aplidium punctum</i>	9	<i>Taurulus bubalis</i>	8
<i>Ascidia mentula</i>	5	<i>Thorogobius ephippiatus</i>	7
<i>Ascidia scabra</i>	2	<i>Trachurus trachurus</i>	1
		<i>Trisopterus luscus</i>	25

Trisopterus minutus
Zeugopterus punctatus
Algae: Rhodophycota, Reds
Brongniatella byssoides
Calliblepharis ciliata
Ceramium cimbricum
Ceramium secundatum
Chondrus crispus
Corallina officinalis
Cryptopleura ramosa
Delesseria sanguinea
Desmarestia aculeata
Dilsea carnosa
Erythrotrichia carnea
Halarachnion ligulatum
Heterosiphonia plumosa
Phyllophora pseudoceranioides
Plocamium cartilagineum
 Rhodophycota indet.
 Rhodophycota indet.(non-calc.crusts)
Rhodophyllis divaricata
Algae: Chromophycota, Browns
Chorda filum
Desmarestia aculeata
Dictyota dichotoma
Fucus serratus
Halidrys siliquosa
Laminaria indet.
Laminaria digitata
Laminaria hyperborea
Laminaria saccharina
Phaeophyceae indet.
Pilayella littoralis
Saccorhiza polyschides
Sargassum muticum
Scytosiphon lomentaria
Taonia atomaria
Algae: Chlorophycota, Greens
Ulva lactuca

2 **Biotopes**

1 Despite difficulties in assigning *biotopes* (see jncc.defra.gov.uk/marinehabitatclassification) approximately 57% of those recorded were circalittoral rock (CR), 26%
 1 infralittoral rock (IR) and 17% sublittoral sediment (SS).
 22



For 2014

W and diving conditions permitting, we are planning to:

1. Increase our data set on Kingmere
- 14 Reef and Beachy Head East. These MCZs are now at the stage of determining their management needs through consultation with stakeholders. This process started at the end of last year.
- 17 2. Revisit the two rejected rMCZs, Beachy Head West and Selsey and the Hounds in order to gather additional data to support their recommendations for their future designation.
- 1 3. Set up a monitoring programme for Looe Gate/SW Rocks chalk complex. Brighton Marina Divers are keen to do this. Despite its relatively small size this is a significant site.
- 16 3. Olle will be arranging Seasearch dives and has an Observer Course planned for February 2014. As this Newsletter is late in going out the 'has' is now 'had'! The course went really well with six people completing the theory sessions. He is currently looking at dates for a day so they can do the dives and hopefully a joint surveyor course with Hampshire & Isle of Wight later this year. For surveys Olle is looking at borrowing club RIBs and doing shore dives as it appears that there is not quite enough interest/enthusiasm to fill a hardboat.

Finally: Thank You!

4 **T**hanks to all skippers including Steve Johnson (*Channel Diver*), and Paul Jackman (*Defiance Charters*), and divers (and buddies when recorded) included: Alison Mayor Andrew Woods, Barbara King, Beca Korda, Bryony Chapman, Chris Nicolaj, Chris Williams, Christine Bohea, Christine Lissoni, Ellie Taylor, Erica Stirrett, Gerald Legg, Glenn King, Graham Jackson, Hilary Evans, Ian Kenney, James Lucey, Jane St.Pierre, Keith Graham, Martin McDonagh, Martin Shaw, Michael Hood, Neil Watson, Neil

Watson, Nigel
 Haines, Michelle
 Legg, Philip
 Littlechild, Rafael
 Sequin, Ray
 Drabble, Sam
 Wilson, Sarah
 McKenzie, Steve
 Mawer, Theresa
 Blignaut, Yvette
 Knight. Apologies if



Bryozoan: *Disporella hispida*
 ©Gerald Legg

you are omitted. A special thank you also to Ian Tittley for his identification of many of the less common algae and to Natural England for their support with data entry costs.



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