

Dorset Seasearch: Annual Summary Report 2017



The 2017 diving season was another busy one for Dorset Seasearch with ten days of Seasearch diving as well as three Seasearch Observer courses. Five diving days were lost to bad weather conditions: four week-day Seasearch-friendly dives from West Bay and one day of the Lyme Bay weekend in October. Altogether 52 divers took part in dives organised by Dorset Seasearch in 2017.

The Dives

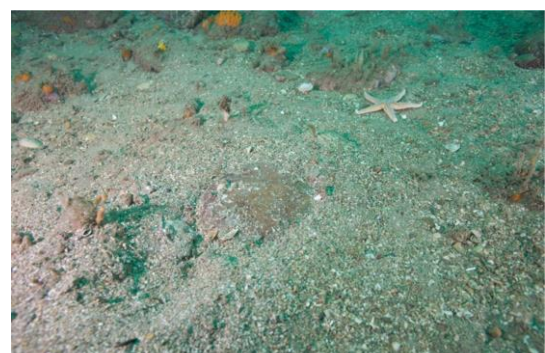
Lyme Regis with Rob King on Blue Turtle. Four dives were achieved over a breezy weekend in June all within the zone covered by the Statutory Instrument (SI) for Lyme Bay which prohibits the use of mobile fishing gear within the area. Both days were sunny with a south-westerly swell running, just perceptible at diving depth and an increasingly strong breeze in the Sunday. Visibility in-water was good and diving conditions whilst in-water were pleasant.

The first dive target was a boulder reef 6km south-east of Lyme Regis near the southern edge of the area closed to bottom towed gear (Lyme Bay SI) on a known chalk outcrop. The site had a diverse epifauna including Pink Sea Fans (*Eunicella verrucosa*) and a range of sponges, bryozoa and sea squirts. The second dive targeted a site a bit further inshore which revealed low-lying bedrock ledges separated by flat bedrock with a mobile sediment veneer of sand and gravel composed of stone and shell. Again a diverse fauna was reported with *Eunicella verrucosa* represented by a range of different aged colonies as well as the nationally scarce branching sponge *Adreus fascicularis*.



**Diverse reef
fauna
Lyme Bay**

All images
© N. Owen



The objective for the first dive on Sunday was another site near the edge of the SI area on a reef of bedrock and jumbled boulders: the upper current-exposed horizontal surfaces supported a dense and very diverse turf of sponges, hydroids and bryozoans with many large Dead Mens' Fingers (*Alcyonium digitatum*), unusual in Lyme Bay, occasional Pink Sea Fans and rare erect sponges and solitary tunicates. Vertical faces supported a diverse turf dominated by sponges with notably large colonies of Elephant Hide sponge (*Pachymatisma johnstonia*), Black Tar Sponge (*Dercitus bucklandi*) and frequent cup corals (*Caryophyllia smithii*). Siltier horizontal surfaces supported large Pink Sea Fans as well as juveniles just 2-3 years old. Fish were very abundant over the whole site taking advantage of the gullies and overhangs in the jumbled reef. There was a considerable amount of angling debris (monofilament line, weights) around the site as well as abandoned lobster pots and pot line.



Lyme Bay

© N. Owen



The last dive of the weekend was further inshore on an area of what appeared on DoRIS to be flat, bedrock reef. The seabed was varied being composed of boulders of a range of sizes, cobbles and pebbles interspersed with silty gravel and shell fragments. This coarse sediment occasionally occurred in large patches as a thin mobile veneer over flat bedrock. Again the epifauna was diverse including juvenile Pink Sea Fans and the nationally scarce Trumpet Anemone (*Aiptasia couchii*) was common; Lyme Bay appears to be a stronghold for this species.

Swanage with Swanage Charter in July saw two deeper sites targeted on the first dive each day. The first dive on Saturday was a high energy, scoured site on what the multi-beam data showed to be a series of sweeping, low rock ledges 3km southeast of Swanage. Upward facing surfaces were dominated by foliose bryozoa and a dense, diverse tunicate turf while the vertical, north-facing rock ledges supported a very varied community of encrusting sponges.



**Seven Ledges
Swanage**

Left: dense tunicate
turf on upper surfaces
© R. Yorke



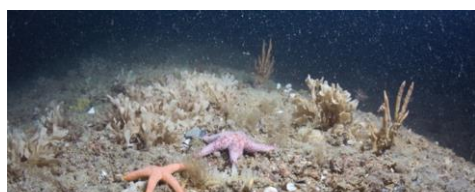
Right: Sponge crusts
on north facing rock
ledge
© M. Markey



Left: dense turf of tunicates and
sponges including the rare
sponge *Tethyspira spinosa*.
© C. Bolton



Right Cuttlefish
© F. Ravenscroft



Left: Dense tunicate
turf and *Flustra* with
Bloody Henry starfish.



Right: dense sponge

Sunday's first dive visited another high energy site nearly 7km east southeast of Swanage in an area of complex deep rocky gullies and gently sloping bedrock with large dunes of very mobile gravel and coarse sand adjacent. All rock surfaces were densely colonised by a turf dominated by sea squirts, crusts of the Ross Worm (*Sabellaria spinulosa*) as well as sponge and bryozoan crusts. Vertical walls of deep bedrock gullies supported huge colonies of Elephant Hide Sponge inspiring the site name "Sponge Canyons".



**Sponge Canyons
Swanage**

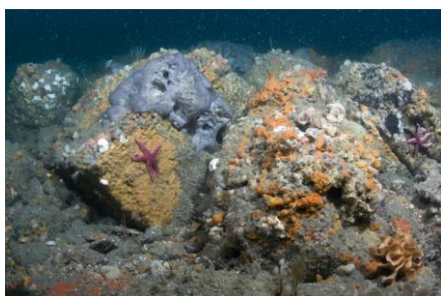
Left: Ling
© H. Waite

Right: Elephant Hide
Sponge
© C. Bolton



Left: huge colonies of
Elephant Hide Sponge
© M. Markey

Right: typical fauna of
sponge crusts,
anemones and foliose
bryozoa on upward
facing surfaces.
© R. Yorke



Massive and encrusting
sponges, Potato Crisp
bryozoan and Dead Mens'
Fingers
© L. Baldock



The second dive on each day was to shallower sites. Saturday we targeted one of the patch reefs in Poole Bay to collect data to support an eastward extension of the Poole Rocks MCZ. The survey results suggested that Moderate Energy Infralittoral Rock biotopes should be included as an additional feature for the MCZ. A separate detailed report on this series of dives and another at the end of July is available. Sunday's second dive was located on the north side of Swanage Bay where rugged boulder reef dominated by mixed seaweeds gave way to a veneer of sand over soft bedrock providing suitable conditions for Black Bream (*Spondyliosoma cantharus*) to construct their nests, all abandoned and unattended in July.



Poole Rocks
Left: typical reef
fauna of sponges and
foliose bryozoa
© C. Bolton





Left: Native Oyster
Ostrea edulis
©M. Markey



Right: General view of reef with a shoal of Pout.
© L. Baldock



Pinfield Cove
Left: seaweeds on rock previously cleared of sediment by Black Bream
©R. Yorke



Right: faunal turf on vertical faces
©M. Markey



Pinfield Cove
Cove

Mixed seaweeds
©L. Baldock



Poole Bay with Rocket out of Poole. Targets were a site on Southbourne Rough again to collect data to support a suggestion that the proposed MCZ for mobile species should include benthic features. The Seasearch data supported the proposal that this rocky reef system should be designated for moderate energy circalittoral rock broad scale habitat in addition to the highly mobile species (Black Bream) already put forward as a designated feature of the rMCZ. Additionally it was suggested that the boundary of the rMCZ should be extended east by about 600m to include other reefs likely to support similar habitats. The reef comprised heavily silted, flat bedrock with rugged overhangs in places and deep fissures between the outcrops of rock. The reef fauna was dominated by a dense crust of the Ross Worm (*Sabellaria spinulosa*), with patches of foliose bryozoa (*Flustra foliacea* and *Chartella papyracea*). Other fauna was varied including a variety of sponge crusts as well as cushion forming

sponge species. Large colonies of Dead Mens' Fingers (*Alcyonium digitatum*) were frequent together with a range of hydroids and occasional anemones. A detailed report on this series of dives is available on request. Our second dive was another visit to Poole Rocks MCZ to collect more data in support of the proposal to extend the MCZ to the east.



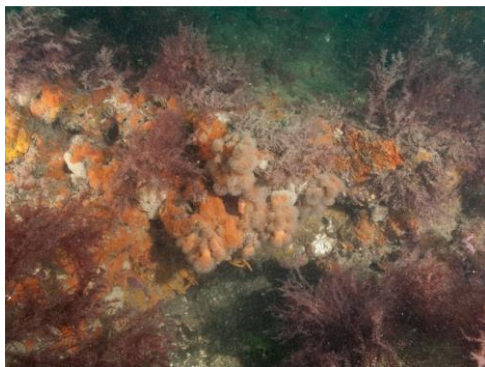
**Southbourne
Rough**

Left: foliose bryozoa on bedrock reef
©R. Yorke

Right: White-striped anemone and *Sabellaria spinulosa* crust.
©D. Kipling



Sunday saw a visit to the chalk reef on the north side of Old Harry in Studland Bay, the site dictated to us since we could find shelter from the brisk west-southwest wind. This is an area of shallow chalk reef with dense red seaweeds with a low north-facing rocky ledge supporting a variety of bryozoan and sponge crusts. The Anemone Shrimp (*Periclimenes sagittifer*) was reported from the site; this species now commonly occurs among the tentacles of the Snakelocks Anemone (*Anemonia viridis*) inhabiting patch reefs in Poole, Swanage Weymouth and Lyme Bays.



**Old Harry Chalk
Reef**

Left: sponge and tunicate turf on ledge

Right Anemone shrimp in Snakelocks Anemone
©R. Yorke



We had to seek out another sheltered location for the second dive: a small patch reef off Branksome Dene Chine being our selection. The habitat was low lying, silty bedrock reef dominated by algae, mostly Beautiful Eyelash Weed (*Calliblepharis ciliata*) with an understory of sponges and bryozoa.



**Branksome
Dene Chine**

Left: silty reef dominated by red seaweeds
©R. Yorke

Right: Sponges on silty rock
© N. Owen



Portland with Scimitar Diving at the beginning of August saw a busy weekend of diving despite the brisk westerly wind with five sites being targeted. Saturday we squeezed in three dives: the first just southwest of Durdle Door, one about 1km southwest of Redcliff Point and the third catching the slack water at Grove Point on the east side of Portland Bill. The site at Durdle Door was selected to provide data on maerl-rich coarse and mixed sediments to support the proposed Purbeck Coast rMCZ, north of the low rock reef divers reported a veneer of mixed and

coarse sediment over bedrock with up to 5% live maerl in places. The second dive was on a low energy boulder reef dominated by a luxuriant turf the non-native red alga Solier's String Weed (*Solieria chordalis*), it is unusual for this seaweed to be so abundant. The rare Couch's Goby (*Gobius couchi*) was present in its typical habitat of silty rock overhangs and muddy mixed sediment. Our final dive was off Grove Point a high energy site on the east side of Portland Bill with only 40 minutes of slack available. Timing was right with slack water at 30m where the steep slope bottomed out on mobile pebbles and gravel, then sloping steeply up to about 15m over a jumble of boulders and bedrock with a thick cover of bryozoan and hydroid turf. A surprise was the dense growth of the sponge *Ulosa stuposa* which occurred among the boulders and bedrock. Fish, mostly wrasse species, were abundant over the site which levelled off at around 15m to a scene dominated by foliose red seaweeds, bright orange Carrot Sponge (*Amphilectus fucorum*) and large colonies of Boring Sponge (*Cliona celata*). The safety stop for most of the divers was done while being swept steadily by the tide in a northwesterly direction.



Right: Redcliffe Point Reef with a dense stand of the non-native Solier's String Weed.

© L. Baldock

Right: Grove Point the unusual sponge *Ulosa stuposa*

© M. Markey



Sunday saw an early dive on Lulworth Banks where we found an extensive area of mobile medium sand adjacent to a north/south running low rock ledge. A diverse epifauna of sponges, hydroids and tunicates was reported on small boulders and cobbles within the sea of sand and the rock ledge supported huge colonies of *Pentapora foliacea* and Boring Sponge among *Flustra foliacea*. Wrasse were abundant over the ledge, many displaying cleaning behaviour.

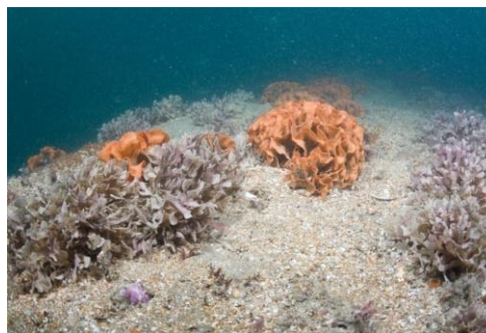


Lulworth Banks

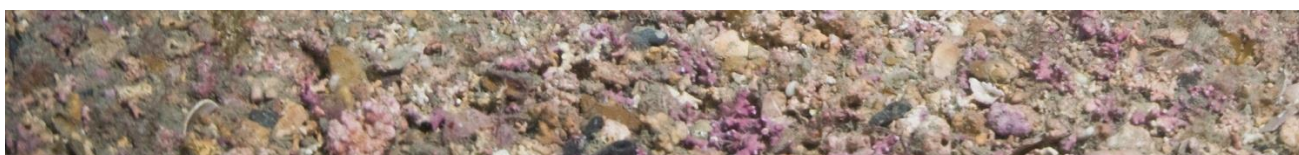
Left: Sponges and bryozoa on cobbles in sand.

Right: Potato Crisp bryozoan and *Flustra foliacea* on rocky reef.

© L. Baldock



The second dive was fitted in before wind strength had increased too much. A fast drift of more than half a knot in 20m water depth off the Fossil Forest east of Lulworth Cove was exhilarating and covered a lot of ground. Sparsely colonized, steeply angled bedrock reef alternated with maerl rich areas of coarse sediment with up to 5% live maerl being reported. A separate detailed report of these dives and other 2017 Dorset Seasearch dives within the Purbeck Coast rMCZ is available.



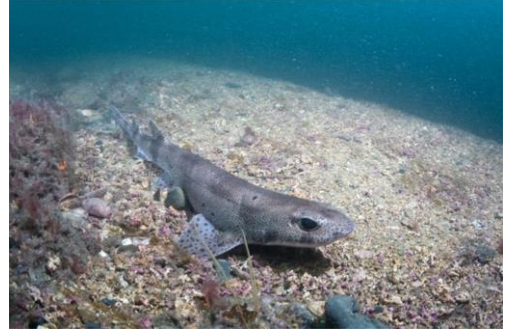


Fossil Forest

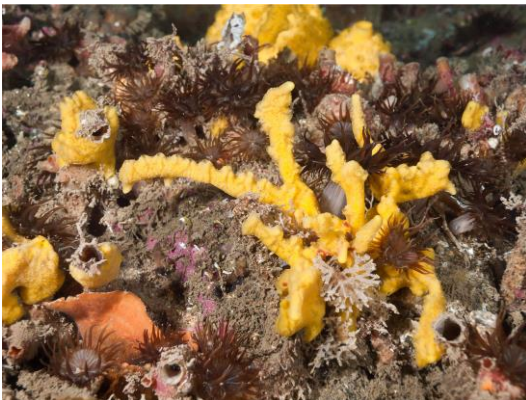
Left: Reef with colourful encrusting algae and Potato Crisp bryozoan.

Right: Lesser spotted catshark on maerl rich gravel.

© L. Baldock



The final organised Seasearch dives in Dorset were from **Lyme Regis** on board Blue Turtle in early October, Saturday was blown out but Sunday proved to be calm and bright and with no legacy of a swell from the day before. Two sites to the southwest of Lyme Regis were selected. The first was situated within an extensive area of fairly level bedrock rock reef identified from the multibeam bathymetry. The site comprised low mounds of bedrock surrounded by patches of mobile coarse sediment of shell gravel and sand which earned the name of “The Smarties”. The site had a particularly dense and diverse tunicate turf with many branching sponges, large *Pentapora foliacea* colonies and notably very many juvenile Pink Sea Fans from short single stems 5cm high to slightly larger colonies with one or two branches, large seafans were virtually absent, those present were heavily fouled. Conditions were similar to those reported from the June visit to Lyme Bay from other locations on this extensive area of low lying bedrock.



The Smarties

Left: the sponge lophon sp

© M. Markey

Right:

Sponges and tunicate turf.

© L. Baldock



The second site was on the southwest end of the Sawtooth Ledges where we found dense stands of Pink Sea Fans with a whole range of ages from single stems to multi-dimensional adult colonies up to 50x50cm, the great majority looking very healthy and with little fouling.



SW Sawtooth Ledges

Left: Seafans, Boring sponge and Potato Crisp bryozoan

© M. Markey

Right: Seafans and Lesser spotted catshark

© L. Baldock



In addition to the weekend dives described above Dorset Seasearch cooperated with Natural England and the Southern IFCA in groundtruthing drop video data collected by the SIFCA. There had been a proposal for scallop dredging to be allowed in the southeast corner of the Lyme Bay closed area covering about 5km². The rationale for this application was that the seabed did not include any reef features and should therefore be accessible to bottom towed gear. All three parties (NE, SIFCA and Dorset Seasearch) were anxious that this should not be allowed to happen so following the drop video survey Nick Owen organised Seasearch divers to survey four sites

within the area supported by funding from Defra. Results showed mobile coarse sediments at all four sites with at least one site showing a veneer of sediment over compacted pebbles or bedrock. Taxon diversity was moderate with 39-46 taxa at each location, a large proportion of these occurred on the shells of the Queen Scallop (*Aequipecten opercularis*) which bore a heavy load of epifauna. The Butterfly Blenny (*Blennius ocellaris*) was the only notable species recorded, in all cases males were guarding eggs in whelk shells. This species is rarely recorded and there are only seven public records currently on the National Biodiversity Network (NBN) from the south coast of England, three of them in Lyme Bay.

Other Activities

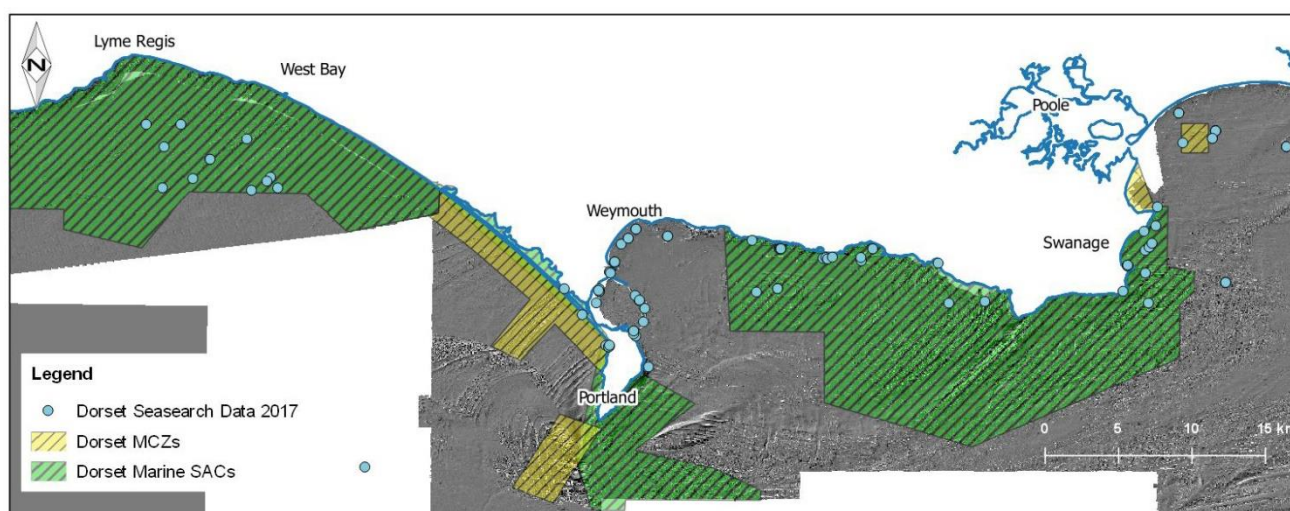
Dorset Seasearch presented a poster at the Poole Harbour Study Group Marine Protected Areas Conference in Poole over three days in May just before the European Maritime Conference took place there. Our poster detailed the survey work undertaken by Seasearch divers in 2016 on the Peacock Worm beds in Poole Harbour.

Two members of Dorset Seasearch attended a Seasearch co-ordinators' workshop in North Wales in October where issues were discussed relating to data quality and how best to ensure accurate and informative data are provided by Seasearch divers. As a result of these discussions workshops on how best to record Seasearch data have been arranged for 2018; a Dorset course took place on 5th/6th May 2018 on Portland. An opportunity also arose at the meeting to propose new biotopes to be considered in the up-coming JNCC review of marine habitats in Britain and Ireland – two unusual Dorset habitats were put forward for consideration: sponge-rich habitats under a veneer of mobile sand and Pink Seafan habitat lacking erect sponges. Interestingly both these habitats also occur in Devon. Brief summaries detailing the proposals are available on request.

Some Statistics

The dives detailed above and unsolicited Seasearch forms, both Observer and Surveyor, resulted in a total of 172 forms for the Dorset region, once reviewed and combined into single “events” where appropriate these produced 110 survey events in Marine Recorder, the database system used to collate all Seasearch records prior to them being uploaded to the NBN. The Community Seagrass Initiative (<http://www.csi-seagrass.co.uk/>) run by Jess Mead, the Weymouth project officer, contributed their data to the Dorset Seasearch database totalling 15 forms collating observations made by the CSI surveyors on their dedicated seagrass monitoring dives.

The 2017 Dorset Seasearch data set comprises over 5,500 individual records of species, species groups or categories such as “sponge crusts” in more than 208 “samples” (essentially habitats) all from contributions from 52 divers. The chart below shows the distribution of data points.



The first dive of the year was on 8th January, a cold visit to Newton's Cove lead by Charlotte Bolton with Mike Markey and Lin Baldock. The last records were received on the 23rd December: one from Cath Quick and Hugh Waite from a reef in Lyme Bay, the deepest record for the year at 43m below chart datum, while the other form was for a less challenging dive under Swanage Pier by Charlotte Bolton, Rik Girdler, Mike Markey and Lin Baldock. On their deep dive Cath and Hugh reported finding a dead Fan shell (*Atrina fragilis*) and the Policeman's Helmet anemone (*Mesacmaea mitchellii*), there are only 148 records for this latter species on the NBN and only nine

reports from Dorset, so a nice find. The Swanage Pier divers reported several non-native species including Wire Weed (*Sargassum muticum*), no surprise there, Siphoned Japan Weed (*Dasysiphonia japonica*), two small filamentous red algae: *Antithamionella ternifolia* and *Agalothamnion feldmanniae* (last recorded in Dorset in the 1990s), the brown kelp Wakame (*Undaria pinnatifida*) and large patches of a bright orange encrusting bryozoan (*Watersipora subatra*); these last two had not previously been reported from Swanage Pier. Interestingly despite the low temperature (9°C) Mike recorded the anemone shrimp (*Periclimenes sagittifer*) still present in the Snakelocks anemones.



Fanshell (*Atrina fragilis*) and Policeman's Helmet anemone (*Mesacmea michelii*) on coarse, mixed sediment at 43m in Lyme Bay

Cath Quick came up with another interesting record: a Variable Blenny (*Parablennius pilicornis*) on a shore dive on the Royal Adelaide off Chesil Beach in the middle of September which is the first record for Dorset. There have been reports for Variable Blennies from Devon over a number of years recently including one for 2016 in Lyme Bay, only just in Devon. Keith Hiscock has reported breeding in Plymouth Sound and indeed Cath has images of fully grown fish and juveniles so they have obviously been breeding in Dorset waters too.



Variable Blenny
(*Parablennius pilicornis*)
On the Royal Adelaide
Chesil Beach
© C. Quick



Outputs - Dorset Seasearch 2017

Marine Recorder Snapshot for up load to the NBN – 110 events, >5,500 individual taxon records.

Reports

- Proposed extension of the Poole Rocks Marine Conservation Zone. Report to MCS and Crown Estate.
- Extension of the proposed Southbourne Rough Marine Conservation Zone. Report to MCS and Crown Estate.
- Purbeck Coast Marine Conservation Zone. Report to MCS and Crown Estate.
- Lyme Bay SI Groundtruthing of Video Assessment of Biota on Mixed Sediment. Report to Natural England.

Digital copies of all the above reports are available on request (dorsetseasearchdiving@gmail.com) and some can be downloaded from the Seasearch web site (<http://www.seasearch.org.uk/achievements.html>).

New biotope proposals:

- Species-poor stands of *Eunicella verrucosa* on tide-swept, exposed silty bedrock with reduced associated species diversity
- Mobile sand veneer over bedrock with scour-tolerant sponges and bryozoa

The JNCC is currently assessing the need for new biotope definitions.

Conference Poster

Sublittoral Survey of Peacock Worm Beds in Poole Harbour: the Role of Citizen Science. Poole Harbour Study Group Marine Protected Areas Conference May 2017:

Acknowledgements

The divers: if you had not submitted your forms Dorset Seasearch would have nothing to talk about – thank you! Aithne Atkinson, Alison Bessell, Anastasiya Grachova, Andy Symms, Cathryn Quick, Charlotte Bolton, Chris James, David Kipling, David Sellers, Dawn Watson, Desmond Powell, Elena Bollati, Ellie Fearon, Ellie Roberts, Emily Priestly, Fiona Ravenscroft, Fiona White, Ged McKenna, Graham Hibbard, Hugh Waite, Jenny Mallinson, Jess Mead, Jo Beresford, Joffroy Urbain, Josie Pegg, Lisa Gray, Lorraine O'Reilly, Lucy Kay, Mark Harrison, Mark Vowles, Matthew Ferguson, Mike Markey, Mike Rushworth, Nick Owen, Paul Crerar, Peter Martin, Richard White, Richard Yorke, Rik Girdler, Rob Adams, Roger Parratt, Ross Bullimore, Sam Walder, Sarah Bowen, Simon Loveday, Tom Beeton, Trudy Russell, Vicki Billings.

Thank you to **Nick Owen** who took on the logistics for the day in August for groundtruthing the SIFCA drop video imagery as well as running a Seasearch weekend in June.

Finally thank you to the **skippers and crew** of the charter boats who were patient in searching for our selected dive locations: Bryan Jones (Mary Jo – Swanage Charters); Martin Jones (Viper – Swanage Charters); Nick Bentall & Louise Forse (Scimitar – Scimitar Diving); Rob King (Blue Turtle).

Funding which contributed towards reporting, data entry, and some diving logistics from the **Crown Estate, Defra** and **Natural England** is gratefully acknowledged.

 www.facebook.com/groups/seasearch.dorset/

Report compiled by Lin Baldock, Dorset Seasearch Coordinator

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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

Dorset Wildlife Trust would like to acknowledge the support and funding received for Dorset Seasearch from the Marine Conservation Society.



Jewel Anemones, Poole Rocks ©D. Kipling

Appendix 1 Species of Conservation Interest Recorded by Dorset Seasearch – 2017

Species	English Name	Designation	No of records 2017
Sponges			
<i>Dysidea pallescens</i>	Sponge	Nationally rare ⁽¹⁾	5
<i>Adreus fascicularis</i>	Sponge	Nationally scarce ⁽²⁾	8
<i>Tethyspira spinosa</i>	Sponge	Nationally scarce ⁽²⁾	1
Cnidaria			
<i>Eunicella verrucosa</i>	Pink Sea Fan	BAP-2007 ⁽³⁾ /Nationally scarce ⁽²⁾	30
<i>Caryophyllia inornata</i> (<i>Caryophyllia</i>)	Southern Cup Coral	Nationally rare ⁽¹⁾	4
<i>Laomedea angulata</i>	Hydroid on Zostera	Nationally scarce ⁽²⁾	5
<i>Lucernariopsis campanulata</i>	Stalked Jellyfish	BAP-2007 ⁽³⁾ /NERC_S.41 ⁽⁴⁾	2
<i>Lucernariopsis cruxmelitensis</i>	Stalked Jellyfish	BAP-2007 ⁽³⁾ /NERC_S.41 ⁽⁴⁾	1
Molluscs			
<i>Ostrea edulis</i>	Native Oyster	BAP-2007 ⁽³⁾ /NERC_S.41 ⁽⁴⁾	11
<i>Atrina fragilis</i>	Fan shell	BAP-2007 ⁽³⁾ /NERC_S.41 ⁽⁴⁾	1
<i>Trapania pallida</i>	Nudibranch	Nationally scarce ⁽²⁾	1
<i>Tritonia nilsodhneri</i>	Pink Sea Fan nudibranch	Nationally scarce ⁽²⁾	6
Bryozoa			
<i>Schizobrachiella sanguinea</i>	Bryozoan	Nationally rare ⁽¹⁾	2
Tunicates			
<i>Pycnoclavella aurilucens</i>	Sea squirt	Nationally scarce ⁽²⁾	13
<i>Phallusia mammillata</i>	Sea squirt	Nationally scarce ⁽²⁾	27
Cartilagenous fish			
<i>Raja clavata</i>	Thornback Ray	OSPAR ⁽⁵⁾ /Red list-near threatened ⁽⁶⁾	5
<i>Raja undulata</i>	Undulate Ray	BAP-2007 ⁽³⁾ /endangered	2
Bony fish			
<i>Molva molva</i>	Ling	BAP-2007 ⁽³⁾ /NERC_S.41 ⁽⁴⁾	1
<i>Lophius piscatorius</i>	Angler fish	BAP-2007 ⁽³⁾ /NERC_S.41 ⁽⁴⁾	2
<i>Gobius couchi</i>	Couch's Goby	WACA-Sch5 ⁽⁹⁾	1
<i>Centrolabrus exoletus</i>	Rock Cook	Red List_Least Concern ⁽⁷⁾	12
<i>Ctenolabrus rupestris</i>	Goldsinny	Red List_Least Concern ⁽⁷⁾	42
<i>Labrus bergylta</i>	Ballan Wrasse	Red List_Least Concern ⁽⁷⁾	37
<i>Labrus mixtus</i>	Cuckoo Wrasse	Red List_Least Concern ⁽⁷⁾	25
<i>Symphodus bailloni</i>	Baillon's Wrasse	Red List_Least Concern ⁽⁷⁾	4
<i>Symphodus melops</i>	Corkwing Wrasse	Red List_Least Concern ⁽⁷⁾	25
<i>Dicentrarchus labrax</i>	Bass	Red List_Least Concern ⁽⁷⁾	7
<i>Platichthys flesus</i>	Flounder	Red List_Least Concern ⁽⁷⁾	1
<i>Pleuronectes platessa</i>	Plaice	BAP-2007 ⁽³⁾	3
<i>Solea solea</i>	Sole	BAP-2007 ⁽³⁾	1
Seaweeds			
<i>Zanardinia typus</i>	Penny weed	Nationally scarce ⁽²⁾	6
<i>Gracilaria bursa-pastoris</i>	Shepherd's Purse Wart Weed	Nationally scarce ⁽²⁾	8
Flowering Plant			
<i>Zostera (Zostera) marina</i>	Seagrass	Bern-A1 ⁽⁸⁾	23

Designation Definitions.

Designation	Description
Nationally rare ⁽¹⁾	Species which occur in eight or fewer 10km X 10km grid squares containing sea (or water of marine saline influence) within the three mile territorial limit. Sanderson, W G. JNCC Report, No. 240. Published by JNCC, 1996. Provisional list of rare and scarce marine species.
Nationally scarce ⁽²⁾	Species which occur in nine to 55 10km X 10km grid squares containing sea (or water of marine saline influence) within the three mile territorial limit.
BAP-2007 ⁽³⁾	The UK List of Priority Species and Habitats contains 1150 species and 65 habitats that have been listed as priorities for conservation action under the UK Biodiversity Action Plan (UK BAP), Updated 2007.
NERC_S.41 ⁽⁴⁾	Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England (section 41) and Wales (section 42)
OSPAR ⁽⁵⁾	OSPAR List of Threatened and/or Declining Species and Habitats, 2008
WACA-Sch5 ⁽⁹⁾	Protected under Schedule 5 of the Wildlife and Countryside Act 1981
Red list-near threatened ⁽⁶⁾	Taxa which do not qualify for Lower Risk (conservation dependent), but which are close to qualifying for Vulnerable. In Britain, this category includes species which occur in 15 or fewer hectads but do not qualify as Critically Endangered, Endangered or Vulnerable.
Red List_Least Concern ⁽⁷⁾	Taxa which are neither threatened nor near threatened. Red listing based on 2001 IUCN guidelines. Wrasse included in the list given the developing exploitation of wrasse for use in salmon farms to control fish lice.
Bern-A1 ⁽⁸⁾	The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) was adopted in Bern, Switzerland in 1979, and came into force in 1982. The principal aims of the Convention are to ensure conservation and protection of wild plant and animal species and their natural habitats (listed in Appendices I and II of the Convention), to increase cooperation between contracting parties, and to ensure the protection of certain fauna species (listed in Appendix 3) imposing regulations on any exploitation. To this end the Convention imposes legal obligations on contracting parties, protecting over 500 wild plant species and more than 1000 wild animal species.

Appendix 2 List of biotopes recorded by Dorset Seasearch in 2017 (Total 52 different biotopes)

Biotope code	Biotope description	No of records
CR.FCR.FouFa	Circolittoral fouling faunal communities	3
CR.FCR	Features of circolittoral rock	1
CR.HCR.XFa.ByErSp.DysAct	Mixed turf of bryozoans and erect sponges with <i>Dysidia fragilis</i> and <i>Actinothoe sphyrodeta</i> on tide-swept wave-exposed circolittoral rock	3
CR.HCR.XFa.ByErSp.Eun	<i>Eunicella verrucosa</i> and <i>Pentapora foliacea</i> on wave-exposed circolittoral rock	6
CR.HCR.XFa.ByErSp	Bryozoan turf and erect sponges on tide-swept circolittoral rock	6
CR.HCR.XFa.FluCoAs.SmAs	<i>Flustra foliacea</i> , small solitary and colonial ascidians on tide-swept circolittoral bedrock or boulders	12
CR.HCR.XFa.FluCoAs.X	<i>Flustra foliacea</i> and colonial ascidians on tide-swept exposed circolittoral mixed substrata	2
CR.HCR.XFa.FluCoAs	<i>Flustra foliacea</i> and colonial ascidians on tide-swept moderately wave-exposed circolittoral rock	2
CR.HCR.XFa.Mol	<i>Molgula</i> spp with a hydroid and bryozoan turf on tide-swept moderately wave-exposed circolittoral rock	5
CR.HCR.XFa.SpAnVt	Sponges and anemones on vertical circolittoral bedrock	2
CR.HCR.XFa	Mixed faunal turf communities	41
CR.HCR	High energy circolittoral rock	6
CR.MCR.CSab.Sspi.As	<i>Sabellaria spinulosa</i> , didemnids and other small ascidians on tide-swept moderately wave-exposed circolittoral rock	1
CR.MCR.CSab.Sspi.ByB	<i>Sabellaria spinulosa</i> with a bryozoan turf and barnacles on silty turbid circolittoral rock	3
CR.MCR.CSab.Sspi	<i>Sabellaria spinulosa</i> encrusted circolittoral rock	1
CR.MCR	Moderate energy circolittoral rock	3
IR.FIR.IFou	Infralittoral fouling seaweed communities	3
IR.HIR.KFaR.FoR.Dic	Foliose red seaweeds with dense <i>Dictyota dichotoma</i> and/or <i>Dictyopteris polypodioides</i> on exposed lower infralittoral rock	2
IR.HIR.KFaR.FoR	Foliose red seaweeds on exposed lower infralittoral rock	8
IR.HIR.KFaR	Kelp with cushion fauna and/or foliose red seaweeds	1
IR.HIR.KSed.XKHal	<i>Halidrys siliquosa</i> and mixed kelps on tide-swept infralittoral rock with coarse sediment	3
IR.HIR.KSed	Sediment-affected or disturbed kelp and seaweed communities	3
IR.HIR	High energy infralittoral rock	4
IR.LIR	Low energy infralittoral rock	2
IR.MIR.KR.Lhyp.Sab	<i>Sabellaria spinulosa</i> with kelp and red seaweeds on sand-influenced infralittoral rock	1
IR.MIR.KR.LhypT.Ft	<i>Laminaria hyperborea</i> forest, foliose red seaweeds and a diverse fauna on tide-swept upper infralittoral rock	1
IR.MIR.KR.LhypT	<i>Laminaria hyperborea</i> on tide-swept, infralittoral rock	1
IR.MIR.KR.XFoR	Dense foliose red seaweeds on silty moderately exposed infralittoral rock	18
IR.MIR	Moderate energy infralittoral rock	5
IR	Infralittoral rock (and other hard substrata)	1

Biotope code	Biotope description	No of records
LR.LLR.F.Fserr.FS	<i>Fucus serratus</i> on full salinity sheltered lower eulittoral rock	1
SS.SCS.CCS.Nmix	<i>Neopentadactyla mixta</i> in circalittoral shell gravel or coarse sand	1
SS.SCS.CCS.PomB	<i>Pomatoceros triqueter</i> with barnacles and bryozoan crusts on unstable circalittoral cobbles and pebbles	3
SS.SCS.CCS	Circalittoral coarse sediment	27
SS.SCS.ICS	Infralittoral coarse sediment	14
SS.SMp.KSwSS	Kelp and seaweed communities on sublittoral sediment	3
SS.SMp.SSgr.Zmar	<i>Zostera marina/angustifolia</i> beds on lower shore or infralittoral clean or muddy sand	14
SS.SMp	Sublittoral macrophyte-dominated communities on sediments	1
SS.SMu.CFiMu.SpnMeg	Seapens and burrowing megafauna in circalittoral fine mud	5
SS.SMu.CFiMu	Circalittoral fine mud	1
SS.SMu.CSaMu	Circalittoral sandy mud	2
SS.SMu.ISaMu.AmpPlon	<i>Ampelisca</i> spp., <i>Photis longicaudata</i> and other tube-building amphipods and polychaetes in infralittoral sandy mud	2
SS.SMx.CMx.CIlOmx	<i>Cerianthus lloydii</i> and other burrowing anemones in circalittoral muddy mixed sediment	2
SS.SMx.CMx	Circalittoral mixed sediment	12
SS.SMx.IMx.CreAsAn	<i>Crepidula fornicata</i> with ascidians and anemones on infralittoral coarse mixed sediment	1
SS.SSa.CFiSa	Circalittoral fine sand	1
SS.SSa.CMuSa	Circalittoral muddy sand	6
SS.SSa.IFiSa.IMoSa	Infralittoral mobile clean sand with sparse fauna	1
SS.SSa.IFiSa	Infralittoral fine sand	10
SS.SSa.IMuSa	Infralittoral muddy sand	1
SS.SSa	Sublittoral sands and muddy sands	1
Grand Total		259

Biotope classification follows:

JNCC (2015) The Marine Habitat Classification for Britain and Ireland Version 15.03 [Online]. [Dates accessed: various]. Available from: jncc.defra.gov.uk/MarineHabitatClassification