



Devon Summary Report 2018



By Chris Webb

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Introduction

We are very fortunate to have a dedicated, talented and keen team of Seasearchers who love exploring our varied Devon habitats and continue to support our surveys. We received a record 201 forms and it's great to have such support especially during the Seasearch 30th Anniversary year. Keen-eyed divers spotted many rare species which are highlighted in the area descriptions.

Sixteen organised-survey days were achieved from twenty-two planned ones, with days lost mainly due to bad weather. All the organised survey effort focused on Marine Protected Areas (MPAs) and nearly all Seasearch forms submitted came from them. We continued to target the lesser-known areas of Lyme Bay and the South Hams this year and many interesting and fabulous new sites were discovered all around Devon's coast. Enthusiastic independent divers continue to record sites in Plymouth Sound, Torbay, North Devon and Lundy. Seasearchers participated in the Yealm Bioblitz event of the Marine Biological Association with our own boat trip.

Seasearch data played an important role in the designation of MPAs and then moved into the area of monitoring, management and further exploration. The Devon ones that we typically dive are shown below. New survey sites in Lyme Bay were targeted with the resulting Seasearch survey data to be shared with the Devon & Severn Inshore Fisheries and Conservation Authority (D&SIFCA).

MARINE CONSERVATION ZONES	SPECIAL AREAS OF CONSERVATION
Bideford to Foreland Point MCZ	Dartmouth SAC
Hartland Point to Tintagel MCZ	Lyme Bay & Torbay SAC
Lundy MCZ	Plymouth Sound & Estuaries SAC
Skerries Bank & Surrounds MCZ	Start Point to Plymouth Sound & Eddystone SAC
Torbay MCZ	

With its two coastlines, Devon has a great variety of priority species and habitats and those recorded in 2018 are listed below. Notably a fan shell and short snouted seahorse were recorded. Crawfish data gathering was targeted on surveys.

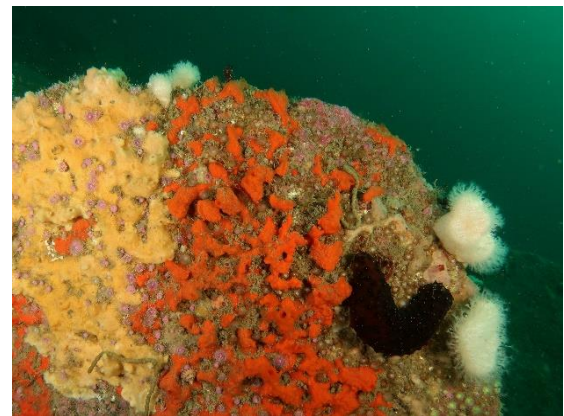
PRIORITY SPECIES		AREAS WHERE RECORDED
<i>Amphianthus dohrnii</i>	sea fan anemone	Eddystone
<i>Atrina fragilis</i>	fan shell	Lyme Bay
<i>Eunicella verrucosa</i>	pink sea fan	most areas
<i>Hippocampus hippocampus</i>	short snouted seahorse	Torbay
<i>Leptopsammia pruvoti</i>	sunset coral	Lundy
<i>Palinurus elephas</i>	crawfish	most areas
<i>Lophius piscatorius</i>	anglerfish	Bigbury Bay to Bolt Head
<i>Pleuronectes platessa</i>	plaice	Plymouth Sound, Start Bay
<i>Molva molva</i>	ling	Eddystone
<i>Solea solea</i>	sole	Lyme Bay
PRIORITY HABITATS		AREAS WHERE RECORDED
Seagrass Beds		Torbay
Fragile Sponge & Anthozoan Communities on Subtidal Rock		Plymouth Sound to Stoke Point, Bolt, Lyme Bay



Areas Surveyed

Eddystone Reef Area

North of the main reef area, the Mam Tor Reef (resembling a Dartmoor tor) lies in the tide and greets the Seasearcher with a luxuriant display of pink sea fans *Eunicella verrucosa*, dead men's fingers *Alcyonium digitatum*, red fingers *A. glomeratum*, jewel anemones *Corynactis viridis*, hydroids and sponges – a great way to celebrate World Oceans Day. Another fabulous new site was the North Ridge, of the main Eddystone Reef, with deeper flattish rock and boulders (photos below, lower left and right) rising to jewel anemone encrusted walls capped with mixed kelp, foliose red weed and rock cook *Centrolabrus exoletus*. Six other sites were explored and many were pinnacles with colourful encrusting sponges (photo upper right), especially just below and amongst the kelp.

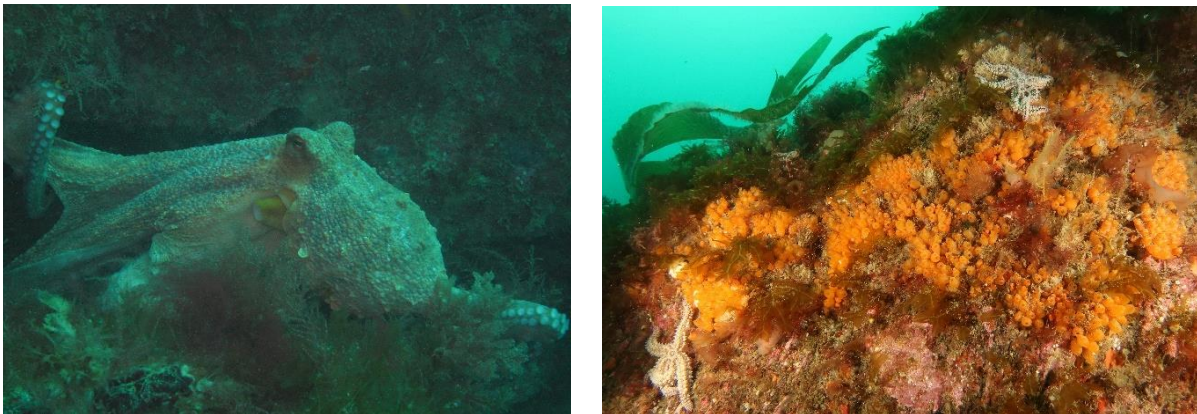


Plymouth Sound to Stoke Point

Keen individuals contributed many forms from popular dive sites along this stretch of coast. Bovisand Harbour and just beyond was again well observed and surveyed by enthusiastic course students and experienced Surveyors alike, revealing the continued presence of the non-native seaweeds amongst the diverse weeds in the harbour. Notable fish sightings included sand smelt *Atherina presbyter*, fifteen-spined stickleback *Spinachia spinachia*, greater pipefish *Syngnathus acus* and red mullet *Mullus surmuletus*. Nearby Andurn Point revealed a colourful assemblage of anemones in amongst the gulleys; daisy anemone *Cereus pedunculatus*, dahlia anemone *Urticina felina* and gem anemone *Aulactinia verrucosa* (photos below by Eddie Rickard).



Curled octopus *Eledone cirrhosa* (video still below by Bee Nuttall) are increasingly sighted at Mewstone Ledges and a ringneck blenny *Parablennius pilicornis* spotted for the first time (by Peter Hewitt). Western Ebb Rocks was visited as part of the MBA Bioblitz. It revealed a kelp-forested, flat reef top, deepening by a 4m-tall wall with deep clefts, lined with sponges, bryozoans and ascidians, and sloping down to snakelocks anemones *Anemonia viridis* amongst a diverse weed flora.



The rugged reefs to the east continue to delight with their variety of habitats and species, from scenic vistas to the small animals within. Notably, the nudibranch *Felimida krohni*, first recorded at Hilsea last year, has been spotted again there this year (by Barry Goss). Orange sea squirts *Stolonica socialis* and netted wing weed *Dictyopteris polypodioides* mingle in the transition from upper to lower circalittoral rock (photo above).

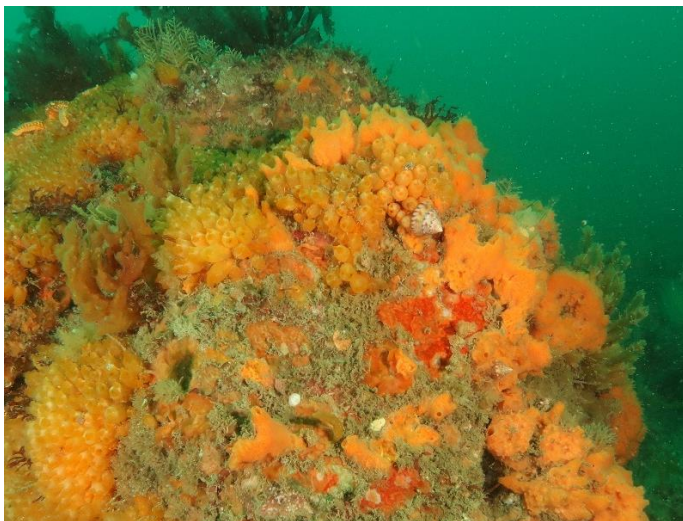
Bigbury Bay to the Bolt Reefs

Numerous reefs throughout the bay were surveyed, reflecting a wide variety of seabed form and depth, from the East Rutts limestone pinnacle to the jagged ridges and deep gulleys of Fingers Gulleys to the very shallow reefs of East Wadham Beach and St. Anchorites. Dense dead men's fingers crown the ridges at Fingers Gulleys with boring sponge *Cliona celata* and potato crisp bryozoan *Pentapora foliacea* vying for space while the sides were dominated by encrusting life (pink algae, sponges and bryozoans). A crevice brittlestar *Ophiopsila aranea*, along from its hotspot at the Mewstone (though otherwise rare in Britain), was utilising the well-creviced strata (photo below by Mike Markey). East Rutts contrasts the boring sponges, soft corals and antenna hydroids *Nemertesia* spp. of the deeper slopes with the sponge (mainly shredded carrot sponge *Amphilectus fucorum* and elephant hide sponge *Pachymatisma johnstonia*), oaten pipe hydroid *Tubularia indivisa* and jewel anemone dominated, upper walls of the pinnacle (photos below, lower left and right).



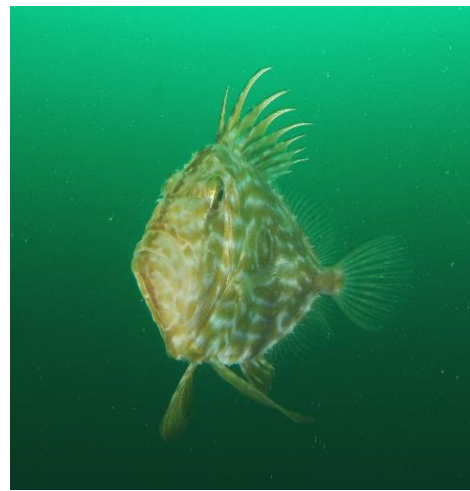
Reefs off Bolt Head, just outside Salcombe, were surveyed for the first time. One site ruggedly tumbled down over walls of oaten pipe hydroids and jewel anemones, through deep gulleys to a tide-swept, incised-bedrock plateau. The deeper gravel-scoured habitat homed dahlia anemones and dead men's fingers amongst low bryozoan and orange sea squirt turf with common featherstars *Antedon bifida* ever-present (photo below upper left). Shallower rock was covered with larger fields of orange sea squirts and light bulb sea squirts *Clavelina lepadiformis* amongst varied hydroids and large potato crisp bryozoans. Nearby, another site was a stunning vision of orange; shredded carrot sponge, finger bryozoan *Alcyonidium diaphanum*, potato crisp bryozoan, encrusting bryozoan and

orange sea squirt (photos below). White-striped anemones *Actinothoe sphyrodeta* provided some contrast. Amongst all this fabulousness, the very rare nudibranch *Pruvotfolia pselliotes* was spotted by Mike Markey (his photo below lower right) on a finger bryozoan. It's a new record for this area although it was first recorded in Devon in Torbay in 2016.



Prawle Point to Start Point Reefs

The targeted exploration of this much-less-dived area, in the Skerries Bank and Surrounds MCZ, continued very well. A topographic feature of the South Hams (Bolt Tail to Start Point) reefs seems to be a higher flattish reef, deeply-incised and dropping steeply (by 4-5m tall walls) to a lower irregular platform, running out to gravel - at Prawle Point and Sleaden sites this is clearly seen. Regularly recorded over the years at Prawle Point is a southern distribution outlier of the common sunstar *Crossaster papposus* and the scour-tolerant antler sponge *Adreus fascicularis* (photos below, upper left and right). The latter is nationally rare (JNCC) but locally quite common here. They also provide a perch for the featherstars that occur in their dense but patchy aggregations along this coast. The curious upward-spiralling behaviour of a John Dory *Zeus faber* delighted divers at Sleaden Ledge (photo below).



At Start Point Reef, although still tide-swept, the ascidian fauna (photo below left) is notably different by being dominated by encrusting-sheet didemnid species such as *Diplosoma spongiforme*, *Didemnum coriaceum* and *Polysyncraton bilobatum*, the latter in its characteristic extensive sheets (photo below right). Also diverse hydroids, anthozoans and bryozoans abound.



Start Bay to Dartmouth Area

The 'crunchy-looking' (due to the abundant *Cellaria* spp. bryozoans) Beesands Reef was further mapped revealing the large extent to this series of ribbon reefs in the bay. Diverse sponge, hydroid, bryozoan and ascidian faunas cover and home crabs, cuttlefish *Sepia officinalis* (with eggs evident throughout, photo below) and fish, including a red gurnard *Aspitrigla cuculus* on the adjacent muddy sand (photo below by Allen Murray).



Just east of Dartmouth lies a complex system of numerous ridges and pinnacles. On the Dartmouth Mewstone East site, colourful walls of plumose anemones *Metridium dianthus* and encrusting sponges and bryozoans all jostle for space. They are punctuated by slopes with patches of varied but small erect sponges, notably *Homaxinella subdola* (photo below left by Bill Hewitt) and *Raspailia* spp. Barnacles and anemones thrive on the reef tops. The nearby Middle Blackstone is equally dramatic with prolific and diverse life - full Survey-form species-lists indeed. Pink sea fans provide many anchorages for shark eggcases (photo by Peter Hewitt) and so maintain a long trend particular to the Mewstone. Being close to the mouth of the River Dart and under busy boat traffic seems to lead to notably high levels of rubbish, mainly plastic (photo below right by Bill Hewitt) - another unfortunate trend.



Torbay Reefs

Keen individuals contributed sightings from popular dive sites in the Torbay MCZ. At the Millstones, the first Devon recording of the sacoglossan opisthobranch *Hermaea cantabra* was made while at Babbacombe, stalked jellyfish *Calvadosia campanulata* were seen (photos below by Tony Reed).



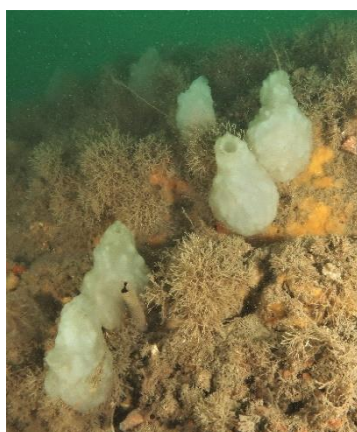
Babbacombe further rewards the eagle-eyed with a mantis shrimp *Meiosquilla desmaresti* and short-snouted seahorse *Hippocampus hippocampus*. The rare nudibranch *Pruvotfolia pselliotes* was seen at East Shag Rock and is becoming more numerous in Torbay generally, according to local divers. At Brixham Breakwater Beach, a curled octopus delights the photographer with an elegant pose (photos below by Tamsyn Mann). On a smaller size scale, the rare nudibranch *Hancockia uncinata*, more usually found in the Bay of Biscay, was also seen here, perched on an eelgrass blade.



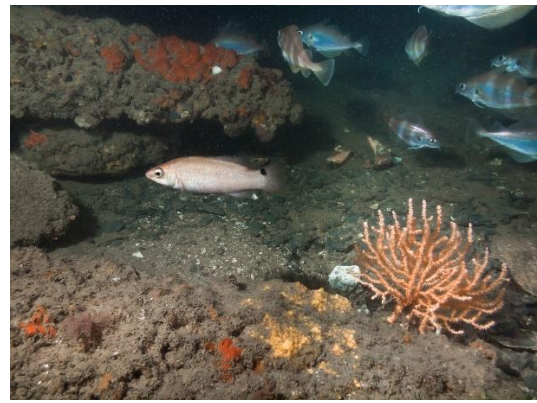
All these Torbay MCZ shore dives clearly reinforce the “any dive can be a Seasearch dive” philosophy and the opportunity to spot and record amazing and unusual creatures. The increasing occurrence of species from across the English Channel certainly warrants looking more closely at the seaweeds and eelgrass and, indeed, under the snakelocks anemone tentacles for its associated shrimp *Periclimenes sagittifer* - especially as the latter has not been recorded in Devon beyond its landfall sighting in Babbacombe.

Lyme Bay

We explored the lesser-known Devon part of Lyme Bay and were richly rewarded at six new sites. The DORIS multibeam sonar maps (courtesy of Dorset Wildlife Trust) suggested potential sites to explore and several proved to be exceptional. West Tennants 6 delighted us with a sublime display of a pink sea fan forest on the ledge top - the fans were very large, in excellent condition and in high density (photo below top left by Richard Yorke, also p.1 top left). Another high ledge (by local standards at least), Beer Ridge had luxuriant sponge, hydroid and bryozoan faunas on the top and the stepped drop, well fissured and creviced, continued the trend (photos below).



The Beer Fans is a large area of flat, almost-level, veneered bedrock with ~30cm high scarps. The five sites now surveyed (over the last five years) in the area reveal fascinating diverse reefs with significant pink sea fan cover. Just back from the scarps were the largest pink sea fans with an erect sponge cover (including scour-tolerant chimney sponges *Polymastia penicillus*) amongst them (photo below left). The scarps themselves had a thick cover of bryozoans, mainly *Cellaria* spp., and sponges with many nooks for crabs and fish (photo below right by Mike Markey from Beer Fans 5). Beer Fans 4 was described as a complex mosaic of 'microhabitats' contributing to exceptional diversity and with some very rare finds such as a juvenile fan shell *Atrina fragilis* (photo above, lower right by Nick Owen) and goose foot starfish *Anseropoda placenta*.



In complete contrast, Beer Plains is a pebble and cobble bed with fabulous clusters of the ascidian *Pyura microcosmus* (photo below left by Mark Harrison) and organ pipe worms *Serpula vermicularis* (photo below right by Richard Yorke) on the cobbles. The bed was peppered with young dead men's fingers plus a mobile fauna that included green sea urchins *Psammechinus miliaris*, sand brittlestars *Ophiura* spp., sponge spider crabs *Inachus* spp. and dancing queen scallops *Aequipecten opercularis*.



North Devon and Lundy



Enthusiastic Observers and Surveyors continue to visit popular sites on Lundy. At Brazen Ward, a curled octopus was recorded so that this year octopuses have been spotted in numerous locations around the entire Devon coast. The Knoll Pins sunset cup corals *Leptopsammia pruvoti* continue to thrive and reproduce successfully, judging by the three very-small individuals in Chris Lewis's photo. The Thistlemor wrecksite provides an oasis of life on the sands of Bideford Bay.

Priority Species - Crawfish



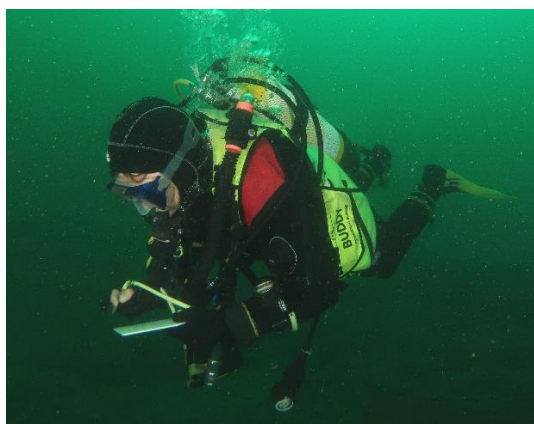
The wonderful recovery continues for the fourth year around the county's coasts and it's greatly hoped this will be maintained into a sustainable population through appropriate management. The collection of carapace length and individual abundance data has been targeted this year (photo by Peter Hewitt) and suggests all cohorts of the recovery are present in good numbers. Certain sites had notably abundant juveniles.

Courses

Enthusiastic students attended three courses run in Devon - an Observer Course, a Surveyor Course and a Surveyor Development Workshop (developed by Chris Webb and Sally Sharrock). It's pleasing that Surveyors are keen to enhance their skills and see how their data leads to the biotoping of habitats. Seasearch tutors also taught on a Marine Life ID Course at the National Marine Aquarium, Plymouth.

Recording Forms

The recording effort by our volunteers in 2018 was again truly magnificent, with a grand total of 201 forms for Devon sites. The same as last year, this maintains a strong recording effort and consisted of 82 Survey forms, 89 Observation forms and 30 Crawfish forms. The Observation and Survey forms have been entered into the Marine Recorder database by Sally Sharrock, whilst the Crawfish forms go into a separate database thanks to Charlotte Bolton: both data sets are on the National Biodiversity Network website <https://nbnatlas.org/>. The Survey form contains much more data and so it gives a more comprehensive view of the site, its habitats and allows a biotope code to be assigned to each habitat. In Devon, the Survey:Observation form ratio is 48:52 which is pleasing as these require a greater effort by the Surveyor and generally more extensive species identification skills. Eighteen Surveyors and twenty-five Observers contributed and the majority of these came from Seasearch-organised trips and courses although a noticeable amount came from several, independent enthusiastic people. Our volunteers have done a great job indeed.



Acknowledgements

My huge thanks go to all our Seasearchers who have supported the events and returned forms, a great contribution of time, effort and, indeed, money. Their keen eyes underwater, photography, identification skills and dedication afterwards have made the survey activities a great success – Seasearch relies on the contributions of such volunteer divers and I am most grateful to them all.

They are Allen Murray, Barry Goss, Bee Nuttall, Bill Hewitt, Char Smith, Chris Lewis, Chris Webb, Chris Wood, Dave Walker, David Dooley, Eddie Rickard, Fiona Hampton-Matthews, Fiona Ravenscroft, Francis Jeffcock, Holger Schuhmann, Jacob Broughton, James Wright, Jane Lyons, Jon Harvey, Katie Broadley, Keith Hiscock, Lin Baldock, Liz Lumb, Lorena Cacabelos, Mark Harrison, Mark Holbrook, Mary Jones, Mike Markey, Nick Owen, Nina Fryer, Paul Aldersley, Peter Hewitt, Richard Gannon, Richard Tyrrell, Rob Adams, Rosa Macey, Russell Maidment, Sally Sharrock, Sarah Dashfield, Tamsyn Mann, Tim Fryer, Tony Reed and Vicki Billings. I hope I haven't missed anyone out.

Our very helpful skippers also deserve much appreciation: Danny Daniels (from Discovery Divers, Plymouth), Anne-Marie and Will Mason (Falcon Diving Charters, Dartmouth) and Rob King (Blue Turtle Diving Charters, Lyme Regis). Their extensive site knowledge, good humour and nibbles have taken us to some fabulous sites and returned us safely - this is greatly appreciated, especially when echosounder hunting for new sites. Fiona and Simon Hampton-Matthews have run trips generating forms too.

Thank you to Charlotte Bolton, Sally Sharrock and Chris Wood for course tutoring and Discovery Divers for classroom facilities.

Finally, very big thanks to Sally Sharrock for the data entry and biotoping of our numerous complex habitats since 2006, a great job, well done indeed.

All photographs by Chris Webb unless otherwise indicated and copyright remains with original photographer. Many thanks to our photographers for sharing their photos.

Seasearch in Devon has been supported financially in 2018 by:

