



Devon Summary Report 2017



By Chris Webb

Devon Seasearch Coordinator

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 of all types and it's great to have such support. Keen-eyed divers spotted many unusual species including undulate ray, triggerfish (cover photo by Peter Hewitt), ringneck blenny (photo by Chris Wood) and anglerfish.

Fifteen organised-survey days were achieved from twenty-two planned ones, with days lost due to bad weather and sick boats. All of the organised survey effort focused on Marine Protected Areas (MPAs) and nearly all Seasearch forms submitted came from them. We continued to target areas with fewer records this year and many interesting new sites were discovered all around Devon's coast. Enthusiastic independent divers recorded new sites in Torbay, Bigbury Bay and Plymouth Sound also.

Seasearch data has played an important role in the designation of MPAs and now moves into the area of monitoring and management. 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) as highlighted by Charlotte Bolton's article in Marine Conservation (Autumn 2017) magazine.

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

With its two coastlines, Devon has a great variety of priority species and habitats and those found in 2017 are listed below. Pink sea fan surveying was adopted by a keen British Sub-Aqua Club First Class Diver group, led by Paul Ritson, with the resulting successful survey reported by Gordon Procter in Scuba magazine (December 2017) and in Paul's detailed report to the BSAC.

PRIORITY SPECIES	AREAS WHERE RECORDED
<i>Amphianthus dohrnii</i>	sea fan anemone Eddystone, Mewstone to Bigbury Bay, Lyme Bay
<i>Eunicella verrucosa</i>	pink sea fan Most areas
<i>Leptopsammia pruvoti</i>	sunset coral Plymouth Sound, Lundy
<i>Palinurus elephas</i>	crawfish Most areas
<i>Ostrea edulis</i>	native oyster Dartmouth
<i>Lophius piscatorius</i>	anglerfish Eddystone
<i>Pleuronectes platessa</i>	plaice Lyme Bay
<i>Molva molva</i>	ling Torbay
PRIORITY HABITATS	AREAS WHERE RECORDED
Seagrass Beds	Plymouth Sound, Torbay
Fragile Sponge & Anthozoan Communities on Subtidal Rock	Plymouth Sound to The Bolt, Lyme Bay

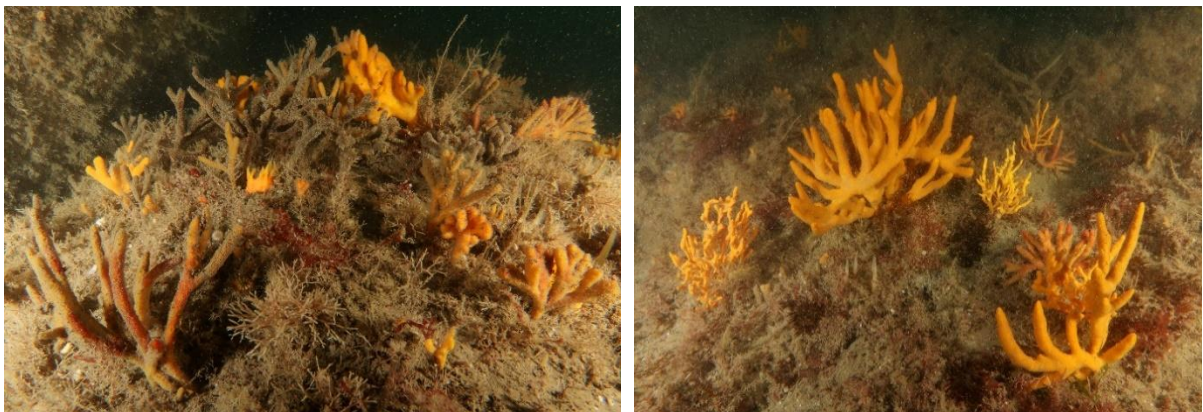
Areas Surveyed

Lundy

Sites all around the island were surveyed on one fine August weekend, including the exposed west side where the Devil's Slide yielded a triggerfish *Balistes capriscus* (front cover) above the rugged reef. Lee Rocks, on the south coast, had a spectacular spiny spider crab *Maja brachydactyla* assemblage (photo below left). On the east side of Lundy, other crab notables included the teddy bear crab *Dromia personata*, with its jaunty sponge attire (photo central by Peter Hewitt) and the circular crab *Atelecyclus rotundatus* (photo right by David Dooley). Our stalwart independent observers also continue to visit popular sites here.



At Gull Rock Pinnacles and Brazen Ward (photos below) fabulous rich erect-sponge faunas (with fifteen plus species) occurred, containing many axinellid species, *Raspailia* spp., chimney sponges, yellow hedgehog sponge *Polymastia boletiformis* and golf ball sponge *Tethya citrina* amongst the bryozoan turf. Trumpet anemones *Aiptasia couchii* were also common at these sites although it is a nationally scarce species. Similarly, the scarce *Thecacera pennigera* was also spotted. As usual, surveying was accompanied by grey seal *Halichoerus grypus* antics and 'wildebeasting'.

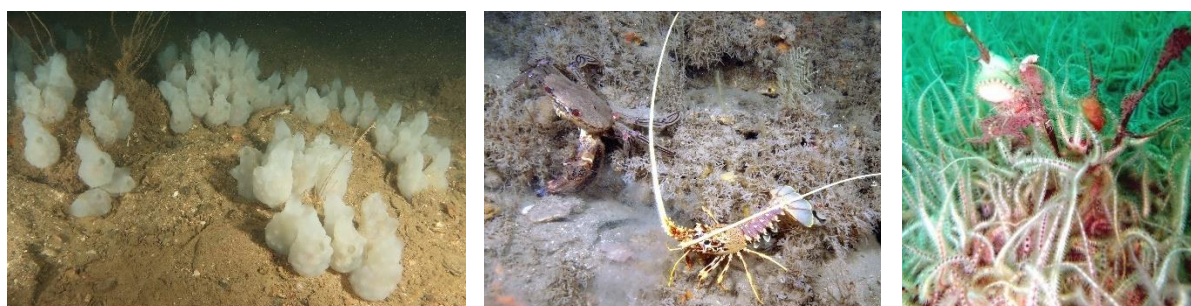


Lyme Bay

As we continue to explore the lesser-known Devon part near Lyme Regis, supported by the DORIS multibeam maps (courtesy of Dorset Wildlife Trust) and growing knowledge of this area's low-lying reefs, a three-day eventer proved exceptional. New sites on the West Tennants, Beer Ledge (Beer Home Grounds), Beer Fans and Beer Head Circular reefs supported diverse sponge, hydroid, anthozoan and bryozoan faunas (photos below). An important species of these reefs, pink sea fans *Eunicella verrucosa* featured high abundance (frequent to abundant), many large specimens as well as juveniles, a variety of condition from generally healthy to scoured to death, tangled with angling line (becoming sea fangles) and hosting fan anemones *Amphianthus dorhnii*.



Fish highlights included a ringneck blenny *Parablennius pilicornis* at Beer Fans, the first Seasearch record in Lyme Bay, and an undulate ray *Raja undulata*, which when reported (by Chris Wood) to The Undulate Ray Project proved to be a new individual on their tracking records (photo of both on front cover). Abundant dancing queen scallops *Aequipecten opercularis* and unusually abundant *Phallusia mamillata* (photo below left) were encountered at several sites. An interesting spot of crustacean interaction was seen with a velvet swimming crab *Necora puber* forcing a juvenile crawfish *Palinurus elephas* from the security of its home to then take its spot (photo central by Chris Wood) – there was certainly no shortages of cracks on the reef. A common brittlestar *Ophiothrix fragilis* bed at Beer Fans (photo right by Chris Wood) proved extensive and with many perched on dead fans (in a notable scour-damaged patch).

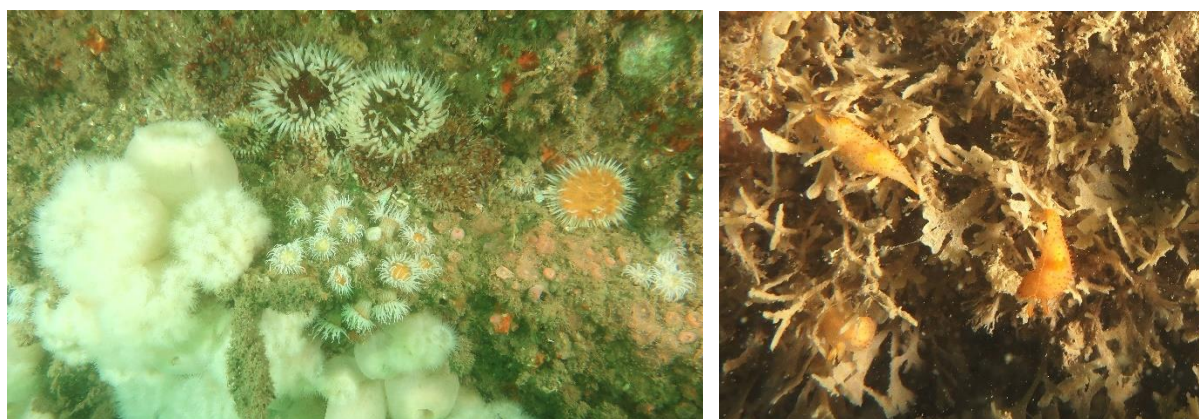


Torbay

Enthusiastic independent observers continued to revisit/monitor the popular reefs and eelgrass beds in the area; Babbacombe, Thatcher Rock, Meadfoot, Morris Rogue, Torre Abbey Sands, The Ridge, Freshwater and Brixham Breakwater Beach. Notable sightings included curled octopus *Eledone cirrhosa*, ling *Molva molva* and the snakelocks anemone shrimp *Periclimenes sagittifer*, still residing at Babbacombe's anemone gardens (as seen in Tony Reed's delightful video https://www.youtube.com/watch?v=RKWDh_kF5DU). The Morris Rogue and Thatcher Rock reefs continued to support their particularly diverse yet abundant fauna and The Ridge is an oasis of life in the sandy plains away from the rocky perimeter of the bay.

Dartmouth Area

Just east of Dartmouth, numerous ridges and pinnacles form a complex system in the Lyme Bay and Torbay SAC with marine life benefiting from the nutrient-rich tidal streams. At Nimble East Pinnacle it is anemones galore (photo below left), with plumose anemone *Metridium dianthus*, white-striped anemone *Actinotoe sphyrodeta*, elegant anemone *Sagartia elegans*, jewel anemone *Corynactis viridis* and dahlia anemone *Urticina felina* on the tops with plumose anemones dominating the upper walls above the mixed turf. The top was covered in jewel anemones amongst the oaten pipe hydroid *Tubularia indivisa*. The less-tidal, low-lying Scabbacombe Ledges revealed varied red weeds on the upper ledges with sponge and bryozoan dominated turf on the low ledge verticals. Many *Crimora papillata* nudibranchs were found feasting on the square-end hornwrack *Chartella papyracea* (photo right).



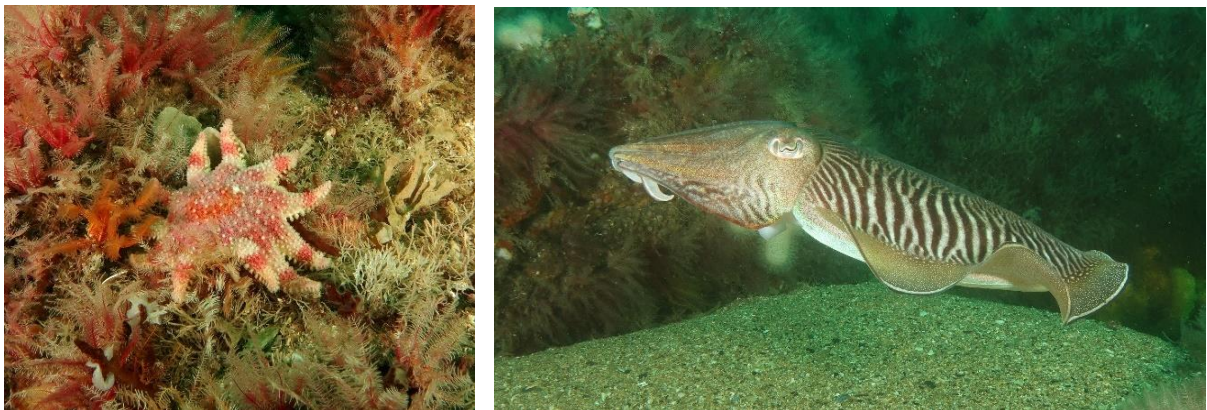
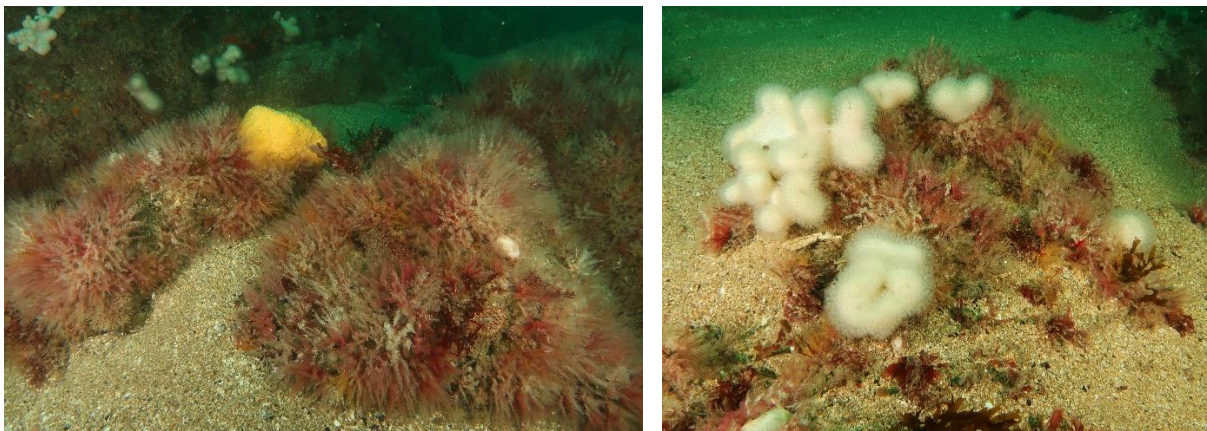
In the Dart itself, surveying the pontoon pilings revealed an abundant sponge, anemone (including orange-striped green anemone *Diadumene lineata*) and ascidian fauna with two non-native ascidians (*Didemnum vexillum* and *Corella eumyota*) spotted. Regular scraping of the pontoon-fouling blue mussel *Mytilus edulis* has created a mussel bed below with numerous crabs and sponges sheltering within.

Start Point to Prawle Point Reefs

The Start Point Reef was further explored and revealed its colourful diverse life so typical of this tide-swept reef. Sponges, hydroids, anemones, bryozoans and ascidians, especially didemnids including *Didemnum maculosum* (photo below right), all contributed to these pretty reefs. Common sponges included sea orange *Suberites ficus* (below left) and *Hymeniacidon perlevis* (below central).



Visiting Prawle Point on its tricky slacks, the reefs running southwards down to mobile gravel hosted the feather star *Antedon bifida* hordes over a mixed sponge, cnidarian and bryozoan turf. The mobility of the gravel was clearly evident with recent burial of the scour-tolerant turf on the lower reef (photos below). Common sunstars *Crossaster papposus* (photo lower left) are often spotted in this southern outlier in its distribution. Cuttlefish *Sepia officinalis* and the variety of fish present were delightful companions around these stunning reefs.



The Bolt to Bigbury Bay Reefs

New sites off Bolt Tail supported a rich sponge, hydroid, bryozoan and ascidian turf thriving in the tidal streams. At Bolt Pinnacle, in hollows, occurred thickets of pink sea fans amongst dense antenna hydroids *Nemertesia antennina* (photo below left). Outer Greystone Ledge was rich in sponges too including *Ulosa stuposa* (photo right circled). Sites around the margin of the bay were visited, including the Louis Sheid wreckage, with the little cuttle *Sepiolo atlantica* spotted.

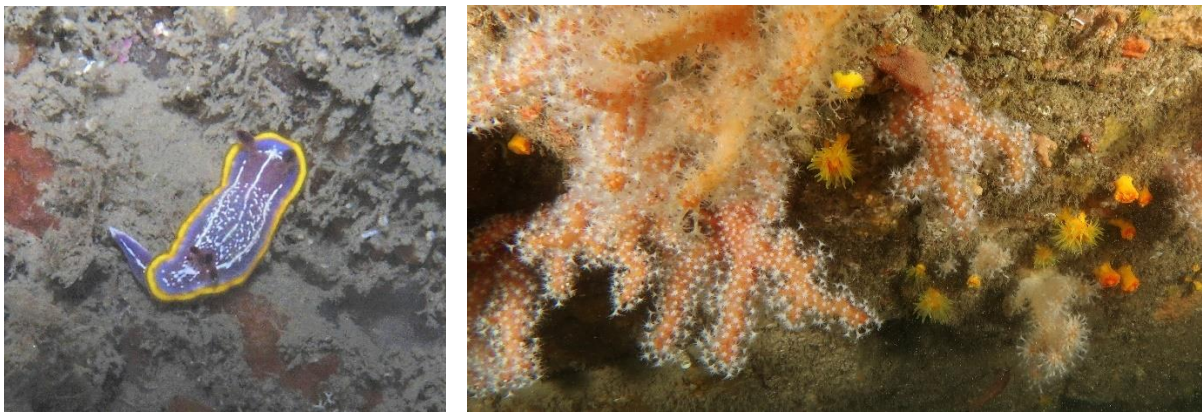


Extensive reefs east of Stoke Point were well explored and the deeper ones were rugged gulley systems bearing many habitats (photos below). The tops were dominated by *Alcyonium* spp. with occasional patches of yellow cluster anemones *Parazoanthus axinellae*. Dramatic high gulley sides notably had large numbers of football sea squirts *Diazona violacea* (photo lower left) and the occasional crawfish. Some gulley bottoms (photo lower right) homed erect sponge communities with ginger tiny anemones *Isozoanthus sulcatus*.



Stoke Point to Plymouth Sound

Keen individuals, including snorkelers, contributed many forms from popular dive sites along this stretch of coast. One such proved to be the second sighting in the SW of the nudibranch *Felimida krohni* at Hilsea (photo below by Bee Nuttall). The rugged reefs of the Mewstone Ledges, Jagged Edge, Candlepot Reef and Elk Reef remain scenically soft-coral dominated with varied sponges amongst a mixed turf. The Deep Dropoff was revisited and the sunset corals *Leptopsammia pruvoti* looked good amongst the red fingers *Alcyonium glomeratum*. Curled octopus glided by here, and at various locations around the Sound, and seem to be more frequently spotted now. Bovisand Harbour was thoroughly 'observed' on the course with several non-native weeds well-established: wakame *Undaria pinnatifida*, wireweed *Sargassum muticum*, harpoon weed *Asparagopsis armata* and oyster thief *Colpomenia peregrina*. Amongst the Cawsands eelgrass, the rare broad-snouted pipefish *Syngnathus typhle* was spotted.

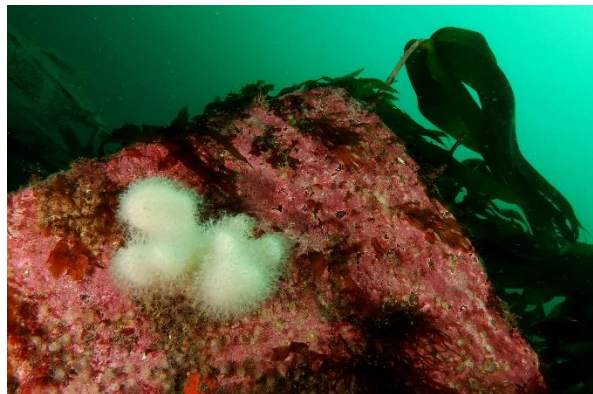


The Plymouth Breakwater Fort and its associated wreckage and reef were well-covered on the FCD Pink Sea Fan Survey, revealing the fans to be generally thriving (photo below left). Fans were also surveyed at the Deep Dropoff, Candlepot Reef, the Persier and Hilsea (photo below right) on this event.



Eddystone Reef Area

Numerous known and new pinnacles were (re)visited - not an onerous task as they are so spectacular, colourful and an anthozoan-lovers' treat. Sponges, soft corals, anemones and encrusting pink algae abounded (photos below). At the base of one pinnacle, in a boulder cave, slipper lobsters were spotted hanging from the overlying boulder. The tiny pink fingers *Alcyonium hibernicum* were recorded for the first time in this area also.



New sites on the edge of the reef system included the Eddystone North Gardens, a low-lying reef subject to gravel scour with a colourful sponge and dead men's fingers *Alcyonium digitatum* turf (photo below left). At the NW of Eddystone Reef, a varied hydroid fauna alongside the soft corals was found below the diverse kelp forest, which grows deep in these clear waters.



Priority Species - Crawfish

The crawfish recruitment success continued all around the county, with the large number of juveniles (photo above) first recorded in 2015, being repeated for the third consecutive year. The older juveniles are recorded too and hopefully some will reach maturity.

Courses

Two well-subscribed Observer Courses were run in conjunction with Totnes SAC and Plymouth University Scuba Society with tutors Chris Wood and Chris Webb (photos below by Alec Jacobs). It's very pleasing to see some achieving their qualification within the year and continuing to submit record forms - Well Done to them.



Recording Forms

The recording effort by our volunteers in 2017 was truly exceptional, with a grand total of 201 forms for Devon sites: 81 Survey forms, 89 Observation forms, 22 Pink Sea Fan forms and 9 Crawfish forms. The 21% increase from last year maintains a strong upward trend. The Observation and Survey forms have been entered into the Marine Recorder database by Sally Sharrock, whilst the Pink Sea Fan and Crawfish forms have gone into a separate database: both data sets are on the National Biodiversity Network website <https://data.nbn.org.uk>. 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, with Survey forms up a little from 2016, which is pleasing as these require a greater effort and skill by the Surveyor and generally more-extensive species-identification skills.

Fourteen Surveyors and twenty-seven Observers contributed and the majority of these came from Seasearch-organised events although a noticeable amount came from several independent enthusiastic people. Our volunteers should be very proud and are heartily congratulated!



Acknowledgements

My huge thanks go to all our Seasearchers who have supported the events and returned forms, a great contribution of time 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 Alec Jacobs, Bee Nuttall, Bill Hughes, Bob Jones, Carol Horne, Char Smith, Chris Lewis, Chris Webb, Chris Wood, Dave Walker, David Dooley, Fiona Hampton-Matthews, Fiona Ravenscroft, Geoff Bacon, Gordon Procter, Holger Schuhmann, James Tapley, James Wright, Jan Davies, Jessica Menzies, Lin Baldock, Linda Ritson, Margaret Cushen, Mark Harrison, Mark Parry, Martin Glanvill, Martin Maple, Mary Jones, Mike Markey, Nick Owen, Paul Ritson, Richard Croft, Rick Allbrook, Rob Adams, Robert Dawson, Sally Sharrock, Sam Tasker, Seb Stoakley, Simon Hampton-Matthews, Simon Loveday, Sue Watson-Bate, Tom Maw, Tony Reed, Valerie Scott, Vicki Billings and Will Schwarz. 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), Rob King (Blue Turtle Diving Charters, Lyme Regis), Andrew Benguey and Leigh (Obsession Boat Charters, Ilfracombe), Ivor Farrell (Abyss Charters, Plymouth) and Dougie (Aquanauts, Plymouth). Thanks also to the Community Seagrass Initiative, a Heritage Lottery Fund-supported project for volunteer divers, and its project officers Rachel Cole and Mark Parry, for providing boats for divers generating some of the seagrass site forms.

Thanks to Alec Jacobs and Erin Browne, organisers of courses ran for their clubs, and Chris Wood for tutoring. Paul Ritson's magnificent effort in organising the FCD Pink Sea Fan Survey is also warmly thanked as well as his enthusiastic team.

Finally, big thanks again to Sally Sharrock for data entry and the biotoping of our numerous complex habitats.

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Seasearch in Devon has been supported financially in 2017 by:

