



# Devon Summary Report 2013



**By Chris Webb**

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## Introduction

The bookings for dives and courses were good despite the general financial situation and these came from both within and beyond the county. Like 2012, the year was dogged with poor weather conditions, especially on the weekends it seemed, causing the cancellation or postponement of several trips or days within trips. Twenty three Seasearch-organised survey days were achieved from thirty four planned days.

Recommended Marine Conservation Zones (rMCZ) and Special Areas of Conservation (SAC) again figured largely in organised dives. Reports using 2012 survey data for south coast rMCZs (Torbay <http://www.seasearch.org.uk/downloads/TorbaySurveyReport.pdf>, Skerries Bank and Surrounds <http://www.seasearch.org.uk/downloads/SkerriesBankSurveyReport.pdf> ) were used to support the consultation process. These suggested gaps in the coverage that were targeted this year and data was collected. On the north coast two fascinating sites were covered in the Bideford to Foreland Point rMCZ. A trip to Lundy rMCZ was cancelled but keen individual divers did submit forms, the majority of which were Observation forms.

The great news late in 2013 was the designation of Skerries Bank and Surrounds, Torbay and Lundy as Marine Conservation Zones and Seasearch data played an important role in this process. The list of the second tranche of sites on which Natural England will deliver advice to the government was issued this February and Hartland Point to Tintagel rMCZ and Bideford to Foreland Point rMCZ were included. So the limited survey information gained this year is important as is the need to survey the difficult-to-access north Devon coast in 2014.

With this emphasis, other areas were missed, such as the East Devon part of Lyme Bay (especially the part closed to bottom trawling), although sites in adjacent Dorset waters were surveyed and five forms sent to Dorset Seasearch. Plymouth, on the other hand, as always provides access to a wide area of sites in Plymouth Sound, offshore to the Eddystone Area or eastwards to Bigbury Bay, The Bolt and Prawle Point (just within the Skerries Bank and Surrounds MCZ). These sites also fall within the Start Point to Plymouth Sound and Eddystone SAC. The nearby Hand Deeps, Hatt Rock and Whitsand Bay wrecks, further into Cornish waters, were also surveyed and eleven forms went to Cornwall Seasearch. Surveys from Dartmouth are reaching the Dartmouth SAC and both MCZs.



## Areas Surveyed

### Eddystone Reef Area

Sites in the southern part of the reef area were revisited to consolidate records while new sites rewarded us with stunning displays of abundant anthozoans (photo right from the Stone Towers site). The reef system provides very dramatic topography of pinnacle spires, steep slopes and vertical walls running out to bedrock slabs, boulder fields and gravels and so a variety of habitats in this exposed location.



Typically there is kelp on the higher reef tops, with encrusting sponge, elegant anemone *Sagartia elegans* and oaten pipe hydroid *Tubularia indivisa* understory, and shallow *Sagartia* walls that give way to deeper abundant jewel anemones *Corynactis viridis* and dead men's fingers *Alcyonium digitatum*. Pink sea fans *Eunicella verrucosa* occurred in scenic stands, with a seafan survey conducted on one site and occurrence of the cowrie *Simnia hiscocki* and sea slug *Tritonia nilsodhneri* noted. Amongst the fans was the typical sponge fauna of volcano sponge *Haliclona viscosa*, yellow hedgehog sponge *Polymastia boletiformis* and boring sponge *Cliona celata* with potato crisp bryozoan *Pentapora foliacea*. Numerous wrasse and ling *Molva molva* patrolled above.



To the north of the Eddystone reefs lay The Mammaries, a very scenic reef with two kelpy tops above colourful jewel anemone walls (cover photo), sea fan slopes and low-lying deeper reef bearing a sponge fauna associated with coarse sand overlying rock. In amongst the usual inhabitants of such an offshore reef was found the hydroid *Polyplumaria flabellata*, more typical of depths below 40m (photo left by Mike Markey).

## Plymouth Sound and Approaches

At the top of the Sound, the many habitats below Eastern Kings support a wide variety of life feeding in the strong tidal streams flushing the Tamar River. The shallow sand has some sparse eelgrass *Zostera marina* while the cobbles, boulders and sloping bedrock had a rich fauna of sponges, hydroids and the anemones *Anemonia viridis*, *Actinothoe sphyrodeta* and *Cereus pedunculatus*.



Deeper the bedrock and boulder slope gave way to the near vertical wall that extends down to ~35m (all depths in this report are corrected to CD) with the greatest variety on the upper slopes and the feather star *Antedon bifida* becoming superabundant deeper. Other dominant fauna included the shredded carrot sponge *Amphilectus fucorum*, the finger bryozoan *Alcyonidium diaphanum* and the ascidians *Polycarpa scuba* and *Distomus variolosus* (photo left).

The eelgrass beds in Cawsand Bay were surveyed and methods were experimented with for the National Marine Aquarium (Plymouth). The eelgrass was generally healthy, very long (up to 2m) and with 20 – 90% estimated cover. Notable finds in Bovisand Harbour include the continued presence of the non-native weeds wakame *Undaria pinnatifida*, wireweed *Sargassum muticum*, harpoon weed *Asparagopsis armata* plus stalked jellyfish *Haliclystus auricula* and a John Dory *Zeus faber*. The Plymouth Dropoff was revisited - the upward-facing reef with an extensive, abundant sea fan forest dramatically falling to rugged walls bearing sunset cup-corals *Leptopsammia pruvoti* and red fingers *Alcyonium glomeratum* is always a treat. Yellow and white cluster anemones *Parazoanthus* spp. can also be found.

Newly surveyed reefs to the WSW of the Mewstone had the typical fauna of the area. These included the Mewstone Ledges, with dramatic stepped bedrock deepening to boulders and mixed ground. Nearby, the Alternative Mewstone, while similarly rugged, had steeply stratified bedrock with many fissures and crevices forming deep overhangs – one bearing the pink sea fingers *Alcyonium hibernicum* and the yellow cluster anemone *Parazoanthus axinellae* (photo right).



## Mewstone to Stoke Point

The well-surveyed Mewstone reef yielded its typical inhabitants and a small basking shark *Cetorhinus maximus* cruised overhead in July. The Blackstone Pinnacle, a new site just east of the Yealm Estuary, had rugged steep strata with abundant *Alcyonium digitatum* with *A. glomeratum* and, again, underhangs bearing *Parazoanthus axinellae* and *A. hibernicum* – with better awareness of the sort of habitat that the latter species prefers, it is now being recorded all along this SW Devon coast. Pink sea fans bearing *Tritonia nilsodhneri* and, on the deeper specimens, the sea fan anemone *Amphianthus dohrnii*, were found (photo above right by Mary Restell). At these sites some of the seafans were observed to be in poor condition, broken and fouled. The site had diverse sponge, hydroid, anemone, bryozoan and ascidian turfs.

At nearby Hilsea Rock, notable finds included a crawfish *Palinurus elephas* and the sea slug *Cadlina pellucida* (spotted by Allen Murray, photo right by Alec Jacobs), only the second record from the British Isles of this species from across the channel.



The shallower parts of Stoke Point Reef are less rugged bedrock with short brown/red algae and varied sponges, hydroids, soft corals, anemones and ascidians amongst the weed. Resting on top of the reef was an anglerfish *Lophius piscatorius*. At the bedrock interface with coarse sand and gravel in the gullies, the typical chimney sponges *Ciocalypta penicillus* and *Polymastia penicillus* occurred with *Endectyon delaubenfelsi*. Deeper the reef becomes more rugged with frequent pink sea fans. All faunal groups were well represented reflecting the varied habitats in the reef system.

## Bigbury Bay



The Old Erme River Bed, with its very definitive western wall, rising 4-6 m to a narrow-gullied reef system, was well surveyed this year. It was characterised by various sponges, such as the unusual pink sponge *Hexadella racouitzai* (photo below), *Haliclona simulans* and *Axinella* spp., hydroids, soft corals including sea fans, and bryozoans, particularly *Alcyonidium diaphanum*. In places there were some stunning extensive patches of *Parazoanthus axinellae* running up to 10m along the wall and several metres high (photo left). At the other end of the size scale were the ginger tiny anemones *Isozoanthus sulcatus*.

The Erme Wall ran at least one NM south merging into the reefs north of the Persier wreck. A deeper and extensive cobbles/pebbles/boulders habitat, with notable juvenile sea fans and common spiny starfish *Marthasterias glacialis* and cotton spinner *Holothuria forskali* amongst the sponges and bryozoans, merged into the waved gravel/coarse sand. Young seafans were also noted on the resurveyed Outer Well's Rock nearby to the east. The Persier wreck continues to yield new finds to the keen eyed diver such as Weymouth carpet coral *Hoplangia durotrix* amongst the bryozoan and pink finger garden on the steering quadrant.



The East Rutts maintains its very diverse fauna that's so distinct from other sites in the bay, reflecting its rugged limestone nature and greater tidal exposure. The kelp forest gives way to the vertical upper slopes dominated by elephant hide sponge *Pachymatisma johnstonia*, *Amphilectus fucorum* and *Tubularia indivisa* with deeper slopes and winding gullies down to 35m. These bear a characteristic and very scenic *Alcyonium digitatum*, antenna hydroid *Nemertesia* spp. and *Cliona celata* dominated fauna amongst the varied turf, with notable large football sea squirts *Diazona violacea*. Many of the sea slugs *Coryphella browni* were observed making a meal of the *Tubularia* – photo left by Mary Restell.

## The Bolt and Prawle Point

The newly-surveyed Three Pinnacles, off the Bolt Tail, also proved to be a very rich site with a garden-like quality. This was due to the yellow staghorn sponge *Axinella dissimilis*, *Nemertesia* spp., Indian feathers hydroid *Gymnangium montagui*, *Eunicella verrucosa*, *Pentapora foliacea*, *Alcyonidium diaphanum* and orange sea squirt *Stolonica socialis* amongst a diverse sponge, hydroid, bryozoan and ascidian turf complete with a guardian lobster. Further east along the Bolt to Start Point, the stronger tidal streams clearly influence the faunal assemblages found in the circalittoral zone. The Shoal Ground bedrock was covered in *Alcyonium digitatum* and a varied sponge turf with notably large individuals of the several massive species was present.



Into the Skerries Bank and Surrounds MCZ, the even-more tide swept Prawle Point was visited twice and surveyors were rewarded with full slates. The dramatic rock and gulley formations at the Anchor Site, just to the SW of the point, provided five habitats and an extensive, varied circalittoral fauna. The deeper clean gravel bearing frequent gravel sea cucumbers *Neopentadactyla mixta* merged into gravel over rock with the sponges *Ciocalyptra penicillus* and *Adreus fascicularis* (photo bottom left). The upward-facing sloping bedrock and boulders were dominated by a diverse sponge fauna, notably common and large *Axinella dissimilis*, and soft corals, including sea fans. This rose to vertical and overhanging bedrock with a selection of sponges, hydroids, anemones and bryozoans finally topped by upward rock dominated by *Tubularia indivisa*, with other hydroids and sponges.



Just to the SE was another complex area of reefs and mobile gravel. The 2-3 m high bedrock outcrops were again dominated by *Tubularia indivisa* (plus *Nemertesia* spp. and *Gymnangium montagui*) and *Alcyonidium diaphanum* reflecting the strong tidal environment. Large patches of light bulb sea squirt *Clavelina lepadiformis* were common along with *Stolonica socialis* (photo above right). This ran to a similar low-lying reef with gravel with sightings of thornback ray *Raja clavata* and *Zeus faber*.

## Dartmouth Area

Planned dives at Start Point, in the Skerries Bank and Surrounds MCZ, were cancelled due to the weather but within the Dartmouth SAC two sites typical of the area were visited. The Eastern Blackstone Pinnacle is a very jagged pinnacle rising up 6m from 18m and is a distinctly anemone-dominated habitat (abundant plumose anemone *Metridium senile* and dahlia anemone *Urticina felina* plus *Corynactis viridis* and *Actinothoe sphyrodeta*) with frequent *Antedon bifida* lower down. Juvenile brittle stars found a nursery on some of the encrusting sponges, which were well represented. Quite a few long-spined sea scorpion *Taurulus bubalis* were spotted.

The East Pinnacle of the West Rock steeply dropped 10m down to cobbles and pebbles at 18 m. The silt covered rock was well creviced and covered by short and tall hydroid (mainly *Nemertesia* spp.) and bryozoan turf. *Cellaria* spp. and *Alcyonidium* spp. were the common bryozoan representatives with the fried egg sea slug *Diaphorodoris luteocincta* frequent and possibly feeding on them. Other hydroids well camouflaged a crab (photo below right). The sponge fauna was diverse with fifteen species observed with *Haliclona oculata* most abundant. Typical of the Mewstone area were many of the occasional sea fans bearing shark family egg cases (photo below left by Rob Adams). At both sites the native oyster *Ostrea edulis*, a BAP species, was present.



## Torbay Eelgrass Beds

At the end of the summer, the eelgrass beds in Fishcombe Cove and Beacon Cove were surveyed with more surveys planned to maintain an annual on-going survey but the weather intervened. In each a 5000 m<sup>2</sup> area was surveyed using 0.25 m<sup>2</sup> quadrats placed at 5m intervals along side transects from a 100m baseline. The percentage cover was estimated and the general condition of the eelgrass was observed (as healthy) at both sites. At Beacon Cove, the distribution was patchy, with cover ranging from 0 to 100%, while at Fishcombe Cove, the eelgrass grew in a strip about 25m wide. Along with the typical fine-sand fauna were cuttlefish *Sepia officinalis*, a grey seal *Halichoerus grypus* and non-native leathery sea squirts *Styela clava* (Beacon Cove).

## Torbay and Surrounds Area

Off Sharkham Point, Mudstone Ledge is a heavily silted rock and boulder reef dominated by short hydroid, bryozoan (*Cellaria* spp., *Bugula* spp.) and ascidian turf with *Antedon bifida*. The many crevices and overhangs home numerous crab and shrimp species. Sea fans were found on the lower boulders and one was heavily fouled with monofilament line. At the base of the reef, silty sediment with broken shell supported a variety of animals and in deeper silt a red band fish *Cepola rubescens* was spotted.



On the north shore of Torbay, Thatcher Reef was a fabulously rich site. The reef distinctly emerges from the sediment with a steep edge becoming a more gradual slope upwards. The deeper edge has the common brittlestar *Ophiothrix fragilis* in superabundance with abundant featherstars amongst the anemones *Urticina felina*, *Cereus pedunculatus*, *Aiptasia mutabilis*, *Sagartia elegans* and *Metridium senile*. Varied sponges, other cnidarians, bryozoans, ascidians with the mobile crustaceans and echinoderms add to the diversity as well as the abundance of animal life (photos by Charlotte Bolton). A single sea fan was also noted. Shame about the litter and lost fishing gear recorded here and at all sites round to Dartmouth.

Brixham Breakwater Beach was revisited on the Surveyor Course as it is a good site for providing a variety of habitats. Small boulders and pebbles deepen to fine sand and support a varied anemone, worm, mollusc and crab fauna. Eastwards leads to a small eelgrass bed and the sponge and anemone dominated reef system beyond, with its characteristic species, the trumpet anemone *Aiptasia mutabilis* and sea squirt *Phallusia mammillata*. Some of the other sites visited by independent divers (East Shag Rock, The Sunker, Flat Rock, Tucker Rock, Anstey's Cove, Babbacombe and The Orestone) fill gaps in the coverage of the 2012 rMCZ data and all revealed the typical shallow reef (and adjacent sediment) life of the area. Cuttlefish breeding behaviour and freshly laid eggs were noted at two sites in May (Brixham Breakwater Beach, Babbacombe) which is encouraging.

## North Devon

This area and Lundy remain difficult to visit for logistical, cost and weather reasons but two very different sites were surveyed. Horseshoe Rock, to the north of Morte Point, and just inside the Bideford to Foreland Point rMCZ, is a spectacular tide swept site of rugged pinnacles rising up 8m from 20 m. The tops were almost fully covered with *Tubularia indivisa* and notably few other species occurred (photo below by Keith Hiscock). Common amongst these hydroids were the anemones *Urticina felina*, with *Metridium senile* and *Sagartia elegans*, while *Corynactis viridis* dominated the verticals below. The pinnacle tops also supported edible mussel *Mytilus edulis* beds with common starfish *Asterias rubens* feeding on them. Amphipod whips of *Dyopedos porrectus* were abundant.



By contrast, Combe Martin Bay Reef had a very diverse fauna with all invertebrate phyla well represented on this shallow circumlittoral low-lying bedrock and boulders reef. This was dominated by a silty turf of hydroids and bryozoans with erect sponges, large *Pentapora foliacea* and many *Alcyonidium diaphanum*. The sponge fauna was diverse, including the very-rarely recorded, tiny stalked sponge *Guantha lacunosa* with chocolate finger sponge *Raspailia ramosa* common. Diverse worms, crustaceans (including the rare sponge crab *Dromia personata*) and molluscs (with many sea slugs and eggs, including the cosmopolitan *Thecacera pennigera*) were spotted. There were extensive patches of horseshoe worm *Phoronis hippocrepia* and the club sea squirts *Morchellium argus* and *Aplidium punctum* plus *Clavelina lepadiformis*. And one sea fan. The surrounding silty broken-shell habitat was characterised by sand brittlestars *Ophiura albida*, king scallops *Pecten maximus*, sand mason worms *Lanice conchilega* and an occurrence of the policeman anemone *Mesacmaea mitchellii*, another rarely seen species. Clearly, these silty sites can reward the eagle eyed Seasearcher.

## Lundy

On the west side, Battery Point Reef was surveyed from kelp park down a gullied reef system to 18m. The kelp park was of several kelp species, with red weeds, sponges, hydroids and bryozoans beneath. Deeper, bedrock and boulders supported a short animal turf of varied sponges, hydroids and bryozoans, with associated sea slugs. Occasional *Alcyonium digitatum*, *Eunicella verrucosa* and *Pentapora foliacea* emerged above the turf with varied fish life present. Northwards similar reefs observed were Jenny's Bay and South of Hen and Chickens. This wave exposed western side is less surveyed so it is good to get records from these sites.

Various sites were revisited and observed elsewhere around the island by independent divers and sea fans were recorded at five reefs and two wrecks as occasional or rare. Poor condition and recruitment was observed in 2012 but this was not recorded on forms this year. A trip in 2014 is planned to address this question especially as recruitment is well evident off South Devon. At Knoll Pins, other BAP species present include crawfish and the well known *Leptopsammia pruvoti* patches. The lion's mane jellyfish *Cyanea lamarckii* and *C. Capillata*, moon jellyfish *Aurelia aurita* and ctenophores were observed regularly from June to August, often in abundance, as was generally noted all along the north Cornwall and Devon coasts this year.

## Special Sites

With its two coastlines, Devon has a great variety of BAP species and habitats (such as eelgrass beds, fragile sponge and anthozoan turf) as well as now three MCZ's, two rMCZs and two SACs. In Devon, we are fortunate to have such a great selection to explore – so many reefs so little time! The BAP species are listed below.

BAP Species		Areas where recorded
<i>Amphianthus dohrnii</i>	sea fan anemone	Mewstone to Stoke Point,
<i>Eunicella verrucosa</i>	pink sea fan	Eddystone, Mewstone to Stoke Point, Plymouth Sound & Approaches, Bigbury Bay, Bolt Area, Prawle Point, Dartmouth Area, Berry Head, Torbay, Hopes Nose to Dawlish
<i>Leptopsammia pruvoti</i>	sunset coral	Plymouth Sound & Approaches, Lundy
<i>Palinurus elephas</i>	crawfish	Mewstone to Stoke Point, Lundy
<i>Ostrea edulis</i>	native oyster	Dartmouth Area, Torbay
<i>Solea solea</i>	sole	Plymouth Sound & Approaches
<i>Pleuronectes platessa</i>	plaice	Plymouth Sound & Approaches, Torbay
<i>Lophius piscatorius</i>	anglerfish	Mewstone to Stoke Point
<i>Molva molva</i>	ling	Eddystone

## Courses

Training is a key part of Seasearch activities and divers start with an Observer or Surveyor Course and through training dives and other dives gain experience and knowledge from Seasearch tutors and other knowledgeable divers. This leads, we hope, to them submitting record forms from organised and individual dives. Sally organised courses at Discovery Divers, Plymouth in 2013: an Observer Course with four participants and a Surveyor Course with seven participants. Some of these Seasearchers, and alumni from 2012, have since completed their qualification this year. An article about the Surveyor Course, written by one of the participants, Kirstie Harris, was published in October in Scuba Magazine and hopefully will persuade some Observers to move up to this level.

## Recording Forms

Currently 74 Survey forms, 88 Observation forms, 8 Pink Sea Fan forms and 1 Crawfish form have been received for Devon sites. This produces a total of 171 forms nearly all of which have been inputted to the Marine Recorder database by Sally. The Survey forms contain much more data and so they give a more comprehensive view of the site, its habitats and allow a biotope code to be assigned to each habitat. In Devon, Survey forms represent 43 % of the forms, a similar percentage to last year, and require a greater effort by the Surveyor – 22 Surveyors contributed and the majority of these came from Seasearch-organised trips. Observation forms represent the first step and many came from those attending a recent Observer Course – 16 Observers contributed, many from several enthusiastic people. It is hoped they will become Surveyors in a few years time. Most forms came from Seasearch organised dives but a noticeable amount came from individual divers – as has been said before, any dive can be a Seasearch dive. The photo was taken by Danny Daniels on board Discovery Divers' Red Alert before heading off to the Bolt.



## Acknowledgements

Many thanks go to all those Seasearchers who have supported the trips and completed and returned forms. Their keen eye underwater and dedication afterwards have made the survey activities a great success – Seasearch relies on the contributions of volunteer divers.

Our very helpful skippers also deserve many thanks. Danny Daniels and Dave Handley from Discovery Divers Plymouth, Tony Hoile and Laurie Fraenkel from Dartmouth, Rick Parker from Torquay and Rob King from Lyme Regis. Their extensive site knowledge, boat handling skills in sometimes difficult conditions and good humour have taken us to some fabulous sites and returned us safely. This is greatly appreciated.

Sally Sharrock, and now myself, are grateful to Rob Adams, Dave Walker, Allen Murray, Richard Dean and Fiona Hampton-Matthews who have organised and run trips in 2013. There is a big demand for organised dives and it is much appreciated that these people have helped out, and continue to help out.

After eight years as Devon Seasearch Coordinator, Sally retired in October for a well earned rest. She started Devon Seasearch and has nurtured a great team ever since through many courses and organised dives, fuelled by tasty cakes, infectious enthusiasm and knowledgeable advice. For that Seasearch is very grateful. We have been privileged to visit some fabulous and fascinating habitats over these years and we Seasearchers are very thankful too.

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