



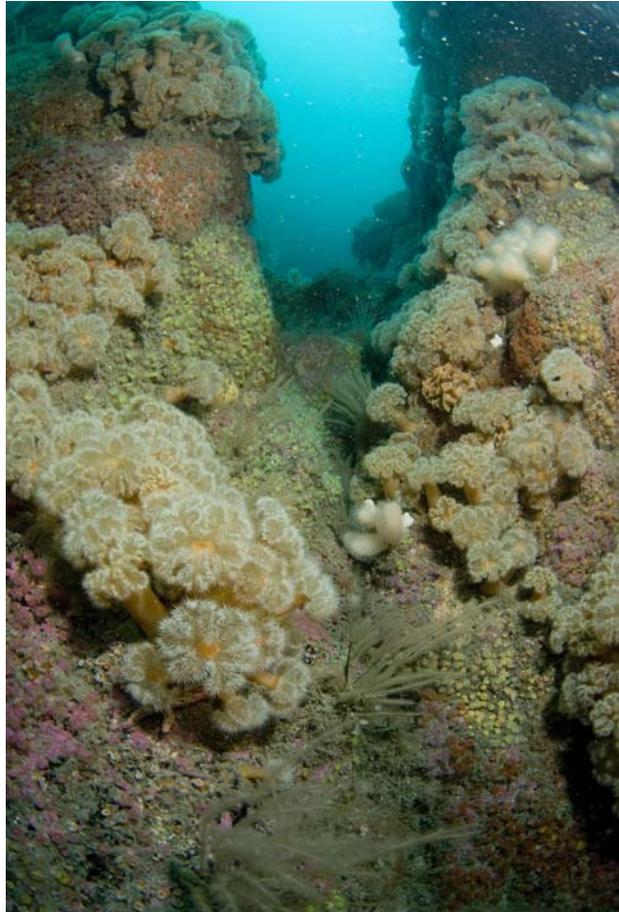
Isles of Scilly 2010 Summary Report

Eelgrass, *Zostera marina*, in Tean Sound

Seasearch Isles of Scilly 2010

Introduction

For several years Seasearch has been organising a team of divers to go to the Isles of Scilly for a week of survey dives. This year in May ten Seasearch divers spent a week diving a mix of new and previously surveyed sites. The volunteer divers were variously qualified as marine biologists, Seasearch Surveyors and Seasearch Observers. Surveyor recording forms were completed for each site. Specimens were collected from some sites for subsequent examination, in particular hydroids, bryozoans and algae and photographs were used extensively to aid identification.



Reef scene, Wingletang

12 sites were surveyed over the week of which 9 were new sites (or new parts of larger known sites), and comprising a selection of current swept walls, sponge gardens and silt covered ledges, tide swept channels, sheltered boulders and sediment.

A special focus was placed on BAP species and habitats whilst still giving an excellent mix of some of the best scenic and species rich dive sites. Seven BAP species were recorded and two BAP habitats – fragile sponge and anthozoan turf and tide swept channels. Over 320 species were recorded in total, reflecting the diverse expertise of the group. Many rare and unusual species were also logged. Tables of all these appear later in the text.

The divers were based at St Martin's Dive Centre on the island of St Martin's and the weather allowed for a good variety of dive sites around most of the islands.

The dive sites

Menglow - new site

This was a tide swept channel in Smith Sound in the SW of the area. A coarse sand bottom overlying bedrock characterised by burrowing anemones *Cerianthus lloydii* and the red speckled pimplet anemone *Anthopleura ballii* with occasional dahlia anemones *Urticina felina*, bounded by granite boulders and walls with jewel anemones *Corynactis viridis* and oaten pipe hydroid *Tubularia indivisa*, typical of tide swept conditions. A kelp forest dominated shallower parts and included the golden kelp *Laminaria ochroleuca* with mixed weeds including tasselweed *Carpomitra costata*, with faunal understorey. Pink sea fans *Eunicella verrucosa*, the rare nudibranch *Doris sticta* and the solitary stalked hydroid *Corymorpha nutans* were all recorded at this site.

West Dry Splat - new site

On the eastern side of the Western Rocks this new site was grazed bedrock with kelp forest and fell to the west as bedrock and boulders with overhangs and caves with a short hydroid turf, abundant cup corals *Caryophyllia smithii* and a few sponges. At the base was coarse sand with frequent brittlestars *Ophiothrix fragilis*. Atlantic grey seals *Halichoerus gryphus* were recorded here.

Trenemene Wall

This is a well known and often dived site in the Western Rocks with a visually stunning wall. A kelp forest at shallower depths with rich faunal turf below falls as sheer rock faces with complete faunal cover dominated by elegant anemones *Sagartia elegans*, plumose anemones *Metridium senile* and *Corynactis viridis*. A few upward facing shelves occurred with sparser turf of sponges, hydroids and bryozoans with *Eunicella verrucosa* recorded as rare. *Doris sticta* was recorded on the wall and two basking sharks *Cetorhinus maximus* were seen on the dive.



Anemone covered wall at Trenemene

Melledgan - new site

Between St Agnes and the Western Rocks this site was upward facing bedrock covered with kelp forest dominated by forest kelp *Laminaria*

hyperborea with some furbelows *Saccorhiza polyschides* and a rich faunal turf below. The rock fell to the east as a wall dominated by *Sagartia elegans* and *Corynactis viridis*. Below this were bedrock and boulders with sparser fauna of erect sponges and hydroids on upward facing sections and gravel patches between.

Ridge Lower Corner - new site

The Ridge area in the centre of Crow Sound has some incredibly rich dive sites with sloping and upward facing rock with extensive sponge gardens forming the classic BAP habitat of fragile sponge and anthozoan turf.

This particular site was in the vicinity of others surveyed in recent years but a distinct new area. *Eunicella verrucosa* with the sea fan anemones *Amphianthus dohrnii*, hydroids *Polyplumaria flabellata*, *Lytocarpia myriophyllum* and



Slime sponge and other sponges - photo Lin Baldock

Diphasia alata, the rare nudibranch *Facelina annulicornis*, crawfish *Palinurus elephas*, 13 species of bryozoan and 22 species of sponge including the slime sponge *Desmacidon fruticosum* were all recorded at this very species rich site.

Tean Sound

This shallow tideswept channel between the islands of St Martin's and Tean has extensive healthy eelgrass beds of *Zostera marina* on the western side, falling gently to sediment and mixed ground towards the



Unidentified anemone in Tean Sound

centre of the channel with thick weed growth including *Laminaria saccharina*, *Cystoseira baccata*, *Sargassum muticum*, very large growths of *L. ochroleuca* and an understory of red algae together with the bryozoan *Watersipora complanata*. The sediment contained many *Anthopleura ballii*, the glaucous pimplet *A. thallia* and abundant other

burrowing anemones including the unidentified one pictured. The BAP species stalked jellyfish *Haliclystus auricula* was recorded on the *Zostera marina*.

Hathor/Plympton wrecks

A well known and recorded wreck site to the south of St Agnes island with upward facing metal dominated by erect axinellid sponges and also hedgehog sponge *Polymastia boletiformis*, tapered chimney sponge *P. penicillus*, *Suberites carnosus*, *Eunicella verrucosa* and red fingers *Alcyonium glomeratum*. White cluster anemones



Pink and white sea fans, heavily fouled and including sea fan anemones

were also recorded but it is not known if they were a white form of *Parazoanthus axinellae* which they appeared most to resemble or the white *P. anguicomis*. *Amphianthus dornii* was recorded on both pink and white *Eunicella verrucosa* which were suffering considerable damage from the anemones as seen in the photo above.



White parazoanthus anemones

Adjacent to the wreck is a steep rock reef dominated by anemones above which was a mixed kelp forest of

L. hyperborea, *L. ochroleuca* and *S. polyschides* and faunal understorey of anemones and encrusting sponges.

Wingletang - new site

Although the Wingletang area to the south of St Agnes has been recorded in the past this exact site was a new location and consisted of a kelp topped wall sheer down to 20m with large boulders at the base and spectacular wall fauna of *Corynactis viridis* and *Metridium senile*. Under an overhang at c 20m bsl was a group of sunset cup corals *Leptopsammia pruvoti* and the small pink fingers *Alcyonium hibernicum*. A large nursehound *Scylliorhinus stellaris* was recorded together with the nudibranch *Trapania pallida*. The false cowrie *Simnia patula* was recorded on dead men's fingers *Alcyonium digitatum*.

West Deep Ledge - new site

To the north of St Martin's a rock reef with *Laminaria ochroleuca* forest at the upper level fell steeply with a wall of abundant *Corynactis viridis* to upward facing sponge gardens. These had abundant variety and numbers of sponges mixed with hydroids and bryozoans and formed a very species rich site. *Simnia patula*, *Doris sticta*, *Polyplumaria flabellata* and pink and white *Eunicella verrucosa* were all recorded here with a total of over 20 sponge species including the rare finger sponge *Adreus fascicularis*.



Polyplumaria flabellata

Sally's Silty Sponge Site - new site

North of the daymark on St Martin's this new site has a kelp topped wall with mixed kelp forest including *Laminaria ochroleuca* with mixed red weed and faunal understory. Falling steeply below were walls having large vertical fissures and dominated by *Corynactis viridis*. Ledges at various levels and upward facing surfaces of the boulders below had a fine silt cover and a variety of 21 species of sponge and many



Wall-to-wall sponge garden

anthozoans including *Eunicella verrucosa* forming a rich sponge and anthozoan turf. The rare red blenny *Parablennius ruber* and the elegant sea slug *Okenia elegans* were recorded together with *Simnia sp* which was on *Eunicella verrucosa*.

S E Trinity Rock - new site

South of the Eastern Isles parts of this site have been recorded before by Seasearch. This new section was rugged granite bedrock covered with very species rich fragile sponge and anthozoan communities and in places a dense turf of tunicates and bryozoans. Vertical rock faces were dominated by *Metridium senile* and *Corynactis viridis*. Another section of the site had areas of sand-scoured rock with clean gravel areas overlying bedrock with many large *Urticina felina* anemones, typical for that habitat.

Hakestoke - new site

Close in to the south of Gugh Island a bedrock reef fell southwards to boulders and then fine silty sediment. The rock near sea level was dominated by brown algae with abundant dabberlocks *Alaria esculenta*, a northern and westerly species. The boulders and bedrock below had abundant *Caryophyllia smithii*, branching and massive sponges and occasional *Eunicella verrucosa*.

The species

All species were recorded on Seasearch Surveyor forms and the results will be entered into Marine Recorder with habitat biotope codes and then uploaded to the JNCC site later this year.

The table on the right shows the total number of species recorded during the survey week and reflects both the varied interests and increasing identification expertise of the divers. Sponges are still under-recorded as many cannot be identified with certainty in the field and necessarily go into the database as 'porifera indet'.

Microscope analysis and use of keys meant that both hydroids and bryozoans were well recorded and assistance from a new Photographic Guide to Common Seaweeds by Lin Baldock meant a higher number of weeds could be identified with confidence.

The total number of species considerably exceeds those recorded in previous years.

Phylum	Number of species
Porifera	33
Cnidaria	61
Annelida	11
Pycnogonidae	1
Crustacea	17
Mollusca	38
Bryozoa	36
Echinodermata	13
Tunicata	21
Pisces	22
Algae	74
Angiospermae	1
Mammalia	1
Total	329

Unusual or rare species recorded

The table below shows unusual or rare species and at how many sites they were recorded. Some species that in the past were rarely seen, for instance the nudibranch *Doris sticta* and the hydroid *Polyplumaria flabellata*, were recorded unusually frequently.



Bryozoan *Watersipora complanata* in Tean Sound

Common name		Number of sites
Slime sponge	<i>Desmacidon fruticosum</i>	2
Pink encrusting sponge	<i>Hexadella racovitzai</i>	1
Solitary stalked hydroid	<i>Corymorpha nutans</i>	1
Feather hydroid	<i>Polyplumaria flabellata</i>	4
Feather hydroid	<i>Lytocarpia myriophyllum</i>	2
Feather hydroid	<i>Diphasia alata</i>	1
Pink fingers	<i>Alcyonium hibernicum</i>	1
White cluster anemones	<i>Parazoanthus axinellae/anguicomis</i>	3
Red speckled pimplet	<i>Anthopleura ballii</i>	2
Glaucus pimplet	<i>Anthopleura thalia</i>	1
Nudibranch	<i>Facelina annulicornis</i>	2
Nudibranch	<i>Doris sticta</i>	6
Nudibranch	<i>Trapania pallida</i>	1
Nudibranch	<i>Okenia elegans</i>	1
Bryozoan	<i>Watersipora complanata</i>	1
Red blenny	<i>Parablennius ruber</i>	2
Golden kelp	<i>Laminaria ochroleuca</i>	10
Dabberlocks	<i>Alaria esculenta</i>	1
Tasselweed	<i>Carpomitra costata</i>	2

BAP species



Palinurus elephas at Ridge Lower Corner

BAP species were especially noted during the week. The table below shows which species were recorded and at how many sites. Basking sharks were also seen on the surface between dives.

Common name		Number of sites
Crawfish	<i>Palinurus elephas</i>	2
Pink sea fan	<i>Eunicella verrucosa</i>	9
Sea fan anemone	<i>Amphianthus dohrnii</i>	3
Stalked jelly	<i>Haliclystus auricula</i>	1
Eelgrass	<i>Zostera marina</i>	1
Basking shark	<i>Cetorhinus maximus</i>	1
Sunset cup coral	<i>Leptopsammia pruvoti</i>	1



Volunteer divers and supporters – photo Rob Adams

Seasearch is a volunteer underwater survey project for recreational divers to contribute to the conservation of the marine environment. Surveyors and recorders on this trip were Angie Gall, Roy and Mary Restell, Lin Baldock, Alison Bessell, Dominic Flint, Nick Owen, Rob Adams and Sally Sharrock.

Thanks go to skipper Tim Allsop of St Martin's Diving Services for finding such an interesting variety of sites.

Report prepared by Sally Sharrock.

Photographs by Sally Sharrock, Lin Baldock and Rob Adams.