The table to the right shows how many species were recorded in each group and some of the most widely distributed species.

Phylum	Common Name	Number of species	Common Species	
Porifera	Sponges	25	Boring sponge	*Cliona celata*
			Yellow branching sponge	*Axinella dissimilis*
Cnidaria	Anemones, corals, hydroids, jellyfish	30	Sea beard	*Nemertesia antennina*
			Dead men's fingers	*Alcyonium digitatum*
			Red fingers	*Alcyonium glomeratum*
			Pink sea fan	*Eunicella verrucosa*
			Plumose anemone	*Metridium senile*
			Elegant anemone	*Sagartia elegans*
			Jewel anemone	*Corynactis viridis*
			Devonshire cup coral	*Caryophyllia smithii*
Platyhelminthes	Flatworms	1		
Annelida	Segmented worms	4		
Pycnogonida	Sea spiders	1		
Crustacea	Crabs, lobsters, barnacles	7	Edible crab	*Cancer pagurus*
Mollusca	Shells, sea slugs, cuttlefish	14	Nudibranch	*Polycera faeroensis*
Bryozoa	Sea mats	7	Sea Mat	*Membranipora membranacea*
			Potato crisp bryozoan	*Pentapora foliacea*
Echinodermata	Starfish, sea urchins, sea cucumbers	10	Seven armed starfish	*Luidia ciliaris*
			Spiny starfish	*Marthasterias glacialis*
			Common urchin	*Echinus esculentus*
			Cottonspinner	*Holothuria forskali*
Tunicata	Sea squirts	9		
Pisces	Fishes	18	Pollack	*Pollachius pollachius*
			Ballan wrasse	*Labrus bergylta*
			Two spot goby	*Gobiusculus flavescens*
Mammalia	Mammals (seals & dolphins)	2		
Algae	Seaweeds	18	Cuvie	*Laminaria hyperborea*
Angiospermae	Flowering Plants	1	Eelgrass	*Zostera marina*
	Total Species	**147**		

Sponges

A wide diversity of sponges was recorded. At most sites sturdy 'clean water' species such as the boring sponge, *Cliona celata* and the hedgehog sponge, *Polymastia boletiformis,* predominated. Dry Ledge was the exception with a much wider range of species including many more delicate branching forms. The nationally scarce *Axinella damicornis* (below) was common here.


CW

Anemones, Corals, Hydroids & Jellyfish

This is the most prominent of the animal groups with huge numbers of anemones and soft corals on many of the rocky walls.

Plumose, jewel and elegant anemones dominated many surfaces (see cover and inside page top left and cover bottom left and right). All three species thrive in clear water and strong tidal streams.

Amongst uncommon anemones was the Yellow cluster anemone, *Parazoanthus anxinellae* (cover mid right and the very rare Sea fan anemone, *Ampthianthus dohrnii,* (below) found on a single sea fan at Flat Ledge and which does not appear to have been recorded from the Isles of Scilly before.


SS

The nationally rare sunset cup coral, *Leptopsammia pruvoti*, was recorded from one site. It has been seen at other sites in the Isles of Scilly, which is one of only four areas it is known to occur in the UK.

Pink sea fans

A special study was made of pink sea fans and detailed records were made of 43 colonies from 8 sites. Sea fans were not common at any of the sites, probably because of the exposed conditions, which may also explain their relatively small size. The largest species was 58cm x 30cm and was growing in a bushy form which occurs when local micro-currents come from a number of different directions.

Seven of the colonies (16%) were white in colour rather then pink and 9 (21%) had sea fan sea slug adults or egg masses attached.

Starfish, Sea urchins and Sea cucumbers

Whilst the diversity of echinoderms was low, the seven armed starfish, *Luidia ciliaris*, spiny starfish, *Marthasterias glacialis*, common sea urchin, *Echinus esculentus*, and cottonspinner, *Holothuria forskali* were commonly recorded. These are all typical south-westerly species.

Crabs and Lobsters

Crabs and lobsters were not common anywhere in the survey area. However it was good to see one very large spiny lobster, *Palinurus elephas*, as these have become increasingly rare.

Molluscs

The 14 species recorded included 8 nudibranchs (sea slugs). These included the sponge nudibranch, *Doris sticta*, which is nationally scarce.

Fishes

The most common fishes in the study area were wrasses with two species found at most sites (ballan and cuckoo wrasse). Pollack and two spot gobies were the most commonly recorded of the other fish species.

Nationally Rare and Scarce species

Species	Designation	Where found
Sponge		
Axinella damicornis	*scarce*	Occasional - 3 sites
Pink sea fan		
Eunicella verrucosa	scarce/BAP	Most sites. Small numbers.
Yellow cluster anemone		
Parazoanthus axinellae	scarce	Dry Ledge only but frequent here
Sea fan anemone		
Amphianthus dohrnii	rare//BAP	Flat Ledge only. Rare
Scarlet and gold star coral		
Balanophyllia regia	scarce	Menawethan only. Occasional
Sunset coral		
Leptopsammia pruvoti	rare/BAP	Wreck of Cita only. Rare
Sponge nudibranch		
Doris sticta	scarce	White Island only. Rare

Nationally rare and scare as defined by JNCC.
BAP = Biodiversity Action Plan .

This Seasearch survey was organised as a part of the Marine Conservation Society's Member's Dives Programme.

Surveyors taking part were: Vicki Billings, Alison Fish, Mike Flavell, Jane & Stella Meesters, Sally Sharrock and Chris Wood. We would like to thank Tim Allsop for putting us on the sites.

This report has been prepared by Chris Wood. Photographs are by Mike Flavell (MF), Sally Sharrock (SS) and Chris Wood (CW).

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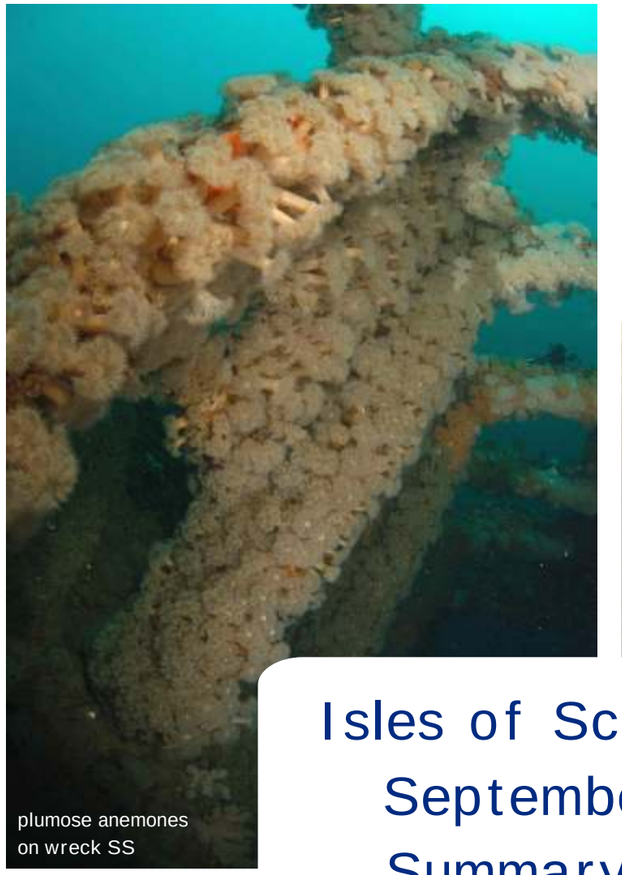
plumose anemones on wreck SS

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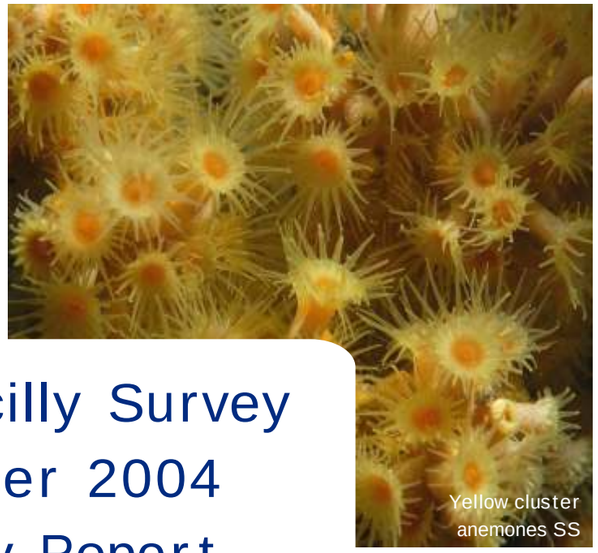
Yellow cluster anemones SS

Isles of Scilly Survey September 2004 Summary Report


pink sea fan survey SS


atlantic grey seal CW


elegant anemones CW


plumose, jewel and elegant anemones MF

North of White Island


jewel anemones CW

This is a very exposed site and deep ocean swells were present at the time of the dive.
The top of the reef was 17m deep and below this were dramatic walls down to about 60m. The walls were covered in anemones, especially jewels, plumose and elegant. Large colonies of the potato crisp bryozoan were also present.

East Withan

The site was on the sheltered, southern, side of the rock and comprised a steep face to 25m with large boulders below. The site has more sediment than the more exposed sites and there is a good ranges of sponges present, though far fewer anemones.


sponge *Homaxinella subdola* CW

Flat Ledge

This site has a beautiful vertical wall with a series of small terraces at different depths. As a many similar sites, the wall was festooned with plumose, jewel and elegant anemones and there were many red fingers, potato crisp bryozoans and boring sponges.

On one small ledge was a group of pink sea fans one with a group of the rare sea fan anemones present.


pink sea fan CW

Tean Sound

Tean Sound is a shallow gap between islands and has a seabed of sand and gravel.
The site is notable for the large number of sediment dwelling anemones. These include daisy and burrowing anemones and two shallow water species, the gem anemone *Aulactinia verrucosa* and *Anthopleura ballii*. Hermit crabs with the parasitic anemone were also common.
In shallow water there is a dense and healthy bed of eelgrass, *Zostera marina*, a BAP habitat.


Cerinathus lloydii MF


Anthopleura ballii MF

Hard Lewis Rocks

These rocks reach the surface at low water and we dived two wrecks, the King Cadwallon and the Juno, as well as exploring the adjacent rocky walls.
The remains of the King Cadwallon are covered in plumose anemones (see cover top left) red fingers, Devonshire cup corals, potato crisp bryozoans and there are a good number of pink sea fans, both the pink and white colour forms.

Next to the King Cadwallon is a wall from 30 metres depth to the surface, densely covered in anemones and soft corals.
Around the Juno the rocky surfaces are less steep and there were extensive kelp forests to a depth of 15m. The main kelp plant here was *Laminaria ochroleuca* but *L. hyperborea* and *Saccorhiza polyschides* were also present.

Wreck of the Cita

The Cita was a merchant vessel which sank as recently as 1997. The wreckage is now covered with marine life with a kelp forest on the upward facing surfaces and large numbers of plumose anemones, red fingers and cup corals on the vertical and overhanging surfaces.

The surrounding seabed has rocky walls and large boulders. The walls are covered in jewel anemones and there are large colonies of potato crisp bryozoans. On the boulders we found a single sunset coral, *Leptopsammia pruvoti*, a nationally rare species, as well as many of the more common Devonshire cup corals.

Menawethan

This is a shallow site consisting of large, kelp covered, boulders with gullies between. The adjacent rocks are a popular haul out for Atlantic grey seals which were also much in evidence underwater, treating our divers to many inquisitive encounters (see cover mid right.

Life on the rocks included the nationally scarce scarlet and gold cup coral. *Balanophyllia regia* (below).


CW

South Gilstone Reef


Diazona violacea SS

This site has a promontory running south from the Gilstone rock with precipitous faces on three sides at its southern end which go down to at least 40metres.
The faces are dominated by plumose anemones with other anemones and red fingers very common. The small ledges have a variety of sponges present.
Records at this site included the Football sea squirt *Diazona violacea*, which is relatively uncommon in southern Britain.

Survey sites

The sites surveyed were limited by strong winds throughout the week and were mostly on the eastern and northern sides of the islands. Nevertheless we were able to reach a variety of exposed and more sheltered sites and compare the variety of marine life found in them.The shallow water sites provided a contrast to those with steep walls.

Dry Ledge Reef

This site is relatively sheltered compared to other steep rock sites around the islands and there was a light covering of silt on many of the surfaces. This has a big impact on the variety of marine life which occurs.
Two notable features were the extensive covering of silty worm tubes across most surfaces and the number and variety of sponges, which far exceeded any other site.

Twenty one different sponges were recorded, including nationally scarce *Axinella damicornis.* Amongst other species seen was the cup shaped *Axinella infundibuliformis* shown below.


CW