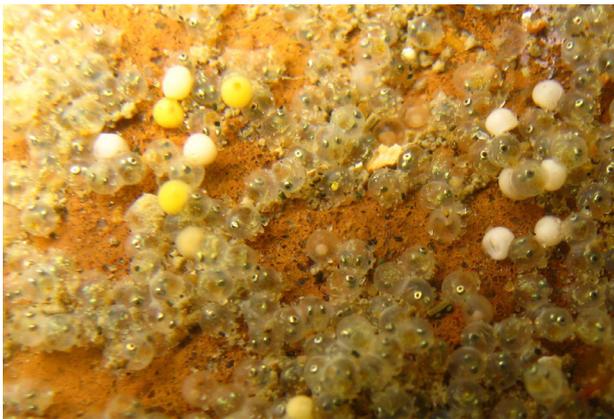


Hampshire & Isle of Wight Seasearch Summary Report 2011



Black bream eggs. © Jolyon Chesworth.



Cuttlefish eggs on eelgrass. © Justin Evans.



Edible crab. © Charlotte Bolton.



Common hermit crab. © Justin Evans.



Brill. © Justin Evans



Sponge community. © Justin Evans.

Report prepared by Amy Dale



Seasearch Report for 2011

Hampshire and Isle of Wight Wildlife Trust

Overview of activities



Seasearch diver (Paul Floyd)

2011 proved to be a busy year for Seasearch in Hampshire and the Isle of Wight. Collectively, by participating in dives, courses or both, 62 people got involved in Seasearch across our two counties this year. The Hampshire and Isle of Wight Wildlife Trust organised six dive days in which 30 divers undertook a total of 49 individual dives across 12 different sites. We also received data forms from 6 privately organised dives resulting in a total of 18 sites in all being surveyed (some more than once) in the Hampshire and Isle of Wight area (Table 1, Figure 1). In all, 65 Observer and 18 Surveyor forms were submitted to us, providing lots of useful data on our local marine habitats and species.

A wide range of habitats were surveyed, including several habitats which are Features of Conservation Interest (FOCI)¹ in the Marine Conservation Zone (MCZ)² project. These included sand and gravel, chalk, seagrass beds, and fragile sponge and anthozoan communities on rocky habitats. In total 235 taxa, representing 12 phyla, were recorded (Table 2).

HIWWT also continued to train divers by delivering two Observer courses (one in Hampshire and one on the Isle of Wight), with a total of 18 participants. We also offered two specialist weekend courses over the season. Both the Introduction to Seaweeds and Introduction to Sponge Identification course booked up quickly to full capacity, with 20 and 13 participants attending respectively. Their success is highlighted with the large increase in recordings of both sponges and seaweeds this season in comparison to last year (Table 2). Another course on Marine Life Identification Skills organised by Jenny Mallinson and Ken Collins at the National Oceanography Centre completed our suite of specialist courses for this year.



Seaweed identification course (Amy Dale)



Isle of Wight Observer course (Amy Dale)

¹ Habitats and species that are threatened, rare or declining and so could become reduced to residual areas if not protected. They are identified from the OSPAR List of Threatened and/or Declining Species and Habitats and the UK List of Priority Species and Habitats (UK BAP).

² Project to set up network of new Marine Protected Areas called Marine Conservation Zones (MCZs) under the Marine and Coastal Access Act (2009). MCZs will protect nationally important marine wildlife, habitats, geology and geomorphology. The MCZ Project concerns the selection of MCZs in English inshore waters and offshore waters next to England, Wales and Northern Ireland. Sites will be selected to protect not just the rare and threatened, but the range of marine wildlife (Natural England).

Table 1. Hampshire and Isle of Wight sites surveyed in 2011.

DOMINANT HABITAT	SITE	SURVEY MONTH	LOCATION		DEPTH (max, m)
			Latitude	Longitude	
Sand and gravel	Ethel Ledge*	October	50°41.688' N	01° 04.098' W	6.4
	Ethel Ledge*	July	50° 41.641' N	01° 04.185' W	5.4
	Hanson Aggregate Area 372/1 1*	May	50° 38.595' N	00° 59.061' W	19
	Hanson Aggregates Area 372/1 2*	October	50° 37.615' N	01° 00.894' W	22.2
	Bembridge Ledges	April	50° 41.230' N	01° 02.220' W	4.9
with seagrass	Totland Bay*	September	50° 40.991' N	01° 33.001' W	4.5
	Colwell Bay*	July	50° 41.576' N	01° 32.343' W	3.6
	Warren Ledges*	September	50° 41.698' N	01° 32.587' W	6.8
with mud	River Hamble at Swanick	April	50° 52.799' N	01° 17.959' W	5.4
	Utopia*	July	50° 39.488' N	00° 52.983' W	17.2
Rock gullies with sand	The Long Rock, Alum Bay*	June	50° 40.005' N	01° 34.464' W	7.5
	The Long Rock, Alum Bay*	June	50° 39.906' N	01° 34.504' W	7.5
	The Long Rock, Alum Bay*	June	50° 39.893' N	01°34.550' W	7.5
	East of Old Pepper Rock*	June	50° 39.682' N	01° 33.613' W	12.5
Chalk reef	Sandown Bay (black bream nesting sites)*	May	50° 39.090' N	01° 07.290' W	14.7
	Brook Ledges*	July	50° 37.392' N	01° 26.245' W	13.9
Wreck	S.S. Camswain	April	50° 38.70' N	01° 05.38' W	16
	Stern deck HM LCT 427	August	50° 43.663' N	01° 03.092' W	26.1
	Tower above stern section HM LCT 427	August	50° 43.663' N	01° 03.092' W	24.7
with sand and gravel	Nab Tower	April	50° 40.05' N	00° 57.07' W	16.1

* dives organised by Hampshire & Isle of Wight Wildlife Trust

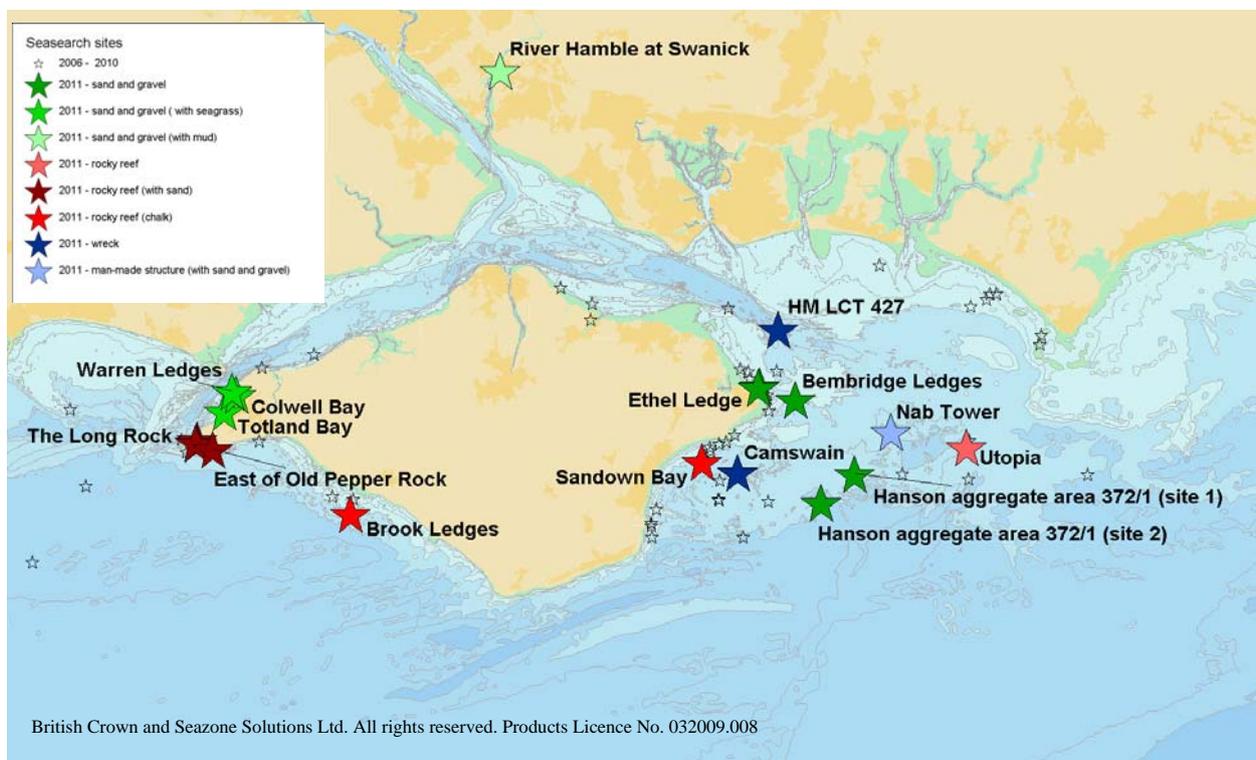


Figure 1. Seasearch dive location map indicating habitat of sites surveyed in 2011, and location of dives in previous years.

Table 2. Species recorded during 2011 Seasearch surveys in Hampshire and the Isle of Wight.

PHYLUM	COMMON NAMES	NO. OF SPECIES RECORDED	
		2011	2010 (for comparison)
Porifera	Sponges	32	15
Cnidaria	Sea anemones, corals	19	24
Annelida	Segmented worms	14	14
Platyhelminthe	Flatworms	1	0
Crustacea	Crabs, prawns, lobsters	18	26
Molluscs	Snails, bivalves, cuttlefish, sea slugs	24	22
Bryozoa	Sea moss, sea mats	28	12
Echinodermata	Starfish, brittlestars, urchins, sea cucumbers	4	2
Tunicata	Sea squirts	19	11
Pisces	Fish	22	25
Algae	Red, green, brown	54	16
Angiospermae	Flowering plants (seagrass)	1	1
	Total Recorded	236	168

Trust organised surveys

Hanson Aggregate Areas 372/1 sites 1 and 2

Seasearch dives have been carried out on the Hanson Aggregate Ltd extraction zone 372/1 for the last 5 years area as part of an ongoing survey programme which came to an end this year. This year site 1 was surveyed on 13th May, and site 2 on the 21st October. Surveys were carried out at depths of 12.9-19 m CD and 21.3-22.2 m CD respectively. The area is predominantly stable sand and gravel with some rocky reef and supports high biodiversity. There was some difference in diversity between sites, with surveys reporting higher species richness of all phyla at site 2 with the exception of echinoderms, molluscs and tunicates, where diversity was higher at site 1 (though sometimes marginally), and algae which had equal richness. This may, however, be due to survey effort and surveyor experience which was greater for the site 2 dives. Over 100 species were recorded at these sites in 2011.

Sponges were by far the most diverse group recorded with 22 species recorded in total, though site 2 appears to be more biodiverse (19 species were recorded at site 2 but only 9 at site 1). Both *Amphilectus fucorum* (Shredded carrot sponge) and *Dysidea fragilis* were relatively abundant at both sites, with others such as *Cliona celata* (Yellow boring sponge), *Raspailia ramosa* and *Axinella dissimilis* also occurring at both sites. Although several species were only recorded at site 2, *Suberites* sp. and *Tethya aurantium* (Golf call sponge) were the only species to be recorded only at site 1.



Cnidarians and crustaceans were well represented in the aggregates area with a cumulative total of 13 and 11 species recorded respectively in the area across both sites. The only species common to both sites were *Actinothoe sphyrodeta* (White-striped anemone), *Nemertesia antennina* (Antenna hydroid), *Tubularia indivisa* (Oaten pipe hydroid), *Cancer pagurus* (Edible crab), *Inachus* sp. (a

spider crab), *Necora puber* (Velvet swimming crab) and *Pagurus bernhardus* (a hermit crab). All other species, including *Crangon crangon* (Brown shrimp), *Maja squinado* (Spiny spider crab), *Pandalus montagui* (Pink shrimp) and *Palaemon serratus* (Common prawn) were only recorded at site 2.



Double spiral worms (Ed Smith)

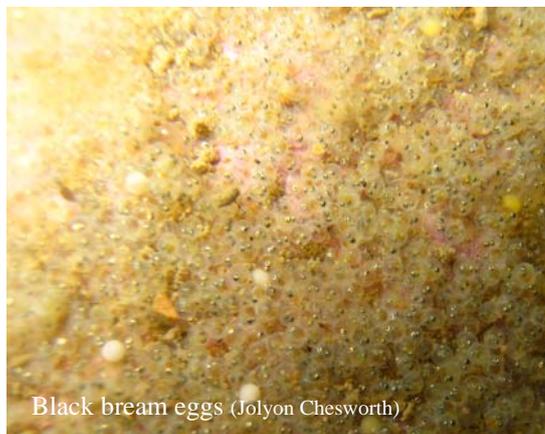
Molluscs (11 species), algae (10 species), bryozoans (10 species), tunicates (9 species), annelids (9 species) and fish (9 species) were all well represented phyla. Many species were only recorded at one of the two sites with *Bispira volutacornis* (Double spiral worm), *Flustra foliacea* (Hornwrack), *Calliostoma zizyphinum* (Painted topshell), *Crepidula fornicata* (Slipper limpet), *Ctenolabrus rupestris* (Goldsinny), *Styela clava* (Stalked sea squirt), and the colonial sea squirt *Diplosoma spongiforma* among the few which were recorded at both sites.

Echinoderms were also seen but were poorly represented with just 3 species recorded - *Asterias rubens* (Common starfish), *Astropecten irregularis* (Sand star) and *Henricia* sp. (a bloody henry) were all recorded at site 1 but only *Asterias rubens* (Common starfish) was also noted at site 2.

Sandown Bay

Dives took place at Sandown Bay on 13th May 2011 to look for the nesting sites of *Spondyliosoma cantharus* (Black sea bream). Although these fish aren't directly protected, nursery and spawning areas are categorised as having additional ecological importance and so can influence Marine Conservation Zone designation under the Marine and Coastal Access Act 2009.

Surveys were carried out on a slow drift dive at depths of 9.7-14.7m CD. The survey site substrate consisted of flat slabs of bedrock (possibly sandstone), some of which were covered in pink encrusting algae. In some areas the bedrock was covered with dead mearl and shell sand and here, in places the sand was piled up where bream had exposed the rock to make nests on the scoured rock. Unattached small boulders and cobbles were also present.



Black bream eggs (Jolyon Chesworth)

Although bream nests with eggs were seen no adults were recorded. The site was quite rich in diversity with 46 species recorded by divers during their surveys. The most species rich group was molluscs with 8 different species recorded, including patches of *Crepidula fornicata* (Slipper limpet) bed, *Buccinum undatum* (Common whelk), *Pecten maximus* (Great scallop), *Trivia arctica* (Northern cowrie) and the sea slug *Janolus cristatus* and chitons.

Bryozoans (7 species), cnidaria (6 species), fish and tunicates (5 species) were also recorded. *Flustra foliacea* (hornwrack), *Alcyonidium diaphanum* (Dogger bank itch), *Pentapora foliacea* (Potato-crisp bryozoan), *Alcyonium digitatum* (Dead man's fingers), *Parablennius gattorugine*

(Tompot blenny), the eggs of dogfish and black sea bream, *Botryllus schlosseri* (Star ascidian), *Styela clava* (Stalked sea squirt), and the solitary ascidians *Ascidia virginea*, *Polycarpa* sp. and *Molgula* sp. were among those recorded. Anemones were varied, with *Actinothoe sphyrodeta* (white-striped), *Cereus pedunculatus* (daisy), *Cerianthus lloydii* (tube), *Urticina felina* (Dahlia) and *Sagartia* sp. all recorded.

Sponges, annelids, crustaceans and algae were represented in the data with 3-4 species each. Species recorded included the hermit crab *Pagurus prideaux*, *Necora puber* (Velvet swimming crab), *Dysidea fragilis*, *Polymastia mamillaris* and *P. pencillis*, and *Raspailia ramosa*. *Bispira volutacornis* (Double spiral worm), *Lanice* sp. (bristleworms) and *Salmacina* sp. (coral worms) were seen as were dead maerl and representatives of Corallinaceae (red encrusting algae) including *Phymatolithon*. The only hydroid recorded during this survey at Sandown Bay was *Nemertesia antennina* (Antenna hydroid), and the only echinoderm was *Astropecten irregularis* (Sand star).

East of Old Pepper Rock

On the 10th June 2011, four buddy pairs carried out surveys at 6.1-12.5m CD just east of Old Pepper Rock which is situated near the Needles on the Isle of Wight. This site is rocky chalk reef interspersed with large boulders and some sand and gravel. The reef included deep gullies interspersed with horizontal crevices but also a smooth bedrock slope on the east side of the reef. Many of the vertical gully surfaces were covered with encrusting sponges. The intricate terrain supported lots of life, and at 53 species, was one of the more diverse sites surveyed this year.



Tritonia lineata (Justin Evans)

Nine species of sponge were recorded including common species such as *Amphilectus fucorum* (Shredded carrot sponge), *Hemimycale columella*, *Hemimycale columella*, and *Polymastia boletiformis*. Molluscs, fish and algae were also well represented with 7-8 species each. Molluscs included *Ostrea edulis* (Native oyster), the non-native species *Crepidula fornicata* (Slipper limpet), *Buccinum undatum* (Common whelk), *Trivia arctica* (Northern cowrie), *Calliostoma zizyphinum* (Painted topshell) and the nudibrach *Tritonia lineata*. Both benthic fish such as *Parablennius gattorugine* (Tompot blenny) and *Thorogobius ephippiatus* (Leopard-spotted goby) and

pelagic fish such as *Ctenolabrus rupestris* (Goldsinny) and *Labrus bergylta* (Ballan wrasse) were seen. Most of the seaweeds recorded were red seaweeds including *Calliblepharis ciliata* (Eyelash weed), *Delesseria sanguinea* (Sea beech), *Schottera nicaeensis* (Shaded seaweed) and *Dilsea carnosa* (False dulce) but the green seaweed *Ulva lactuca* (Sea lettuce), and the brown algae *Dictyota dichotoma* were also noted. Much of the red algae was located on the top of boulders and covered with a fine layer of silt.

Other recordings included crustaceans (5 species), annelids (4 species), tunicates (3 species), cnidarians (3 species, including the only hydroid recorded *Nemertesia antennina* (Antenna hydroid)), echinoderms (1 species) and platyhelminthes (1 species). These included *Galathea strigosa* (Squat lobster) and *Homarus gammarus* (Common lobster), *Salmacina* sp. (coral worms) and the bristleworm *Eupolymnia nebulosa*, *Clavelina lepadiformis* (Light-bulb sea squirt) and *Dendrodoa grossularia* (Baked bean sea squirt), *Actinothoe sphyrodeta* (White-striped anemone) and *Alcyonium digitatum* (Dead man's fingers), and the white flat worm *Prostheceraeus vittatus*. Some crevice sea cucumbers were also recorded, although it was not possible to determine whether they were the brown bodied (*Aslia lefevrei*) or the white-bodied (*Pawsonia saxicola*) species.

Surveyors recorded that the reef and boulders were covered by both short and tall animal turf including hydroids, sponges, bryozoans (4 species) though the only bryozoans recorded to species level were *Flustra foliacea* (Hornwrack) and *Securiflustra securifrons*.

The Long Rock, Alum Bay

The Long Rock is in Alum bay on the north-west coast of the Isle of Wight. Surveys of this site took place on the 10th June 2011 with two buddy pairs entered the water at the centre of this feature while the remaining two buddy pairs started their dive closer to the cliffs. The divers surveyed at 2.5-7.4m CD. The site comprises a chalk reef with deep gullies and large flat chalk boulders. The gullies had bare chalk and a thin sediment veneer at their base and the boulders were thickly covered by algae and some sponges. Beneath and around the boulders the seabed is stable cobbles with some sand and gravel towards the north.



Squat lobster (Justin Evans)

Forty-three species were recorded for this site. Algae were the most biodiverse group with 18 species recorded. These were mostly red weeds such as *Rhodophyllis divaricata* (Leafy rose weed), *Plocamium cartilagineum* (Cockscomb), *Meredithia microphylla* (Mermaid's ear), *Griffithsia corallinoides*, *Cryptopleura ramosa*, and *Chondrus crispus* (Irish moss). The green algae *Derbesia marina* and *Ulva lactuca* (Sea lettuce), and the brown algae *Halidrys siliquosa* (Sea oak), *Dictyopteris membranacea* and *Dictyota dichotoma* were also seen.

Relative to the number of algae species recorded during these surveys, the other groups were poorly represented. Five species each of molluscs and fish were recorded. These included *Ostrea edulis* (Native oyster), the non-native *Crepidula fornicata* (Slipper limpet), *Buccinum undatum* (Common whelk), *Crenilabrus melops* (Corkwing wrasse), *Syngnathus acus* (Greater pipefish) and *Parablennius gattorugine* (Tompot blenny). Sponges were represented by *Scypha ciliata*, *Leucosolenia* sp., *Amphilectus fucorum* (Shredded carrot sponge) and *Dysidea fragilis*. There were three species each of crustaceans (*Cancer pagurus*, *Necora puber* and *Cirripedia*), and tunicates (*Asciadiella aspersa*, *Botryllus schlosseri* and *Diplosoma spongiforme*) were recorded but bryozoans, cnidaria, and annelids were only represented by 1-2 species each and no echinoderms were seen at all. Although no hydroids were recorded, short animal turf was recorded as a seabed cover type so its likely hydroids were present.

Brook Ledges

Four buddy pairs surveyed Brook Ledges on the Southwest coast of the Isle of Wight on 2nd July 2011. The divers surveyed at 10.7-13.9m CD. Here, the ledges are a rugged rocky reef made up of soft crumbly rock with lots of fissures and bored holes from *Pholas dactylus* (Common piddock). The reef is covered with a fine layer of silt and animal turf. Within the reef were wide gullies, the base of which were rippled coarse sand with a high shell content, and occasional boulders. Overall species richness recorded at this site was 55.

Thirteen species of sponge were recorded during these dives, making them highest recorded group at this site. The species most commonly recorded (all recorded as 'frequent') were *Cliona celata* (Yellow boring sponge), *Dysidea fragilis*, *Hemimycale columella*, *Halichondria panacea*

(Breadcrumb sponge), and *Esperiopsis fucorum*. Animal turf on the rock reef was predominantly encrusting sponges, many of which could not be identified, and *Nemertesia antennina* (Antenna hydroid), the only hydroid recorded to species level.



Algae, molluscs, crustaceans, and fish diversity was reasonable with 6-9 species recorded of each. Most of the algae recorded were red seaweeds such as *Plocamium cartilagineum* (Cockscomb), *Halurus flosculosus* and *Calliblepharis ciliata* (Eyelash weed) but brown seaweeds such as *Dictyota dichotoma* and *Saccharina latissima* (Sugar kelp) were also recorded. Molluscs included *Trivia arctica* (Artic cowrie), *Ostrea edulis* (Native oyster) and squid eggs. Crustaceans recorded included common species such as *Cancer pagurus* (Edible crab) and *Maja squinado* (Spiny spider crab) but the squat lobsters *Galathea strigosa* and *Munida rugosa* were also

seen. Fish recorded were similar to those seen further along the coast at Old Pepper Rock with pelagics such as *Ctenolabrus rupestris* (Goldsinny), *Centrolabrus exoletus* (Rock cook) and *Labrus bergylta* (Ballan wrasse) seen as well as *Parablennius gattorugine* (Tompot blenny) and *Thorogobius ephippiatus* (Leopard-spotted goby) which have benthic behavioural traits.

Other groups which were represented included bryozoa (5 species), annelids (4 species), cnidaria (3 species), tunicates (2 species). A large specimen of *Pentapora folicacea* (Potato-crisp bryozoan) measuring 40cm in diameter was particularly noteworthy.

Colwell Bay

Colwell Bay was surveyed during a slow drift dive on 2nd July 2011 by three buddy pairs at depths of 2.9-3.6m CD. The seabed consists of fine sand with shell, gravel and occasional small areas of grey clay. Patches of the seagrass *Zostera marina* (Common eelgrass) were interspersed with the sandy areas. Seagrass habitats are a Feature of Conservation Interest recognised under Marine Conservation Zones (see introduction for more details). Total species richness recorded on these dives was low at 18 species.

Algae (6 species), molluscs (4 species) and crustaceans (2 species) were the most diverse groups seen. Most species were recorded in the sandy areas between the seagrass patches which were covered with burrows, tracks and siphons. With the exception of *Dictyota dichotoma* and *Ulva lactuca*, all the seaweeds recorded were red. These species included the algae *Gracilaria gracilis* and *Cryptopleura ramosa*, the molluscs *Crepidula fornicata* (Slipper limpet), *Mytilus edulis* (Blue mussel) and the crustaceans *Cancer pagurus* (Edible crab), the hermit crab *Pagurus bernhardus*. The presence of dead shells of *Barnea candida* (piddocks) indicated these were also living in the area. Only one species each of annelid (*Lanice conchilega* - Sand mason), cnidarian (*Cereus pedunculatus* - Daisy anemone), and fish (*Gobius* sp.) were seen and no echinoderms or tunicates were recorded. Although no bryozoans were identified to species level, bryozoan turf was recorded.

The only species recorded within the *Z. marina* patches were *Gibbula cineraria* (grey topshell), *Hinia reticulata* (Netted dogwhelk) eggs, *Gobius* sp. (a goby) and the sea squirt *Corella eumyota*. The *H. reticulata* eggs were attached to the *Z. marina* blades in long thin lines, and other unidentifiable small white gastropods were also living on the blades.

Utopia

On the 3rd July, eleven divers carried out Seasearch surveys on a site east of the Isle of Wight known as 'Utopia'. Dives were carried out at depth of 14.9-17.2m CD and the total species richness recorded for the surveys was 66 species. This area is a recommended Marine Conservation Zone because it supports a fragile sponge and anthozoan community (a Feature of Conservation Interest used to help designate Marine Conservation Zones, see the introduction for more information).



Leuconia gossei spicules (Alison Bessell)

Sponge diversity was high at this site with 17 species recorded. These included *Amphilectus fucorum* (Shredded carrot sponge), *Dysidea fragilis*, *Cliona celata* (Yellow boring sponge), *Leuconia gossei*, *Hymeniacidon perleve*, the branching sponge *Raspailia ramosa*, and the encrusting *Hemimycale columella*.

Cnidarian richness was also high with 10 species recorded. These included anemones such as *Actinothoe sphyrodeta* (White-striped anemone), and *Anemonia viridis* (Snakelocks anemone), the soft coral *Alcyonium digitatum* (Dead man's fingers) and hydroids such as *Tridentata distans*, *Nemertesia antennina* (Antenna hydroid), *Sertularia argentea* (Sea fir) and *Sertularella polyzonias*.



Anemone and sponge community (Charlotte Bolton)

Bryozoans, crustaceans, tunicates and fish appeared to have a similar diversity at this site with surveyors recording 6-8 species of each. Bryozoans included *Alcyonidium diaphanum* (Dogger bank itch), *Crisia aculeata*, the sea mat *Cellepora pumicosa*, *Bugula plumosa* and *B. turbinata*. The hermit crab *Pagurus bernhardus*, *Homarus gammarus* (Common lobster), and *Inachus phalangium* (Leach's spider crab) were among the crustacean recorded, while tunicate recordings included *Polycarpa fibrosa*, *Botryllus schlosseri* (Star ascidian), *Molgula manhattensis*, and the non-native

Styela clava (Stalked sea squirt). Fish included *Thorogobius ephippiatus* (Leopard-spotted goby), *Trisopterus minutus* (Poor cod) and *Pollachius pollachius* (Pollock).

Five species of annelids were recorded including the filigree worm *Filograna implexa*, a coral worm *Salmacina dysteri* and *Bispira volutacornis* (Double spiral worm). Few algae (3 species), molluscs (3 species) and echinoderms (1 species) were recorded.

Warren Ledges

Three buddy pairs dived Warren Ledges on 24th September, carrying out surveys at a depth of 4.7-6.8m CD. This site is close to the Colwell Bay site but slightly further offshore. As the substrate was described as predominantly sand and gravel with some cobbles and pebbles and also some seagrass (*Zostera marina*) so it can be assumed the dive area did not include the rocky 'ledge'

feature from which the site takes its name. Total species richness recorded was higher than at Colwell Bay with a total of 32 species recorded.



Seven species of fish were recorded, making them the most diverse group. These were mostly small benthic species such as *Callionymus lyra* (dragonet) and *Gobius niger* (Black goby) but the egg cases of Scyliorhinidae (catsharks) were also seen. The number of algae recorded was similar with 6 species noted such as *Dilsea carnosa* (False dulce) and *Delesseria sanguinea* (sea beech). The only non-red algae recorded was *Saccharina latissima* (Sugar kelp) and *Ulva* sp.. Molluscs and crustaceans were represented by 5 species each including the non-native *Crepidula fornicata* (Slipper

limpet), *Ostrea edulis* (Native oyster), the eggs of *Loligo vulgaris* (Common squid), and *Inachus phalangium* (Leach's spider crab) and *Necora puber* (Velvet swimming crab). Annelids (3 species), bryozoans (2 species), cnidarians (2 species) and sponges (1 species) were poorly represented but there were no recordings at all for echinoderms or tunicates.

Totland Bay

Three buddy pairs dived Totland Bay on 24th September, carrying out surveys at a depth of 3.6-4.5m CD. The surveys were conducted predominantly over a *Zostera marina* (Common eelgrass) seagrass bed growing on sand and gravel substrate. Seagrass is a very important habitat and a Feature of Conservation Interest recognised in the designation of Marine Conservation Zones (see introduction for more details). Species richness for this site was similar to Warren Ledges with 28 species recorded.

Seven species of algae were recorded at this site. *Colpomenia peregrine* (Oyster thief) and *Sargassum muticum* (Wireweed) were the only brown algae recorded, the remaining 5 were all reds including *Calliblepharis ciliata* (Eyelash weed) and *Gracilaria* sp. Six species of fish and five species of mollusc were recorded. Particularly noteworthy are recordings of two non-native species *Crassostrea gigas* (Pacific oyster) and *Crepidula fornicata* (Slipper limpet), the eggs of both *Loligo vulgaris* (Common squid) and *Sepia officinalis* (Common cuttlefish) and a *Scophthalmus rhombus* (Brill).



Three species of crustacean including the hermit crab *Pagurus bernhardus*, the spider crab *Inachus* sp., and *Necora puber* (Velvet swimming crab). The only annelids recorded were *Bispira volutacornis* (Double spiral worm), *Sabella pavonina* (Peacock worm) and *Pomatoceros* sp. (a keelworm), and the only cnidarians recorded were the anemones *Cereus pedunculatus* (Daisy anemone) and *Anemonia viridis* (Snakelocks anemone). Sponges were represented solely by the recording of

Suberites ficus (Sea orange) while encrusting forms of bryozoans were noted as being present, but not identified. No tunicates or echinoderms were recorded during the surveys.

Ethel Ledge

Ethel Ledge was surveyed on two separate occasions this year. The site, like the popular Bembridge Ledges dive site which lies just to the north-west, consists of a mixed gravel bed with rocky ledges. Surveys were carried out on drift dives on 3rd July and 21st October at depths of 3-5.4 m CD, and 5.2-6.4 m CD respectively. Cumulative species richness recorded at this site in 2012 was 106 (65 recorded in July and 55 in October).



Algae were by far the most diverse group recorded with 42 species recorded in total at this site (28 species recorded in July and 28 in October). Brown weeds *Desmarestia aculeata* (Witch's hair), *Halidrys siliquosa* (Sea oak), *Laminaria saccharina* (Sugar kelp), the non-native *Sargassum muticum* (Wireweed), and the red weeds *Calliblepharis ciliata* (Eyelash weed), *Chondrus crispus* (Carageen), *Sphaerococcus coronopifolius* (Berry wort cress), *Halurus flosculosus*, and *Corallina officinalis* were among those recorded.

Bryozoa were also reasonably diverse at this site with 17 species recorded in total at this site (14 in the July surveys and 3 in the October surveys). Most of the bryozoans recorded were encrusting forms such as *Electra pilosa*, *Escharella immersa* and *E. variolosa*, *Schizomavella cuspidata* and *S. linearis*, but branching species such as *Bugula flabellata*, *B. plumosa* and *Scrupocellaria* sp. were also recorded.

Fish, molluscs, sponges and annelids were all reasonably well represented with 6-8 species recorded of each. *Gobiusculus flavescens* (Two-spotted goby), *Crepidula fornicata* (Slipper limpets), *Gibbula cineraria* (Grey topshells), *Dysidea fragilis*, and *Bispira volutacornis* (Double spiral worm) were the only species from these groups to be recorded during both the July and October surveys.

Five species of crustacean were seen including *Necora puber* (Velvet swimming crab) and *Cancer pagurus* (Edible crab) but *Homarus gammarus* (Common lobster) was the only crustacean seen on both survey dates. Cnidarians were represented by two species, *Anemonia viridis* (Snakelocks anemone) and the hydroid *Obelia geniculata*, both of which were recorded in the October survey. *Styela clava* (Stalked sea squirt) was the only tunicate recorded, seen in the July survey.

Independent surveys (single forms)

River Hamble at Swanick

The River Hamble was surveyed on the 12th April 2011 by a single buddy pair surveying at a depth of 0.9-5.4m CD. The soft sediment river bed supported non-native species such as *Crepidula fornicata* (Slipper limpet), *Styela clava* (Leathery sea squirt), and *Urticina eques* (Horseman anemone). The area around this site is highly developed and a very busy yachting centre and

evidence of this through disturbance, litter, and debris was noted by the surveyor. Many of the empty shells and man-made items seen had sea squirts, anemones and sponges attached to them. Twenty-three species were recorded in total during the survey. Sessile species recorded on the river bed included sponges *Halichondria bowerbanki*, *Scypha ciliata* and *Haliclona oculata*, sea squirts *Ciona intestinalis*, *Mogula* sp. (Sea grapes) and *Botrylliodes leachi*, the anemone *Urticina felina* (Dahlia anemone) and feathery hydroids. More mobile species such as the fish *Chelon labrosus* (Thick-lipped mullet) and *Gobius niger* (Black goby), *Mytilus edulis* (Common mussel) and *Cerastoderma edule* (Common cockle) and *Savella pacvonina* (Peacock worm) were also seen. Worm casts of *Arenicola* sp. were present in the sediment.

Wooden mooring piles were also surveyed but these were less biodiverse than the river bed and no species were recorded on the piles that weren't also recorded on the sea bed. The only exception was the non-native seaweed *Undaria pinnatifida* (Wakame) which was occasionally recorded attached to the wooden piles. Sea squirts (six species) and feathery hydroids were also plentiful. The only other species recorded were the sponge *Halichondria bowerbanki*, the crustacean *Carcinus maenus* (shore crab), and the bivalve *Mytilus edulis* (common mussel).

Nab Tower

The Nab Tower was surveyed on the 25th April 2011 by a single pair of divers. The sea bed as well as part of the tower wall were surveyed, covering a depth of 4.1-16.1m CD. The sea bed was littered with man-made materials, mainly metal building materials, pipes, ladders and girders. The tower wall was covered with both tall and short animal turf and encrusting yellow sponges were also present. Fifteen species were recorded in total during the survey. Animals identified to species level included *Alcyonium digitatum* (Dead man's fingers), *Sagartia elegans* (Elegant anemone), Cancer pagurus (Edible crab), *Ostrea edulis* (Native oyster), *Pentapora foliacea* (Potato-crisp bryozoan) and *Tubularia* sp. (possibly Oaten pipe hydroid). Fish were diverse with *Trisopterus luscus* (Bib), *Pollachius pollachius* (Pollock), *Parablennius gattorugine* (Tompot blenny), *Ctenolabrus rupestris* (Goldsinny) and *Labrus bergylta* (Ballan wrasse) all recorded.

Bembridge Ledges

Bembridge Ledges was surveyed on a drift dive on the 27th April by a single buddy pair surveying at a depth of 4.2m CD. The substrate at this site is similar to Ethel Ledges - predominantly mixed ground with some rocky reef and cobbles. Fifteen species were recorded in total during the survey.

Algae were common at the site and five species were recorded; *Sargassum muticum* (Wireweed), *Chondrus crispus* (Irish moss), *Dilsea carnosa* (False moss), *Gracilaria* sp., and *Phycodrys rubens*. For all other groups only one or two species were recorded including *Sabella pavonina* (Peacock worm), *Flustra foliacea* (Hornwrack), *Necora puber* (Velvet swimming crab), *Anemonia viridis* (Snakelocks anemone), *Lipophrys pholis* (Shanny), *Pecten maximus* (King scallop), *Cliona celata* (Yellow boring sponge). Encrusting bryozoans and sea squirts were also noted but no species recorded.

S.S. Camswain

The wreck of the S. S. Camswain in Sandown Bay was surveyed on the 29th April 2011 by a single buddy pair at a depth of 12.8-16m CD. Nine species were recorded in total during the survey. Most life seen was on the wreckage. Species included *Homarus gammarus* (Common lobster), *Flustra foliacea* (Hornwrack), *Alcyonium digitatum* (Dead man's fingers) and *Bispira volutacornis* (Double

spiral worm). Several species of fish including *Conger conger* (European conger eel) were also seen.

HM LCT 427: UKHoSite19117

The wreck of this Second World War Tank Landing Craft was surveyed twice on the 6th August 2011 by a single buddy pair. The first dive took place on the stern deck wall at a depth of 25.2-26.1m CD, while the second dive surveyed the tower above the stern dock at depths of 22.9-24.7m CD. Six species were recorded in total during the survey.

Surveyed sections of the wreck were covered with dense bryozoan turf. Sessile species recorded included the bryozoan *Bulgula plumosa*, the non-native solitary sea squirt *Styela clava* (Leathery sea squirt) and *Ascidia mentula*, and the sponge *Amphilectus fucorum* (Shredded carrot sponge). The only mobile animals recorded on or around the wreck site were *Necora puber* (Velvet swimming crab), *Trisopterus luscus* (Bib). Laminariales (kelps) were also seen attached to the stern deck.

Thank you!

We'd like to extend a big thank you to everyone who has participated in Seasearch this year. Without such enthusiastic divers who are willing to give up their time and expertise to help us learn more about our local marine environment Seasearch would not be such a success. I'd also like to extend extra thanks to everyone who's submitted photographs from their Seasearch dives to us, and provided permission to let us use them in reports such as this, and to our funders who help make Seasearch in Hampshire and the Isle of Wight possible. We hope you've enjoyed being part of this fantastic project in 2011 and hope to see you all again in 2012.

