



Sea hare © Alison Mayor



Tompot blenny © Matt Doggett



Mud shrimp © Mike Markey



Spoon worm © Jolyon Chesworth



Painted goby © Matt Doggett



Leach's spider crab © Jolyon Chesworth

Report prepared by Amy Dale

Seasearch Report for 2010

Hampshire and Isle of Wight Wildlife Trust

During 2010, Hampshire and Isle of Wight Wildlife Trust (HIWWT) continued to run a successful Seasearch programme. We organised five dive days in which 31 divers undertook a total of 40 individual dives across 9 different sites. One diver also sent in a form from a privately organised dive resulting in a total of 10 sites in all being surveyed in the Hampshire and Isle of Wight area (Table 1, Figure 1), and 63 forms submitted. The areas surveyed included sand and gravel, and seagrass beds (both Biodiversity Action Plan habitats), mixed ground, wrecks and soft mud. In total 168 species, representing 12 phyla, were recorded (Table 2). HIWWT also continued to train divers by delivering two Observer courses with a total of 25 participants. In addition, we provided assistance on dive days privately organised by our course participants in Dorset and Sussex as part of their in-water Observer training. Forms generated by these dives were passed on to the appropriate Seasearch county co-ordinators.

Table 1. Hampshire and Isle of Wight sites surveyed in 2010.

DOMINANT HABITAT	SITE	LOCATION		DEPTH (m)
Mixed	Bembridge Ledges	50° 41.963' N	01° 04.659' W	7.4
Sand and gravel	Hanson Aggregate Area 372/1 2	50° 37.550' N	01° 01.062' W	23
	Hanson Aggregate Area 372/1 3	50° 37.688' N	01° 03.718' W	22.3
	Yarmouth	50° 42.516' N	01° 30.958' W	10.6
with seagrass	Totland Bay	50° 40.988' N	01° 33.018' W	6.4
with mud	St Helens Roads	50° 42.227' N	01° 03.166' W	15.8
	River Hamble	50° 52.70' N	01° 17.96' W	6
Wrecks	Margaret Smith	50° 42.969' N	01° 28.140' W	18
	SS War Knight	50° 39.970' N	00° 31.144' W	13.5
	Paddle Steamer	50° 38.018' N	01° 27.177' W	12

Figure 1. Hampshire and Isle of Wight sites surveyed in 2010.

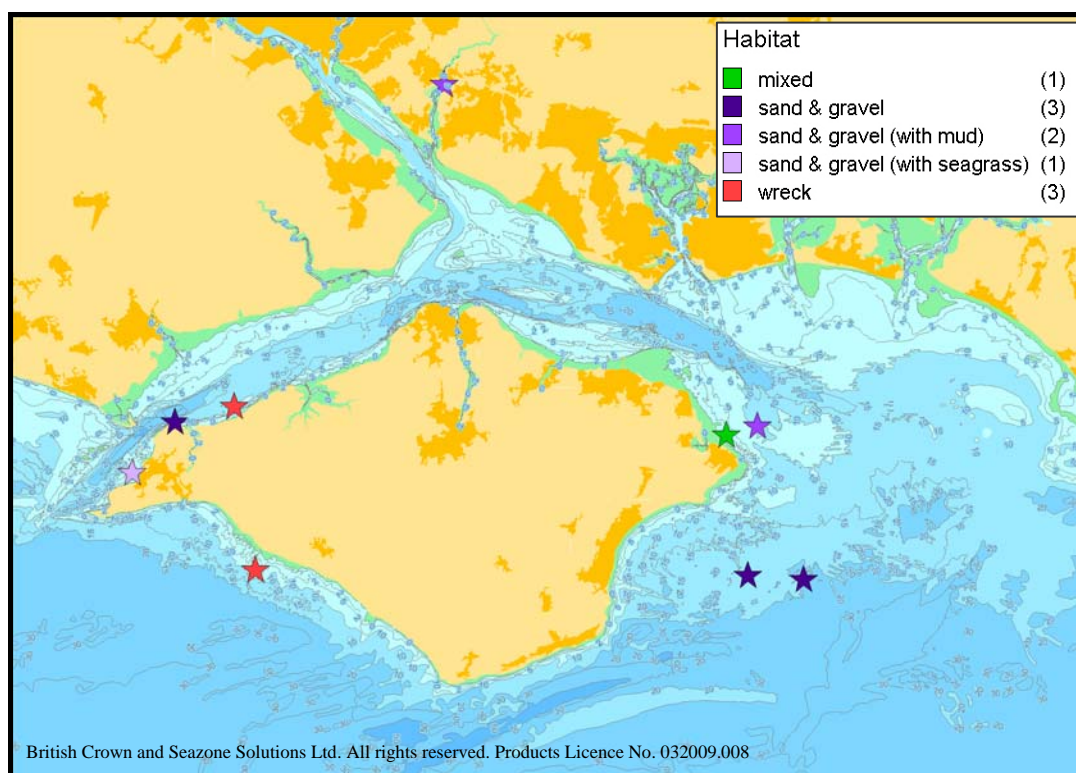


Table 2. Species recorded during 2010 Seasearch surveys in Hampshire and the Isle of Wight.

PHYLUM	COMMON NAMES	NO. OF SPECIES RECORDED
Porifera	Sponges	15
Hydrozoa	Hydroids	8
Cnidaria	Sea anemones, corals	16
Annelida	Segmented worms	14
Crustacea	Crabs, prawns, lobsters	26
Molluscs	Snails, bivalves, cuttlefish, sea slugs	22
Bryozoa	Sea moss, sea mats	12
Echinodermata	Starfish, brittlestars, urchins, sea cucumbers	2
Tunicata	Sea squirts	11
Pisces	Fish	25
Algae	Red, green, brown	16
Angiospermae	Flowering plants (seagrass)	1
Total Recorded		168

Mixed sediment

This year we surveyed Bembridge Ledges, a popular dive site consisting of mixed sediment among rocky ledges to a depth of 15m. We surveyed at 7-8m depth. Algae were the most diverse group at this site with 10 species recorded, included pepper dulse (*Osmundea pinnatifida*), *Palmaria palmata*, sea beach (*Delesseria sanguinea*), and sugar kelp (*Laminaria saccharina*). Molluscs were also diverse, with seven species were recorded, including queen scallops (*Aequipecten opercularis*), cowries (*Trivia* sp.) and common cuttlefish (*Sepia officinalis*). Slipper limpets (*Crepidula fornicata*) were particularly common, and seen by almost all divers. Both common whelks (*Buccinum undatum*) and the nudibranch *Goniodoris nodosa* were also seen with their eggs close by. Fish species were also quite



Goniodoris nodosa with eggs
© Mike Markey.



Mud shrimp © Mike Markey.

diverse, but most of the species observed were cryptic and only seen rarely by one or two divers. These were mainly bottom dwelling cryptic species seen occasionally by one or two surveyors such as the long-spined sea scorpion (*Taurulus bubalis*), sand goby (*Pomatoschistus minutus*) and snake pipefish (*Entelurus aequoreus*), but cuckoo (*Labrus mixtus*) and corkwing (*Crenilabrus melops*) wrasse were also seen. Several crab species, including edible (*Cancer pagurus*) shore (*Necora puber*), spider (*Macropodia* sp.) and hermit crabs (*Paguridae* sp.) were also recorded rarely. Notably, one diver also spotted a mud shrimp (*Upogebia* sp.). A few species of annelid and cnidaria were also recorded, including strawberry worms (*Eupolymnia nebulosa*) and snakelock anemones (*Anemonia viridis*) which were seen commonly, and sand masons (*Lanice conchilega*), peacock worms (*Sabella pavonina*), and daisy and dahlia anemones (*Cereus pedunculatus*, *Urticina felina*) which were seen occasionally. Sponges, hydroids, bryozoans, echinoderms and tunicates were barely recorded.



Snakelocks anemone © Mike Markey.

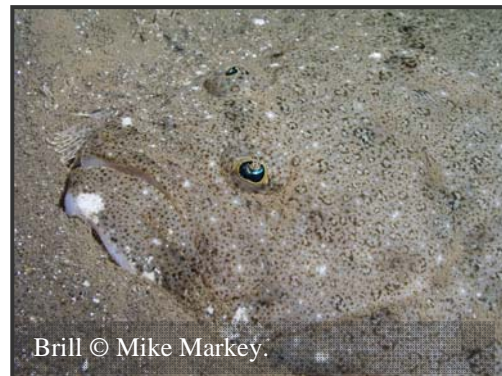
Sand and gravel

Six Seasearch survey sites were on sand and gravel seabeds, a BAP Priority Habitat. A seagrass bed, another BAP Priority habitat, was present in one of these locations, and another included areas of mud with burrowing megafauna, is a feature for which Marine Conservation Zones (MCZs) can be designated under the Marine and Coastal Access Act 2009.



Two dives took place within the Hanson Aggregate Ltd extraction zone 372/1 as part of an ongoing survey programme. This is an extremely diverse and stable site with 56 species recorded within the two areas surveyed, 9 more than last year. As the dives were at over 20m depth, no algae were recorded but sponges were diverse with 12 species found, including goosebump sponge (*Dysidea fragilis*), (*Hemimycale columella*),

sea orange (*Suberites ficus*), black tar sponge (*Dercitus bucklandi*) among those found. Crustacea were also well represented with 11 species recorded, including sponge crabs (*Dromia personata*), scorpion and Leach's spider crabs (*Inachus dorsettensis* and *I. phalangium*), and humpback prawns (*Pandalus montagui*). Queen scallop (*Aequipecten opercularis*), slipper limpets (*Crepidula fornicata*) and netted dogwhelks (*Hinia reticulata*) were among the molluscs recorded, while cnidaria such as white-striped (*Actinothoe sphyrodeta*) and dahlia (*Urticina felina*) anemones, and the soft coral dead mans' fingers (*Alcyonium digitatum*) were seen too. Red (*Ascidia mentula*), leathery (*Styela clava*) and gooseberry (*Dendrodoa grossularia*) sea squirts were recorded, but only at one of the Hanson sites (Mark 3). In contrast to last years surveys where only one fish species was recorded in the Hanson area, several fish species were recorded this year. These include brill (*Scophthalmus rhombus*), tompot blenny (*Parablennius gattorugine*), bib (*Trisopterus luscus*), and butterflyfish (*Pholis gunnellus*), and dogfish and their mermaid's purses (*Scyliorhinus* sp.). Echinoderms, which are not common in the Solent, were represented by one species, the bloody henry (*Henricia* sp.). Hydroids were represented by three species, annelids by four species, and bryozoans by four species, including *Palmiskenea* sp. A ross coral (*Pentapora foliacea*) 20-25cm diameter was recorded, suggesting it is a different one to that recorded in last years surveys, which were larger. At a growth rate of 2 cm yr⁻¹, the ross coral recorded this year is estimated to be 10-12 years old.



Many species were recorded at Yarmouth but most were only noted by one or two divers in the group, with few species common enough to be seen by all divers. Molluscs were the most diversely noted group with 8 taxa in all recorded. These included of course slipper limpets (*Crepidula fornicata*) but also European oysters (*Ostrea edulis*), common cuttlefish (*Sepia officinalis*), the nudibranch *Coryphella* and piddocks (Pholadidae sp.). Recordings of cnidaria were almost as diverse with 7 species recorded, including dahlia (*Urticina felina*) which were seen by most divers, beadlet (*Actinia equina*), and elegant (*Sagartia elegans*) anemones, and the hydroid



Coryphella sp. © Jolyon Chesworth.

Cerianthus lloydii. Annelids and crustacean were each represented by four species in the surveys, including sand masons (*Lanice conchilega*), peacock worms (*Sabella pavonina*), spiny spider crab (*Maja squinado*) which was noted as rare or occasional by almost all divers, and long-clawed porcelain crabs (*Pisidia longicornis*). The only sponge recorded was the boring sponge *Cliona celata*, and just two bryozoans, hornwrack (*Flustra foliacea*)

and finger bryozoan (*Alcyonidium diaphanum*), were noted as present but unidentified encrusting bryozoans were also seen. Tunicates were only represented by star ascidian *Botryllus schlosseri*, fish only represented by a single snake pipefish (*Entelurus aequoreus*) and some gobies (Gobiidae sp.). Considering the shallow nature of the site, very few algae species were recorded, but *Ulva lactuca* and kelp sp. were noted, and most divers recorded unidentified red algae (Rhodophycota) in common or occasional abundances. None of the divers reported seeing any echinoderm species.



Porcelain crab © Jolyon Chesworth.

Sand and gravel with seagrass



A diver measures eelgrass blades
© Charlotte Bolton.

Surveys were also done in the shallow waters of Totland Bay known to host common eelgrass *Zostera marina*. These dives were conducted specifically to survey the *Z. marina* bed. One buddy pair conducted 4 quadrat counts of density and took 12 blade measurements and found shoot density to be 24-120 shoots /m² (mean 62 shoots/m²), and blade length ranged from 24 cm to 100 cm (mean 47.5 cm). Red turf weed was common among the eelgrass with *Gracilaria* sp. and

eyelash weed (*Calliblepharis ciliata*) recorded as well as several unidentified Rhodophycota taxa. The only other species of algae recorded were Japanese weed (*Sargassum muticum*) and sea lettuce (*Ulva lactuca*). The most interesting recording on this dive was the abundance of the sea hares (*Aplysia punctata*), often grazing on the red algae. These were recorded as common by all survey pairs, with one diver noting that they saw over 50 individuals on the dive, many in mating pairs, and another diver noting that they were present 2-3 m. The sea hares made this dive a highlight of the season with one diver commenting "It was a lovely dive made more delightful by the presence of literally hundreds of sea hares. I could have



Sea hare in eelgrass © Alison Mayor.

stayed there all day!”. Relatively few other species were recorded within the seagrass bed with no sponges, hydrozoa or bryozoans recorded during the survey dives, and only one species of cnidaria (daisy anemone *Cereus pedunculatus*), annelid (lugworm *Arenicola marina*) and echinoderm (brittlestar *Ophiura ophiura*) recorded, and only two species of tunicate. A few species of fish were recorded, including gobies (Gobiidae sp.) which were noted as common, common dragonet (*Callionymus lyra*), and goldsinny wrasse (*Ctenolabrus rupestris*) also seen occasionally. Three species of crab were seen rarely, including a hairy hermit crab (*Pagurus cuanensis*), while the common hermit crab (*Pagurus bernhardus*) was seen occasionally.

Sand and gravel with mud

Seasearch surveys were conducted in the deep silt areas of St Helens Roads, off Bembridge to look for spoon worms (*Maxmuelleria lankesteri*) and provide confirmation of previous recordings that there is a population off the east coast of the Isle of Wight. The surveys were successful with almost all divers observing the green feeding ‘tongues’ of these burrowing worms scraping across the mud, despite poor diving conditions. As ‘mud with



Spoon worm © Jolyon Chesworth.

burrowing megafauna’ (potentially including spoon worms) is a feature for which Marine Conservation Zones (MCZs) can be designated, the confirmation of this population is significant, especially as there is only one other population known in the South-East. Sand masons (*Lanice conchilega*) and eyelash worms (*Myxicola infundibulum*) were also recorded during the dive surveys. Crustacea were the most species rich group at this site, with 10 species recorded, notably angular crabs (*Goneplax rhomboides*), and the squat lobster *Galathea squamifera*. An uncertain recording of a scorpion spider crab (*Inachus dorsettensis*) was also noted. Fish diversity was low, with only common dragonet (*Callionymus lyra*), sand gobies



Angular crab © Chris Rodwell.

(*Pomatoschistus minutus*), grater pipefish (*Syngnathus acus*) and lesser-spotted catshark (*Scyliorhinus canicula*) observed, and all of these recorded as rare or occasional by one or two divers. Mollusc diversity was also low with common cuttlefish (*Sepia officinalis*) and queen scallop (*Aequipecten opercularis*) seen by only one or two buddy pairs and recorded as rare, and slipper limpets (*Crepidula fornicata*) and common whelks (*Buccinum undatum*) allocated occasional

abundance status by several surveyors. The only sponge seen was elephant hide sponge (*Pachymatisma johnstonia*), while hydroids were only represented by oaten pipe hydroid (*Tubularia indivisa*) and sea fir (*Sertularia argentea*). Three anemone species and three bryozoan species, including hornwrack (*Flustra foliacea*) were noted. Very few tunicates and echinoderms were seen, with only two sea squirts and one unidentified brittlestar seen. No algae, with the exception of occasional drifting Rhodophyta were recorded at this site due to the depth (approximately 16 m).

A seasearch dive survey was carried out in the River Hamble independently of HIWWT. This Observer trained diver recorded several species living on and within the muddy substrate. Shredded carrot sponge (*Amphilectus fucorum*) and sea orange (*Suberites ficus*) were recorded (occasionally and rarely respectively). The only crustacean species seen was the shore crab (*Carcinus maenas*), seen occasionally, while dahlia anemones (*Urticina felina*) were the only representative of phylum cnidaria, and common at the site.



Dahlia anemone © James Lucey.

The only mollusc species seen were slipper limpets (*Crepidula fornicata*) were where also common, and mussels (*Mytilus edulis*) which were seen occasionally. Also occasionally seen were the bryozoan *Bugula* sp, and gooseberry sea squirts (*Dendrodia grossularia*), while leathery sea squirts (*Styela clava*), like another alien species the slipper limpets, were common. Unidentified feathery hydroids, tube worms and red and brown algae were also noted as present. Recordings of fish were limited to Gobiidae sp. which was listed as occasional and no echinoderms were recorded.

Wrecks

Seasearch surveys were conducted on three wrecks this year. High biodiversity were recorded at all sites, with several species of porifera (9), hydrozoa (9), annelida (7), bryozoa (10), cnidaria (8), crustacean (13), mollusc (15), tunicate (9), algae (8) and fish (17) represented. Only angiosperms (seagrasses) and echinoderms were not recorded. Some species were found at all three sites, namely goosebump sponge (*Dysidea fragilis*), oaten pip hydroids (*Tubularia indivisa*), keelworms (*Pomatoceros triqueter*), barnacles (*Balanus* sp.), common lobster (*Homarus gammarus*), velvet swimming crab (*Necora puber*), painted topshell (*Calliostoma zizyphinum*), hornwrack (*Flustra foliacea*), the bryozoan *Bugula* sp., goldsinny (*Ctenolabrus rupestris*), tompot blenny (*Parablennius gattorugine*), bib (*Trisopterus luscus*).



Palaemon serratus © Alison Mayor.

The most diverse group was fish, with 17 species recorded, including several species of goby such as sand (*Pomatoschistus minutus*), leopard-spotted (*Thorogobius ephippiatus*) and black (*Gobius niger*) goby, as well as ballan wrasse (*Labrus bergylta*), cuckoo wrasse (*Labrus mixtus*), poor cod (*Trisopterus minutus*), tompot blenny (*Parablennius gattorugine*), and bib (*Trisopterus luscus*).

Crustacean and mollusc phyla were also well represented with 13 and 15 species recorded respectively for each. Interestingly, slipper limpets (*Crepidula fornicata*) which have been recorded on almost all Seasearch dives in Hampshire and the Isle of Wight this year, were not recorded at two of the three wreck sites. Conversely, European oysters (*Ostrea edulis*), which have not been recorded much this year, were found on two of the three wreck sites. The wrecks also supported two nudibranch species *Janolus cristatus* and *Coryphella browni*. Cryptic species such as spiny squat lobsters

(*Galathea strigosa*), common lobsters (*Homarus gammarus*), and prawns (*Palaemon serratus*) also took advantage of the complex habitat provided by wreckage crevices. Many wreckage pieces and surrounding substrate were also covered with a rich animal turf including light-bulb sea squirts (*Clavelina lepadiformis*), *Molgula* sp., the colonial sea squirt *Morchellium argus*, spiral bryozoan *Bugula plumosa*, sea mat (*Electra pilosa*), hornwrack (*Flustra foliacea*), and square-end hornwrack (*Securiflustra* sp).

Seasearch Summary for 2010

After another successful year, the Seasearch programme has surveyed 10 sites, including three BAP habitats, and identified a total of 168 species. In total, 31 divers came on our organised dives, filling out 63 forms. We delivered two Observer courses to train new Seasearchers, and these were collectively attended by 25 divers. We'd like to extend a big thank you to everyone who has participated in Seasearch this year, whether it was by attending a course, coming on our dives, or submitting your own data and to us – or all three! 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 possible. We hope you've enjoyed being part of this fantastic project in 2010 and hope to see you all again in 2011.

