



Hampshire & Isle of Wight



Undulate ray.
© Matt Doggett.



Common eelgrass.
© Mike Markey.

Hampshire & Isle of Wight Wildlife Trust Seasearch Summary Report 2009



Tompot blenny. © Matt Doggett.



Sole. © Matt Doggett.



Sea slug *Thecacera pennigera*. © Matt Doggett.



Bib. © Matt Doggett.

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Seasearch Report for 2009

Hampshire and Isle of Wight Wildlife Trust

During 2009, Hampshire and Isle of Wight Wildlife Trust continued to run a successful Seasearch programme. We organised seven dive days in which 28 divers undertook a total of 81 individual dives across 14 different sites. Divers also sent us Seasearch forms from other dives, resulting in a total of 19 sites in all being surveyed (Table 1, Figure 1), and 50 forms submitted. The areas surveyed included sand and gravel, chalk reefs and seagrass beds (all Biodiversity Action Plan habitats), mixed ground, wrecks, and sites indicated as important seal foraging areas by data collected on our Seal Tagging Project. We also continued to train divers by delivering four Observer courses with a total of 49 participants. In total 189 species, representing 12 phyla, were recorded (Table 2).

Table 1. Sites surveyed in 2009.

DOMINANT HABITAT	SITE	LOCATION		DEPTH (m)
Chalk reefs	Culver Cliff, Sandown Bay	50° 39.726' N	01° 06.341' W	10
	Scratchell's Bay	50° 39.590' N	01° 35.071' W	10
Mixed	Alum Bay	50° 40.015' N	01° 35.337' W	8
	Bracklesham Bay Landing Craft	50° 44.806' N	00° 51.266' W	10
	Seal foraging area, Bracklesham Bay	50° 43.333' N	00° 48.853' W	12
	Seal foraging area, Bracklesham Bay	50° 43.035' N	00° 48.958' W	11
	No Man's Land Fort	50° 44.440' N	01° 05.773' W	8
	Nab Tower, Eastern Solent	50° 40.070' N	00° 57.150' W	11
Sand and gravel	Hanson Aggregate Area 372/1 1	50° 38.595' N	00° 59.060' W	18
	Hanson Aggregate Area 372/1 3	50° 37.689' N	01° 03.718' W	24
	Fossil Beds, Bracklesham Bay	50° 44.391' N	00° 52.670' W	12
Sand and gravel (incl. eelgrass)	Totland Bay	50° 40.813' N	01° 33.055' W	5
	Wootton Bay	50° 44.655' N	01° 13.110' W	6
Wrecks	Camswan, Sandown Bay	50° 38.622' N	00° 05.525' W	20
	HMS Boxer, Sandown Bay	50° 37.752' N	01° 06.373' W	20
	SS War Knight, Freshwater Bay	50° 39.970' N	01° 31.140' W	12
	HMS A1, Bracklesham Bay	Not available		14
	Barge 20243, East of Nab Tower	50° 38.380' N	00° 52.920' W	18
	The Patch Landing Craft 20004	50° 38.457' N	00° 46.490' W	20
	Barge 20009, SE Isle of Wight	50° 38.577' N	00° 56.464' W	24

Figure 1. GPS points of Seasearch dive sites 2009.



Table 2. Species recorded during Seasearch surveys 2009.

PHYLUM	COMMON NAMES	NO. OF SPECIES RECORDED
Porifera	Sponges	23
Hydrozoa	Hydroids	8
Cnidaria	Sea anemones, corals	8
Annelida	Segmented worms	10
Crustacea	Crabs, prawns, lobsters	16
Molluscs	Snails, bivalves, cuttlefish, sea slugs	19
Bryozoa	Sea moss, sea mats	15
Echinodermata	Starfish, brittlestars, urchins, sea cucumbers	2
Tunicata	Sea squirts	21
Pisces	Fish	28
Algae	Red, green, brown	38
Angiospermae	Flowering plants	1
Total Recorded		189

Chalk reefs

The Isle of Wight hosts some of the best chalk reefs in the country. This Biodiversity Action Plan (BAP) Priority Habitat was surveyed at Culver Cliff in the east of the island and at Scratchell's Bay in the west (Figure 1).



Hornwrack and leathery sea squirt.
© Matt Doggett.

Culver Cliff is a rocky chalk reef with some mixed ground at a maximum depth of 10 meters. The site is rich in marine life. Twenty-four species were recorded in 2009 surveys, with red algae, bryozoans, and tunicates the most dominant groups. Algae species observed included dulse (*Palmaria palmata*). Bryozoans included *Amathia lendigera*, hornwrack (*Flustra foliacea*) and *Bowerbankia pustulosa*, all of which were recorded with occasional

distribution, while the leathery sea squirt (*Styela clava*), and the star ascidian *Botryllus schlosseri* were among the tunicates recorded. One species of annelid (the sand mason, *Lanice conchilega*), cnidarian (the snakelocks anemone, *Anemonia viridis*), and mollusc (the netted dogwhelk, *Hinia reticulata*) were recorded. Two species of fish, hydroid and sponge phyla were also represented by two species each. Shoots of common eelgrass (*Zostera marina*) were also seen in photographs taken at this site after the dive, but it isn't clear if these were attached shoots or drifting fragments from a bed elsewhere.



Common eelgrass. © Vicki Billings.



Bib shoal. © Matt Doggett.

Scratchell's Bay is a rocky chalk reef with some mixed ground and boulders. Like Culver Cliff, it is at a maximum depth of 10 meters. Diversity recorded at this site was surprisingly low with 14 species recorded. Fish were by far the most observed group, with 6 species seen, including bib (*Trisopterus luscus*), pollock (*Pollachius pollachius*), and the common dragonet (*Callionymus lyra*). Sponges (the goosebump sponge, *Dysidea fragilis* and the golfball sponge, *Tethya citrina*), soft coral (dead man's fingers, *Alcyonium digitatum*), crustaceans (the velvet swimming crab, *Necora puber* and the common prawn, *Palaemon serratus*), and algae (3 species, including furbelows, *Saccorhiza polyschides*) were also represented.

Mixed

Much of the Solent area consists of mixed sediment types. We surveyed several sites ranging in depth from 8-12 m. Alum Bay comprised of boulders and rocky reef with areas of finer sediment ranging in size from cobbles to sand. Fish and crustaceans were the most abundant groups recorded at sites with mixed sediment, although sponge diversity was also high at Bracklesham Bay fossil beds.



Tompot blenny. © Matt Doggett.



Common lobster. © Matt Doggett.

Tompot blennies (*Parablennius gattorugine*) and goldsinnies (*Ctenolabrus rupestris*) were all seen at Alum Bay, No Man's Land Fort, and the Nab Tower. Pelagic species such as bib (*Trisopterus luscus*), pollock (*Pollachius pollachius*), ballan wrasse (*Labrus bergylta*) and corkwing wrasse (*Crenilabrus melops*), and benthic species such as leopard-spotted gobies (*Thorogobius ephippiatus*) and two-spotted gobies (*Gobiusculus flavescens*) were also seen in at least two of these locations. These sites had 3-4 species of crustacean each including a common lobster (*Homarus gammarus*) and grey mullet (*Chelon labrosus*) seen at No Man's Land Fort, edible crab (*Cancer pagurus*) at the Nab tower, and spiny squat lobster (*Galathea strigosa*) at Alum Bay. Sponges, worms, molluscs, tunicates and algae were represented by just one or two species each, and no bryozoans were found. Both white-striped anemones (*Actinotheroe sphyrodeta*) and dead man's fingers (*Alcyonium digitatum*) were found at the Nab Tower, but no cnidarians were seen at Alum Bay or No Man's Land Fort.



Shredded carrot sponge.
© Polly Whyte.

Three sites we surveyed were in Sussex. The Bracklesham Bay fossil beds site was by far the most diverse of all the mixed sediment sites we surveyed, with 49 species recorded. Eight species of sponge, including *Ciocalypta pencillus* and shredded carrot sponge (*Amphilectus fucorum*) were recorded. Eight species of fish were also recorded, including bib (*Trisopterus luscus*) and black goby (*Gobius niger*) both of which were common. Other notable species from this site include sandmason worms (*Lanice conchilega*) and double spiral worms (*Bispira volutacornis*), antenna hydroids (*Nemertesia antennina*), dahlia anemones (*Urticina felina*), light-bulb sea squirts (*Clavelina lepadiformis*), and painted topshells (*Calliostoma ziziphinum*).

The Bracklesham Bay seal foraging dive sites were highlighted as an area commonly frequented by seals in the Hampshire & Isle of Wight Wildlife Trust's Solent Seal Tagging Project. Seasearch dives took place at these locations to try to ascertain what habitats and species were attracting the seals. Generally, species diversity was low, with only two species of cnidaria, (dahlia and snakelocks anemones, *Urticina felina* and *Anemonia viridis*), one species of worm, crab and fish (the sand mason *Lanice conchilega*, edible crab *Cancer pagurus*, and corkwing wrasse *Crenilabrus melops*). However, twelve species of algae were found. Most of these were red seaweeds, with only sugar kelp (*Laminaria saccharina*) and one *Cladophora* species representing browns and greens.

Sand and gravel

Five Seasearch survey sites were on sand and gravel seabeds, a BAP Priority Habitat. Seagrass beds, another BAP Priority habitat were present in two of these locations.

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 47 species recorded within the two areas surveyed. Sponges were diverse, with shredded carrot sponge (*Amphilectus fucorum*), goosebump sponge (*Dysidea fragilis*), elephant hide sponge (*Pachymatisma johnstonia*) and (*Hemimycale columella*) among those found. Several hydroids, such as the antennae hydroid (*Nemertesia antennina*), and oaten pipe hydroid (*Tubularia indivisa*) were also recorded, along with the white-striped anemone (*Actinothoe sphyrodeta*), dahlia anemone (*Urticina felina*) and elegant anemone (*Sagartia elegans*), and the dead man's fingers soft coral (*Alcyonium digitatum*).



White-striped anemone. © Polly Whyte.



Ross coral. © Mike Markey.

Of particular interest were two very large examples of ross coral (*Pentapora foliacea*). These measured 70 cm and 40-50 cm across and, at a growth rate of 2 cm yr⁻¹, are estimated to be 35 and 20-25 years old respectively. They are possibly the same specimens as recorded last year. Several other species of bryozoans, as well as molluscs, crustaceans and annelids were also found. Echinoderms, which are relatively rare in the Solent were represented by bloody henrys (*Henricia* sp.) and brittlestars. Notably, pollock (*Pollachius pollachius*) was the only fish species seen (although mermaid's purses were also found).

The Fossil Beds in Bracklesham Bay are sand and gravel with compacted clay. Both sponges and fish were particularly diverse with eight species of each recorded. These included the chimney sponge (*Polymastia penicillus*), sea orange (*Suberites ficus*), shredded carrot sponge (*Amphilectus fucorum*), tompot blenny (*Parablennius gattorugine*), leopard spotted goby (*Thorogobius ephippiatus*), and undulate ray (*Raja undulata*). Tunicates such as the light-bulb sea squirt (*Clavelina lepadiformis*), and orange-flake ascidian (*Aplidium punctum*), the bryozoans *Bugula plumose* and hornwrack (*Flustra foliacea*), and the antenna hydroid (*Nemertesia antennina*) were also recorded. Molluscs, such as the painted topshell (*Calliostoma ziziphinum*), annelids, crustaceans and cnidaria were also represented. No echinoderms were observed.



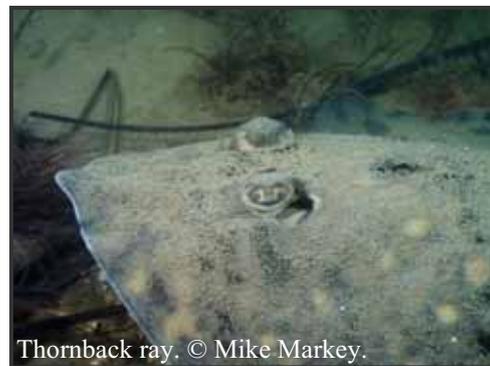
Light-bulb sea squirt. © Polly Whyte.



Common eelgrass. © Mike Markey.

Two dives, Totland Bay and Wootton Bay, took place in shallow water known to host common eelgrass *Zostera marina*. Totland Bay is dominated by sand and gravel substrate with cobbles, and occasionally boulders. Mixed algae turf, including sea lettuce (*Ulva lactuca*), *Corallina officinalis* and *Dilsea carnosa* was the dominant cover type. *Z. marina* in the area dived was sparse and interspersed with Japanese weed

(*Sargassum muticum*) and sea oak (*Halidrys siliquosa*). The survey in Wootton Bay followed the seaward edge of a *Zostera marina* bed interspersed with attached and drifting red algae. The eelgrass bed was growing in well oxygenated soft fine sand, with shoots more sparsely distributed along the bed margins in comparison to further within the bed where shoot density was noticeably higher. One diver towed a GPS unit on the surface to record the bed margin, which appeared to be determined by depth. Living amongst the eelgrass plants were snakelocks anemone (*Anemonia viridis*) and daisy anemone (*Cereus pedunculatus*), as well as fish species including snake pipefish (*Entelurus aequoreus*), and a juvenile thornback ray (*Raja clavata*). Several mollusc and crustacean species including queen scallop (*Aequipecten opercularis*), slipper limpets (*Crepidula fornicate*), long-legged spider crabs (*Macropodia* sp.), and velvet swimming crabs (*Necora puber*). Eyelash worms (*Myxicola infundibulum*) were also seen.



Thornback ray. © Mike Markey.

Wrecks

Seven wrecks, mainly lying on sand and gravel with occasional boulder and rocky outcrops in the surrounding area were investigated in 2009. Wreck sites were diverse with tunicate, fish, mollusc, crustacean, annelid, algae, sponge, hydroid and bryozoan groups all represented by several species. Echinoderms are uncommon along the Hampshire coast but two species, the bloody henry starfish (*Henricia* sp.) and the white flecked sand brittlestar *Ophiura albida* were found.



Sea slug *Thecacera pennigera*. © Matt Doggett.



Most species of sponge were only seen at one or two wreck sites but goosebump sponge (*Dysidea fragilis*) was seen at all but two wreck sites. Hydroid and bryozoans were dominant, notably, antenna hydroid (*Nemertesia antennina*) oaten pipe hydroid (*Tubularia indivisa*), and hornwrack (*Flustra foliacea*). Cnidarians included anemones, such as the white striped (*Actinothoe sphyrodeta*) and plumose (*Metridium senile*) anemones, and corals, such as

the Devonshire cup coral (*Caryophyllia smithii*), and dead man's fingers (*Alcyonium digitatum*).

Other noteworthy species were the candy-striped flatworm (*Prostheceraceus vittatus*), common lobster (*Homarus gammarus*), the sea slug *Thecacera pennigera*, gooseberry (*Dendrodoa grossularia*), leathery (*Styela clava*) and light-bulb (*Clavelina lepadiformis*) sea squirts. Fish recorded



included red gurnard (*Aspitrigla cuculus*), sole (*Solea solea*), long-spined sea scorpion (*Taurulus bubalis*), poor cod (*Trisopterus minutus*), conger eel (*Conger conger*), several species of wrasse (*Labridae* sp.), and of course tompot blennies (*Parablennius gattorugine*) and bib (*Trisopterus luscus*).

Seasearch Summary for 2009

After another successful year, the Seasearch programme has surveyed 19 sites, including three BAP habitats, and identified a total of 189 species. In total, 28 divers came on our organised dives, filling out 50 forms. We delivered four Observer courses to train new Seasearchers, and these were collectively attended by 49 divers, a record for our area! A big thank you to everyone who has participated in Seasearch in 2009. We hope to see you all again in 2010.



Seasearch divers in September.



**Hampshire &
Isle of Wight**

