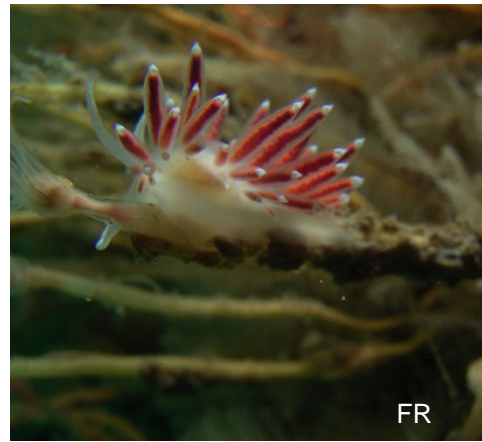


# Dorset Seasearch

## Annual summary report- 2008



Report prepared by K Dawson, Dorset Wildlife Trust

# Introduction

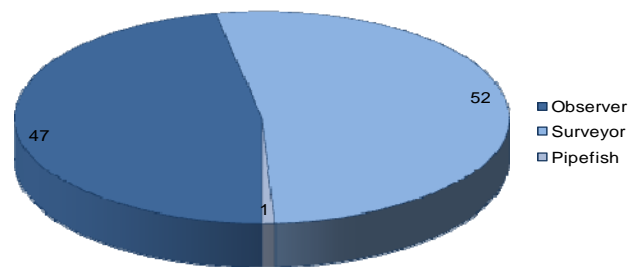
2008 was a great Seasearch year for us in Dorset, with plenty of diving and training that built on the skills of our regulars and set up new links with a local dive club in Poole. Seasearch dives were carried out over many areas of Dorset by the Dorset Wildlife Trust (DWT) dives as well as the independently organised surveys, which contributed a vast amount of data. Several rarities were recorded, including both native species of seahorse, several rare seaweeds and further records of the Anemone Shrimp– *Periclimenes sagittifer*. A weekend of diving was carried out on Brownsea Island by several local Seasearchers, providing the first sub-tidal records for the island in sometime. Conditions were generally lovely, with some of the best visibility occurring in May off Portland. The bright sunshine in July certainly improved conditions and helped to enhance what was truly a spectacular dive off the Whitehouse Grounds near Swanage.

## Recording

Over 2008 we received 115 forms. From these, 88 survey events were logged from across Dorset. Of all the forms received, 60 were Surveyor forms, 54 were Observer forms and there was one pipefish form. This is a good increase in survey events from 2007, with a 50% increase in the number of Surveyor forms received.

Using online pdf forms proved to be popular with some of our regular Seasearchers. Apart from cutting down on postage it allows recorders to easily keep a copy for themselves. Photos have been used to supplement sketches with several divers scanning in drawings for emailing.

Percentage of Seasearch form types received for Dorset, 2008



## Dorset Wildlife Trust Dives

Four DWT dive weekends were scheduled for 2008 and three of these went ahead; May 17/18th from Weymouth, June 14/15th from Poole, July 26/27th from Poole and the final one, which was scheduled for September 6/7th from Weymouth, was cancelled due to bad weather. An evening dive on July 16th also went ahead in Poole Harbour. The total number of DWT Seasearch dives was therefore 13. Summaries from these weekends can be read in the 2008 Spring to Autumn newsletters.

## Training

Last year two Observer courses were held. The first was held at JustUDive PADI Dive club in Poole in April, taught by Nick Reed and Peter Tinsley. Diving at Swanage Pier followed the next day giving the six participants a chance to get some forms signed off. Another course was held in June with five divers attending. Thanks to the generosity of the Swanage Pier Trust, the course was held in the meeting room on the pier itself, providing conveniently close diving. The course was taught by Nick and Kathryn. Many of the divers from the course are close to qualifying.

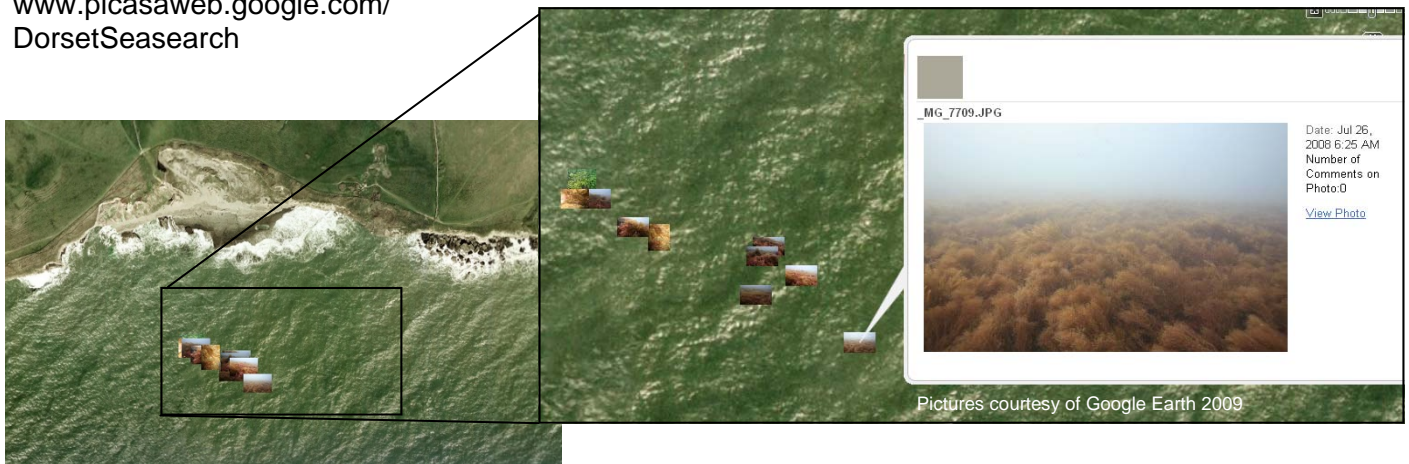
In July, a surveyor course was held jointly with Sussex Seasearch, Hampshire Wildlife Trust and DWT. Taught by Peter, Kate Cole from Sussex with the assistance of Jenny Mallinson, the course was attended by six divers and was held at DWT's Urban Wildlife Centre in Poole. Fair weather provided a great dive on the Sunday morning in Poole Bay. Three of the participants are now qualified Surveyors.

## Seasearch photos

This year DWT received hundreds of photos in support of the survey data. Many of these were taken using the Trust's compact cameras and the results were not only attractive but very useful in terms of species and habitat ID. The use of the photos that we took on our DWT was further enhanced by geo-referencing each shot. This was done by asking divers to tow a GPS unit on their SMB. Using a free piece of software – GPicSync- we could then link a coordinate to each photo using the times logged on the cameras and the GPS units.



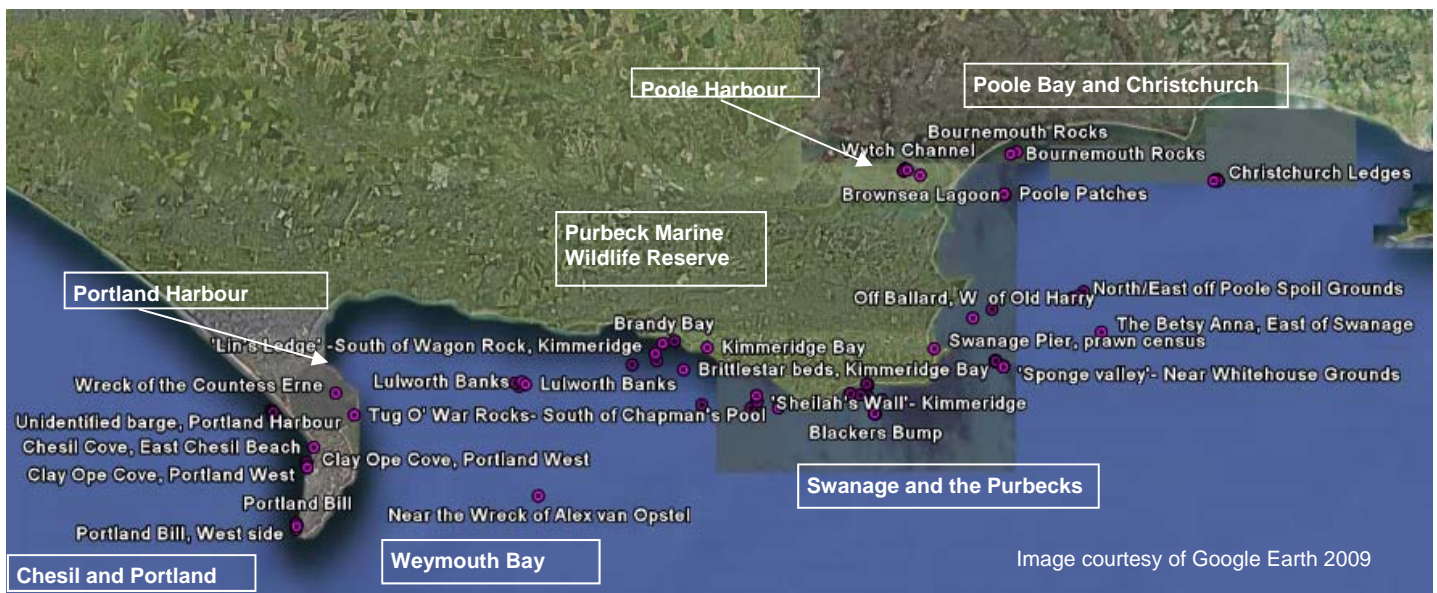
The resultant track can be uploaded to Google Earth for all to view (as below, from Dancing Ledge). The benefit in this is that we can log exactly where the diver was recording -eliminating descent and ascent time— and can pin point fairly precisely where sites or species of interest were, thereby assisting biotope mapping, long term monitoring and accurate species records. Image tracks can be viewed at [www.picasaweb.google.com/DorsetSeasearch](http://www.picasaweb.google.com/DorsetSeasearch)



In recognition of the effort and the results of the photos last year, the Trust ran the first photo competition for Dorset, judged by Chris Wood. See the cover page of this report for the winning photo of a Hornwrack reef, by Gordon Bird. Gordon won a weekends diving on a DWT Seasearch weekend.

## Site summaries

Three of four DWT weekends went ahead last year, in addition to one evening dive and many independent surveys. These came predominantly from the Purbeck and Poole Bay areas. The map below shows the distribution of the records from all of the surveys in 2008, along with some the site names. Please note that some of these names are not official locations but rather names assigned by divers and skippers.



### Chesil and Portland

**Lyme Bay to Portland Bill: 50° 34.65"N 2° 28.53"W — 50° 33.48"N 2° 26.854"W**

There were 17 survey events produced from the DWT weekend from Weymouth in May, with one other survey record coming in for Chesil Cove. Due to weather constraints, all of the DWT dives took place on the west side of Portland. The sheltered aspect of the west gave us the opportunity to spread divers out a little more and cover more ground around the southern part of the Bill, where the most records were several years old.

Around the Bill and to the north at Clay Ope Cove, the habitat encountered was mainly large boulders interspersed with gravel and sand. Dense patches of fauna were present on boulders with some life observed in the gravel— mainly anemones and nudibranchs. Ballan wrasse (*Labrus bergylta*) were seen at all of the sites in the area, ranging from rare to common. Goldsinny (*Ctenolabrus rupestris*) were also frequently seen. Common hydroids were *Nemertesia antennina* and *N. ramosa*, seen at most of the sites with a frequent average abundance. Frequently seen crustacea included *Maja squinado*, *Cancer pagurus* and *Necora puber*, all with a maximum abundance of common.

Off the west of the Bill a large artificial structure was observed, possibly a boiler, now covered in dense faunal turf. Some fishing debris was encountered and one *Scylliorhinus canicula* seen tangled in a section of fishing line. Overall throughout the area, red algae were abundant, although species identification remained mostly at the group level. *Caryophyllia smithii* were recorded at 7 sites along Portland Bill, all from the sides and undersides of large boulders.

Further to the north, off Chesil Beach, cobbles and pebbles were the predominant habitat. One dive was done, south of Stennis Ledges, where the current kept us from going too far inshore. A couple of large rays were seen; one confirmed as *Raja clavata* (Thornback ray) and also recorded, although unconfirmed, was one *Raja batis* (common skate), a BAP species, from an area of sandy, shelly ridges south of Stennis Ledges at 20m bsl. A species of Terebellid worm was recorded, described as a 'large *Lanice conchilega*'. The species remains unidentified but similar sounding examples have been found at other sites in the region. One other record came from a non-DWT dive, for the East end of Chesil beach. Habitat was again mixed ground of boulders, cobbles and pebbles and species seen included *Zeus faber*, *Syngnathus acus* and *Entelurus aequoreus*.



Illustrating the great visibility off Portland Bill in May. PT

Overall 156 species and groups were recorded in the area. Additional rare species: *Caryophyllia inornata* were recorded at two sites, both boulders on gravel off Portland, rare at one site and frequent at the other.

### Weymouth Bay and Portland Harbour

**Portland Bill to Mupe Rocks: 50° 34.025"N 2° 25.588"W — 50° 35.78"N 2° 14.13"W**

Four survey events were produced for the Lulworth banks area from DWT weekends, with one more record for Weymouth Bay coming from near the Wreck of Alex van Opstel. Eleven divers on board Divetime surveyed a doughnut shaped formation in the banks at 20-23m below sea level, and acquired data for a cross section of the area. Main habitats were a ring of rocky reefs with shelly sand and gravel, with an area of silty sediment in the centre. No obvious signs of litter or human activity. Site was scattered with very large *Pentapora foliacea* as well as occasional *Eunicella verrucosa* (BAP species, nationally scarce and legally protected), *Pecten maximus* and one *Raja montagui*. Tall faunal turf comprised of branching sponges and hydroids was common over much of the reef.

*Serpula vermicularis* (a Habitat Action Plan Species) was present off the rocky reef at 20m bsl. Several terebellid worms, described in a similar way to the specimen sighted off the west of Portland Bill, were observed in silt covered bedrock. Note from recorder was- 'like *Lanice conchilega* but bushier, thicker and wider with gravel covered tendrils. Possible that it is *L. conchilega*, just in appearance quite different looking.'

Two wrecks were surveyed in Portland harbour— the Countess of Erne and a barge. Both wrecks were situated to the east side of the harbour on fine sediment with life apparent. Dense faunal turf covered the structures, with *Caryophyllia smithii* present on the Countess and *Virgularia mirabilis* occasional in the sediment around the barge. No other unusual sightings besides from several items of litter at both sites. 97 species and groups were recorded for the area of Weymouth Bay and Portland Harbour. From the few records from Lulworth banks, there were no descriptions of human impacts or unusual sightings.



## Purbeck Marine Wildlife Reserve

Mupe Rocks to St Aldhem's Head: 50° 33.9"N 2° 3.53"W - 50° 36.684"N 2° 12.76"W

A very popular area with divers, fifteen surveys were submitted for the Purbeck Marine Wildlife Reserve. These were from within Kimmeridge Bay, off Chapman's Pool, Kimmeridge Ledges, Freshwater Ledges and off Worbarrow Bay. The quality of the forms returned was in general very detailed and thorough, with the majority being Surveyor forms.

Rocky ledges and walls of shale and limestone were the predominant habitats surveyed. Many ledges had overhangs with piddock bores, interspersed with gravel and shale. 234 species and groups were recorded for the area. Foliose red algae was abundant at many of the sites and quite frequent in abundance down to depths of 20+ metres. Also common to abundant were *Nemertesia antennina* and *Pentapora foliacea*, some of which of the latter were noted as being very large. Several species of sponge were present across the area, most commonly *Hemimycale columnella* and *Dysidea fragilis*. Both *Aequipecten opercularis* and *Pecten maximus* were noted at three sites including in the shelly sand at Worbarrow Bay. The scallops ranged from rare to frequent in abundance



The invasive species *Crepidula fornicata* was recorded at five of the sites in the area, with an average abundance of occasional. Rare species: One sighting of *Caryophyllia inornata* (Southern cup coral) occasional, at 'Sheilah's Wall'; *Zanardinia prototypus* (Pennyweed), one sighting, frequent in abundance, at Brandy Bay (left); *Halicystus auricula* (stalked jellyfish) - a Biodiversity Action Plan Species- was recorded in 2-3m of water in Kimmeridge Bay next to a patchy reef that was covered in red algae and *Halidrys siliquosa*.

## Swanage and the Purbecks

St Aldhem's Head to Swnage Bay: 50° 35.20"N 2° 1.19"W — 50° 37.80"N 1° 55.90"W

Many of the survey records from 2008 came from within this area, providing us with some fantastically detailed sites. Once again the area proves its popularity due to the interesting and biologically diverse rocky ledges, as well the ability of our skipper to find slack spots in an ebbing tide off Dancing Ledge.

28 survey records were submitted for this area, which encompasses Winspit, Dancing Ledge, Swanage Pier and Bay, the Whitehouse Grounds, the Maerl grounds and a site south of Dancing Ledge—Blacker's Reef. Of the records, 24 were from DWT dives. 238 species and groups were recorded from the area, with a large number of sponge and algal species.

Currents made some dives more difficult than others but generally surveys were very successful and delivered a lot of details. From the inshore dives, red and brown algae species were numerous and common in their abundance. Detailed algae records came from a site south of Wagon Rock, where the rare species *Polysiphonia devoniensis* was recorded (rare). Shallow rocky ledges prevailed in these areas, with inhabited coarse sediment in the low gullies.

Further offshore, near Blacker's Bump, taller rocky reefs again interspersed with coarse sediment were the main habitats. Some anchor damage to the reef was observed and potting was noted in the vicinity. Frequently observed species in this area included *Bispira volutacornis*, *Cliona celata* and a very large area of densely packed *Neopentadactyla mixta* at 20m bsl. One or two Baillon's wrasse (*Crenilabrus bailloni*) were seen off Winspit, adding to the several records of the species in Dorset for this year. Frequently seen crustaceans include *Galathea strigosa*, *Inachus dorsettensis* and *Maja squinado* and a noise that sounded distinctly like snapping prawns (*Alpheus macrocheles*), was heard off 'Blacker's Bump'.



Other species observed include the Trumpet anemone (*Aiptasia mutabilis*) which was seen at 7 different sites off Winspit and Dancing Ledge. With an average abundance of 'occasional' although the species is considered nationally rare, it appears to be doing quite well in the Purbecks. It was not recorded in any other area in Dorset in 2008.

To the east of Swanage was site specifically targeted for diving due to the fascinating rock formations, located by depth sounder. In July, 11 divers explored the area and found a wealth of sponges, which was perfect as the target of that specific weekend had been to collect samples to add to the biological record for the area. The aptly named 'Sponge valley' was a steep slope, which was surveyed from 32– 20m, with branching and low lying sponge and hydroid species. The slope topped out at about 23m with some very interesting gully formations. Ampelisca mats were observed at the base of the slope, with large wrasse present at the top. Due to the formation of the rocky ledges in gullies in the area, although this site will be missing from the detailed seabed map produced from DORIS, similar sites can be extrapolated from the new maps and explored in 2009.

Due to the increase in the number of sightings on the anemone shrimp -*Periclimenes sagittifer* -in Dorset, a census was carried out under Swanage Pier by several Seasearchers in October. The survey counted 28 shrimps out of the 371 snakelocks anemones checked. The full report written, by Polly Whyte and Matt Doggett, can be seen on the Seasearch website.

### Poole Bay and Christchurch

**Swanage Bay to Christchurch 50° 37.80"N 1° 55.90"W — 50° 39.41 "N 1° 50.46"W**

Sites within this area included the patch reefs outside of the entrance to Poole Harbour, Bournemouth rocks, the Maerl grounds off Old Harry's rocks, the wreck of the Betsy Anna in Poole Bay and Christchurch Ledges. Eight of the fifteen survey records came from DWT dives and one from a combined record for 'Lobster Rock' from a Surveyor training event. 172 species and groups were recorded, with high numbers red seaweed, *Trisopterus luscus*, *Flustra foliacea* and barnacles.

This sites surveyed were all very diverse, with relatively barren coarse sediments from Poole Bay, rocky reefs with dense red algal cover at Poole patches and very rugged reef of unusual looking 'ironstone' at Christchurch with a dense faunal turf of bryozoans, barnacles and sponges and a substrate thick with *Crepidula fornicata* shells. Snapping prawns were also heard at this site and several divers made a note of the large shoals of juvenile bib (*Trisopterus luscus*). There were lots of discarded pots in the area, many also thick with a short faunal turf.

Other species of interest in the area include one *Hippocampus hippocampus* (short-snouted seahorse) from the Maerl grounds, seen at approximately 18m bsl. BAP species: *Ostrea edulis* (native oyster) was recorded from five sites, ranging across the Poole region, with an average abundance of occasional; *Pleuronectes platessa* (plaice), observed at 25m bsl in coarse sand waves to the north-east of Poole Spoil grounds.

### Poole Harbour

**50° 42.05"N 2° 4.34"W — 50° 45.04"N 1° 57.05"W**

An evening dive from Poole Quay and weekend's diving off Brownsea Island, delivered some very interesting records for Poole Harbour, records that we aim to further in 2009 via a specialist course and more evening dives. Of particular interest was the sighting of two spiny seahorses (*Hippocampus guttulatus*) in the Wytch Channel, off the north shore of Brownsea Island, in July. One of the individuals was a very heavily pregnant male, of which the diver managed to get one or two photos before he swam off into the densely weeded surroundings. Also in the channel, *Ostrea edulis* (although rare) and dense beds of *Crepidula fornicata*.

Several regular Seasearchers went to Brownsea Island in September, diving from the north shore as well making some shore observations on the lagoon on the east side. of the island Crustacea were common on all of the dives in the harbour, the most abundant and frequently seen species being *Carcinus maenus* (common shore crab). The habitats off the north shore turned from sloping, muddy sediments with some benthic life at 2-3m bsl, to sediment with dense patches of loose weed and *Crepidula fornicata*. Other species included the sea anemone *Diadumene cincta*, one *Syngnathus acus*, gobies and juvenile *Sepia officinalis*. Within the lagoon, *Nematostella vectensis* (starlet sea anemone) were present to the order of thousands per square meter— a significant record given that the anemone has a very limited distribution and is a BAP species as well as being protected under the Wildlife and Countryside Act. The invasive oyster *Crassostres gigas* was recorded twice, frequent in abundance. Overall for Poole Harbour, 90 species and groups were recorded from six surveys.



Pregnant male spiny seahorse

**Table to illustrate the number of species and groups per phylum, recorded in Dorset during 2008**

<b>Phylum</b>	<b>Preferred common name of phyla and groups</b>	<b>Example of species recorded within groups</b>	<b>Number of species/groups recorded</b>
Porifera	Sponges	Hedgehog sponge, sea orange, black tar sponge	50
Cnidaria	Jellyfish, sea anemones, corals and hydroids	Dahlia anemone, southern cup-coral, antenna hydroid, stalked jellyfish	52
Platyhelminths	Flat worms	candystripe flatworm	1
Annelida	Segmented worms	double spiral worm, honeycomb worm, strawberry worm	17
Chelicerata	Sea spiders		1
Crustacea	Barnacles, shrimps, crabs, lobsters,	Spiny squat lobster, velvet swimming crab, greater acorn barnacle	38
Mollusca	snails, limpets, sea slugs, bivalves and cuttlefish	Queen scallop, long finned squid, Arctic cowrie, lined polycera, native oyster	68
Bryozoa	Sea mats	Finger bryozoan, hornwrack, ross coral, sea mat, spiral bryozoans	34
Phoronida	Horseshoe worms		1
Echinodermata	Echinoderms- sea stars, sea cucumbers, brittlestars	Gravel sea cucumber, Bloody henry starfish, common brittlestar	14
Tunicata	Sea squirts	leathery sea squirt, lightbulb sea squirt, star sea squirt	36
Pisces	Fish- bony and cartilaginous	Spotted cat shark, Undulate Ray, Bailon's Wrasse, Cuckoo wrasse, Spiny seahorse	49
Algae	red, brown and green seaweeds	Kelp, pennyweed, coral weed, maerl, sea lettuce	76
Angiospermae	Flowering plants	Eelgrass	1
<b>Total</b>			<b>438</b>

Dorset Wildlife Trust– working to protect Dorset's wildlife for the future, Brooklands Farm, Forston, Dorchester, Dorset, DT2 7AA; Tel: 01305 264620; Fax: 01305251120. Registered Charity No 200222. For more information about DWT, our work and the Seasearch project, please visit [www.dorsetwildlife.co.uk](http://www.dorsetwildlife.co.uk) or email [kdawson@dorsetwildlife.co.uk](mailto:kdawson@dorsetwildlife.co.uk)

Seasearch is a national project involving volunteer sports divers in marine biological surveys. The project is co-ordinated in Dorset by DWT and nationally by the Marine Conservation Society on behalf of the Seasearch Steering Group. For more information on Seasearch and to see all of the partners involved nationally, please visit [www.seasearch.org.uk](http://www.seasearch.org.uk) or email [info@seasearch.org.uk](mailto:info@seasearch.org.uk)

DWT would like to acknowledge the support and funding received for Dorset Seasearch from Natural England, the Environment Agency and Viridor Credits.





**Table to show the abundance of rare, scarce, Biodiversity Action Plan and Habitat Action Plan species, recorded in Dorset 2008**

Species	Common name	Abundance	Status
<i>Stelletta grubii</i>	Overhang overgrown sponge	Rare	NS
<i>Caryophyllia inornata</i>	Button/southern cup coral	Rare to frequent	NR
<i>Eunicella verrucosa</i>	Pink sea fan	Frequent to rare	NS, W&CA, BAP, climate
<i>Aiptasia mutabilis</i>	Trumpet anemone	Common to rare	NS
<i>Phallusia mammillata</i>	Michelin man seasquirt	Common	NS
<i>Zanardinia prototypus</i>	Penny weed	Frequent to rare	NS
<i>Pterosiphonia ardreana</i>	Red seaweed	Rare	Rare
<i>Polysiphonia devoniensis</i>	Red seaweed	Rare	Rare
<i>Haliclystus auricular</i>	Stalked jelly fish	Rare	BAP, scarce
<i>Hippocampus hippocampus</i>	Short-snouted seahorse	Rare	BAP, W&CA
<i>Hippocampus guttulatus</i>	Spiny seahorse	Rare	BAP, W&CA
<i>Nematostella vectensis</i>	Starlet sea anemone	Super abundant	BAP, W&CA
<i>Pleuronectes platessa</i>	Plaice	Rare	NS
<i>Zanardinia prototypus</i>	Penny weed	Frequent to rare	NS, climate
<i>Ostrea edulis</i>	European oyster	Frequent to rare	BAP

NS– nationally scarce; NR– nationally rare; W&CA– protected under the Wildlife & Countryside Act; climate– potential indicator of climate change; BAP– Biodiversity Action Plan species; Habitat Action Plan species. Status according to the JNCC.

## Summary

In comparison to 2007, we have received a similar number of records but more actual survey events and a greater proportion of detailed Surveyor records. More courses were carried out than last year and use of local partners, such as Swanage Pier and JustUDive, was promoted. This is something we hope to continue and expand upon in 2009 with our courses, as well highlighting the value and use of DWT's reserves and facilities, such as Kimmeridge.

Over recent months there has been a lot of interest regarding Studland Bay and the seagrass beds that are there. In the coming months Seasearch may be involved in supporting the research through coordinated surveys there. However, due to the busy nature of the site and the risk of disturbance to seahorses, we would encourage groups of divers keen to see seahorses, to direct their efforts towards other potential seahorse sites for which there is less information known. If any divers are planning to dive in sensitive areas or habitats where they may encounter protected species, a diving protocol has been produced, based on MCS and general safe diving guidelines. If you would like a copy please email Kathryn at kdawson@dorsetwildlife.co.uk

For 2009– we plan to hold specialist courses in photography and seaweed identification to increase the skills of Seasearchers, with the higher aim of assisting with the production of a biotope map for Dorset. This map has been a long time in the planning and has been made further possible by an ambitious seabed mapping project– Dorset Integrated Seabed Study. Dorset Seasearch will be providing a significant contribution to the study by acquiring biological data and photographs for targeted areas, identified by using the new maps. The study will ultimately contribute to the development of a marine spatial plan in Dorset and will feed into the Finding Sanctuary process for the identification of a network of marine protected areas in the south west.

**Photo credits**– GB– Gordon Bird; ST– Steve Trehwella; MM– Mike Markey; FR.– Fiona Ravenscroft; HM– Helen Macnee; KD– Kathryn Dawson; PT– Peter Tinsley

**A very big thank you to all of the contributors to Seasearch in Dorset.** To the skippers, funders, staff and everyone who sent in records from Dorset in 2008- Alison Bessell Angie Gall Blair Lindsay Carrie Pillow Chris Wood Claire Kessel David McLaren Dominic Smith Emma Rance Fiona Ravenscroft Gordon Bird Grahame Knott Helen Macnee IPSAC James Lucey Jayne Szekely Jenny Mallinson Jolyon Chesworth Josie Pegg Julie Hatcher JustUDive Kate Cole Kerry Evans Lin Baldock Martin Openshaw Matt Doggett Mike Markey Neil Hassell Nick Owen Nick Reed Paul Pike Peter Szekely Peter Tinsley Polly Whyte Rachel Locklin Richard White Shannon Johnston Sheila Openshaw Steve Trehwella The Swanage Pier Trust Wendy Rooke