



North Pembrokeshire Seasearch 2005-2008



Photos: David Kipling



Marine
Conservation
Society



www.seasearch.org.uk

The north Pembrokeshire coast has been targeted by Seasearch diving since 2002. Survey dives have been completed from Porthgain to Strumble Head. This area of coast is located just north of the current Pembrokeshire marine SAC boundary. The surveys have been run by the combined effort of Jen Jones, West Wales diving school and Kate Lock, local Seasearch co-ordinator. The survey aim is to highlight the incredible marine biodiversity found and the importance of the area for monitoring marine life. This reports summarises the surveys completed from 2005 to 2008.

Offshore and cliff reefs habitats dominate the area, ranging in depth from 8-30 metres. Steep walls, drop offs, deep gullies and extensive low-lying reefs are all found in the area. The waters off Strumble Head are well known for their importance for porpoises, less known is that this is also the northern limit of the pink seafan *Eunicella verrucosa* directly below the Strumble light house.



Pink sea fan *Eunicella verrucosa* Chris Wood

The rocky reefs around Strumble Head and all along the coast to Porthgain are distinct in their incredible richness of sponge communities with 29 species being recorded by Seasearch surveys. Striking also are the extensive carpets of the yellow cluster anenome *Parazoanthus axinellae*, the tide swept gullies with the scarlet and gold cup coral *Balanophyllia regia* and the numerous records of nationally scarce species. These are listed below along with the Welsh BAP/Nerc Section 42 species and habitats found in this area.

Nationally rare species:

- sponge *Stryphnus ponderosus*

Nationally scarce species:

- Sponges: Mashed potato sponge *Thymosia guernei*, *Tethyspira spinosa*, *Plocamilla coriacea* and *Axinella damicornis*.
- Nudibranchs: Elegant sea slug *Okenia elegans* and sponge sea slug *Doris sticta*.
- Cnidarians: Pink sea fan *Eunicella verrucosa*, yellow cluster anenome *Parazoanthus axinellae*, scarlet and gold cup coral *Balanophyllia regia*.
- Crustacea: Sponge crab *Dromia personata*.



Elegant sea slug *Okenia elegans*
David Kipling

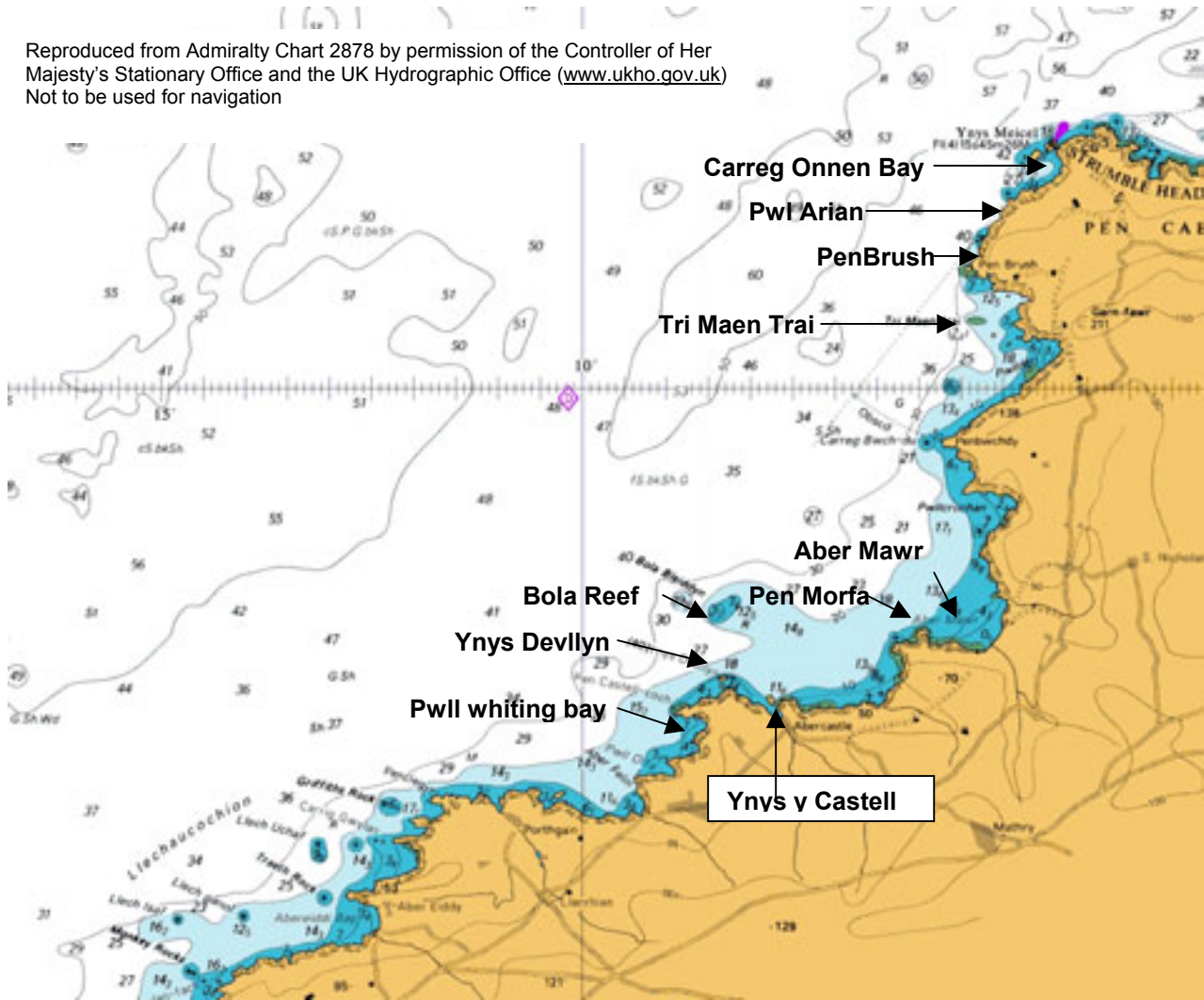
Welsh BAP/NERC Section 42 species and habitats:



Crayfish *Palinurus elephans* Chris Wood

- Harbour porpoise *Phocoena phocoena* common around Strumble Head.
- Pink seafan *Eunicella verrucosa* found at several sites, northern limit south of Strumble lighthouse.
- Blue Mussel *Musculus discors* beds found at Tri Maen Tre, off shore reef.
- Crayfish *Palinurus elephans*, found at several sites including juveniles (no site information provided as a 'commercial sensitive species').
- Erect sponge and anthozoan communities superb examples of these communities at several sites,
- Tide swept channels found all along this coast with their associated habitats.

Reproduced from Admiralty Chart 2878 by permission of the Controller of Her Majesty's Stationary Office and the UK Hydrographic Office (www.ukho.gov.uk)
 Not to be used for navigation



Site 1 South Strumble Head, Carreg Onnen Bay

A rugged bedrock reef leading down to a cobble and pebble slope interspersed with boulders at 16m below sea level. Thick kelp forest and red seaweed meadows dominated the shallow reef. Bryozoan species including the white claw sea moss *Crisia sp* and square-end horn wrack *Securiflustra securifrons* along with the sea squirt *Didemnum spp* carpeted the deeper areas. Sponges species were diverse with yellow staghorn sponge *Axinella dissimilis*, the prawn cracker sponge *A. infundibuliformis* and *A. damicornis* and all present. A single pink sea fan *Eunicella verrucosa* was found, this becoming the new northern UK limit for this species. Territorial fish species were found on both the reef and cobble slope habitats with the leopard-spotted goby *Thorogobius ephippiatus* frequently recorded.



Yellow staghorn sponge *Axinella dissimilis* and Yellow hedgehog sponge *Polymastia boleteformis* Chris Wood

Site 2 Pwll Arian A magnificent site with steep rock walls and deep swim through gullies. The site was described as 'a yellow site' as almost everything recorded was yellow! The yellow cluster anemone, *Parazoanthus axinellae* was super abundant carpeting the rocks and again, like many of these sites, a high diversity of sponges recorded, including a large patch of the mashed potato sponge *Thymosia guernei*. Hydroids were also abundant with the common and branching antenna hydroids *Nemertesia antennina* and *N.*



ramosa both present along with *Aglaophenia sp* and the herring bone hydroid *Halecium halecinum*. Notable were patches of the indian feathers hydroid, *Gymnangium montagui*. Six species of nudibranch were recorded including two sightings of the nationally scarce elegant sea slug *Okenia elegans*.

Leopard spotted goby *Thorogobius ephippiatus* David Kipling



Site 6 Aber Mawr Pinnacle

A jagged rocky reef at 12m below sea level with a rock and boulder slope down to 18m giving way to cobbles and pebbles at 20m. Sponge turf dominated the rock surfaces especially the shredded carrot sponge *Amphilectus fucorum* and the yellow staghorn sponge *A. dissimilis*. Other notable species were the mashed potato sponge *T. guernei*, the chimney sponge *Polymastia penicillus* and *Tethyspira spinosa*. Two pink sea fans *E. verrucosa* were recorded and hydroid species were also prolific with an abundance of the antenna hydroid *N. antennina*. Territorial fish were found around the reef and boulders with ballan wrasse *Labrus bergylta*, cuckoo wrasse *L. mixtus*, goldsinny wrasse *Ctenolabrus rupestris* and corkwing wrasse *Crenilabrus melops* all recorded along with tompot blenny

Parablennius gattorugine and leopard spotted goby *Thorogobius ephippiatus*. Conger eel *Conger conger* were also spotted lurking in the boulders.



Aber Mawr sketch, Vicky Swales

Site 7 Anderson Reef A drift dive across a low-lying rocky reef with shallow ridges around 0.5m high. Running in parallel to the reef were plains of cobble and sand mixed ground covered in brittle star beds and large dahlia anemones *Urticina felina*. The rocky reef area was festooned in sponge fauna with *Tethyspira spinosa*, *A. damicornis*, yellow staghorn sponge *A. dissimilis* and prawn cracker sponge *A. infundibuliformis* all recorded. Large numbers of crustacea were also recorded including some pretty funky great spider crabs, *Hya araneus*. A nudibrach highlight was the sighting of the sponge sea slug *Doris sticta*, a nationally scarce species.



Sponge sea slug *Doris sticta* Chris Wood

Site 8 Bola Reef

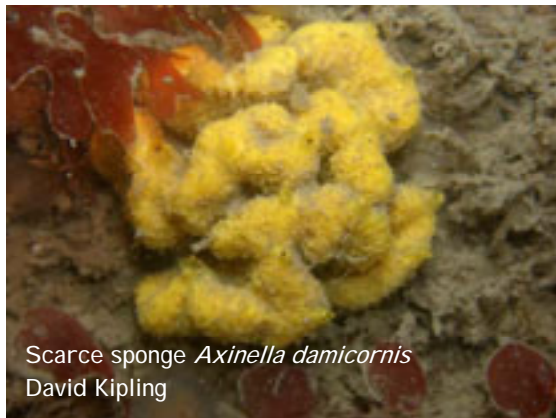
This extensive rocky reef lies 500m offshore from Abercastle. The bedrock was thickly covered in common mussel *Mytilus edulis* beds with occasional bare patches and dense groupings of the common starfish *Asterias rubens* were recorded. Although dominated in the thick mussel bed some sponges were found, goose bump sponge *Dysidea fragilis* was common and both yellow staghorn sponge *A. dissimilis* and *A. damicornis* were recorded. In the shallower areas kelp park was present with the holdfasts thickly encrusted by juvenile common mussels. At 20m below sea level the reef gave way to a cobble gravel slope thickly covered in common brittlestars *Ophiothrix fragilis*.



Common mussel bed David Kipling

Site 9 Ynys Castell

This is a small island located in shallow water at the entrance to Abercastle. A rocky reef interspersed with sand patches is found down to 8-10m below sea level, dominated by kelp forest and algae turf. On the north east corner of the island a gully 1 m wide is found running into the island around 25-30m long. The steep walls of the gully are dominated by short bryozoan turf, large elephant hide sponge *Pachymatisma johnstonia* and encrusting sponges. Common too were star sea squirt *Brotyllus schlosseri*, red sea squirt *Ascidia mentula*, sponge sea squirt *Diplosoma spongiforme* and other colonial sea squirts. At the bottom of the gully cobbles and pebbles with an abundance of the keel worm *Pomatoceros sp* were found.



Scarce sponge *Axinella damicornis*
David Kipling

Site 10 Ynys Devillyn

This small island is situated on the west side of the entrance into Abercastle. At 15m below sea level a rugged rocky reef and large boulders were found with deep gullies 1-2m deep in a series of parallel ridges. A high diversity of sponge species was recorded including large patches of the mashed potato sponge *T. gurnei*, chimney sponge *P. penicillis*, and recorded as either common or frequent were the scarce sponges: *T. spinosa*, yellow staghorn sponge *A. dissimilis* and *A. damicornis*. Bryozoan turf festooned the rock surfaces with an abundance of the twig bryozoan *Cellaria spp* and white claw sea moss *Crisia spp*, the sea squirt *Didemnidae indet* covered the rocks like white lace.

Site 11 West Pwll Whiting Bay

A rocky reef from 12 to 15m below sea level sloping down to a cobble bed with occasional boulders. Typical of this area a richness of sponge species dominated this reef however unusually all the sponge forms were in 'miniature' with few large individuals seen. Species included: *H. subdola*, yellow staghorn sponge *A. dissimilis*, *A. damicornis*, yellow hedgehog sponge *Polymastia boletiformis*, and volcano sponge *Haliclona viscosa*. In the shallow areas red algae mixed with white lace like seasquirt *Didemnidae indet*. Bryozoan turf covered the rocks in the deeper areas including the twig bryozoan *Cellaria spp*, white claw sea moss *Crisia spp* and spiral bryozoans *Bugula spp*.



Scarce sponge *Tethyspira spinosa*
Chris Wood

Divers taking part in the surveys were: Sarah Bowen, David Kipling, Simon Ward, Ian Goddard, Chris Wood, Ruth Sharratt, Winter Doto, Kate Lock, Ian Williams, Scott Tompsett, Vicky Swales, Steve Bound, Kerry Lewis, Richard West, Paul Holmes, Howard Manning, Ann Smith, Simon Knight, Joanne Thompson, Ross Bullimore, Mandy Johns, Dawn Watson, Rob Spray, Sarah Drake, Erin Smyth, Sheena Davies, Leon Hopkins, Rebecca Gaille.

Logistics and Boat support: Jen and Bruce Jones, Mark. Dave Stephens.

Report prepared by Kate Lock. Photos: David Kipling, Chris Wood and Leon Hopkins. Sketches: Vicky Swales
Seasearch is a volunteer underwater survey project for recreational divers who wish to contribute to conserving the marine environment.

Financial support for the project during 2007 and 2008 has been given by:

