

# Aberystwyth Seasearch 2005 & 2006

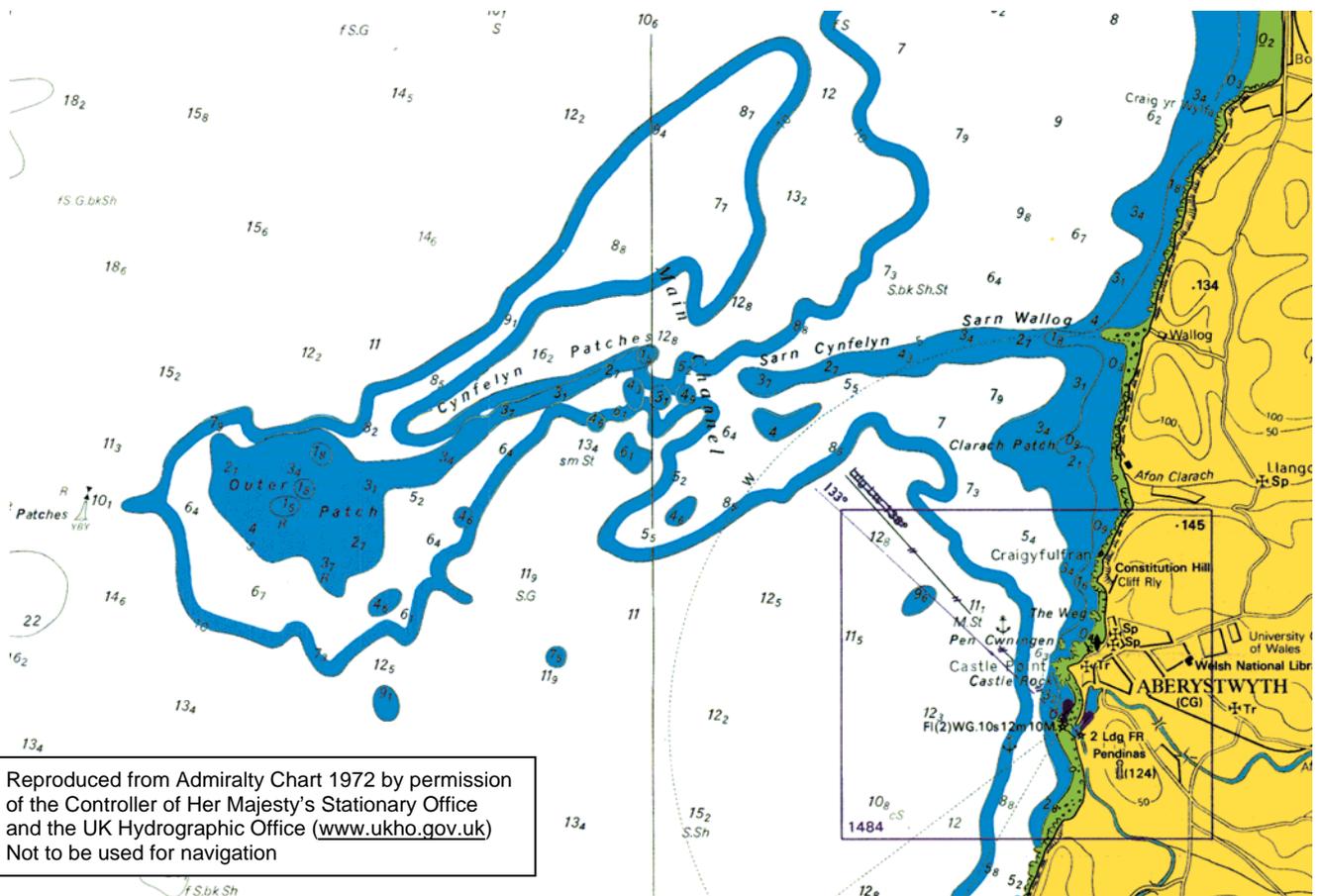
## Summary Report

Kate Lock

The coast around Aberystwyth constitutes a range of marine habitats, from soft sediments to rocky reefs and glacial deposits. Most obvious of these is the Sarn Cynfelin, a spit of glacial till that runs out to sea from the secluded bay of Wallog, about two miles North of Aberystwyth. The Sarn is an important habitat in what is otherwise relatively uniform silt and sand seabed. The landward end of the Sarn can be clearly seen as a causeway at low tide and has given rise to the local legend of a sunken town Cantre'r Gwaelod. Additional sites include the easily accessible Castle Rocks, directly in front of Aberystwyth town centre and Tan y Bwlch beach just south of the confluence of the Rivers Rheidol and Ystwyth.

No diving surveys have been conducted before on these interesting and important sites, although Tan y Bwlch and Castle Rocks are popular dives for local clubs. The potential importance of the Sarn as a feeding ground for Bottlenose Dolphins (*Tursiops truncatus*) has been noted by the Friends of Cardigan Bay, who regularly survey the area by boat.

In 2005 two weekends in April and September were organised by Joanne Porter with the support of dive boats from Aberystwyth and Swansea Universities, Cantre'Gwaelod Dive Club and Friends of Cardigan Bay. Sites were completed along the length of the Sarn, as far as 7 miles offshore and at the shore sites close to Aberystwyth. Unfortunately two planned weekends in 2006 had to be abandoned due to poor weather conditions. However, thanks to calm summer conditions local divers completed some Seasearch dives during the summers of 2005 and 2006.



### Sarn Cynfelin - Patches Reef Site 1.

This is located at the furthest point on the seaward end of the Sarn Cynfelin. Here the seabed is dominated by a mixture of cobbles and pebbles and to a lesser extent sands and gravels associated with glacial deposits. In the early part of the season records from this site show that short and tall animal turf were the dominant cover types present.

There were common records of the encrusting keelworm *Pomatoceros lamarcki* and barnacles *Balanus sp.* Tall animal turf was dominated by the bryozoans: hornwrack *Flustra foliacea*, potato crisp bryozoan *Pentapora foliacea* and the spiral bryozoan *Bugula sp.* Sponges included the yellow staghorn sponge *Axinella dissimilis*, the golf ball sponge *Tethya aurantium*, the branching sponge *Haliclona oculata*, the crater sponge *Hemimycale columella* and the puff ball sponge *Suberites carnosus*. No commercial crustaceans were found, however, the velvet swimming crab *Necora puber* and the squat lobster *Galathea intemedica* were found occasionally. Fish life included regular sightings of the butterfish *Pholis gunnellus* and the lesser spotted catshark *Scyliorhinus canicula*.



### Sarn Cynfelin Site 2.

The seabed was dominated by medium rippled sand with casts and burrows, there were also small beds of the king scallop *Pecten maximus*. Present were a relatively small proportion of rounded cobbles, indicating a high-energy environment. The shallower depth of this location allowed the growth of small tufts of red and green algae. A few large anemones were found including the dahlia anemone *Urticina felina* and *Sagartia sp* and tall animal turf included deadman's fingers *Alcyonium digitatum* and the hornwrack *Flustra foliacea*. A variety of fish were recorded with the greater pipefish *Syngnathus acus* and butterfish *Pholis gunnellus* being occasionally seen by nearly all recorders. Other interesting species included the pogge *Agonus cataphractus* and the sea scorpion *Taurulus bubalis*.

### Sarn Cynfelin Site 3.

Cobbles and pebbles dominated the seabed at this site with some boulders interspersed with coarse sands. At shallower depths pink encrusting algae was abundant but macro-algal growth was limited, probably due to the time of year (March). However, rocks were well encrusted with mainly short animal turf. Hydroids included *Halecium halecinum*, *Nemertesia antennina* and *Tubularia larynx*, being grazed by the sea slug *Polycera quadrilineata*. A wide diversity of sponges were present including the golfball sponge *Tethya aurantium*, the yellow staghorn sponge *Axinella dissimilis*, and the puff ball sponge *Suberites carnosus*.

Of interest in the soft sediment areas were the presence of the burrowing anemones *Sagartiogeton laceratus* and *Cerianthus lloydii*. In addition, the snakelocks anemone *Anemonia viridis* was found colonising stable rocks. There were a number of bottom dwelling fish species recorded including the Sea scorpion *Taurulus bubalis* and the butterflyfish *Pholis gunnellus*.



### Sarn Cynfelin Site 4.

The seabed was a mixture of sand and gravel with occasional cobbles and boulders. These were covered in the common mussel *Mytilus edulis* on which large aggregations of the common starfish *Asterias rubens* were feeding. The diversity of sponges varied from other sites with the goosebump sponge *Dysidea fragilis* and the shredded carrot sponge *Amphilectus fucorum* occasionally sighted. Large dahlia anemones *Urticina felina* and the similar *Urticina eques* were recorded rarely and interestingly the only sighting in the general area of the plumose anemone *Metridium senile* was made here. In the soft sediments between rocks was the presence of the masked crab *Corystes cassivelaunus*.

### Sarn Cynfelin Site 5.

Cobbles and pebbles that form the glacial moraine ridge of the Sarn dominated the seabed. This overlaid a fine sand seabed. As it was late summer there was a luxuriant growth of bootlace weed *Chorda filum* on top of the cobble bank. There was also a much greater abundance of red seaweeds present including tufts of red fringe weed *Calliblepharis ciliata*. Amongst the cobble bed there was a high diversity of crustacea including the spider crab *Maja squinado* and the hermit crab *Pagurus bernhardus*. Most striking here, however, was the high diversity of fish species, including the bottom dwelling rock goby *Gobius paganellus* and the shanny *Lipophrys pholis*, and the pelagic species, bass *Dicentrarchus labrax* and black bream *Spondylusoma cantharus*.

### Sarn Cynfelin Site 6.



Cobbles and pebbles account for the majority of the seabed here. These were notably covered in juvenile mussels (spat). Larger rocks were covered in hydroid colonies, dominated by the antenna hydroid *Nemertesia antennina*. A high diversity of sponges including the elephants hide sponge *Pachymatisma johnstonia*, the crater sponge *Hemimycale columnella* and the branching species *Raspailia ramosa*.

A number of crustaceans were noted including the spider crab *Inachus dorsettensis* and the squat lobster *Galathea squamifera*, both seen in large numbers. Common too were the common starfish *Asterias rubens* and the hornwrack *Flustra foliacea*.

### Constitution Hill, Aberystwyth

The seabed was a mixture of fine gravels, cobbles and pebbles. Attached to larger rocks were a number of seaweed species including bootlace weed *Chorda filum*, and the pod weed *Halidrys siliquosa* as well as abundant large patches of pink encrusting algae. Bryozoan species represented included the spiral bryozoan *Bugula flabellata* and hornwrack *Flustra foliacea*. A John Dory *Zeus faber* was the most interesting fish recorded, being generally of a more southerly distribution.

## Castle Rocks, Aberystwyth

This site is a shallow bedrock reef, with a number of 2-3 m deep gullies running away from the shoreline some with overhangs providing interesting localised habitats. The top of the reef was covered with the oarweed *Laminaria digitata* and coralline algae *Corallina officinalis*. Wrasse species were sighted including the rock cook *Centrolabrus exoletus*.

The vertical sides of the gullies provided space for a range of encrusting sponges. Common here too was the highly territorial Tompot blenny *Parablennius gattorugine*.

Highly notable was the grey triggerfish *Balistes carolinensis*, a warm water visitor to the UK, which was found in crevices in the gully walls. The seabed between gullies was characterised by the dahlia anemone *Urticina felina* and crustacea included the lobster *Hommarus gammarus*.



Grey trigger fish  
Steve Bound

## Tan y Bwlch

The seabed consisted mainly of mixed ground with occasional larger boulders, offering a more permanent base for species of seaweed including most commonly the pod weed *Halidrys siliquosa*. Again the larger rocks provided surfaces for mussel spat. There were also a number of benthic fish species including the sea scorpion *Taurulus bubalis* and the rock goby *Gobius paganellus*.

The table on the right shows how many species were recorded in each group, some of the species of interest and some of the most frequently recorded.



Red gurnard  
Joanne Porter

Divers taking part in the survey were:

Joe Moxon, Tim Davies, Ben Rushbrook, Jasmine Sharp, Joanne Porter, Pam Evans, Linda Crawford, Simon Ward, Sheena Davies, Clive Field, Scott Tompsett, Kate Lock, Dave Michael, Janina Henly, Mark Weeks, Steve Hancock, Mario DiMaria, Erin Smyth, Hayley Fletcher, Stephanie Morgan, Steve Bound.

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Report compiled by Scott Tompsett and Kate Lock, Photos by Kate Lock, Joanne Porter and Steve Bound. Full survey results and species list available on the JNCC NBN Gateway.

Phylum	Number	Common and Notable species
Porifera (Sponges)	20	Yellow staghorn <i>Axinella dissimilis</i> Golf ball sponge <i>Tethya aurantium</i>
Cnidaria (Anemones, corals hydroids)	20	Burrowing anemone <i>Cerianthus lloydii</i> Dahlia anemone <i>Urticina felina</i>
Annelida (Segmented worms)	8	Sandmason worm <i>Lanice conchilega</i>
Crustacea (Crabs, lobster, barnacles)	20	Squat lobster <i>Galathea intermedia</i> Masked crab <i>Corystes cassivelanus</i>
Mollusca (Shells, sea slugs)	12	Elegant cuttlefish <i>Sepia elegans</i> Razor shell <i>Ensis sp</i> Nudibranch <i>Facelina bostoniensis</i>
Bryozoa (Sea mats)	12	Horn wrack <i>Flustra foliacea</i> Potato crisp bryozoan <i>Pentapora foliacea</i> Finger bryozoan <i>Alcyonidium diaphanum</i>
Echinodermata (Starfish, sea urchins sea cucumber)	4	Sand star <i>Astropecten irregularis</i>
Tunicata (Sea squirts)	8	Star seasquirt <i>Botryllus schlosseri</i>
Pisces (Fishes)	28	Scorpion fish <i>Taurulus bubalis</i> John dory <i>Zeus faber</i> Grey triggerfish <i>Balistes carolinensis</i> Black bream <i>Spondyliosoma cantharus</i> Yarell's blenny <i>Chirolophis ascani</i>
Algae (Seaweeds)	13	Red gurnard <i>Aspitrigla cuculus</i> Bootlace weed <i>Chorda filum</i> Red seaweed <i>Furcellaria lumbricalis</i> Red seaweed <i>Griffithsia flosculosa</i>
<b>TOTAL SPECIES</b>	<b>145</b>	

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 2005 and 2006 has been given by:

