

**Seasearch divers who took part were:**

Lucy Kay	Kirsten Ramsay	Alice Lawrence	Ron Crosby
Paul Kay	Kate Smith	Harry Goudge	Paul Crockford

Altogether we collected seven Seasearch Observer forms and fourteen Surveyor forms over five organised Seasearch days, and one non-Seasearch dive. Many thanks to you all for the useful data collected, and to Paul Turkentine and his RIB Waterline for looking after us over the weekends.

Species Summary for the North Llŷn - Summer 2007			
Phylum	Common Name	No. of Species	Most Common & Frequently Encountered Species
Algae	Seaweed	32	<i>Laminaria hyperborea</i> , <i>Desmarestia</i> sp. & <i>Heterosiphonia plumosa</i> .
Porifera	Sponges	24	<i>Tethya citrina</i> & <i>Leucosolenia</i> sp.
Cnidaria	Anemones, Hydroids, corals, jellyfish	20	<i>Corymorpha nutans</i>
Platyhelminthes	Flatworms	1	<i>Prosthecaraeus vittatus</i>
Annelida	Segmented Worms	8	<i>Sabellaria spinulosa</i> & <i>Bispira voluticornis</i>
Crustacea	Lobsters, Crabs, Barnacles	12	<i>Cirripedia</i> (Barnacles), <i>Pagarus berhardus</i> & <i>Maja squinado</i>
Mollusca	Shells, Sea Slugs, Octopus	24	<i>Trivia</i> sp. (cowries) & <i>Musculus discors</i>
Bryozoa	Seamats	18	<i>Flustra foliacea</i> , <i>Crisia</i> sp., <i>Bugula</i> sp. & <i>Pentapora foliacea</i> .
Echinodermata	Starfish, Urchins	9	<i>Asterias rubens</i> , <i>Echinus esculentus</i> & <i>Neopentadactyla mixta</i>
Chordata - Tunicata	Sea Squirts	11	<i>Clavelina lepadiformis</i> , <i>Distomus variolosus</i> & <i>Polycarpa scuba</i>
Chordata - Pisces	Fishes	21	<i>Scyliorhinus</i> sp. & <i>Ctenolabrus rupestris</i>
<b>Total Species</b>		<b>180</b>	

**Table 2: List of the number of species recorded from each Phylum.**

Produced by Liz Morris for the Countryside Council for Wales on 14 March 2008  
Photographs Copyright of Paul Kay (PK), Lucy Kay (LK), Rohan Holt (RH)  
Alice Lawrence (AL), Liz Morris (LM)



Diverse faunal (animal) turfs, such as those at Seasquirt reef (centre, AL), dominate the reefs of the North Llŷn Peninsula. Faunal turfs provide a variety of food sources for both small animals, including the tiny and rarely spotted Bryer's nut crab (*Ebalia tumefacta*, right, PK), and larger animals such as octopus (*Eledone cirrhosa*, right, PK).

2007 was a good year for Seasearch along the North Llŷn Peninsula coastline, North Wales. 5 days of dedicated Seasearch dives were organised at a total of nine sites within the Pen y Llŷn a'r Sarnau Special Area of Conservation (SAC). Sites were chosen for their proximity to potentially sensitive habitats such as suspected ray nursery grounds or other sites of interest identified by the Countryside Council for Wales (CCW).

Following several observations of unusual beds of the small bivalve *Musculus discors* by Seasearchers in 2006, possible new sites for further survey were identified by CCW. After more Seasearch observations of these strange seabeds in 2007 this habitat, which is believed to be a rich local food source for several larger species, is one of a suite of habitats and species which have been formally identified as of 'principal importance for the purpose of conserving biodiversity' in Wales. *Musculus discors* is a common marine species, but beds of it, like those off the north Llŷn, are rare and unusual.



The unusual sponge, *Ciocalypa penicillus*. AL

Eight Seasearch divers together completed twenty one survey forms (7 observer and 14 surveyor) at nine sites within the SAC. The North Llŷn accommodates varied and interesting habitats, many of which were surveyed this summer: shallow kelp forests at Porth Ferin; deeper low lying bedrock reefs surrounded in muddy gravels teeming with animal life; animal beds of brittlestars, mussels and other bivalves; and refuges provided to animals by Trefor Pier.



The solitary hydroid *Corymorpha nutans*. PK

In total 180 species of marine life were recorded over the summer! The most common species are identified in Table 2 at the back of this report. Of particular interest were sightings of the solitary hydroid (*Corymorpha nutans*, left) at six of the surveyed sites, often in dense beds. Also observed was the unusual sponge *Ciocalypa penicillus* (pictured above), the rarely spotted Bryer's nut crab (*Ebalia tumefacta*) and the possibly the northern most Welsh record of the nationally rare nudibranch *Caloria elegans*.



*Musculus discors* beds off the North Llŷn, of 'principal importance for the purpose of conserving biodiversity' in Wales. RH.

### Penrhyn Melyn

At Penrhyn Melyn divers observed an unusual bedrock reef between 12-14m bcd. The reef was dominated by a layer of *Musculus discors* biogenic reef, with sparse other fauna. On the reef itself there were several colonies of the nationally scarce golfball sponge, *Tethyspira spinosa*, and the potato crisp bryozoan *Pentapora foliacea* was frequently observed. There were also occasional sightings of live eggcases of the lesser spotted doofish!



'Sea squirt reef' alive with animal turf. Dominated by tunicates *Distomas variolosus* and *Polycarpa scuba*. The potato crisp bryozoan *Pentapora foliacea* also frequent. LK

### Sea squirt Reef

Sea squirt reef was an unusual find on one of our Seasearch dives this year. It was a low lying bedrock patch reef (between 19 and 22m bcd) covered by an unusually high diversity of sponges, bryozoans and ascidians (sea squirts). The reef was surrounded by mixed ground of mud, sand and gravel. The dominant ascidians were *Distomas variolosus* (the baked bean sea squirt) and *Polycarpa scuba* (or tea pot sea squirt). Also present in large numbers were cowries (*Trivia* sp) on the twiggy bryozoan, *Cellaria* and large edible urchins, *Echinus esculentus*. Present in small numbers were *Sabellaria spinulosa* and *Caryophyllia smithii*, and the nationally rare nudibranch *Caloria elegans* was also spotted.

### West of Maen Aberdwyll

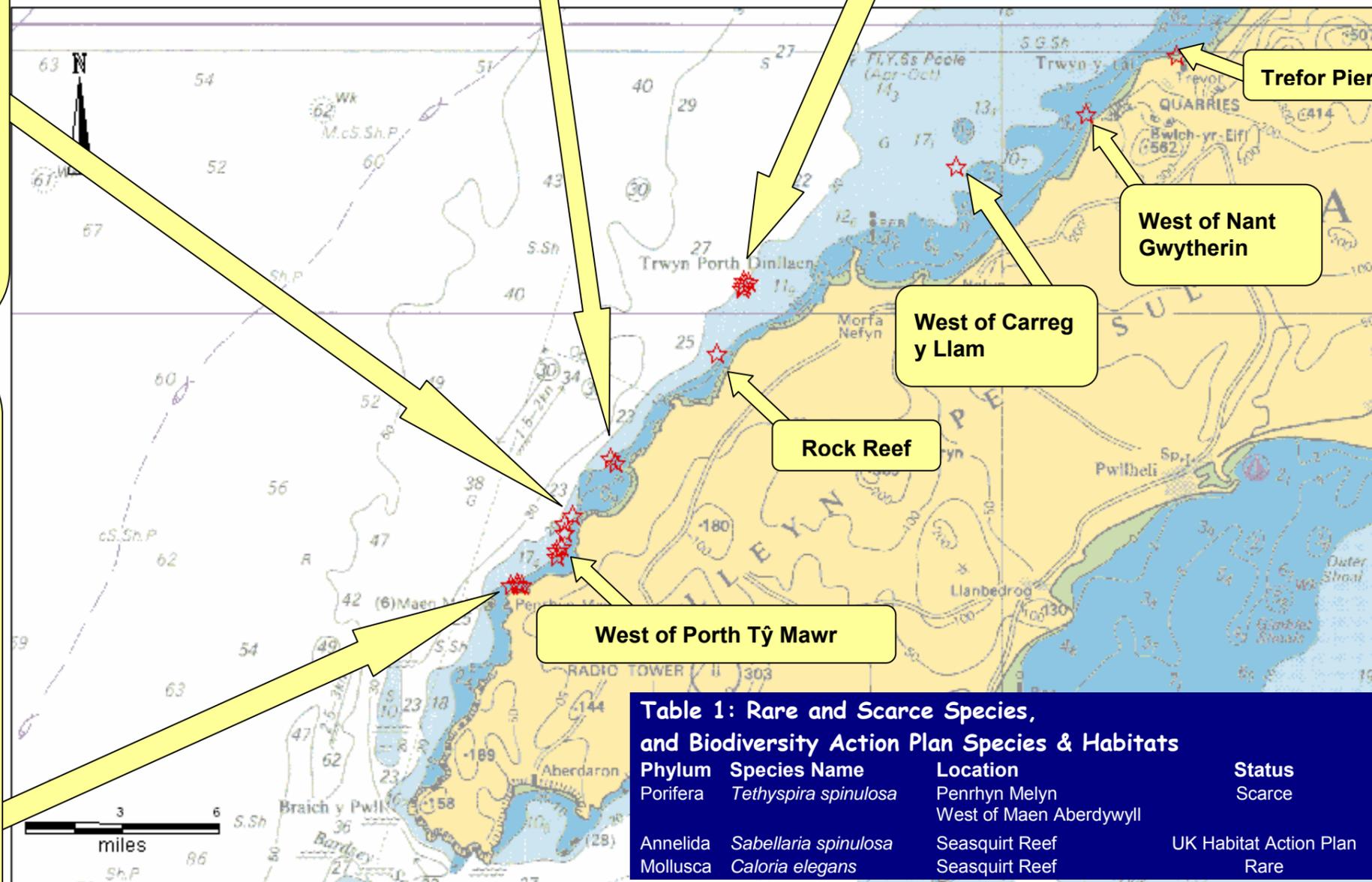
This bedrock patch reef and large boulders (16-18.5m bcd) is typical of many on the North Llŷn, covered in sponge, hydroid and bryozoan turfs. Muddy shell gravel separated areas of reef. There was lots of dead *Musculus discors*, with live areas forming beds (pictured above) around the edges of the reef. Squid eggs and an unusually high number of large edible urchins (*Echinus esculentus*) were observed in the area. The nationally scarce golfball sponge *Tethyspira spinosa* was also present.

### Porth Ferin

This was an inshore site of an inaccessible bay, lined with bedrock and boulder reef, leading down to silty gravel (4-10m bcd). There were some steep sided gullies in the bedrock, holding some amazing & diverse bryozoan and ascidian turfs on their vertical walls.



LM



**Table 1: Rare and Scarce Species, and Biodiversity Action Plan Species & Habitats**

Phylum	Species Name	Location	Status
Porifera	<i>Tethyspira spinulosa</i>	Penrhyn Melyn West of Maen Aberdwyll	Scarce
Annelida	<i>Sabellaria spinulosa</i>	Seasquirt Reef	UK Habitat Action Plan
Mollusca	<i>Caloria elegans</i>	Seasquirt Reef	Rare

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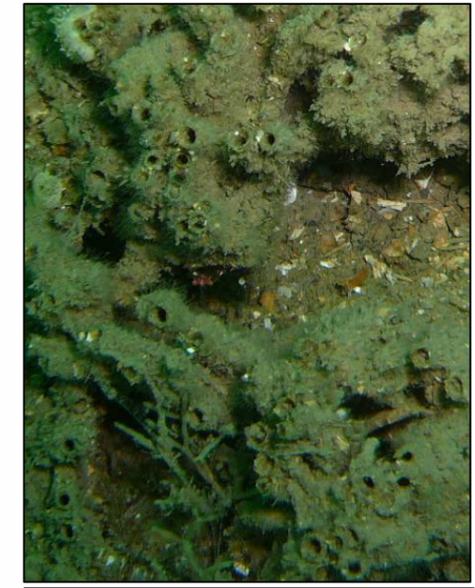
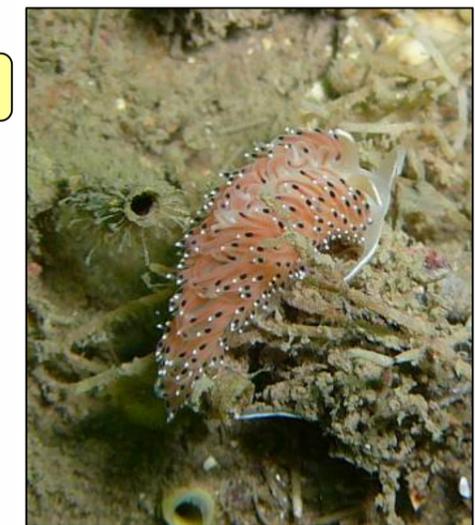
Trefor Pier

West of Nant Gwytherin

West of Carreg y Llam

Rock Reef

West of Porth Tŷ Mawr



*Caloria elegans* a nationally Rare nudibranch (top) and *Sabellaria spinulosa* crusts (bottom) on Seasquirt reef. AL