The North Llŷn has been identified as an area diverse in both habitats and species. The area is part of the Pen Llŷn a'r Sarnau Special Area of Conservation (SAC).

On 27th August and 3rd & 4th September 2005, Seasearch dives were completed at a variety of sites off part of the North Llŷn coast. Eleven Seasearch divers took part, diving from a RIB chartered from Waterline (run by Paul Turkentine). Eleven Surveyor forms and 7 Observer forms were completed, documenting some interesting finds.

**Omalosecosa Reef**

This site between 21-23m bsl was composed of a sand / gravel seabed with rocky bedrock reef outcrops up to 2m high. The reef was covered with dense animal turf that was dominated by species of bryozoan, the most common of which were ross coral, *Pentapora foliacea*, and the stick-like *Cellaria fistulosa*. The hard, branching bryozoan *Omalosecosa ramulosa* was recorded as occasionally present, but with sufficient abundance that the surveyors agreed that it should be adopted as the site name. The rarely noted sponge crab, *Dromia personata*, and the nudibranch, *Thecacera pennigera*, were both observed at this site. Brittlestars, hermit crabs and sand starfish were recorded on the sand and gravel.

Left: Omalosecosa Reef (Joanne Porter)
Below: Omalosecosa *ramulosa* (Paul Kay)
South West of Carreg-y-Chwislen
This was a shallow dive (10-16m) north west of Port Dinllaen. Three habitats were identified: the first in 10-10.7m as low boulders covered in dense beds of small Mytilus edulis; the second, between 10.7m-11.3m, was fine sand covered with mixed red and brown seaweed and frequent sea potatoes Echinocardium cordatum; whilst in 12-16m there was a fine sand and gravel flat seabed dominated by mussel beds with a variety of crustaceans and echinoderms. The dive was completed close to the Zostera marina seagrass beds of Port Dinllaen and solitary plants were occasionally noted in the shallow part of the survey area.

Porth Dinllaen (Seagrass Beds)

This shallow dive location on sand and gravel at 3-4m was largely amongst the moorings in Port Dinllaen, where divers found two major habitats: one of mixed seaweeds and bootlace weed Chorda filum, and the other of seagrass beds (Zostera marina). Many juvenile fish were recorded in the Chorda and mixed seaweed habitat, whilst the seagrass beds were home a range of epifauna including an abundance of the snakelocks anemone, Anemonia viridis.

Four plants of the invasive alien species Japweed or wire weed, Sargassum muticum, were observed within the moorings area.

There was some scouring of the seabed habitats caused by mooring chains and remains of fisheries waste (crab shell remains) but this seemed localised to certain areas. A rudder for a small dinghy complete with steering pole was salvaged from the site!

Juvenile Pollock (Pollachius pollachius) in Zostera marina beds (Porth Dinllaen, photograph by Harry Goudge)
**North West of Carreg Ddu**

The seabed at this deeper site (25-27m) was dominated by coarse sand and gravel, with occasional cobbles, pebbles and some boulders. A limited variety of animal species were recorded on and in the sand and gravel, including anemones and the hermit crab *Pagurus prideaux* with its associated cloak anemone. A large amount of ross coral *Pentapora foliacea* was recorded. The rocks were covered in short animal turf, including seasquirts and encrusting colonies of the reef building worm *Sabellaria spinulosa* (right) which in places formed low reefs formed by the worm tubes.

**North West of Borth Wen**

Three major habitats were described at this site between 3-13.5m. The seabed was dominated by rocky reef and boulders, with a course to medium sand between and surrounding bedrock outcrops. The shallow zone (3-7m) was dominated by kelp park and kelp forest.

The rocky reef (7-12.5m) was dominated by a short animal turf of small mussels (*Mytilus edulis*), ascidians, anemones, mixed seaweeds and tubes of the worm *Sabellaria spinulosa*. The mussel beds supported an large variety of epifauna: spider crabs (*Inachus* and *Maja* spp.), large numbers of the hermit crab *Pagurus bernhardus*, swimming crabs (*Necora puber*) and starfish (*Crossaster papposus*) were also observed.

12.5 – 13.5m was composed of a sandy sediment with some bivalves and sediment anemones (*Peachia cylindrica*).
**Miller Pinnacle**

This was an interesting bedrock reef at 12m to 20.4m depth. Diving pairs concentrated on different areas of the reef and found an amazing diversity of life, largely dominated by sponges, mixed red and brown seaweeds and bryozoan turfs. The animal turfs and mixed seaweeds supported many fish, including cuckoo wrasse (*Labrus mixtus*), large ballan wrasse (*Labrus bergylta*), pollack (*Pollachius pollachius*) and dogfish (*Scyliorhinus canicula*).

![Miller Pinnacle](image)

Interesting species included frequent observations of ross coral *Pentapora foliacea* and many individuals of the worm *Sabellaria spinulosa*. On the east side of the reef the rare cup coral *Caryophyllia inornata* was recorded (and photographed) - this is the northerly most record in Wales for this species.

![Caryophyllia inornata on Miller Pinnacle, North Llŷn. Photograph by Paul Kay](image)

Many species of sponge were observed. Notably there were numerous colonies from families Raspailiidae and Hemiasterellidae. In addition to the golf ball sponge (*Tethya aurantium*), several real golf balls were also found!

![Sponges Tethya aurantium (left) and unidentified Raspailiid (right) on Miller Pinnacle, North Llŷn. Photographs by Harry Goudge](image)

Eleven surveyor forms and seven observer forms were completed on North Llŷn Seasearch. The divers who took part were Harry Goudge, Robin Jones, Lucy Kay, Paul Kay, David Lewis-Waller, Liz Morris, Joanne Porter, Kirsten Ramsay, Ruth Sharratt, Kate Smith and Simon Ward.

Text by Liz Morris & Lucy Kay; photos by Paul Kay & Harry Goudge; sketches by Harry Goudge, Joanne Porter & Liz Morris

Seasearch is a volunteer underwater survey project for recreational divers who wish to contribute to conserving the marine environment. Financial support for this survey and for production of this report has been given by: