Phylum/sub-phylum	Common name	Number of species	Total records	Common species (number of records in brackets)
Porifera	Sponges	7	13	*Suberites carnosus* (3) – a ball sponge
Cnidaria	Anenomes, corals, hydroids, jellyfish	17	44	*Urticina felina* (8) – Dahlia anenome *Metridium senile* (7) – Plumose anenome
Nemertea	Ribbon worms	1	1	*Prostheceraeus vittatus* (1) – Candy striped flat worm
Annelida	Segmented worms	4	7	*Eupolymnia nebulosa* (2) – Strawberry worm
Crustacea	Lobsters, crabs, barnacles	18	104	*Necora puber* (13) – Velvet swimming crab *Paguridae* indet (13) – Hermit crabs
Mollusca	Shells, sea slugs, cuttlefish, octopus	18	54	*Pecten maximus* (11) – King scallop *Modiolus modiolus* (10) – Horse mussel
Bryozoa	Sea mats	3	3	*Flustra foliacea* (1) - Hornwrack
Echinodermata	Starfish, urchins, sea cucumbers	9	72	*Asterias rubens* (17) – Common starfish *Antedon bifida* (13) - featherstar
Tunicata	Sea squirts	3	13	*Ascidiella aspersa* (7) – Red sea squirt
Pisces	Fishes	11	20	*Callionymus* sp. (4) - Dragonet
Algae	Seaweeds	6	9	*Laminaria saccharina* (4) – Sugar kelp
Total		96	393	

The table to above shows how many species in each Phylum were found and what the most common species were.

Sponges comparatively few sponges were reported from Strangford compared to other areas of Northern Ireland. This might be because fewer rocky habitats were surveyed.

Anenomes, Corals, Hydroids and Jellyfish Both the Dahlia anenome (*Urticina felina*) and the Horseman anemone (*Urticina eques*) were spotted during surveys. These two species can be hard to distinguish but the dahlia anemone tends to have particles attached to its column.

Crustaceans this was the most commonly recorded animal group. Mobile species such as velvet swimming crabs (*Necora puber*) and hermits crabs (*Paguridae*) were recorded at all sites. However, the masked crab (*Goneplax rhomboides*) and scampi (*Nephrops norvegigus*) were restricted to a few very soft sediment habitats.

Molluscs horse mussels (*Modiolus modiolus*), one of the survey targets, were recorded at several sites with dead shell present at others. Queen scallops (*Aequipecten opercularis*) were only recorded in association with horse mussels but king scallops (*Pecten maximus*) were recorded in areas without horse mussels.

Echinoderms Brittlestar beds (common *Othiothrix fragilis* and black*Ophicomina nigra*) were reported from several areas. The common starfish *Asteria rubens* was present at most sites but particularly large individuals were present on the horse mussel beds. Feather stars (*Antedon bifida*) were often reported, but were most abundant in areas where living or dead horse mussel shells provided substrate.

Fish Although 20 species were recorded relatively few individuals were reported. This is probably because the survey did not target habitats in the lough where fish species are more common, such as wrecks.

Seaweeds few records of were made of seaweed – the survey mainly concentrated on mud and other soft sea bed types which do not provide good sites for weeds to attach.


Common starfish *Asterias rubens*


Horseman anenome *Urticina eques*

Surveyors taking part were: Wil Bateman, David Bird, Mary Callaghan, Herbie Dennis, Stevie Dougan, Maeve Edwards, Colin Ferguson, Claire Goodwin, David Goodwin, Kate Hutchinson, Sven Laming, Brian McIlroy Brian McKinstry, Mark O'Neill, Julia Nunn, Bernard Picton, Johnnie Reeves, Ronnie Snyder, Maia Taylor. Thanks to DV diving who were used for boat cover.

Seasearch is a volunteer underwater survey project for recreational divers to actively contribute to the conservation of the marine environment. Financial support for the project was given by the Environment and Heritage service Northern Ireland

This report was written by Claire Goodwin. Photos are by Claire Goodwin.

Strangford Lough Survey 2005


Scampi *Nephrops norvegicus*


Diver descending


Brittlestar bed *Ophiothrix fragilis*


Harbour swimming crab *Liocarcinus depurator*


Diver ascending

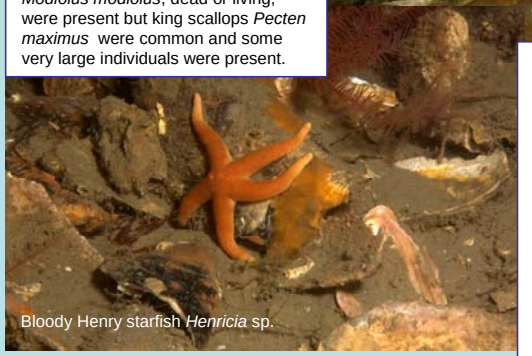

Velvet swimming crab *Necora puber* on horse mussels

During 2005 Seasearch surveyed 11 different sites in Strangford Lough. Strangford Lough is Northern Ireland's only marine nature reserve, one of only three in the UK. One of the key habitats within the lough is beds formed by the horse mussel, *Modiolus modiolus*. This species provides a hard substrate in what would otherwise be soft sediment areas, these "biogenic reefs" formed by the mussels enable many different species to colonise these sites. In recent years the horse mussels have appeared to decline in numbers. An effort is being made to assess their current status in order to see what, if any, action should be taken to protect them. Seasearch helped to survey some key sites as part of the monitoring effort. Seasearch also surveyed other key habitats within the lough such as the soft mud of the Quoile estuary. All depths below are given as Below Chart Datum (corrected to actual depth, with the height of the tide taken off).

11. East of Strife Rock

A shallowly sloping mud slope between 15 and 27m in depth. Scampi (*Nephrops norvegicus*) were abundant and other crustaceans such as the flying crab *Liocarcinus holsatus* were common. No horse mussels *Modiolus modiolus*, dead or living, were present but king scallops *Pecten maximus* were common and some very large individuals were present.


Dead horse mussel shell

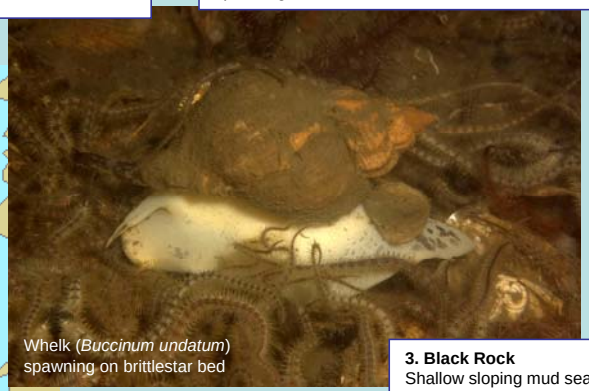

Bloody Henry starfish *Henricia* sp.

8. North of Long Sheila – site 1

Mud slope between 9 and 13m in depth. Echinoderms such as the featherstar *Antedon bifida,* burrowing sea cucumber *Thyone* sp. and the common starfish *Asterias rubens* were abundant. A brittle star bed, composed of the common striped brittlestar*Ophiothrix fragilis* and smaller number of the black brittlestars *Ophiocomina nigra,* 1-3 animals deep was present in the deeper area of the site (11-13m). Below 11m some scattered live horse mussels (*Modiolus modiolus*) and dead horse mussel shells were present.

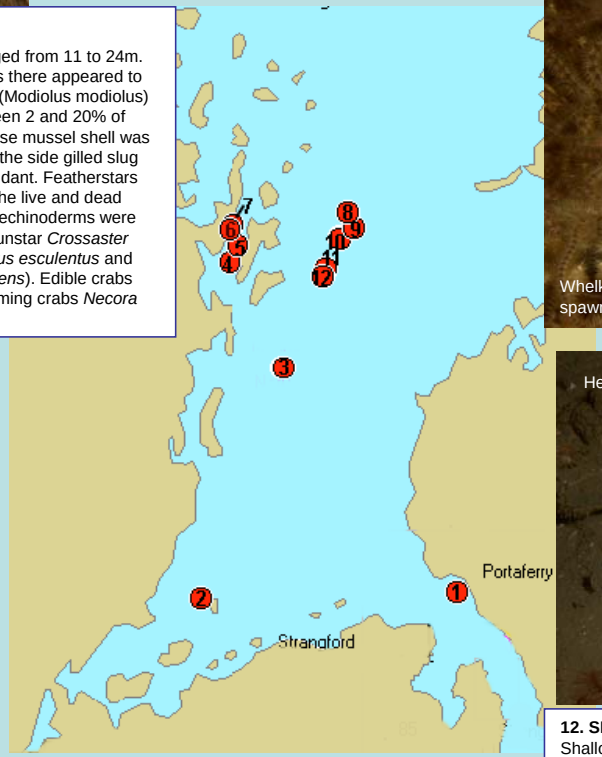
9,10. North of Long Sheila – site 2

Shallow sloping mud between 13 and 22m. Horse mussel (*Modiolus modiolus*) cover was patchy with lots of dead shell present, live clusters were only spotted by a few of the divers. Lots of starfish and brittlestars were present and whelks (*Buccinum undatum*) were spotted spawning.


Whelk (*Buccinum undatum*) spawning on brittlestar bed

4. Ringhaddy Sound – site 1

Mud slope, depths surveyed ranged from 11 to 24m. Despite the presence of moorings there appeared to be populations of horse mussels (Modiolus modiolus) present, with cover varying between 2 and 20% of living individuals. Much dead horse mussel shell was also present. Sea slugs such as the side gilled slug *Onchidoris bilamellata* were abundant. Featherstars *Antedon bifida* were growing on the live and dead shells and large number of other echinoderms were present (including the common sunstar *Crossaster papposus*; common urchin *Echinus esculentus* and the common starfish *Asterias rubens*). Edible crabs *Cancer pagurus* and velvet swimming crabs *Necora puber* were also common.



3. Black Rock

Shallow sloping mud seabed 19-23m in depth. Much broken horse mussel *Modiolus modiolus* shell was present but very few live individuals. Featherstars (*Antedon bifida*) were common, growing on the dead shells. Whelks (*Buccinum undatum*) were spotted spawning and many egg masses were visible. Brittlestars, both the common striped brittlestar*Ophiothrix fragilis* and the black brittlestar *Ophiocomina nigra* were abundant forming dense beds in some areas of the site.


Hermit crab *Pagurus bernhardus*

5. Ringhaddy sound site 2

Soft stable mud from 4.6 to 6.1m with lots of horse mussel (*Modiolus modiolus*) individuals present but not true bed/reef. Some small patches of gravel and dead maerl. Boring sponges *Cliona celata* were frequent and many crustacean species were present (including the harbour swimming crab *Liocarcinus depurator*, velvet swimming crab *Necora puber*; spider crabs *Inachus* sp and *Macropodia* sp.; shore crab *Carcinis maenus*; and hermit crabs *Paguridae*).


Discarded bottle

2. Quoile estuary

Flat mud seabed from 7-8m (BCD) in depth. Scampi (*Nephrops norvegicus*) burrows and turret shells (*Turritella communis*) were abundant. Some litter was present (old bottles and cans), and dead scallop shells and track marks occurred at the site, possibly indicative of potting.

12. SE Pawle Island

Shallow sloping mud from 21.5-26.5m. Lots of life apparent in sediment including some scampi (*Nephrops norvegicus*) burrows. Some short animal turf was present on shell detritus. Crabs such as the mud crab *Goneplax rhomboides* and the harbour swimming crab *Liocarcinus depurator* were also present in small numbers.

7. Alastair

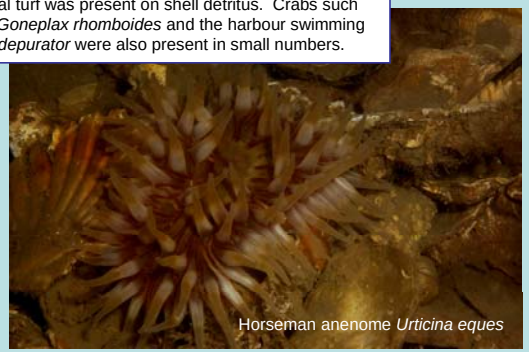
The wreck of the Alastair is situated in Ringhaddy harbour, it is a fairly large intact wreck lying upright on the seabed. It is situated at the bottom of a mud and mixed ground slope which ranges from 3m to 24m (BCD). Some life was apparent in the soft sediment leading down to the wreck, such as the common sunstar *Crossaster papposus* and the common starfish *Asterias rubens*. The Wreck was encrusted with abundant tall animal turf including sponges such as the shredded carrot sponge *Esperiopsis fucorum*; sea squirts such as the fluted seasquirt *Ascidiella aspersa* and yellow rimmed squirt*Ciona intestinalis*; and dead men's fingers *Alcyonium digitatum*. Fish such as Conger eels*Conger conger* and the leopard spotted goby *Thorogobius ephippiatus* were also present on the wreck.

6. Ringhaddy pier

Mud slope from 0 – 10m in depth. Life present in the mud such as the horseman anenome *Urticina eques.* Other animals, such as *Sagartia elegans,* were encrusting tyres and boulders which were sparsely scattered on the mud. Lots of litter was present, including oil filters, plastic, bottles and a mobile phone. A large number of dead or dying starfish were observed in March. Later in the year (April) many sea slug eggs were spotted at the site.

1. The Pins

This site is situated close to "the Pins" a popular dive site, named for the hull pins that can be found in the area from an old wreck. A slope between 2 and 6m was surveyed. The upper slope composed of cobbles and pebbles with some large boulders and was covered in kelp park. The lower slope was also formed of boulders, and these and the wreck were encrusted in tall animal turf, mixed seaweeds and encrusting pink algae. Life was also apparent in the soft sediment surrounding the wreck. A wooden wreck was present at 6m (not part of Pins) – as yet unidentified.


Horseman anenome *Urticina eques*