

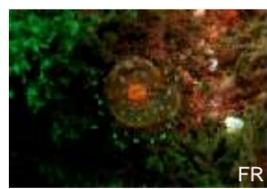
**Species Recorded**  
The table to the right shows the number of species recorded in each phylum and identifies the more common species. Only one of the species is a Biodiversity Action Plan (BAP) species, the crawfish, *Palinurus elephas*, but a number of others are nationally or locally scarce or rare.

**Sponges**  
All of the sponges identified were low growing species with no massive or branching sponges present.

**Hydroids, anemones and corals**  
This coast is notable for the very large numbers of dead men's fingers, *Alcyonium digitatum* and these occurred in all of the rocky sites (cover mid left).

Species which have a north-easterly distribution included the deeplet sea anemone, *Bolocera tuediae* (rare). Jewel anemones, *Corynactis viridis*, were seen on one occasion in 2005 (photo below) and have not been recorded since.

This is believed to be the only North Sea record of this species.



Phylum	Common Name	Number of species	Common Species
Porifera	Sponges	4	<i>Myxilla incrustans</i>
Cnidaria	Anemones, corals, hydroids, jellyfish	22	Kelp fur Dead men's fingers Dahlia anemone Plumose anemone Elegant anemone Devonshire cup coral
Annelida	Segmented worms	5	<i>Obelia geniculata</i> <i>Alcyonium digitatum</i> <i>Urticina felina</i> <i>Metridium senile</i> <i>Sagartia elegans</i> <i>Caryophyllia smithii</i>
Crustacea	Crabs, lobsters, barnacles	17	Keelworms Spiral worms Greater acorn barnacle Humpback prawn Lobster Hermit crab Spiny squat lobster Edible crab Velvet swimming crab
Mollusca	Shells, sea slugs, cuttlefish	28	<i>Pomatoceros spp.</i> <i>Spirorbis spp.</i> <i>Balanus balanus</i> <i>Pandalus montagui</i> <i>Homarus gammarus</i> <i>Pagurus bernhardus</i> <i>Galathea srtigosa</i> <i>Cancer pagurus</i> <i>Necora puber</i>
Bryozoa	Sea mats	12	Grey topshell Painted topshell Dead men's finger sea slug Orange clubbed sea slug Sea mat Hornwrack Bryozoan crusts indet.
Echinodermata	Starfish, sea urchins,	12	<i>Gibbula cinerea</i> <i>Calliostoma zizyphinum</i> <i>Tritonia hombergi</i> <i>Limacia clavigera</i> <i>Membranipora membranacea</i> <i>Flustra foliacea</i> Common feather star Common sunstar Bloody Henry Common starfish Black brittlestar Common urchin
Tunicata	Sea squirts	8	<i>Antedon bifida</i> <i>Crossaster papposus</i> <i>Henricia spp.</i> <i>Asterias rubens</i> <i>Ophiocomina nigra</i> <i>Echinus esculentus</i>
Pisces	Fishes	30	Light bulb sea squirt Star sea squirt Pollack Ballan wrasse Buttefish
Aves	Birds (seen underwater)	1	<i>Clavelina lepadiformis</i> <i>Botryllus schlosseri</i> <i>Pollachius pollachius</i> <i>Labrus bergylla</i> <i>Pholis gunnelus</i>
Mammalia	Mammals	1	Atlantic grey seal <i>Halichoerus grypus</i>
Algae	Seaweeds	11	Encrusting pink seaweed Cuvie
	<b>Total Species</b>	<b>151</b>	<i>Lithothamnion spp.</i> <i>Laminaria hyperborea</i>

**Molluscs**  
A wide range of molluscs was recorded, including 14 sea slugs. One of these was *Dendronotus frondosus* (cover bottom right - an unusual colour form). Curled octopus, *Eledone cirrhosa* were seen on a number of occasions and there was one record of egg masses of the northern cuttlefish, *Rossia sp.*

**Bryozoans**  
Bryozoan crusts were widespread on urchin-grazed rocky surfaces.

The orange *Smittina landsborovii* (right), is rarely recorded elsewhere, and was frequently seen on vertical walls.



**Starfish and sea urchins**  
The edible sea urchin, *Echinus esculentus* is abundant in the Farne Islands and has a huge impact on the biodiversity. Many sites have relatively bare surfaces because of the heavy urchin grazing pressure. Two of the starfishes have a northerly distribution, the common sunstar, *Crossaster papposus* (frequent) and the purple sunstar, *Solaster endacea* (rare).

**Fishes**  
A wide range of fishes was recorded showing that large numbers of seals can coexist with good fish populations. Species recorded included cod, saithe and Norwegian topknot, all more common in the North Sea than elsewhere.

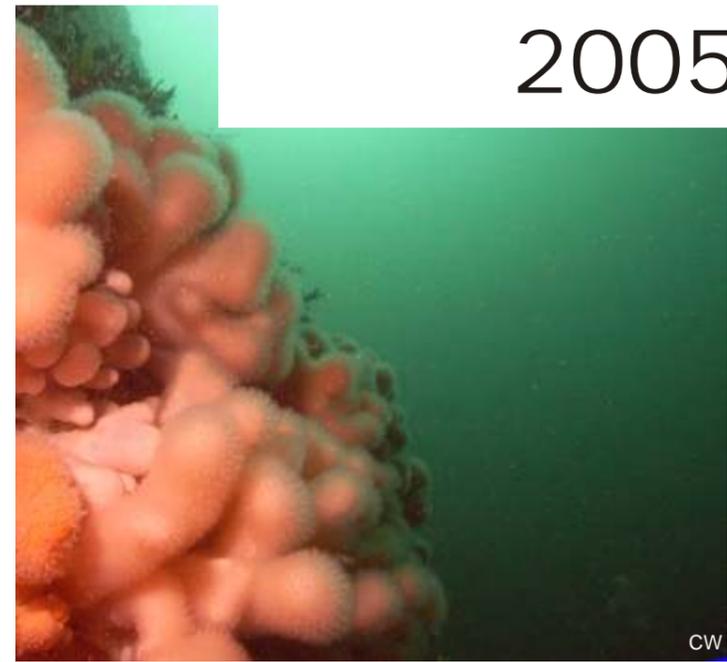
**Segmented worms**  
Calcareous worm tubes are a common feature of most of the rocky surfaces in the islands and fragments make up a significant component of the gravels.

**Crabs, lobsters, prawns and barnacles**  
Crustaceans were common at many sites, ranging from lobsters to humpback prawns, with squat lobsters particularly common.

The record of a crawfish is the only one on the NBN for the whole of the English North Sea coast.



# Farne Islands Surveys 2005-2008



Seasearch is a volunteer underwater survey project for recreational divers, enabling them to contribute to protecting marine wildlife through recording underwater habitats and the plants and animals they support. Seasearch provides training for volunteer divers and organises dives and survey expeditions. Seasearch is co-ordinated by the Marine Conservation Society on behalf of the Seasearch Steering Group.

The Farne Islands surveys have been organised by Fiona Ravenscroft on behalf of MCS. Thanks to all of those who have provided data, both from the organised surveys and their own dives. Text by Chris Wood. Images by Chris Wood, Fiona Ravenscroft, Christine Norris and Justin Hart.

Financial support for Seasearch in England in 2008 has been given by:



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## Location and Background

The Farne Islands lie off the Northumberland coast and are the only rocky islands off the English North Sea coast. They contain the clearest water and most extensive areas of sublittoral rock on this coastline.

The islands divide into two groups, the Inner and Outer Farnes, with two outlying rocks, the Megstone to the north-west and the Crumstone to the south. There is deep water around the Outer Farnes and the Crumstone and that is where the majority of the diving is carried out and where most of the records come from in this survey.

The islands are a National Nature Reserve and are well known for their populations of seabirds and Atlantic grey seals. The seas are also within a Marine Special Area of Conservation (SAC)

These surveys have been carried out to extend knowledge of the marine life and habitats in the area. All the records have been made by volunteers, most using the more detailed Survey form.

## Megstone

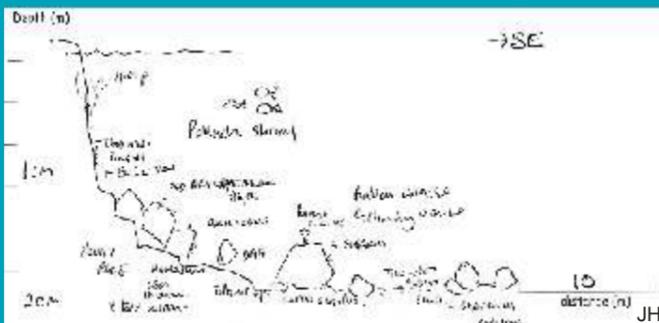
The north side of the Megstone has kelp park in the shallows, a steep rocky wall to 6.5m bcd and then a gently sloping seabed of cobbles and pebbles with a kelp park cover. Horizontal surfaces were heavily urchin grazed, whilst there were dead men's fingers and anemones on the vertical rock. Both seals and shags were seen underwater.

## Gun Rock

Gun Rock had a similar profile and range of habitats to the Megstone. There was kelp forest on the top of the reef then a slope, either of wall or large boulders, leading to a gently sloping seabed of shelly gravel, cobbles and some small boulders. All surfaces were extensively urchin grazed.

## The Pinnacles

This is a relatively sheltered site, both from swell and tides and is thus often dived when other sites are not accessible. There is a steep wall from the surface to 10m bcd with encrusting worms, bryozoans, sponge and algae, and frequent dead men's fingers. The lower surfaces of boulders of a variety of sizes, with patches of shelly gravel between them, were relatively barren due to the large number of grazing urchins (photo right), though a number of interesting mobile species were observed including curled octopus, ling, and Norwegian topknot. (sketch below)



## North Wamses and Northern Hares

These two sites both face north west and the seabed slopes less steeply than on the southern side of the Outer Farnes group. In the case of Northern Hares there was a steep rocky wall to 16m bcd, whilst at North Wamses it extended only to 11m. In both cases there were boulders on the much more gently sloping seabed to the north-west. At the top of the walls there was kelp forest with some elegant anemones and sponges on the rock surfaces beneath. The steep faces were covered in dead men's fingers with encrusting worm tubes and pink encrusting algae. The lower boulder surfaces were more barren and extensively urchin grazed.

## The Knifestone

The area surveyed at the Knifestone was also northerly facing, but is more exposed than the two sites above, lacking the shelter of adjacent islands. The rock surfaces were less steep with a gradation from kelp forest, through kelp park to rolling rocky scenery dominated by dead men's fingers. Below 20m bcd was a barren plain of large cobbles and pebbles.



## Crumstone and The Callers

This area of rocky reefs is separated from the remainder of the Outer Farnes group and has deep water on three sides. The northern side of The Crumstone had an extensive gently sloping rock reef with kelp park on the top and was heavily urchin grazed. There was, however, a surprising range of sea slugs present, especially as the records were made in late September, and the site was notable for the number and variety of squat lobsters (cover bottom right). The south side of The Crumstone and The Callers were considerably more diverse with vertical and sloping reefs covered in dead men's fingers. The most diverse area was adjacent to the gap between the two parts of the Crumstone where there were accelerated tidal streams. Here there was a dense turf of plumose and elegant anemones similar to those at Whirl Rocks and the South Longstone pinnacle.

## Whirl Rocks

Whirl Rocks is the most exposed site in the Farne Islands and is subject to strong tidal streams and heavy swells. It is very often not possible to dive it. The top of the reef has an extensive kelp forest. The eastern side has vertical walls to 20m bcd which are too steep for urchins to graze and are therefore covered in dead men's fingers and hornwrack. There is some wreckage at the base of the wall but this is less densely covered. The reef is deeply indented just north of the wreck creating a pattern of deep gullies with vertical walls through which the tide runs very swiftly (sketch below). These were densely covered in plumose anemones, elegant anemones, sponges and large barnacles. The northerly facing walls were darker and dominated by plumose anemones and sponges, whilst the lighter, southerly facing walls were covered in elegant anemones, sponges and barnacles. This site is the most diverse and least grazed we have found throughout the Farne Islands.



## The Harcars and Blue Caps

Sites on the south side of this line of rocks were relatively gently sloping with heavily urchin grazed rock and boulder surfaces. They are more sheltered than many and had a fine layer of silt over most of the upward facing surfaces.

## Longstone

Three sites were dived on the southerly end of the Longstone group of islands and rocks. The Hopper faces east and has vertical basalt walls leading to a flat boulder bottom at 20m bcd. The walls were densely covered by dead men's fingers and encrusting worm tubes, and in some cases, where gullies created areas of stronger current, elegant and plumose anemones and sponges. The wall at South Longstone was similarly dominated by dead men's fingers with a sloping boulder seabed below with horse mussels as well as many dead men's fingers. The South Longstone Pinnacle is a small rocky pinnacle about 10m high lying off the main rock wall. This is densely covered in elegant and plumose anemones, sponges and hydroids and is second only to Whirl Rocks in terms of diversity and underwater landscape.

