

Skokholm Seasearch 2005 & 2006

Summary Report

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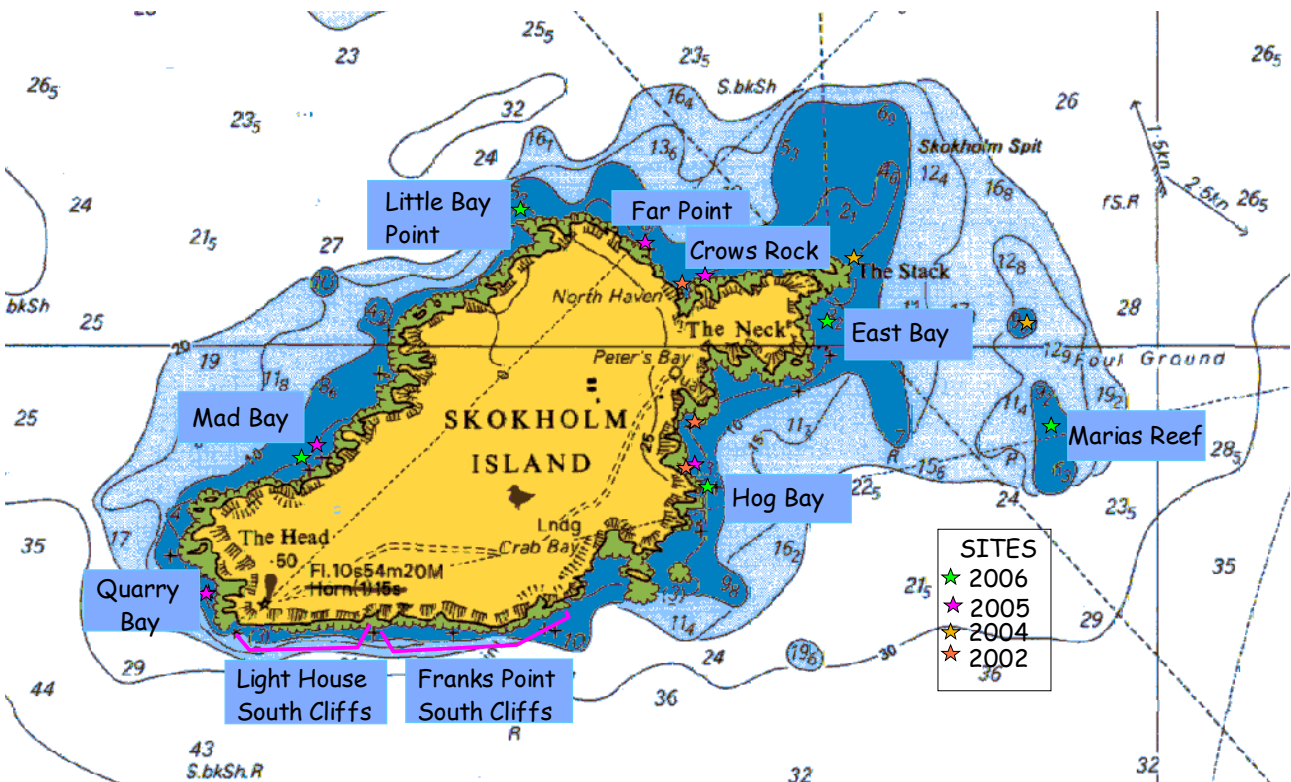
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Skokholm is an old red sandstone island located 2 miles west off the Pembrokeshire coast. The island is internationally important for its seabird colonies and its waters and seabed lie within the Pembrokeshire Marine Special Area of Conservation.

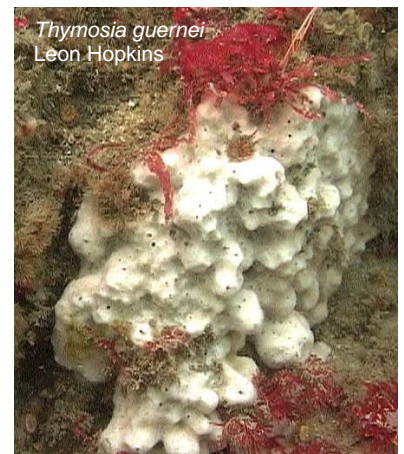
The first comprehensive diving survey of Skokholm was the South West Britain Surveys carried out by the NCC in 1977. Since then sub-littoral records are limited to only two dives by the JNCC Marine Nature Conservation Review team in 1994. These limited records are a stark contrast to the extensively surveyed areas surrounding neighbouring Skomer Island that forms the Skomer Marine Nature Reserve. Seasearch diving was first completed at Skokholm sites in 2002 and 2004 but in both years strong winds restricted the team to sheltered bays and low visibility hampered the recording. A summary report was produced for these surveys (sites shown on chart below). In 2005 two survey weekends were organised in July and August by Kate Lock and settled weather finally allowed several sites to be surveyed. In August divers also completed dives in Mad Bay on a MCS diving weekend. Further sites were explored in 2006 over two weekends in July and August. This report summarises the Seasearch recordings for these 2005 and 2006 surveys.



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Quarry point consisted of a complex maze of steep sided gullies and cauldrons between 1-3 metres wide with no obvious orientation; areas of massive 4m boulders were also recorded. Kelp forest was found tops of the ridges and boulders and the steep sides covered in luxuriant bryozoan turf of *Scrupocellaria sp* and *Bugula sp.* and hydroids including grazed oaten pipe hydroid *Tubularia indivisa*. Sponges included the nationally scarce species: brain sponge *Axinella damicornis*, yellow staghorn sponge *Axinella dissimilis* and mashed potato sponge *Thymosia guernei*.

South cliffs below lighthouse and Franks Point Steeply sloping reef continuing down cliffs above sea level to 20m below, rock slabs were interspersed with some deep gullies and ridges. Steep surfaces festooned in bryozoan and ascidian turf including an abundance of spiral brozoan *Bugula sp.* and *Cellaria sp.* The massive sponges, elephants hide and boring sponge were common and notable were the brain sponge *Axinella damicornis*, yellow staghorn sponge *Axinella dissimilis* and mashed potato sponge *Thymosia guernei*.



Jewel anemones were common in some areas but overall there was a distinct lack of anemones found. Notable was the abundance of spiny starfish and high numbers of ballan wrasse in the gullies where 10 or more individuals could be found together.



Hog Bay is a boulder site with small outcrops of reef with 1-2m wide gullies. Kelp park was found in the shallow areas with red algae turf. Notable sponges were the chimney sponge *Polymastia pencillus*, brain sponge *Axinella damicornis* and mashed potato sponge *Thymosia guernei*.

East Bay is an area of mixed ground, boulders, cobbles and pebbles with algal/animal turf. Small rock reefs were also present, up to 2m in height and jagged with gullies. Kelp park and dense algal turf was found on the top of the reefs.

Two pink sea fans *Eunicella verrocosa* were found and the potato crisp bryozoan *Pentapora foliacea* occasionally. Six common sea slug species were recorded. The shredded carrot sponge *Amphilectus furcorum* was common on the reef areas and both the yellow staghorn sponge *Axinella dissimilis* and brain sponge *Axinella damicornis* were found.

Maria's Reef located offshore from the east coast is a rocky pinnacle from 24m to 8m bcd with a large boulder field at the bottom. The Pinnacle slopes gently downwards in 45 degree angled steps. The reef was covered in a mixed algal and animal turf. The elephants hide sponge was found in abundance and boring sponge common. A particularly large yellow staghorn sponge, *Axinella dissimilis* was recorded, up to 40cm long.

Crows Rock is located in the north east of the island. Low lying (1m high) reef and boulders are found covered in kelp park and mixed red seaweeds. Grazing amongst the weeds the common urchin *Echinus esculentus* and the spiny starfish *Marthasterias glacialis* were frequently found. Notable was the absence of any commercial crustacean species, which are usually found in this habitat.

Far Point is also found on the north coast. Rocky reef and boulders interspersed with sand and gravel patches down to 12-13mbsl were found, the habitat and marine life recorded was very similar to Crows Rock.

Little Bay Point consists of sheer sided rock gullies up to 3m wide and 5m deep. The tops of the ridges were covered in kelp park and red algae turf and the vertical surfaces abundant in bryozoan and hydroids. Two pink sea fans, *Eunicella verrucosa* were recorded, both tangled by dogfish eggs. A distinct lack of anemones were recorded with only a few jewel anemones present.

Mad Bay is a large bay located on the north west coast where a large rolling swell is common. In parts of the bay steep descending rocky walls to 28m bsl were found, the wall was separated by a couple of narrow 1m ledges filled with sand and gravel. The wall was abundant in bryozoan turf and dead mans fingers *Alcyonium digitatum*; the boring sponge *Cliona celata* and elephant hide sponge *Pachymatisma johnstonia* were frequently recorded. The spiny starfish *Marthasterias glacialis* and the grazing common urchin *Echinus esculentus* were also frequent.

In other areas of the bay large areas of rocky reef interspersed with deep 4m by 4m gullies were found. The gullies were up to 15m bsl and filled with scoured pebbles, gravel and sand. Kelp forest and red algae dominated the tops of the reef. Notable sponges include the yellow staghorn sponge *Axinella dissimilis* and mashed potato sponge *Thymosia guernei*. The potato crisp bryozoan, *Pentapora foliacea* was occasionally recorded.



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.

Sponges

A wide diversity of sponges were recorded including 2 nationally scarce species: brain sponge *Axinella damicornis* and mashed potato sponge *Thymosia guernei*.

Anenomes, Corals, Hydroids & Jellyfish

Pink sea fans were only recorded at 2 sites, East Bay and Little Bay Point. They were also recorded in 2004 at Hog reef and the Stack. All these sites are located on the north and east coast. Only 1-2 sea fans were recorded at each site.

The oaten pipe hydroid *Tubularia indivisa* was prominent at Quarry point, it was heavily grazed, probably by nudibranchs in the early summer. Devonshire cup coral, the elegant anenome and jewel anenome were found at most sites.

Crabs and Lobsters

These were not common at any of the sites though commercial species like edible crab, lobster and crawfish were recorded in small numbers.

Molluscs

16 species were recorded, this is lower than expected and is possibly a reflection of the late summer surveys, higher numbers of nudibranch species would be expected in May and June.

Starfish, Sea urchins and Sea cucumbers

Very high numbers of small spiny starfish were recorded along the south cliffs.

Bryozoans

13 species were recorded, the potato crisp bryozoan *Pentapora foliacea* is distributed all around the island, being recorded at all sites.

Fishes

Large numbers of ballan wrasse were seen along the south cliffs in the boulder area with often shoals of 10+ individuals seen together. Conger eel were found in Hog and East Bay sites.

Seaweeds

26 species were recorded including 3 kelp species and 19 common red seaweed species. The rainbow weed *Drachiella spectabilis* was recorded at 2 sites.

Mammals Atlantic grey seals accompanied the divers on several occasions during survey dives.

Birds Puffin were recorded swimming underwater in Hog Bay.

Divers taking part in the surveys were: Andrew Powell, Glyn Powell, Stephen Bound, Kerry Lewis, Linda Crawford, Pam Evans, Sue Burton, Kirsten Ramsey, Blaise Bullimore, Ross Bullimore, Jon Moore, Mandy Johns, Andrew Spencer, Clive Ellis, Dave Kennard, Rob Jones, Kate Lock, Vicki Billings, Tim Theobalds, Gordon Bird, Sheena Davies, Leon Hopkins, Rob Gibbs, Scott Tompsett, Rebecca Gaille, Annette Lister, Kathe Keirle, Ian Williams and Angela Read.

Report prepared by Kate Lock. Photos by Stephen Bound, Kate Lock, Leon Hopkins, Rohan Holt and Sue Burton. Full survey results and species list available on the JNCC NBN Gateway.

Phylum	No of. species	Common Species and species of interest	
Porifera (Sponges)	22	Chimney sponge	<i>Polymastia penicillus</i>
		Yellow staghorn sponge	<i>Axinella dissimilis</i>
		Brain sponge	<i>Axinella damicornis</i>
		Mashed potato sponge	<i>Thymosia guernei</i>
Cnidaria (Anenomes, Corals Hydroids)	21	Indian feathers hydroid	<i>Gymnangium montagui</i>
		Yellow cluster anenome	<i>Parazoanthus axinellae</i>
		Devonshire cup coral	<i>Caryophyllia smithii</i>
		Jewel anenome	<i>Corynactis viridis</i>
Annelida (Segmented worms)	7	Horseshoe worm	<i>Phoronis hippocrepia</i>
		Coral worm	<i>Salmacina dysteri</i>
Crustacea (Crabs, lobster, barnacles)	11	Crawfish	<i>Palinurus elephas</i>
		Lobster	<i>Homarus gammarus</i>
Mollusca (Shells, sea slugs)	16	Nudibranch	<i>Flabellina coronata</i>
Bryozoa (Sea mats)	13	Potato crisp bryozoan	<i>Pentapora foliacea</i>
		Hornwrack	<i>Flustra foliacea</i>
Echinodermata (Starfish, sea urchins Sea cucumber)	8	Spiny starfish	<i>Marthasterias glacialis</i>
		White crevice sea cucumber	<i>Pawsonia saxicola</i>
Tunicata (Sea squirts)	12	Orange seasquirt	<i>Stolonica socialis</i>
		Gooseberry seasquirt	<i>Dendrodoa grossularia</i>
Pisces (Fishes)	16	Ballan wrasse	<i>Labrus bergylta</i>
Algae (Seaweeds)	26	Cuvie	<i>Laminaria hyperborea</i>
		Sea beech	<i>Delessaria sanguinea</i>
		Rainbow weed	<i>Drachiella spectabilis</i>
Mammalia (Mammals)	1	Atlantic Grey seal	<i>Halichoerus grypus</i>
TOTAL SPECIES	153		



Pachymatisma johnstonia & *Cliona celata* Leon Hopkins

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:

