

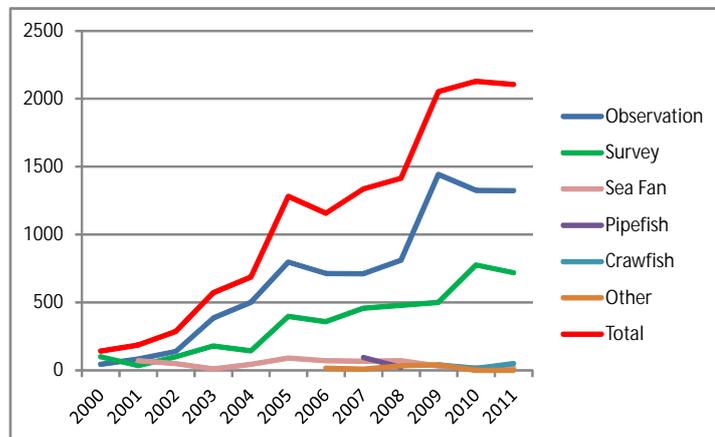
Annual Report 2011

This report summarises Seasearch activities throughout Britain and Ireland in 2011. It includes a summary of the main surveys undertaken (pages 2-4) and reports produced and a summary of the data collected. This includes records of Biodiversity Action Plan habitats and species records, locally important features and nationally scarce and rare species (pages 5-6). It also includes a summary of the training courses run for volunteer divers (page 7) and information on how Seasearch is organised and the data is managed and made available (page 8).

All of the reports referred to may be downloaded from the Seasearch website and the species data may be accessed through the National Biodiversity Network website.

Seasearch keeps up high levels of activity in 2011

The data collected by Seasearch volunteers in 2011 was similar to that in 2010 and the chart below shows the huge increases that have been made since the project was re-launched in 2003.



New species records made in 2011

Seasearch continues to focus on rare and unusual species in British and Irish waters and these records are summarized on pages 5 & 6.

One of the significant records in 2011 was of the anemone prawn *Periclimenes sagittifer* (right) recorded for the first time in Devon. All previous records since the first in England in 2007, had been in Dorset.



Seasearch data used in Marine Protected Area proposals

In **England** the results of the stakeholder driven process were published in 2011 with 127 sites proposed as marine conservation zones or reference areas.

Seasearch data up to 2010 helped the groups with their proposals and the 2011 data has been submitted as a part of the additional data gathering process in early 2012. Consultation on all of the proposed sites is due to take place in late 2012 with designation now not to be until 2013.

The picture below is of jewel anemones at The Manacles in Cornwall, one of the proposed MCZs and where much data has been collected by Seasearch over the years.



In **Scotland** Seasearch data has helped to identify search areas and it has also been used by organisations, including MCS, to put forward third party MPA proposals.

In **Wales** Seasearch data has been used by CCW in formulating its science-led proposals to the Welsh Assembly. Consultation had been expected during 2011 but was postponed until early 2012.

Seasearch is co-ordinated by the Marine Conservation Society on behalf of the Seasearch Steering Group which comprises the Marine Conservation Society, Wildlife Trusts, Joint Nature Conservation Committee, Natural England, Countryside Council for Wales, Scottish Natural Heritage, Northern Ireland Environment Agency, Environment Agency, Marine Biological Association, Nautical Archaeological Society, British Sub Aqua Club, Sub Aqua Association, Professional Association of Diving Instructors, Scottish Sub Aqua Club and Irish Underwater Council.

These pages summarise the main surveys undertaken in 2011. These were all arranged by Seasearch Coordinators and in many cases Summary Reports ® can be downloaded from the Seasearch website. In addition to the surveys outlined here there were many other dives both organised by Seasearch coordinators and undertaken by individual divers. There are also area based summary reports for Wales, Northern Ireland, Cornwall, Devon, Hants/IOW, Kent and East Anglia on the Seasearch website [R].

The map shows the sites from which the records were received, in many cases there were overlapping records and the Survey Forms, as the most detailed records, are placed on top of others. An interactive map of the 2011 records can be downloaded from the Seasearch website and opened using Google Earth. This shows the data and recorder for each record and a short summary of the contents.

Data from all of the surveys has been entered into the Marine Recorder database and can be freely accessed on the National Biodiversity Network website www.nbn.org.uk. In addition to this, there are separate datasets for crawfish and pink sea fan survey forms.



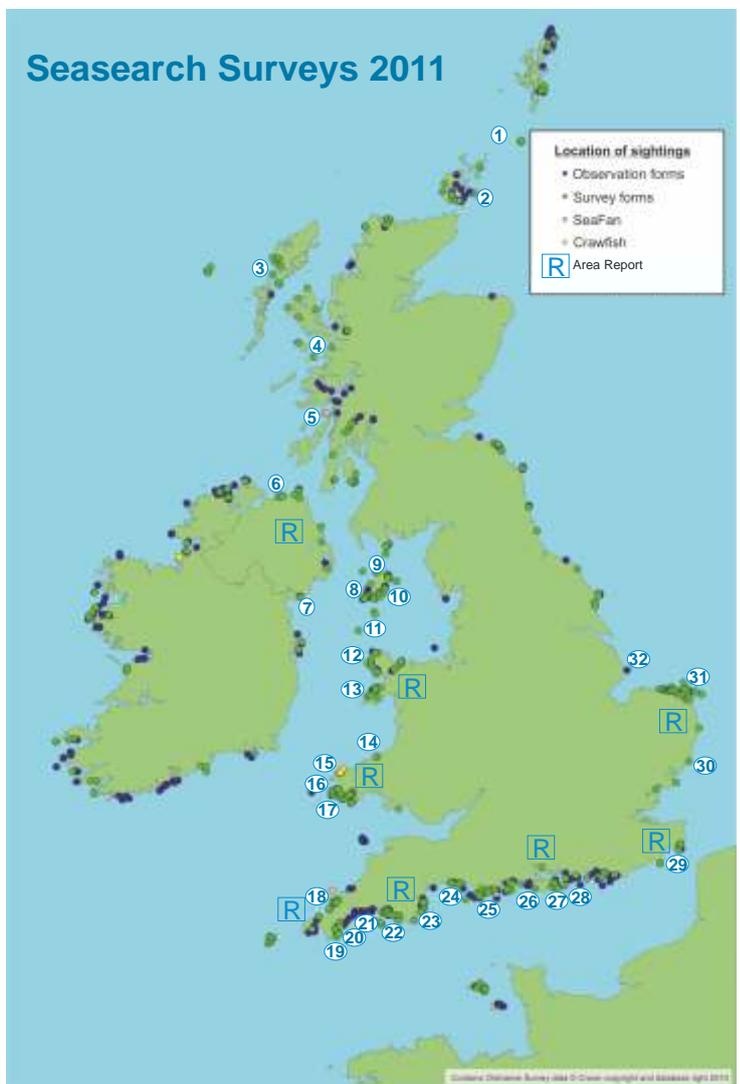
1 Fair Isle: the first Seasearch records from Fair Isle came from a liveaboard survey and five sites were surveyed, all on the eastern, less exposed side, of the island. There was dramatic underwater rocky scenery, but no surprises amongst the marine life

2 Orkney: The same survey team visited a number of sites both in Scapa Flow and on the outer coasts, including Copinsay and Sanday. These were all new sites for Seasearch. There were also locally organised surveys within Scapa Flow. There was a diverse marine fauna and flora amongst the sites visited including priority habitats of a horse mussel bed with brittlestars (above) and seagrass beds and the rarely recorded fan mussel, *Atrina fragilis*, the largest bivalve mollusc in Britain and Ireland, all recorded within Scapa Flow.

3 Harris: favourable weather conditions allowed exposed sites on the west side of Harris to be surveyed, including Soay Beg and Scarp Island, as well as sites in the Sound of Harris and sheltered sites in West Loch Tarbert, Loch Resort and Loch Rodel. There was a dramatic anemone clad wall at Scarp.

4 Fireworks in Loch Duich: ® detailed counts and measurements made of fireworks anemones (a priority species) *Pachycerianthus multiplicatus* (see picture on P5) in Loch Duich and the adjacent Loch Beg. The report provides comparisons with earlier surveys in Loch Fyne.

Seasearch Surveys 2011



5 Northern Sea Fans in Firth of Lorn: A survey of our northerly sea fan species, *Swiftia pallida* (another priority species) recorded 184 colonies at Conger Reef in the Firth of Lorn.

6 Antrim reefs and walls: Seasearch is increasingly used to ground-truth data from bathymetric surveys. This year two new North Antrim sites were surveyed for the first time, a limestone reef at Dunluce and an anemone encrusted wall at the Skerries near Portrush.

7 Carlingford Lough: another little surveyed area which Seasearch has dived from both the southern and northern sides. In 2011 boat and shore dives were undertaken from Greencastle and it is an area we plan to look at in more detail in 2012.

8 Isle of Man Bioblitz Seasearch divers provided the underwater element of a Bioblitz survey at Niarbyl which was organised by Manx Wildlife Trust in August 2011 to encourage people of all ages to look at the shore line and see how many different species could be located.

9 Horse Mussels in the Isle of Man: dives at the north end of the island recorded a horse mussel bed in an area once a bombing range. It is thought that the areas has been protected from scalloping by the possibility of live munitions on the sea bed. Extreme Seasearch!

10 Ramsey MPA: Seasearch has been surveying Ramsey Bay, which was designated as a Marine Protected Area in 2010. The bay is split into four zones with varying degrees of protection. Seasearch has been concentrating on two areas; the maerl beds and the eelgrass meadows. The surveys have shown how after a very short period of time the marine environment recovers from scallop dredging. Already the divers have had to move one of the Eelgrass markers 150 m out into the bay to extend the area.



11 Deep Irish Sea wrecks: Seasearch is not famed for its surveys of wrecks or very deep water recording but two Isle of Man based Seasearchers have been providing details of wrecks well offshore such as the U246 (48m), the Romeo (46m) & the Manchester (59m).

12 Anglesey: 14 sites surveyed, chosen to fill gaps identified by CCW. They included the very exposed Skerries in North Anglesey and sites in West Anglesey, including one of sandy mud with Icelandic cyprine, *Arctica islandica*, a priority species, present.

13 Mussel beds on the Llyn Peninsula: 12 sites were surveyed on the North Llyn, again chosen to fill gaps in current knowledge. The carpet mussel *Muculus discors*, a Welsh priority species, was the focus at some sites and two horse mussel beds were surveyed for the first time, after identification from drop-down video.

14 Seahorses for Cardigan Bay? ®: 2 sites were investigated to assess their suitability for the re-introduction of captive bred seahorses. This was the site of the last possible sighting in Wales of a seahorse made several years ago.

15 North Pembrokeshire Crawfish Survey ®: This survey is described on Page 4

16 Skomer Marine Nature Reserve: Whilst Skomer is well surveyed and there is a monitoring programme that involves volunteer divers, additional records and updated information is still valuable. In 2011 3 sites were surveyed, two on the Marloes Peninsula and the other north of Skomer itself.

17 Native oyster surveys ®: 7 sites within Milford Haven and the Dau Cleddau were surveyed during 2010 and 2011 with the specific aim of recording density of native oysters, *Ostrea edulis*, and slipper limpets, an invasive species which has replaced native oyster beds in many areas. In the same area three areas of tidal rapids reefs were also surveyed.

18 North Cornwall: Because of its exposure and difficulties of access, the north coast of Cornwall is much less studied than the south. A week-long survey was carried out in the St Agnes and Newquay areas involving 20 Seasearchers and visiting experts. Seaweeds and sponges were a particular focus with 560 seaweed and 100 sponge samples collected, the latter including a newly described species previously recorded from the Isles of Scilly.

19 Manacles: The Manacles has been well surveyed over the years and is now a proposed MCZ. It is a hot spot for pink seafans and the rare sea fan anemone *Amphianthus dohrnii* was recorded in 2011. In shallow waters the black face blenny *Tripterygion deleasi* was present and this is currently the most westerly sighting of this southern species. Male shown below.



20 Boating impacts and non-native species: Seasearch helped with studies of the impact of moorings and the presence of non-native species in the Fal estuary. The work involved core sampling with a hand-operated grab and scaping samples of the fouling communities on the hull of a motor yacht.

21 Coronation Wreck: dives were made on this protected wreck to help assess the habitats and species present. Generally it was found that the site was species poor with no upstanding sponges or hydroids, no pink sea fans and a general silt cover. Comparison dives were conducted to the west of the wreck where pink sea fan recruits were found on rock and gravel cones in the sediment, possibly fish nests. This area also had a heavy layer of silt which did not look natural.

22 Fairylands: Seasearch dives targeted these rocky pinnacles with a wide variety of habitats including rare sponges, pink fingers and Weymouth carpet coral. The image below shows the rich sponge and anthozoan community which is a BAP habitat.



23 Mussels in South Devon: Edible mussel beds were a feature of dives in Tobay, around Berry Head and off Dartmouth. Most were on rock but some were in mixed sediments and a BAP Habitat.

24 Lyme Bay Bioblitz: Seasearch divers provided the sublittoral component to another 24 hour bioblitz, this time at Charlton Bay, Lyme Regis. 158 species were recorded including trigger fish and trumpet anemones.

25 Dorset Highlights: Seasearch data has been used in the identification of both MCZs and SACs. Priority species records in 2011 included stalked jellyfish at Swanage Pier, native oysters, Icelandic cyprine, and pink sea fans. Rare and unusual species included anemone prawn, nudibranchs *Thecacera pennigera* and *Geitodoris planata*, sunfish, black bream nests and the southerly wrasse *Symphodus bailloni* (below).



26 West Isle of Wight: 4 sites were surveyed on the west of the island, three of which were chalk reefs and the other containing sparse seagrass. These are both BAP habitats. Notable species records included native oyster and piddocks, boring bivalves typical of soft rock habitats.

27 Aggregate extraction zone surveys: this was the last of five years of studies within an aggregate extraction zone. 2 sites were surveyed with over 100 species recorded.

28 Utopia: This is a proposed MCZ identified largely for its fragile sponge and anthozoan community. Sponge diversity was high with 17 species recorded and there were also 10 species of cnidarians.

29 Kent: The Kent diving programme was badly affected by weather in 2011 with 5 out of 8 planned dives having to be cancelled. Many of the surveys undertaken recorded life on the special Kent habitats of subtidal chalk and rosworm (*Sabellaria spinulosa*) formations, which are recognised as important habitats in the MCZ process.

30 Seaweed East: 10 days of continuous surveying from Essex to Northumberland with a focus on seaweeds and sea squirts. Highlights included 3 invasive alien algae and one squirt in Essex, several algal species that were well out of range and some previously unrecorded algae that were the dominant species in a habitat.

A sponge that was ubiquitous on the Norfolk chalk reef turned out to be a species of *Hymedesmia* that was entirely new to science (right). Several new species for the area were identified by examining their spicules. The number of algal species identified for East Anglia leapt from 19 in 2010 to 98, a five fold increase!



31 North Norfolk chalk reef: further surveys were carried out in what was Norfolk's longest diving season ever, to fill in gaps and to identify the full extent of the chalk reef, much done by drift diving.

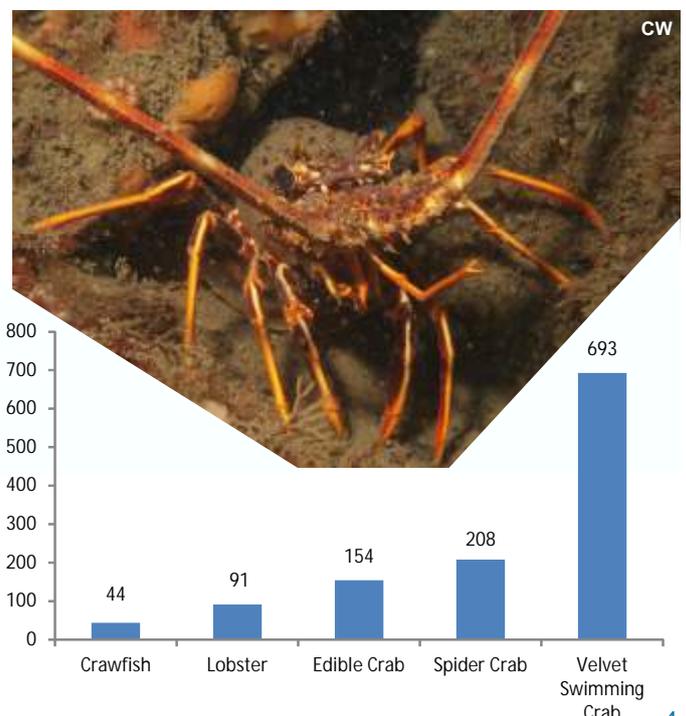
32 Lincolnshire first: The first Seasearch form was received from Lincolnshire, leaving Somerset as the only English coastal county from which we have never had a Seasearch record.

Crawfish Records in 2011

Two projects focussed on the crawfish, crayfish or spiny lobster *Palinurus elephas* in 2011. One was a general recording project, which included an online recording facility, and the other a targeted habitat survey in North Pembrokeshire.

As a Biodiversity Action Plan species in the UK, crawfish are of particular interest because of the huge decline in populations in recent years. Once reasonably common on west coasts of England, Wales, Scotland and Ireland, numbers now seen by divers are very low indeed. Our online recording facility produced only 7 records in 2011 and there were another 7 records from Seasearch Observation and Survey forms. This is less than half those reported in 2010. Half of these records came from Ireland.

The North Pembrokeshire survey involved 43 dives at 7 different sites and recorded 44 crawfish - 75% of all the Seasearch records in 2011. This demonstrates the unique nature of this area for crawfish and, as half of the population were juveniles, it is a comparatively positive result. Crawfish numbers were also compared with numbers of other crustaceans at the same sites and are shown in the bar chart to the right.



Species recorded in 2011

The following table provides a summary of the species records made in 2011.

Biodiversity Action Plan species and habitats continue to be a particular focus for our surveys and are highlighted in the table as are occurrences of nationally scarce and rare species as defined by the JNCC. The records also include some nationally scarce and rare fishes which are not in the JNCC list and records of other southerly species.

Commonly recorded species (more than 200 records) BAP, Scarce (S) and rare (R) species

Foraminifera, (4 records from sites in Scotland, Norfolk and Cornwall - 2 identified to species)

Porifera, Sponges (78 species)

<i>Cliona celata</i> , boring sponge (619)	<i>Stelletta grubii</i> , (S) 1 record from Dorset
<i>Dysidea fragilis</i> , goosebump sponge (381)	<i>Stryphnus ponderosus</i> (R) 1 record from Dorset
<i>Amphilectus fucorum</i> , shredded carrot sponge (357)	<i>Adreus fascicularis</i> (R) 8 records from Isles of Scilly & Channel Islands
<i>Pachymatisma johnstonia</i> , elephant hide sponge (319)	<i>Axinella damicornis</i> , crumpled duster sponge (S), 20 records from Isles of Scilly, Devon, Channel Islands and Northern Ireland
<i>Hemimycale columella</i> , crater sponge (351)	<i>Desmacidon fruticosum</i> , (R) 2 records from Channel Islands & Dorset
<i>Scypha ciliata</i> , purse sponge (254)	<i>Tethyspira spinuosa</i> (S) 4 records from Pembs, N Devon & Lyme Bay
<i>Halichondria panicea</i> , breadcrumb sponge	<i>Dysidea pallidescens</i> (S) 10 records from Norfolk
<i>Tethya citrina</i> (<i>aurantium</i>), golf ball sponge (216)	

Cnidaria, Jellyfish, hydroids, siphonophores, anemones and corals (102 species)

Jellyfish (8 species)

stalked jellyfish (BAP) 13 records from Scotland, Ireland, Cornwall & Isles of Scilly,

Hydroids (46 species)

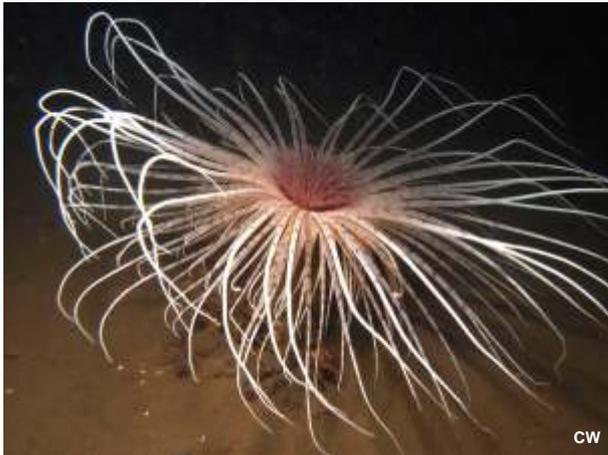
Nemertesia antennina, antenna hydroid (494)
Obelia geniculata, kelp fur (326)
Tubularia indivisa, oaten pipes hydroid (215)

Diphasia alata (S) 1 records from Isles of Scilly
Aglaophenia kirchenpaueri (S) 9 records from Cornwall and Skomer

Anemones and corals (48 species)

Alcyonium digitatum, dead men's fingers (861)
Caryophyllia smithii, Devonshire cup-coral (604)
Urticina felina, dahlia anemone (586)
Metridium senile, plumose anemone (386)
Sagartia elegans, elegant anemone (376)
Corynactis viridis, jewel anemone (349)
Anemonia viridis, snakelocks anemone (345)
Actinothoe sphyrodeta, white striped anemone (313)

Alcyonium hibernicum, pink fingers (S) 11 records from St Kilda, W Ireland, Isle of Man, S Devon, Channel Islands,
Swiftia pallida, northern sea fan (BAP) 3 records from NW Scotland
Eunicella verrucosa, pink sea fan (BAP) 142 records from Donegal, Sligo, Skomer, S. Devon and Cornwall, Dorset, Channel Islands
Funiculina quadrangularis, tall sea pen (BAP) 8 records from W Scotland
Pachycerianthus multiplicatus, fireworks anemone (S, BAP) 10 records from W Scotland (photo left)
Pachycerianthus indet. (Dorothy) 1 record from Sark
Parazoanthus anguicomus, white cluster anemone (S) 11 records from St Kilda, Sound of Mull, W Ireland, S Devon
Parazoanthus axinellae, yellow cluster anemone (S) 19 records from S Devon and Cornwall, Channel Islands
Aiptasia mutabilis, trumpet anemone (S) 36 records from Pembrokeshire, N Devon, S Devon & Cornwall, Lyme Bay, Dorset & Channel Islands
Amphianthus dohrnii, sea fan anemone (R, BAP) 2 records from Manacles (S Cornwall) & Plymouth
Caryophyllia inornata, southern cup-coral (R) 8 records from N Cornwall S Devon and Dorset
Hoplanguia durotrix, Weymouth carpet coral (R) 5 records from S Devon & Cornwall
Balanophyllia regia, scarlet and gold star coral (S) 4 records from Isles of Scilly & S Cornwall
Leptopsammia pruvoti, sunset cup-coral (R, BAP) 6 records from Isles of Scilly, D. Devon. Lyme Bay & Channel Islands



Ctenophora, Comb Jellies (3 species)

Platyhelminthes, Flat worms (1 species)

Nemertea, Ribbon Worms (2 species)

Entoprocta, (1 species, identified to genus)

Sipincula, (1 record identified to phylum)

Echiura, Spoon worms (2 species)

Annelida, Segmented worms (27 species)

Lanice conchilega, sand mason worm (295)
Bispira volutacornis, double spiral worm (231)



Sabella alveloata, (BAP Habitat in UK) 1 record from Cork
Sabellaria spinulosa, ross worm (BAP Habitat - reefs) 14 records from Anglesey, Lincolnshire, Norfolk, Sussex, & Isle of Wight
Sabella spallanzanii, 1 record from Sark
Serpula vermicularis, organ pipe worm (BAP Habitat in UK) reefs in Killary Harbour, Ireland (photo above) and Shetland

Pycnogonida, Sea spiders (18 records, most not identified to species)

Crustacea, Barnacles, amphipods, isopods, crabs, lobsters and prawns (55 species)

<i>Cancer pagurus</i> , edible crab (971)	<i>Periclimenes sagittifer</i> , anemone prawn, 11 records from Devon, Dorset & Channel Islands
<i>Necora puber</i> , velvet swimming crab (803)	<i>Palinurus elephas</i> , crawfish (BAP) 8 records from, W Ireland (4), W Wales (2), N Cornwall (1), Channel Islands (1) + specific survey in Wales
<i>Homarus gammarus</i> , lobster (498)	<i>Dromia personata</i> , sponge crab (S) 5 records from N & W Wales
<i>Maja squinado</i> , spiny spider crab (357)	
<i>Pagurus bernhardus</i> , common hermit crab (318)	
<i>Carcinus maenas</i> , shore crab (245)	

Commonly recorded species (no of records in brackets) **BAP, Scarce (S) and rare (R) species**

Mollusca, shells, seaslugs, bivalves and cephalopods (135 species)

Calliostoma zizyphinum, painted topshell (486)
Gibbula cineraria, grey topshell (393)
Pecten maximus, great or king scallop (241)
Buccinum undatum, common whelk (202)



Haliotis tuberculata, ormer 6 records from Channel Islands
Ocenebrina aciculata, (R) 1 record from Norfolk
Tritonia nilsodhneri, sea fan sea slug (S) 18 records from S Cornwall, S Devon & Dorset
Trapania maculata, (R) 2 records from Dorset
Trapania pallida, (S) 5 records from Cornwall and Dorset
Thecacera pennigera, orange speckled sea slug (S) 5 records from Dublin, W Wales and Dorset
Doris sticta, sponge sea slug (S) 3 records from Isles of Scilly & Cornwall
Modiolus modiolus, horse mussel (reefs are BAP habitat) 42 records from Scotland, Isle of Man & N Wales
Atrina fragilis, fan mussel (R), (BAP) 2 records from Scapa Flow
Ostrea edulis, European oyster (BAP) 69 records from N & W Wales, Dorset, Isle of Wight & Sussex
Arctica islandica, Icelandic cyprine (BAP) 8 records from N Wales, Pembrokeshire and Lyme Bay

Bryozoa, sea mats and sea mosses (63 species)

Membranipora membranacea, sea mat (427)
Flustra foliacea, hornwrack (309)
Electra pilosa, kelp fur (271)
Alcyonidium diaphanum, finger bryozoan (245)

Hincksina flustroides (R) 2 records from Cornwall
Watersipora complanata, (R) 1 record from Isles of Scilly

Phoronida, horseshoe worms (1 species)

Echinodermata, starfish, sea urchins and sea cucumbers (43 species)

Asterias rubens, common starfish (1015)
Echinus esculentus, common sea urchin (741)
Marthasterias glacialis, spiny starfish (572)
Holothuria forskali, cotton spinner (207)
Luidia ciliaris, seven-armed starfish (207)

Ophiosila annulosa, (S) 3 records from Mayo and Anglesey
Ophiopsila aranea, (R) 4 records from S. Devon
Cucumaria frondosa, pudding (S) 1 record from Shetland

Tunicata, sea squirts (50 species)

Clavelina lepadiformis, light bulb sea squirt (429)
Botryllus schlosseri, star sea squirt (370)

Synoicum incrustatum (R) 4 records from W Ireland, Northern Ireland & W Wales
Phallusia mammillata, giant sea squirt (S) 33 records from Cork, S Devon, Lyme Bay, Dorset & Channel Islands

Pisces, fishes (96 species)

(fish are not included in the JNCC rare and scarce species lists. Rarity below is based on records in the NBN)

Labrus bergylta, ballan wrasse (606)
Ctenolabrus rupestris, goldsinny (431)
Pollachius pollachius, pollack (405)
Labrus mixtus, cuckoo wrasse (307)
Scyliorhinus canicula, lesser spotted catshark (287)
Callionymus lyra, dragonet (294)
Taurulus bubalis, long spined sea scorpion (287)
Gobiosculus flavescens, two-spot goby (285)
Thorogobius ephippiatus, leopard spotted goby (260)
Parablennius gattorugine, tompot blenny (242)
Trisopterus luscus, bib (222)

Cethorinus maximus, basking shark (BAP) 4 records from W Ireland
Raja batis, skate (BAP) 2 records from Argyll & Connemara
Lophius piscatorius, angler fish (BAP) 5 records from St Kilda, W Ireland & Sark,
Molva molva, ling (BAP) 32 records from Shetland, Orkney, NE Scotland, Isle of Man, W Ireland, W Wales, S Devon and Channel Islands
Hippocampus hippocampus, short snouted seahorse (BAP) 1 record from Sussex
Crenilabrus (Symphodus) bailloni, Baillon's wrasse (R), 3 records Dorset
Parablennius ruber, red blenny (R), 8 records from Northern Ireland Mayo, Galway & Isles of Scilly
Pleuronectes platessa, plaice (BAP) 72 records, all coasts
Balistoides carolinensis, grey triggerfish (R) 4 records Clare & S Devon

Aves & Mammalia, birds & mammals (7 species of birds, seals, dolphin and porpoise)

Algae, seaweeds (171 species)

Laminaria hyperborea, cuvie or forest kelp (489)
Delessaria sanguinea, sea beech (369)
Dictyota dichotoma, brown fan weed (305)
Calliblepharis ciliata, red fringed weed (277)
Dilsea carnosa, red rags (235)
Saccharina latissima, sugar kelp (232)
Saccorhiza polyschides, furbelows (208)
Plocamium cartaligeneum (207)
Heterosiphonia plumosa, siphoned feather weed (201)

Gracilaria bursa-pastoris shepherd's purse wart weed (S) 3 records Dorset
Zanardinia prototypus, pennyweed (S) 3 records from Waterford & Dorset
Carpomitra costata, tassel weed (S) 16 records from Isles of Scilly, Cornwall, S Devon & Northern Ireland
Ascophyllum nodosum ecad. *mackayi*, crofter's wig (BAP), 2 records Argyll



Zostera marina, eelgrass (BAP habitat) 59 records from Orkney (above), Isle of Man, Donegal, Galway, Clare, Kerry, N Wales, Isles of Scilly, S Cornwall, S Devon, Dorset, Isle of Wight & Channel Islands

Angiospermae, flowering plants (1 species)

Total species recorded = 843

Seasearch Training in 2011

The Seasearch training programme provides courses and survey skills at three levels, Observer, Surveyor and Specialist.

The **Observer** level training consists of a one-day course for divers without previous survey experience. This covers an introduction to Seasearch, identifying marine habitats and species, and a series of practical skills from position fixing to recording from filmed surveys. The aim is to equip participants to complete the Seasearch Observation Form. Dives are arranged where participants can undertake survey dives with a tutor present to help with form completion and identifications.

There were 32 Observer courses in 2011 from Orkney in the north to the Channel Islands in the south. New locations for courses included Sligo, Dingle, Scarborough and Guernsey. About 350 divers took part in the Observer courses, the great majority of whom were new to Seasearch.



The **Surveyor** level training is aimed at volunteers with some existing experience of marine recording, whether as a Seasearch Observer or elsewhere, and aims to equip them to successfully complete the Seasearch Survey Form. It involves a weekend course, completion of 6 survey dives and an ID test.

Four Surveyor Courses were held in 2011, taking place in Devon, Dorset, Pembrokeshire and St Abbs (Borders).

Seasearch **Specialist** courses are aimed at either teaching new survey skills or improving knowledge and identification of marine life. 16 courses were held in 2011 covering fish ID (Gt Yarmouth), anemones and corals (Galway), sponge ID Hampshire), bryozoan and hydroid ID (Eyemouth, Kent), seaweed ID (Cornwall, Hampshire & Anglesey), general marine life ID (Plymouth, Dorset, Sark & Southampton), non native species (Plymouth) and underwater photography (Swanage).

Seasearch training courses are delivered by our team of tutors, all of whom are experienced Seasearch recorders and active divers. 37 of them taught on courses in 2011, 21 current tutors, 4 newly qualifying tutors, 4 tutors under training and 8 visiting experts.



Seasearch qualifications are given to those completing the Seasearch Observer (course and 5 acceptable observation forms), or Surveyor (course, 6 acceptable survey forms and an ID test) programmes. In 2011 64 volunteers achieved the Observer qualification and 8 volunteers the Surveyor qualification.



Seasearch Identification Guides and survey materials

As a part of our aim to improve the identification skills of volunteer divers we produce a range of illustrated identification guides.

In 2010 we produced a new guide to Seaweeds which has already proved very popular both with Seasearchers and shore based recorders. It has led to significant increases in seaweed records during 2011. There were no new guides published in 2011 but a fourth guide, covering Bryozoans and Hydroids, is nearing completion and due to be published in 2012.

In addition to the guides, Seasearch also produces writing slates in two sizes and recycled plastic pencils to aid the recording of information underwater.

Guides and recording materials are available online at Seasearch courses and events and can also be purchased online.

Data management and availability

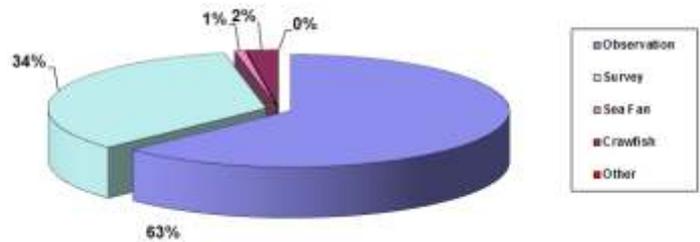
A total of 2,106 forms were received from dives in 2011, marginally less than the record set in 2010. The diagram to the right shows that well over half were Observation forms.

Of the forms received 976 (46%) come from sites in England, 394 (19%) from Wales, 294 (14%) from Scotland, 210 (10%) from the Republic of Ireland, 108 (5%) from the Isle of Man, 68 (5%) from the Channel Islands and 56 (3%) from Northern Ireland.

Data validation and management

On receipt of a Seasearch form, summary information is recorded in a database and the position mapped in Google Earth. This data is available to download from the Seasearch website. Clicking a record displays the date, type, recorder and any significant findings. This also acts as the first stage in the validation process for the data which is carried out by the local coordinator, national coordinator or a Seasearch tutor.

All Observation and Survey Form data is entered into the Marine Recorder database by a variety of individuals and organisations. They are responsible for the second stage of verification of the data. It is retained locally and also passed on and merged with all the other data to produce a single Seasearch dataset for the year. At this stage the third validation check is carried out by the National Seasearch Coordinator and any errors identified are returned to the data entry point for checking and amendment as appropriate.



MNCR biotope codes are assigned to all Survey Form data at the data entry stage. The 2011 dataset contains 1,582 MNCR biotopes. Observation Form data contains Seasearch seabed cover types, a simpler form of biotope coding appropriate to this level of detail. 2,632 Seasearch seabed cover types have been assigned.

Data availability

The combined dataset is available to all Seasearch partners in Marine Recorder format or as a snapshot of the data in an Access database. The dataset is also passed to the National Biodiversity Network and is made available on the NBN Gateway website for all to use. A second Google Earth map is made available to download from the Seasearch website providing a summary of the information that has gone into Marine Recorder.

The 2011 dataset comprises 95 surveys, including 1,510 'survey events' and contains 47,482 individual species records, covering 843 different species.

Seasearch Coordination and Promotion

Seasearch is organised on behalf of a Steering Group which meets twice a year and on which all of the Seasearch partners are represented. The Steering Group sets the priorities and general direction for Seasearch.

The day to day activities are organised by the National Coordinator and a team of local coordinators throughout the UK. During 2011 the team has been as follows:

National Coordinator	Chris Wood	MCS
Scotland	Calum Duncan	MCS
North Scotland	Chris Rickard	MCS
West Scotland	Owen Paisley	MCS
Northern Ireland	Charmaine Beer	MCS
Republic of Ireland	Deirdre Greer	CFT
Isle of Man	Tony Glen	
North Wales	Liz Morris	MCS
South & West Wales	Kate Lock	MCS
North East England	Carrie Pillow	MCS
North West England	Mandy Knott	MCS
East Anglia	Dawn Watson	MCS
Kent	Becky Hitchin	Kent WT
Sussex	Chris Williams	
Hants/Isle of Wight	Amy Dale	Hants WT
Dorset	Kathryn Dawson	Dorset WT
Devon	Sally Sharrock	MCS
Cornwall	Angie Gall	Cornwall WT

The National Coordinator is responsible for publicity and promotion at a national level, managing the training programme, budgetary control and development of Seasearch activities in new locations.

2011 saw the appointment of a coordinator for North West England for the first time, effectively completing the coverage of the coastline of Britain and Ireland. The post is funded by a legacy to MCS in memory of Dr Phil Lumley.

Local Coordinators are responsible for Seasearch activities within their own areas (see map). This includes promotion to local dive clubs and other organisations, communication with local volunteers, arranging training courses and surveys and representing Seasearch on local biodiversity groups.



Thanks to all the Seasearch Tutors and coordinators for their enthusiasm, organising and teaching skills during 2011 and to all of the volunteer divers who have participated in Seasearch training, recording and promotion.

This report has been produced on behalf of Seasearch by the Marine Conservation Society, Unit 3 Wolf Business Park, Alton Road, Ross-on-Wye, Herefordshire, HR9 5NB. Text by Chris Wood with contributions from coordinators. Images by Chris Wood, Dan Bolt, James Lucey, Jim Self, Matt Doggett, Rob Spray and Sally Sharrock.



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