

Annual Report 2013

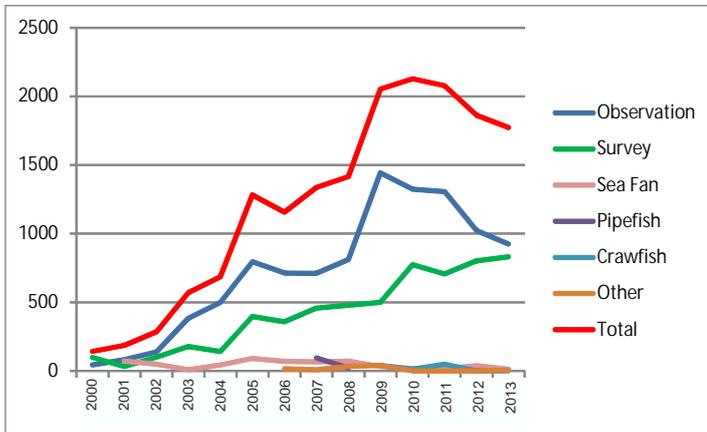


This report summarises Seasearch activities throughout Britain and Ireland in 2013. It includes a summary of the main surveys undertaken (pages 1-4), reports produced and a summary of the data collected. This includes records of Biodiversity Action Plan habitats and species records, locally important features and nationally scarce and rare species (pages 4-6). 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 Surveys 2013

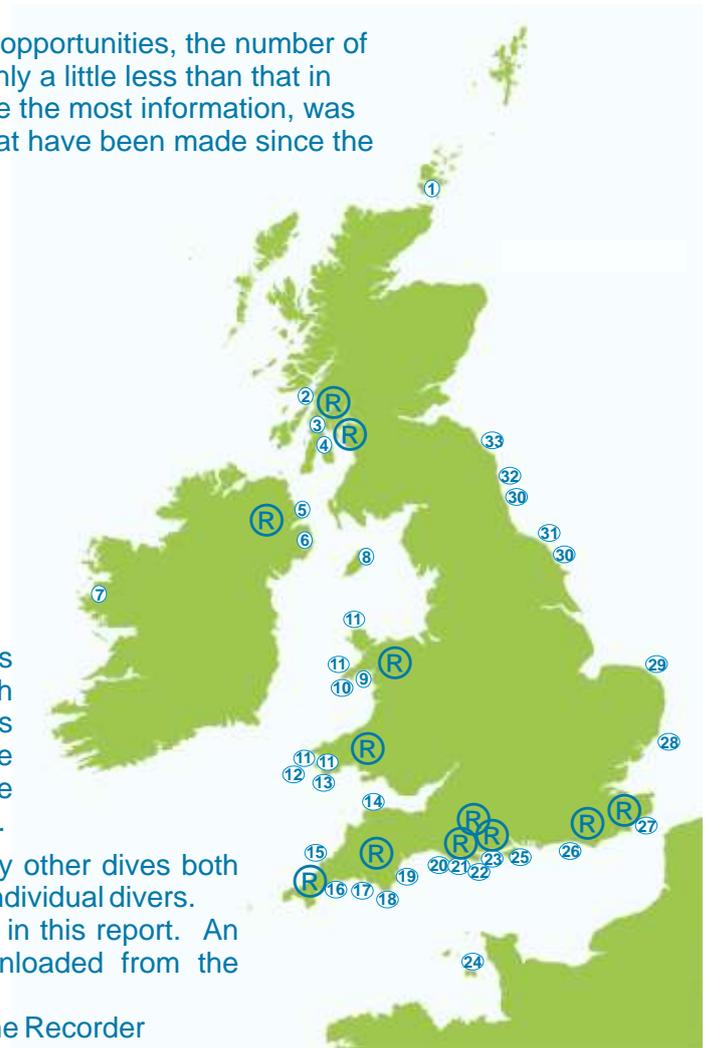
Despite a cold spring which limited training course diving opportunities, the number of forms completed by Seasearch volunteers in 2013 was only a little less than that in recent years. The number of Survey Forms, which provide the most information, was the highest ever. The chart below shows the increases that have been made since the project was re-launched in 2003.



The following pages summarise the main surveys undertaken in 2013. They were arranged by Seasearch Coordinators and other volunteers and in many cases Summary Reports ® can be downloaded from the Seasearch website. We would like to thank all of the organisations who supported survey activity at a local level.

In addition to the surveys outlined here there were many other dives both organised by Seasearch coordinators and undertaken by individual divers. The map shows the location of the surveys summarised in this report. An interactive map of all the 2013 records can be downloaded from the Seasearch website and opened using Google Earth.

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..



Seasearch is co-ordinated by the Marine Conservation Society on behalf of the Seasearch Supporters which comprise the Marine Conservation Society, Wildlife Trusts, Joint Nature Conservation Committee, Natural England, Natural Resources Wales, Scottish Natural Heritage, Department of the Environment Northern Ireland, 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.

Financial support in 2013 at a national level was given by the partners on the right.



Seasearch is coordinated and delivered locally in England by Wildlife Trust and MCS local coordinators, in Scotland, Wales, Northern Ireland and the Isle of Man by MCS Coordinators and in the Republic of Ireland by the Irish Underwater Council.

Scotland

1 Scapa Flow wrecks: Seasearch divers have continued to survey the famous wrecks from the angle of the marine life they support. Features include horse mussel beds, queen scallops and brittlestar beds surrounding and protected by the presence of the wrecks and there is a single fan mussel, *Atrina fragilis*, first recorded in 2010 and likely to remain for many years unless disturbed

2 Firth of Lorn: A week long survey concentrated on recording the diversity and identity of sea squirts but also undertook general Seasearch recording in this Special Area of Conservation. It was particularly rewarding to re-visit Jeannie's Reef and compare with the video we took there 10 years ago. There appears to be a much greater diversity and amount of sessile marine life which could well be linked to the cessation of trawling activities in the SAC (picture below)



3 Fireworks in Upper Loch Fyne and Loch Goil: Fireworks anemone surveys in Loch Fyne were undertaken over the winter. These suggested that the population in Upper Loch Fyne had increased both in size and numbers since previous surveys. Fireworks anemones were also surveyed in upper Loch Goil to help support the case for a Marine Protected Area. ®

4 Inchmarnock Maerl: this survey used towed GPS to measure the extent of maerl beds at this island west of Bute. There is evidence from dead maerl that it was previously a extensive bed but the living part is now in a band about 200m in length. There were signs of recent dredging with dying bivalve molluscs on the surface of the sediment and starfish regenerating arms.®

Northern Ireland ®

5 Islandmagee: Three sites were surveyed on organised dives in this area and three others independently. Two Northern Ireland priority species were recorded, the goosefoot starfish *Anseropoda placenta*, and Icelandic cyprine (ocean quahog), *Arctica islandica*.

6 Strangford Lough Bioblitz: Seasearch provided the diving component of this 6 day event. 14 Observation and 23 Survey Forms were completed from 13 sites within the Lough. The surveys included both boat and

shore dives and sites were chosen to sample as many different habitats as possible in order to maximise the number of species. We were not granted permission to dive in the closed area and for this reason no *Modiolus modiolus* horse mussel bed habitat was sampled.

Republic of Ireland

7 Killary Harbour: Further dives were carried out to establish the extent of the serpulid reefs in this fjord habitat.

Isle of Man

8 Ramsey Bay Marine Reserve: Seasearch has worked with IOM Fisheries to survey eelgrass and maerl habitats in the Marine Reserve and is looking at ways of restoring destroyed beds in Garwick Bay.

Wales ®

9 Criccieth Seagrass: Survey dives confirmed that the Seagrass, *Zostera marina*, bed at Criccieth, Tremadog Bay, is still present (albeit very patchy), following earlier Seasearch surveys in 2007.

10 Bardsey: There was a rare opportunity to visit Bardsey, the most exposed spot in North Wales. A variety of rock and sediment habitats were surveyed and unusual records included yellow cluster anemones and the stoloniferan *Sarcodictyon catenatum/roseum*

11 Sea Squirt research dives: Four days of surveys were undertaken with a focus on recording, photographing and collecting sea squirts for identification. This work (which also took place in Scotland) is part of the research needed for the next Seasearch Identification Guide which will cover Sea Squirts and Sponges. A number of currently unidentified species were recorded. These included the Strawberry Sea Squirt, an Aplidium-like species found at sites in both North and South Wales (photo below).



12 Mussel Beds: Continuing surveys looking at new sites around Skokholm and the very exposed Grassholm found extensive Blue Mussel beds at West Grassholm and Wild Goose Race, West Skokholm.

13 South Pembrokeshire: During 2013 8 further sites were explored. In addition to sites inshore, calm seas also enabled sites on offshore reefs between 1-3 miles off St Govans Head to be surveyed for the first time.

England

14 North Devon Coast: This coast is not easy to visit for logistical, cost and weather reasons but two very different sites inside the Bideford to Foreland Point rMCZ, were surveyed. Horseshoe Rock, to the north of Morte Point, is a spectacular tide-swept site of rugged pinnacles rising up 8m from 20m whilst Combe Martin Bay reef had a very diverse fauna on silted shallow low-lying bedrock and boulders.

15 Newquay rMCZ and Padstow MCZ: Surveys were undertaken in Padstow Bay, since designated as an MCZ, and in the Newquay rMCZ, which is one of many that currently remain undesignated. ©

16 Fowey's "Clean Bottom" non-natives survey: Seasearch divers surveyed pontoons in the Fowey estuary. Five different non-native species were found, including the compass seasquirt *Asterocarpa humilis*, a recent arrival and not previously recorded at Fowey. ©



17 Erme River Bed: This feature has a very distinct western wall, 4-6 m high and runs for about a mile south of the coast towards the Persier wreck. Explored thoroughly for the first time in 2013, the wall and the steep sided side gullies were characterised by sponges, including the unusual pink sponge *Hexadella racovitzae*, hydroids, soft corals including sea fans, and bryozoans. In places there were extensive patches of cluster anemones, *Parazoanthus axinellae* up to 10m along the wall and several metres high (photo above).

18 Exposed headlands: The Bolt and Prawle Point: New sites were surveyed in these strongly tidal areas within existing SACs and the subsequently designated Skerries and surrounds MCZ. Features of the marine life were large sponges, sea squirt gardens and fields of oaten pipe hydroids.

19 Torbay eelgrass: Eelgrass beds in Fishcombe Cove and Beacon Cove were surveyed. In each a 5000 m² area was surveyed using 0.25m² quadrats placed at 5m intervals along side transects from a 100m baseline. This is planned to be an annual monitoring event.

20 Stennis Ledge and Chesil Beach rMCZ: © Surveys took place at three sites within this subsequently designated rMCZ. Records included pink sea fans, a Feature of Conservation Interest for which

the site was designated, and a number of scarce or rare species were recorded, including the sponge *Adreus fascicularis*, Southern Cup Coral *Caryophyllia inornata*, Weymouth Carpet Coral *Hoplangia durotrix* and sea fan nudibranch *Tritonia nilsodhneri*.

20 Broadbench to Kimmeridge rMCZ: Both subtidal and intertidal surveys were carried out in this existing voluntary marine reserve. Notable records were of stalked jellyfish *Haliclystus auricula* and nationally scarce Trumpet Anemone, *Aiptasia mutabilis*. ©

2 Studland rMCZ: Surveys of eelgrass, *Zostera marina*, beds which are the focus of this rMCZ, now being considered in the second tranche of consultation expected in 2015. Priority species recorded included Spiny Seahorse, Native Oyster, Plaice and Sole. ©

23 Poole Rocks MCZ: This site was designated in November 2013. Surveys during the year recorded bream nests, the southerly Baillon's Wrasse and priority species Couch's Goby and Native Oyster. ©

24 Jersey offshore: A week long survey concentrating on the extensive offshore reefs around Jersey and including the most southerly dive site in British waters, Les Sauvages. Sites on the Minquiers, Paternosters and Ecrehous reefs were also surveyed, mostly for the first time. A number of southerly species were recorded such as Feather Duster Worms *Sabella spallanzani*, a cerianthid anemone *Pachycerianthus sp.*, Black Face Blennies, Ormers and Electric Ray. Notable was the number of Undulate Rays (below), a priority species in UK waters.



25 Hampshire and Isle of Wight rMCZs: Sites were surveyed in 4 rMCZs, all of which are in the second tranche of sites due for consultation in 2015. They are The Needles, Yarmouth to Cowes, Bembridge and Utopia. Priority habitats found here were subtidal chalk, clay cliff, seagrass beds and fragile sponge and anthozoan communities. Priority species recorded were the stalked jellyfish *Lucernariopsis campanulata* and Native Oyster, *Ostrea edulis*.

26 Sussex rMCZs: Survey dives were carried out in Selsey & The Hounds, Kingmere and Beachy Head West rMCZs. Since the surveys the Kingmere area, which includes Kingmere Rocks and Worthing Lumps, has been designated an MCZ. Unfortunately, neither Beachy Head West, which includes the Royal Sovereign Shoals, nor Selsey and the Hounds is in the consultation list for the second tranche in 2015, ©

27 Kent rMCZs: Twelve sites were surveyed in three of the rMCZs, Folkestone Pomerania, Dover to Folkestone and Dover to Deal. The two latter sites are included in the second tranche to be consulted on in 2015. Most sites included chalk reefs and boulders, often piddock bored, and at one there were patches of the priority Ross Worm *Sabellaria spinulosa* habitat. ®

28 Suffolk marinas surveyed: Levington, Lowestoft Yacht Club and Oulton Broad Haven marinas were all surveyed for non-native invasives and other interesting species with seaweed samples taken. Non native species recorded included the bryozoan *Bugula neritina*, sea squirts *Botrylloides violacea* and *Corella eumyota* and Wakame *Undaria pinnatifida*. Haven Marina night survey revealed huge free swimming common eels, catsharks, little cuttles and sticklebacks.

29 New sites and sightings in Norfolk: New sites surveyed were Robin's Friend at Sheringham, Mundesley, Hunstanton, Sea Palling lagoon reefs, Spalla Gap and the seabed off Walcott. Unusual Norfolk species sightings included sponges *Raspailia ramosa*, crustaceans (Masked Crab, *Portumnus latipes*, *Pisidia longicornis*), molluscs (*Palio nothus*, *Lamellaria perspicua* and squid eggs at hatching point (photo right), as well as a number of fishes - Pogge, Common Eel, Sea Snail, Leopard Spotted Goby, juvenile Thornback Ray, Red Mullet and Turbot.

30 North East rMCZs:

Seasearch dives were carried out at 8 sites in the Coquet to St Mary's Island & Castle Ground dMCZs.

The former is in the Tranche 2 consultation but Castle Ground is being considered for designation as a SSSI.

31 Durham Heritage Coast: Four more sites between Sunderland and Seaham were surveyed, focussing on the reef systems Salterfen Rocks and Pincushion. These dives continue to show how well the seabed species and habitats are recovering from decades of pollution from the coal industry.

34 Seaweeds in Northumberland: The British Phycological Society and Seasearch North East ran a week-long field meeting to record seaweeds on the Northumberland coast. Five shores were surveyed and seaweed specimens were identified and pressed, resulting in records of over 140 seaweed taxa.

35 Diving on the English/Scottish border: Seasearch divers visited the northernmost point on the east coast of England, Marshall Meadow's Bay, as part of an ongoing project to fill the data gap between the Farne Islands and Eyemouth. Three sites were surveyed, including an extensive gully system with rich faunal turf, which we look forward to exploring further.



Species recorded in 2013

A total of almost 51,000 species records were made during 2013. The following table provides a summary of the species records and identifies both the most commonly recorded species and the species of special interest.

Priority (formerly 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 JNCC list has not been revised for some years and the records also include some nationally scarce and rare fishes which are not in the JNCC list and records of other southerly species which have only been recently recorded in our area. The list also identifies non-native species, based on the Marine Biological Association guide.

Commonly recorded species (more than 200 records)

Priority (P), Scarce (S), rare (R) non-native (NN) species

Foraminifera, (32 records - 1 identified to species)

Porifera, Sponges (82 species)

Cliona celata, boring sponge (452)
Dysidea fragilis, goosebump sponge (369)
Amphilectus fucorum, shredded carrot sponge (357)
Scyon ciliatum (*Scypha ciliata*), purse sponge (323)
Pachymatisma johnstonia, elephant hide sponge (293)
Hemimycale columella, crater sponge (273)
Halichondria panicea, breadcrumb sponge (250)

Stelletta grubii (S) 1 uncertain record from Dorset
Stryphnus ponderosus (R) 1 uncertain record from Hampshire
Thymosia guernei, mashed potato sponge (S) 5 records from S Devon and Pembrokeshire
Adreus fascicularis (R) 12 records from Lyme Bay, S Devon and Jersey
Axinella damicornis, crumpled duster sponge (S), 40 records from S Devon, Isles of Scilly, Jersey and Pembrokeshire
Phakellia ventilabrum (S), 2 records from W Scotland
Desmacidon fruiticosum (R) 3 records from Cornwall and Jersey
Tethyspira spinuosa (S) 4 records from Isles of Scilly & Pembrokeshire,
Hexadella racovitzai (southerly), 4 records from S Devon

Cnidaria, Jellyfish, hydroids, siphonophores, anemones and corals (129 species)

Jellyfish (11 species)

stalked jellyfish (P) 9 records from W Scotland, Isle of Wight, Dorset, S Cornwall & Isles of Scilly,

Hydroids (65 species)

Nemertesia antennina, antenna hydroid (509)
Tubularia indivisa, oaten pipes hydroid (378)
Obelia geniculata, kelp fur (270)
Nemertesia ramosa, branched antenna hydroid (244)

Diphasia alata (S) 1 record from S Cornwall
Aglaophenia kirchenpaueri (S) 20 records from S Devon, S Cornwall, Isles of Scilly & Pembrokeshire
Lytocarpia myriophyllum (S) 6 records from W Scotland and Isles of Scilly
Hartlaubella gelatinosa (S) 1 record from Liverpool Docks
Laomeda angulata (S) 3 records from Lyme Bay and S Devon (uncertain)

Cnidaria continued**Anemones and corals** (52 species)

Alcyonium digitatum, dead men's fingers (797)
Urticina felina, dahlia anemone (561)
Caryophyllia smithii, Devonshire cup-coral (488)
Metridium senile, plumose anemone (389)
Sagartia elegans, elegant anemone (364)
Anemonia viridis, snakelocks anemone (343)
Corynactis viridis, jewel anemone (276)
Actinothoe sphyrodeta, white striped anemone (268)
Cerianthus llyodii, burrowing anemone (200)



Alcyonium hibernicum, pink fingers (S) 10 records from Firth of Lorn, S Devon Galway & Donegal
Swiftia pallida, northern sea fan (P) 7 records from W Scotland
Eunicella verrucosa, pink sea fan (P) 198 records from Dorset S Devon & Cornwall, Isles of Scilly, Jersey, Pembrokeshire, Clare & Donegal
Funiculina quadrangularis, tall sea pen (P) 1 record from Sound of Mull
Pachycerianthus multiplicatus, fireworks anemone (P, S) 8 records from Argyll and Galway
Pachycerianthus indet. (southerly) 7 records from Jersey (photo left)
Parazoanthus anguicomus, white cluster anemone (S) 10 records from W Scotland, Orkney & Northern Ireland
Parazoanthus axinellae, yellow cluster anemone (S) 22 records from S Devon & Cornwall, Scilly, Jersey, Lundy, Pembrokeshire & Bardsey
Aiptasia mutabilis, trumpet anemone (S) 51 records from Dorset, Lyme Bay, S Devon & Cornwall, Jersey, Lundy, Pembrokeshire & Cork
Amphianthus dohrnii, sea fan anemone (P, R) 6 records from Firth of Lorn, S Devon and Cornwall
Mesacmaea mitchellii, Policeman anemone (S) 2 records, N Devon & Pembrokeshire
Caryophyllia inornata, southern cup-coral (R) 20 records from Dorset, Lyme Bay, S Devon, Isles of Scilly, Jersey & Northern Ireland
Hoplanguia durotrix, Weymouth carpet coral (R) 8 records from Sussex, Dorset, Lyme Bay & S Devon
Balanophyllia regia, scarlet and gold star coral (S) 4 records from N & S Cornwall, Jersey and Pembrokeshire
Leptopsammia pruvoti, sunset cup-coral (P, R) 6 records Lyme Bay, S Devon, Isles of Scilly, Jersey (2 new sites) and Lundy

Ctenophora, Comb Jellies (3 species)**Platyhelminthes, Flat worms** (3 species)**Nemertea, Ribbon Worms** (3 species)**Nematoda**, (3 species)**Entoprocta** (2 species)**Echiura, Spoon worms** (1 record)

Amalosoma eddystonense, (S) 1 record from Orkney

Annelida, Segmented worms (39 species)

Pomatoceros lamarkii/triqueter, keel worms (510)
Lanice conchilega, sand mason worm (370)
Bispira volutacornis, double spiral worm (264)
Sabella pavonnina, peacock worm (235)

Sabellaria alveolata, (Priority Habitat in UK) 1 record from N Cornwall
Sabellaria spinulosa, rosworm (Priority Habitat - reefs) 41 records from Northumberland, Durham, Norfolk, Kent, Dorset, Lyme Bay, S Devon, Liverpool Docks, Cork & Galway (mostly not reef forming)
Sabella spallanzanii, (southerly) 3 records from Jersey
Ficopomatus enigmaticus, trumpet tube worm (NN) 6 records from Liverpool Docks
Serpula vermicularis, organ pipe worm (Priority Habitat in UK) 30 records including reefs in Killary Harbour, Ireland

Pycnogonida, Sea spiders (1 species)**Crustacea, Barnacles, amphipods, isopods, crabs, lobsters and prawns** (66 species)

Cancer pagurus, edible crab (884)
Necora puber, velvet swimming crab (763)
Homarus gammarus, lobster (482)
Maja squinado, spiny spider crab (362)
Pagurus bernhardus, common hermit crab (356)
Carcinus maenas, shore crab (264)

Periclimenes sagittifer, anemone prawn (southerly), 8 records from Dorset & Jersey
Palinurus elephas, crawfish (P) 16 records from, NW Scotland, Orkney, S Devon, Lundy, Pembrokeshire, Cork, Galway & Donegal
Dromia personata, sponge crab (S) 4 records from Jersey, Lundy & Pembrokeshire

Mollusca, shells, sea slugs, bivalves and cephalopods (163 species)

Calliostoma zizyphinum, painted topshell (496)
Gibbula cineraria, grey topshell (367)
Pecten maximus, great or king scallop (226)



Haliotis tuberculata, ormer (southerly) 1 record from Jersey
Crepidula fornicata, slipper limpet (NN) 141 records from Norfolk, Sussex to Torbay, Jersey, Milford Haven
Tritonia nilsodhneri, sea fan sea slug (S) 30 records from Lyme Bay, S Devon & Cornwall
Okenia elegans, (S) 6 records Skye, S Devon, Lundy & Isle of Man
Thecacera pennigera, orange speckled sea slug (S) 4 records from Dorset, N Devon & Skokholm
Doris sticta, sponge sea slug (S) 9 records from S Cornwall & Scilly
Caloria elegans, (S) 1 record from N Wales
Modiolus modiolus, horse mussel (beds - Priority habitat) Orkney, Isle of Man & Northern Ireland + numerous records of smaller numbers from Shetland to Yorkshire
Atrina fragilis, fan mussel (P, R) 1 record from Scapa Flow, Orkney
Ostrea edulis, European oyster (P) 80 records from Argyll, Kent to S Devon, Jersey, Milford Haven, N Wales
Crassostrea gigas, Pacific oyster (NN) 3 records from S Cornwall, Jersey & Milford Haven
Arctica islandica, Icelandic cyprine (P) 4 records from Orkney, Isle of Man, and Antrim (photo left)

Brachipods, lamp shells (2 species)**Bryozoa, sea mats and sea mosses** (63 species)

Alcyonidium diaphanum, finger bryozoan (391)
Flustra foliacea, hornwrack (375)
Electra pilosa, kelp fur (324)
Membranipora membranacea, sea mat (323)

Watersipora complanata (R) 1 record from Isles of Scilly
Watersipora sp. (NN) 1 record Portland Marina
Bugula neritina (NN) 4 records from marinas - Suffolk & Portland

Phoronida, horseshoe worms (2 species)**Echinodermata, starfish, sea urchins and sea cucumbers** (38 species)

Asterias rubens, common starfish (918)
Echinus esculentus, common sea urchin (647)
Marthasterias glacialis, spiny starfish (445)

Tunicata, sea squirts (48 species)

Clavelina lepadiformis, light bulb sea squirt (481)
Botryllus schlosseri, star sea squirt (368)
Ascidia mentula, red sea squirt (214)
Morchellium argus, four spot club sea squirt (207)

Polysyncraton bilobatum (R) 12 records from Norfolk & Pembrokeshire
Polysyncraton lacazei (R) 8 records from Jersey & Pembrokeshire
Perophora japonica (NN) 10 records from Norfolk, Dorset & Jersey
Corella eumyota, orange tipped sea squirt (NN) 21 records from Suffolk, Dorset, Jersey, Pembrokeshire, N Wales & Strangford Lough
Phallusia mamillata, giant sea squirt (S) 50 records from Portland, Lyme Bay, Jersey & Cork
Styela clava, leathery sea squirt (NN) 81 records from Suffolk, Sussex to Cornwall, Jersey, Milford Haven, N Wales, Liverpool Docks, & Killary Harbour

Pisces, fishes (99 species)

(fish are not included in the JNCC rare and scarce species lists)

Labrus bergylta, ballan wrasse (525)
Pollachius pollachius, pollack (388)
Ctenolabrus rupestris, goldsinny (363)
Labrus mixtus, cuckoo wrasse (268)
Taurulus bubalis, long spined sea scorpion (265)
Gobiosculus flavescens, two-spot goby (228)
Scyliorhinus canicula, lesser spotted catshark (223)
Callionymus lyra, dragonet (215)
Parablennius gattorugine, tompot blenny (213)
Trisopterus luscus, bib (200)



Torpedo mamorata/nobliana, electric ray (southerly) 5 records from Jersey
Raja undulata, undulate ray (P) 8 records from Sussex and Jersey
Lophius piscatorius, angler fish/monkfish (P) 3 records from SE Scotland, S Devon & Galway
Gadus morhua, cod (P) 43 records from Scotland & Northern Ireland
Molva molva, ling (P) 27 records from Scotland, England & Ireland
Hippocampus ramulosus, long snouted seahorse (P) 1 record from Dorset
Spondylus cantharus, black bream (southerly) 19 records from Sussex, Hampshire, Dorset & Jersey
Symphodus bailloni, Baillon's wrasse (southerly) 2 records Dorset & Jersey
Parablennius ruber, red blenny (southerly) 6 records from Orkney, Isles of Scilly, Cork & Galway
Tripterygion deleasi, black-face blenny (southerly) 6 records from Dorset, S Devon and Cornwall & Jersey
Gobius couchi, Couch's goby (R) 8 records from Dorset & Cork
Lebetus guilleti, Guillet's goby (R) 1 record from Jersey (photo left)
Pleuronectes platessa, plaice (P) 61 records, all areas except Wales
Solea solea, sole (P) Norfolk, Dorset, S Cornwall & Jersey

Aves & Mammalia, birds & mammals (4 species of birds, seals, dolphin and porpoise)**Algae, seaweeds****Rhodophycota, Red seaweeds** (115 species)

Delessaria sanguinea, sea beech (350)
Plocamium cartilagineum (230)
Calliblepharis ciliata, red fringed weed (209)
Dilsea carnosa, red rags (201)

Asparagopsis armata, harpoon weed (NN) 42 records from Dorset, S Devon & Cornwall, Isles of Scilly, Jersey & N Cornwall
Lithothamnion coralloides/Phymatolithon calcareum maerl (Priority habitat) 7 records from Argyll, Orkney, Northumberland, Isle of Man plus many records not identified to species
Gracilaria bursa-pastoris shepherd's purse wart weed (S) 11 records from Sussex, Hampshire, Dorset & Jersey

Chromophycota, Brown seaweeds (46 species)

Laminaria hyperborea, cuvie or forest kelp (411)
Dictyota dichotoma, brown fan weed (250)

Zanardinia prototypus, pennyweed (S) 3 records from Hampshire, Dorset & Jersey
Carpomitra costata, tassel weed (S) 9 records from S Devon, Isles of Scilly & Jersey
Undaria pinnatifida, wakame (NN) 8 records from marinas/harbours in Suffolk, Dorset & S Devon
Sargassum muticum, wireweed (NN) 133 records as far north as Strangford Lough and Donegal

Chlorophycota, Green seaweeds (19 species)**Angiospermae, flowering plants** (1 species)

Zostera marina, eelgrass (Priority habitat) 66 records from Hampshire, Dorset, S Devon & Cornwall, Jersey, Tremadog Bay, Isle of Man, Strangford Lough, Galway & Donegal

Total Species Recorded = 933

Seasearch Training in 2013

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 surveys with a tutor present to help with form completion and identifications.

There were 26 Observer courses held in 2013 in England (18), Ireland (4) Wales (2) and Scotland (2). 241 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 2013, taking place Devon (photo right), Dorset, Galway and Orkney. There were 28 participants.

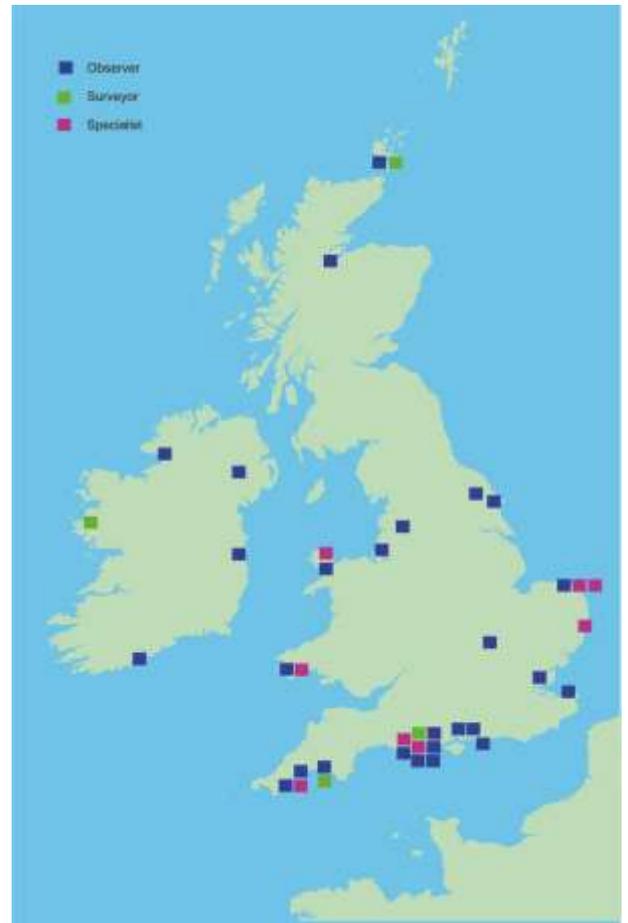


Seasearch **Specialist** courses are aimed at either teaching new survey skills or improving knowledge and identification of marine life. Eight courses were held in 2013 with over 70 volunteers taking part. Subjects covered fish ID (Anglesey and Norfolk), animal 'turf' species (Dorset), hydroids and nudibranchs (Cornwall), ascidians (Falmouth and Pembrokeshire), seaweeds (Dorset) and general marine life ID (Menai Bridge and Norfolk),

Seasearch Observer and Surveyor training courses are delivered by our team of **tutors**, all of whom are experienced Seasearch recorders and active divers. 29 of them taught on courses in 2013 including 4 new tutors, Tony O'Callaghan (Ireland), Charlotte Bolton (Dorset), Cat Wilding (Cornwall) and Deirdre Greer (Ireland). The Specialist courses are given by Seasearch tutors and visiting experts who in 2013 included Bernard Picton (nudibranchs and ascidians), David Kipling (ascidians), Lin Baldock (seaweeds), and Mary Spencer-Jones (animal turfs). New tutors Charlotte and Deirdre are shown below, both beside the sea.



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 2013 27 volunteers achieved the Observer qualification and 13 volunteers the Surveyor qualification.



Seasearch Identification Guides and survey materials

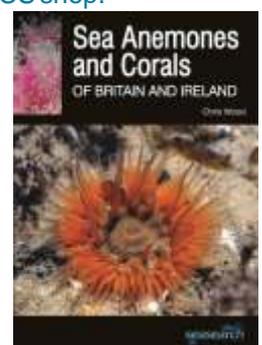
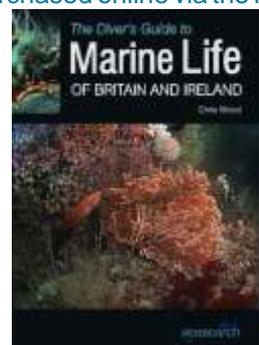
As a part of our aim to improve the identification skills of volunteer divers we produce a range of illustrated identification guides.

In 2013 we entered into an agreement with Wild Nature Press who now publish the Seasearch Guides. This allows us to produce new guides without a major up-front cost and will also open the guides up to a wider audience.

During 2013 we updated our general Marine Life Guide which is popular as an introductory guide and sells primarily on Observer Courses. We also produced a second edition of the Guide to Sea Anemones and Corals containing almost all new images and a wider range of information about the species included.

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 at Seasearch courses and events and can also be purchased online via the MCS shop.



Seasearch Data

Data Received in 2013

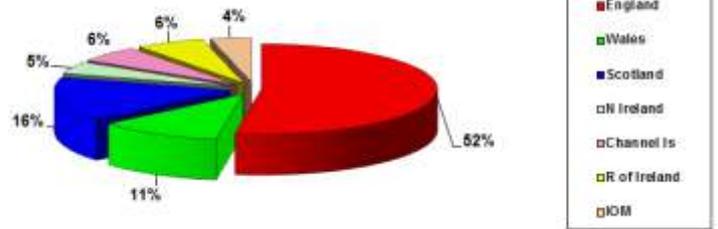
A total of 1,773 forms was received from dives in 2013, which was less than in recent years. This was due to the lower level of Observation Forms received. However the number of Survey Forms, which provide significantly more data, was the highest ever, 831 forms or 47% of those received.

Of the forms received just over half (52%) came from sites in England. There was 16% from Scotland, 11% each from Wales and Ireland, 6% from the Channel Islands and 4% from the Isle of Man.

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.



Biotopes and Seabed Cover Types

MNCR 04.05 biotope codes are assigned to all Survey Form data at the data entry stage. The 2013 dataset contains 1,825 MNCR biotopes. Observation Form data contains Seasearch seabed cover types, a simpler format appropriate to this level of detail.

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 Google Earth map can be downloaded from the Seasearch website providing a summary of the data for each site.

The 2013 dataset comprises 96 surveys, including 1,393 survey events and contains 50,994 individual species records, covering 933 different species.

Seasearch Coordination and Promotion

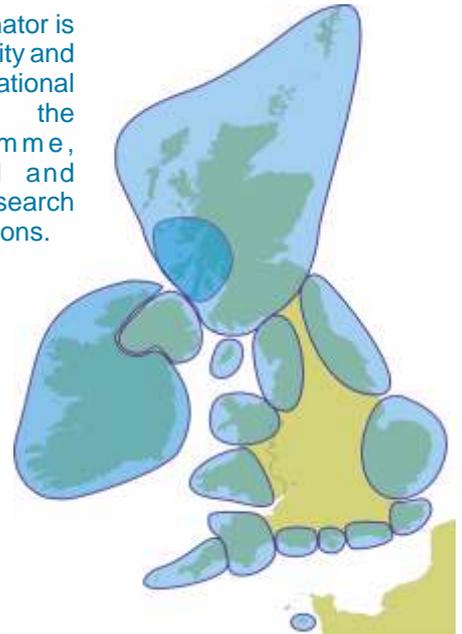
Seasearch is organised on behalf of the Seasearch supporters and supported by a Technical Steering Group, and the Tutors/Coordinators each of which meet on an, at least, annual basis.

The day to day activities are organised by the National Coordinator and a team of Local Coordinators throughout Britain & Ireland. At the end of 2013 the team was as follows:

National Coordinator	Chris Wood	MCS
Scotland	Calum Duncan	MCS
West Scotland	Owen Paisley	MCS
Northern Ireland	Beatriz Gonzalez-Fernandez	MCS
Republic of Ireland	Tony O' Callaghan	CFT
Isle of Man	Tony Glen	MCS
North Wales	Liz Morris	MCS
South & West Wales	Kate Lock	MCS
North East England	Paula Lightfoot	MCS
North West England	Wendy Northway	MCS
East Anglia	Dawn Watson	MCS
Kent	Fiona White	Kent WT
Sussex	Olle Akesson	Sussex WT
Hants/Isle of Wight	Abbi Scott	Hants WT
Dorset	Charlotte Bolton	Dorset WT
Devon	Chris Webb	MCS
Cornwall	Cat Wilding	Cornwall WT
Jersey	Kevin McIlwee	Jersey Seasearch

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.

During 2013 we welcomed new coordinators in Kent, Sussex, Hampshire, Devon, North West England, Northern Ireland and the Republic of Ireland. Thanks to their predecessors for all their hard work in recent years.



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 2013 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, Over Ross House, Ross Park, Ross-on-Wye, Herefordshire, HR9 7QQ.

Text by Chris Wood with contributions from coordinators. Images by Lin Baldock, Rik Girdler, David Kipling, Rob Spray, Chris Webb and Chris Wood. Maps and design by Chris Wood.



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