

Sussex Seasearch

Summary Report 2019

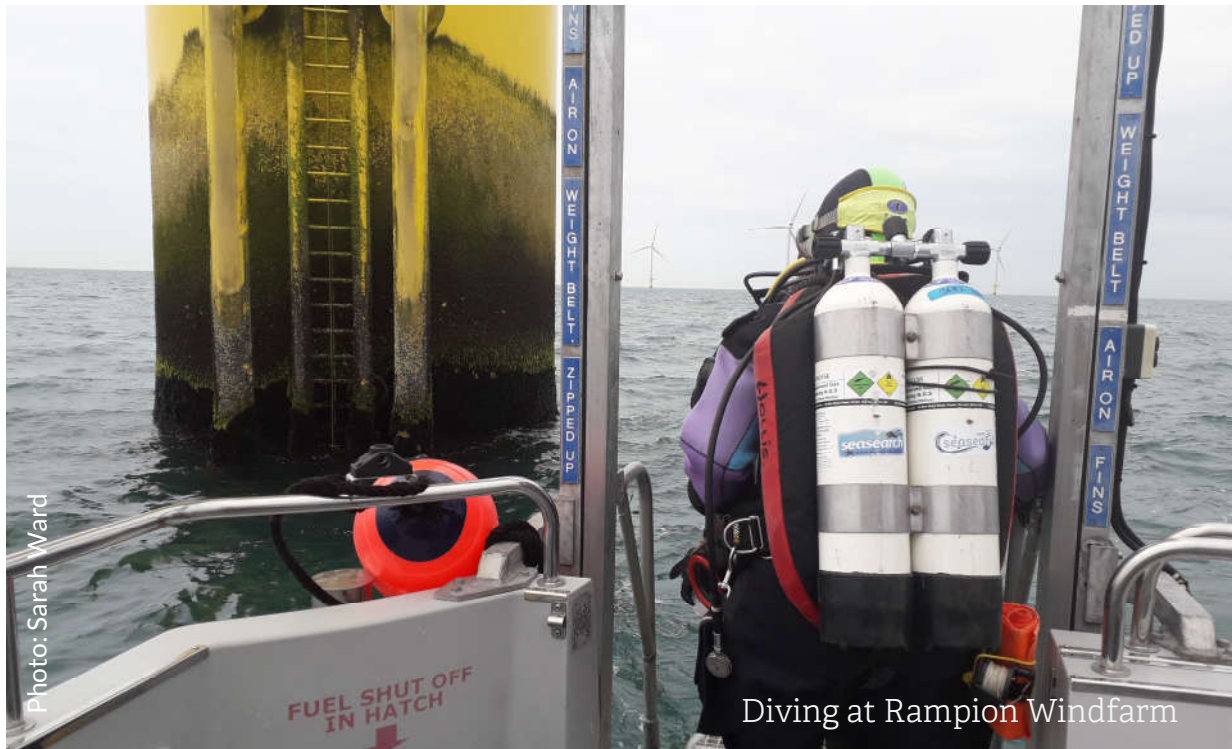


Photo: Sarah Ward

Diving at Rampion Windfarm



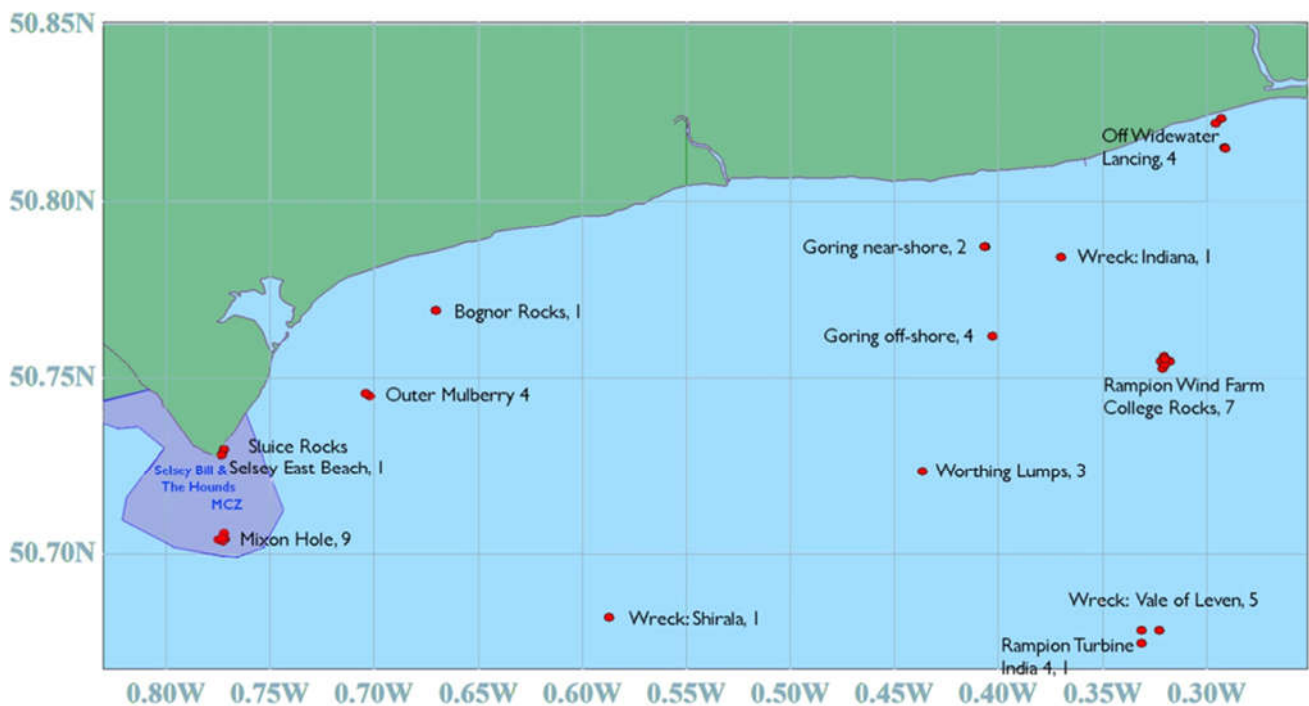
Photo: Sarah Ward

Diving at Worthing Lumps



Photo: Sarah Ward

Yellow fin club!



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With the increase in the number of forms since last year, there was a corresponding increase in the number of taxa recorded: 299 from 1,208 records. All 2019 dives took place off the West Sussex coast. Fifteen sites were over 20 m: the deepest was Rampion Wind Farm (27m), followed by the Vale of Leven wreck (26m). Eleven sites were shallower than 10m, the shallowest being Sluice Rocks (4m) and Widewater Reef (7m).

As per last year, the most commonly recorded species this year was the common starfish, *Asterias rubens* (44 records) (see image). Other commonly recorded species were the painted top shell, *Calliostoma zizyphinum* (32 records), and keel worms, *Spirobranchus* spp. (28 records).



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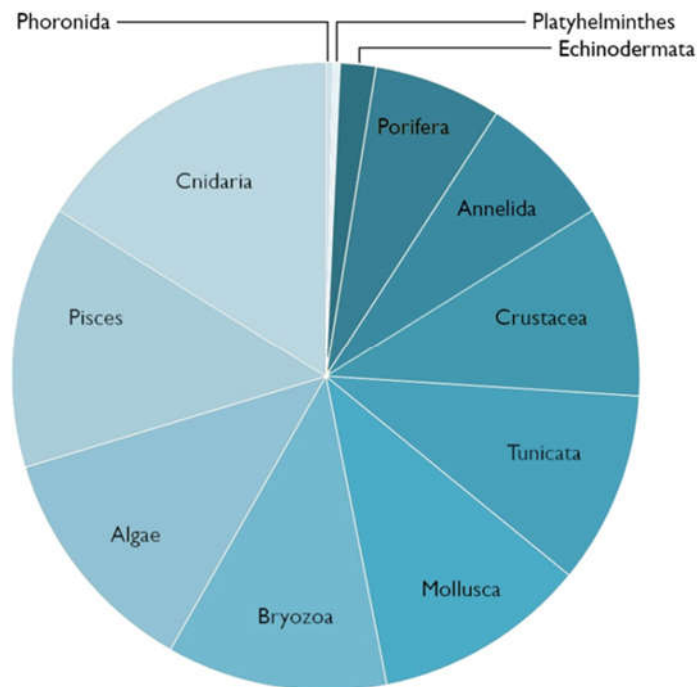


Chart illustrating the number of species in each taxonomic grouping.

Cnidaria: ~44 species (204 records), including antenna hydroid, *Nemertesia antennina*, snakelocks anemone, *Anemonia viridis*, and southern cup-coral, *Caryophyllia inornata*.

Algae: ~38 species (163 records), including sea lettuce, *Ulva* sp., wireweed, *Sargassum muticum*, and siphoned feather weed, *Heterosiphonia plumosa*.

Pisces: ~37 species (156 records), including undulate ray, *Raja undulata*, black bream, *Spondyliosoma cantharus*, and seahorse, *Hippocampus* sp.

Mollusca: ~34 species (135 records), including including painted top shell, *Calliostoma zizyphinum*, blue mussel, *Mytilus edulis*, and violet sea slug, *Edmundsella pedata*.

Bryozoa: ~32 species (90 records), including hornwrack, *Flustra foliacea*, orange pumice bryozoan, *Cellepora pumicosa*, and *Plagioecia*.

Crustacea: ~27 species (128 records), including edible crab, *Cancer pagurus*, common spider crab, *Maja brachydactyla*, and velvet swimming crab, *Necora puber*.

Tunicata: ~27 species (140 records), including sea grapes, *Molgula* spp., leathery sea squirt, *Styela clava*, and *Lissoclinum perforatum*.

Annelida: ~19 species (75 records), including double-spiral worm, *Bispira volutacornis*, eyelash worm, *Myxicola infundibulum*, and keel worms, *Spirobranchus* spp.

Porifera: ~19 species (106 records), including shredded carrot sponge, *Amphilectus fucorum*, goosebump sponge, *Dysidea fragilis*, and sea orange, *Suberites ficus*.

Echinodermata: ~5 species (61 records), including common starfish, *Asterias rubens*, bloody Henry starfish, *Henricia* sp., and green sea urchin, *Psammechinus miliaris*.

Seasearch Observer Course

June

On Saturday 11th May a one-day classroom observer course for 18 students was held at Woods Mill aimed at giving a basic grounding to 15 attendee divers new to the project and marine recording, as well as three refreshers.

The following day, some of the participants joined us for qualifying dives with Mulberry Divers in Selsey. Divers surveyed the Mixon Hole and Sluice Rocks.

Many thanks to Bryony Chapman for tutoring the course!

Left: The Observer group aboard Mulberry Diver.



Hyrdoids & Bryozoans Course

July

This year we were hugely excited to host Mary Spencer-Jones of the Natural History Museum and Joanne Porter of Heriot-Watt University who lead a course in identification of hydroids and bryozoans for our volunteers.

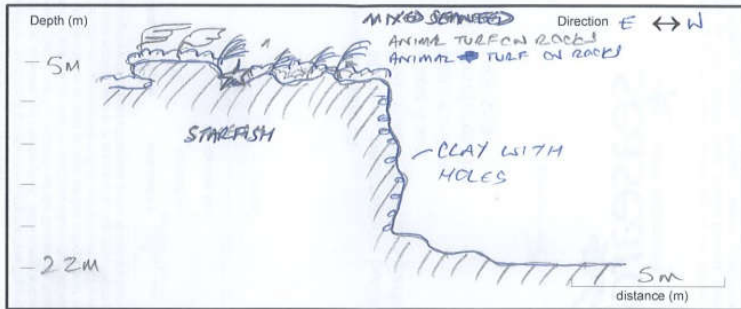
We were very grateful to receive funding for this course from the National Lottery Heritage Fund through Sussex Wildlife Trust's *Wild About Seaford* project. Additionally, the Booth Museum of Natural History kindly provided some pressed specimens for the course, some of which were unlabelled, providing a challenge to the participants.

Right: Course participants.



Mixon Hole

50°42.23N, 00°46.47W



This is a unique Sussex feature consisting of a 25m clay cliff capped by limestone with cobbles, pebbles and boulders at its base. The cliff is all that remains of the north slope of a drowned river.

Biological life includes lush mixed algae, boring piddocks and a range of molluscs, crustaceans and fishes.

This site is within the Selsey Bill & The Hounds MCZ.

Above: Sketch of dive site, Martin McDonagh.

Sluice Rocks

50°43.86N, 00°46.50W

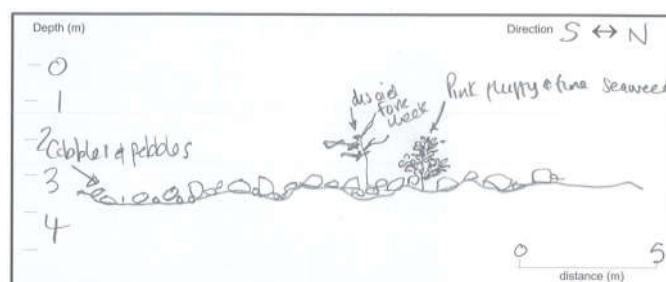
A shore dive, mostly consisting of shallow mixed ground seabed of cobbles and pebbles covered in weed and some animal turf. Unfortunately divers were met with poor visibility (~ 1m) for this survey.

This site is within the Selsey Bill & The Hounds MCZ.

Right: Typical seabed at Sluice Rocks.



Below: Sketch of dive site, Claude Annel.



The Far Mulberry

50°44.73N, 00°42.23W

Concrete wreckage of a WW2 caisson destined to be part of the D-day Mulberry Harbour sit on a seabed composed of cobbles, pebbles, sand, gravel.

The concrete provides many opportunities for a rich and diverse animal turf. As well as the Devonshire cup coral *Caryophyllia smithii*, the southern cup coral *Caryophyllia inornata*. The surrounding seabed has many slipper limpet shells and live animals some weed and many *Rissoa parva* were present.



The Indiana Wreck

50°47.05N, 00°22.20W

This broken metal ship wreck is covered in short animal turf and mixed algae, sitting on a seabed of cobbles, pebbles, sand and gravel.

Nests of black seabream, *Spondyliosoma cantharus*, were seen at this site.

Bognor Rocks

50°46.24N, 00°39.99W

Rocky sandstone reef and boulders at 5m extending to 6.5m bsl covered in extensive brown algae on the top and reds on the side. The seabed slopes to 9m bsl, with many sea oak, *Halidrys siliquosa*, and scattered mermaids' tresses, *Chorda filum*, on pebbles and cobbles, sand and gravel between.

Fishes present in deeper water to the west of the reef.

The Shirala Wreck

50°40.92N, 00°35.23W

A 5,000 ton liner sunk in 1918 sitting in ~24m of water. Short animal turf covers the wreckage, including plumose and jewel anemones, dead man's fingers and Devonshire cup corals.

Mobile life included cuttlefish, lobster and numerous fishes.



During 2019, the Help Our Kelp partnership was formed between Sussex Wildlife Trust, Blue Marine Foundation, Marine Conservation Society, and Big Wave TV.

We hope to restore kelp beds which have been lost off the West Sussex coastline.

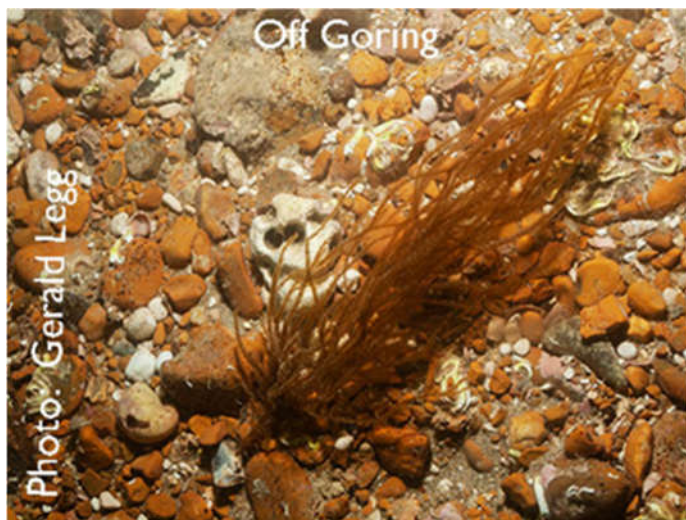
Seasearch volunteers were able to get involved in some very initial surveys to look for kelp along the coastline, in collaboration with Sussex IFCA and Brighton University.

Three dives specifically looking for kelp were undertaken: two offshore from Goring and one offshore Lancing.

Kelp was not seen by any of the divers participating on these dives. However, this data is still useful in building up information about the current extent of kelp in the area.

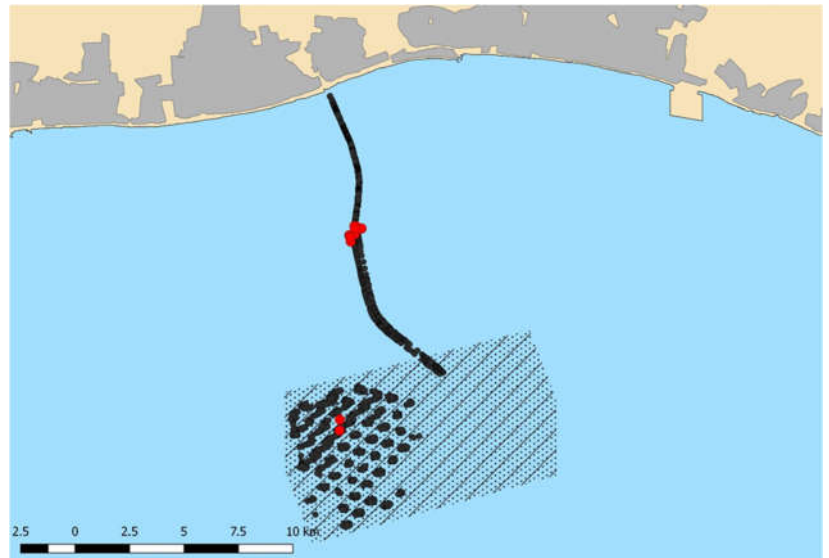
Right: Divers commencing their surveys on Widewater Reef (offshore Lancing).

Below: Typical substrate off Goring.



This July we were finally able to survey parts of the Rampion Offshore Windfarm!

Since the turbines were installed in 2016, we were very interested to see the colonisation of these new structures over the few years they had been in place, as well as how the structure and the construction had affected the surrounding area.



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Turbine I04 Base

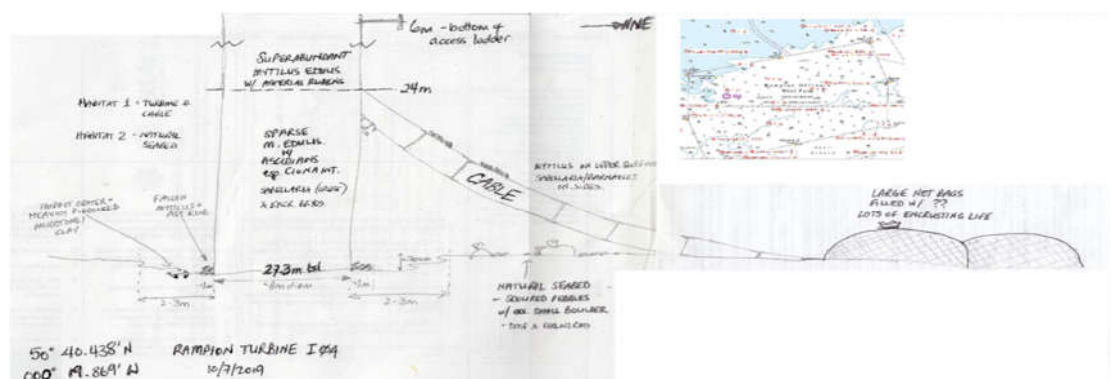
50°40.44N, 00°19.29W

The metal monopoles of the turbine were densely populated, mostly with blue mussels, *Mytilus edulis*. Many common starfish, *Asterias rubens*, were present - most were very large.

The seabed itself included a heavily piddock-bored mudstone / clay bedrock, exposed by the impact crater, with stable scoured cobbles and pebbles around.

Above: The seafloor around the base of the turbine.

Right: Sketch of the survey site, C. Bolton.



Vale of Leven Wreck

50°40.71N, 00°19.85E

The wreck sits within the array of the windfarm and was surveyed to provide a place of comparison pre- and post-construction.

The wreck is dominated by short animal turf, particularly anemones; a good deal of mobile life was present.

Left: Mixed animal turf on the wreckage.



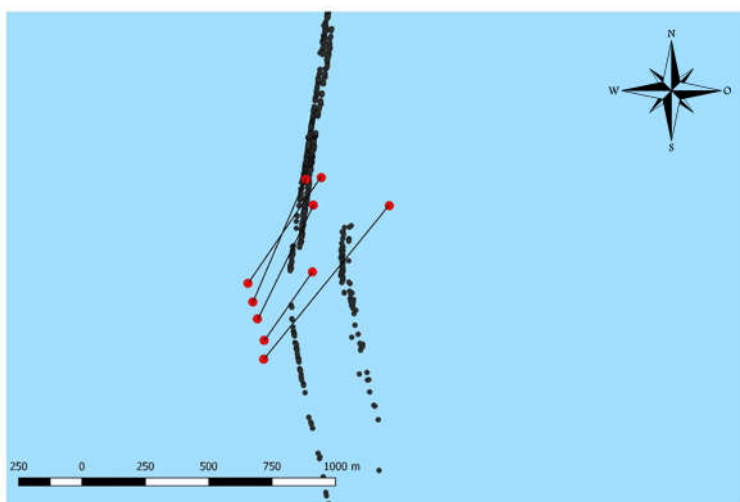
Rampion Export Cable / College Rocks

50°45.20N, 00°19.28W

Divers were dropped off on the western side of the export cable, drifting over it with the current. Only a few divers indeed saw the cable or evidence of its rock armour.

The site generally consisted of open level seabed consisting of mixed sediment and occasional flint cobble and small flint boulders.

Right: An isolated patch of rock armour.



Left: Map illustrating approximate paths of Seasearch divers drifting in a north-easterly direction over the cable route.

Black marks depict locations of rock armour protecting unburied cable.

A Huge Thank You...



Many thanks to all those who took part in Seasearch in Sussex in 2019:

Claude Annels, Alison Bessell, Chris Bohea, Charlotte Bolton, Alison Dack, Mel Fletcher, Francis Jeffcock, Bruce Jones, Gerald Legg, Liz Lumb, Mike Markey, Martin McDonagh, Dan McLaughlin, Ryan Mowat, Lorna Nye, Chris Oatley, Rob Spray, Peter Taylor, Michelle Tebbs, Ray Ward, Dawn Watson, and Neil Watson.

Additional thanks to all those who kindly shared their images and footage, and to Gerald Legg for data entry and assistance with reporting.

Many thanks to skippers Steve Johnson (Channel Diving), Paul Jackman (Defiance), and Steve Frampton (Mulberry Divers) for their help, knowledge and expertise - and for their support of the project.

Keep in touch

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[Facebook Group - Sussex Seasearch](#)

Seasearch is a partnership between the Marine Conservation Society (MCS), The Wildlife Trusts, statutory nature conservation bodies and others, co-ordinated nationally by MCS and co-ordinated and delivered locally in England by Wildlife Trust and MCS local co-ordinators. Seasearch in Sussex is coordinated by Sussex Wildlife Trust.

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