

Star Seasearcher – Paddy Maher

Paddy sent in over 20 Seasearch Observer forms in 2011 covering sites from Land's End to Newquay.

He qualified as an Observer in 2010 after starting a foundation degree in Marine Conservation at Newquay College. He says 'I now fully appreciate the diversity of the species found within Cornish waters. I never knew about sea lemons, sea hares, sponges or the corals we have. My eyes have been opened to the beauty of deadmen fingers with their feeding polyps extended, kelp majestically swaying in the swell and hunting out the tiny scarlet and gold star-corals attached to the underside of rocks.'

Any diver can take part in Seasearch and enhance their experience of diving while helping to conserve our local marine environment. Paddy says 'Seasearch has become very important to me and, when not training, I find time on all of my dives to record species and submit an observation form.'



Pink sea finger. Photo by Keith Hiscock

Seasearch training

In 2011 we trained groups of local divers to become Seasearch Observers to give them the opportunity to actively participate in conserving their local marine environment. These people completed their training dives and gained their qualifications:

Observer

Suzanne & Richard Morton
Paddy Maher
Debra Walker
Becky Gill
Liz Clark
Mike Boyse

Surveyor

Trudy Russell

Species recorded

Phylum	No. of species recorded
Seaweeds	72
Sponges	36
Cnidaria	59
Worms	15
Molluscus	49
Crustacea	32
Bryozoans	46
Echinoderms	21
Seasquirts	18
Fish	27

A gallery of Seasearch photos can be viewed on our website at www.cornwallwildlifetrust.org.uk
To get involved in Seasearch visit our website www.cornwallwildlifetrust.org.uk/seasearch.



Studying non native species on pontoon. Photo by Keith Hiscock

Funders of the Recreational Boating Study



A&P



Project partners also included the Duchy of Cornwall.

These survey dives were conducted as part of the national Seasearch Programme. Many volunteers took part in these surveys during 2011, too many to thank individually but thanks to all involved. Seasearch is a volunteer underwater survey project for recreational divers to actively contribute to the conservation of the marine environment. For details of Seasearch visit www.seasearch.org.uk. For details of Seasearch in Cornwall visit www.cornwallwildlifetrust.org.uk.

This report has been prepared by Angie Gall.

Financial support for the for the production of this report and for data entry was provided by:



Cornwall Seasearch - Summary report 2011



Candy striped flat worm - Paula Lightfoot



Seven armed starfish - Keith Hiscock



Collecting seaweeds - Kat Brown



Cuttlefish - Paula Lightfoot



Kaleidoscope jellyfish - Paula Lightfoot



Rock cook - Keith Hiscock

Main areas of Seasearch surveys during 2011

A total of 114 Seasearch dives, involving 40 recorders, were carried out this year in Cornwall producing a total of 3826 records.

Porthkerris

The Manacles reef off the Lizard is proposed as a Marine Conservation Zone and we ran a weekend of survey dives from Porthkerris to survey sites within this area. We recorded sea fan anemones *Amphianthus dohrni* on the many pink sea fans *Eunicella verrucosa* that were present on the reef and the wreck of the Mohegan.



Cushion star. Photo by Paula Lightfoot

The shore dive reef – Drawna Rock at Porthkerris also proved very interesting pink sea fingers *Alcyonium hibernicum* were spotted hanging from overhangs, and black faced blennies were also seen moving about the reef. These tiny fish have not previously been recorded this far west in the UK but have been steadily spreading along the south coast. They are normally found in warmer waters further south and their spread may be a sign of rising sea temperatures.



Black faced blenny. Photo by Keith Hiscock

North coast survey week

The North coast of Cornwall is not known for its ease of access, it is an exposed coastline battered by surf and winter storms. Because of this there has been very little marine survey work ever carried out underwater to record the habitats and species that cling on in these conditions. With funding from the Porcupine Marine Natural History Society and the GE Volunteers Foundation a team of 20 Seasearch volunteers rose to the challenge of exploring the rocky reefs and sea stacks off the coast of St Agnes and Newquay, recording all that they found on our lesser studied coast. Professor Juliet Brodie from the Natural History Museum, an expert in seaweeds, supervised the collection and identification of over 560 seaweed

samples from the shores and seas down to 25metres depth. She said 'The museum has a gap in its seaweed collections for Cornwall's North coast, so for many years I have been keen to find out what is here.' The team recorded over 180 different species of red, green and brown seaweeds. Likewise for the sponges there had been no previous sampling from this area. Dr Claire Goodwin from National Museums Northern Ireland joined the team as a sponge expert and gathered over 100 sponge samples from dive sites like the Bawden Rock off St Agnes and Medusa Reef off Newquay. These included one species that is new to science which she had discovered in 2010 during Seasearch surveys in the Isles of Scilly.



A diver surveying seaweeds.

Flounder. Photo by Paula Lightfoot

Non-natives surveys

The Investigate Invasives Project run by the Environmental Records Centre for Cornwall and the Isles of Scilly has involved Seasearch divers in a unique study in the Fal and Helford Special Area of Conservation to learn more about marine non-native species. Non-native species can cause big problems in the marine environment and the project aimed to find out more about which non-natives have reached our estuaries. In partnership with the Marine Biological Association we added to our understanding of non-native species by studying the hull of a vessel called the Windsor Castle, a 70m steel hulled motor yacht. The Windsor Castle has a well developed fouling community on the hull which we studied by scraping off samples of the plants and animals at quadrats in different water depths.



The Windsor Castle. Photo by Angie Gall

The project found that on average 25% of each sample were non-native species and we recorded 8 non-native animals such as seasquirts and bryozoans, and three non-native seaweeds. The information will be used to help track and manage non-native species and ERCCIS is promoting best practice to boat owners to try to minimise the spread. For more information on the project visit www.erccis.org.uk/invasivespecies

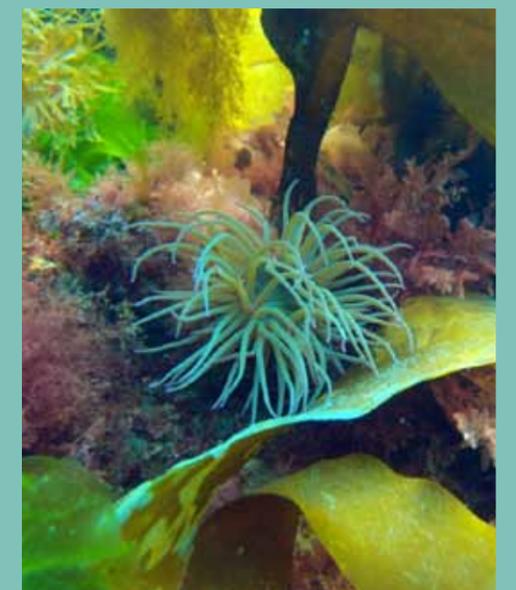
Recreational Boating Study

The Fal and Helford Recreational Boating Study is a partnership funded project investigating the direct physical impacts (scour and abrasion) of moorings and marina anchorage systems. The project itself forms part of a wider scheme of work auditing and assessing the impacts of recreational boating infrastructure within the Fal & Helford Special Area of Conservation (SAC).

St. Mawes. Despite temperamental autumn weather the divers made a huge effort and collected over 200 core samples for the project! A hand-operated grab was used to collect samples within the marinas and particle size and organic content samples were also collected from all infaunal sites. All these samples are currently being processed within the laboratories at Falmouth Marine School, a process expected to take 4-5 months.

This work started in July 2011 with reviews and scoping surveys across areas of prolific recreational boating infrastructure within the Fal and Helford estuaries. The main body of work, the collection of the infaunal samples from differing areas of impact, was completed in September 2011. CWT Seasearch volunteers and Natural England divers collected in situ core samples from around the moorings within Falmouth, Mylor and

This study is due to conclude in July 2012. It is anticipated that this work will contribute towards the sustainable management and development of recreational boating at local and national scales. For further information about the project please contact Holly Latham at Falmouth Harbour Commissioners at rbsc@falmouthport.co.uk. For funder information please turn over.



Snakelocks anemone. Photo by Rob Spray