

Seasearch South Cardigan Bay Seahorse habitat surveys 2011



Seasearch was requested by the Wales Biodiversity Partnership and Anglesey Sea Zoo to assist with a preliminary feasibility study for the re-establishment of seahorse populations around the Welsh coast. The project aims to begin following up historical records of seahorses in Welsh waters and aim to identify locations with suitable habitat as potential future release sites for the individuals bred at the Anglesey Sea Zoo.

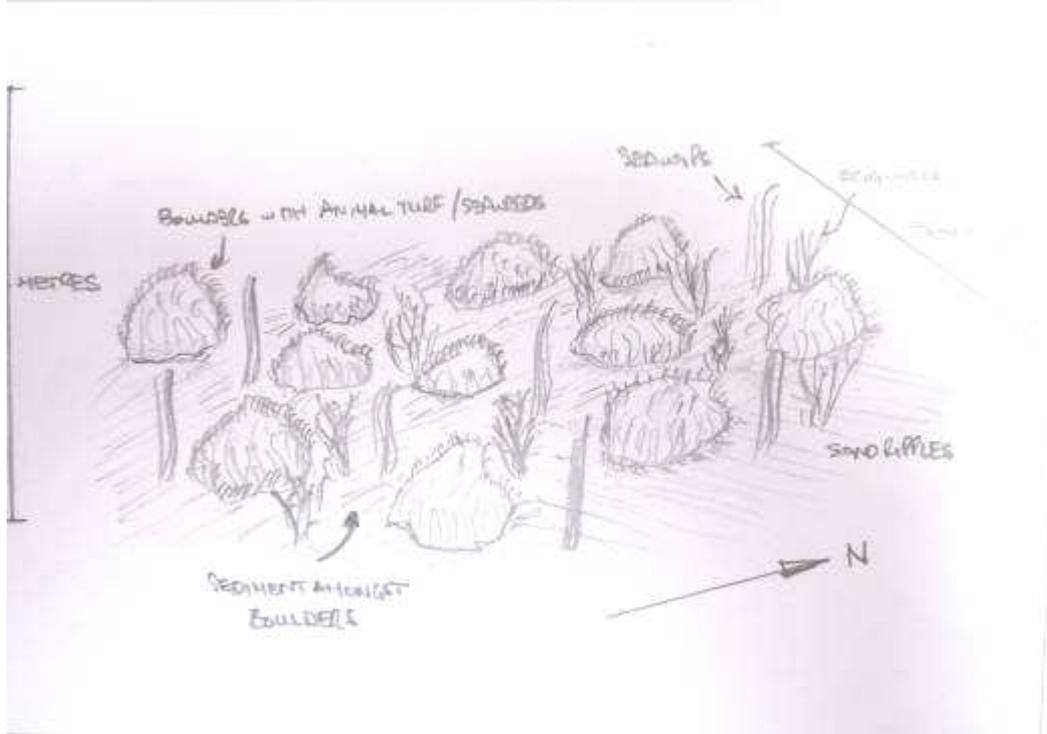
Seasearch dives were planned for the 24th and 25th September 2011. Dives were completed on the 24th September but recording was limited by poor visibility and diving was not possible on the 25th September due to increasingly stormy conditions.

Seasearch dives were completed at Ynys Lochtyn in south Cardigan Bay. This was the site of the last possible sighting in Wales of a seahorse made several years ago. Records of confirmed seahorse sightings in Welsh coastal waters have become less and less common over the last two decades and reported sightings are often unreliable as seahorses are frequently confused with other common coastal species such as pipefish and sticklebacks, to which they are closely related.

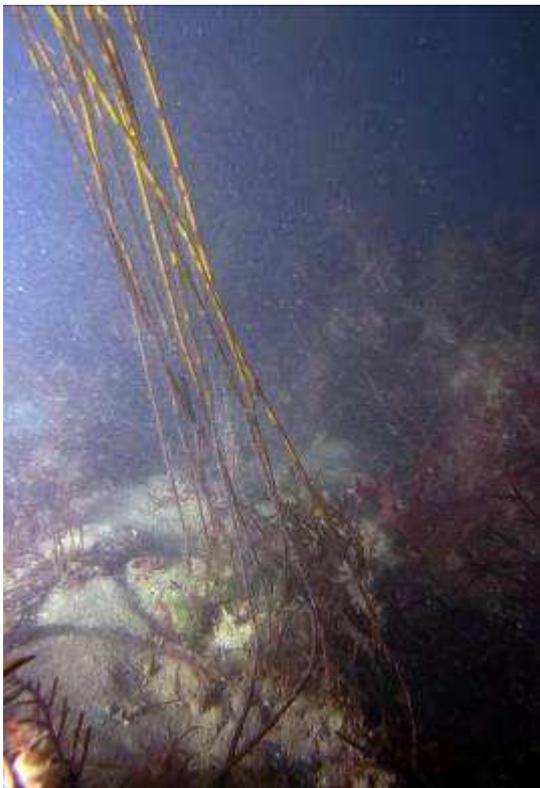
Site 1. East side Ynys Lochtyn

Divers: Leon Hopkins, Sheena Davies, Kerry Lewis, Carolyn Waddell, Mark Farrall, Lee Peters, Frankie Hobro and Dylan Evans. Dive supervisor: Kate Lock.

Habitat: Sandy seabed 8-10m below sea level (bsl), with occasional small boulders covered in red and brown seaweeds, including sea oak, *Halidrys siliquosa*. Closer inshore an increase in number of boulders were found between 3-5m bsl, and in some areas patches of boot lace weed, *Chorda filum*.



Sketch: Leon Hopkins



Bootlace weed and mixed seaweed.

Species: Latin names/common names and recorded abundance.

<i>SEAWEEEDS</i>			<i>CRUSTACEANS</i>		
<i>Palmaria palmata</i>	Dulse	C	<i>Necora puber</i>	Velvet swimming crab	F
<i>Halidrys siliquosa</i>	Sea oak	A	<i>Maja squinado</i>	Spiny spider crab	R
<i>Calliblepharis ciliata</i>	Red fringe weed	C	<i>Homarus gammarus</i>	Common lobster	R
<i>Ascophylum nodosum</i>	Egg wrack	C	<i>Balanus spp</i>	Barnacles	F
<i>Dilsea carnosa</i>	Red rags	O	<i>Pagurus bernhardus</i>	Common hermit crab	O
<i>Drachiella spectabilis</i>	Rainbow weed	O	<i>Palaemon serratus</i>	Common prawns	R
<i>Laminaria hyperborea</i>	Curvie	O	<i>Inachinae</i>	Spindly sponge spider crabs	R
<i>Chorda filum</i>	Bootlace weed	C		Squat lobster	R
<i>Ulva sp</i>	Sea lettuces	C	<i>MOLLUSCS</i>		
<i>Hilmanthalia elongata</i>	Thong weed	O	<i>Ensis sp</i>	Razorshell	F
<i>SPONGES</i>			<i>Eledone cirrhosa</i>	Curled octopus	R
<i>Cliona celata</i>	Boring sponge	O	<i>ECHINODERMS</i>		
<i>Dysidea fragilis</i>	Goosebump sponge	O	<i>Asterias rubens</i>	Common starfish	O
	Orange encrusting sponge	R	<i>Echinocardium pennatifidum</i>	Sea potato	R
<i>CNIDARIANS</i>			<i>FISHES</i>		
<i>Anemonia viridis</i>	Snakeslock anenome	R	<i>Scyliorhinus canicula</i>	Small spotted catshark	R
<i>Obelia geniculata</i>	Kelp fur	O	<i>Crenilabrus melops</i>	Corkwing wrasse	R
<i>WORMS</i>			<i>Ctenolabrus rupestris</i>	Goldsinny	R
<i>Bispira volutacornis</i>	Double spiral worm	O	<i>Callionymus lyra</i>	Common dragonet	R
<i>Pomatoceros sp.</i>	Keel worm	F			

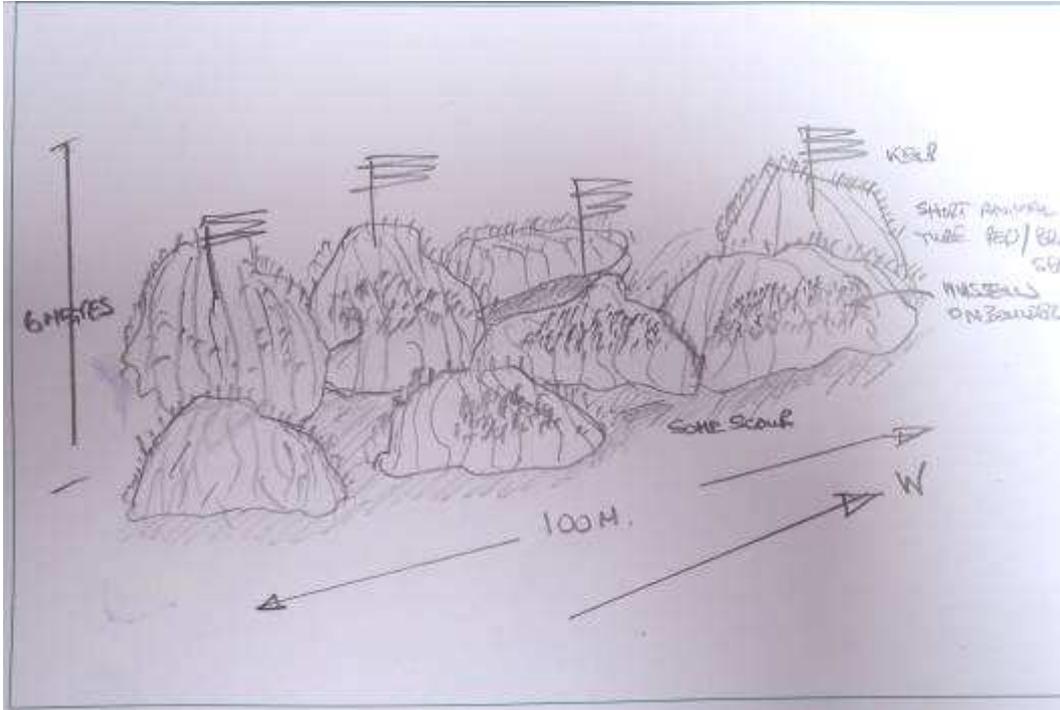


Sea Oak, Spindly sponge spider crab and Velvet swimming crab.

Site 2. Bay east side of Ynys Lochtyn

Divers: Kerry Lewis, Carolyn Waddell, Leon Hopkins, Sheena Davies, Lee Peters, Mark Farrall.
Dive supervisor: Kate Lock.

Habitat: Sandy seabed at 8m bsl, moving inshore to bedrock and boulders between 3-6m bsl. Rock surfaces smothered in common mussels with mixed seaweed and occasional kelp. A diverse selection of animals was found, in particular crustaceans and fish hiding in the boulders and weeds.



Sketch: Leon Hopkins



Common mussel beds

Mixed seaweed meadows



Species: Latin names/common names and recorded abundance.

<i>SEAWEEEDS</i>			<i>CRUSTACEANS</i>		
<i>Palmaria palmata</i>	Dulse	F	<i>Necora puber</i>	Velvet swimming crab	F
<i>Halidrys siliquosa</i>	Sea oak	F	<i>Homarus gammarus</i>	Common lobster	R
<i>Calliblepharis ciliata</i>	Red fringe weed	F	<i>Balanus spp</i>	Barnacles	F
<i>Dictyota dichotoma</i>	Brown fan weed	O	<i>Cancer pagarus</i>	Edible crab	R
<i>Dilsea carnosa</i>	Red rags	O	<i>Pagarus berhardus</i>	Common hermit crabs	O
<i>Fucus serratus</i>	Serrated wrack	R	<i>MOLLUSCS</i>		
<i>Laminaria hyperborea</i>	Curvie	O	<i>Mytilus edulis</i>	Blue mussels	A
<i>Corallina sp</i>	Coral weed	F	<i>Gibbula cineraria</i>	Grey topshell	R
<i>Mastocarpus stellatus</i>	Grape pip weed	O	<i>Buccinum undatum</i>	Common whelk	F
<i>Chondus crispus</i>	Irish moss	O	<i>Nucella lapillus</i>	Dog whelk	O
<i>Ulva spp</i>	Sea lettuces	R	<i>Callistoma zizyphinum</i>	Painted topshell	R
<i>Lithothamnion sp</i>	Encrusting red algae	C	<i>Hinia reticulata</i>	Netted dog whelk	R
<i>Polyides rotundus</i>	Discoid fork weed	O	<i>Helcion pellucidum</i>	Blue rayed limpet	O
<i>SPONGES</i>			<i>ECHINODERMS</i>		
<i>Dysidea fragilis</i>	Goosebump sponge	F	<i>Asterias rubens</i>	Common starfish	O
<i>Halichondria panicea</i>	Breadcrumb sponge	O	<i>SEA SQUIRTS</i>		
<i>Amphilectus fucorum</i>	Shredded carrot sponge	O	<i>Botryllus schlosseri</i>	Star sea squirt	O
<i>Hemimycale columella</i>	Crater sponge	R	<i>FISHES</i>		
<i>Tethya citrina</i>	Golf ball sponge	O	<i>Scyliorhinus canicula</i>	Small spotted catshark	R
	Encrusting sponges	C	<i>Crenilabrus melops</i>	Corkwing wrasse	R
<i>CNIDARIANS</i>			<i>Labrus bergylta</i>	Ballan wrasse	R
<i>Anemonia viridis</i>	Snakeslock anenome	F	<i>Ctenolabrus rupestris</i>	Goldsinny	R
<i>Urticina felina</i>	Dahlia anenome	F	<i>Callionymus lyra</i>	Dragonet	R



Velvet swimming crab (above), Golf ball sponge (left)



Recommendations

British native seahorses required shallow habitats with 'vertical' type vegetations. On the south coast of Britain native seahorses have been recorded in eelgrass beds, *Zostera marina*, and in ephemeral brown seaweeds in shallow sheltered locations. The location and associated habitats for these records can be found on the JNCC National Biodiversity Network (NBN) website.

At site 1 tall weeds such as sea oak, bootlace weed and thong weed were all found in shallow boulder habitat. The site is also sheltered from the prevailing winds and waves and is therefore potentially a good seahorse habitat area. The tall weeds were not recorded at site 2, although the habitat was rich in seaweed species, site 2 is also not as sheltered as site 1.

Future:

It is recommended that further areas are surveyed for this project. Shallow sheltered sites in Wales where a combination of suitable seaweed species have been recorded need to be researched using the NBN website, these sites can then be mapped and a selection can be further explored.

Eelgrass beds have been extensively mapped in Wales and well documented in Countryside Council for Wales science reports. It is recommended that these beds are also considered as sites if a release programme of seahorses is to be implemented.

Acknowledgements

Seasearch is a volunteer underwater survey project for recreational divers who wish to contribute to conserving the marine environment. All Seasearch data is entered into the Marine Recorder database and available on the JNCC National Biodiversity Network (NBN) website.

Report prepared by Kate Lock, West Wales Seasearch co-ordinator. Group photo: Kate Lock. Underwater photos and sketches: Leon Hopkins. Boat Support: Steve Hartley and Sarah Perry, Cardigan Bay Marine Life Centre. Project support from: Frankie Hobro and Dylan Evans, Anglesey Sea Zoo and Sean McHugh, Wales Biodiversity Partnership.

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