

## SEASEARCH DARTMOUTH 2005

Seasearch trains and encourages experienced scuba divers to report habitats and species that they encounter on any of their dives. Specific survey dives are also organised, especially in areas where there is little information. Devon Seasearch has organised two survey projects in and around Dartmouth this year.

### Dartmouth Dive Weekend – June

Four sites out of Dartmouth were surveyed by a group of nine divers over a weekend in June.

The two sites on the **Mewstone** were quite silty being close to the mouth of the Dart. They were special in that there were many sea fans growing in relatively shallow water. The sea fan is a true coral



Sea fan fouled with bryozoan turf

and a fully protected species and

usually found at depths below 18m. Most of the specimens were sadly small and fouled with bryozoan turf and dogfish egg cases. This is natural fouling, the eggs will hopefully hatch and the sea fans should recover. It would be useful to dive these sites again during the winter/early spring to see if the fans were free of fouling.

There was a large variety of nudibranch (sea slug)

species reported from here, together with Devonshire cup coral, a variety of crabs, cowrie, starfish, sea squirts and more than 10 varieties of fish. Seals and sunfish were reported on the surface.

What was concerning was the amount of litter reported underwater at these sites. Plastic bags and bottles in particular were common.



Devonshire cup coral, a true hard coral.

At the third site, **Eastern Blackstone**, sponges, Devonshire cup coral, many different anemones, crabs, mussels, starfish, sea squirts and nine species of fish were recorded including a small shoal of large mullet.

It was encouraging that none of the divers recorded litter at this site.



Sea fan with dogfish egg case.



Fanworm, *Bispira voluticornis*

The fourth site was at **Start Point** where a large variety of seaweeds were recorded together with an exceptionally large variety of nudibranch species and eggs, many anemone species, fan worms, crabs, sea squirts and fish, including a nest-building corkwing wrasse. As at Eastern Blackstone, little rubbish was recorded by the surveying divers. This would indicate that the litter at the Mewstone sites originated from the river Dart itself.



Nudibranch *Janolus cristatus*

#### Species summary for Dartmouth dive weekend surveys

Phylum	Common name	Mewstone	Blackstone	Start Point
Algae	Seaweeds	2	0	0
Porifera	Sponges	6	5	4
Cnidaria	Anemones, corals, hydroids, jellyfish	12	10	12
Annelida	Segmented worms	2	1	1
Crustacea	Crabs, lobsters, barnacles	7	4	6
Mollusca	Shells, seaslugs, cuttlefish	6	2	14
Bryozoa	Sea mats	5	3	6
Echinodermata	Starfish, urchins, cucumbers	3	3	3
Tunicata	Sea squirts	3	3	6
Pisces	Fish	13	9	5

Full species lists in Appendix 1

Thanks go to skipper Tony Hoyle on Falcon for his expertise and advice.

#### Greenway zostera survey – September

Zostera (eelgrass) is a very important marine species and habitat. The network of roots help to stabilise the estuary and seabed and the leaves provide a sheltered nursery habitat for fish and other marine animals, including seahorses. The grass-like leaves grow to about 1cm wide and up to 1m long. It is usually found in sheltered waters just below the low tide mark in estuaries and bays, often where boats traditionally anchor or moor. Historically there are reports of a bed just upstream of



Eelgrass, *Zostera marina*



Sea slug  
*Archidoris pseudoargus*

Greenway Quay and this was the site surveyed. A team of 8 divers together with the Devon Wildlife Trust boat conducted a survey of 5 transects crossing the possible site. Although mid water visibility was poor it was reasonable on the bottom. Unfortunately no eelgrass was seen on any transect. However a rich variety of over forty

different species of other life was recorded. Sponges, sea squirts, crabs, oysters, mussels, sea slugs, 7 species of anemones and 7 species of fish were recorded – a full list is included as an appendix.

Sadly it was also noted that there was much litter around including tyres, batteries, various metal objects and many plastic bags, bottles etc. Some of this litter, especially the plastics, must eventually find its way out to sea and would to some degree account for the worrying findings at the Mewstone sites.



Hermit crab  
*Pagurus bernhardus*

#### Species summary for Greenway Quay survey

Phylum	Common name	Number of species recorded
Porifera	Sponges	3
Cnidaria	Anemones, corals, hydroids, jellyfish	8
Annelida	Segmented worms	3
Crustacea	Crabs, lobsters, barnacles	4
Mollusca	Shells, seaslugs, cuttlefish	8
Bryozoa	Sea mats	0
Echinodermata	Starfish, urchins, cucumbers	1
Tunicata	Sea squirts	5
Pisces	Fish	7
Algae	Seaweeds	4

Full species list in Appendix 2

It is hoped to carry out further survey work in the estuary, both at the Greenway Quay site and nearer the estuary mouth. Despite not finding eelgrass at Greenway Quay it is likely to exist at other sites in the estuary. A poster has also been prepared for distribution asking the general public to report any eelgrass sightings.

Report prepared by Sally Sharrock, Seasearch Coordinator for Devon.

Photographs by Sally Sharrock, Brod Mason & Dominic Flint. Surveyors taking part were Brod Mason, Karen & John Williams, Pam Bowden, Paul Lott, Gavin Black, Chris & Cathy Lewis, Chris Webb, Paul Dodds, Mac McCorry, Dominic Flint, Nigel Mortimer, David Davies, Paul Newland, Kat Brown & Laura Heape.

Thanks to Gavin Black (Devon Wildlife Trust) for boat handling on the zostera survey, Nigel Mortimer (Salcombe Harbour DC) for towing the boat, English Nature and the Heritage Lottery Fund for funding, to Ray Humphreys for smoothing the path, the Dartmouth Harbour Authority for their cooperation and Will & John Ford at Greenway Quay for allowing us to use their facilities.



**Appendix 1 - Full species list for Dartmouth dive survey weekend - June  
Mewstone (2 dives).** GPS 50° 19.992N 03° 31.988W and 50° 20.008N 03° 31.887W

Phylum	Species name	Common name	
Porifera	<i>Hemimycale columella</i>	Crater sponge	
	<i>Cliona celata</i>	Boring sponge	
	<i>Raspalia ramosa</i>		
	<i>Scypha ciliata</i>	Purse sponge	
	<i>Pachymatisma johnstonia</i>	Elephant ear sponge	
Cnidaria	<i>Axinella dissimilis</i>		
	<i>Nemertesia antenina</i>		
	? <i>Hydralmania falcata</i> ?		
	<i>Nemertesia ramosa</i>		
	<i>Aglaophenia</i>		
	<i>Eunicella verrucosa</i>	Sea fan	
	<i>Caryophyllia smithii</i>	Devonshire cup coral	
	<i>Epizoanthus couchii</i>		
	<i>Corynactis viridis</i>	Jewel anemone	
	<i>Alcyonium digitatum</i>	Dead men's fingers	
	<i>Anemonia viridis</i>	Snakelocks anemone	
Anellida	<i>Bispira volutacornis</i>	Fan worm	
Platyhelminthes	<i>Prostheceraeus vittatus</i>	Candy striped flatworm	
Crustacea	<i>Cancer pagurus</i>	Edible crab	
	<i>Pagurus bernhardus</i>	Hermit crab	
	<i>Maja squinado</i>	Spiny spider crab	
	<i>Hommarus gammarus</i>	Lobster	
	<i>Necora puber</i>	Velvet swimming crab	
	<i>Boscia anglica</i>	Cup coral barnacle	
	<i>Inachus sp</i>	Spider crab	
	<i>Palaemon serratus</i>	Shrimp	
	Mollusca	<i>Okenia elegans</i>	
		<i>Acanthodoris pilosa</i>	
<i>Archidoris pseudoargus</i>			
<i>Polycera sp</i>			
<i>Crimora papillata</i>			
<i>Trivia monarcha</i>		Cowrie	
<i>Callistoma zizyphinum</i>		Painted topshell	
<i>Diaphodoris luteocincta</i>			
<i>Limacea clavigera</i>			
<i>Favorinus branchialis</i>			
<i>Nudibranch eggs</i>			
<i>Squid eggs</i>			
Bryozoa		<i>Alcyonidium diaphanum</i>	Sea chervil
	<i>Cellaria sp</i>		
	<i>Bugula sp</i>		
	<i>Pentapora foliacea</i>	Ross coral/potato crisp bryozoan	
Echinodermata	<i>Asteria rubens</i>	Common starfish	
	<i>Pawsonia saxicola</i>	Sea cucumber	
	<i>Aslia lefevre</i>	Sea cucumber	
	<i>Echinus esculentus</i>	Common urchin	
Tunicata	<i>Dendrodoa grossularia</i>	Baked bean/gooseberry squirt	
	<i>Clavelina lepadiformis</i>	Lightbulb sea squirt	
	<i>Botryllus schlosseri</i>	Star ascidian	
	<i>Stolonica socialis</i>		
Pisces	<i>Scyliorhinus canicula</i>	Lesser spotted dogfish	
	<i>Scyliorhinus stellaris</i>	Greater spotted dogfish/bull huss	
	<i>Labrus bergylta</i>	Ballan wrasse	
	<i>Crenilabrus melops</i>	Corkwing wrasse	
	<i>Centrolabrus exoletus</i>	Rock cook	
	<i>Ctenolabrus rupestris</i>	Goldsinney	
	<i>Labrus bimaculatus</i>	Cuckoo wrasse	
	<i>Parablennius gattorugine</i>	Tompot blenny	
	<i>Trisopterus minutus</i>	Poor cod	

	<i>Trisopterus luscus</i>	Bib/pouting
	<i>Pollachius pollachius</i>	Pollack
	<i>Pholis gunnellus</i>	Butterfish
	<i>Taurulus bubalis</i>	Long spined sea scorpion
	<i>Thorogobius ephippiatus</i>	Leopard spotted goby
	<i>Mola mola</i>	Sunfish (on surface)
Algae	<i>Laminarias</i>	Kelps
	<i>Rhodophycata</i>	Red weeds

**Eastern Blackstone** GPS 50° 20.212N 03° 31.131W

Phylum	Species name	Common name
Porifera	<i>Cliona celata</i>	Boring sponge
	<i>Scypha ciliata</i>	Purse sponge
	<i>Suberites carnosus</i>	
	<i>Pachymatisma johnstonia</i>	Elephant ear sponge
	<i>Hemimycale columella</i>	Crater sponge
Cnidaria	<i>Nemertesia antenina</i>	
	<i>Caryophyllia smithii</i>	Devonshire cup coral
	<i>Corynactis viridis</i>	Jewel anemone
	<i>Alcyonium digitatum</i>	Dead men's fingers
	<i>Metridium senile</i>	Plumose anemone
	<i>Actinothoe sphyrodeta</i>	
	<i>Sagartia elegans</i>	
	? <i>Cyanea lamarkii</i> ?	
	<i>Eunicella verrucosa</i>	Sea fan
Annelida	<i>Bispira voluticornis</i>	Fan worm
Crustacea	<i>Cancer pagurus</i>	Edible crab
	<i>Necora puber</i>	Velvet swimming crab
	<i>Maja squinado</i>	Spiny spider crab
	<i>Hommarus gammarus</i>	Lobster
Mollusca	<i>Callistoma zizyphinum</i>	Painted topshell
	<i>Mytilus edulis</i>	Common mussel
Bryozoa	<i>Pentapora foliacea</i>	Ross coral/potato crisp bryozoan
	<i>Alcyonidium diaphanum</i>	Sea chervil
	<i>Bugula sp</i>	
Echinodermata	<i>Asteria rubens</i>	Common starfish
	<i>Echinus esculentus</i>	Common urchin
	<i>Antedon bifida</i>	Featherstar
	<i>Aslia lefevre</i>	Sea cucumber
Tunicata	<i>Clavelina lepadiformis</i>	Lightbulb sea squirt
	<i>Stolonica socialis</i>	
Pisces	<i>Labrus bergylta</i>	Ballan wrasse
	<i>Labrus bimaculatus</i>	Cuckoo wrasse
	<i>Ctenolabrus rupestris</i>	Goldsinney
	<i>Pollachius pollachius</i>	Pollack
	<i>Parablennius gattorugine</i>	Tompot blenny
	<i>Scyliorhinus canicula</i>	Lesser spotted dogfish
	<i>Scyliorhinus stellaris</i>	Greater spotted dogfish/bull huss
	<i>Thorogobius ephippiatus</i>	Leopard spotted goby
	<i>Chelon labrosus</i>	Grey mullet

**Start Point**

GPS 50° 13.391N 03° 35.496W

Phylum	Species name	Common name
Porifera	<i>Hemimycale columella</i>	Crater sponge
	<i>Suberites ficus</i>	
	<i>Scypha cillata</i>	Purse sponge
	<i>Cliona celata</i>	Boring sponge
Cnidaria	<i>Nemertesia antenina</i>	
	<i>Gymnangium montagui</i>	
	<i>Aglaophenia sp</i>	
	<i>Actinothoe sphyrodeta</i>	
	<i>Urticina felina</i>	Dahlia anemone
	<i>Metridium senile</i>	Plumose anemone
	<i>Cereus pedunculatus</i>	Daisy anemone
	<i>Sagartia elegans</i>	
	<i>Anemonia viridis</i>	Snakelocks anemone
	<i>Corynactis viridis</i>	Jewel anemone
	<i>Caryophyllia smithii</i>	Devonshire cup coral
	<i>Alcyonium digitatum</i>	Dead men's fingers
Annellida	<i>Bispira voluticornis</i>	Fan worm
Crustacea	<i>Cancer pagurus</i>	Edible crab
	<i>Maja squinado</i>	Spiny spider crab
	<i>Necora puber</i>	Velvet swimming crab
	<i>Hommarus gammarus</i>	Lobster
	<i>Macropodia sp</i>	Spider crab
Mollusca	<i>Callistoma zizyphinum</i>	Painted topshell
	<i>Gibbula cineraria</i>	Grey topshell
	<i>Crepidula fornicata</i>	Slipper limpet
	<i>Polycera faeroensis</i>	
	<i>Limacea clavigera</i>	
	<i>Aplysia punctata</i>	
	<i>Okenia elegans</i>	
	<i>Acanthadoris pilosa</i>	
	<i>Lomanotus genei</i>	
	<i>Janolus cristatus</i>	
Bryozoa	<i>Pentapora fascialis</i>	Ross coral/potato crisp bryozoan
	<i>Alcyonidium diaphanum</i>	Sea chervil
	<i>Electra pilosa</i>	Hairy sea mat
	<i>Membranacea membranipora</i>	Sea mat
	<i>Cellepora pumicosa</i>	
	<i>Bugula sp</i>	
Echinodermata	<i>Asteria rubens</i>	Common starfish
	<i>Henricia oculata</i>	Bloody Henry
	<i>Aslia lefevre</i>	Sea cucumber
Tunicata	<i>Stolonica socialis</i>	
	<i>Clavelina lepadiformis</i>	Lightbulb sea squirt
	<i>Didemnum coriaceum</i>	
	<i>Styela clava</i>	Leathery sea squirt
	<i>Botryllus schlosseri</i>	Star ascidian
Pisces	<i>Labrus bergylta</i>	Ballan wrasse
	<i>Ctenolabrus rupestris</i>	Goldsinney
	<i>Centrolabrus exoletus</i>	Rock cook
	<i>Crenilabrus melops</i>	Corkwing wrasse
	<i>Scylliorhinus canicula</i>	Lesser spotted dogfish
	<i>Gobiusculus flavescens</i>	Two-spot goby
	<i>Zeugopterus punctatus</i>	Topknot
	<i>Pomatoschistus pictus</i>	Painted goby
Algae	<i>Laminaria digitata</i>	Kelp/oarweed
	<i>Saccorhiza polyschides</i>	Furbelows
	<i>Dictyopa dichotoma</i>	
	<i>Pulmaria sp</i>	
	<i>Delessaria sanguinea</i>	Sea beech
	<i>Dilsea carnosa</i>	

**Appendix 2 - Full species list for Greenway Quay zosteria survey - September**

Phylum	Species name	Common name
Porifera	<i>Esperiopsis fucorum</i>	
	<i>Cliona celata</i>	Boring sponge
	<i>Halichondria bowerbanki</i>	
Cnidaria	<i>Metridium senile</i>	Plumose anemone
	<i>Sagartia troglodites</i>	
	<i>Cereus pedunculatus</i>	Daisy anemone
	<i>Cerianthus lloydii</i>	
	<i>Sagarteogeton undatus</i>	
	? <i>Sagarteogeton laceratus?</i>	
	? <i>Diadumene cincta?</i>	
	<i>Tubularia indivisa</i>	
	<i>Hydrallmania falcata</i>	
	<i>Halecium halecinum</i>	
Worms	<i>Myxicola infundibulum</i>	
	Lugworm casts	
	<i>Sabella ?penicillus?</i>	
Crustacea	<i>Palaemon ceratus</i>	Shrimp
	<i>Pagurus bernhardus</i>	Hermit crab
	<i>Carcinus maenas</i>	Shore crab
	<i>Macropodia rostrata</i>	Spider crab
Mollusca	<i>Archidoris pseudoargus</i>	Sea lemon
	<i>Crepidula fornicata</i>	Slipper limpet
	<i>Modiolus modiolus</i>	Horse mussel
	<i>Ostrea edulus</i>	Oyster
	<i>Hinia ?reticulata?</i>	Netted whelk
	<i>Acanthocardia spp</i>	Cockle
	<i>Tapes Decussatus</i>	Carpet shell
	<i>Mytilus edulus</i>	Common mussel
	<i>Asteria rubens</i>	Common starfish
Tunicata	<i>Dendrodoa grossularia</i>	Baked bean/gooseberry squirt
	<i>Styela clava</i>	Leathery sea squirt
	<i>Molgula mahattensis</i>	
	<i>Diplosoma spongiforme</i>	
Pisces	<i>Pomatoschistus spp</i>	Gobies
	<i>Gobius niger</i>	Black goby
	<i>Dicentrachus labrax</i>	Bass
	<i>Limanda limanda</i>	Dab
	<i>Callionymus lyra</i>	Dragonet
	<i>Syngnathus acus</i>	Greater pipefish
	<i>Crenilabrus melops</i>	Corkwing wrasse
Algae	<i>Chondrus crispus</i>	
	<i>Ceramium sp</i>	
	?	Fine branching red algae
	<i>Fucus serratus</i>	Serrated wrack
	<i>Ascophyllum nodosum</i>	Knotted wrack

**Appendix 3 – Greenway Quay zosteria survey map**

- 1<sup>st</sup> buddy pair in at 50° 22.934N 03° 35.496W swam E then towards Galmpton creek
- 2<sup>nd</sup> buddy pair in at 50° 22.93N 03° 35.496W swam inshore – SE
- 3<sup>rd</sup> buddy pair in at 50° 23.230N 03° 35.274W exited at Greenway Quay
- 4<sup>th</sup> Buddy pair as above, swam SE then SW and exited at Greenway Quay
- 5<sup>th</sup> buddy pair no exact GPS

