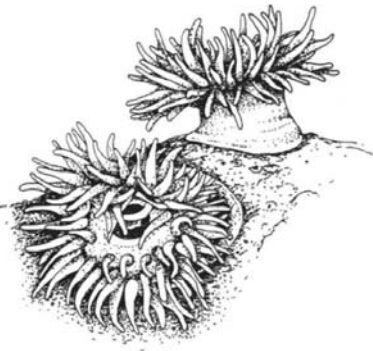


HELFORD

Voluntary Marine Conservation Area

Newsletter No. 28 Spring 2004

Seaweeds and animals of the Helford River



Beadlet anemone
Actinia equina © SMcC
The tentacles are extended underwater ready to catch unwary prey but you are more likely to find them at low tide as small humps of maroon-coloured jelly adhering to rocks

2004 is going to be a special year when we encourage everyone to look more closely at the seaweeds and animals living on our Helford River shores and shallow waters. This is the theme for our latest newsletter which highlights some of the interesting species to be found - both large and small. Information on what you find will be welcome and I will try to help with or redirect specific enquiries but do not forget to include the date, place, time, your name and contact details. A photograph can be very helpful.

Dr Pamela E Tompsett, Awelon, Colborne Avenue, Illogan, Redruth TR16 4EB. Tel: 01209 842316 E-mail: petomp@bioscope.demon.co.uk



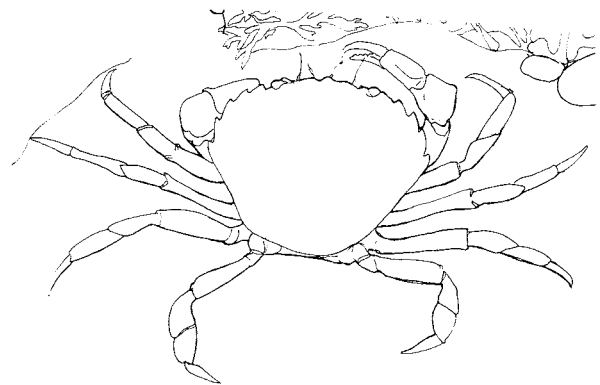
Serrated wrack
Fucus serratus © AAT
This brown seaweed can be found in the middle to lower shore zone throughout the HVMCA. Other animals use its shelter and you may find hundreds of tiny (3mm) Spiral worm tubes (*Spirorbis spirorbis*) or colonies of the beautiful golden or purple Star ascidian *Botryllus schlosseri*.

Look at the animals of the shore - events in 2004

Our HVMCA programme includes five or more shore events. We invite you to join in and gain help and experience. Make sure you have your own copy of the leaflet.

Explore the HVMCA rockpools, sandflats and strandline or venture underwater to meet the fish face to face!

Even the more leisurely Conservation Cruise on Sunday 18th July offers you a chance to look at the smaller creatures of the shore with crabs, worms and sea snails in tanks on board. This is a very popular annual event so purchase your tickets early to avoid disappointment.



Aim: To safeguard the marine life of the Helford River by any appropriate means within its status as a Voluntary Marine Conservation Area, to increase the diversity of its intertidal community and raise awareness of its marine interest and importance.

For further information relating to the Helford Voluntary Marine Conservation Area please contact the HVMCA Group Co-ordinator: PE Tompsett, Awelon, Colborne Avenue, Illogan, Redruth, TR16 4EB. Tel: 01209842316

Chairman: David Muirhead Co-ordinator: Pamela Tompsett
Design: Sheila McCann, Cornwall Wildlife Trust Illustration: Sarah McCartney, Cornwall Wildlife Trust

Seaweeds - of Helford and Beyond

Algae are not only abundant in the seas but they have also colonised freshwaters as well as the land where species grow on soil as well as on hard substrate, even on trees. Many are single-celled and in water they may 'bloom' so prodigiously that their decaying remains can suffocate other sea-bed organisms.

A species of sloth owes its green colour to a single-celled alga living on its hairs, whilst the freshwater *Hydra* has a green alga actually living in its cells. Their universality, range and habitat indicate that they are very ancient.

The term 'seaweed' generally implies the multi-cellular species that clothe the surfaces of the rocky shore, each in their own ecological niche. Here they reflect the degree of exposure to wave and wind whilst the zones express the time they are exposed to air/water. Offshore, seaweed grows in water just as deep as light can penetrate.

The following broad categories are usually easily recognised although there have to be exceptions to every rule! The groups are commonly known as the red (Rhodophyceae), green (Chlorophyceae), brown (Phaeophyceae) and the genus *Vaucheria* (Xanthophyceae). Many of the commoner species can be identified accurately without specialist knowledge.

A close look will show that each algal species tends to occupy a particular ecological niche on a shore and the

presence of certain seaweeds, the width of zones and the position up the shore bears a close relationship to the topography, geology and aspect of a site.

As with all British fauna and flora, there are 'southern' species favoured by the warmer conditions in the south-west. Others have been introduced in recent times. Japweed (*Sargassum muticum*) is known to most of us, and another probable introduction is *Anotrichium furcellatum*, known only in the Helford River. The sheltered yet fully-marine nature of the River, combined with its large number of habitats, ensures that it has a large number of these rarer British species.

There are about 640 British species with an impressive 400+ species having been found in Cornwall and the Helford VMCA in particular - red 246 (H=148), green 49 (H=30), brown 113 (H=61) and a few Xanthophyceae.

Various species of seaweed are used as food, extracted for gelling agents and medicine in many parts of the world. They are also used as soil-improvers and formerly kelp was burnt and the ash purified for glass making.

Coming attraction! Pamela and I are preparing an annotated check-list of the seaweed of Helford VMCA. All will be revealed!

Stella Turk



Japweed
Sargassum muticum
© AAT

An introduced brown species found anchored in sandy areas or attached to other weeds and rocks often in sheltered places such as rockpools

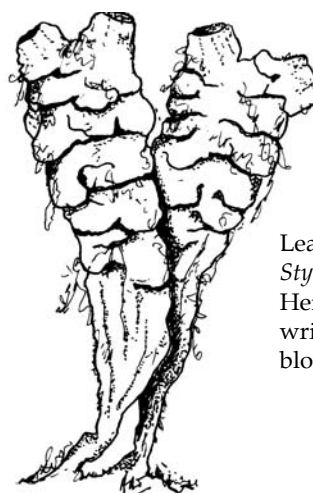
Sea squirts from across the world invade Britain!!

Perhaps we should avoid this 'tabloid headline' but it is an interesting fact that at least two species of that intriguing group of animals known as sea squirts have travelled the world and now appear on our shores.

What is a sea squirt or ascidian?

These fascinating marine creatures appear in a wide variety of shapes, colours and sizes sometimes singly or in colonies which are attached to a hard surface. Some look like lumpy sponges and others like tough bags of jelly. A soft body sac containing the vital organs is enclosed in a protective tunic hence the other common name of 'tunicate'. Organic food particles are filtered by entrapment onto mucus from the water which is wafted in a stream through one siphon before leaving through a second hole.

Whilst they appear to be similar to more primitive creatures such as sponges, sea squirts have developmental characteristics of back bone and nerve chord that link them to animals such as fish, birds and you and me! Remember this when you next peer at one on the sea-shore!



Leathery sea squirt
Styela clava
Height up to 12cm with wrinkled creamy brown blotchy tunic

The most widespread of the two Far Eastern invaders is the Leathery sea squirt *Styela clava*. This probably arrived in the 1950s on the hulls of ships returning from the Korean war as it was first noticed in the vicinity of naval dockyards. Look out for a stalked, club-shaped body up to 16cm high, with a blotchy, wrinkled, leathery tunic which can be found now amongst stones and seaweed on some sheltered Cornish shores including those of the Helford River.

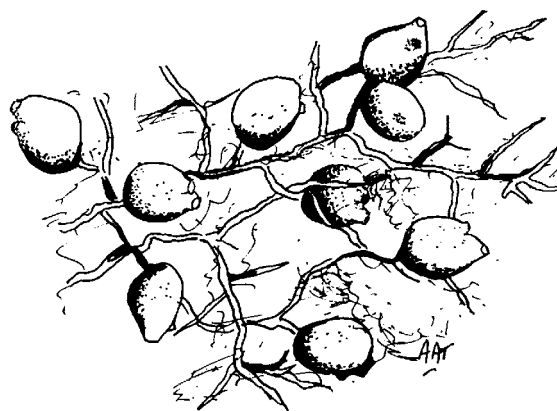
Your sharp eyes are needed to locate a more recent introduction

Who will be the first person to spot this one on Cornish shores?

Dr John Bishop explains what to look for.

"The Far-Eastern ascidian *Perophora japonica* (no common name as yet) was reported from NW France in the 1980s and was found in a marina in Plymouth Sound in 1999. Since this occurrence was publicised, it has been recorded from The Fleet, Dorset, Guernsey and Milford Haven. *P. japonica* therefore seems to be an addition to the list of species from Japan and Korea that have become established in the UK. The Marine Biological Association, the University of Plymouth, and the Station Biologique de Roscoff are undertaking a study of *P. japonica*. To date we are unaware of records from Cornwall, and would appreciate hearing from anyone who finds it.

P. japonica is a colonial ascidian with small spheroidal zooids (the individual members of the colony) c. 4 mm high, arising from creeping stolons. Its most distinctive feature is the presence in summer of clusters of bright yellow terminal buds, which are angular and commonly star-shaped. These buds have not been reported in the native species *P. listeri*, or any other *Perophora* species. The Plymouth specimens of *P. japonica*, when alive, have a marked yellow or greenish-yellow coloration in younger parts of the colony; the zooids may be densely packed or spread out along the growing stolon. Colonies grow on a wide range of substrates.



Perophora japonica
each body is similar in size to one whole lentil or a very small pea (*très petit pois!*). Look for the bright yellow tips as the colony clusters on the surface of sea weeds, sponges or debris.

Colour images of live specimens are on the MarLIN web site (<http://www.marlin.ac.uk>).

If you find something similar please try to take a photograph or make a sketch and log the place, date, time and tide. John will be happy to help make the identification so contact me leaving your name, address and telephone number - P E Tompsett, Awelon Colborne Ave, Illogan, Redruth, Cornwall TR16 4EB 01209 842316. E-mail petomp@bioscope.demon.co.uk or Dr John Bishop, Marine Biological Association of the UK, Citadel Hill Laboratory, Plymouth PL1 2PB, UK, E-mail: jbis@mba.ac.uk

Here today, gone tomorrow - the Peacock worm Sabella pavonina

As you walk along the water's edge on a very low tide admiring the sparkling scene, cast your eyes down to the sandy mud where you may see a scattering of mysterious rubbery tubes, slimmer than a pencil, standing half-buried but erect and open.

If they are still covered by water you may be lucky enough to see a delicate circular fan emerge and sway gently in the current. The appearance of this beige coloured feathery crown with maroon rings shows that the Peacock worm is actively seeking suspended particles for food or building material from the safety of its tube.

The body of the worm is similar to that of the familiar garden earthworm but pairs of stiff bristles on each segment enable the worm to move quickly within the tube where it spends its entire life. Only the crown or 'feather duster' emerges into the water.



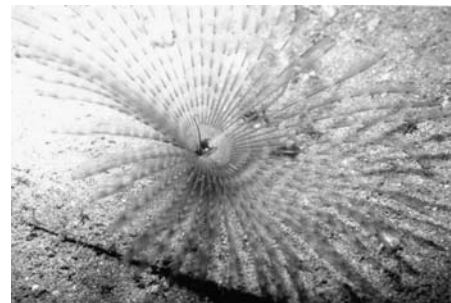
Divers can enjoy the sight of 'fanning' Peacock worms scattered mainly on muddy sand or amongst eelgrass or maerl but it is between the tides that the highest density is reached. Under favourable conditions our shores can bristle with vast numbers of healthy tubes, often in clumps of 70+. However this can change quite quickly as I found during a prolonged study in the Fal and Helford estuary complex.

Between 1970 and 1986, populations of these worms declined dramatically but they then staged a gradual comeback from about 1992 which became apparent during the course of my marine recording. A diligent search through the literature and meteorological records linked the 1980s loss to periods of prolonged low winter temperatures, plankton blooms in hot summers and the use of organo-tin anti-fouling paint on boats. These toxic paints had severely damaged many shellfish and were banned for use on small boats in 1987.

Data collected during the course of monitoring the return of the species showed that worms were most successful living between narrow limits of exposure between tides corresponding to an upper limit of 0.75m above Chart Datum (lowest astronomical tide) with an optimum of 0.5m above CD. Calculations showed that this meant that they were exposed only on about 17%

of all the tides when frost, drying or overheating could be stressful.

Small sediment particles trapped on the tentacles of the fan were quickly mixed with mucus to extend or repair the tube and the surrounding muddy sand ensured an abundant supply. Below the surface of the sand the tube was thickened to resist crushing and the tail end of mature worms reached some 15cm down amongst a sandy-mud-small stones mixture. Shores with deep mud and few stones offered less stability and could clog the delicate fan. Detailed work indicated that the main period of reproduction was in the late spring.



The Fal estuary sediments are well-known for their content of various metals and related elements, a reminder of the rich industrial mining heritage of the area. The Helford River has been far less affected and it has been interesting to compare the Peacock worms from both places. The worms are in close contact with the particles which are sorted by size for tube-building but healthy Peacock worm populations are found in sediments with either high or low heavy metal content suggesting a degree of tolerance.

The limited periods of tidal exposure and hence limited access to the worm beds prolonged the study which ran from 1995-2001+ during which time the numbers continued to escalate. However a brief but severe algal bloom along the south Cornish coast in the late summer of 2002 killed a wide range of marine animals with which it was in contact - this included the main Helford Peacock worm beds and also some in the Fal. Once again the many thousands were reduced to a mere scattered handful. No doubt these survivors will re-establish the species again in due course - a challenge to someone else to develop another PhD thesis?

Dr Pamela E Tompsett



Photographs © Tony Sutton

Swans on Gillan Creek

Following on from the delight last year of having the first cygnet on Carne Creek for many a long year (if ever!), he sadly died from dog-attack wounds, despite valiant efforts to save him, when he was a few months old. However, following the success of Joy Ferguson's 'swan upping' - in this case meaning the raising of the nesting area on their preferred island - it was decided to construct a more permanent nesting area on the little island, complete with a stone ramp, sufficiently high to be above the highest spring tides - which proved on measurement to need another two feet above the natural level of the island.



Materials were bought, thanks to several kind benefactors, and a valiant team of volunteers (I'm not sure that 'volunteer' is quite the accurate word?!) in early January 2003, managed to co-ordinate tide, weather and manpower, to build a wooden structure, in-filled with mud and stone.

After which, all we could do was wait. It began to look as if the swans would scorn our attempts to help, showing no apparent interest in the island, let alone the raised platform. However, to our absolute delight, on Tuesday 15th April, there they were, with one egg laid already! Subsequently more eggs were laid, with much local excitement and messages going to and fro regarding the latest number of eggs counted! When about six eggs were recorded, the female started to sit more or less constantly, with 'dad' in close watch, fiercely chasing off any ducks coming too close. We estimated the hatching would be about the end of May or early June.

On 29th May there was great excitement - two cygnets were reported! Followed the next morning by the report of six, and later seven cygnets! We could now feel our efforts were vindicated, and the swans hadn't let us down by refusing to use our platform, despite its rather prominent position. On the contrary, one quite got the impression the swans rather fancied their aerial viewpoint!

Many admirers came to watch the swans and cygnets having their first outings on the creek, firstly only in the shallow water at low tide, but swimming at high tide within a few days. Both parents being fully involved, and very caring.

Regrettably they didn't all survive, only two surviving to adulthood. Of the original seven, all were perfectly healthy, but two (we think) got washed away at one week old, when there was bad weather and a high tide.



Two more disappeared the following week or so, possibly gulls, and another one vanished shortly after, maybe fox. We don't think it was any dogs this

year, since there was no 'evidence' of any sort left. Sadly Nature will take its course, but it has been very pleasant to have watched these two growing up with their caring parents.

The latest news is that the parent birds have chased their 'teenagers' away, so we are hoping that our island will be seeing more babies this year!

Prue Towner

Diving into the blue, or should that be red?

The sun sparkled on the turquoise water, silvery shadows of fish darted beneath the boat as we kitted up ready to jump in with growing excitement to explore their world. No, not the Helford on a bright spring morning but the Egyptian Red Sea!

I spent a fantastic week in February, with my husband Jeremy, diving the spectacular reefs around Sharm el Sheik and in Ras Mohammed National Park at the tip of the Sinai Peninsula. The water was crystal clear, and warm.... the biggest difference between the Helford and here....at about 23°C.

It is the Red Sea's great biodiversity that led experts to call it a natural wonder, and one of the main reasons I have always wanted to visit and dive here. Relatively constant water temperatures from 20°C to 30°C (68°F -

86°F), minor sedimentation due to lack of rain and run-off, and a high salt content resulting from a high rate of evaporation and a low level of humidity create the perfect environment for coral growth. The Red Sea is the saltiest, life sustaining sea in the world and one of the richest in concentration of marine life of all tropical seas.

The Red Sea isn't red at all but sometimes it appears to be. It got its name from a phenomenon caused by a type of algae called *Trichodesmium erythraeum*, which is found in the sea. When these algal blooms die off the blue-green colour of sea appears to change to a reddish-brown colour.

There are over 1000 species of invertebrates, around 200 recorded coral types and over a 1000 species of fish

to be found in this marine biologists paradise. I did my best to find and photograph as many as I could, but it's the sheer abundance of life here that blows you away. Diving along the reef walls we were literally lost in clouds of damselfish and beautiful golden anthias. Shoals of silver and blue fusiliers surrounded us then darted off into the blue. When we turned to look above us we saw the reason why.... barracuda, circling the reef, silhouetted against the surface, and looking for lunch!

In the Strait of Tiran the reefs spring up almost vertically from the seabed about 1km below. The strong currents that sweep up and down this narrow strait each day bring a fresh supply of food for the rich coral and invertebrate life that grow on these dramatic reefs. This in turn allows the bigger life to flourish and the reefs here are renowned for providing divers with encounters with top predators! Jumping from the dive boat we were plunged into the blue. The reef wall was only 2 or 3 metres away but dropped vertically into the depths, leaving you feeling like you were flying

through the huge space of water around you. Turtles gently floated past, curious of what we were doing and playing in our bubbles - their version of a jacuzzi! We briefly spotted the silvery outline of a reef shark but it was obviously not interested as it glided away into the depths. Blue spotted rays nestled in the sandy patches on top of the reefs, the colourful cousins of the thornback rays to be found amongst the eelgrass beds in the Helford.

On the boat trip back to harbour, dolphins came to bow ride in the evening sun, playful creatures the world over. The marine life found in the Red Sea may be more dramatic and abundant, but back at home, the Helford will still be a firm favourite for diving and exploring and I look forward to a summer of doing just that. Maybe not as warm, but there's always a surprise waiting each time you venture for a glimpse beneath the waves.

Ruth Williams
Marine Conservation Officer, CWT



Happy 10th birthday to you!

The North Devon VMCA - 10 years of community support

The North Devon VMCA currently runs from Croyde to Combe Martin, from the cliff base to the 20m depth contour and we are currently investigating extending to Foreland Point, Lynton.

As I write this we have just seen the first snow of the year in North Devon, even close to the beach! But the sun is shining, spring is just around the corner and before long we will be in our shorts and sandals exploring the coast once more. I have just invested in some new mini rockpooling nets and can't wait to get out and use them!

This year is an extra special year as the North Devon VMCA is celebrating its 10th birthday. Although only young compared to some VMCA's, it is still a great achievement, as many of you will know the insecurity all VMCA's face each year. I have been involved in the project for nearly three years and thought I would like to share with you some of the achievements I have seen in the last few years. Hopefully it will leave you with some food for thought.

Community enthusiasm

As with all VMCA's their heart is in the special beauty found in the coastal and marine landscapes but perhaps more importantly it is the dedication of the local communities to their conservation which has ensured real action on the ground. This community support is something which has been building up for years in a variety of different guises;

The first I knew of the local enthusiasm was when I was thrust into my first season as a volunteer warden. At that time we covered about 15 miles of coastline which meant trekking up and down it all summer rockpooling here there and everywhere! We ran coastal walks here and library events there and even managed three mini marine aquaria. None of this would have succeeded without the support of the local community.

Marine Awareness Officer

My first role as a fully-fledged Marine Awareness Officer the following winter was to compile a Coastal Scrapbook. This daunting and exciting project relied on eliciting tales of the coast, pictures of the past and personal anecdotes from individuals living in the local area. North Devon's coastal villages and towns, like many areas in the South West region have a strong local history, with many families having resided here for many generations. This ensured an abundance of stories just waiting to be told. Hours of interviewing individuals (and eating lots of cake!) ensured the successful completion of four scrapbooks focusing on four coastal communities. Videos of cows being winched off a cliff and the old lighthouse tumbling down were coupled with old bits of wreckage and pressed seaweeds. This was a delightful project which will be added to over the years and provides a unique insight into our beloved coast.

The new sewage works at Croyde and the growing interest from local people in the project prompted further calls for the area to be extended a further 7 miles around the coast. After consultation with the local communities in Ilfracombe and Croyde about a variety of issues and a lot of interest from local people, the VMCA was extended in September 2002.

MCS 'Adopt a Beach' project

One great development which has sprung from this is that a local school has adopted Croyde Beach as part of the Marine Conservation Society's Adopt a Beach project and have been cleaning and surveying the beach ever since.

Partners

The local holiday park owners (Ruda Holidays) have been supporting them and offered free passes to the students to their fun pool. Ruda have also been keen to be more proactive themselves and we came up with the idea of training some of their team to run marine awareness events with some of the thousands of visitors to the park each year.

These are both examples of how we can work with many partners to achieve our aims whilst helping them to achieve theirs.

This link with Ruda was the beginning of a much larger plan to try to work more with the tourism providers in our local area. Many of the visitors to the region come for

the beautiful beaches and the unspoilt beauty. The more that tourism providers recognise this and see that they are in a position to affect the environment negatively or positively the more we can try to encourage and help them to become greener in their ways. We have been offering a variety of events and resources to tourism providers, such as ID guides and commentaries on local boat trips and we are shortly to be developing a local coastal based Green Guide for tourism businesses.

2004 and the next 10 years

The future looks exciting in North Devon, especially with our links to the new UNESCO Biosphere Reserve. We will be holding celebratory events on the 10th of every month from April to September as well as a birthday party in July. For more details of all our events please look at our website www.devonwildlifetrust.org and find the VMCA page with monthly updates and events diary.

Barbara Haddrill Marine Awareness Officer, Devon Wildlife Trust (01271) 323231
barbara@nd-vmca.fsnet.co.uk

Stella Turk's cetacean notes from May 2003 - January 2004

The total number of strandings for Cornwall during 2003 was 255, constituting the largest ever count for the coastlines of Cornwall and the Scillies. Britain as a whole also had the largest number reported, of which the Cornish deaths represented over a quarter.

Dolphins (mostly Common) were stranded in numbers in November 2003 (13) more than in previous November, followed by 19 Dolphins in December (similar to last year). Most of these had damage we have come to associate with entrapment in the large mid-water trawls.

Some allowance must be made for the fact that more people are aware of the problem and are keen to report what they find. However, again as last year very large numbers of between 500 - 700 Common Dolphins have been seen a few miles off Falmouth this January. The evidence suggests that large numbers have again moved northwards.

There is no reason to suppose other than that, most are caught by the trawlers that hunt in pairs for Bass. Many fishermen think that the large Danish trawlers

are also incriminated. The latter concentrate on species that are used for fish-meal, increasingly needed to feed farmed fish.

Everyone hopes that the escape grids, which we understand are currently being used by the Scottish trawlers (with observers onboard) will be successful. I have this month retired as Co-ordinator for strandings and I take this further opportunity of thanking everyone who has supported me in this work.

Please join me in welcoming the new voluntary co-ordinator, Jan Loveridge who is also maintaining the strandings database.

We ask that all concerned people will support the campaign of the Wildlife Trusts nation-wide - and please continue to report any strandings - or sightings - to Cornwall Wildlife Trust on **the hotline 0845-2012626**, Jan's e-mail address is strandings@dial.pipex.com.

Stella

Jan's cetacean report for 2004

I'm very pleased to have this opportunity to introduce myself as the new co-ordinator for strandings in Cornwall and look forward to liaising with the HVMCA group in the future.

As Stella's report describes, the beginning of 2004 again saw a disturbingly high number of cetacean strandings. In January the total number recorded by the Trust's volunteers was 64, of which 15 were

dolphins (mostly Common) and 47 were Harbour porpoises. Although this is less than January 2003, there is an interesting contrast with the species breakdown for January 2003, where the majority of the carcasses reported (45) were Common dolphins and only 10 were Harbour porpoises.

In February 2004, 42 reports were made, of which 5 were Common dolphins and 21 were Harbour

porpoises, with 1 Striped dolphin. There was a distinct correlation between the SW wind direction and high numbers of carcasses being washed onshore. In the first week alone, 32 cetaceans were recorded following high winds in this direction and groups of 5 and 6 carcasses were recorded together on beaches as far apart as Marazion and Tregantle beach, near Torpoint.

Among those recorded was the foetus of a Harbour porpoise found on Polkerris beach, near Par. Although we cannot be certain that it was aborted as a result of its mother being bycaught, it was found with 3 other carcasses.

Other strandings reported this year to date include 9 Grey seals, 3 guillemots and 2 gannets.

During these peak periods the dedicated CWT volunteers were extremely active, with some stalwarts being called out repeatedly to brave the terrible weather. Recent training workshops have been very well attended and the strandings network now has an even wider group of volunteers throughout Cornwall

on whom to call. More recruits are always welcome, however, particularly for call-outs during the daytime.

The recently circulated Strandings Hotline cards have proved very successful with the public and have greatly helped in speeding up the process of recording, tagging and photographing. A database of beach owners is being compiled, spearheaded by volunteer Paul Mason, and this has proved invaluable in contacting beach owners to remove carcasses.

Taking on the co-ordination of the Cornwall Wildlife Trust strandings network from Stella Turk was rather a daunting task and made me appreciate even more, the huge challenge she coped with for many years. I'm extremely grateful to her for all the help and guidance she has given, and continues to give, as I (with the support of my husband, Jeff) learn the ropes.

Jan Loveridge
Strandings Co-ordinator
for Cornwall Wildlife Trust

Dr Pamela Tompsett

We have cause for celebration with news that our indefatigable co-ordinator and researcher, Pam, has been awarded her doctorate. The ceremony took place in the Great Hall of Exeter University on 7 January 2004. Her family including her seven -month old granddaughter were present, as were her supervisors, Dr Tegwyn Harris and Dr Loveday Jenkin.

The focus of her dissertation was the Peacock Work *Sabellia pavonina* - inevitably called 'Pam's worm' by Tegwyn! The painstaking study of so many aspects of the biology and ecology of this important member of the HVMCA fauna is a major contribution to our knowledge of the Helford River. No plant or animal

can be considered in isolation, so inevitably many associated species have come under scrutiny and often under the microscope. The fact that 'Pam's worm' forms colonies results in the involvement of more species than would otherwise be the case.

As many of us know, Pam has not neglected her other interests and commitments whilst engaged in doctoral research these past few years.

Many congratulations from your many friends and many admirers!

Stella Turk

Barry Candy

We had all been looking forward to a special event later this year when Barry Candy, a well-known expert on fungi here in Cornwall and a brilliant photographer, had planned to lead a Fungus Foray to Merthen Wood. Sadly I have to report that he passed away recently following serious heart trouble. I have sent sincere condolences to his family on behalf of the HVMCA members. His enthusiasm and generous help to experts and beginners alike will be sorely missed but the small group of 'fungus folk' that he has encouraged hope to keep up his good work.



Editor

