HELFORD
Voluntary Marine Conservation Area

Newsletter No. 32 Spring 2006

Helford VMCA Poetry Competition 2005

When Helford River lovers were invited to put their thoughts into words there was a magnificent response. Some 121 poets entered the 2005 HVMCA Poetry Competition masterminded by Gia Shaw and ably judged by Sally Beattie, Margaret Stevens and Roger Butts. We print the winning entries here.

Winner of adult class Caroline Gill

SEA HORSE SONG

If I ever return to my roots again,
on the ebb of the Helford's tide,
I will dance along to the heron's song
as she stands by the waterside.

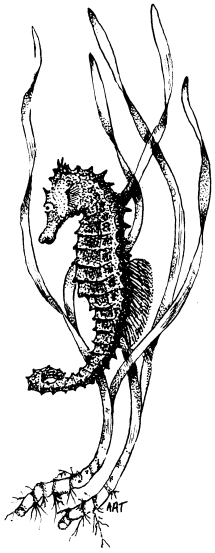
Will I ever return to that tranquil place
of peace in the eye of the storm?
I have shed salt tears with the passing years
for a home where the wind is warm.

If I ever return to an eelgrass bed
where pipefish and dragonet play,
I will snuggle down in my sparkling gown
while bats chase the midges away.

Will I ever return to the lively scene
that I witnessed near Frenchman's Pill –
with a woman, boat and a pirate afloat:
such excitement intrigues me still.

If I ever return to those leafy shores
with their sunlight and dappled shade,
I will join my friends where the river ends
and perform a sea horse parade.

Will you help me return to my Cornish roots,
to the flow of the Helford tide?
If you clean my creek from the sea to Gweek,
Hippocampus will prance with pride!



Runner-up adult class Anne Williams

DIGGING FOR TREASURE

Trigging is digging
For winkles and cockles:
A custom so ancient,
For locals, not grockles.

Good Friday's the day
To take part in this custom.
With spade and with bucket,
With warm hats and coats on.

As the tide ebbs away,
So the faithful descend
To the shoreline at Helford,
This rite to defend.

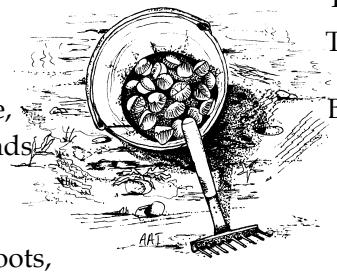
This river has mud
So glutinous and rich:
Each family defends
Their very own pitch.

At the eve of the day
With pails overflowing,
They wend their way home,
The satisfaction of knowing

That this custom is Cornish,
As old as the hills,
But there is plenty awaiting
The wading birds' bills.

Long one and short ones,
Curly or straight,
A feast of delights
Helford's birds does await.

For the Helford is timeless,
Secure and serene:
Its treasures unending,
Its waters a dream.



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: 01209 842316
Chairman: David Muirhead ***Co-ordinator***: Pamela Tompsett
Design: Sheila McCann, Cornwall Wildlife Trust ***Illustration***: Sarah McCartney, Cornwall Wildlife Trust

Hidden habitats of the HVMCA - Eelgrass (*Zostera marina*) beds

Rebecca House surveyed part of the HVMCA Eelgrass beds within the Fal and Helford Special Area of Conservation as part of her MSc project and this is what she found.

Past surveys had mapped *Zostera marina* within the HVMCA and showed that there had been considerable variation in the extent and health of these shallow water eelgrass beds with good light penetration. More detailed recording during the late 1990s showed eelgrass extending over approximately 6.5km^2 off the Helford Grebe shore and from about 1996 onward casual observations suggested that the bed was extending westwards from Grebe beach to Durgan beach and beyond. Eelgrass has been seen even amongst the rock-pools to the west of Durgan.

Rebecca made a map of this area for future reference and any necessary management. She identified potential problems:

- Anchors and chains dragging through the eelgrass beds.
- Damage from scouring of boat hulls as well as propeller chop.
- Trampling due to visitor pressure.
- Competition from other species or algal dominance.

Anemones and cuttlefish in eelgrass © Sarah McCartney

There is wealth of marine life using these beds including sea anemones, crabs, cuttlefish, sea snails, fan worms and many different fish including juveniles of deeper water species so there is every reason to protect them from damage. Currently the South West Biodiversity Action Plan is focusing on eelgrass bed conservation and English Nature has produced warning buoys to encourage boats to avoid the main beds. This plan has been generally successful and the beds are currently flourishing.

Runner-up adult class Christina Barbara Allen

FRENCHMAN'S CREEK

Old rowlocks squeak
Sparklets of water dripping
From the oars quiet dipping
In Frenchman's Creek.

Our little boat glides
By sinuous limbs gleaming black
Drowned branches hung with bladderwrack
And trees whisper on both sides.

Soft liquid chuckles of bow waves
So gentle, tiny bass and grey mullet
Flicker beside the wooden hull, yet
Linger limpid in seaweed caves.

Excaliber branch from the river's flowing
Perched there, jewelled feathers blue and flame
A kingfisher plays a patient waiting game
And we hold our breath, stop our plashy rowing.

Pause awhile on current drift
Listen! Listen the singing silence
So far from strife and ugly violence
The ebb and flow of Helford's gift.

Winner 16 and under Emma Nightingale (13)

I see
Our boat, moored
To the pontoon.
In spring
The grassy bank
Is covered
With daffodils.
The slowly rising river
Sparkles
In the sun's
Startling presence.
The bank sings
To the river
And all the fishes
Listen.
The songs are of
Harmony, peace
And love.
The clear blue waters
Move in time with
The song.

The seagulls and swans
Swim quickly by.
Calling and calling
Under the sky.
On murky banks
On the opposite side,
I see otters and herons
Fishing with
Great skill.
And all of this means the world to me.

The Helford River - An Area of Outstanding Natural Beauty

The Helford River has formed part of the Cornwall Area of Outstanding Natural Beauty (AONB) since 1959. The purpose of the AONB designation is to conserve and enhance the natural beauty of the area. In recent years new legislation has re-enforced the protection and importance of the AONB, and along with this has come new funding to improve the conservation and enhancement of the AONB, raise awareness, and support good examples of sustainable development at community level.

This new focus is being taken forward by Cornwall AONB Partnership, which includes Local Authorities, Government agencies, the National Trust, and representatives of farmers and landowners. Together they are working to undertake major enhancement projects across the AONB. They are also attempting to tackle issues such as planning and development control, affordable housing, farm incomes and diversification, as well as encouraging biodiversity and the protection of the historic environment.

The Sustainable Development Fund is a community oriented fund managed by the Cornwall AONB Partnership. This year £6,500 was awarded to the Helford VMCA Group to carry out a range of community based educational activities. The group is an excellent example of the community taking a lead to raise awareness of their local environment and protect it for future generations to visit and enjoy.

For further information contact the Cornwall AONB Office on 01872 322350, or visit www.cornwall-aonb.gov.uk. A local map is available at *www.cornwall-aonb.gov.uk/map8.pdf*, with information about the local landscape at *www.cornwall-aonb.gov.uk/L8.pdf*

Ed Thompson
Cornwall Area of Outstanding Natural Beauty Unit
Fal Building, Treyew Road
TRURO, Cornwall, TR1 3AY

Tel: 01872 322350
Email: ethompson@cornwall.gov.uk
Web: *www.cornwall-aonb.gov.uk*

Helford Marine Conservation Society - Chairman's Report, Spring 2006

The Spring newsletter heralds the start of another season of our society's events, but at the same time it is an opportunity to reflect on our activities during 2005.

As usual Pamela Tompsett produced a very attractive and interesting events leaflet and organised speakers and leaders for thirteen events. These were enjoyable, educational and well attended. In all a very successful year. Reports on some of these events are included elsewhere in this newsletter or on the updated website (*www.helfordmarineconservation.co.uk*)

Our special event for 2005 was the Poetry Competition for which we received 121 entries, mainly from children.

My thanks to Gia Shaw for organising this very successful competition and to those who donated prizes. Many of the poems are included in this letter and on our website. They will also be displayed and prizes given at our Annual Meeting.

I would like to thank the Budock Vean Hotel, the National Seal Sanctuary and Atkins Ferrie accountants, for their donations in support of the 2006 events programme.

Our membership numbers are up again and now stand at 219 whilst our bank balance is a healthy £2412. You have no doubt noticed that a charge of £2 is made to all non - members for events where a cost is involved. This will help to defray our expenses and we hope that it may encourage, for the outlay of a further £3, non-members to join.

We look forward to an active and interesting programme in 2006 which I'm sure will attract good numbers of you for there is, I believe, something for all age groups and interests.

Finally, my thanks to our committee members for their hard work and interest over the past year.

David Nightingale, Chairman

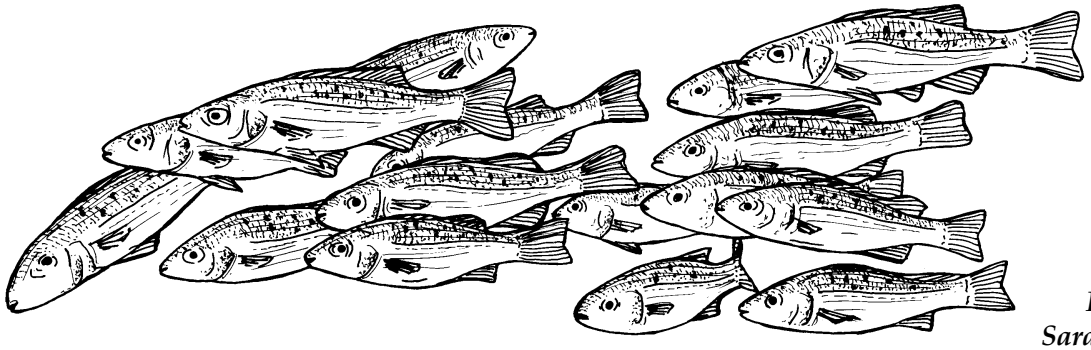


Illustration © Sarah McCartney

Annual Report October 2005 – March 2006

Following the decision to make a seasonal change for the Annual General Meeting, this summary relates to a much shorter period than usual.

There have been two more quarterly meetings attended by 21 & 22 members and associates focusing on topics of importance to the Helford marine environment. In November 2005 members were updated on the lessons learned from a recent anti oil pollution exercise simulating the response to an oil spill in Fal Bay whereby accurately placed booms and oil recovery measures were tested in what turned out to be extremely difficult weather conditions. This was updated in the February meeting. Information on other areas of concern was exchanged including Ship to Ship Oil transfer plans in Fal Bay, fishing legislation, the change from English Nature to Natural England, cetacean strandings and various planning applications. Members were interested to learn that the water quality and sediment movements were being examined as part of the larger European Cycleau project and farmers offered incentives to reduce polluting runoff. Unusual geological features in Gillan creek were highlighted by Dr Peter Ealey.

Contacts with the commercial activity on the river were maintained, in particular, changes and improvements at the Duchy Oyster Farm and the review of moorings leases.

The Boskenwyn school children learnt more about the marine life of the river at a classroom session following their July shore work. In December Martin Rule was overwhelmed by an enthusiastic group (39) seeking elusive winter birds! The 2006 programme began with some amazing underwater footage by Shark Bay Films (44+) and on a cold evening in February over 50 people listened with some apprehension as Doug Herdson, from Plymouth, described the anticipated effects of climate change with particular reference to the marine environment and fish. Cornwall might expect hotter summers and stormy winters and the Mediterranean become Saharan, but changes observed in water current/temperature could result in severe cooling for the UK on a much shorter timescale.

The ageing display boards finally failed whilst at the National Seal Sanctuary, Gweek, but welcome support from the Cycleau Project enabled speedy replacement. The HVMCA website continues to attract interest and is currently being updated. The addresses are *www.helfordvmca.co.uk* and *www.helfordmarineconservation.co.uk.*

Marine species surveys centred on the bass and eelgrass beds and a checklist of seaweeds recorded in the HVMCA since the 19th Century has just been published.

Members gratefully acknowledge the financial support of the Cornwall AONB Sustainable Development Fund which has been invaluable in preparing and delivering the 2006 programme and sustaining the important networking role of the HVMCA Group. Last but not least none of the Group activities would be possible without the enthusiasm and hours given by the many supporters and volunteers.

Pamela E Tompsett
Helford VMCA Group Co-ordinator

Runner-up 16 and under Florence Albert-Davie (13)

THE HELFORD PASSAGE

A ribbon of greenish blue winds across the land,
Wider in some places more than others.
A hidden creek lurks and a large port where lobsters,
crabs and fish are unloaded, bustles; crates passed
from hand to hand

Gently swaying are sails of many colours.
A child playing on the beach in childish ways;
A sail-boat weaving its way between the bobbing
floaters
will capture the boy's attention and gaze.

When the tide is out, little creatures start appearing,
Crawling out of where they were hiding.
There are some rockpools hidden by sea-weed.
To sail around the dangerous reefs, great care you
will need.

Along the river, down the stream,
Under the surface, fish scales gleam.
You can explore the river and get lost easily
or else, if you are not careful, end up in the sea.

Runner-up 11 and under Lewis Thomas (9)

THE HELFORD RIVER

The Helford River goes all over the place
when you are swimming
it goes in your face
It is really fast
when it comes to the flow
get wind in your sails and
lets go go go go!

Runner-up 11 and under Louise Willis Richards (8)

HELFORD

Helford River quiet and relaxing
Visit for peace
Live on swim on it
Soak up the happiness
Look at the beautiful trees
Go sailing or rowing
Or even capsize it
Look at the view
And the cleanness of it
How lucky we are
To live on the Helford

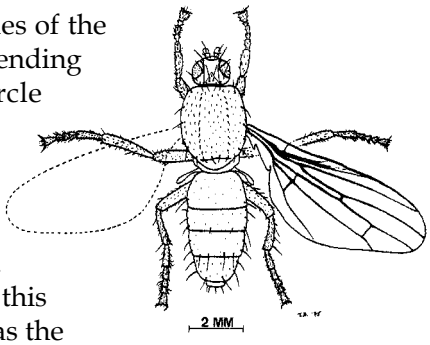
The intertidal flies of the Helford River

The shores of estuaries are exposed to more extreme environmental changes, particularly chemical, than shores bordering the open sea. Fresh water from rivers, streams and run off from the land meet and mix the tidal flow from the sea twice daily in a comparatively restricted area. The salinity of estuarine water varies widely and continuously not only according to the distance from the sea but also vertically from low water mark to the upper shore. The Helford River complex is subject to these variations in salinity as well as other chemical changes from agricultural and industrial operations. As part of an ongoing survey of the distribution of intertidal flies of West Cornwall and the Isles of Scilly, the Helford is being monitored to discover if the species found along the adjacent strictly marine shores, occur in the estuary.

A surprising variety of flies, (True Flies or Diptera, with a single pair of wings) are resident on a typical marine beach with strand-line debris and rocky outcrops. Twenty or more fly species from a range of families are regular inhabitants of the intertidal zone but unless the strandline is disturbed or the seaweed and barnacle-covered rocks examined closely, they usually remain unnoticed. All species are black, brown, grey or a mixture of all three merging with their microhabitat of seaweed, debris, sand and pebble beach or rocky outcrop, and are invariably reluctant to fly more than a few centimeters. Those occupying the strandline of decomposing seaweed range from the minute ephydrids, some less than 2 mm in length, to the large predatory helcomyzid, *Helcomyza ustulata* which up to 10 mm long is more conspicuous than most as it darts foreword for a metre or more to the next hiding place. Associated with colonies of barnacles on rocks, stone walls and jetties are several species of the genus *Aphrosylus* at least one of whose larvae prey on living barnacles. The adults prey on small midge and other larvae found in the surface algal film between barnacles and on surrounding substrates.

The current survey of intertidal flies is concentrating on the distribution of ten target species all of which can be accurately identified with a hand lens or microscope without dissection of genitalia. Only one of the target species has a widely used common name so these species are identified by their scientific name as is the case for most Diptera.

Coelopa frigida **(Kelp or Wrack Fly)** The Kelp Fly is found on most marine beaches in West Cornwall even where there are only small amounts of decomposing seaweed, and in late summer and autumn emerging adults from strandline kelp deposits can reach astronomical numbers causing mass movements of flies searching for further breeding sites. *Coelopa frigida* is found on both sides of the North Atlantic, extending to the Arctic Circle above Hudson Bay on the western side and north to Iceland along the European coastline. In North America this hardy fly is known as the Arctic Seaweed Fly, and also as the Flat-backed Kelp Fly because of its flattened body that enables it to complete most of its life-cycle between layers of decomposing kelp. Shore flies are forced to move up the beach to escape the incoming tide and remain above the splash zone until the ebb. Unlike most other intertidal species the Kelp Fly visits flowers for pollen at high water but is not restricted to this period for it can be found on flowers at any state of the tide. Occasionally it is found as a vagrant up to two kilometres inland perhaps wind-blown, or even emerging from spread seaweed deposits on farmland!



Kelp fly *Coelopa frigida*

Surprisingly the Kelp Fly has not been located within the Helford River area during recent surveys. Large deposits of decomposing kelp were not encountered during these visits but deposits of brown seaweed were examined on both sides of the river. Although the larvae of this marine fly can survive increased levels of salinity there appears to be no information for this species on the effect of decreased salinity such as in estuaries.

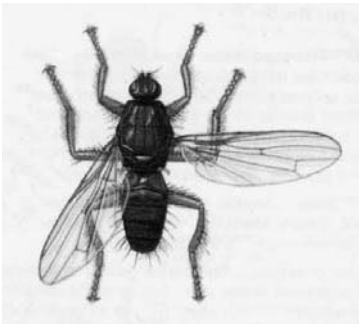
Fucellia **(Anthomyiidae)** There is no descriptive common name to label this genus of flies three of which are intertidal – *Fucellia fucorum*, *maritima*, and *tergina*. These are small greyish black flies superficially resembling the House Fly, and are found in a range of microhabitats including scanty strandlines of seaweed and debris, stone and pebble beaches with attached *Fucus*, and shallow rocky outcrops with pools. Decomposing fish and crab refuse, and particularly decaying mussels, can attract large numbers of *F.tergina* especially during the summer. *Fucellia tergina* is the commonest of the three species on local marine beaches and this is the case in the Helford with records extending up river as far as Helford Passage. Records so far for *F.fucorum* are limited to St Anthony-in-Meneage and Gillan Creek and the only record for *F.maritima* is from Treath.

Aphrosylus **(Dolichopodidae)** Except on very exposed sea coasts one or more species of *Aphrosylus* can be found exploring barnacle-covered rocks. Four species occur in the British Isles and all have been reported from

the Helford River estuary – *Aphrosylus celtiber*, *raptor*, *ferox* and *mitis*. The first two are the largest reaching 5-6 mm in length whilst the other two are minute at 1.5 mm or less making them difficult to spot on rocky surfaces. Sweeping with a fine net at suitable sites is the usual method of collecting these tiny flies. The larger species can be recognized in the field as *Aphrosylus* by their enlarged silvery palps on each side of the head reflecting the light. *Aphrosylus celtiber* and *ferox* occur in rocky coves or outcrops on both sides of river as far inland as Helford Passage; the uncommon *raptor* at Polgwidden Cove and *mitis* at six localities. Prior to 1990, *Aphrosylus mitis* was known from only from seven localities in the British Isles and six in northern France, and since then a further 20 sites have been located in West Cornwall and one in the Isles of Scilly. It prefers sheltered sites in estuaries especially where granite quays or jetties are partially covered in a film of algal slime and there are colonies of the Australian Barnacle *Elminius modestus*. However no direct association with this barnacle has been shown so far.

Scathophagidae This family of flies include the familiar golden coloured Dung Fly but the two marine scathophagids are very drab indeed – both conforming to the dull greys and blacks of intertidal flies. *Ceratinostoma ostiorum*, about 6 mm length, is a hardy shore fly found even on thin strandlines where it is a predator of other flies particularly the small ephydrids. In the Helford it appears to be widespread in small numbers wherever there are tidal deposits. The other scathophagid on the target list, *Scathophaga litorea*, once common along the shores and coastal marshes of West Cornwall and Scilly, has almost disappeared and the only site recently discovered is in the Hayle Estuary. In April,1904 it was reported by a visiting entomologist to the Isles of Scilly as the commonest fly on St Marys 'sitting on the roads, on the seaweed and was a positive nuisance when sweeping freshwater marshes'. Thirty years later it was reported by an entomologist resident in West Cornwall as 'common on the coast everywhere' and as late as 1961 it was found on St Marys and Bryher of the seven islands visited in Scilly. Recent surveys of St Marys and Tresco has failed to find *litorea*, and the last record on the mainland, before the recent discovery of a colony in the Hayle Estuary, was a single specimen at Cadgwith in 1984. Disappointedly it has not been found in the recent surveys of the Helford River despite some beaches being very similar in profile and vegetation content to the Hayle Estuary site.

Provisional findings Nine of the ten target species of shore flies selected occur in the estuary of the Helford River but, except for one colony of *Aphrosylus mitis*, are restricted to the marine dominated lower region extending to a line roughly from Helford to Helford Passage. *Scathophaga litorea*, once common around the shores of West Cornwall and the Isles of Scilly, was not located. *Aphrosylus mitis*, now classified as Nationally Scarce, has been identified at six sites in the Helford and these are possibly the largest concentration of colonies of this rare western European species.



As shown in the Collins Guide to Insects 1986 p211

Ray Poulding

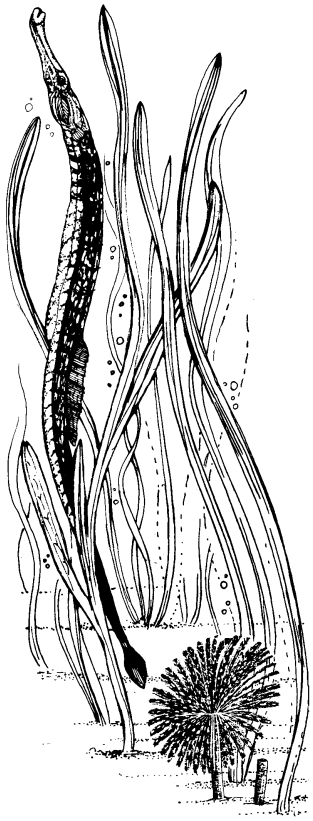
Winner 11 and under Hannah Sole (9)

THE HELFORD RIVER BLUE

Pleasure boats, rowing boats
Ferry boats blue
Gulls, cormorants, herons
And oyster beds too

Seaweeds, smell of salt
Smoking chimneys seen
Sun glistens, child shouts
Rockpools reflect green

Morning mist, bright sky
The river shouts its blue
Families frolic in its shades
Why don't you come too?



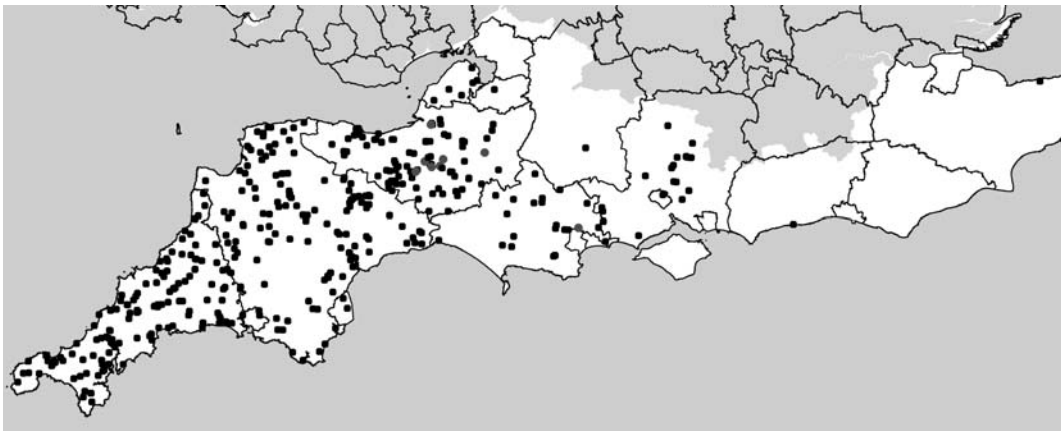
Winner of 7 and under class Tegan Pascoe (7)

THE HELFORD RIVER

The Helford River
Is made up of lots
Of creeks and the
Water is blueish greenish
With silver and blue
Fish. And little boats
Floating on the surface
Of the water.

Illustration:
© Sarah McCartney

Otters and waterways - the health status of otters (*Lutra lutra*) in southern and south west England 1988-2005



Origin of dead otters submitted

Summary of a fascinating talk delivered at the October AGM 2005 by V R Simpson of the Wildlife Veterinary Investigation Centre, Chacewater, Truro.

Introduction

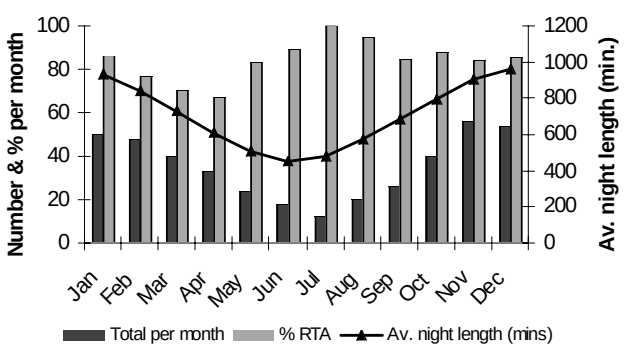
Vic had been carrying out post- mortem examinations of otters since 1988 to investigate factors linked to the otter population crash of the 1950s –1970s. Initially this was at the Polwhele Veterinary Investigation Centre (VIC), Truro and since 2001 at his Wildlife VIC, Chacewater. Some 80% of these deaths were road casualties and his detailed reports were sent to the finder, the Cornwall Wildlife Trust and the Environment Agency which has a policy of waterway enhancement for wildlife and was a significant funder of the project. A steady increase in the number of deaths was noticed first in Cornwall and then, as otter colonisation spread eastwards over time, included Devon, Somerset, Dorset and Hampshire.

Good news

Analysis of the livers showed that the concentration of dieldrin and DDT had dropped over time after these pesticides were removed from the market. Alongside a fall in pollutants, the liver vitamin A levels, which had been very low, increased. This was good news as the otter numbers were increasing, and the population spreading.

Road traffic casualties

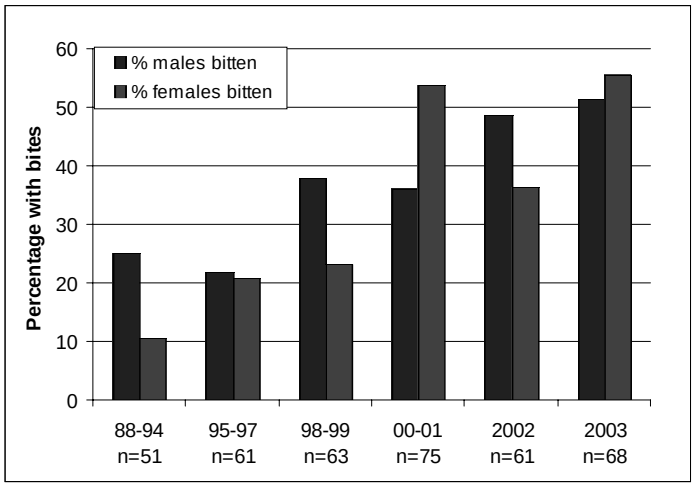
Otter deaths by month



As the population expanded the number of otters submitted each year increased steadily and 83% were traffic casualties. Total deaths were noted to be strongly linked to the hours of darkness but the highest percentage of road traffic kills occurred in mid/late summer when total submissions were low.

Bite wounds

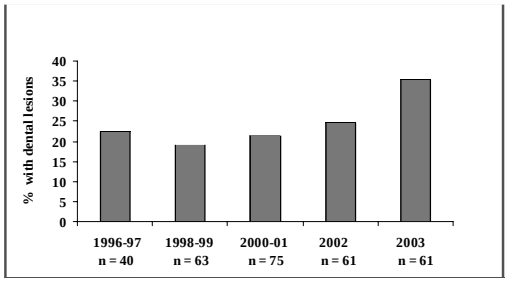
During the course of examining over 500 dead otters, bite wounds were seen commonly on the face, feet and genitals of both sexes. The spacing of teeth marks gave clues as to the origin and although Vic believed most bites were caused by other otters, a small proportion, spaced at 9-10mm, were associated with mink. Although an otter might win the fight, death could occur later as wounds went septic Cubs and a few immature animals were often killed by domestic dogs Since 1988 Vic had seen a huge increase in the percentage of dead otters with bite wounds which had risen to over half by 2003 which was attributed to increased population pressure.



Otters with bite wounds

The highest percentage of adults appeared to have been bitten in the mid-late summer period whilst the sub-adults 1-1.5 yrs suffered most in the winter.

Broken and infected teeth



Dental lesions

The proportion of otters with teeth missing or fractured increased possibly as a result of fighting. This was not the whole story as damage to premolars due to biting hard objects, possibly from small stones or gravel contaminating food, was also seen. How common was this in living animals? Bacterial infection from damaged teeth was common, and serious, spreading easily from the root to other organs, particularly lungs and heart.

Other observations

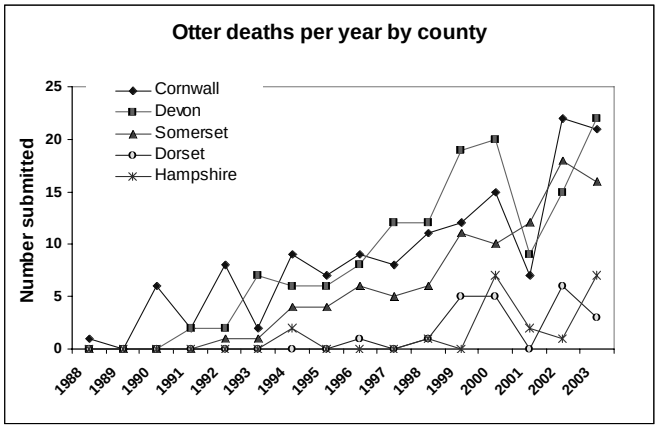
There was no immediate explanation for an observed increase in kidney stones since 1996.

There was encouraging evidence that some 40% of all the females had bred successfully.

A colleague had shown that the most significant part of the otter diet was eels, followed by roach, bream, bullhead, salmonids and amphibians. Catches of loach, pike, birds and mammals had also been found.

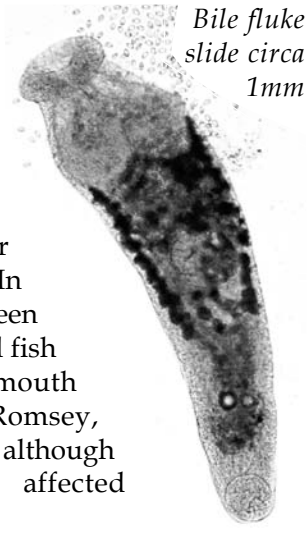
Questions

What is the true mortality caused by fighting? Otters dying in road accidents are much more likely to be seen and submitted for examination than otters dying in the countryside and mortality in otters from aggression could be as important as road accidents. Are otters that are in conflict with other otters more likely to be killed by road traffic? In this case, the animals Vic had examined are not truly representative of the population.



The Bile Fluke

In 2004, during the course of this work, Vic had discovered a new parasite, *Pseudamphistomum truncatum*, in the gall bladders of 3 dead otters from Somerset. The first appearance of thickened gall bladders had been noted in Feb. 2000 from an animal in Dorset. By August 2005 the parasite had been identified in a total of 10 otters, mostly in the Somerset Levels. Two mink from Somerset were also shown to be infected although they were not obviously ill. The flukes live in the gall bladder and can cause liver damage and jaundice. Since otters and mink are non-migratory and can only be infected by eating fish, it can be deduced that fish in the area were infected.



Bile fluke slide circa 1mm

Fish hosts

The parasite is well known from fish in Russia and Eastern Europe where it affects otters and their relatives as well as cats, dogs and even humans when raw or undercooked fish is eaten. In the UK it is thought to have been spread by escaped ornamental fish – the sunbleak and topmouth gudgeon – imported to Romsey, Hampshire in the mid 1980s, although mammals imported from affected regions might be implicated.

The sunbleak has colonised the Somerset Levels, matching the distribution of the fluke in otters. To date, the parasite may be contained within the county but experts are worried that it could spread to other areas and also be passed on when animals, like cats, dogs, otters and foxes eat raw fish which have been infected.

Road traffic casualty

This emphasises the importance of continuing this painstaking work in the interests of the wildlife and the adjacent human population.

Vic warmly acknowledged the help of volunteers at the Wildlife VIC, staff at the County Wildlife Trusts and the Environment Agency, a major funding body, and last but not least his wife, Jane, who assists with the work in many different ways.