

"IT'S ALL WATER UNDER THE BRIDGE"  
Otter surveying in North Somerset.



Spraint ledge on the Land Yeo

I first became involved as an otter surveyor after going to an Avon Wildlife Trust (AWT) talk in a local pub one evening. The speaker was James Field, who at that time was running AWT's North Somerset Levels and Moors Project. At the end, he asked anybody who might be interested in training as a surveyor for the North Somerset Otter Group (NSOG) to leave him their email, and following a short course I was assigned 2 sections of waterway within a reasonable distance of where I live. At that time the system was that specific points were assigned, with grid references, and each month surveyors entered positive or negative otter signs (spraint or footprints as otters are very rarely seen in daylight on inland waterways) and sent the recording form in - by post in those days - to AWT's head office.

The first time I ventured out to my assigned spots my spirits sank; The Portbury Ditch is "what it says on the tin" - the last of a series of "rhynes" ( Somerset moorland drainage channels) which eventually discharges into the Severn Estuary via the Royal Portbury Docks. It didn't look promising. The section of the Land Yeo river that I was given didn't seem much better - just a narrow, and in some places quite shallow - stream, with footpaths much used by local dog-walkers. But being a scientist by training & profession, I know that negative findings are every bit as important as positive ones, so I resolved to bite the bullet & do my monthly checks as a matter of duty.



On the Land Yeo

I started with the Portbury Ditch & was rewarded instantly (albeit after a perilous descent down a precipitous and slippery bank which, as I'm getting older, I now rope myself to the fence to negotiate, much to the amusement, & sometimes well-meant intervention, of passing motorists) by the discovery of several fresh-looking spraints on a ledge under a bridge on a lane that I drive over regularly. Spraint is used to scent-mark a territory & is usually deposited on a prominent rock or tree stump or similar, where the scent can waft over the stream, preferably under a bridge where rain won't wash it away and sometimes at the confluence of two waterways



Spraint under a bridge near a holt

The Land Yeo proved even more productive, and over the years, as I have gradually come to know the individual inhabitants and their habits more intimately, it has become increasingly fascinating to me.

AWT eventually withdrew funding from NSOG to concentrate on other priorities, and most of the trained surveyors drifted away, but a few steadfast ones maintain it under the aegis (for insurance purposes) of the

Yatton and Congresbury Wildlife Action Group (YACWAG) and we have trained up a few more surveyors, although it's hard to find people willing to commit to regular surveys. We have ditched the system of checking specific points & now walk the whole stretch of the waterways once a month and record the grid reference of any interesting sightings, including other species. All the data is shared with the local Regional Environmental Records Centre.

I was soon able to identify 2 otters with very distinctive prints on my stretch of river. One is a very large individual, obviously male from the size of the feet & the width of his body & tail marks in mud, who habitually leaves the stream at shallow stretches & gallops along the public footpath at the side, which of course earned him the name "Road Runner".(Otters don't read the textbooks on their behaviour and just "do what they do"!)



Footprints+ tail drag on footpath male (Road Runner )

And there was a female with a very distinctive R. forefoot - she had evidently injured a toe at some time, so became known as "Wonky-Toe" The ski pole end shows the relative sizes, both pictures show right forefeet.

Footprint with tail drag - female Wonky-toe)

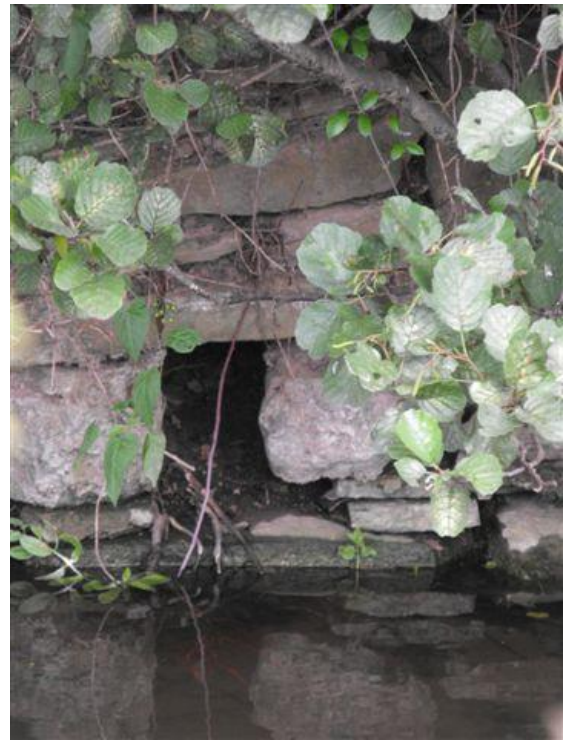


Over the years, our holt sites (where otters sleep) and couch sites (where they can rest up for shorter periods) were discovered. A comprehensive study of these was made in the 70s on the upper reaches of the R. Severn & its tributaries in Wales, where 256 were identified. 90% were within 10m of the river, and all within 150m of the water side. The largest category were "tree holts" consisting of tunnels under the root systems. 20% were in rock or concrete, either natural rock cavities, drains, embankment walls or spoil from quarries.

Here are one of each type from my catchment area (sorry can't be more specific in the interests of security) :



Holt under bank



Holt entrance among alder roots



Others were "miscellaneous", abandoned badger setts and rabbit warrens - and one uniquely in the back seat of a car ending its days as bank protection on a Welsh river!

Resting sites can be in hollow trees - on the Somerset Levels otters have been spotted by daylight in pollarded willows like the Cheshire Cat during flood conditions. This is one of Road Runner's couches:

Having located the holts on my patch & that of a friend who surveys the next area downstream, in early 2013 we were kindly lent a trailcam for a few weeks and were amazed to catch a female scrambling out of the river, followed by 2 young cubs. This was Wonky-Toe's first litter. One of the cubs moved upstream, towards the end of its first year, but I was lucky enough to catch a brief glimpse of the other and its mother fishing together in a weir pool. Later we had a fine shot of the father, Road Runner, on the camera before it had to be returned.



Road Runner

In December 2014 the footprints of our female were seen in the frost on a wooden bridge, accompanied by very small cub prints, apparently 2, her second litter, and this was confirmed by a lucky evening sighting by the owner of a local trout fishing lake. There was a second, smaller male on the river, judging by prints, and as *Lutra lutra* is extremely territorial, and Road Runner was still on the river and wouldn't tolerate a rival, this was more than likely a cub from the first litter. Female *Lutra lutra* with cubs on rivers, as opposed to coastal-dwelling individuals, have a typical home range of about a 5Km. stretch, and the males up to about 20Km.

In 2014 I had also begun to see some "mustellid territorial wars" between our otters and the local badger population, which lived in a main sett on farmland, with an outlier sett about 200yds downstream in a woody patch behind the main otter holt. The first sign was prints where a badger had had to swim across a fairly deep section and climb up the steep bank under a bridge to investigate otter prints and spraint.



Badger had to swim across to investigate otter signs

On my next monthly survey, I found that the badgers in the outlier sett had been depositing poo over otter spraint in one of the more accessible spraint points, on a bit of wall jutting into the stream.



Badger poo on top of otter spraint

By last year, the outlier sett had been abandoned by the badgers, and there were wet slide marks leading into the largest opening, which was just behind the holt. By the end of 2015 this entrance had been so well-used by the family of otters that a deep gully had been worn, always damp from the comings and goings of the otters. This could well be a drier home for them as the river was often in flood last year.



Smooth, damp, well-worn slide into disused badger sett

## RECOMMENDED BOOKS

The Otter by James Williams, published 2010 by Merlin Unwin Books. In October 2013 James Williams was awarded the MBE for conservation of Somerset Otters.

Otters by Paul Channin published 1993 by Whittet Books. This is now alas out of print, but worth looking on AbeBooks or Ebay as it is very beautifully illustrated by Guy Troughton in addition to being a mine of information.

## SCIENTIFIC INVESTIGATIONS AT CARDIFF UNIVERSITY

The Environment Agency paid for a freezer a few years ago, which lives in my spare stable and in which I store all dead otters collected in North Somerset, with their report forms attached. Sometimes they are delivered to me by the finders but often I have to go out and collect them. Recently I had to fetch one which had been dead (unfrozen) for 3 weeks, but was of vital importance for DNA studies. As you can imagine, it was far from fragrant. Serious protective clothing was needed to keep the disgusting pong out of my nose, hair and clothes.

It is necessary to check before transporting them to Cardiff's labs in the School of Biological Sciences, to make sure that they have sufficient room in their own freezers to accommodate them and no great backlog of post-mortems outstanding. YACWAG Otter Group's specimens (i.e. mine) are often kindly transported frozen along with those collected by the late James Williams' Somerset Otter Group, which borders ours to the South-West



Delivering otters to Cardiff

Should you be unfortunate enough to see a dead otter, usually on a road, it is VITAL that it is reported then collected and sent to Cardiff University for post mortem examination as this provides a valuable insight into health and biology of the local population and also the health of the waterways, especially the levels of chemical pollutants.

Important also to remember that the otter is a European **PROTECTED SPECIES** and it is **ILLEGAL** to have one, or any part of one, in your possession if you do not have a licence. Anyone collecting an otter to go to Cardiff University for post mortem is covered by the licence for that study.

Otters found dead in England, Wales & Scotland may be transported to the Otter Project at Cardiff University for post mortem, by the Environment Agency, Natural Resources Wales and the International Otter Survival Fund respectively. These agencies should be contacted immediately if a wild otter casualty is found, to enable a speedy arrangement of transport for post mortem. Post mortems are not currently carried out on otters found dead in Northern Ireland on a routine basis but all dead mammal sightings there can be reported to the N.I. National Biological Recording Centre, known as CEDaR - [www.2.habitas.org.uk/records](http://www.2.habitas.org.uk/records) All wildlife casualties across the UK may also be reported to project splatter [www.projectsplatter.co.uk](http://www.projectsplatter.co.uk)

If you find an otter body (no matter what condition it is in, even severely squashed) you need to call the Environment Agency for your area in the first instance.

The information you record needs to be as per guidelines below:

Please provide the grid reference of location found by using this link <http://gridreferencefinder.com>, date & time found, your name, address & contact details and then use the telephone numbers below.

If you find a dead otter in England, please call 03708 506506. The Environment Agency will arrange the collection from you.

If you find a dead otter in Wales, the number to call is 0800 807060 and Natural Resources will arrange collection from you.

If you are in Scotland, the number to call is 01471 822487

To report sightings or casualties in Northern Ireland, please visit [www.2.habitas.org.uk](http://www.2.habitas.org.uk)

Please also report other species of wildlife road casualties on [www.projectsplatter.co.uk](http://www.projectsplatter.co.uk) which is run by Cardiff University

Post mortem examination is a very important aspect of Otter conservation and a direct link to the website is [www.otterproject.cf.ac.uk](http://www.otterproject.cf.ac.uk).

If you would like a copy of the post mortem result for the otter you reported, then please also include your email contact address.

Please also report any otter sightings, dead or alive, to your local Otter Group (your local Wildlife Trust will be able to put you in touch with them) as they will be monitoring their local population

Any otters that you find injured but alive, or abandoned - seek help and advice on the next steps from the above numbers.



Handle with thick gloves and EXTREME CARE if you need to - these are not cute cuddly animals & have teeth that can take your fingers off!

The EA reporting form may be used to complete all details on an otter casualty. Please remember to complete as fully as you possibly can and hand it to the person who collects the otter, which is preferable, or email it to the Environment Agency using the ref. that you will be given when initially reporting the death.

It can be filled in online at:

[https://www.pdfFiller.com/53399403-Blank-record-formpdf-Recording-Form-\\_blank---Cardiff-University-Otter-Project-Various-Fillable-Forms](https://www.pdfFiller.com/53399403-Blank-record-formpdf-Recording-Form-_blank---Cardiff-University-Otter-Project-Various-Fillable-Forms) (for those who are good at such things) or you can print it from there & fill in by hand.

( Alternatively, the collector will be able to fill it in for you, if you just write ALL the above information on a piece of paper and give it to them. I recommend this!!)

## POST MORTEM AT CARDIFF

Data collected:

Basic morphometric data (weight and length): gives the age class of the individual and a benchmark for internal organ weights to check for abnormalities in size.

Sex, age, reproductive status: In females, nipples (2 or rarely 3 pairs) are checked individually for breeding status. Testes are classified as descended or not.

Markings: animals with pale spots throughout the coat occur occasionally & are known as "Royal" otters.

Teeth: wear, breakages, or signs of infection

Injuries (including fighting injuries) A PhD student is currently doing a project on this.

Fat and muscle layers: indicate the general health of the individual.

Internal examination: all organs are removed, weighed, bagged separately & kept for pathology.

Liver: screened for pollutants & parasites such as liver fluke

Gall bladder: stones & flukes

Kidney: renal calculi may be found in older animals or those in poor health.

Adrenal glands: Enlargement indicates physiological stress.

Spleen: weighed & checked for abnormality

Testes: cysts often found on both vas deferens where the otter has been exposed to pollutants from biodegradable plastics.

Uterus: checked for pregnancy or placental scarring from a previous pregnancy. Left and right horns measured.

Stomach & intestine contents: show diet.

Lungs: L&R lobes weighed & checked for respiratory infections.

Heart: weighed & checked for valve abnormalities (rare) & toxoplasmosis.

Thymus gland: indicates age.

Thyroid: Abnormal weights indicate pollutants.

Teeth: lower R canine for age determination.

Scent glands: for research on chemical communication.

Skeleton: breakages.

Skull (cranial sutures open or closed) baculum (penis bone), hind right limb (tibia, fibula and femur), and rib. All bone samples are cleaned and archived by the National Museum of Scotland.

FOR FURTHER INFORMATION, go to : <http://www.cardiff.ac.uk/otter-project>. And there is a Facebook page: type "Cardiff University Otter Project in the search box.



Skull of a young otter - by Ross Flett.

*Claire Shellis*