

# NEWSLOTTER

## Somerset Otter Group summary or results and work - 2016

### Two-day event 2017

This years two-day event will take place the weekend of 22nd and 23rd April. As well as the usual survey across the county, those on the Tone and the Brue will be asked to collect spraint samples for the genetic study.

### Genetics Study

2016 saw the start of the genetics study by Cardiff University on the rivers Tone and Brue. Spraints were collected at the two-day event and in August. Efforts will increase in 2017 and 2018 to ensure we have a good sample to analyse. This is pioneering research and it is a testament to the group's efforts over the years that Somerset was selected.

### SOG on Facebook

We have set up a Facebook site that allows SOG members and the general public to share sightings of otters, cameratrap pictures and other Somerset otter related news. Just search for Somerset Otter Group to join. For obvious reasons please don't post exact locations of holts or cubs etc.



2016 was either a good or a bad year for otters in Somerset. Fewer were picked up dead on the county's roads than in any year since we seriously began recording road kills. This might seem like good news, but combined with a record of 25 blank patches (double the average) on the two-day event in April, it could be a reflection of a lower population. Whilst it is too early to ring the alarm, it emphasises how important the recording work undertaken by the group is.

Several litters of cubs were detected in 2016 and camera-trapping is becoming increasingly important for monitoring otters in the county.

Thank you all for all your efforts for the otters of Somerset and Happy New Year.



Rob was away much of the year but kept ottering - here two Neotropical River otter cubs from Colombia.

## Otter Surveying:

### The importance of negative records

Recording of surveys is one of the most important aspects of the Somerset Otter Group. With the invaluable assistance of the Somerset Environmental Records Centre, we have arguably the best data set for otters in the Country and possibly globally. Every piece of information you contribute to those records is significant and important, both positive and negative.

So for those of you not being regularly rewarded with spraints, please remember that negative records highlighting blank patches are as important, if not more so, than positive records where otters regularly leave signs.

A good example is the decade of absence from most of Somerset, which is well documented thanks to the efforts of those who continued to survey and record negative results throughout the years of absence. The infamous 'Bridgwater gap', led to the discovery of the black acidic ditch flowing from the munitions factory. Negative patches are both interesting and important, and certainly raise their own questions, even if we don't have all the answers yet.

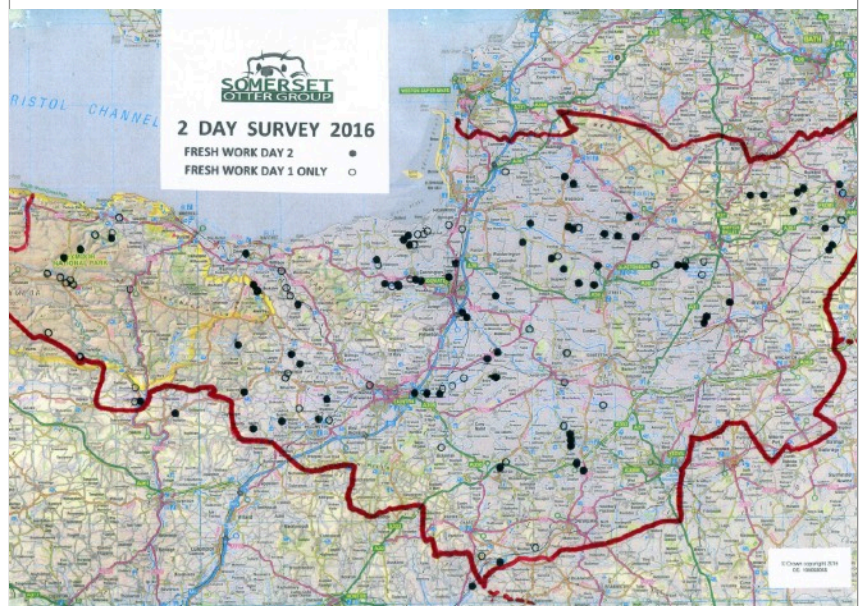


### Two-day event 2016

A quick recap of the summary: We surveyed 139 patches, a total of 532 sites of which 304 were positive. 25 blank patches - the highest ever, the average being 12 over the last 7 years. 57% of sites had some signs and of all the sites, 15% had fresh work on the second day. Thanks to all who took part and especially Jo Pearse for all her work collating the results and scoring. A full summary is available at:

[www.somersetottergroup.org.uk](http://www.somersetottergroup.org.uk)

This is the 2016 map showing the spread of results.



### Dead Otters in 2016

17 Dead Otters were recorded across the county in 2016. All but two recovered for autopsy and all should be transferred to Cardiff University by the end of January. This is a particularly low number, the annual average being about 30. Particularly unusual, is that nine of them are not road deaths. The average is 2 non-road deaths per year. This also means the number of recorded road deaths is very low at 8 for the year. It will be interesting and important to see if this was an anomaly or a sign of something else going on.

In May, the 500th dead otter recorded (since 2000) was a small cub found, predated in mud heavily trampled with dog prints, on a tributary of the Tone by Stephen Hembery and Sue Sherry.

Much of what we know about otters in Somerset has come from dead otters and with so many being sent for autopsy and

## Coastal Survey

During 2017 we will be starting to look at the use of coastal habitats by otters in Somerset as part of a regional initiative with Dorset, Devon and Cornwall. If anyone finds spraint or sees an otter in coastal areas of Somerset please do report it to Rob Williams who is coordinating this study.

## Members Meeting

We hope to hold a members meeting in 2017 to get interested people together and share experiences and pictures etc. More information will be circulated shortly.

## Camera-trapping

There are now quite a few people using cameratrap to record otters across the county. With notable results from Jillie Leonard, Gareth Hoare, Mel Keating and Hallam Greene (examples of Mel's and Hallam's videos can be seen on the Facebook page), giving fascinating insights. We would be keen to hear from all who are doing so or would like to do so, and are happy to advise those starting out. In 2017 we hope to explore how the data generated can be used as another independent monitoring of the otters in Somerset.

If you are camera-trapping please make sure you are not disturbing otters at a holt and are working within the law.

samples being stored they provide a valuable resource for future studies as well. So please do make sure to report and collect them! There are certainly otters we are not getting told about, how many, and if this has impacted more heavily on the records for this year is frustratingly unknown. No dead otters were recorded in October and November, perhaps due to dry months?

In January, 2015's dead otters were taken to Cardiff University and Annette Beardsley transferred one being held in a vet's freezer in Yeovil. Tony House and Phil Dampier kindly moved the freezer, previously housed at Natural England in Shapwick, to Secret World, who generously agreed to re-house it for us. We now have 3 freezers at RSPCA West Hatch, Secret World and at Rob's house in Wellington.

Also in January, great efforts by our neighbours in North Somerset recovered a dead otter someone had taken from the Levels illegally for taxidermy to Bristol. Thanks to the Environment Agency and to the North Somerset Otter Group it was recovered and sent for autopsy. Thanks to Claire Shellis for retrieving and freezing it and to Gill Brown for transporting it to Cardiff.

In May, a dead cub was found on Exmoor away from roads, it was frozen by the finder and collected by Jilly Leonard.

In August, Michelle Werrett recovered a dead cub from the sprainting stone in her garden. It had chest injuries. She said, *'About an hour to half-an-hour before dawn I thought I heard a fox killing a pheasant, but what sounded like bigish wings fluttering rapidly in thick bush could well have been a small body being shaken in shallow water. It was finished with a brief strangled squawk, like the first note of a cock pheasant's trumpet cut off abruptly.'*

To those of you not mentioned here who have contributed to the reporting and collection of dead otters this year and in past years, many thanks. Please do make sure to report any dead otters to us as soon as they are found and please also make sure any interested friends and contacts you have also know how to report a dead otter. So much of what we know comes from the dead otters and we need to make sure we are recording as many of the deaths as we can and recovering as many bodies as possible. Dead Otters should be reported to:

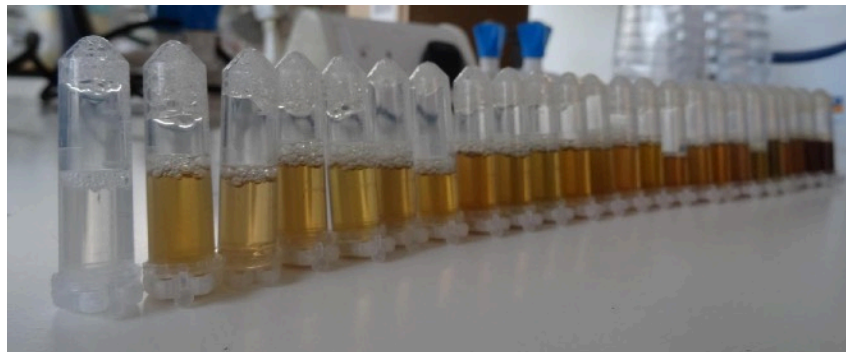
Environment Agency: 03708 506506

Jo Pearse: 07855 773697

## *Genetics Study on the Brue and the Tone*

The study of otter genetics on the rivers Tone and Brue in collaboration with Cardiff University Otter Project, started in 2016. PhD student Nia Thomas received 56 fresh spraint samples from the two-day event. The DNA has now been extracted and is frozen awaiting further analysis. In August, Nia returned and collected a further 12 fresh spraints from 45 surveyed sites on the Brue and 6 fresh spraint from 28 sites on the Tone. This is a great start to the project and early results look promising for the PhD being able to analyse a considerable number of spraints from Somerset. So in 2017 and 2018 we will be doing more intensive collections on the Brue and the Tone in 3 six-week periods each year. We will be contacting surveyors on those rivers to see if you are interested in helping.

Nia has sent a photo of extracted samples together with details of new methods and her other work.



Poo Pantone! Each spraint is unique – this is particularly easy to see half way through the extraction process.

### **New methods**

Nia and her colleagues are working on developing new methods to increase the genotyping success rate of spraint samples. For spraints collected in a British-type climate the success rate is usually between 20-50% meaning that it's likely that less than half of our spraints will get a full genetic ID. The new method (based on human forensics techniques) hopes to increase this. A trial in the coming months should determine whether the new method will improve this. If it does (we really hope it will!), Nia will continue extracting the DNA as samples are collected, but the genotyping will all happen right at the end - Next Generation Sequencing methods require large batches of samples to be processed together and to help minimise costs.

Nia has also been 'sniffing' spraints for volatile organic compounds (VOCs). Eleanor Kean, a previous Otter Project PhD student (who some of you may have met) showed that in otter scent gland material such compounds differ between adults and juveniles. Nia is currently working if this can be used in the field by testing spraint material from known-age captive otters. If successful this will be applied to the spraints collected in the Tone and Brue catchments.

Nia has also been working on how the population structure of otters has changed across the UK over the last 20 years. She has genotyped 100 samples from otters sent into Cardiff University Otter Project in 2014 and analysed their population structure – preliminary results indicating that previous structure may be disappearing (good news - as this would mean otter populations are becoming more mixed). In 2017, she will genotype 100 samples from 2009, and analyse these alongside the genotyped samples from 1988-2007 to see how population structure has changed over time.