

# SURVEY RESULTS 2018

Somerset Otter Group, summary of the James Williams Survey, 2 day Event.

## Two-Day Event 2019

Dates for your diaries. Next years two-day event is on **27<sup>th</sup> and 28<sup>th</sup> April 2019.**

If unable to make these dates please let us know as soon as possible to enable alternative coverage.

The purpose of the two day is to repeat the survey on the Sunday to locate otter evidence that was definitely not there the previous day. The aim is to freeze the otter picture for that one night, and to cancel out the distortions of our monthly checks by otters wandering and appearing in several peoples results.

## A few reminders

Surveying on different dates to the main survey will result in the patch being unrecorded. It is a coordinated single weekend.

Please use the special two day form. Home made versions are extremely time consuming to unpick information from.

Strictly six figure grid references only. Otters travel many miles in a night, longer references are unnecessary to detect an otters presence on a patch, and are very time consuming to prune when scoring results!



This years survey took place on the 28<sup>th</sup> and 29<sup>th</sup> April 2018. Rainfall across the catchments on the Friday meant some sites were washed clean, increasing substantially the number of blank patches and decreasing substantially the percentage of positive sites.

- 111 of us took to the water covering 138 patches.
- The total number of sites checked was 496, just under half were positive (signs of otter) - 49%, compared with 66% last year.
- A total of 71 hits were found, that is fresh spraint on the Sunday - a total of 14%.
- There was a total of 30 blank patches that had no signs of otter, an increase of 10 from the previous years figure of 20.
- 58 otter ranges were identified this year;

6 on the River Exe, 8 on the coastal streams, 12 on the River Tone, 3 on the South Coast, 12 on the River Parrett, 9 on the River Brue, None on the Axe (North), 1 on the River Cary, 6 on the River Frome, 1 on the River Stour.



### Training for the Two Day Event 2018

This year we provided training prior to the event and some very new surveyors proved very helpful at covering unknown patches at very short notice and travelling long distances. Thank you for your enthusiasm, it helped greatly with our coverage.

Jo Pearce is happy to provide refresher training for our more regular surveyors too, contact through the usual means. It's all part of the service.

### Blackdown training day

An otter surveying training day at Bishopswood and Otterhead Lakes took place prior to this years survey. Thanks to Blackdown Hills AONB for organising the 32 participants. We were able to train and field 19 surveyors for the two day. A Good start to expanding the annual two day survey of Somerset into the Devon side to cover the whole of the Blackdown Hills.

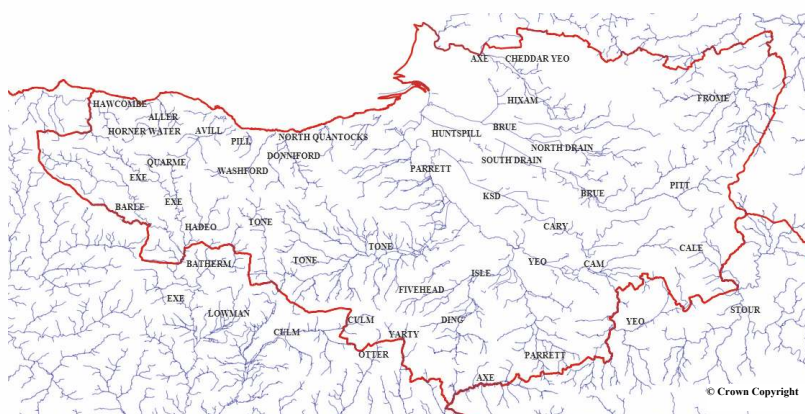
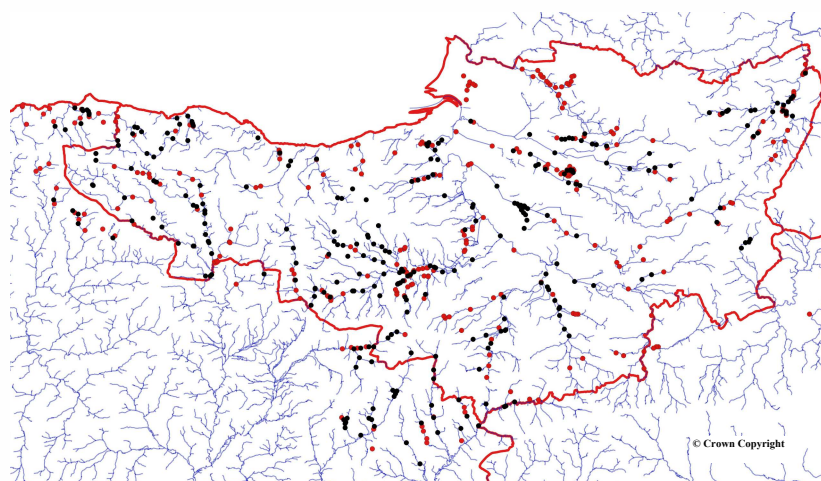
### Exmoor National Park

Our thanks to Bea Davis who has coordinated with us since 2009, enabling the Devon side of the park to be included in the annual 2 Day Event.

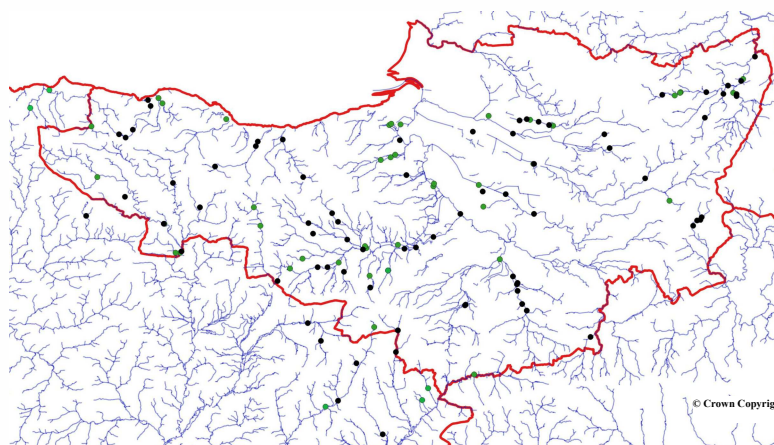
Now moving on from this role, we wish her the best.

**2018, Two Day results** displayed on river maps. The top map displays all the sites surveyed, positives and negatives, illustrating we had a good coverage of the county's waterways. There were a few gaps this year where surveyors forgot the date, there will be more reminders next year! The Devon side of Exmoor National Park and the Blackdown Hills AONB are included. The middle map labels rivers, the bottom map displays fresh spraint.

Red negative for otter signs and black positive for otter signs



Fresh spraint; green Saturday and Black Sunday





## E - DNA

The two day event in 2018 included involvement in a pilot study being conducted by Victoria Priestley at Imperial College London. A few Somerset surveyors collected water samples from several sites during the survey. Victoria examined the samples for traces of otter DNA that may have been shed into the water in the form of skin cells, hair, saliva, spraint, urine, mucous or gametes. This environmental DNA (eDNA) can be used to detect species presence and as such, is an efficient survey and monitoring tool.

15 sites over at least 5 catchment areas were selected and water samples collected on both the Saturday and Sunday together with full descriptions of the sites and water levels.

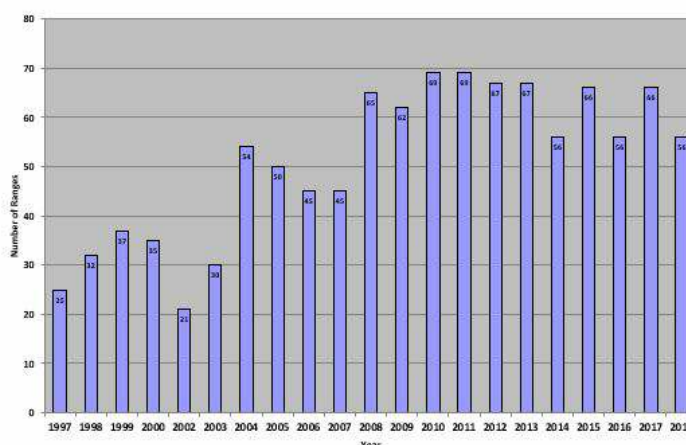
## DNA

A final collection of fresh spraint for the PhD study by Nia Thomas, Cardiff University, took place during the 2 day event. A further 28 spraints were added to make a total of 493 fresh samples available for the study. A more detailed map and details on the study can be found on our website.

Yet again this year survey results were affected by rain. It rained heavily the day before the survey, the river most affected appears to have been the Isle- Parrett Catchment which will account for the extra blank patches. The Parrett having a very high 14 blank. Exposed sites on all catchments will have had older signs washed away resulting in sites losing older spraints and with less positives being recorded. Only 49% of sites were positive as opposed to last year with 66%.

MONTH	APR	APR	APR	APR	APR	APR	APR	APR
YEAR	2011	2012	2013	2014	2015	2016	2017	2018
Patches	124	127	143	135	138	139	137	138
Total sites	477	519	564	524	510	531	496	496
Sites Positive	318	331	390	273	372	304	326	243
% Sites Positive	66	64	69	52	73	57	66	49
Hits	91	76	114	68	102	71	89	71
Near Misses	16	26	22	18	25	19	21	19
Total scores	107	102	136	86	127	90	110	90
located	66	55	64	47	66	50	66	58
Adjudicated ranges	69	67	67	56	66	56	66	58
%Total Sites with Hits	19	15	20	13	20	13	18	14
% Pos. Sites with Hits	28.6	22.9	29	25	27	23	27	29
Blank Patches	8	15	9	22	10	25	20	30

Adjudicated ranges of otters in Somerset.



		Catchments									
2018. 2 DAY EVENT RESULTS		Somerset									
	Somerset	Exe	coast str	Tone	S.Coast	Parrett/Isle	Brue	N.Axe	Cary	Frome	Stour
Total Sites	496	50	47	116	13	110	76	28	8	55	5
Sites Pos	243	28	28	61	9	58	32	2	2	19	5
% sites Pos	49%	56%	60%	53%	68%	53%	42%	7%	25%	34%	100%
Sites with hits	71	5	10	15	1	58	10	0	2	9	5
% sites with hits	14%	10%	21%	13%	7%	53%	13%	0%	25%	2%	100%
% positives with hits	29%	18%	36%	25%	11%	24%	31%	7%	100%	47%	100%
Hits	71	5	10	15	1	14	10	0	2	9	5
Near Misses	19	2	2	5	2	4	2	0	0	2	0
OTTERS LOCATED	58	6	8	12	3	12	9	0	1	6	1
Patches	138	14	14	33	4	33	76	5	2	15	2
Blank Patches	30	2	2	4	0	14	3	3	1	3	0

## Negative Records

No apology for repeating again the importance of negative records. If you are surveyor for a patch which regularly comes up negative please don't stop surveying. Too often we are told records weren't sent in because they were negative, or surveying stopped because nothing was found. We need the negatives alongside the positive results. We are not just recording where the otters are but where they are not. The map to the right would only be half complete if all the negatives were removed.

Only with a decade of dedicated surveying, when the otters had died out in the county, are we able to assert with such certainty that there were no otters.

## Deaths

The deaths for 2017 have not been examined in detail yet, that awaits all the autopsy results from Cardiff University. Otter death numbers were back to a normal average of 33, up from the extraordinarily low 18 deaths in 2016. So far in 2018 we have recorded 12 deaths to the end of August.

## Births

The two day survey disclosed 3 areas with evidence of breeding to add to the data we keep. Breeding is one of our most important records and any sightings of a bitch with cubs or cub signs should be reported direct to the group.

## This years two day maps plotted on road maps

All survey sites; black positive for otter signs and red negative



Fresh spraints; Saturday green and Sunday black



We have a huge resource of data about Somerset Otters, the two day surveys add to the picture of the counties otters and allows lively discussions, but there is so much more we still don't know. But then if we knew everything would we still be running our two day otter safaris? Thank you to everyone who takes time and effort to engage in the event and the surveys beyond through the year. Each record adds to that larger picture.

Results from the DNA analysis of the 493 spraints across two catchments will hopefully add a much needed dimension to analyse the movement and population of Somerset's elusive otters.



### Survey extended

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Since 2009 the SOG has included the Devon side of Exmoor National Park in eight of our two day surveys. This year the same partnership arrangement was made with The Blackdown Hills AONB and the Devon side of the Blackdowns was included.

### Blackdown Hills

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19 people surveyed 17 patches and 53 sites, 38 sites were positive for otter signs and 8 had fresh signs on the Sunday, 5 sites had fresh signs on the Saturday.

A good coverage and set of results for a first survey.

### Exmoor National Park

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Two Day results this year for the Devon side of Exmoor National Park.

20 people covered 19 patches, 36 sites, 15 of which were positive and there was one fresh on the Sunday and 4 fresh on the Saturday.

### Memory Lane

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For those of you who want a trip down memory lane, old newsletters for the group, started in 1997 are now available on our website under 'Records and Publications' James referred to them as 'otter gossip'.

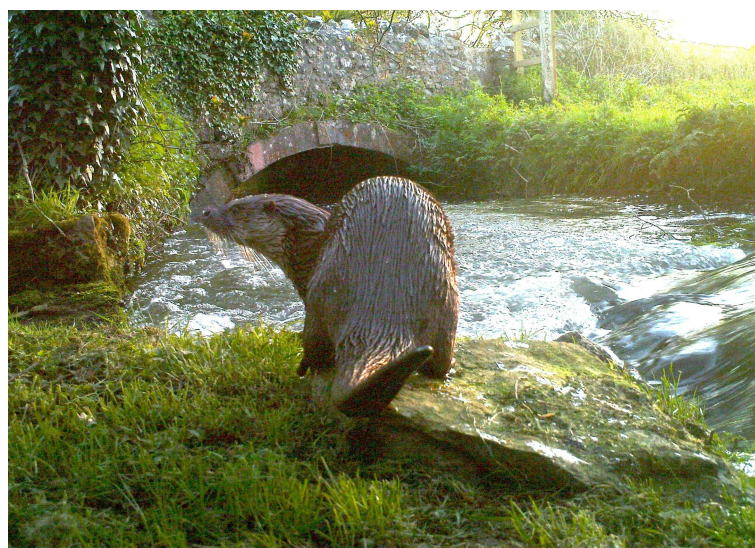
### What is a site?

A site is 50 metres or 164 feet in each direction from a central point such as a bridge. We only record Six figure grid references. Ten figure or longer have to be manually pruned back and sometimes grouped with the results added together. 2 day event data should be recorded on the special forms provided and only 6 figures used.

An otter can travel many miles in one night so we do not need the accuracy required by a botany group to plot the presence or absence of an otter.

Percentages are important in detecting trends, hence the importance to keep to the definition of a site. It goes hand in hand with the groups survey methods and scoring.

**An extract from our surveyors handbook.** 'Once decided on, the sites should not be chopped and changed; in order to identify any trends.'



**A 'site', was explained by James Williams in a newsletter in 2001, the strength of our two day data is helped by the consistency of the groups method.**

'Another area of uncertainty is what actually constitutes a 'survey site'. I am not surprised at confusion over this one as it often depends on the structure of the actual survey. For example, the National Otter Surveys have looked at 600m lengths of river bank centred on a specific feature, usually a bridge. This size of site was determined to reflect the density of survey sites and likelihood of finding otter signs. However, the SOG surveys are based on spot checks of specified sites, mostly bridges and the immediate area only. Sites are typically referenced to 6 digits. Because of this I would like to suggest that for our purposes anything within a 50m radius of a national grid reference constitutes a SOG site. Basically if you find evidence of otters at two locations that can be identified by two unique 6 digit grid references these can be considered as two sites.'