2017 DWT Otter Survey

Summary of Results

The fifth DWT Spring Otter Survey took place over the weekend of the 22nd/23rd April 2017 and once again we extend our thanks and congratulations to all the volunteers who took part. For the third year Tees Valley Wildlife Trust also joined the survey and again increased the number of patches covered in the Tees Valley from last year. There was however a drop off in volunteer participation this year, possibly due to Easter being very late resulting in a lot of people being away over the survey weekend. I hope that we can rectify this next year and get volunteer numbers back up to previous levels. Nevertheless, everyone who took part contributed to a great couple of days of otter sign surveying regardless of whether they found evidence of otters or not. It really is just as important to get information on where otters are not being found as to record where they are so that we can identify watercourses that do not provide adequate food resources or habitat. Most excitingly there were no less than five visuals of otters over the survey weekend, one of which was on a camera trap, but the other four were live sightings – definitely a record.

The weather this year was, in most places, the best we have had. There was some rain on Friday night providing a nice clean, soft substrate for tracks and the weekend was then dry with sunshine in many areas.

Over the weekend 99 teams of volunteers checked a patch of watercourse amounting to over 120 people in total. Some very noble volunteers took on a second patch at short notice as there were a lot of late drop-outs this year. Thanks to these dedicated otter spotters – and due to an increased number of patches covered by TVWT - the total number of patches covered was still a respectable 114. The number of sites contained in those patches was 629. The number of empty patches (45) reflects the reduction in volunteer numbers, the late drop-outs due to illness and the non-returned forms of some participants. There is also still a large hole in eastern County Durham that needs filling, so we will need to try and fill the gaps in our coverage next year with a recruitment drive!

The by-catch of other species reported was once again impressive and the results of those sightings are shown in the table below the otter data.

Otters

Of the 629 sites checked 272 (43%) were positive for otter signs which is a very slight decrease from last year. A further 20 sites had possible or inconclusive signs. There were 337 sites (54%) which were totally negative – an almost identical percentage to 2016. As explained in previous years although this may sound a lot it gives us confidence that we are looking in enough places as there are still more sites where there are no otters than sites where we find evidence of otter activity. It is unlikely therefore that we are overlooking many. However, the large number of empty patches this year does mean we are likely to have missed some.

There were 70 Day 2 'hits' (fresh signs) which is down on last year but within the range of previous years. As usual, many of these 'hits' were close together in the same or neighbouring patches and so have been adjudicated to belong to a single territory. There were four patches where fresh deposits were found on Day 1 but nothing new was discovered on Day 2, and that were sufficiently isolated from the next nearest 'hit', allowing us to be fairly confident that we were just not looking in the right place on the Sunday. These have been adjudicated as 'Near Miss' otter territories. There was also a sighting of two otters the week after the survey weekend on a patch where we had no surveyor and that is totally isolated from all neighbouring patches. This has been adjudicated as a Reasonable Suspicion territory.

As always I have erred on the side of caution when allocating 'hits' to territories and have tended to lump fresh signs together into one territory rather than split them into two if they are quite close together.

For those unfamiliar with the way the data are analysed it is important to emphasise that we are counting otter territories here <u>not</u> individual animals. It is reasonable to assume therefore that many of the adjudicated territories will contain females with cubs meaning the number of actual otters will be greater than the number of territories. This is as accurate as we can be when surveying for an elusive, wide-ranging, cryptic animal that has no individually identifiable markings.

You will see in the results table below that the number of estimated territories this year is 37. This is two more than last year and the highest total yet, although still within the range of previous years. It remains to be seen if the otter population is still increasing or has reached its limit. We certainly need to fill the gaps in our coverage to find out if there are more territories that we have been missing. Meanwhile, there are certainly more daytime sightings now which may suggest that otters are becoming less fearful of humans.

This being the fifth year of the survey it is once again reassuring that the results are remarkably consistent with those from previous years. Not only does this give us confidence that we are getting things about right, but it also suggests that the otter population is relatively stable at this time. Whether that population is at carrying capacity (the maximum number of animals that can be supported in a given environment in terms of food and habitat) or not it is difficult to say. It is also impossible to know how the current population compares with the historic population as there are no figures to compare with.

Other species

There was another increase in the number of reported sightings of other species this year with a total of 99 species of birds, mammals, amphibians, insects and plants!

Avocets were on the list for the first time with 8 birds being recorded over the two days. There were 22 dippers seen plus 4 nests and three species of owl - two Barn owls, one Little owl and one Long-eared owl. The buzzard count was once again 10 and 3 red kites were seen. Another new species for the list was Grasshopper warbler with 4 birds recorded.

For mammals, there was a first appearance on the 'other species' list for a common seal seen on the Wear in the Washington area. The reports of deer tracks/visuals were up to 28 records with 15 individual roe deer being sighted. There were two fox sightings and visuals of 6 brown hares. Sightings of mink scat and tracks were down slightly on last year at 25 records, but that is still high (see Figure 5). There was one visual of a mink on the River Tees. Please continue to record and report your mink sightings throughout the year as we are still trying to build a picture of their distribution across the wider area.

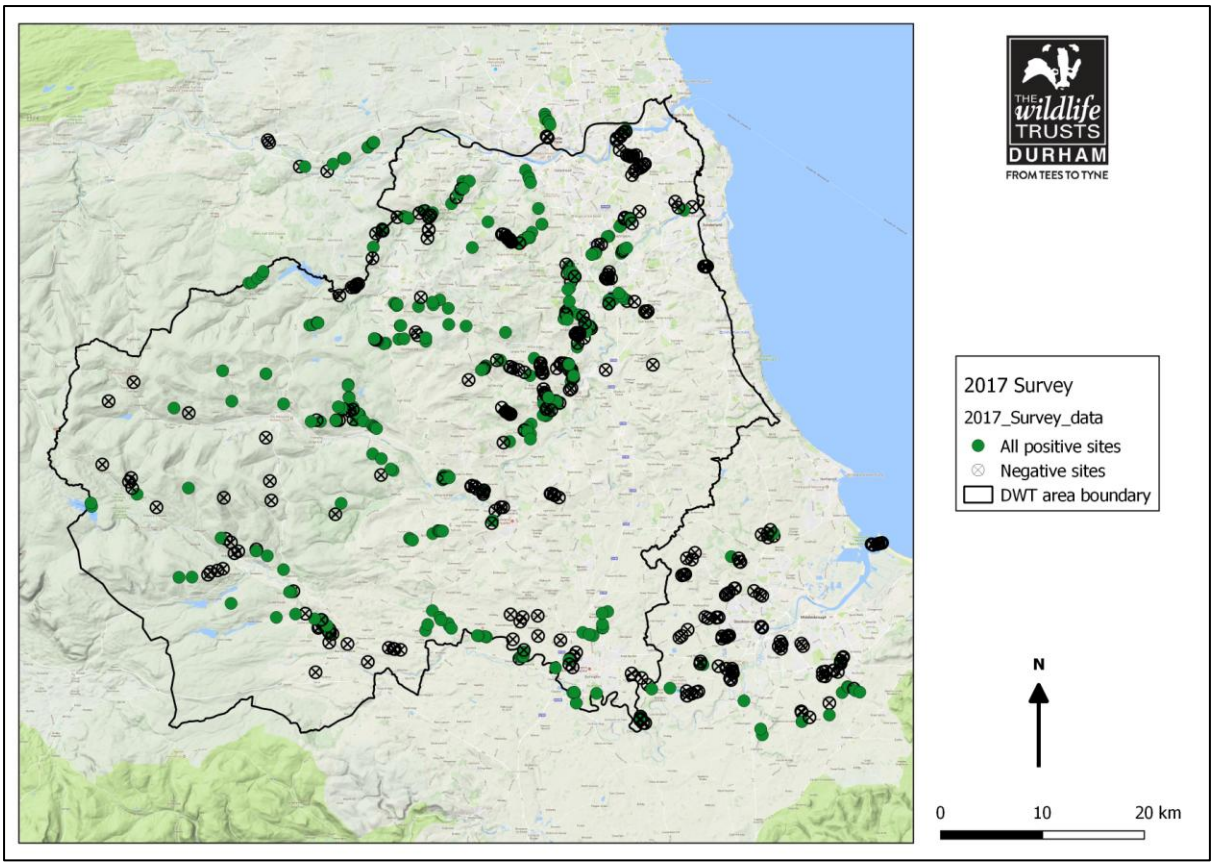

Figure 1. Map showing positive and negative records from 2017 survey

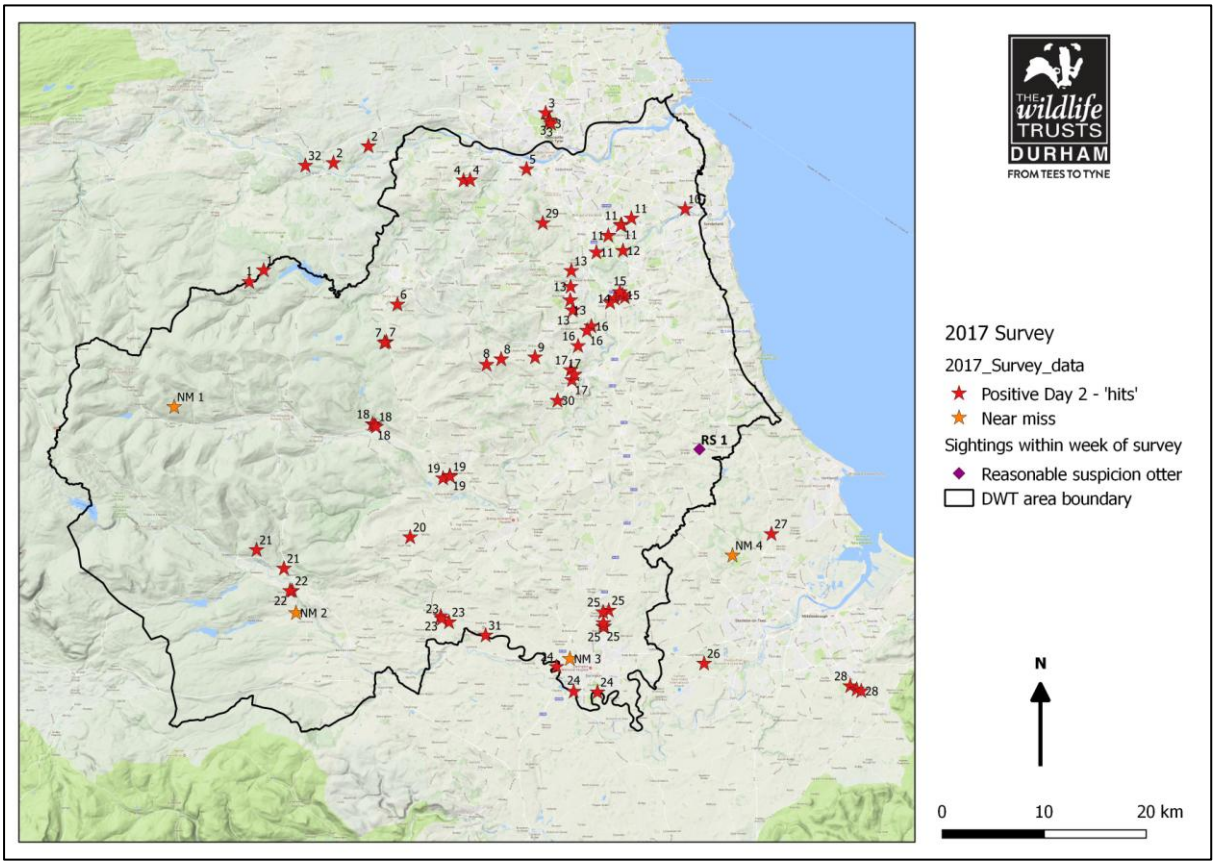

Figure 2. Map showing located territories, near misses and reasonable suspicion otters

Otter Survey data

Catchment	Patches	Sites	Negative sites	Positives (possibles)	Hits	Near miss and reasonable suspicion	Otter territories
Tees	44	219	142	72 (5)	21	4	9
Tyne	17	111	59	51 (1)	13	0	7
Wear	53	294	131	149 (14)	36	1	16
Ryhope Dene	1	5	5	0	0	0	0
Totals	**115***	**629**	**337**	**272 (20)**	**70**	**5**	**32**

*1 patch had sites in both Tees and Wear catchments

2017 Summary	
Empty patches	44
Otter territories located	32
Reasonable suspicion/ near misses	5
Total adjudicated territories	**37**

	Surveys Summary				
	April 2013	**April 2014**	**April 2015**	**April 2016**	**April 2017**
Patches	93	100	112	119	114
Total sites	517	588	608	644	629
Sites positive	216	212	260	281	272
% sites positive	42	36	43	44	43
% sites negative	56	60	53	53	54
'Hits'	59	67	56	78	70
Located territories	26	29	27	30	32
Near misses/Reasonable suspicion	3	6	9	5	5
Adjudicated territories	**29**	**35**	**36**	**35**	**37**

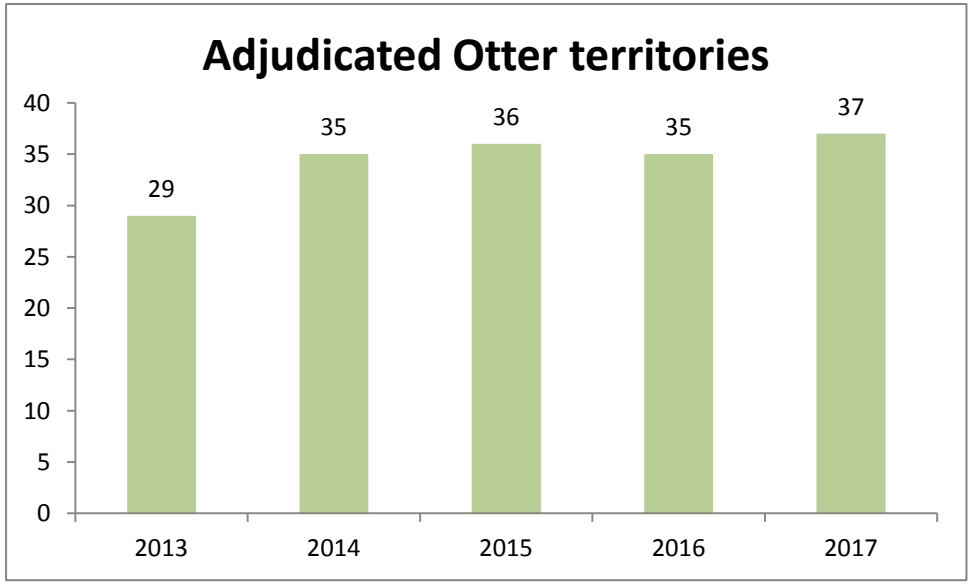

Figure 3. Adjudicated otter territories identified in five DWT Otter Surveys

By-catch of other species

	Species	No of Records*
Birds	Avocet	2
	Barn owl	2
	Black-headed gull	1
	Blackbird	2
	Blackcap	7
	Black grouse	1
	Blue tit	3
	Bullfinch	6
	Buzzard	6
	Canada goose	1
	Chaffinch	3
	Chiffchaff	10
	Common sandpiper	3
	Common tern	1
	Coot	1
	Cormorant	7
	Curlew	13
	Dipper	22
	Eider duck	2
	Goldcrest	1
	Goldfinch	8
	Goosander	7
	Grasshopper warbler	3
	Great crested grebe	4
	Great spotted woodpecker	9
	Great tit	1
	Greenfinch	1
	Grey heron	10
	Grey partridge	2
	Grey wagtail	11
	Greylag geese	5
	Herring gull	1
	House sparrow	1
	Jackdaw	4
	Jay	1
	Kestrel	3
	Kingfisher	5
	Lapwing	10

	Linnet	1
	Little egret	1
	Little grebe	1
	Little owl	1
	Long tailed tit	2
	Long eared owl	1
	Mallard	15
	Mandarin duck	1
	Meadow pipit	2
	Merganser	1
	Mistle thrush	2
	Moorhen	4
	Mute swan	7
	Nuthatch	2
	Oystercatcher	15
	Pheasant	1
	Pied wagtail	5
	Red grouse	3
	Red kite	2
	Redshank	4
	Reed bunting	3
	Robin	1
	Rook	1
	Sand martin	4
	Shelduck	5
	Skylark	3
	Snipe	2
	Song thrush	3
	Swallow	4
	Tree creeper	2
	Tree sparrow	2
	Tufted duck	2
	Turnstone	1
	Wheatear	2
	Willow tit	1
	Willow warbler	2
	Wren	5
	Yellowhammer	3
	Total bird species	**76**
* Records not number of individuals		

Mammals	Badger (tracks/setts/latrine)	5
	Brown hare	4
	Brown rat	1
	Common seal	1
	Deer (tracks/droppings)	20
	Grey squirrel	1
	Mink (tracks/scat)	24
	Mink (visual)	1
	Rabbit	1
	Roe deer (visual)	8
	Red Fox (tracks/scat)	3
	Red Fox (visual)	2
	Stoat	2
	Water vole visual	1
	Water vole (latrine/burrows)	2
	Weasel or Stoat	1
	Total mammal species	**12**
Amphibian	Common toad	1
	Frog (tadpoles)	1
Insects	Buff-tailed bumblebee	1
	Large white butterfly	1
	Orange tip butterfly	9
	Painted lady butterfly	1
	Peacock butterfly	1
	Small tortoiseshell butterfly	1
	Small white butterfly	3
	Speckled wood butterfly	2
Plant	Marsh violets	1
Species Total		**99**

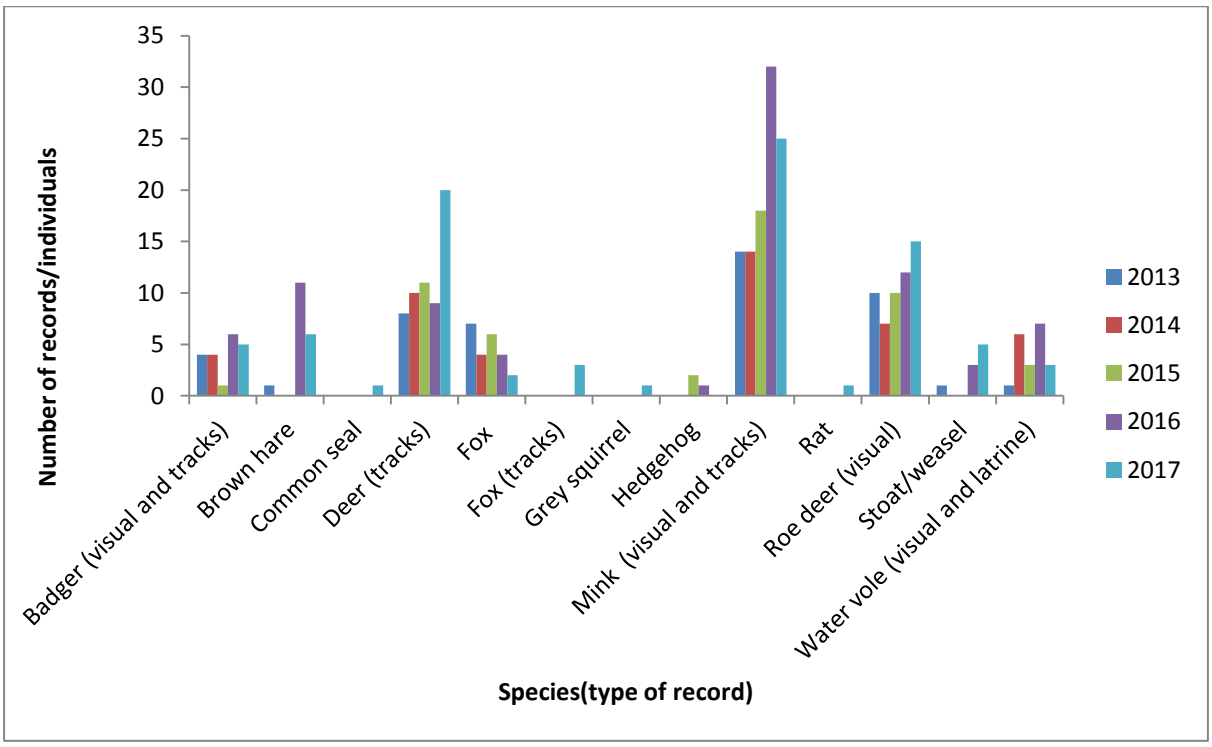

Figure 4. Chart comparing other mammal records across surveys

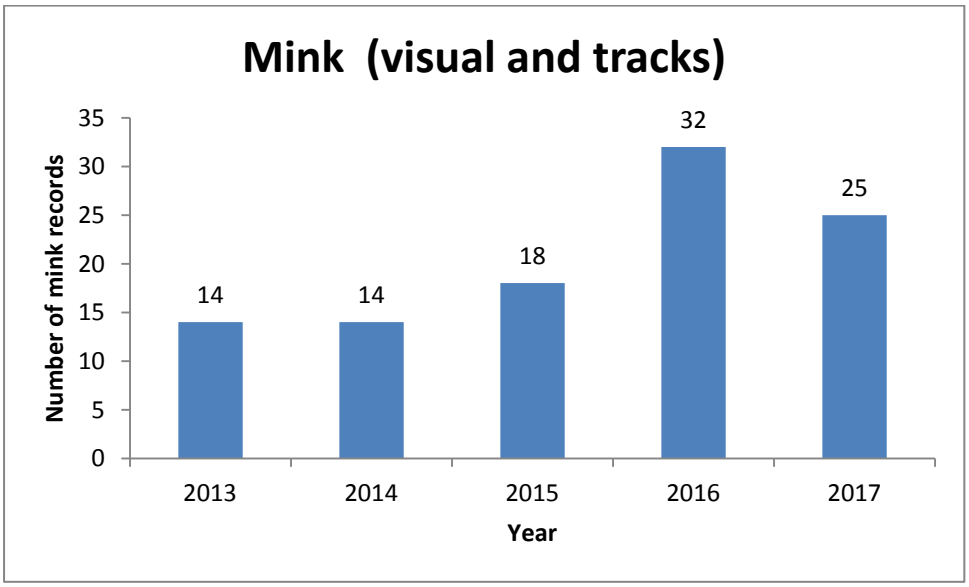

Figure 5. Mink records across surveys