Cambridgeshire and Peterborough Otter Survey 2017

Otter on the River Cam; Trevor Sawyer 2017

Survey work carried out by members of the Cambridgeshire Mammal Group, the Wildlife Trust and other volunteers during winter 2016/17. Supported by the Cambridge Water PEBBLE Fund.

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Acknowledgements

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Summary

A survey for signs of otters was conducted between the beginning of December 2016 and the end of February 2017. This was a repeat of surveys undertaken in 1992, 1997, 2002, 2007 and 2012. The survey covered all major watercourses in Cambridgeshire and many smaller ones as well. This survey has tracked the recovery of otters throughout Cambridgeshire, which has been a dramatic change over the years.

A total of 291 sites were visited and surveyed using the same methodology as in previous years; bridge checks and walking adjacent riverbanks. This included 10 new sites in Cambridge City.

The results showed a slight decrease in sites with otter signs from 49% of those surveyed in 2012 to 41% of sites surveyed in 2017. There are a number of possible reasons for this, and the survey does not necessarily indicate a decline in otter numbers.

Otter signs were found at half of the new Cambridge sites.

Introduction

The first county-wide survey of otters took place in Cambridgeshire in 1992. This confirmed that the known local decline of otters had not reversed. The only evidence of otter activity was along a short stretch of the River Cam near Cambridge, and an old spraint at Brandon Creek on the Norfolk border.

On-going monitoring work carried out by the Cambridge Green Belt Project and Wildlife Trust volunteers in 1993 and 1994 continued to find evidence of activity upstream of Cambridge and extended the known range of otters in the area.

During 1995, four captive-bred otters were released at a site on the Ouse Washes by the Otter Trust. Similar releases took place on the River Great Ouse in Bedfordshire in 1995 and in Northamptonshire on the River Nene in 1994 and 1995.

The county-wide survey was repeated in 1997 and at 5-yearly intervals since then, with each showing an increase in number and distribution of signs. While the early increases may have been linked to otter releases, the subsequent expansion was not. Otters are now present on all main rivers and use many of Cambridgeshire's streams. The 2012 survey showed a dramatic increase in signs in the fens, particularly the Middle Level, where the Middle Level Commissioners installed a large number of artificial holts.

New environmental pressures since the previous survey include work starting on the new route of the A14 and the new town at Northstowe.

There have been no major changes to water quality since the last survey.

It is not currently possible to relate the survey data directly to the otter population, but it is assumed that the number and range of spraints found corresponds loosely to the prevalence of otters.

Methodology

The survey used the same method as previous surveys. The survey points were grouped with 8 – 10 sites in each group, with the idea that a group could be surveyed in a day. The survey covered 281 of the 289 existing sites plus 10 new sites in the city of Cambridge. Most sites focussed on a bridge although some are bank lengths only.

At each site, the bridge was checked as thoroughly as possible. Where possible, up to 600m of bank was also walked, usually 300m on either side of the bridge, concentrating on likely spraint sites or wet mud where prints might be found. Any other bridges or possible spraint sites within 300m were checked. See Appendix 2 for a copy of the survey protocol and the survey form.

In addition to otter signs, evidence of water vole, mink and brown rat were also recorded, although no extra effort was made to look for them. Because the survey stopped if spraint was found, the data for the other species cannot be considered a complete survey. The survey form incorporated space for records of other species, comments and a sketch map where this was considered helpful.

A total of 57 surveyors were used, mostly working in pairs. Those who were not already confident surveyors attended a training event held jointly by the Wildlife Trust and the Cambridgeshire Mammal Group in early December 2016 and were where possible accompanied on their surveys by an experienced surveyor. Most surveyors visited between 10 and 20 sites.

Survey conditions

As in the 2011/2012 survey, the winter was unusually dry, following an unusually dry year, so river flows were very low for the whole of the survey period (classified by the Environment Agency as "exceptionally low" or "notably low"). This meant there was little danger of signs being washed away, but with the added possibility of low flows discouraging otters from using some areas. However, one set of 10 sites was surveyed following rain and no otter signs were found, in an area where signs were expected. Surveyors wondered whether the rain had washed signs away. Surveys were spread over the whole season as conditions were similar all winter.

Results

A total of 291 sites were visited and survey forms filled in. This was all but 8 of the 2012 sites plus 10 new Cambridge sites. A summary of results is shown in the table below:

	2017	%	2012	%	2007	%	2002	%	1997	%	1992	%
Otter	120	41	140	49	76	26	47	16	35	12	3	1
Mink	15	5	29	10	18	6	47	16	37	13	57	20
Water vole	16	5	8	3	13	4	14	4	0	0	9	3
Brown rat	26	9	28	10	72	24	-	-	-	-	-	-
Total sites	291		285		289		285		281		279	

Maps

See Appendix 1 for maps illustrating these results and showing locations of survey sites.

Other species coinciding with otter

Mink: 15 positive sites of which 8 (i.e. 50%) were also positive for otter
Water vole: 16 positive sites of which 6 (i.e. 38%) were also positive for otter
Brown rat: 26 positive sites of which 13 (i.e. 50%) were also positive for otter. Water vole and rat were recorded together at only 2 sites.

Heavy rain and water levels

Surveys following heavy rain: 61 (21% of the total – this is higher than the previous survey where this figure was 12%)

Of these positive for otter: 17 (i.e. 29% - this is noticeably less than the 51% of sites surveyed after rain having otter signs in 2012)

Surveys with reported high water: none – though in several cases where there had been recent rain it was noted that levels had dropped again significantly.

Number of sites found to be dry: 6 (2% of total, none with any otter signs)

Number of sites dry or with very low water: 80 (27% of total). 20 of these sites had otter signs. There was also one site that had been destroyed by the A14 work and one where ditching work was in progress at the time of survey.

Sites added for 2011/12 survey: 10

Not surveyed in 2017: 8 (site numbers 40, 51, 70, 99, 109, 139, 220, 276).

Sites not visited

There were various reasons for sites not being visited:

Site 40 is near Northborough in the North Level of the fens. It was surveyed in 2007 and found to be unpromising. It was not visited in 2012 due to lack of time and was not a high priority for 2017. Should this survey be repeated, it would be worth visiting site 40 again to assess its condition and accessibility.

Site 51 is part of RAF Wittering. A spot check survey was carried out in 2012 but no survey in 2007 or 2017 due to lack of access. It is not clear where exactly the spot check was carried out or whether it would be possible to repeat it.

Site 70 is at Poles Bridge over Monks Lode. This bridge has been removed since the 2012 survey (which reported it was dangerous and rotten), so access was not possible. It would be worth keeping this site on the list in case the bridge is replaced.

Site 99 was not surveyed due to difficult access. This site had spraint in 2012. It is possible that the bridge details need to be clearer to enable surveyors to find the right site; alternatively it would be worth another visit to check whether the lack of access was temporary.

Site 109 is part of a fishing lake complex which has been fenced off since 2012 so that access is no longer possible. This site could be removed from the survey.

Site 139 is again part of a fishery. Access was denied in 2012 and 2017 so the site should probably be removed from the survey.

Site 220 is at Hail Bridge on the A1. This site was a known site for otter road traffic accidents, so that ledges and otter fencing have been installed. This makes the bridge much harder to access ("tricky access" was noted in 2007 and 2012) and it is not clear whether any access is now available. The surveyors attempted access via the golf course, which was denied. It might be worth one final look before removing this site from the survey.

Site 276 was damaged and inaccessible due to work on the new A14. It is worth leaving this site on the survey list in case access becomes easier once work is complete.

Discussion

The number of sites with otter signs has fallen slightly since 2012. Otters are still present throughout the county, and several surveyors reported sightings or signs near to but not at survey sites.

Impacts of weather

It is unlikely that the survey results were impacted by low water levels, despite the extremely dry winter of 2016-17. The previous survey was also in a notably dry year. In the current survey, 80 sites were reported to have low water levels or be dry, compared to 128 in 2012 and 59 in 2007.

Surveyors were asked not to survey following heavy rain. However, 21% of surveys were carried out following rain, either because there was no other available date for both surveyors or because this was not emphasised enough during surveyor training. Some surveyors suspected this had led to a lack of otter signs. Only 21% of sites surveyed following rain had otter signs, which also suggests that rain may have affected results.

Effect of new surveyors

The 2017 survey recruited a record number of new surveyors. Their enthusiasm, interest and efforts were very much appreciated and without them the survey would not have been completed. A consequence of this was that more sites were surveyed by relatively inexperienced surveyors, compared with earlier surveys. It is possible that this year's surveyors were not as expert in knowing where to look, and were more cautious about accessing difficult sites than in the past.

As an attempt to understand whether this would affect the results, 12 sites were chosen for a re-survey in March 2017. Of these, two had been reported as having signs of otter (though both with queries). Most of them were originally surveyed in February 2017. The resurvey found 6 sites with signs of otter (but no signs at the original two). This highlighted a possible discrepancy in results, but the small number of sample sites does not scale up easily to the whole survey.

Mink signs

The number of mink signs decreased from 10% in 2012 to 5% in 2017. Although the survey cannot be considered a complete one for mink, this decline is noticeable. It is also interesting that of the 15 mink signs reported, 10 of these were uncertain. This implies that either the number of mink in the county is reduced or that they are moving to smaller channels and onto land, and leaving fewer signs

at otter spraint spots. All the definite mink signs coincided with otter spraint (perhaps indicating that the habitat in those areas is good enough to support both species).

There is some evidence that otters benefit from a reduction in mink numbers. In this case more otter signs might be expected in the area of mink control; the upper Cam and Ouse. However, this is not what the survey found and the situation is likely to be more complex than this. On the Bourn Brook, where mink control has been running for longest, otter signs have continued to increase.

Water vole signs

The number of water vole records has doubled since 2012. This is probably linked to the fact that there are fewer mink (particularly in areas where mink control is in place), and water voles are moving back to larger rivers such as the Cam.

Brown rat signs

Signs of brown rat are similar to those recorded in 2012, but much decreased from the 2007 numbers. Surveyors were not trained to recognise brown rat signs, so most of the records came from a small number of surveyors.

In the case of any of these species, the survey results cannot be used to infer specific conclusions.

Other species recorded

The survey recorded the invasive species floating pennywort as well as fauna including badger; barn owl; black headed gull; blackbird; blue tit; buzzard; Canada goose; carrion crow; Chinese water deer; collared dove; coot; cormorant; fieldfare; fox; goldfinch; grass snake; great crested grebe; green woodpecker; grey heron; grey wagtail; greylag goose; hare; kestrel; kingfisher; lapwing; linnet; little egret; little grebe; long tailed tit; mallard; marsh harrier; merlin; mole; moorhen; mouse; muntjac deer; mute swan; oystercatcher; rabbit; red kite; redwing; robin; roe deer; rook; skylark; snipe; sparrowhawk; starling (1000); stock dove; stonechat; water rail; whooper swan; widgeon; wood pigeon; woodcock; wren; yellowhammer.

Changes in otter signs

There are a number of areas with clear changes in the presence of otter signs since 2012. Given that one otter probably leave signs at many sites, the gaps identified below do not necessarily imply a significant drop in otter numbers. It would be worth checking whether there have been any changes at these sites which could affect their suitability for otters.

River Nene

The section of the River Nene from the Northamptonshire border to Peterborough had no signs of otter. Signs have been found on at least 3 of the 5 sites from Elton to Water Newton every year since 1997. This is a relatively short stretch of river, and the signs are probably made by a single otter each time, but it is notable that this is the first time there have been no signs here in 20 years. Surveyors noticed several of the sites were well-used by dog walkers and were quite busy. They noted difficult access to other sites.

Earith

No signs of otter were found on the River Great Ouse from St Ives to the Lazy Otter pub where the river crosses the A10, or in the area around Earith, Mepal and Chatteris. However, three of these

sites were either inaccessible or surveyors were asked to move on by an adjacent house owner. A surveyor suggested one reason for the lack of signs upstream of Earith may be that otters are spending more time (and leaving more spraint) at the new reserves at Fen Drayton and Ouse Fen, so spraint sites on the river are less used. Otter signs were present on the Ouse Washes, Sixteen Foot Drain and around March.

River Kym

More signs were found along the River Kym than during any of the past surveys, despite the Hail Bridge site being inaccessible.

Upper Cam

Fewer otter signs were found on the River Rhee this year; there were only two and these were around Wendy, plus signs on tributaries at Meldreth and Fowlmere. Otters are still present on the upper Cam and Granta, though there have been no signs in an area around Shelford and Stapleford in either of the last two surveys.

Cambridge City

This year 10 city sites were added to the survey list, with otter signs found at 5 of them. Generally, the sites with no signs were in the more built-up areas of the city, with positive sites near the commons.

A14 Corridor

While some sites were inaccessible or damaged by the work on the new route of the A14, otter signs were found for the first time at a number of sites to the south of the works. These are on small watercourses around Elsworth, Conington and Hilton, plus a site to the north at Oakington.

On the other hand, there was a decrease in the number of signs found on the Ellington and Alconbury Brooks, with nothing upstream of Hinchingbrooke Country Park apart from at a single site near Brington. However, a consultant working in this area, and a local farmer, report regular sightings of otter, spraint and trail cam footage here, so the lack of signs from the survey is probably a result of survey timing / sites rather than a lack of otter presence.

Other otter signs

Otter signs were recorded separately from the survey – the maps in Appendix 1 show both the signs recorded over the 5 years since the previous survey, and during 2016-17.

These indicate how much information would be available in the absence of the county survey (only 24 records in 2016-17). They also throw some light on the gaps in the otter signs recorded.

The data shows signs of otter on the Nene west of Peterborough, suggesting surveyor access may have been a constraint during the survey. The two otter road deaths at Earith, both during the year before the survey, suggest that the lack of otter signs there might be temporary. Finally, the records of spraint at Barrington and an otter road death at Orwell in 2016 suggest the same on the upper Cam.

Conclusions

- This survey found a small decrease in the number of otter signs found. There are various possible reasons for this, and it does not necessarily imply a significant reduction in the number of otters in the county.
- It is worth monitoring sites where there have been changes over the next few years.
- Otters are still present throughout the county. Any development or river work should assume otters are present and provide mitigation / habitat enhancement accordingly. Impacts of large developments such as the A14 project should be monitored.

Recommendations

- Repeat the county survey in 5 years' time to check this is not the beginning of a wider population decline.
- Review survey form and surveyor training so that the survey is easy to carry out and report on and surveyors are capable of completing the survey. This may need to include more about finding the survey site.
- Monitor key areas over the next couple of years, particularly the Nene west of Peterborough and the Rhee.
- Communicate with neighbouring counties to create a wider otter map.
- The continued presence of otters in the Middle Level of the fens is very likely due to the artificial holts provided by the Middle Level Commissioners. These should be maintained where necessary so that they can continue to accommodate otters.

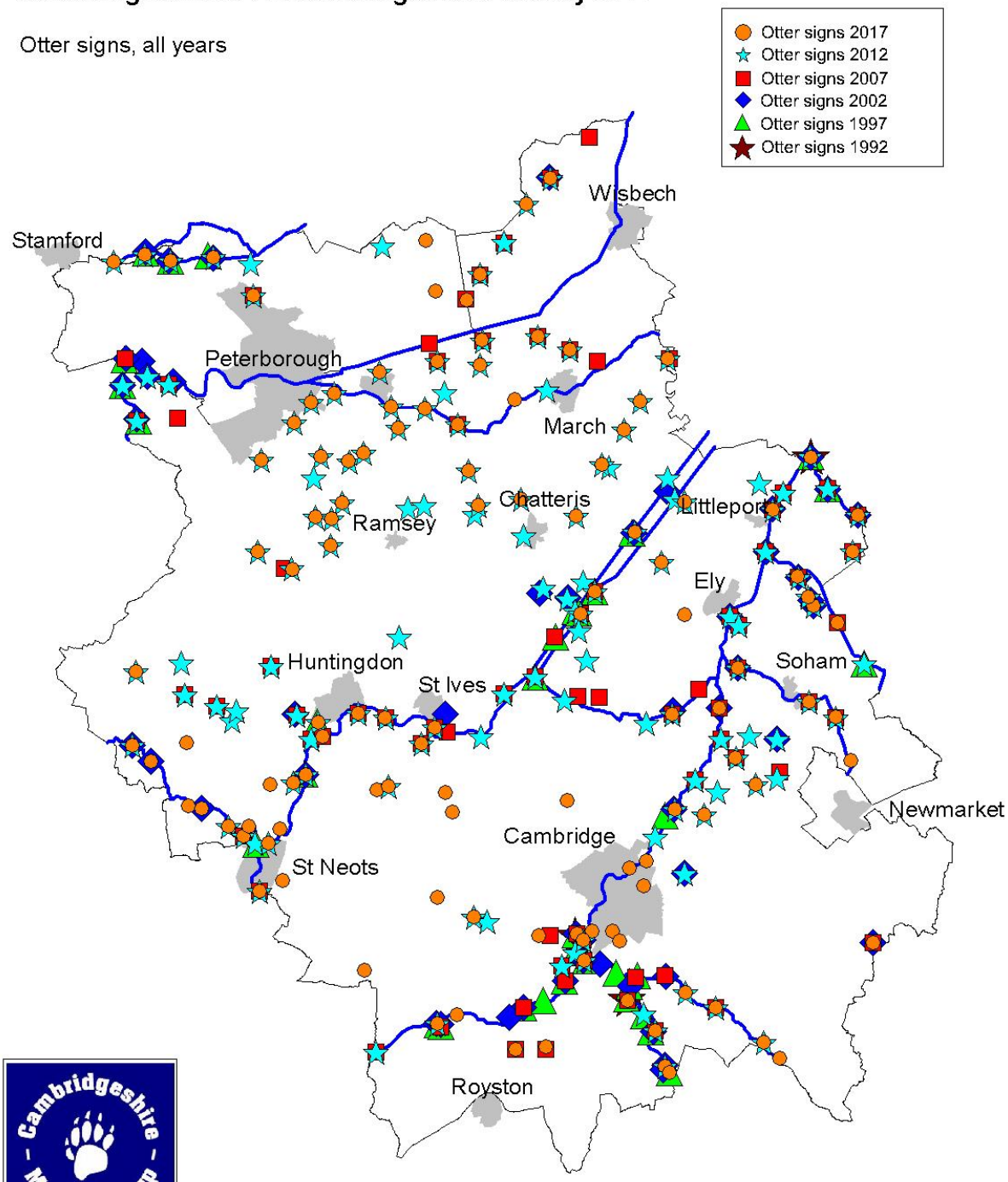
Appendix 1 – Maps

List of maps:

- Summary map – signs from all surveys
- Results 1992
- Results 1997
- Results 2002
- Results 2007
- Results 2012
- Results 2017
- Other otter records 2012 – 2017
- Other otter records 2016 – 2017

Cambridgeshire & Peterborough Otter Survey 2017

Otter signs, all years



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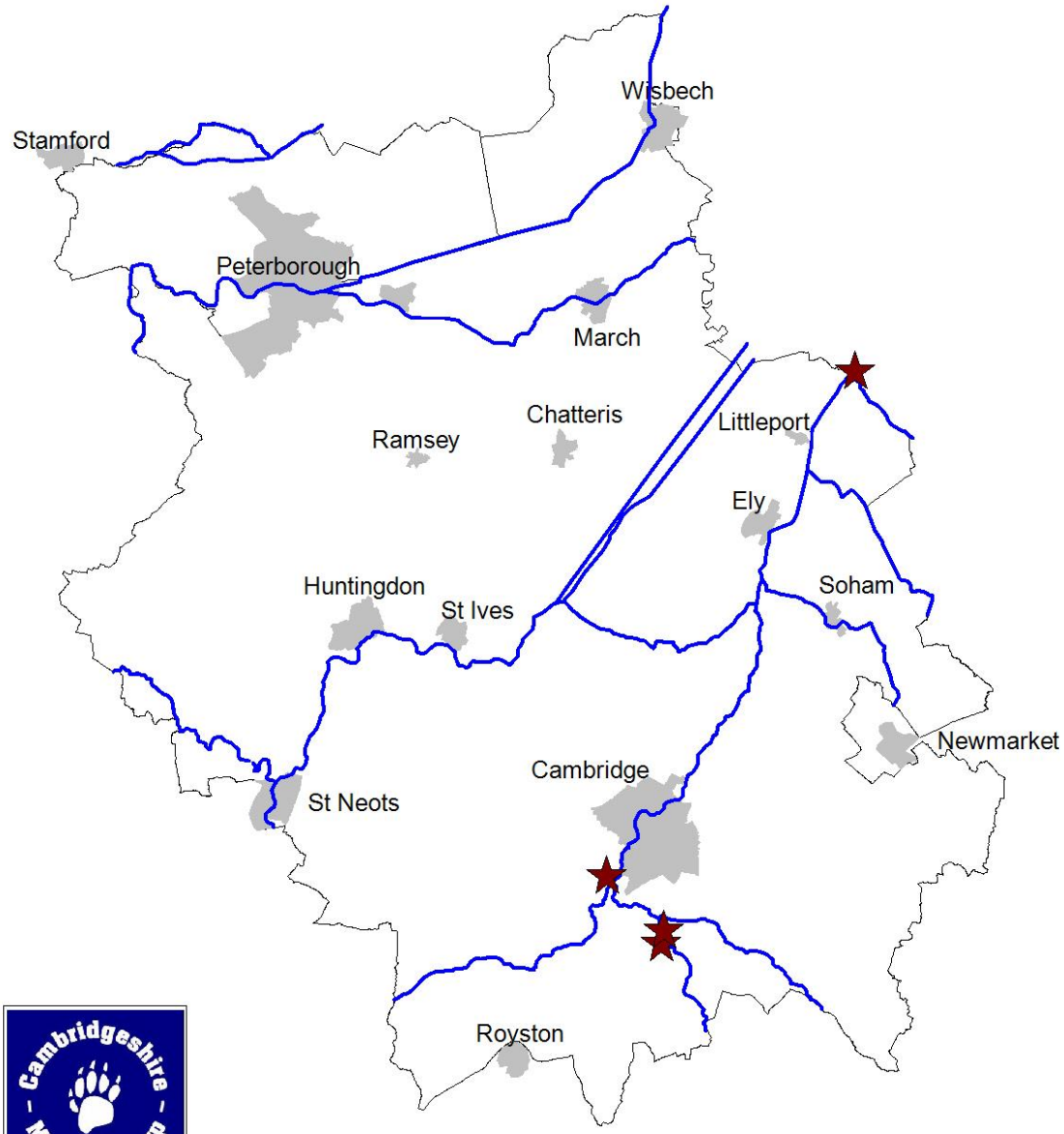
Otter signs 1992



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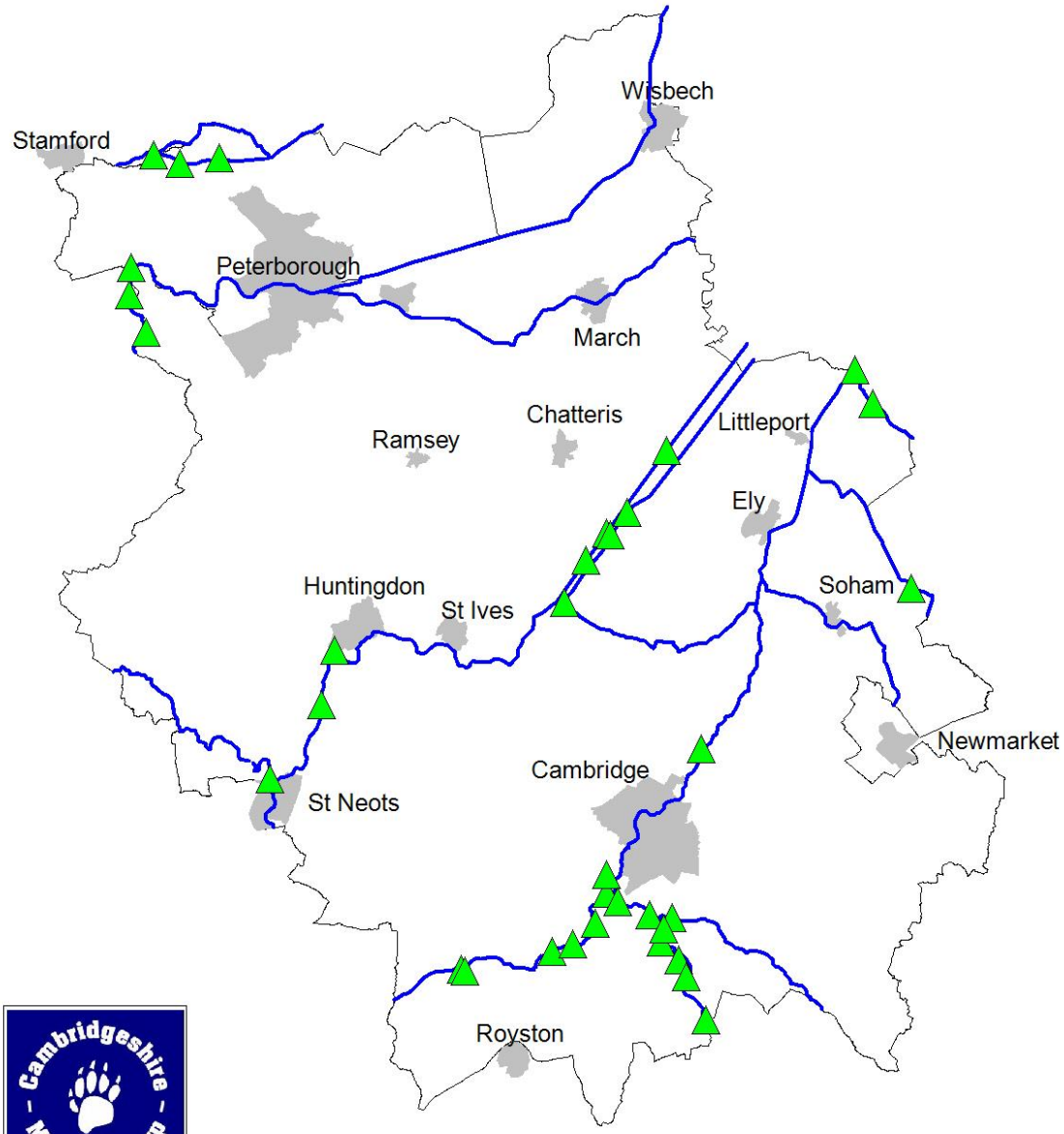
Otter signs 1997



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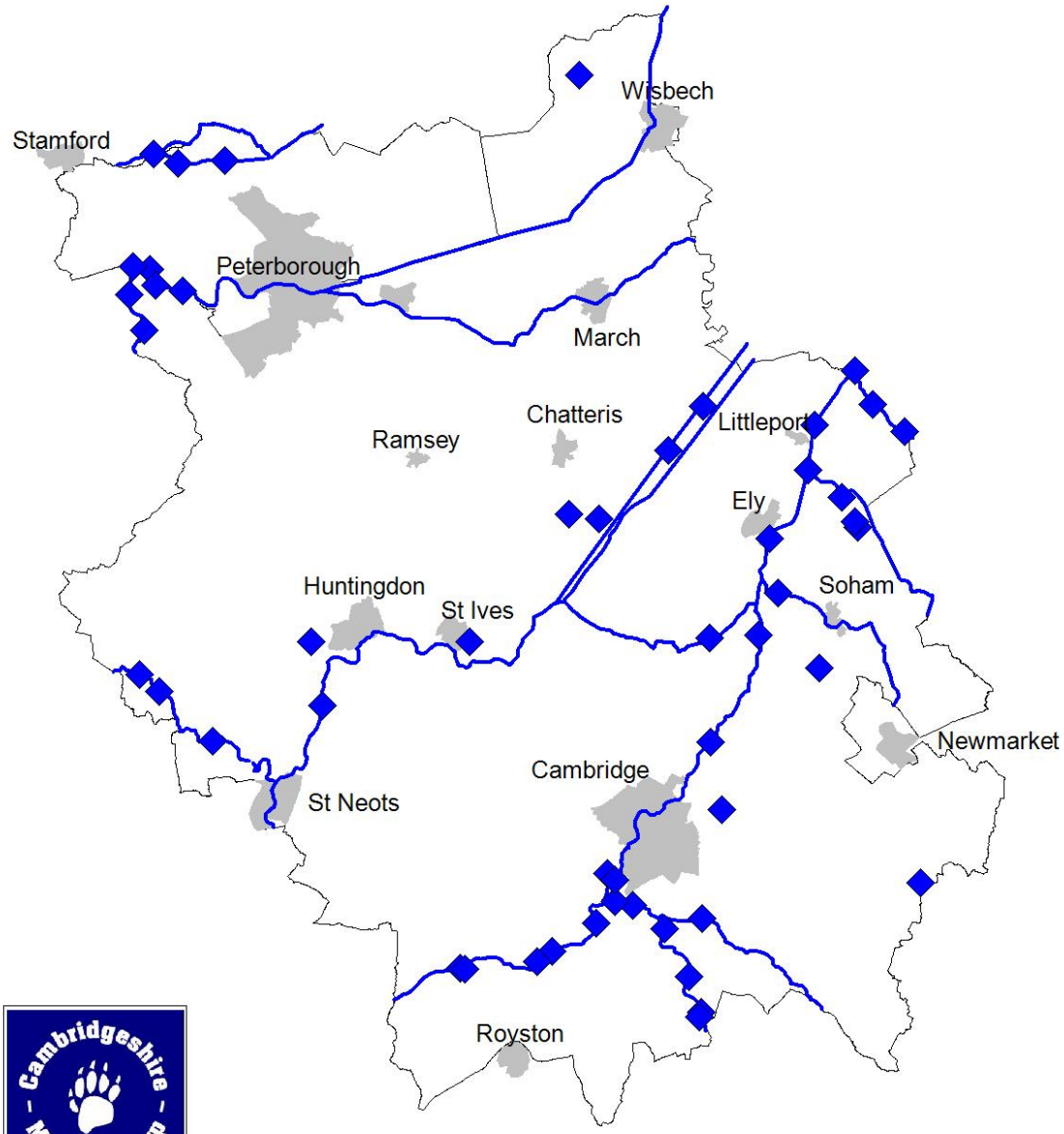
Otter signs 2002



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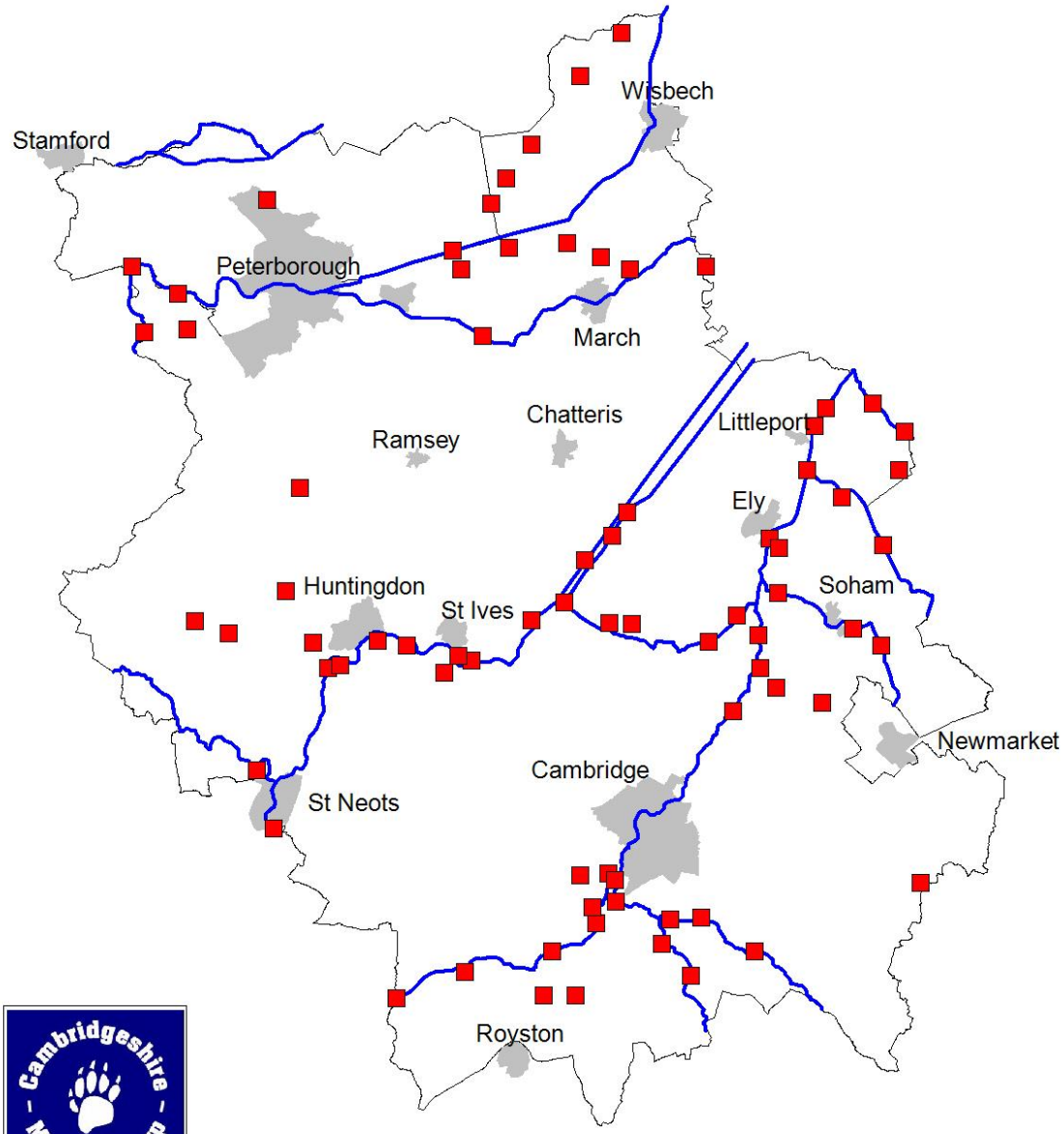
Otter signs 2007



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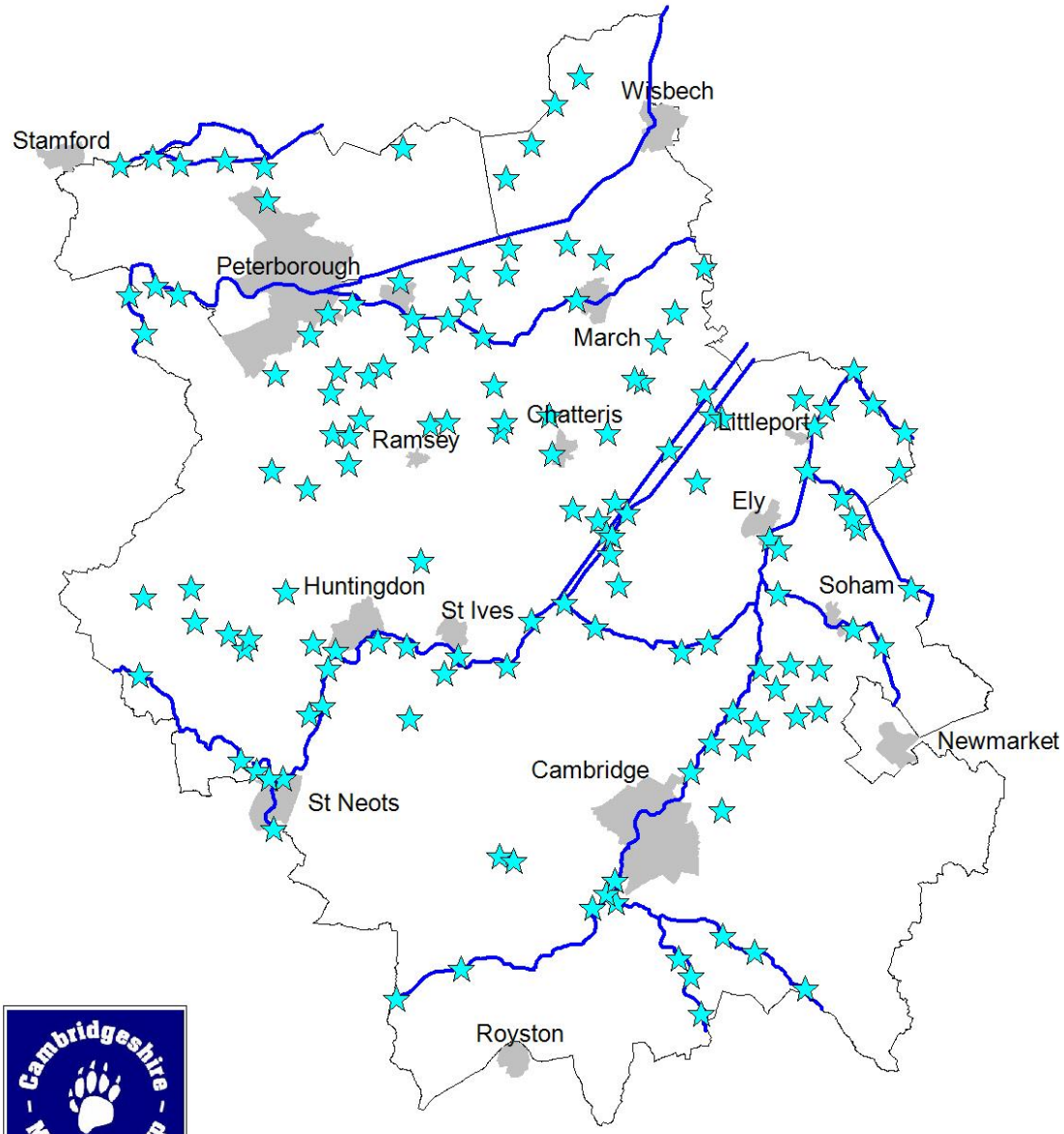
Otter signs 2012



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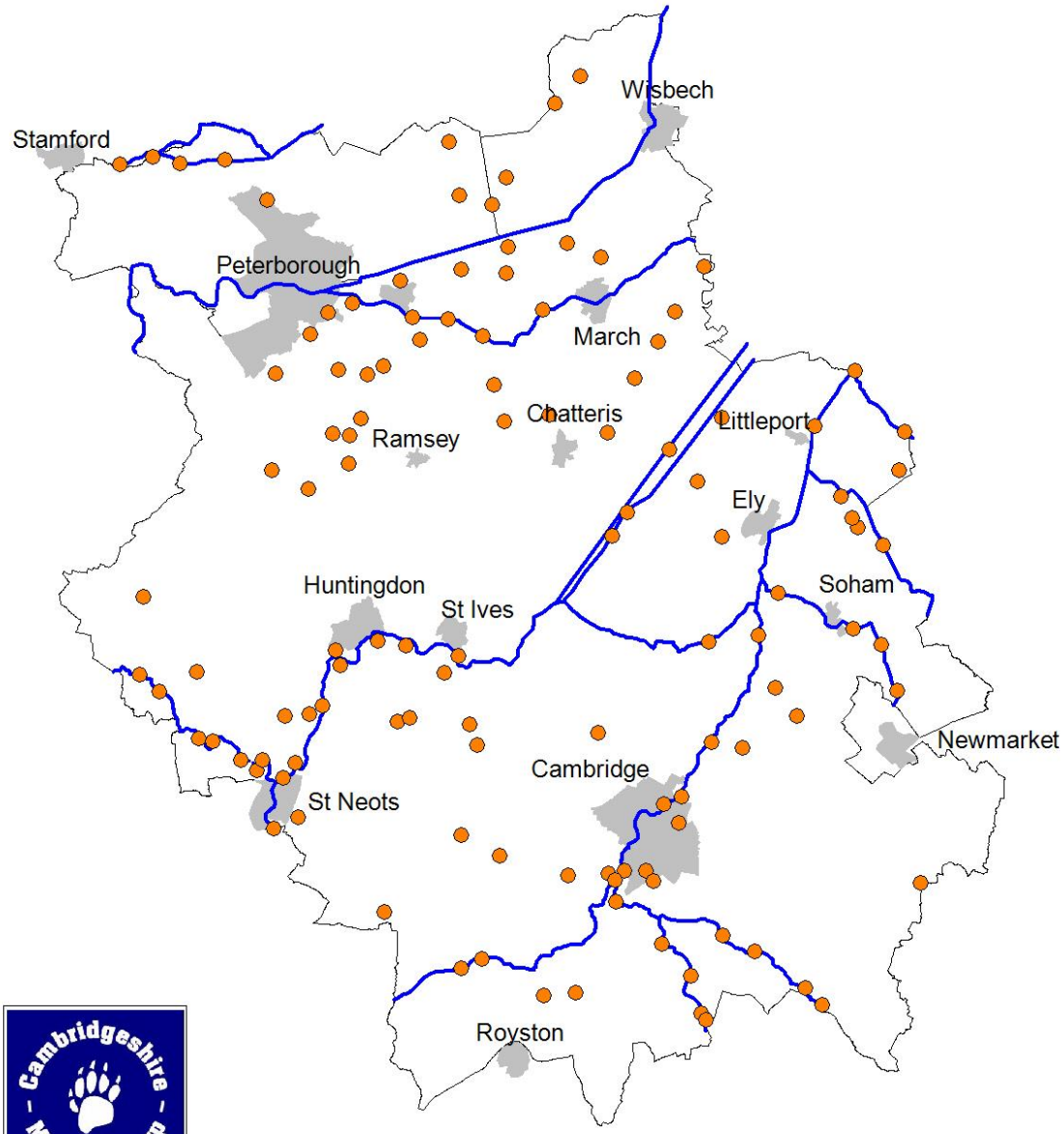
Otter signs 2017



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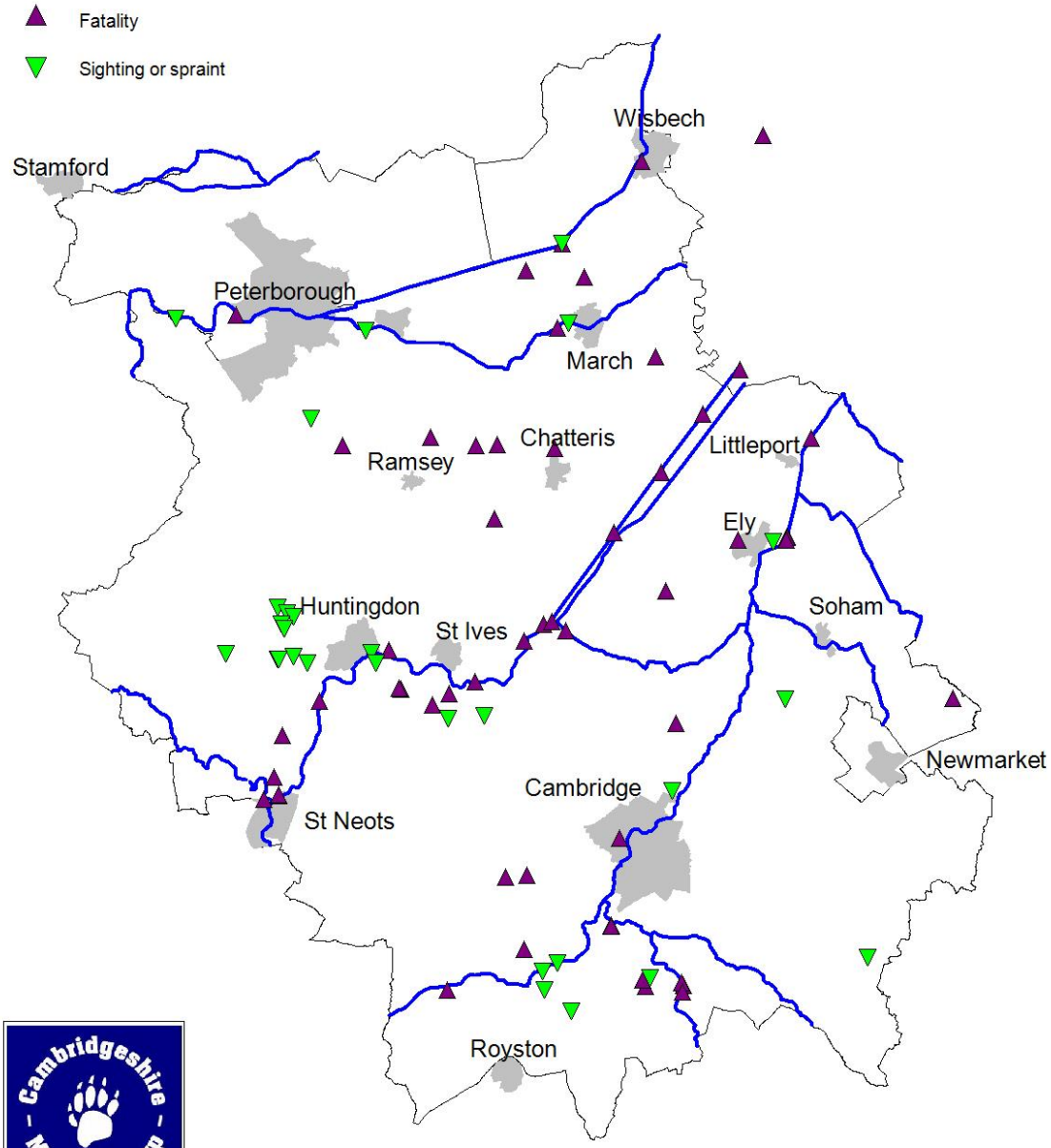
Otter records 2012-2017



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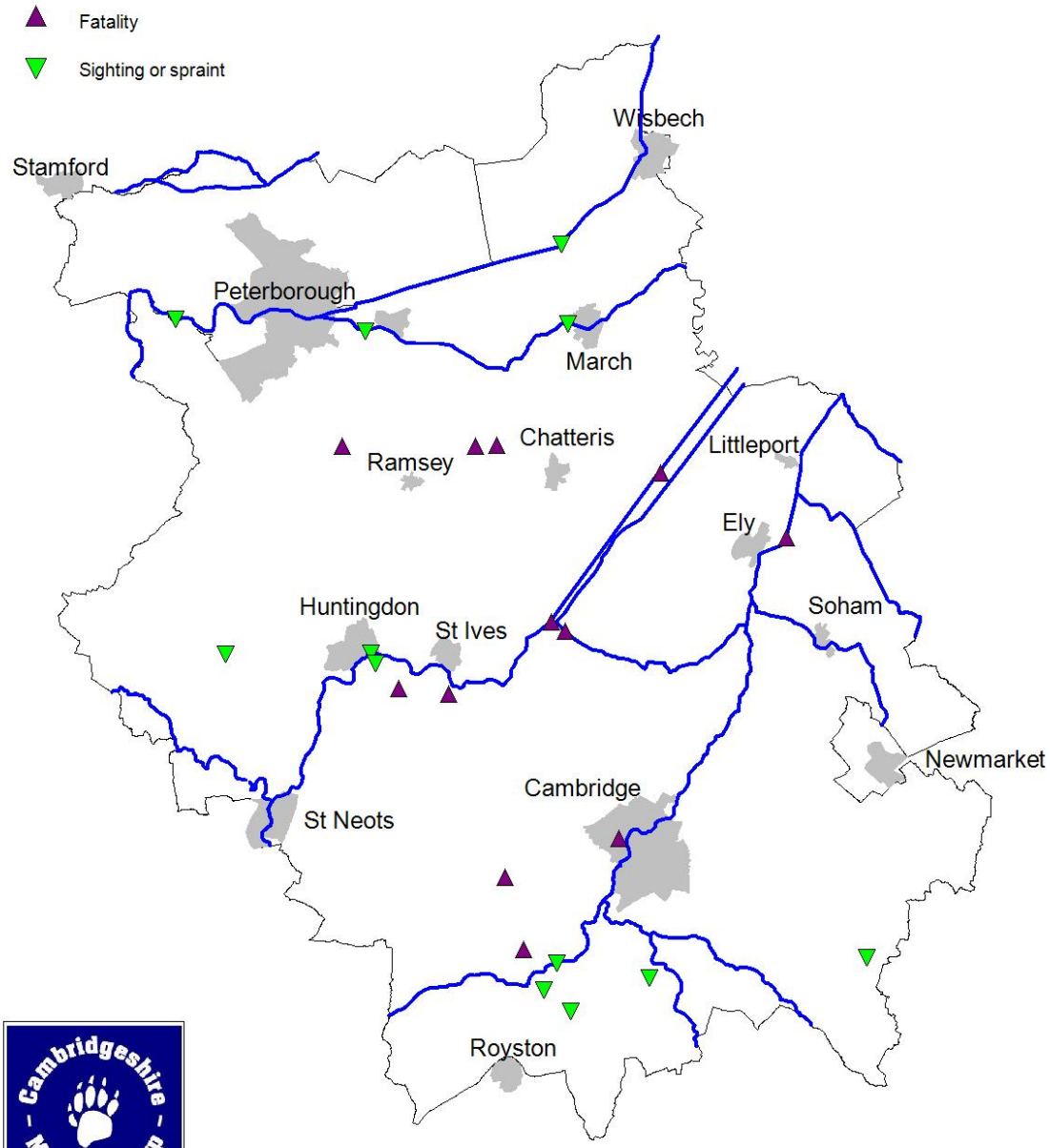
Otter records 2016-2017



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Appendix 2 – Survey forms and protocol

Cambridgeshire and Peterborough Otter Survey

Survey Protocol 2016-17

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- ONLY SURVEY WHEN YOU FEEL IT IS SAFE TO DO SO
- If you consider the site, or parts of it, to be unsuitable for survey please do not attempt to access. Make a note on the form, giving reasons.
- For each bridge, check underneath and immediately around.
- If possible walk 600m of the bank with the best potential for otter signs (ideally 300m on each side of the bridge).
- If there is no water, or there is limited access or no suitable habitat, do a part- (walk part of the 600m only) or spot- (bridge only) check.
- Please note the date and recorders on every form. Initials are OK if the full names are on at least one form for the day.
- Use the "additional info" box for any information a future surveyor might like to know. If necessary, make a site sketch in the box above.

Vegetation scale

Score	% cover
0	0
1	1 – 25
2	26 – 50
3	51 – 75
4	76 – 100

Health and safety:

- Do not survey unless you feel it is safe to do so.
- Work in pairs. Let someone know your route and when you are expected back.
- Take care near the water's edge or on steep gradients under or near to bridges. Use a walking/ balancing aid such as a stick or rope.
- Take water, a mobile phone, handwash gel and a basic first aid kit with you.
- Wash your hands before eating and when you get home.

Ruth Hawksley, Wildlife Trust 01954 713533 (mobile 07545 423854); Email ruth.hawksley@wildlifebcn.org
The Manor House, Broad Street, Great Cambourne, Cambs CB23 6DH

CAMBRIDGESHIRE OTTER SURVEY 2016/17

Bedfordshire Cambridgeshire Northamptonshire

Site Number:	**O/S Grid Reference:**	**Easting:**	**Northing:**	**Date:**

Recorders:	Site:	Ditch	Drain	Stream	River

Description:

Site Description:	Bridge	Sluice	Bank length

Water Current:	Still	Slow	Fast
Water Level:	Low	Medium	High

Watercourse width:	0-2m	2-5m	5-10m	10m+

Bank cover at site	Poor	Average	Good	Excellent

Is Bridge otter friendly? Yes/No	If not why?	Aperture too small	Sluice	Exposed	Other

Suitable Spraint sites:	Bridge	Tree	Stonework	Bank feature
Site disturbance:	Low	Medium	High	
Cause of Disturbance:	Agriculture	Industry	Public Access	

Land use adjacent to site:

Vegetation to bank top (score 1 – 4, see overleaf)	Bank trees	Reeds	Sedges	Grass	Herbs	Bramble	Scrub	Aquatic vegetation

Otter signs: Yes/No	Type of otter signs:
Mink signs: Yes/No	Type of mink signs:
Water vole signs: Yes/No	Type of water vole signs:
Brown rat signs: Yes/No	Type of brown rat signs:

Survey type:	Full	Part	Spot check

Recent heavy rain? Yes/No

Additional comments (including other wildlife and site comments):

Site sketch with land use and survey route

Please sketch the site, at least if there was any confusion about location.

Notes:

Vegetation scale (by percentage cover): **0** (0); **1** (1 – 25%); **2** (26 – 50%); **3** (51 – 75%); **4** (76 – 100%)

Please note the date and recorders on every form. Initials are OK if the full names are on at least one form for the day.

Use the "additional comments" box for any information which would help a future surveyor find the site. If there is any doubt, make a site sketch in the box above.

Health and safety:

- Where possible work in pairs. Let someone know your route and when you are expected back.
- Take care near the water's edge.
- Take water, a mobile phone and a basic first aid kit with you.
- Wash your hands before eating and when you get home.