

# Cambridgeshire and Peterborough Otter Survey 2022



Photo: Henry Stanier

Survey work carried out by members of the Cambridgeshire Mammal Group, the Wildlife Trust and other volunteers during winter 2021-22.

Report prepared by:	Ruth Hawksley	3/5/2022
Checked by:	Martin Baker	5/5/2022



Wildlife Trust for  
**Beds, Cambs  
& Northants**



## Acknowledgements

Thanks to everyone who helped with this survey in particular Peter Beckenham, Cliff Carson and the Middle Level Commissioners, who provided the venue and found sites for a surveyors' training event and to Peter Pilbeam, Cliff Carson and Peter Beckenham for helping out with the surveyor training. Thanks also to all 50 surveyors who gave their time to visit sites for the survey.

### List of surveyors:

Alan Clarke	Jonny Packman
Alastair Simpson	Kevin Hand
Alex Pond	Lesley Saint
Alistair Grant	Liam Northfield
Amanda Proud	Liz Lonsdale
Ann Jackson	Malcolm Busby
Bill Mansfield	Martin Ketcher
Carole Baber	Nick Hammond
Chris Smith	Pat Reynolds
Cicely Marshall	Peter Beckenham
Clare Dean	Peter Dean
Cliff Carson	Peter Hadfield
Duncan Mackay	Peter Pilbeam
Elaine Bridges	Phil Cannings
Gareth Biggins	Pip Noon
Gary Dean	Pippa Keynes
George Baber	Richard Sewell
Hannah Templeman	Russell Stevens
Heather Matthews	Ruth Hawksley
Helen Bailey	Sandra Chapman
Helen Oddy	Siân Grant
Iain Simpson	Steve Lonsdale
Iain Webb	Sue Hogarth
Jess Norris	Susan Sewell
Jo Chesham	Toby Humby

## Summary

A survey for signs of otters was conducted between the beginning of December 2021 and the end of February 2022 (with a few sites finished in March 2022). This was a repeat of surveys undertaken in 1992, 1997, 2002, 2007, 2012 and 2017. The survey covered all major watercourses in Cambridgeshire and many smaller ones as well. This survey has tracked the recovery of otters throughout Cambridgeshire, and has seen a dramatic change over the years.

A total of 292 sites were visited and surveyed using the same methodology as in previous years; bridge checks and walking adjacent riverbanks.

The results showed 49% of sites having otter signs. This is the same proportion as in 2012 and an increase on the 41% in 2017. It appears to show a relatively stable population of otters in the county, although limited detail can be extracted from a single visit to each site.

## Introduction

The first county-wide survey of otters in Cambridgeshire was carried out by the Cambridgeshire Mammal Group 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 until 2012. 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 had installed a large number of artificial holts.

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

During this survey, spraints were collected by surveyors and we hope to work with the Wellcome Trust on DNA analysis of these, which could give an approximate number of individual otters recorded. If this research goes ahead, it could also give us a lot of additional information, including an idea of territory size and the ratio of male to female otters.

## Methodology

The survey used the same method and sites as previously. The survey sites were grouped with 8 – 10 sites in each group, with the idea that a group could be surveyed in a day. The survey covered 292 sites including 10 in Cambridge City which were added in 2017. Most sites are centred on a bridge although some are bank lengths only.

At each site, the riverbank under the bridge was checked as thoroughly as possible. Where possible (if no signs found at a bridge), 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 50 surveyors were used, mostly working in pairs. Most attended a training event held jointly by the Wildlife Trust and the Cambridgeshire Mammal Group in early December 2021. Where possible each survey pair had at least one experienced surveyor. Most surveyors visited 9 or 10 sites; the maximum for one surveyor was 33.

### Survey conditions

The previous two surveys took place in unusually dry winters following dry years. 2021 had a closer to average rainfall overall, although November was very dry as was January 2022. In contrast, February 2022 was very wet, so any surveys left until the final month of the survey had to be completed while river levels and rainfall were higher than ideal. Wetter conditions overall may have meant smaller watercourses were more likely to have otter signs this year (as otters are more likely to use them), which could explain why most of the sites where otter signs were found for the first time were on smaller watercourses. However, surveys carried out following rain or rising water were potentially less likely to find otter signs due to them having been washed away, which could account for the relative lack of signs around Huntingdon. Overall there is no obvious single impact of weather on the results.

## Results

A total of 292 sites were visited and survey forms filled in. A summary of results is shown in the table below, including comparisons with previous years:

	2022	%	2017	%	2012	%	2007	%	2002	%	1997	%	1992	%
<b>Otter</b>	143	49	120	41	140	49	76	26	47	16	35	12	4	1
<b>Mink</b>	7	2	15	5	29	10	18	6	47	16	37	13	57	20
<b>Water vole</b>	12	4	16	5	8	3	13	4	14	4	0	0	9	3
<b>Brown rat</b>	59	20	26	9	28	10	72	24	-	-	-	-	-	-
<b>Total sites</b>	292		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:** 7 positive sites of which 4 were also positive for otter

**Water vole:** 12 positive sites of which 6 were also positive for otter

**Brown rat:** 59 positive sites of which 33 were also positive for otter. Water vole and rat were recorded together at 5 sites (3 of which also had otter signs).

Mink, water vole and brown rat were recorded as incidental records, and only by surveyors who were confident identifying the signs, so it is difficult to get useful information from these results. It was notable that mink records were down from 15 in 2017 to 7 in 2022. This reflects the efforts of Waterlife Recovery East controlling mink. WRE were notified of the mink records as soon as possible, and traps were set in the few locations where there were not already active traps. Water vole records were down from 16 in 2017 to 12 in 2022, which is probably a result of surveyor variability.

Records of brown rat were up from 26 to 59. It's not clear why this would be. Brown rat was recorded by 18 groups of surveyors in 2022 and by 14 in 2017, so surveyor confidence is probably not the only factor.

The co-occurrence of the various species suggests that their presence depends more on habitat suitability than on presence or absence of another species.

## Sites with poor habitat or limited access

There were a total of 118 sites where some difficulty in surveying was reported – 40 with poor habitat or no spraint sites (12 of which had otter signs), 60 with tricky or limited access (20 with otter signs) and 18 sites having both (4 of these with otter signs). A further 8 sites had no access and were not surveyed.

## Heavy rain and water levels

Sites surveyed following heavy rain: 90. This is more than the 61 in 2017 and 35 in 2012. Comments on at least 20 of these sites suggest otter signs would be hard to find even without rain. In some other cases (for example fenland bridges with high banks) rain is not expected to make much difference to whether signs can be found.

Of the 90 sites mentioned above, 38 had otter signs (or 42%), slightly lower than the survey overall but better than 2017 (29%). This suggests the sites surveyed following rain in 2017 were more susceptible to signs washing away. Thus heavy rain probably had a slightly greater impact on results in 2017 than in 2012 or 2022.

Surveys with reported high water or recent high water: 19 (none reported in 2017 – presumably the heavy rain that year was short-lived). Of these 7 had otter signs and surveyors commented at 5 sites that recent high water would probably have washed any spraint away. The overall impact on the survey of surveying these sites when the water was high is likely to be small.

Number of sites found to be dry: 4 (down from 6 in 2017) – no otter signs found at any of these

Number of sites dry or with very low water: 27 (down from 80 in 2017) with otter signs at 3 of them.  
Not surveyed in 2022: 8 (site numbers 20, 30, 51, 118, 139, 220, 252, 285).  
New nearby location found and surveyed for 3 sites (site numbers 40, 70, 109).

### Sites changed or not visited

There were various reasons for sites being changed or not visited:

**Site 20** had otter signs recorded in the previous 3 surveys but in 2022 the surveyor reported that there is no longer safe parking or access, so this site was not surveyed. It would be worth another look and checking for alternative nearby sites if there is still no access.

**Site 30** is at the end of a private road (the "Private" sign may have appeared since the previous survey) so was not surveyed. This site would be worth looking at again too.

**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. In 2022 a site nearby with much easier access was found and surveyed, and the site location will be updated accordingly.

**Site 51** is part of RAF Wittering. A spot check survey was carried out in 2012 but no survey in 2007, 2017 or 2022 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. This needs a final check and the site should be removed or a nearby site found if there is no access at all.

**Site 70** is at Poles Bridge over Monks Lode. This bridge was removed after the 2012 survey (which reported it was dangerous and rotten), so access was not possible. Surveyors in 2022 found and surveyed an alternative site on the same watercourse and recommended revisiting this new site in future.

**Site 99** was surveyed in 2022 but not in 2017 due to difficult access. This site had spraint in 2012 but not in 2022. It is possible that the bridge details need to be clearer to enable surveyors to find the right site, and parking is difficult on the A142. This site will remain on the survey with a note to find safe parking and walk.

**Site 109** is part of a fishing lake complex which has been fenced off since 2012 so that access is no longer possible. An alternative site on an adjacent lake was found in 2022 and suggested as a new location.

**Site 118** is next to the A10 and was not surveyed in 2022 due to lack of safe parking and access (site appeared to be a locked pumping station). It would be worth checking the location and any nearby alternative sites for a future survey.

**Site 139** is again part of a fishery. Access was denied in 2012, 2017 and 2022. A check should be made for an alternative site nearby if possible.

**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



2017 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 252** has very limited access except through a private garden and was not surveyed in 2022. Previous surveyors have either asked for access to the garden or looked for sites nearby. It would be good to have a closer look in this area for a more accessible survey site.

**Site 276** was damaged and inaccessible due to work on the new A14 in 2017. It was surveyed in 2022 but surveyors reported a long walk in. The site will stay as it is with a warning about access.

**Site 285** – is on private land with no access and has not been surveyed for several years. It would be worth looking for a suitable nearby alternative.

## Discussion

The number of sites with otter signs fell slightly in 2017 but reached 2012 levels again in 2022. Despite the same proportion of sites having signs in 2022 and 2012 the locations were not exactly the same, with more signs in 2022 north and west of Peterborough and around Cambridge, and fewer signs on the River Great Ouse near Huntingdon, and in the east around Burwell. Otters are present on all main rivers. Signs on smaller watercourses are more likely to be a matter of chance timing. Overall the population appears to be stable.

### Survey training and recording

Due to Covid19, the training was more outdoor-based than in the past. This was popular with surveyors as they were able to see plenty of signs. It did mean they surveyed a lot of similar (good) sites and maybe didn't get enough information about what to do when signs were not easy to find or access was not straightforward. Some surveyors asked for their sites on Google maps or as a .kml file so that they could use satnav to find the sites. This is relatively easy to do and could be done for all surveyors in future. Before this can work well, the site locations on GIS need to be updated. Surveyors were more likely than in the past to use grid references or satnav rather than to look at a map for the nearest likely site. With a bit more forethought and preparation, it would be possible for results to be entered direct to an online form in future, which could save effort with data entry.

### Effect of multiple surveyors

Many of the surveyors had not done much otter surveying before, but a reasonable number had helped out with the 2017 survey and some were experienced surveyors. There will inevitably be sites where one surveyor does not find signs but another does. Surveyors were supported by a training day with opportunities to find lots of signs, and by the option of sending in photos or samples of potential spraint or prints. The mix of surveyor experience has been similar over at least the last 3 surveys, so results are considered to be comparable.

### Other species recorded

The survey recorded additional species (sightings or signs) according to surveyor interest and experience: badger; bank vole; barn owl; blackbird; common snipe; cormorant; crane; European eel; fallow deer; fox; greenfinch; grey heron; grey wagtail; kingfisher; little grebe; little owl; mallard; mole; moorhen; muntjac deer; mute swan; rabbit; red kite; robin; roe deer; skylark; wood pigeon; wren; whooper swan. A snake skin and a belemnite fossil were also found. These records have been

sent to the Cambridgeshire and Peterborough Environmental Records Centre along with data on otter, water vole, brown rat and American mink.

## Catchment details

### River Nene

The stretch of the River Nene upstream of Peterborough and along the Northamptonshire border has had regular otter signs between 1997 and 2012 but none at all in 2017. Surveyors noted some sites busy with dog walkers and others with difficult access. However, signs had returned in 2022 with spraint recorded at Alwalton (a first for this survey), at 2 sites on the Billing Brook and in the Whitewater Valley (another first for the county survey). The single site on the River Nene north of the Washes was not accessible for survey in 2022, but otter signs have been found consistently along the counter drain to the south for all of the last 3 surveys. There are no survey sites on the river between Guyhirn and Wisbech, and otter signs were found north of Wisbech.

### North Level and Maxey Cut

The Maxey Cut has had frequent otter signs in all surveys since 1997 (except 2007). The first otter signs in the North Level appeared in 2002 and have been relatively consistent since, with signs found in 2022 at almost all sites where they had been found in the past.

### Middle Level

This area had very few otter signs (apart from on and close to the Ouse Washes) until the 2012 survey, following a large programme of holt-building. These holts appear to have provided the missing habitat for otters with signs found consistently at most sites since then. This area seems to support a good population of otter with signs found at almost all suitable sites.

### River Great Ouse

The first signs of otter between the Bedfordshire border and Earith appeared in 1997 and have been present fairly consistently at good sites since 2012. No signs were found in 2017 between St Ives and the Lazy Otter pub along the Old West River but 4 of these sites were positive in 2022. Most of the others were noted either to have difficult access or recent heavy rain likely to have washed away any signs. It seems likely that otters are still present but signs are becoming harder to find for practical reasons.

Signs between the Lazy Otter and Brandon Creek have been variable but found reliably at Brandon Creek and the A10 bridge near Littleport. There have been otter signs since at least 2012 on the Lark, Soham Lode and Little Ouse.

The 2017 survey noted a lack of signs around Earith, Mepal and Chatteris, but otters were present again at many of these sites in 2022 and the gap may have been due to survey difficulties.

### River Kym

4 of the 7 accessible sites had otter signs in 2022, while all 7 had signs in 2017 (previously the maximum was 3 sites). It appears the Kym is still being well used by otter.



## Upper Cam

The upper Cam catchment was where otters were still surviving in 1992, and has traditionally always had good numbers of signs. Signs are still present on the Granta (from Linton), with gaps probably due to changes in access. Similarly signs on the upper Cam (from Ickleton) were present if slightly less frequent, probably because of surveyor access difficulties. Signs were found at Stapleford, for the first time since 2007.

The Rhee was highlighted as a concern in 2017 – in both 2017 and 2022 there were no signs between the A1198 and Hauxton Junction, this time with no signs around Melbourn or Meldreth either. Some of these sites were noted as difficult to access or to find spraint sites, but it would be worth having another look at this reach to see how many signs are present away from the survey sites.

## Cambridge City

In 2017 10 city sites were added to the survey list, with otter signs found at 5 of them. In 2022 there were again 5 positive sites, although only 2 overlapped with the previous year. There were more signs close to the city centre than in 2017.

## A14 Corridor

A lack of signs was reported in 2017 on the Ellington and Alconbury Brooks, despite reports from a consultant working locally that otters were present. Fortunately, the 2022 survey picked up signs all along the Ellington Brook and at a couple of sites on the Alconbury Brook for the first time. As suspected in 2017, the lack of signs then was probably due to survey timing or site disturbance.

## ***Other otter records***

Otter records are collected and kept by the Cambridgeshire and Peterborough Environmental Records Centre (CPERC). These are usually incidental records from members of the public or from ecologists. They include reports of otter signs, sightings of live animals and also otter casualties, generally from road traffic accidents or illegal fyke nets. Appendix 1 includes maps of these records since the last survey (2017-2022) and within the last year – more relevant to the survey period. Among other things, the maps show that the county survey picks up many more signs of otter than incidental reports can.

These other records can sometimes shed light on gaps in the county survey records. For example, otters were seen in October 2021 at Godmanchester Nature Reserve, in an area where the county survey found fewer signs than expected. It could be that the survey sites in the area are not where otters are currently sprainting. Fresh spraint was found at a survey site in Haslingfield in May 2021 where no signs were found in early 2022 and giving another record on an apparently empty stretch of the Rhee.

A large number of 2017 records on the Bourn Brook reflect a detailed survey as part of a water vole survey, and do not indicate unusual numbers of otter on that watercourse.

## Conclusions

- Following a dip in 2017, this survey found a similar number and distribution of otter signs to the 2012 survey, suggesting the population in the county is relatively stable.

- It is important to bear in mind that the survey is only a single snapshot of fixed sites every 5 years. The impacts of weather, different surveyors and even the behaviour of different otters may all impact upon the results. However, it is thought that the number of survey sites, and use of experienced surveyors to survey many of the sites, helps mitigate these other factors and helps the results to be comparable across surveys.
- Otters are present throughout the county, using all large watercourses and many of the smaller ones. Any development or river work should assume the presence of otters, check in detail for holts and lying-up sites if necessary, and provide suitable mitigation and habitat enhancement.
- Many landowners are becoming more concerned about who can access their land and are putting up signs and fencing. This can mean sites that were formerly easy to survey are no longer accessible, or can only be checked with binoculars.
- Some sites, particularly the upper Rhee, appear to have a reduced number of signs over multiple surveys. Further investigation is required to assess whether this is likely to be due to surveyor access, habitat changes or other reasons.

## Recommendations

- Repeat the county survey in 5 years' time. An occasional survey can act as a barometer to catch any dramatic changes to the otter population. If left longer than 5 years it would be more difficult to recruit and train surveyors – with a 5-year interval enough people remember that the survey so it is relatively easy to repeat.
- Review the surveyor training and survey forms. Outdoor-based training is preferable, but make sure surveyors visit a variety of sites, both easy to survey and less straightforward.
- Update the survey location GIS and in future use this to create kml files / Google maps for surveyors to use in SatNavs.
- Create an online form for future results (ideally with provision to add photos).
- Revisit the upper Rhee to map otter signs and compare with existing survey sites.
- 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:

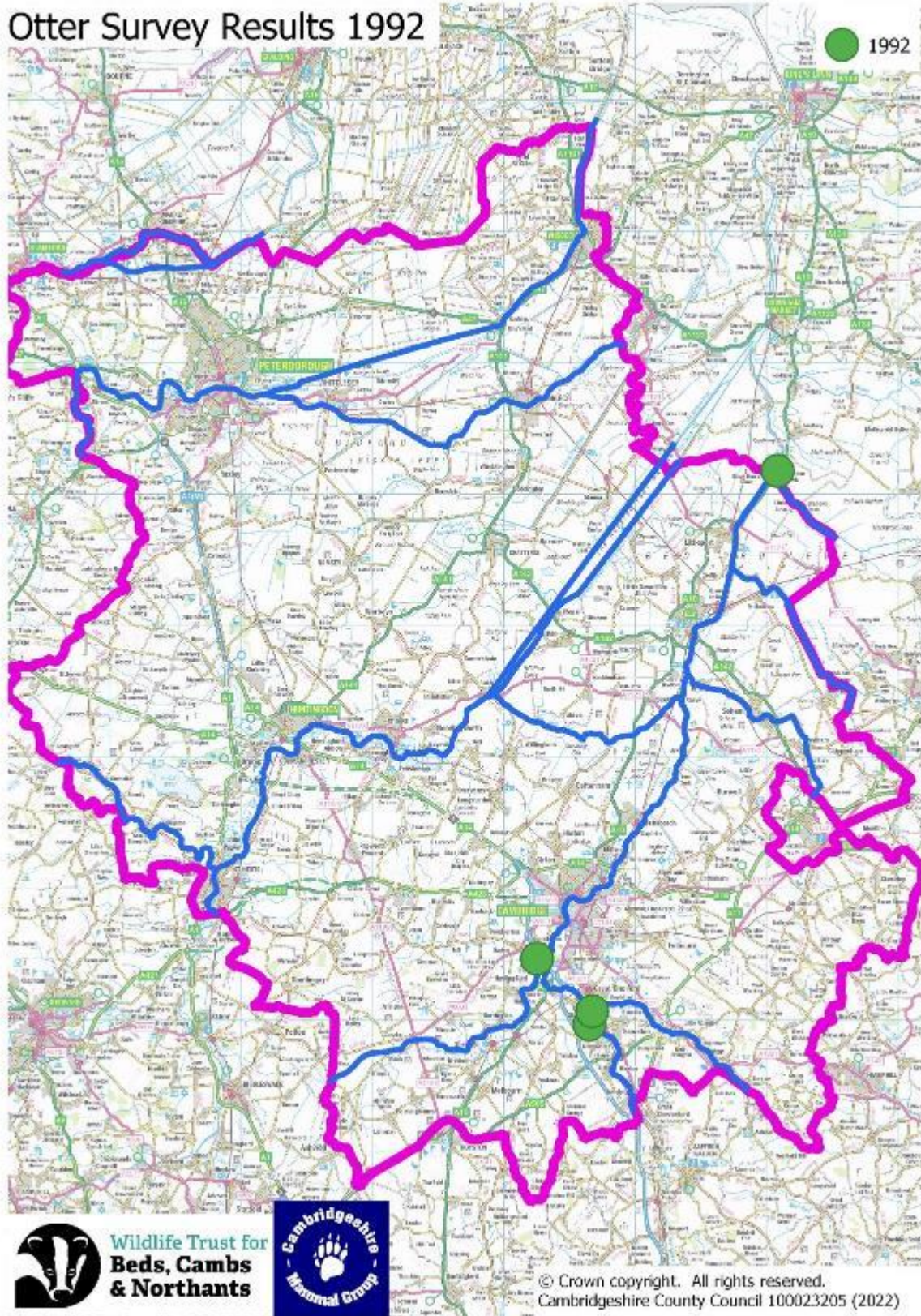
- Summary map – signs from all surveys
- Map of survey sites
- Results 1992
- Results 1997
- Results 2002
- Results 2007
- Results 2012
- Results 2017
- Results 2022
- Other otter records since previous survey 2017-2022
- Other otter records within last year 2021-2022





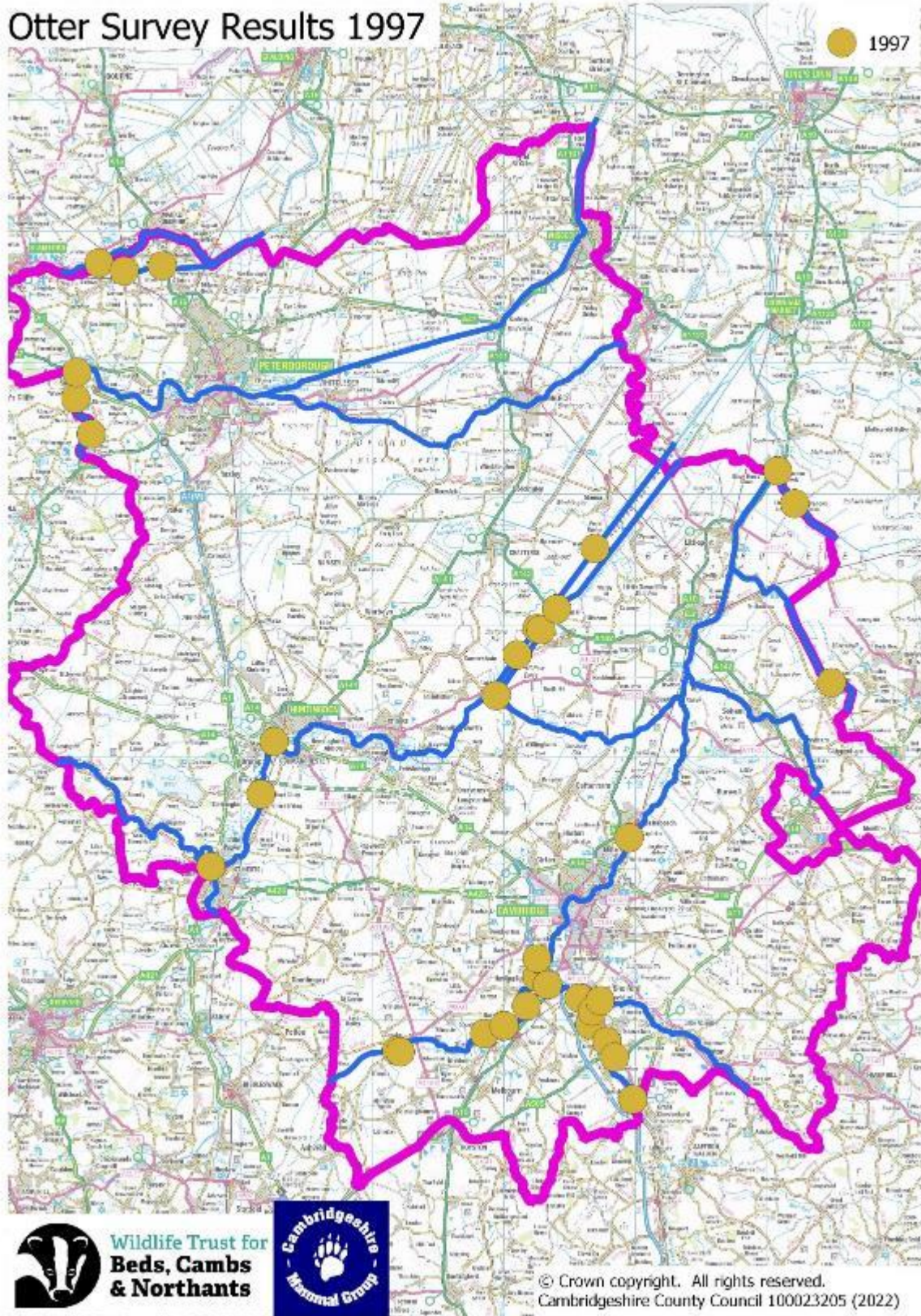


# Otter Survey Results 1992





# Otter Survey Results 1997



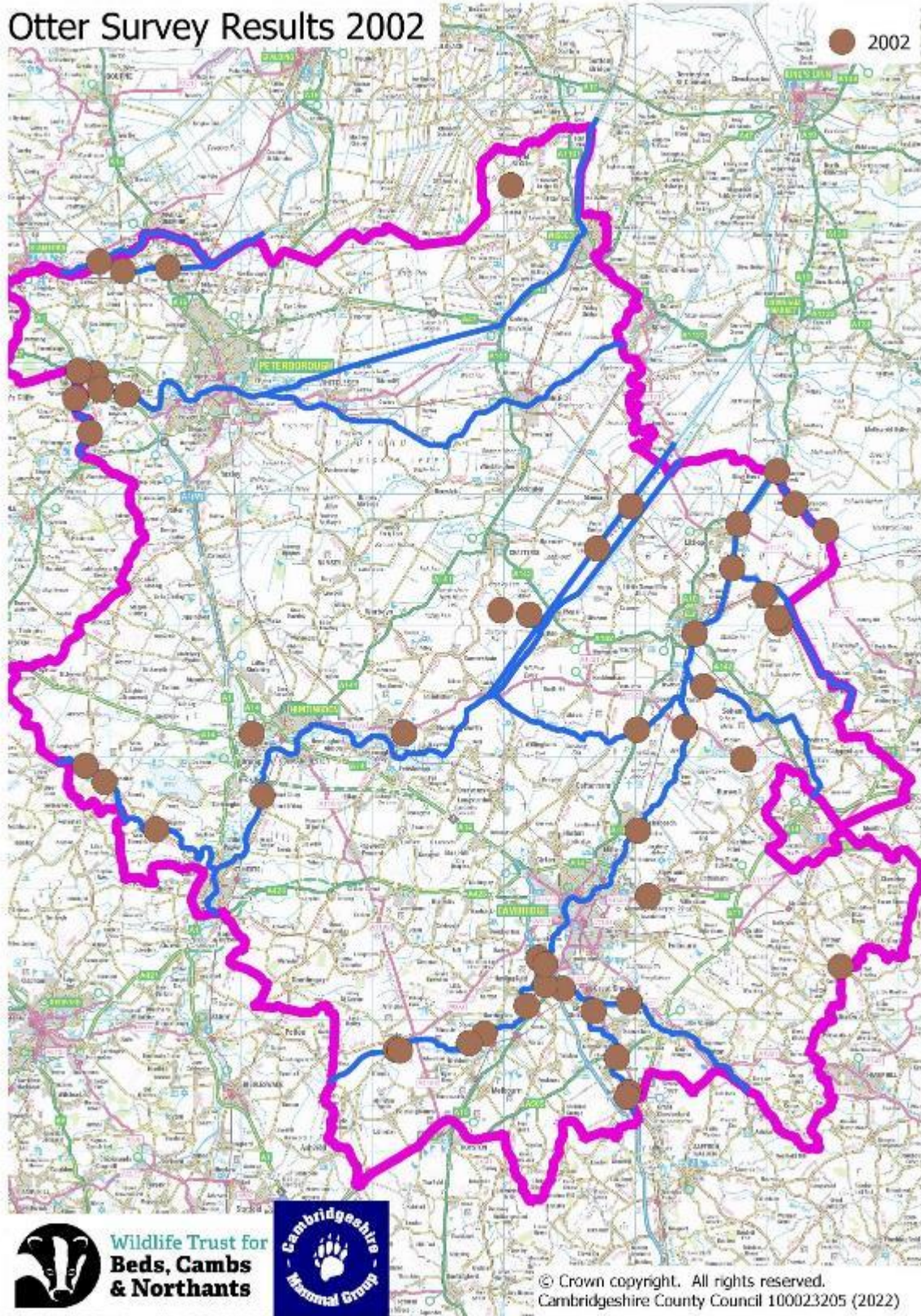
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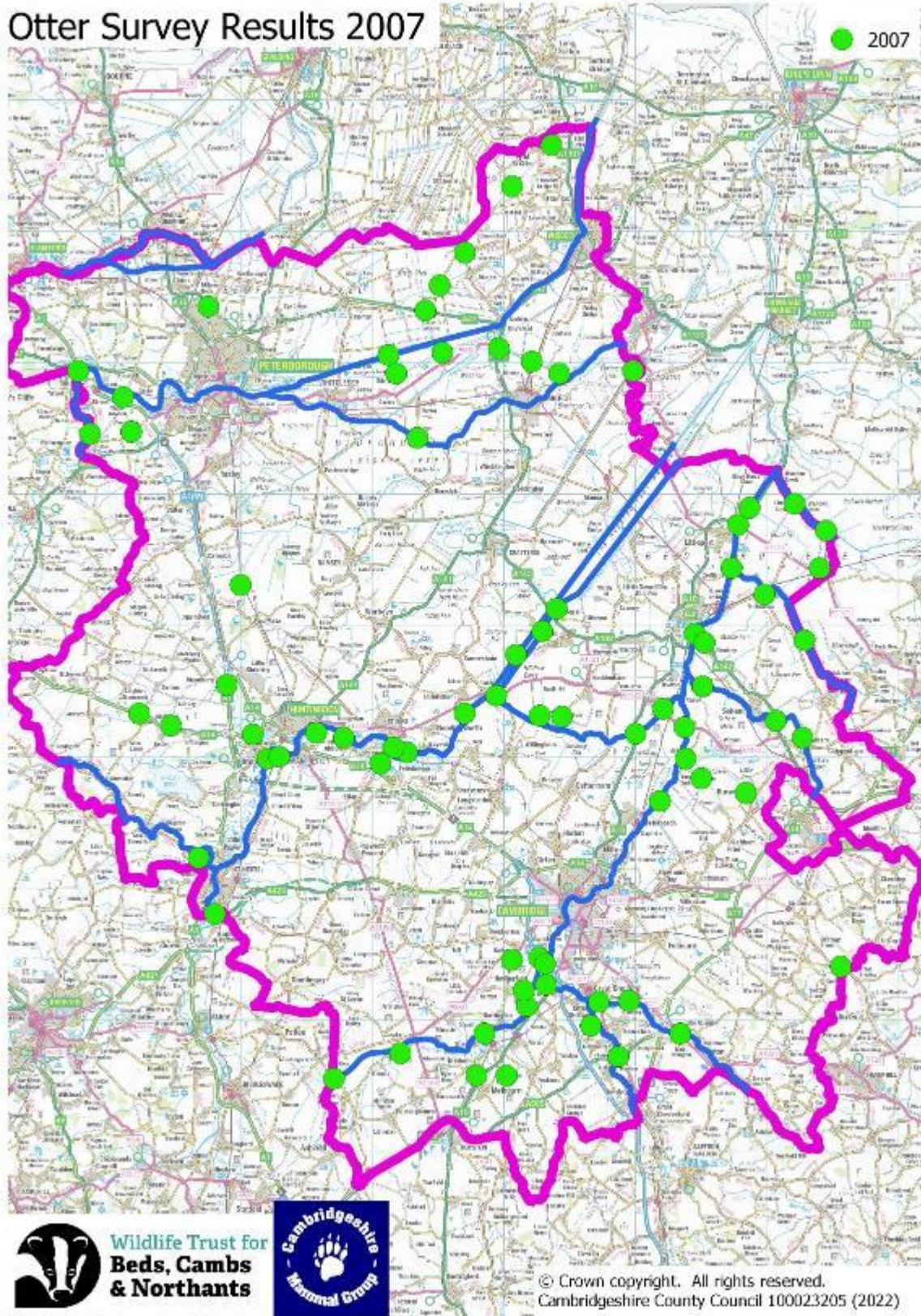


# Otter Survey Results 2002





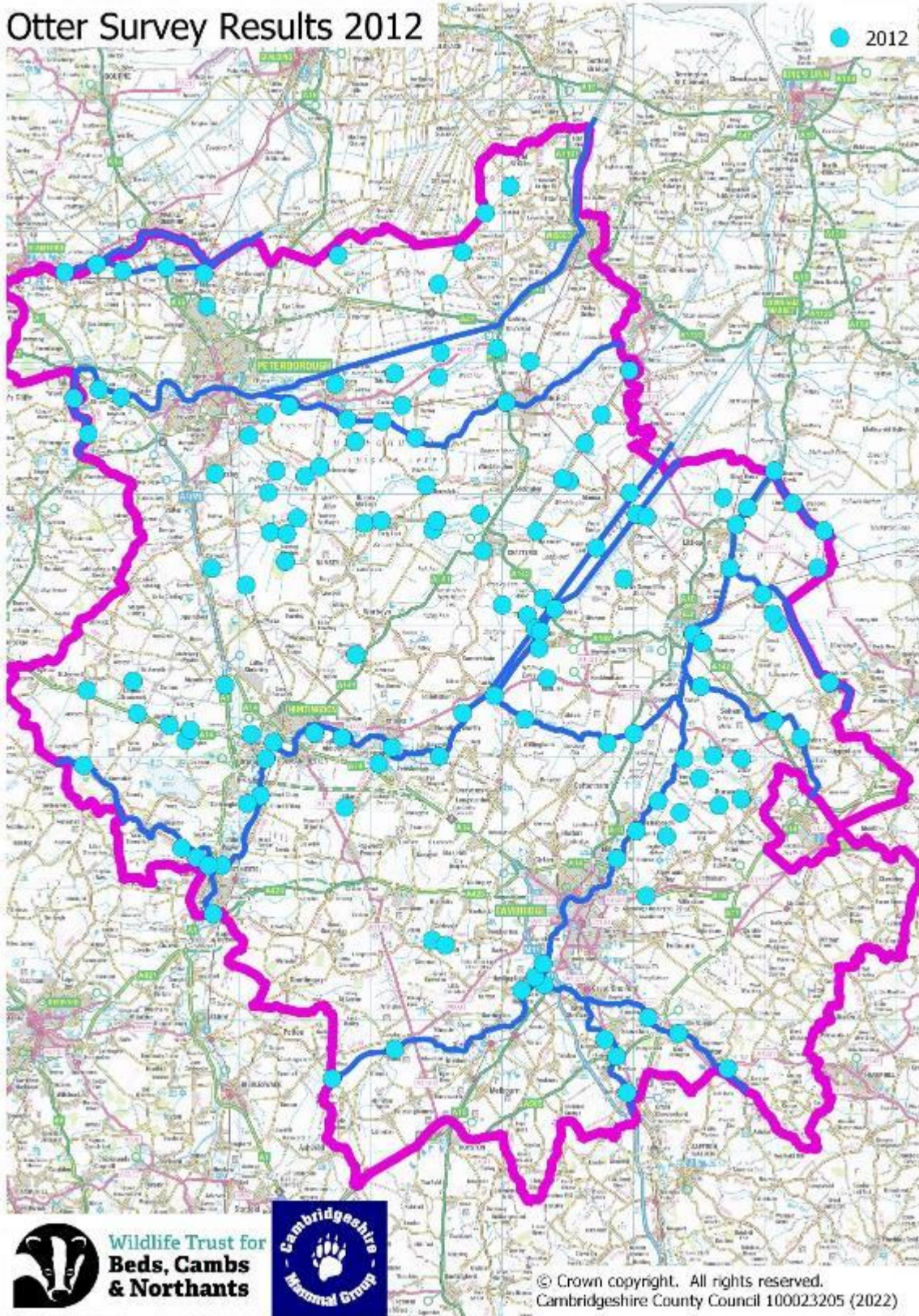
# Otter Survey Results 2007





# Otter Survey Results 2012

● 2012



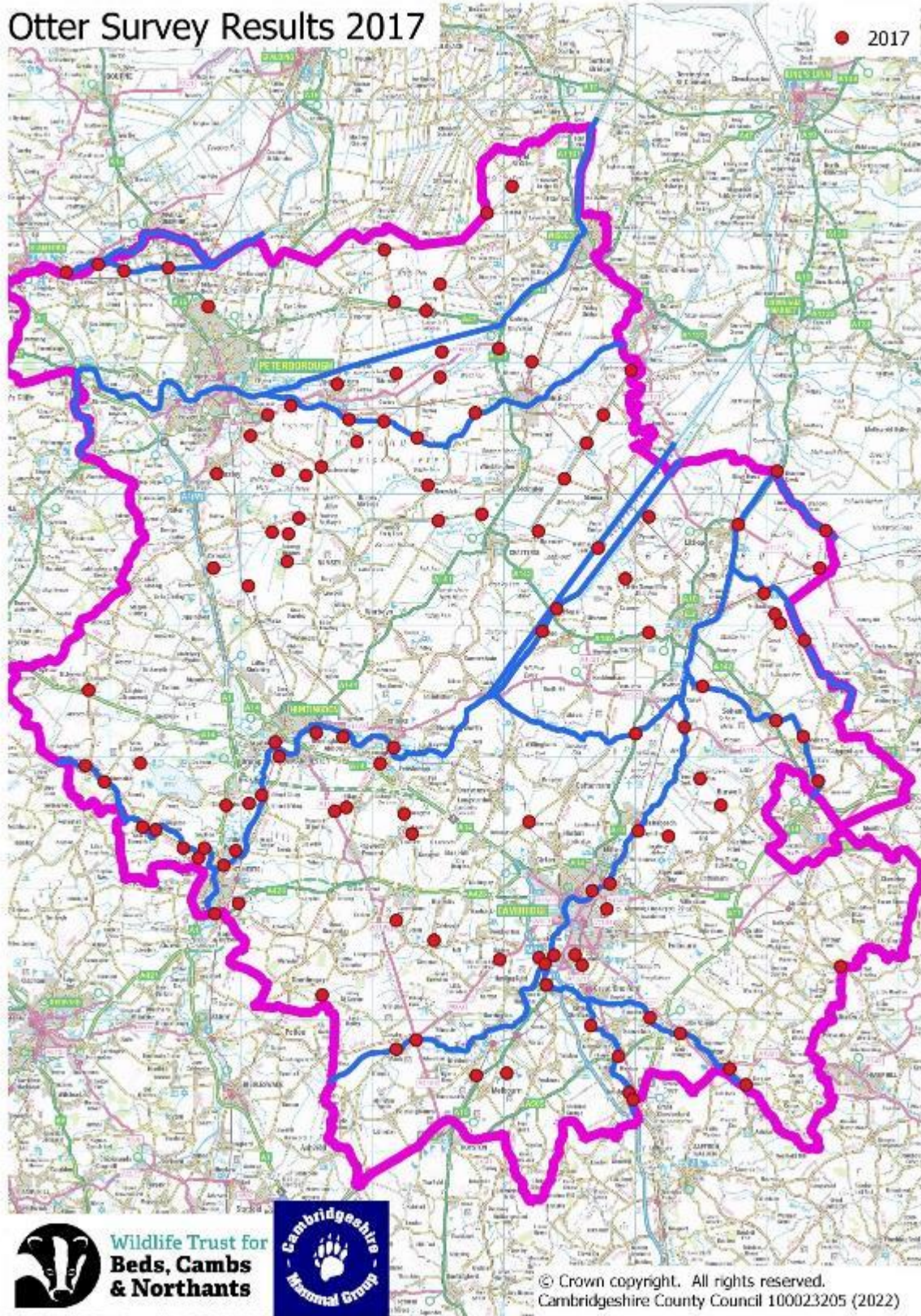
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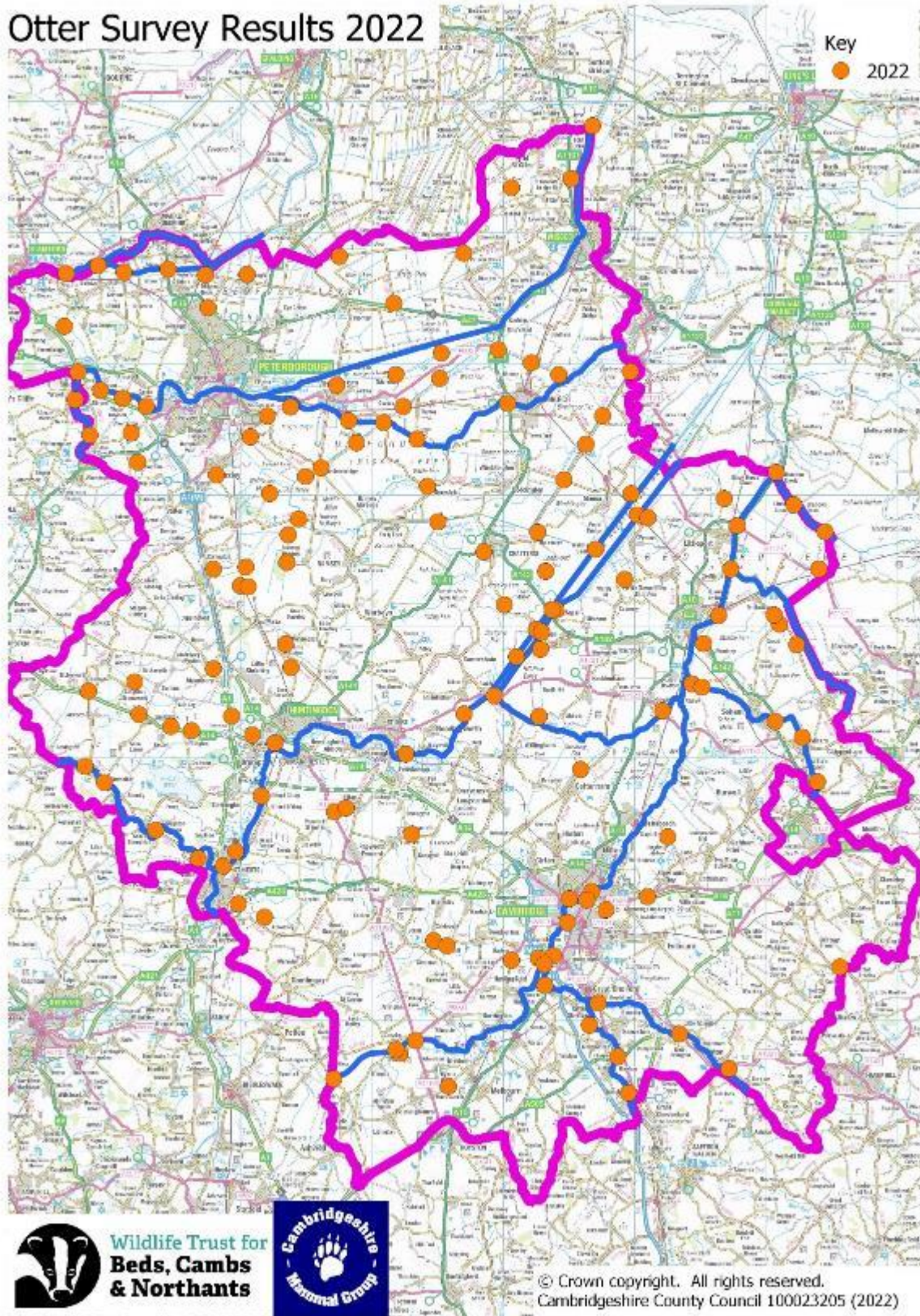


# Otter Survey Results 2017





# Otter Survey Results 2022



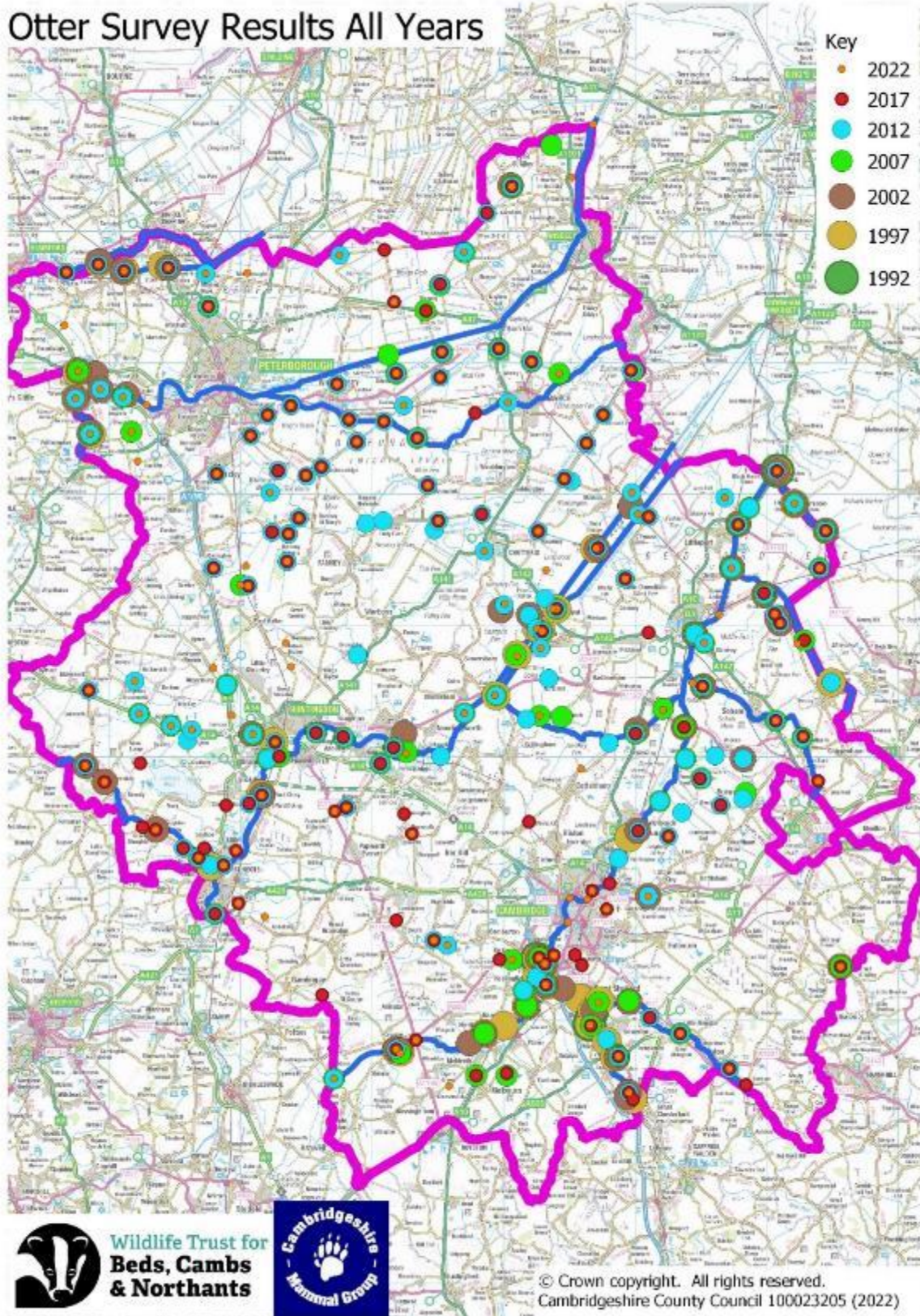
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# Otter Survey Results All Years

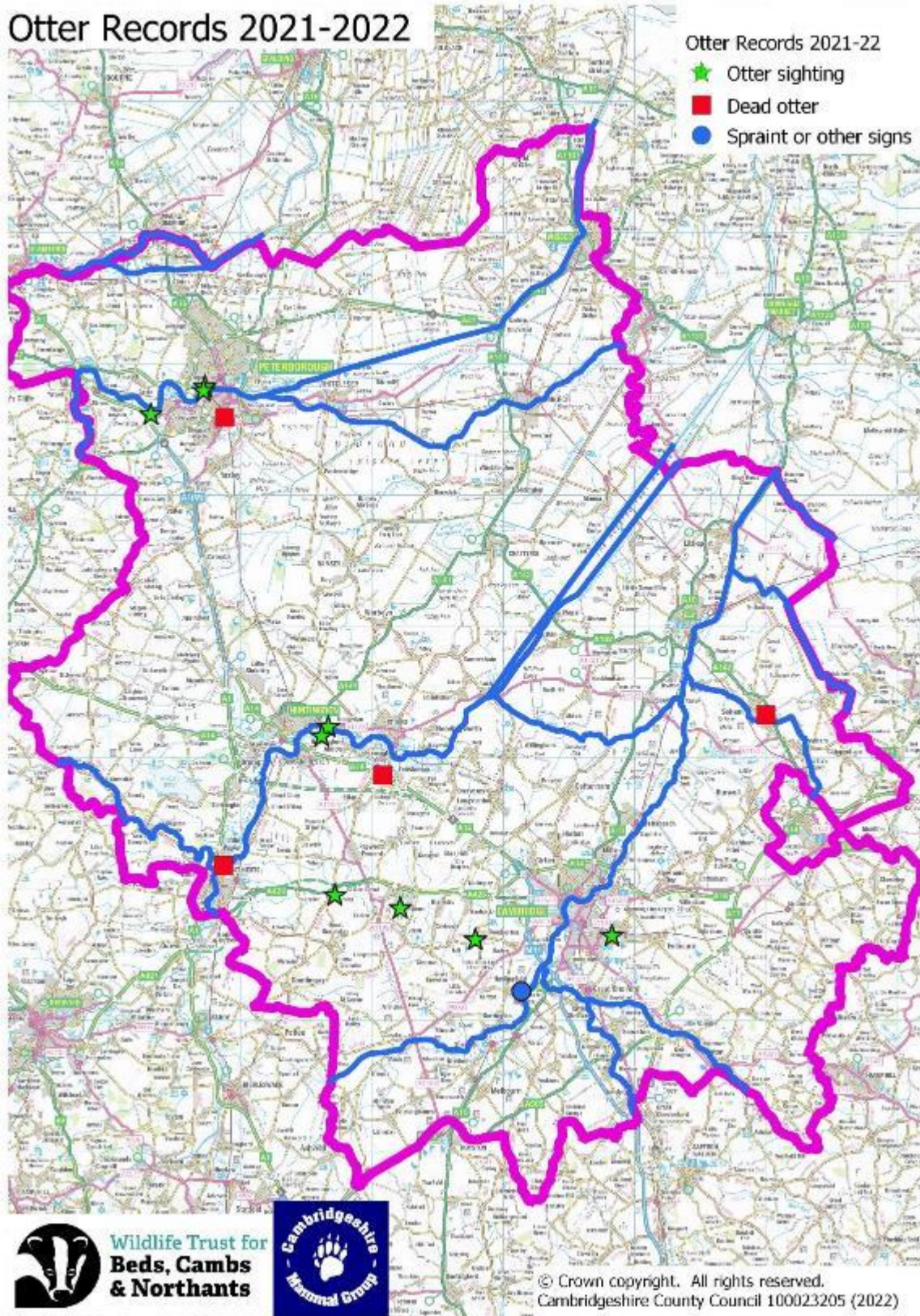








# Otter Records 2021-2022



## Appendix 2 – Survey forms and protocol

### Cambridgeshire and Peterborough Otter Survey

Survey Protocol 2021-22



Bedfordshire  
Cambridgeshire  
Northamptonshire

- ONLY SURVEY WHEN YOU FEEL IT IS SAFE TO DO SO
- Do not survey during or immediately after heavy rain or high water.
- If you are unable to access the site, or parts of it, make a note on the survey 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 recorder 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.

#### 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.

# CAMBRIDGESHIRE OTTER SURVEY 2021/22



Bedfordshire  
Cambridgeshire  
Northamptonshire

<b>Site Number:</b>	<b>O/S Grid Reference:</b>	<b>Easting:</b>	<b>Northing:</b>	<b>Date:</b>	
<b>Recorders:</b>					
Description:					
Watercourse:	Ditch	Stream	River		
Site Description:	Bridge	Sluice	Bank length		
Water Current:	Still	Slow	Fast		
Water Level:	Drought	Normal	Flood		
Water depth:	Dry	<20cm	20-50cm	50cm-1m	1m+
Watercourse width:	0-1m	1-2m	2-5m	5-10m	10m+
Habitat quality (veg cover)	Poor	Average	Good	Excellent	
Suitable Spraint sites:	Bridge	Tree	Stonework	Bank feature	
Ease of access:	OK	Tricky/limited	Impossible		
Site disturbance:	Low	Medium	High		
Cause of Disturbance:	Agriculture	Industry	Public Access	Traffic	
Land use adjacent to site:					
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:**

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:**

- 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 slopes. Use a balancing aid such as a stick or rope.
- Take water, a mobile phone and a basic first aid kit with you.
- Wash your hands before eating and when you get home.