

The Otter Survey of Bedfordshire 2008/09



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by Richard Lawrence





The Otter Survey of Bedfordshire

2008/09

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Executive Summary

The 2008/9 otter survey is a repeat of the 2003/4 and 1996/7 survey. Unfortunately three sites in 2003/4 were not accessible in 2008/9. Another four sites were added to extend the coverage resulting in a total of 78 sites surveyed in 2008/9. Landowner permission was obtained to survey sites where necessary.

The survey was conducted according to the national methodology used in previous surveys in which pre-selected survey sites are searched for signs of otter spraint (faeces) and or footprints for 300m on either side of the survey point. Surveying is stopped as soon as an otter spraint or print is located. A standard survey form was completed for each site.

Of the 78 sites surveyed in 2008/9 43 (55%) were positive during the survey. In 2003/4 30 (39%) of the 77 sites were positive; in the 1996/7 survey 18 (27%) of the 66 survey sites were positive. Comparing the 63 survey sites common to all three surveys there was an increase in positive sites from 18 (29%) in 1996/7, 26 (41%) in 2003/4 and 33 (52%) in 2008/09.

There is a decrease in the number of positive mink sites during this survey with only six (8%) positive sites compared to 13 (21%) of common sites positive in 2003/04 and 22 (35%) in the 1996/7.

Recommendations for future surveys are made at the end of this report.

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1.0 Introduction

The early history of the European Otter (*Lutra lutra*) in Bedfordshire has been documented by John Green (Green, 1983, 1997) and summarised by Amanda Proud (Proud, 2004) up to the year 2004. Between 2004 and 2008 there have been bi-monthly monitoring of a number of locations throughout the county for otter signs. The majority of these sites have showed sporadic but consistent use by otters throughout that time (A. Proud pers. com. and pers. obs.). Data from this monitoring has not been sufficient to indicate population trends or seasonal use by otters but it does tell us they are still using Bedfordshire's water courses.

Since 2004 there has been an increase in the number of otters killed on the roads in Bedfordshire from less than 1 per year (0.75) between 1996 and 2004 to more than 1 per year (1.38) per year since 2004, the vast majority of these (7) were killed during 2008 (Pers. obs.). It is unlikely that the author is aware of all otters killed on the roads in Bedfordshire but the proportion missed is likely to be consistent throughout the period. Although the reasons behind this apparent increase in road deaths can only be speculated upon it is hoped that it indicates an increase in the otter population in the county.

Another indication that there has been an increase in the otter population since previous surveys is presented by McCarrick (2006) in his review of the distribution of Bedfordshire Mammals. This shows an increase in the number of tetrads occupied by otters from 30 (8%) between 1995 and 1999 to 63 (16.7%) between 2000 and 2006. So far 46 (12%) tetrads have returned otter records in Bedfordshire during 2007 and 2008, (pers. obs.) an interesting although not comparable figure.

Sightings in most of the county are rare, although they are becoming increasingly frequent and Priory Country Park, Stewartby Lake and Brogborough Lake have provided regular sightings to some lucky observers. A more consistent and reliable method of detecting the presence of otters is from their droppings, or spraint. Otters tend to spraint on vantage points or other obvious places such as junctions of tributaries, under bridges and near trees and some sites are better for sprainting than others. Otters have been observed to go out of their way to deposit a spraint on a particular place and Kruuk (1995) has shown that spraints have an important function in scent communication between otters over and above simple territory marking. Foot prints are also a reliable detection method where there are suitable substrates for these to be left.

There have been four previously published otter surveys of Bedfordshire, using spraint to indicate the presence or otherwise of the species. The first of these surveys was carried out in 1982/83 by members of the Bedfordshire and Huntingdonshire Naturalist Trust and Bedfordshire Natural History Society. The second and third were undertaken by John Green in 1992/93 (Green, 1993), and 1996/7 (Green, 1997) and the fourth by Amanda Proud as an output of the Bedfordshire Wet Woodland Project in 2003/04 (Proud 2004).

In addition a full survey of the Ivel and its tributaries was undertaken as part of the Ivel Otters and Rivers Project in 2001/02.

The aims of this survey are to:

- Investigate the current use of Bedfordshire waterways by the European Otter.
- Provide an indication of the status of the European Otter in Bedfordshire in 2008/09 in comparison to previous surveys.

2.0 Method

This survey follows the methods used during the 2003/04 survey as closely as possible. It is based on the national survey methodology of recording the presence of otter signs, in particular spraint, at certain pre selected sites throughout the river systems (RSPB et al, 1994). The river systems and locations surveyed are indicated on Figure 1 and details of each site given in Appendix 2.

Most sites were spot checked or part surveyed with very few requiring a more extensive survey due to stopping when signs are found. A spot check involved checking for signs at each site (usually beneath or beside a bridge). The more extensive survey involved checking as above and walking the bank for up to 300m each side of the bridge to record any signs of otters. Each survey was stopped when otter signs were found. In some cases the 300m distance was exceeded when a likely or known otter sprainting site was slightly beyond that distance. A bright torch was used to help see signs under bridges and trees. A survey form (Appendix 1) was completed for each site, recording habitat details, water condition and the presence or absence of otter signs, and the presence of American Mink (*Neovison vison*) and/ or Water Vole (*Arvicola terrestris amphibious*) signs if noted (although these species were not specifically searched for). Each site has a number (allocated in previous surveys) and each form includes the site grid reference and a sketch map to enable the survey route to be repeated on future surveys.

Despite the recommendation in the 2003/04 survey to reduce the number of survey sites, nearly all previously checked sites were surveyed in 2008/09. This was done in order to retain full coverage and respond to concerns following the death of at least 3 Otters on Bedfordshire roads in November 2008 and 7 in total for the year.

Landowners of the survey sites were contacted where required in order to obtain their permission to survey although many sites were accessed from Rights of Way or roads so no permission was sought for those sites.

This survey was undertaken between the 21st of November 2008 and the 30th of January 2009, the same period as the 1996/7 and 2003/04 surveys.

Additional records of otters from the county during 2008 and the early part of 2009 were examined and details of some are included here in order to give a more rounded picture of the animal's distribution, abundance and breeding status throughout the county.

3.0 Results

Chart 1 summarises the results of this and the previous two surveys in terms of the number of otter and mink signs found, Appendix 2 has the full detailed results for all three surveys. As Water Vole signs were only found at one of the sites during this survey (312 Girtford Bridge, although further than 300m from the bridge its self) this species is not considered further here.

Figure 1 shows those sites which were positive or negative for otters during this survey.

In total 78 sites were surveyed in 2008/09, 63 of these are common to the previous surveys.

Chart 1 Summary of results.

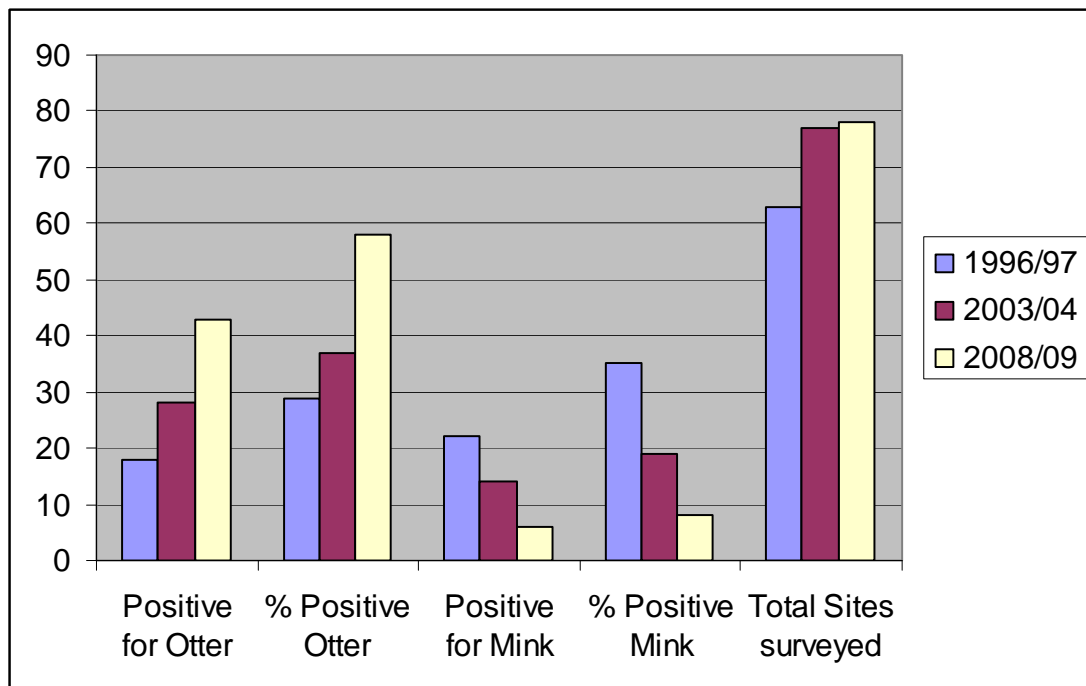


Table 1 details the number of sites and positive locations for each river system for each of the three surveys along with the percentage occurrence. The results are commented on in more detail for 2008/09 below.

Table 1 Summary of results by river.

River	1996/97							2003/04							2008/09						
	Otter	Otter %	Mink	Mink %	Negative	Negative %	Total sites	Otter	Otter %	Mink	Mink %	Negative	Negative %	Total Sites	Otter	Otter %	Mink	Mink %	Negative	Negative %	Total Sites
Nene	0	0	0	0	1	100	1	0	0	0	0	1	100	1	0	0	0	0	1	100	1
Ouse	15	63	13	54	9	38	24	13	54	4	17	11	46	24	14	56	1	4	11	44	25
Elstow Brook	2	100	2	100	0	0	2	4	50	1	13	4	50	8	6	75	1	13	2	25	8
Rhee	0	0	1	25	4	100	4	3	75	0	0	1	25	4	3	75	0	0	1	25	4
Kym	0	0	0	0	3	100	3	0	0	0	0	3	100	3	0	0	0	0	3	100	3
Til	0	0	0	0	2	100	2	0	0	0	0	2	100	2	1	50	0	0	1	50	2
Ouzel	0	0	3	50	6	100	6	0	0	2	20	10	100	10	1	10	1	10	9	90	10
Ivel	1	6	3	17	17	94	18	9	47	7	37	10	53	19	18	82	3	14	4	18	22
Lee	0	0	0	0	1	100	1	0	0	0	0	4	100	4	0	0	0	0	1	100	1
Other	0	0	0	0	2	100	2	0	0	0	0	2	100	2	0	0	0	0	2	100	2
Total	18		22		45		63	29		14		48		77	43		6		35		78

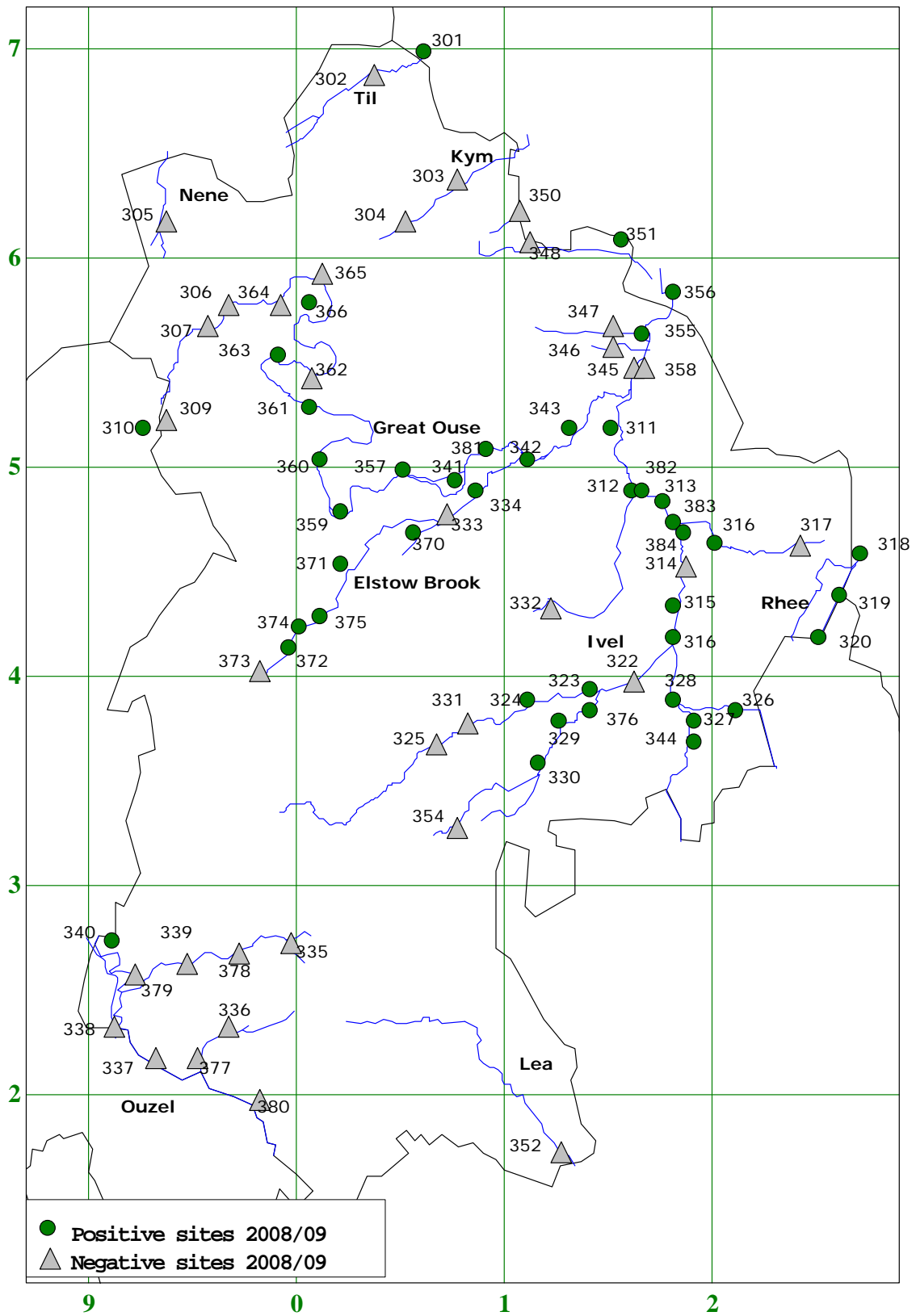


Figure 1 Map showing sites positive or negative for otter

3.1 The River Nene

The single location surveyed on a tributary of the River Nene (305) continues to remain free of otter sign. This site does not look particularly good for spraint marking.

3.2 The River Great Ouse catchment

There were 14 positive sites on the Great Ouse and its tributaries out of a total of 25 sites surveyed (56%). The higher than usual water levels resulted in a failure to find spraint at two regular sprainting sites (362, Oakley and 307, Harrold Bridge). An otter was killed on the road in Kempston in November and possibly another near Bedford earlier in the year. These deaths do not appear to have affected the number of sprainting locations in this catchment.

A new spraint site at 360, Bromham Mill was found that featured the largest pile of spraint located during the survey (see figure 2). The amount of spraint here and at the traditional sprainting location only some 30m away, indicates the presence of younger animals, which produce larger spraints and probable breeding near this location.

Another new sprainting location was discovered at Castle Mill Lock (TL093508) (381) close to a possible holt location. At this location were also two different sized sets of otter prints.



Figure 2 Spraint pile at Bromham Mill

3.2.1 Elstow Brook

The Elstow Brook and Stewartby Lake/ Forest Centre area had six positive sites for otter spraint (75%). There were two new positive locations at 370, Elstow and 372, Stewartby Lake. This area has had more than its fair share of road mortality with otters killed on roads at Millbrook and Brogborough in 2008. It was from the Elstow Brook that an otter cub was picked up on the 8th of February 2009 more than over two km from the nearest survey sites (334 and 342).

3.2.2 Rhee

Of the survey points on the Rhee, three out of the four continue to be positive for otters with 317 (on a small tributary) continuing to be negative.

3.2.3 Kym

The Kym continues to be devoid of otter sign.



Figure 3 Spraint beside the River Til

3.2.4 Til

Spraint was found at survey point 301, Covington, (see figure 3) the first record of otters using the Til in Bedfordshire.

3.2.5 Ouzel and Grand Union Canal

A set of two otter prints were found at 340, under the road bridge over the Mill bypass channel of the Ouzel near Grange Water Mill at TL909271 but no spraint could be located. Other than that no signs of otter were found anywhere in the Ouzel catchment as has been the case in previous surveys. Old records for this area are scarce but there are spraint and print records from 2006 and 2007 for the same location as was positive during this survey. In addition an otter was reported from the Grove Lock area in 2007 (site 338, mislabelled 337 on the 2003/04 map).

3.8 Ivel catchment

The Ivel catchment was rich in otter signs with 18 of the 22 sites (82%) positive for otter.

Most of the negative sites were at the extremes of the catchment, such as 325, 331 and 354, sites which have never had otter signs at them. Of slight surprise was a lack of spraint at 314, Ivel Bridges at Biggleswade, where traditionally spraint is often found. High water levels on the two occasions this site was checked is probably why it remained negative. Two new sites close to this location were positive for spraint; 384 Biggleswade Common (TL186461) and at 383 Warren Villas (TL181473).

3.10 Lea

Only one of the sites on the Lea could be surveyed at this time (352 East Hyde) and this remained negative as in previous years. However in 2003 an otter was seen crossing the road at this location so it is worth of continued monitoring.

3.11 Other Sites

The two sites described in the past under this section appear to form part of the Ivel Catchment but are included here for clarity. These sites are 354 Barton-le-Clay and 332, Old Warden and both remained negative. Of note here is an otter was killed on the A6 (TL081330) in November 2008 less than 500m from the Barton-le-Clay survey location. In 2006 otter spraints were found at Swiss Garden Lake in Old Warden (TL147447) along the same water course that leads to the survey location. This indicates that, despite these survey points being negative during this survey, otters have been present in these areas since the 2003/04 survey.

3.4 American Mink

Probable American Mink signs were found at a total of 6 sites (8%). There were only three sites where both otter and mink occurred (330 Gravenhurst, 376 Shefford Bypass and 342 Willington). Figure 4 indicates the location of mink signs found during this survey. (Confusion can occur between the signs of mink and Polecat (*Mustela putorius*) but all such signs were taken to be mink for the purposes of this survey as they would have been in the past. Extra care may need to be taken in future as the population of Polecat increases in the county.)

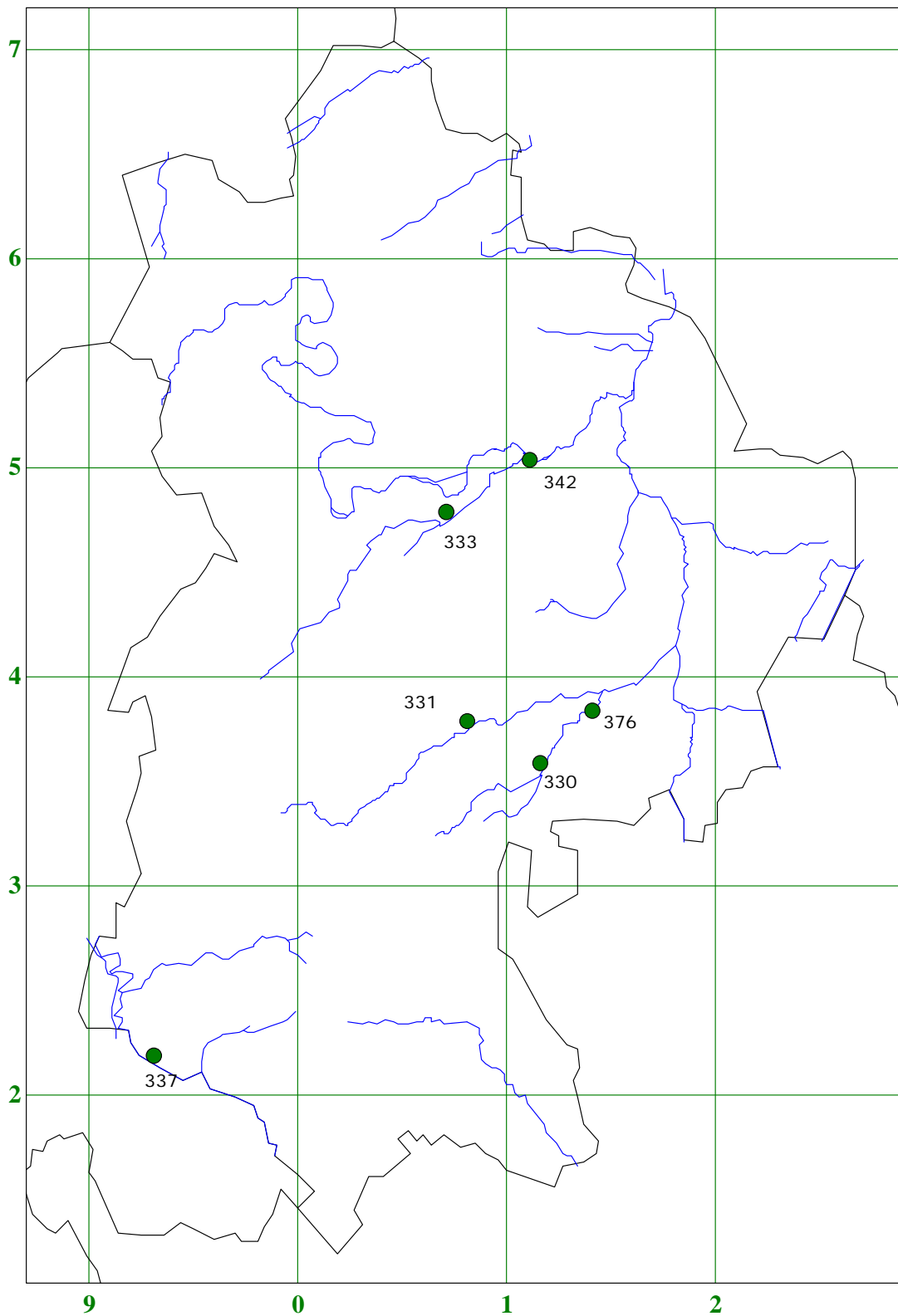


Figure 4 sites positive for American Mink

4.0 Discussion

4.1 Otter

As stated in Proud (2004) "a survey of this type does not record anything other than the distribution of otters along a river system". This survey has shown us that otters are using Bedfordshire's rivers to a greater extent than in previous years whilst continuing to spraint at traditional locations. Ruiz-Olmo, et al. (2001) showed that this type of survey is likely to pick up all areas where otters are present. But not all of the survey points pick up otter activity when they are known to be in an area. For example there was no sign of otters at site 364, Felmersham even though a very good set of otter tracks were seen only 300m from the survey location within a week of the survey (John Comont, pers. com.). An otter was killed at survey point 305 in 2003 (although this information did not come to light until 2009) despite no evidence of otters using this area having been found in any of the surveys.

Unfortunately this type of survey gives us no information about the number of animals, sex ratios, demographics, territory size, breeding success or otherwise (apart from the likely breeding location near Bromham Mill indicated by the volume of spraint present there). In addition this survey will not have picked up any potential expanding distribution along smaller streams, ditches and tributaries other than those with survey points on them.

The early otter surveys in Bedfordshire could have been detecting the presence of the introduced animals from 1995 and 1998. Indeed one of the 1998 introduced animals was found dying in 2004. This current survey was undertaken some ten years after the last introduction and given the median life of an otter in England is 3 to 4 years with few living beyond 8 (Gorman *et al*, 1998; Simpson, 1998) and provided there have been no unauthorised introductions into the county, it can be assumed that all sprainting is likely to have been undertaken by wild bred otters. In addition nineteen otters are known to have died on the roads in Bedfordshire along with at least two possible others since the first introduction (pers. obs. and Chadwick pers. com.) far more than the number of otters introduced (6) (see figure 5), using additional information like this gives us a clearer picture of otter distribution in Bedfordshire.

This continued increase in positive sites for otters throughout the county indicates a spread across Bedfordshire to occupy most of the water courses in the county including some quite small ones, additional data indicates that all river catchments in the county have been used by otters.

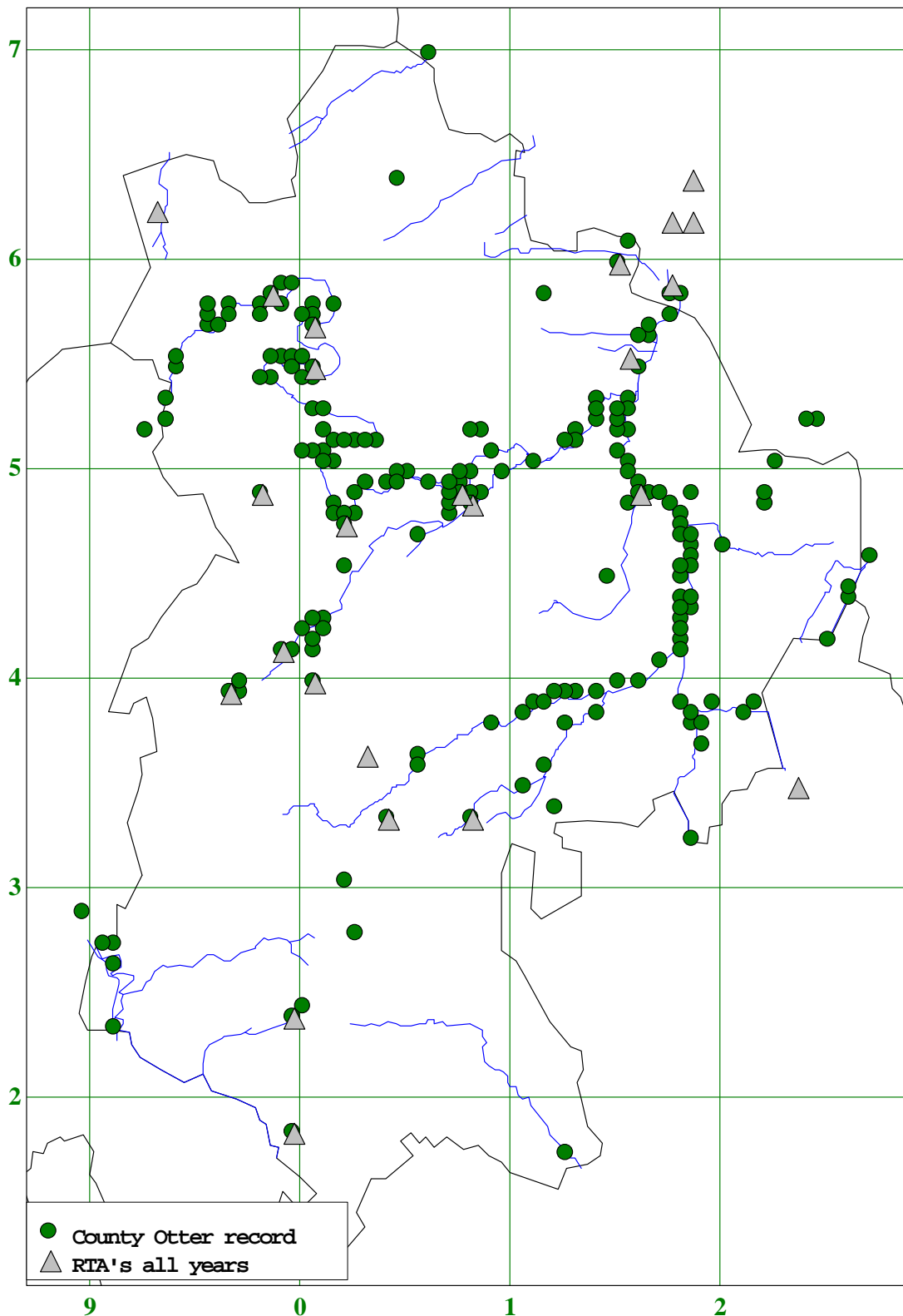


Figure 5 Map showing all otter records and RTA's since 1988 (including RTA's just over the border).



Figure 6 An otter cub recovered from the Ouse in 2009

In 2008/09 there were two indications of otter breeding on the Ouse, firstly the particularly large spraint accumulations at Bromham Mill and then, on the 8th of February 2009, an otter cub was picked up by well meaning members of the public and taken into care (figure 6). This cub was found on the Elstow Brook in the Cople/Willington area at TL099498 some two km from the nearest survey sites at 334 and 342. Over and above these examples of breeding, three of the four otters of known age found dead on roads in 2008 were sub-adults (CUOP, 2009a, CUOP 2009b, pers. obs.) and prints of small and large animals found at 381 indicated a sub adult there too.

During the 1996/7 survey otter signs were recorded on:

- the Ouse
- Elstow Brook
- the north of the Ivel

During the 2003/04 survey otter signs were recorded on:

- The Ouse
- Elstow Brook
- Marston Vale clay pits
- Ivel
- Hiz
- Flit
- Ivel Navigation
- Rhee

During the 2008/09 survey otter signs were recorded on:

- The Ouse
- The Ouzel
- Elstow Brook
- Marston Vale clay pits
- Ivel
- Hiz
- Flit
- Ivel Navigation

- Rhee
- Til
- Begwary Brook
- Duloe Brook
- Potton Brook

No signs of otters have ever been found at 305 on the river Nene during this or any previous survey but on the 4th of November 2003 an otter was killed on the road at this survey location (E. Chadwick, pers. com.). This is a strong indication that this survey point is not used by otters for sprainting and consideration needs to be given to locating an alternative survey point on the Nene as otters are now known to have used this watercourse.

Although a set of footprints were found at site 340 (Old Linslade) the continued lack of evidence of otter on the Ouzel defies explanation given the suitability of the habitat and potential sprainting sites. Despite this there have been single records from this area annually since 2006 and it seems likely that one animal is using this part of the county.

The slight decrease in occupancy of the Ouse catchment from the 1996/07 survey of 63% to 54% in 2003/04 and 2008/09 surveys could be because of reduced survey success due to flooding and high water levels; a number of sites were either under water at the time of surveys or had recently been so. This area is known to be used by otters and spraint, footprints and even sightings are regularly found throughout this part of the county (see figure 4 and Proud, 2007a). Having said this one of the factors affecting the number of otters found on a catchment is food availability and the fish biomass found on the Ouse has declined from 19.g/m² to 9.8g/m² between 2004 and 2007 (Bates, 2008)

There has been a particularly large increase in positive sites on the Ivel catchment which now stands at 82% compared to previous surveys which had 47% in 2003/04 and 6% in 1996/07. Of the sites that are common over the period of the three surveys 78% were positive for otter in 2008/09, 50% in 2003/04 and 6% in 1996/07 indicating a significant increase in otter occurrence in this area.

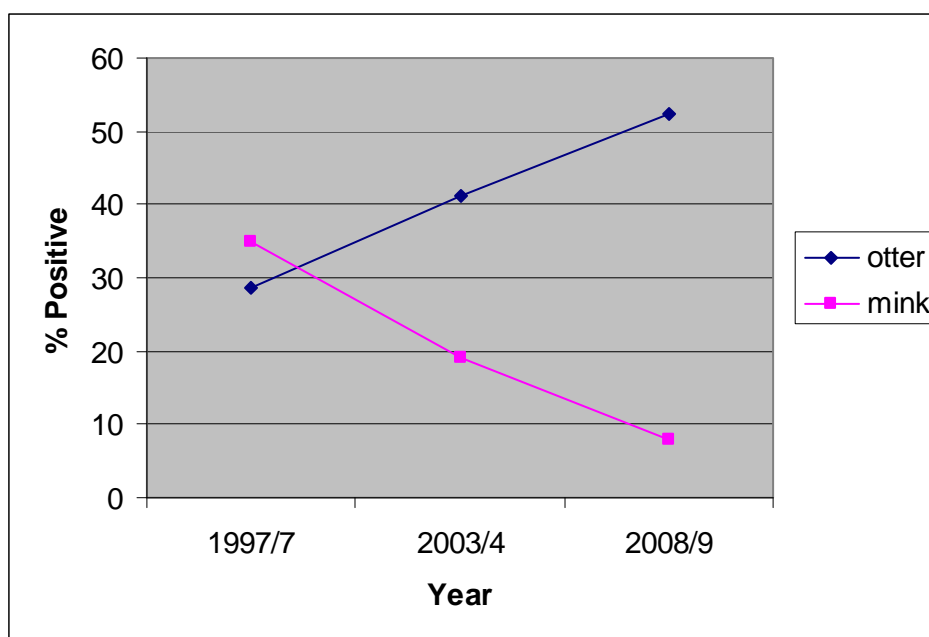


Figure 7. % of common sites positive for otter and mink

In the 2003/04 survey the author included data from three months prior to the actual survey dates. This has not been done for this survey and it may therefore be the case that the sets of figures are not directly comparable. Notwithstanding this 52% of common sites from the three surveys were positive in 2008/09 compared to 41% in 2003/04 and 29% in 1996/07 (see figure 7). Over all, the percentage occupancy rates for each of the surveys (including non common sites) were 55% in 2008/09, 38% in 2003/04 and 29% in 1996/07 indicating a higher number of negative sites surveyed in addition to the common sites in 2003/04 compared to 2008/09.

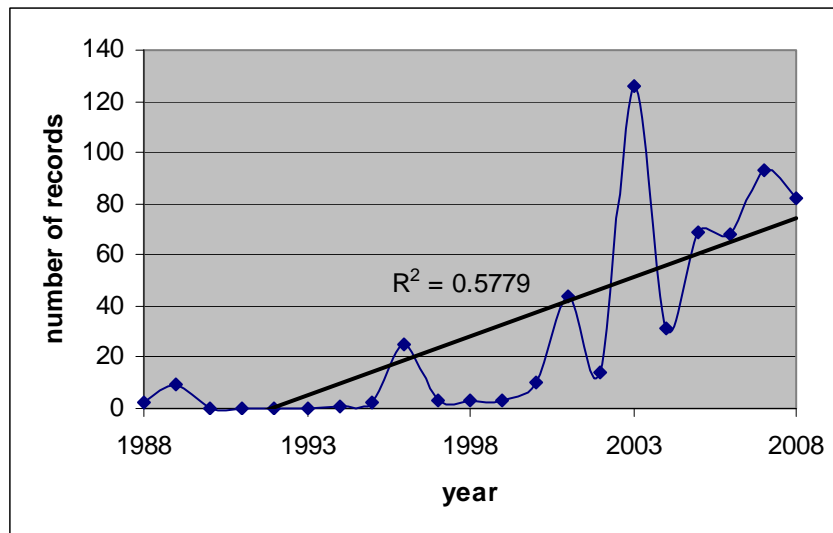


Figure 8 Number of otter records per year

Figure 8 shows the number of otter records in Bedfordshire per year since electronic records are available (1988) full data is not yet available for 2008 but this year is included nevertheless. This shows a significant increase in otter activity recorded in the county since the initial introductions in 1996 and 1998 ($R^2 = 0.5779$). The peaks in 1996 and 2003 correspond to the previous whole county surveys but other data is from casual observations and regular monitoring of particular sites.

4.2 American Mink

The perceived decline in American Mink continues through the county with only 8% of common sites positive for mink during the 2008/09 survey compared to 21% in 2003/04 and 35% in 1996/07 (see figure 7). Mink now appear to be concentrated in the Flit/ Hit area with some evidence on the Ouzel and Ouse/ Elstow Brook but none found on the River Ivel during this survey. The reason for this decline is open to speculation but the return of the otter (e.g. Bonesi and McDonald, 2004) combined with a campaign of mink trapping on the Ivel (Proud, 2007) may be contributory factors.

The continued co-habitation of sites by both mink and otter confuse the issue as to whether or not the species can cohabit (e.g. Crawford 2003). There were three (50%) of this years sites with both mink and otter signs compared to four (29%) in 2003/04 and 13 (62%) sites in 1996/07.

5.0 Recommendations for future survey work

As can be seen in the discussion a number of otter signs and animals were recorded during 2008 and 2009 from areas outside the scope of this survey and from areas where there is no obviously good habitat. It is these animals that are of greater interest as they indicate a potential expanding population and use (or re use?) of new areas. Vermin records for the 16th and 17th centuries indicate the capture of otters from all over the county including areas where they were not thought to occur in the previous surveys. Is the discovery of animals a long way from the expected habitats an indication that the Bedfordshire population is reaching its carrying capacity and therefore animals are having to subsist in sub-optimal habitats? If this is the case it is likely that there will be an increase in conflicts between otters and fishermen as the animals are forced to venture further and encounter the easy pickings that well stocked fishing lakes can provide. This will particularly be the case in the Ouse area where fish numbers in the river are declining.

Should a future survey be planned in 2013/14 careful consideration should be given to the survey method chosen and which survey locations to use. Whilst a verbatim repeat of this survey will give some indication of increased usage of the catchments, the time may have come to think about alternative survey methodologies. It would be useful to have information pertaining to the number, sex ratio, condition and demographics of the otter population in Bedfordshire and the interactions with animals outside the county. Camera traps, live trapping, marking, radio tracking and DNA studies (e.g. Coxon et al. 1999) are the currently available methods that will give us some of this information and funding should be sought to enable such work within the county.

6.0 Acknowledgments

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Thanks also to Amanda Proud and Cliff Andrews for checking a couple of sites. John Comont and Mick McCarrick for informing me of otters in areas close to the survey sites that were not picked up during the survey. Thanks to Sam Bedford at Bedfordshire Wildlife Rescue and Mrs Blackmore for info about the otter cub which was moved to a wildlife sanctuary in Scotland.

My thanks also to Joel Caré, Cliff Andrews and Richard Woolnough for their helpful comments on an earlier version of this report.

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Appendix 1 Survey Form

A	The BRCC Bedfordshire Otter Survey 2008/09	Site No.	OS Map No.		
B	Date	Weather on day of Survey		Site Name	Grid Ref.
C	Name of Water	Still	Ditch	Stream	River
D	Site Description		Bridge	Sluice	Bank Length
E	Bank Cover at Site		Poor	Average	Good
F	Provided by		Trees	Shrubs	Aquatic Veg.
G	Water Level		Low	Normal	High
H	Site Disturbance		Low	Medium	High
J	Caused by		Agriculture	Industry	Leisure
K	Dominant Vegetation				
L	Suitable Spraint Sites		Tree	Stone	Other
M	Site Sketch with land use and survey route				
N	Additional wildlife and comments				
P	Otter Signs		Yes	No	Signs Found
Q	Mink Signs		Yes	No	Signs Found
R	Water Vole Signs		Yes	No	Signs Found
S	Survey		Full	Part	Spot Check

Bedfordshire Otter Survey 2008/09

Appendix 2 Results from the three surveys.

(F = full survey, S = spot check)

Site No	Map Ref.	River	Location	F or S 1996/7	Otter	Mink	Negative	Date surveyed 2003/4	F or S 2003/4	Otter	Mink	Negative	Date checked 2008/09	F or S 2008/09	Positive	Mink	Negative
333	TL073475	Elstow Brook	Harrowden	F	1	1		09/01/2004	F		1	1	27/11/2008	S		1	1
334	TL088489	Elstow Brook	Cardington	F	1	1		09/01/2004	F	1			21/11/2008	S	1		
370	TL057465	Elstow Brook	Elstow	N/A				09/01/2004	S			1	27/11/2008	S	1		
371	TL024452	Elstow Brook	Wootton	N/A				12/01/2004	S	1			27/01/2009	S	1		
372	SP999413	Elstow Brook	Marston Moretaine	N/A				12/01/2004	S			1	27/01/2009	S	1		
373	SP983400	Elstow Brook	Thrupp End	N/A				12/01/2004	S			1	27/01/2009	S			1
374	TL001422	Elstow Brook	Forest of Marston Vale	N/A				12/01/2004	S	1			27/01/2009	S	1		
375	TL010427	Elstow Brook	Forest of Marston Vale by lake	N/A				12/01/2004	S	1			27/01/2009	S	1		
344	TL190365	Hiz	Arlesey	F			1	05/12/2003	F	1			23/01/2009	P	1		
316	TL204463	Ivel	Biggleswade Common	F			1	19/11/2003	F			1	23/01/2009	S	1		
321	TL183415	Ivel	confluence	F			1	05/12/2003	F	1			23/01/2009	S	1		
322	TL163397	Ivel	Clifton	F			1	05/12/2003	F			1	23/01/2009	P			1
323	TL140393	Ivel	Shefford	F		1	1	18/12/2003	S	1	1		28/01/2009	S	1		
324	TL112385	Ivel	Beadlow	F			1	18/12/2003	F		1	1	28/01/2009	S	1		
325	TL065367	Ivel	Water End	F			1	18/12/2003	F			1	28/01/2009	S			1
327	TL190379	Ivel	Arlesey	F			1	13/01/2004	F	1			23/01/2009	P	1		
328	TL181387	Ivel	Poppy Hill	F			1	05/12/2003	F			1	30/01/2009	S	1		
329	TL129378	Ivel	Campton	F			1	18/12/2003	F			1	28/01/2009	F	1		
330	TL119358	Ivel	Gravenhurst	F			1	04/12/2003	F		1	1	28/01/2009	F	1	1	
331	TL082376	Ivel	Clophill	F		1	1	18/12/2003	F		1	1	28/01/2009	P		1	1
353	TL097323	Ivel	Higham Gobion	S			1		N/A					N/A			
376	TL141384	Ivel	Shefford By pass	N/A				18/12/2003	S		1	1	28/01/2009	S	1	1	
382	TL165487	Ivel	A1 Riddy Bridge	N/A					N/A				21/11/2008	S	1		
383	TL181473	Ivel	Warren Villas	N/A					N/A				24/11/2008	S	1		

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Site No	Map Ref.	River	Location	F or S 1996/7	Otter	Mink	Negative	Date surveyed 2003/4	F or S 2003/4	Otter	Mink	Negative	Date checked 2008/09	F or S 2008/09	Positive	Mink	Negative
384	TL185465	Ivel	Biggleswade Common	N/A					N/A				24/11/2008	F	1		
311	TL154519	Ivel	Twin bridges	F	1			19/11/2003	F	1	1		27/01/2009	S	1		
312	TL163488	Ivel	Girtford Bridge	F			1	19/11/2003	F	1			21/11/2008	F	1		
313	TL176483	Ivel	New Road bridge	F			1	19/11/2003	S	1			21/11/2008	S	1		
314	TL186451	Ivel	Meccano bridge	F			1	19/11/2003	S	1			21/11/2008	S			1
315	TL184430	Ivel	Holme bridge	F		1	1	05/12/2003	F		1	1	29/01/2009	F	1		
326	TL214384	Ivel	Astwick	F			1	05/12/2003	S	1			23/01/2009	S	1		
303	TL079637	Kym	Keysoe	S			1	08/01/2004	S			1	29/01/2009	S			1
304	TL053619	Kym	Riseley	S			1	08/01/2004	S			1	29/01/2009	S			1
350	TL108622	Kym	Little Staughton	F			1	08/01/2004	S			1	29/01/2009	S			1
352	TL127174	Lea	East Hyde	F			1	04/12/2003	F			1	30/01/2009	S			1
367	TL104202	Lea	Luton	N/A				28/11/2003	F			1		N/A			
368	TL117186	Lea	Luton Hoo	N/A				28/11/2003	F			1		N/A			
369	TL109196	Lea	Luton Hoo	N/A				28/11/2003	F			1		N/A			
305	SP935615	Nene	Poddington/ Harwick	F			1	10/12/2003	S			1	30/01/2009	S			1
332	TL120434	Other	Old Warden	S			1	18/12/2003	S			1	27/01/2009	S			1
354	TL078329	Other	Barton-le-Clay	S			1	04/12/2003	S			1	28/01/2009	S			1
308	SP942548	Ouse	Carlton	F			1		N/A					N/A			
310	SP926515	Ouse	Newton Blossomville	S	1	1		26/11/2003	S	1			12/12/2008	S	1		
346	TL153559	Ouse	Wyboston	F			1	09/12/2003	F			1	29/01/2009	S			1
347	TL152565	Ouse	Wyboston	F			1	09/12/2003	S			1	29/01/2009	S			1
348	TL111606	Ouse	Bushmead	F			1	08/01/2004	F			1	29/01/2009	S			1
349	TL111569	Ouse	Duck Cross	S			1		N/A					N/A			
351	TL155606	Ouse	Duloe	F			1	08/01/2004	F			1	29/01/2009	P	1		
362	TL009544	Ouse	Oakley	F	1	1		09/01/2004	F	1			12/12/2008	F			1
364	SP990578	Ouse	Felmersham	F	1			12/12/2003	F			1	12/12/2008	F			1

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381	TL093508	Ouse	Castle Mill Lock	N/A					N/A				21/11/2008	F	1		
306	SP966577	Ouse	Odell bridge	F	1	1		10/12/2003	S			1	12/12/2008	P			1
307	SP955565	Ouse	Harrold bridge	F	1	1		10/12/2003	F	1			12/12/2008	P			1
309	SP939524	Ouse	Turvey bridge	F	1	1		10/12/2003	F	1			12/12/2008	S			1
341	TL078490	Ouse	Priory CP	F	1	1		07/01/2004	F			1	27/11/2008	P	1		
342	TL110503	Ouse	Willington	F	1	1		12/01/2004	F	1			27/11/2008	F	1	1	
343	TL134516	Ouse	Great Barford	F	1			09/12/2003	S	1	1		27/01/2009	S	1		
345	TL162545	Ouse	Roxton	F		1	1	09/12/2003	S	1			29/01/2009	F			1
355	TL168564	Ouse	Wyboston	F		1	1	09/12/2003	F	1	1		29/01/2009	P	1		
356	TL180581	Ouse	Wyboston	F			1	09/12/2003	F	1			29/01/2009	S	1		
357	TL051496	Ouse	Bedford	S	1	1		14/01/2004	S			1	27/01/2009	F	1		
358	TL167547	Ouse	Wyboston	F			1	09/12/2003	F		1	1	29/01/2009	P			1
359	TL024476	Ouse	Kempston Mill	F	1			15/12/2003	F	1			27/01/2009	P	1		
360	TL010504	Ouse	Bromham Mill	F	1			15/12/2003	F	1			30/01/2009	S	1		
361	TL008529	Ouse	Oakley	F	1	1		09/01/2004	F	1			12/12/2008	S	1		
363	SP990553	Ouse	Pavenham	F	1	1		09/01/2004	F		1	1	12/12/2008	S	1		
365	TL010590	Ouse	Nr Radwell	F	1	1		09/01/2004	F			1	12/12/2008	P			1
366	TL007575	Ouse	Radwell	F			1	10/12/2003	F	1			12/12/2008	F	1		
335	SP995273	Ouzel	Tebworth	S			1	11/12/2003	S			1	26/01/2009	S			1
336	SP969230	Ouzel	Stanbridge	F			1	12/01/2004	F			1	26/01/2009	S			1
337	SP933216	Ouzel	Slapton	F		1	1	11/12/2003	F		1	1	26/01/2009	S		1	1
338	SP914233	Ouzel	Grovebury	F		1	1	11/12/2003	F			1	26/01/2009	F			1
339	SP949261	Ouzel	Clipstone	F			1	11/12/2003	F			1	26/01/2009	P			1
340	SP911271	Ouzel	Old Linslade	F		1	1	11/12/2003	F			1	26/01/2009	P	1		
377	SP952219	Ouzel	SE Billington	N/A				13/01/2004	F			1	26/01/2009	S			1
378	SP973269	Ouzel	Hockliffe	N/A				11/12/2003	S			1	26/01/2009	S			1

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379	SP920259	Ouzel	Ouzel Meadows	N/A				13/01/2004	F		1	1	30/01/2009	F			1
380	SP983195	Ouzel	Bellows Mill	N/A				13/01/2004	F			1	30/01/2009	S			1
317	TL243463	Rhee	Eyeworth	S			1	19/11/2003	S			1	23/01/2009	S			1
319	TL262439	Rhee	Mobbs Hole	F			1	19/11/2003	F	1			23/01/2009	P	1		
318	TL270456	Rhee	Hooks Mill	F			1	19/11/2003	S	1			23/01/2009	S	1		
320	TL253418	Rhee	Ashwell	F		1	1	19/11/2003	F	1			23/01/2009	P	1		
301	TL062696	Til	Covington	F			1	08/01/2004	F			1	29/01/2009	S	1		
302	TL035688	Til	Shelton	F			1	08/01/2004	F			1	29/01/2009	S			1
				Sites					Sites					Sites			
Totals				66	18	22	48		77	29	14	48		78	43	6	35

The Otter Survey of Bedfordshire 2008/09

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