



Otter *Lutra lutra* Species Action Plan

1. Introduction

The European otter is classed as Near Threatened on the IUCN Red Data List. It was listed as a priority UK BAP species and subsequently included in Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Otter populations across Western Europe are showing a clear recovery trend but the species' global population status is less well understood and it still faces many threats.

2. Current Status

2.1 Ecology and habitat requirements

The otter is one of the UK's top mammalian predators and its presence is an important indicator of the chemical and biological health of our wetlands. It is found in both saline and freshwater habitats ranging from coastal areas and estuaries to ponds and lakes, canals, small streams and ditches, although natural fast flowing rivers are preferred. Territory sizes have most frequently been measured in terms of length of waterway, but this may not present an accurate picture in places where part or all of the range consists of lakes or ponds, or when comparing very large waterways with small ones. Male otters are frequently found to maintain territories of up to 50 km of riverbank but this may not reflect the total area of habitat occupied. Likewise, otters found to maintain territories along seemingly short sections of river may in fact be using extensive areas of habitat adjacent to the main body of the river: this will include wet woodland and scrub as well as more obvious wetland habitat. Spraints (droppings) are used by otters to mark their home ranges, and so are usually found in prominent places such as boulders and bankside ledges.

The size of an individual otter's territory will be dictated to a great extent by the available food resource within that area. Otters need on average 1kg of food per day, which is about 10 percent of their body weight. Their diet comprises about 80% fish but they will also take birds and bird eggs, molluscs, crustaceans, amphibians and small mammals. Slower fish like eel (*Anguilla Anguilla*), common carp (*Cyprinus carpio*) and roach (*Rutilus rutilus*) are preferred, as they require less energy to catch. As otters have returned to UK waterways they have tended to displace the American mink (*Neovison vison*), which has a much more indiscriminate diet.

Otters are solitary animals except during mating and whilst a female is rearing cubs, who will stay with her for around 12 months before dispersing. Otters will use a wide variety of structures and vegetation types for resting in during the day and a single individual will make use of a large number of different resting areas throughout its territory. These areas may range from cavities beneath tree roots or behind bankside support structures, hollows within piles of flood debris and relatively open and uncovered sites such as a depression within a reedbed where the vegetation is relatively short. Enclosed dens are usually termed holts and open resting sites couches. Natal holts are much more difficult to find than

resting holts with evidence suggesting that females are unsurprisingly much more careful to conceal the presence of both the holt itself and themselves when coming and going. It is also likely that the young are moved after birth and reared in a different holt to the one they were born in.

2.2 Population and distribution

Formerly widespread throughout much of the UK, the otter underwent a rapid decline in numbers from the 1950s to the 1970s, caused primarily by the introduction of organochlorine-based pesticides and exacerbated by hunting and loss of habitat. The first national otter survey of England in 1977-79 showed that the only significant populations remaining were along the Welsh borders and in the south west, with only very isolated and fragmented populations elsewhere. In total only 6% of almost 3000 sites visited across the country during this survey showed evidence of otters. The species was effectively lost from the midland counties of England, including Worcestershire, by the 1980s.

Otter hunting ceased in 1978 when the species received full protection under the Conservation of Wild Creatures and Wild Plants Act 1975 and the two main organochlorine compounds in common agricultural use, Dieldrin and Aldrin, were banned in 1981 and 1991 respectively. Further national surveys took place with the most recent (the fifth, of England and Wales) completed in 2010. This showed that 58.8% of surveyed sites in England were positive for signs of otter, compared with only 5.8% in 1979. Natural recolonisation, supported in some parts by reintroductions, is considered to have been successful in linking formally isolated regional outposts.

Table 1. Results of national surveys expressed as a percentage of sites where signs of otters were found.

	No. Sites	1977-9	1984-6	1991-4	2000-2	2003-4	2009-10
Scotland	2650 ¹	57%	65%	83%	-	92% (1376 sites)	-
Wales	1008 ¹	20%	38%	53%	74%	-	89%
England	2940 ¹	6%	10%	24%	36%	-	59%

Source: Adapted from Chanin, P (2003). **Original data from:** Bailey & Roachford (2006), Chapman & Chapman (1982); Green & Green (1997); Andrews, Howell & Johnson (1993); Strachan & Jefferies (1996), Crawford (2003, 2011), Strachan, (2007, 2015). ¹ Data selected only from sites common to all surveys with exception of the 2003/4 Scottish survey.

More recently, a review of the population and conservation status of British mammals by Matthews et al (2018) determined that there has been an increase in geographical range and population size of otters, with the latter seeming to have increased by 49% in Britain as a whole since 1995.

Surveys by Worcestershire Wildlife Trust during the 1991-94 nationwide survey revealed that otters were present on all of the county's major watercourses. There was an apparent stronghold within the Teme catchment near the Worcestershire / Shropshire border and in the middle Severn. During the latter half of the 1990s otters also went on to re-colonise the Avon catchment.

Today there are records throughout the county (figure 1) from a variety of water bodies, including smaller streams as well as the rivers, and also records that

relate to either road casualties or sightings in places where otters are forced from the watercourse they are using to negotiate a road bridge. Breeding undoubtedly occurs in Worcestershire as young otters have been found. All three canals are used by otters, with a concentration of records on the Staffordshire and Worcestershire canal where it passes through Kidderminster.

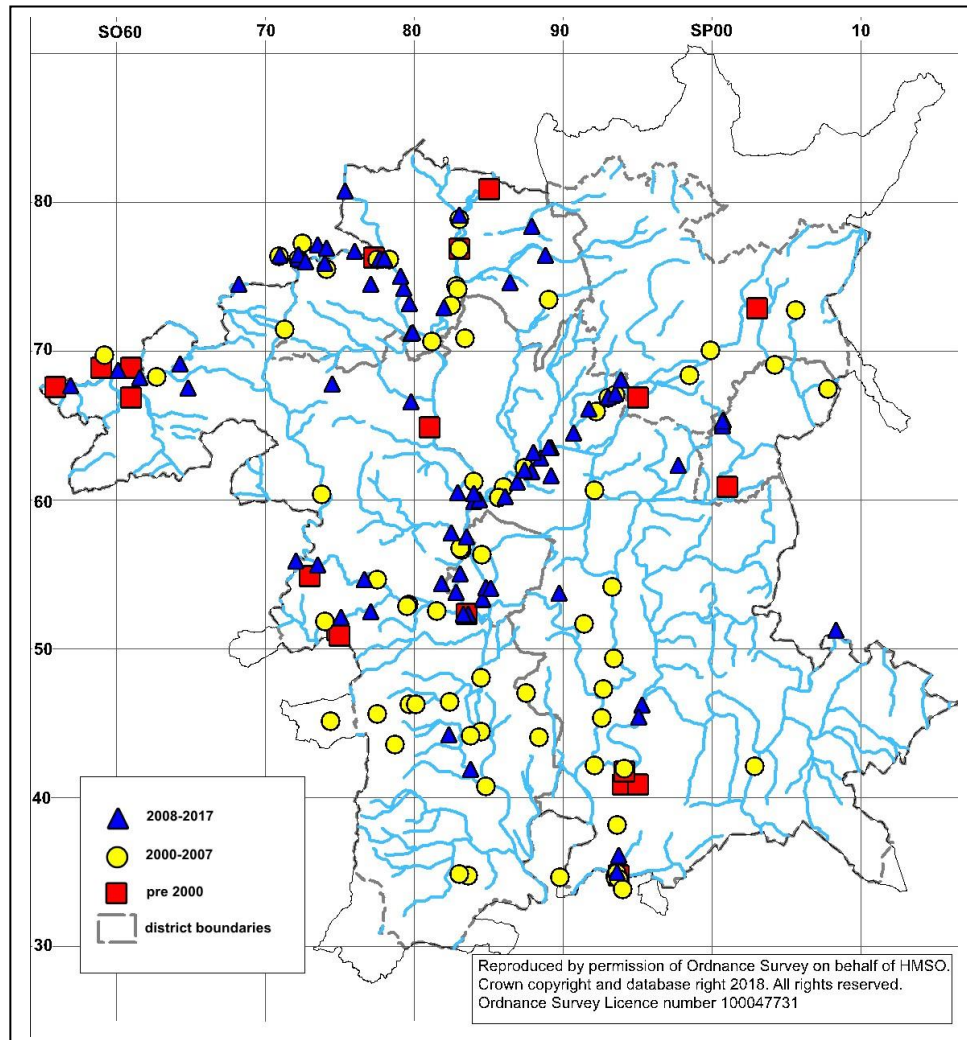


Figure 1. Records of otter in Worcestershire. Data supplied and map prepared by Worcestershire Biological Records Centre.

2.3 Legislation

The otter is listed on Appendix 1 of CITES, Appendix II of the Bern Convention and Annexes II and IV of the Habitats Directive. It is protected under the Conservation of Wild Creatures and Wild Plants Act 1975, Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), Schedule 2 of the Conservation (Natural Habitats, etc.) Regulations 2017 (as amended) (Regulation 38) and Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

In May 2001 a national Environment Agency bylaw was passed banning the use of Eel fyke nets without an otter guard to prevent accidental deaths.

2.4 Summary of important sites

All water courses and water bodies within the county plus their associated wetland habitats are potentially important sites for otters. The current data highlights how widely the otter is now distributed across Worcestershire, and also the variety of wetland habitats they are using, from the major rivers to quite small streams. Still water bodies, particularly those stocked for fishing, are also a valuable (if controversial) resource for otters.

In 2001 Worcestershire Wildlife Trust created the Gwen Finch nature reserve, a wetland near Nafford lock on the River Avon. The reserve was created specifically to provide habitat for the otter and they now regularly use the site.

In the last 20-30 years a large number of artificial holts have been created throughout the county as part of development mitigation or through projects delivered by conservation bodies.

3. Current factors affecting the species

- Historically, the pollution of watercourses from pesticides, heavy metals, industrial activity and synthetic pyrethroid sheep dips was the single biggest cause of the otters decline. However, water quality is now broadly improving across the county and more monitoring is taking place under Water Framework Directive.
- Insufficient prey resulting from poor water quality, low flows or river modifications. Pollution, and the consequences for fish populations, is no longer believed to be a significant limiting factor in the recolonisation of a watercourse by otters. Low flow and river modifications are still an issue however. Eel populations, which form a significant part of the otters diet, are declining throughout Western Europe due to over fishing.
- Drainage and other agricultural improvements resulting in the degradation or complete loss of bankside features or wetland habitat such as marsh, reedbed and wet woodland.
- Canalisation and other hard-engineering modifications to rivers and canals resulting in loss of bankside habitat and adjacent wetland habitat or the disconnection of the watercourse from its associated wetland habitat.
- The mortality rate from road accidents is increasing due to otters having to leave the watercourse to negotiate road bridges and other man-made obstacles. This is a particular problem during high-flow or flood events when passage underneath a bridge or other feature may be blocked. There may also be a similar problem where railways and rivers meet.
- Conflict with fisheries interests and possible persecution.
- Human disturbance including conflict with domestic dogs.
- The cumulative impact on otters of development alongside watercourses is not well understood but could be significant and this needs to be addressed through the planning and development control processes.

4. Current Action

4.1 Local protection

All of the county's major rivers, the three canals and many smaller streams, as well as some standing water bodies, are designated as Local Wildlife Sites (LWS).

About 16% of reedbed sites within the county, covering about 30% of our reedbed resource, are notified as Sites of Special Scientific Interest (SSSI). The largest are at Hewell Park Lake, Upton Warren, Westwood Great Pool, Feckenham Wylde Moor and Oakley Pool. Other reedbeds are classified as LWS. Of the other standing water bodies within the county, Bittell Reservoir and Hurcott and Podmore Pools are also designated as SSSIs. Some SSSI and LWS also incorporate wet woodland.

4.2 Site management and programmes of action

- The Otters and Rivers Project, begun in 1992 (and then from 2002 the Water for Wildlife partnership) and led by The Wildlife Trusts in partnership with the Environment Agency and the water companies, worked to provide an advisory service for land managers, install artificial holts, create and restore habitat along rivers, advise on otter mitigation regarding new roads and development, provide training and produce publicity material.
- The Environment Agency and other Consenting bodies take into account the requirements of otters in all riverside capital and maintenance works and in carrying out all regulatory functions.
- Worcestershire is using the Catchment Based Approach to embed a model of collaborative partnership working at a river catchment scale across the county (and across neighbouring county borders).
- Agri-environment schemes have resulted in improved management of waterside habitats in certain areas.
- The development of Worcestershire Wildlife Trust's Gwen Finch wetland reserve on the River Avon has created one of the county's biggest reedbeds and provided suitable habitat for breeding otters.

4.3 Survey, research and monitoring

- The five national otter surveys in England included two 50km squares – SP north-west and SO south-east – that cover parts of Worcestershire. A great deal of the work during the fourth survey was carried out by Worcestershire Wildlife Trust as part of the Otters and Rivers Project. This project also carried out county distribution surveys on a catchment basis every year between 1992 and 2002.
- The Highways Agency continues to fund research into the extent of otter road deaths at existing road / river crossings and the mitigation works required to minimise road casualties. Best practice on the design of new roads and bridges to take account of the needs of otters and other mammals is published within the Design Manual for Roads and Bridges.

- The Otter Project was established at the University of Cardiff in 1992 with the aim of monitoring aquatic contamination using tissue from otters found dead. The project is now the main depository for otter carcasses in the UK and has become a long term environmental surveillance scheme investigating contaminants, disease, and population biology of otters across the UK. Research themes also include population structure and dispersal, age structure, reproduction, and diet. Numerous papers have been published from this work.
- The Worcestershire Recorders, with Worcestershire Biological Records Centre, published the first Worcestershire Mammal Atlas in 2012. Records are currently being collected for a second edition.

5. Associated Plans

Wet Woodland, Reedbeds, Fen and Marsh, Wet Grassland, Urban, Canals, Ponds and Lakes, Rivers and Streams.

6. Conservation Aim

The species' increase in range and population is well understood and documented.

7. Conservation Objectives

- Use of the Green Infrastructure approach to planning to prevent, or when necessary mitigate, cumulative impacts on otters of development adjacent to watercourses
- Digitisation of the locations of artificial holts installed over the last approx. 20 years within the county
- Undertake a habitat modelling exercise to map potential otter breeding locations and use this as a basis for planning a county-wide survey of species distribution and population density
- Raise awareness of the otters' ecology and status amongst riparian landowners and fisheries owners
- Promote legal and sustainable approaches to conflict resolution where otters come into conflict with fisheries and keepers of ornamental fish
- Promote approaches to riverside recreation, including bankside habitat management and footpath routing, that reduce or avoid the risk of human/dog disturbance to otters
- Use spraint analysis to gain a better understanding of otter diet preferences
- Consider use of eDNA sampling when opportunity arises through project work
- Maintain and improve efforts to survey and monitor the status of otters in Worcestershire

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