

# Technical Guidance Series



Chartered  
Institute of  
Ecology and  
Environmental  
Management

In association with



## Competencies for Species Survey: Eurasian Otter



[www.cieem.net](http://www.cieem.net)

## 1. Introduction

The purpose of this document is to set out the knowledge, skills and experience required to survey, disturb or to carry out research works (hereinafter referred to generically as 'survey') for the Eurasian otter *Lutra lutra* in a professional capacity. To be undertaking such work, CIEEM would consider attainment of the criteria outlined in this guidance to be a minimum for an individual to competently survey for otters. The Institute aims to drive up standards in the ecological profession for the benefit not only of ecologists but also of the public.

This document does not provide guidance on the techniques to be employed in carrying out survey activities: references to published sources of guidance on survey methods are listed in Section 5. A training log book with example entries is provided in Section 7.

## 2. Status

Eurasian otter populations throughout Western Europe declined over the 20th century, with the decline in the UK attributed to the introduction of cyclodiene pesticides (dieldrin and related compounds) in the mid-1950s (Chanin 2003a) and their subsequent bioaccumulation in the aquatic food chain. Legislation restricting or banning the use of certain pesticides and improvements in water quality have led to an increase in otter abundance and range. While the otter is listed as Near Threatened on the IUCN Red List, the 2008 reporting round of the UK Biodiversity Action Plan reported that population trends are increasing throughout the UK. However, in the Republic of Ireland, the most recent otter survey in 2004/05 found that population levels were declining, with threats coming from habitat loss, accidental deaths and pollution (National Parks and Wildlife Service 2009).

## 3. Legislation and Licensing

### Legislation

Otters are protected under the following legislation. This outline of legislation is not comprehensive and the appropriate legislation should always be consulted for a definitive list of offences.

COUNTRY	LEGISLATION GIVING PROTECTION	SCHEDULE OR ANNEX LISTING
<i>England</i>	Conservation of Habitats and Species Regulations 2010 Wildlife and Countryside Act 1981 (as amended)	Schedule 2 Schedules 5 & 6
<i>Wales</i>	Conservation of Habitats and Species Regulations 2010 Wildlife and Countryside Act 1981(as amended)	Schedule 2 Schedules 5 & 6
<i>Scotland</i>	Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)	Schedule 2
<i>Northern Ireland</i>	Conservation (Natural Habitats etc) Regulations (Northern Ireland) 1995 (as amended) Wildlife (Northern Ireland) Order 1985 (as amended)	Schedule 2 Schedule 6
<i>Republic of Ireland</i>	European Communities (Natural Habitats) Regulations 1997 (as amended) Wildlife Act 1976 (as amended)	First schedule Schedule 5

### Licensing

The following Statutory Nature Conservation Organisations (SNCOs) are responsible for issuing licences to permit actions that would otherwise be illegal under the relevant legislation:

COUNTRY	SNCO
<i>England</i>	Natural England
<i>Wales</i>	Natural Resources Wales
<i>Scotland</i>	Scottish Natural Heritage
<i>Northern Ireland</i>	Northern Ireland Environment Agency
<i>Republic of Ireland</i>	National Parks and Wildlife Service

A *survey licence* is required: for invasive surveys using invasive techniques and equipment such as endoscopes to view inside holts. Licences for use of camera traps at a resting site (holt or couch) may be required if this would result in disturbance.

A *survey licence* is not required: for direct observation or for presence/absence surveys, involving searching riparian habitats for droppings (spraints) and other field evidence only, without using invasive techniques. For *ad hoc* usage of camera traps (*i.e.* not at resting sites), a licence is not required.

If an otter resting site is suspected, a reasonable external examination can be performed to locate and record evidence, but if an otter is suspected to be occupying a resting site (*i.e.* very fresh field evidence, noises heard within structure) then the surveyor should immediately withdraw without further investigation of the structure.

It is the role of the appropriate licensing authority to define the criteria for issuing such licences as may be required for survey work, therefore, attainment of the skills set out is no guarantee that a licence will be obtained; other criteria will need to be considered.

#### 4. Knowledge, Skills and Experience

To plan, undertake and interpret surveys for otters independently and competently, an individual would be expected to possess all of the following knowledge, skills and experience.

A surveyor needs to recognise their level of attainment along a continuum. Those without the breadth and depth of the knowledge, skills and experience that CIEEM consider a minimum, should always work with, or seek advice from, an adequately experienced individual.

##### **Knowledge**

Individuals should have a knowledge and understanding of:

- a. conservation status;
- b. distribution (which will change with time as otter populations is recovering in England);
- c. threats to population, species range and species survival;
- d. otter ecology, breeding biology and behaviour;
- e. basic freshwater ecology;
- f. known ecological requirements (particularly breeding requirements);
- g. legal protection;
- h. licensing and permissions;
- i. current relevant guidance on survey methods and standards;
- j. survey methods used to survey for otters and the strengths, weaknesses and limitations of these methods;
- k. range of factors that might lead to bias in the survey results, and false negatives, particularly pertaining to natal structures, natal sites and also small ditches and small water bodies;
- l. different factors affecting surveying (e.g. season, effect of weather and water flow conditions prior to presence/absence surveys);
- m. sources of information on known occurrence and distribution of otters (including NBN Gateway, local biological/environmental records and local contacts/mammal groups);
- n. metadata standards / data sharing; and
- o. health and safety issues commonly associated with surveying for otters.

##### **Skills**

Individuals should have skills and experience enabling them to:

- a. identify otters and distinguish them from similar sized mammals;
- b. identify field signs for otters and distinguish them from field signs of similar sized mammals such as mink (e.g. otter spraint, footprints, couches and holts);
- c. interpret the approximate age of spraint (dry intact, dry fragmented or not fully dry);
- d. assess habitat potential of an area for otters;
- e. carry out appropriate spatial scoping of fieldwork;
- f. plan and implement sound scientific surveys, minimising disturbance, including defining the most appropriate width of survey corridor in different terrestrial habitats;
- g. interpret and analyse survey data; and
- h. take appropriate health and safety precautions for working by rivers and handling droppings.

##### **Practical Experience**

To carry out presence/absence surveys and to identify resting sites, an individual would be expected to have practical experience of:

- a. survey in different river types (e.g. lowland/upland/urban, main rivers/ditches/coastal/still waters);
- b. survey in different terrestrial habitat types (e.g. woodland, reed bed, scrub, moorland); and
- c. a variety of confirmed resting sites for example tree root holts, rocky holts, peatland holts (Scotland), couches in scrub and in coarse vegetation.

For direct observation surveys (west coast of Scotland and islands), individuals would be expected to have practical experience of:

- a. choosing effective viewing positions to avoid disturbance (visual/scent/sound);
- b. using viewing equipment competently; and
- c. both mink and otter observation for rapid identification.

An individual carrying out invasive surveys would be expected to have:

- a. experience with a licensed person following protocol, to avoid disturbance;
- b. experience of a variety of confirmed resting sites (e.g. tree root holts, rocky holts, peatland holts, couches in scrub and in coarse vegetation); and
- c. competency in use of viewing equipment e.g. endoscope or other viewing equipment.

When using camera traps for otter survey, individuals should have practical experience of:

- a. setting up camera traps to avoid common technical problems such as over exposure (white-outs) and multiple triggers;
- b. following protocol to minimise disturbance; and
- c. interpreting camera trap data.

## 5. Reading

The following references are essential reading for those wishing to gain the necessary knowledge, skills and experience to survey for Eurasian otters.

Chanin P (2003a) *Ecology of the European Otter*. Conserving Natura 2000 Rivers, Ecology Series No. 10. English Nature, Peterborough.

Chanin P (2003b) *Monitoring the Otter *Lutra lutra**. Conserving Natura 2000 Rivers Monitoring Series No 10. English Nature, Peterborough.

Chanin P (2005) *Otter surveillance in SACs: testing the protocol*. English Nature Research Report No 664. English Nature, Peterborough.

CCW (2009) *Otters. A Guide for Developers*. CCW Species Series. CCW.  
[www.ccw.gov.uk](http://www.ccw.gov.uk)

Macdonald DW, Mace G and Rushton S (1998) *Proposals for future monitoring of British mammals*. DETR, London.

National Parks and Wildlife Service (2009) *The Otter in Ireland*. National Parks and Wildlife Service, Dublin.

Natural England. *Otter surveys - When do I need a licence?*  
[www.naturalengland.org.uk/Images/wmlg02\\_tcm6-3750.pdf](http://www.naturalengland.org.uk/Images/wmlg02_tcm6-3750.pdf)

Natural England (2007) *Disturbance and protected species: understanding and applying the law in England and Wales*.  
[www.naturalengland.org.uk/Images/esisgd\\_tcm6-3774.pdf](http://www.naturalengland.org.uk/Images/esisgd_tcm6-3774.pdf)

Ward D, Holmes N and José P (1994) *The New Rivers and Wildlife Handbook*. RSPB, Bedfordshire.

## 6. Acknowledgements

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## 7. Sample Log Book

Name	A. Trainee										
Address											
Email											
Otter Field Evidence									Supervised/ checked	Unsupervised	
June 22-23, River Eden.	Survey of 4km of lowland river and ponds. Found spraint (fresh, recent and old), slides, two sets of tracks.							J Bloggs checked ID of tracks	Yes		
July 5, Loch Lomond	Survey of 1km shoreline. Spraint (all old) and two prints.							Yes			
July 24&25 Survey Harperig reservoir.	A few spraints and a sign heap.							Yes			
August 17 River Nith	Survey of river 3km. Abundant signs: runs across meander loops, sign heaps, heaps of spraint, prints of adult and young, slides.							J Bloggs checked ID of juvenile prints	Yes		
September 28, 29	IEEM training course. Found spraint, prints (adult and young), pathways, fish kill, slide, sign heaps.							M Findlay			
Mink Field Evidence									Supervised/ checked	Unsupervised	
June 22-23, River Eden.	Survey of 4km of lowland river and ponds. Numerous scats and occasional prints.							J Bloggs checked all			
September 28, 29	IEEM training course. Found scats, prints.							M Findlay			
Mink Field Evidence									Supervised/ checked	Unsupervised	
June 22 River Eden	Tree root holt in complex of ash roots. Single entrance found with slide and old spraint near entrance.							J Bloggs			
August 17 River Nith	Rockpile holt found. Several entrances, slides. Bedding just visible. Numerous spraint sites. Briefly examined then retreated.							J Bloggs			
September 28, 29	IEEM training course. Couch in scrub on top of flood debris, quite low down on bank. Tree root holt in hawthorn root complex.							M Findlay			
Checklist (tick when several examples seen so you are confident to identify)											
Fresh spraint	Y	Mink scats	Y	Adult otter prints	Y	Mink prints		Otter slide	Y	Couch	Y
Recent spraint	Y	Old mink scats		Juvenile otter prints		Mink den	Y	Otter path	Y	Tree root holt	
Old spraint	Y			Sign heap	Y			Fish kill	Y	Rockpile holt	Y
Amphibian remains in spraint										Other resting sites (state)	

Name											
Address											
Email											
Otter Field Evidence										Supervised/ checked	Unsupervised
Mink Field Evidence										Supervised/ checked	Unsupervised
Mink Field Evidence										Supervised/ checked	Unsupervised
Checklist (tick when several examples seen so you are confident to identify)											
Fresh spraint	<input type="checkbox"/>	Mink scats	<input type="checkbox"/>	Adult otter prints	<input type="checkbox"/>	Mink prints	<input type="checkbox"/>	Otter slide	<input type="checkbox"/>	Couch	<input type="checkbox"/>
Recent spraint	<input type="checkbox"/>	Old mink scats	<input type="checkbox"/>	Juvenile otter prints	<input type="checkbox"/>	Mink den	<input type="checkbox"/>	Otter path	<input type="checkbox"/>	Tree root holt	<input type="checkbox"/>
Old spraint	<input type="checkbox"/>		<input type="checkbox"/>	Sign heap	<input type="checkbox"/>		<input type="checkbox"/>	Fish kill	<input type="checkbox"/>	Rockpile holt	<input type="checkbox"/>
Amphibian remains in spraint	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	Other resting sites (state)	<input type="checkbox"/>

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