

Technical Guidance Series



Chartered
Institute of
Ecology and
Environmental
Management

In association with



Competencies for Species Survey: Shrews



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1. Introduction

The purpose of this document is to set out the knowledge, skills and experience required to survey, disturb, handle or to carry out research works (hereinafter referred to generically as 'survey') for shrews, family Soricidae, 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 shrews. 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.

2. Status

There are five species of shrew present in the United Kingdom and Republic of Ireland:

- common shrew *Sorex araneus* (England, Scotland and Wales);
- greater white-toothed shrew *Crocidura russula* (Republic of Ireland);
- lesser white-toothed shrew *Crocidura suaveolens* (Isles of Scilly only);
- pygmy shrew *Sorex minutus* (Britain and Ireland); and
- water shrew *Neomys fodiens* (England, Scotland and Wales).

These shrew species are common throughout their range and are listed as species of least concern in the IUCN Red List of Threatened Species. While local populations can be threatened by habitat loss and degradation and use of pesticides, these species are not considered seriously affected by these threats at the regional level. The greater white-toothed shrew was discovered in the Republic of Ireland in 2008, and is considered to be an introduced non-native species.

3. Legislation and Licensing

Legislation

Shrews 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>	Wildlife and Countryside Act 1981 (as amended)	Schedule 6
<i>Wales</i>	Wildlife and Countryside Act 1981 (as amended)	Schedule 6
<i>Scotland</i>	Wildlife and Countryside Act 1981 (as amended)	Schedule 6
<i>Northern Ireland</i>	Wildlife (Northern Ireland) Order 1985 (as amended by the Wildlife and Natural Environment Act (Northern Ireland) 2011) pygmy shrew only	Schedule 6
<i>Republic of Ireland</i>	Wildlife Act 1976 (as amended by Wildlife Act 1976 (Protection of Wild Animals) Regulations 1980) pygmy shrew only	Schedule 5

Licensing

The following Statutory Nature Conservation Organisations (SNCOs) are responsible for issuing licences to trap shrews for study purposes:

COUNTRY	SNCO
England	Natural England
Wales	CNatural Resources Wales
Scotland	Scottish Natural Heritage
Northern Ireland	Northern Ireland Environment Agency
Republic of Ireland	National Parks & Wildlife Service

A licence is required: to trap shrews. Though one is not required to trap other small mammals, no-one setting small mammal traps could expect to avoid the possible trapping of shrews, so a licence should be obtained. Using traps with shrew holes will still require a licence, depending on the region in which individuals are trapping.

A licence is not required: for sign surveys (e.g. bait tubes).

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 shrews 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;
- c. threats to populations, species range and species survival;
- d. shrew ecology, breeding biology and behaviour;
- e. known ecological requirements;
- f. legal protection;
- g. licensing and permissions;
- h. appropriate survey seasons;
- i. current relevant guidance on survey methods and standards;
- j. main survey methods for shrews 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;
- l. sources of information on known occurrence and distribution of shrews (including NBN Gateway, national surveys, local biological/environmental records and local contacts/species groups);
- m. metadata standards / data sharing; and
- n. health and safety issues commonly associated with surveying for shrews.

Skills

Individuals should have skills and experience enabling them to confidently:

- a. identify shrew species and differentiate between these as well as from other small mammals;
- b. assess habitat potential for shrews;
- c. appropriately scope fieldwork;
- d. plan and implement sound scientific surveys;
- e. adapt traps to prevent damage by trapped rodents;
- f. deploy and monitor (e.g. correct spacing) live traps effectively;
- g. legally and humanely handle live shrews;
- h. effectively record biometric data from live shrews;
- i. correctly handle and identify a range of potential by-catch from live-traps (with due regard to relevant legislation);
- j. identify potential by-catch;
- k. legally and humanely mark/tag shrews (if using this technique);
- l. analyse and interpret survey data; and
- m. take appropriate health and safety precautions (e.g. hygiene).

Practical Experience

Whilst some of the knowledge and skills set out in this guidance can effectively be gained from personal study, vocational training and structured education, individuals wanting to trap shrews should have gained practical experience of setting traps, under the direct supervision of an experienced individual. Issuance of a licence to trap shrews is likely to require such experience, as well as support from an appropriate referee willing to testify to the applicant's experience.

5. Reading

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

Anthony NM, Ribic CA, Bautz R and Garland T (2005) Comparative effectiveness of Longworth and Sherman live traps. *Wildlife Society Bulletin* **33**: 1018-1025.

Churchfield S (1990) *The Natural History of Shrews*. Christopher Helm, Bromley.

Gurnell J and Flowerdew JR (2006) *Live Trapping Small Mammals: A Practical Guide*. The Mammal Society, Southampton.

Harris S and Yalden DW (eds) (2008) *Mammals of the British Isles: Handbook 4th Edition*. The Mammal Society, Southampton.

Little J and Gurness J (1989) Shrew Captures and Rodent Field Studies. *Journal of Zoology* **218**: 329-331.

6. Acknowledgements

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