

Competency Standard for Otter Survey, Mitigation and Management

Draft Version: January 2023

Acknowledgements:

Many thanks to those who contributed to the development of this Standard: Melanie Findlay (Findlay Ecology Services), Rachel Fine (Mott MacDonald), James Girgis (Atkins) and Claire Hopkins (WSP).

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Notes:

a) For each particular activity 'Capable' level requires achievement of all criteria for both 'basic' as well as 'capable'; 'accomplished' requires achievement of sufficient competencies for all levels. Different activities can be at different competency standards, based on experience, however accomplished skills will normally necessitate a high standard in many of the activities.

b) 'Experience' means that you have done so on numerous occasions

c) The codes detailed with the activities correspond with CIEEM's competency framework.

All practitioners sh	ould have knowledge and understanding of:		
Otter ecology and	Understanding of:		
behaviour	1. Behaviour, distribution, seasonality, historic changes in population		
	2. Breeding, natal features and behaviours related to breeding		
	3. Approximate territory ranges/sizes and social organisation		
	4. Adaptability, habitat requirements and diet		
	5. Pressures and risks to otters		
Distribution	Knowledge of national and local distribution in the UK and/or Ireland, including an understanding of where otter populations		
	are well established and where otters are recolonising.		
Conservation	Knowledge of conservation status with reference to constituent parts of UK and Europe as a whole. Understanding of the key		
status	threats to otters and the reasons for their decline and subsequent recovery.		
Health and safety	Knowledge and understanding of health and safety issues associated with these surveys including identifying safe survey		
	techniques such as using boats, waders, working at height etc. Able to recognise other safety issues associated with working		
	by/ in water - e.g. water level, flow, silt, risk of leptospirosis, urban sites etc. Able to plan and undertake work in a safe manner		
	incorporating appropriate personal hygiene measures and controls. Able to record the controls and responses to change by		
	way of an appropriate risk assessment or method statement.		
Biosecurity	When undertaking surveys an awareness of appropriate biosecurity measures for self and other surveyors including cleaning		
	and disinfecting equipment before deploying. Awareness of aquatic and terrestrial non-native species. Undertake as standard		
	appropriate biosecurity measures (use nationally approved disinfectants) relating to working near water (both still and flowing)		
	and working with animals. Able to undertake the 'check, clean, dry' methodology.		

Key References	See relevant section of CIEEM's Good Practice Guidance for Habitats and Species V3 (May 2021)			
and Reading List				
Competency Standards				
Activity	Basic	Capable	Accomplished	
Policy and Legislation (P1)	Awareness of key legislation and a basic understanding of the different types of protection afforded by the legislation. Awareness of local and national policies and initiatives aimed at species recovery and environmental protection. Awareness of the planning process and guidance.	Good knowledge and understanding of legislation and offences. Can correctly interpret the legislation in regards to specific scenarios (e.g., planning, design, licensing and construction scenarios) and is able to provide accurate advice.	Is regularly approached for advice and may provide training to other ecologists on policy and legislation with respect to otters. Is experienced with managing risks to landowners, developers and contractors arising out of environmental, legal and policy requirements. Is able to lead consultation with	
Licensing and permissions	Awareness of licences available and required for otter survey. Awareness of which survey techniques require otter survey and/or camera trapping licences and when a license is not required for survey (these may be region-specific). Awareness of when development licences are required (can provide examples of typical licensable and non-licensable development activities). Awareness of the legal basis, purpose, and process of licences, and the requirement to	Has detailed knowledge of survey techniques that require otter survey and/or camera trapping licences and can discern license requirements in non-standard cases. Holds or is eligible to hold an otter survey and/or camera trapping survey licence (where regional legislation permits). Good knowledge of development licence process and good understanding of when a licence is required Good understanding of the three tests/ considerations to obtain a development	relevant authorities. Has in-depth knowledge and experience of licensing requirements and applications processes with regards to otter. Has prepared successful otter development licences and method statements and can implement a complex licence (e.g., destruction or disturbance of breeding sites). Holds or is eligible to hold an otter survey or mitigation licence.	

	comply with licensing conditions (these may be region-specific).	licence, understanding of what an appropriate level of mitigation is. Competent to be named as an accredited agent, and be the named ecologist, on a development licence. Capable of implementing a non-complex licence (e.g. for destruction or disturbance of a non-breeding resting site). Consistently able to identify correct licencing route for a project.	Provides advice and training to other ecologists on licensing.
Field survey 1- Planning and undertaking field survey. (S1)	Awareness of the principles of otter survey and relevant good practice guidelines. Has started to put principles into practice by assisting with surveys (under supervision) and understands when/how they should be applied. Assists with survey planning (including geographic extent and the application of suitable survey buffers). Starting to apply knowledge to commonly applied fieldwork techniques consistently and effectively whilst under supervision. Awareness of a wide range of otter field signs and how they might differ from other species. Developing the ability to identify a wide range of otter field signs and distinguish otter signs from other species under supervision.	 Experienced in regularly leading standard/ non-complex otter survey and survey planning, in a range of habitats in context of the purpose of the survey. Regularly applies knowledge of survey methods. Designs surveys at suitable geographic scale, relevant to aims/objectives of survey, reflecting knowledge of otter ecology and importance of territorial range for otter. Consistently demonstrates a competency in finding and identifying a wide range of otter field signs. Consistently is able to differentiate signs of otter from other species. Demonstrates ability to conduct field sign surveys sensitively, minimising potential disturbance. 	Regularly designs, leads and coordinates effective surveys for projects with complex otter impacts or large catchment- based conservation projects, or can demonstrate an equivalent level of experience through a long period of surveying at smaller sites Is regularly approached and provides support, training and advice to other ecologists on planning/ undertaking otter surveys and identification of field signs. Able to provide technical review and support for surveys, including complex surveys.

	Knowledge of the potential value of a range of habitat types where you would expect otter presence. Awareness of requirement to conduct field sign surveys sensitively, minimising potential disturbance.		
Field survey 2 –	Awareness of structures and habitats that	Knowledge and experience of resting site	Is regularly approached and
Identification of	suggest potential as resting sites and	identification and classification. Takes	provides support, training and
important features.	Basic understanding of the need to build up evidence base to support interpretation.	considering factors such as connectivity, resources and seasonality.	identification of resting sites.
(S1)		,	Designs or provides technical
	May have assisted on surveys where	Proven awareness of the diversity of	review and support for complex
	potential resting sites and other important habitat features have been recorded,	potentially suitable resting site features (natural and man-made).	resting site surveys.
	classified and monitored.		Demonstrates ability to
		Has experience in leading surveys where	interpret camera-trapping
	potential resting site surveys within the	important features have been identified.	potential sources of bias.
	licensing section).	following the limits of legislation (refer to	Has undertaken many camera-
		licensing section).	trapping surveys and has
	Awareness of camera-trapping and		experience and knowledge of
	developing knowledge under supervision as	Able to design a camera-trapping survey that	behaviours at resting and
	advantageous	variables that affect probability of detection	breeding sites.
		Understands situations where camera-trap	
		surveys are not appropriate. Able to	
		minimise potential disturbance from camera-trapping.	

		Demonstrates ability to identify the sex of animals if image capture quality is good. Able to record data from camera-trap survey in a format that facilitates interpretation and summarise this in a report.	
Field Survey 3 - Understanding survey limitations (FS3)	Awareness of optimal survey timings, frequency, intervals and weather conditions for otter assessment and how these factors can impact interpretation/survey results/false-negatives. Awareness of the limitations of sign-based surveys for presence of otter and avoiding over interpretation of field-signs in relation to assessing otter activity. Awareness of common factors limiting the survey results such as health and safety and access constraints.	Good knowledge and understanding of how otter ecology and other factors can limit and/or bias surveys and their interpretation.	Is regularly approached and provides support, training and advice to other ecologists. Designs or provides technical advice and review for surveys reflecting survey limitations.
Interpretation and drawing evidence-based conclusions. (SM3)	Able to obtain and interpret metadata information (for example; survey data, biological records, habitat assessment, project design and program) under supervision and report accurately whilst acknowledging limitations and uncertainties. Awareness of how metadata can be used to formulate and justify approaches, through the formulation of conclusions.	Able to independently interpret results to form a hypothesis of otter use of a habitat/ site whilst acknowledging limitations and uncertainties. Able to make evidenced based conclusions. Able to use data collected to provide robust assessment and formulate justifications for approach taken.	Able to obtain and interpret information as part of a non- standard, complex assessment. Able to interpret results to form a hypothesis of otter use of a habitat/ site whilst acknowledging limitations and uncertainties for complex and non-standard scenarios. Able to use information analysed to form robust evidenced based conclusions.

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Impact assessment (A4)	Able to interpret survey results and form a hypothesis with guidance from a supervisor, in context with limitations and uncertainties. Awareness of impacts and the zone where this applies upon otter welfare, behaviour or use of a site. Awareness of the geographical value of an otter population compared to it legislative status. Aware of limitations as detailed in Field Survey 3.	Able to independently interpret survey results, including any constraints identified, to form a hypothesis of otter use of non- complex or small-scale sites. Able to apply knowledge of otter use of the site to assess the likely impacts of site work or land management practices on otters. Designs appropriate and effective mitigation or management strategies unsupervised in non-complex cases. Applies knowledge of both the geographical value of an otter population and legislative status. Applies knowledge of limitations (Field Survey 3. Understands when Habitats Regulations Appraisal (HRA) is necessary (where otter is a qualifying Appar II spacies)	Able to interpret results relating to complex or large-scale projects, to form a hypothesis of otter use of the site whilst acknowledging limitations and uncertainties. Is regularly approached for advice and may provide training to other ecologists. Able to provide technical review and support for more complex assessment. Applies knowledge of limitations (Field Survey 3.
Mitigation and compensation design (M2)	Awareness of standard avoidance, mitigation, restoration, compensation and terrestrial/aquatic management techniques and when they could be used. Awareness of the mitigation hierarchy (avoid/reduce/compensate) and identify appropriate measures to be incorporated into the design of the works or site	Working knowledge of the applications, limitations and risks of different avoidance, mitigation restoration and compensation techniques, restoration plans, terrestrial/aquatic management options and application to different projects. Applies knowledge of management techniques and when they could be used,	Able to design appropriate avoidance, mitigation, restoration, and compensation solutions for large/complex or multiple projects in conjunction with other considerations (e.g. habitat condition, prey availability).

	distances from resting sites, fencing, culvert	Has experience of leading the
	holts.	and compensation strategies for
	Designs appropriate and effective mitigation	complex, large-scale or multiple
	or management strategies unsupervised in	projects.
		is regularly approached for
	non-complex cases.	is regularly approached for
		auvice and may provide training
	Designs appropriate solutions for whole	to other ecologists.
	project lifetime in standard/non-complex	
	cases including the design and	
	implementation of mitigation.	
	Able to clearly articulate, evidence and	
	justify appropriate options. Experience of	
	overseeing avoidance, mitigation,	
	restoration, compensation, and	
	terrestrial/aquatic management projects.	