



# Competency Standard for Badger Survey, Mitigation and Management

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## **Acknowledgements:**

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## Competency Standard for Badger Survey, Mitigation and Management

Notes:

- a) 'Capable' level requires achievement of all criteria for both 'basic' as well as 'capable'; 'accomplished' requires achievement of all criteria for all levels  
 b) 'Experience' means that you have done so on numerous occasions

<b>All practitioners should have knowledge and understanding of:</b>	
Badger ecology and behaviour	Understanding of: <ol style="list-style-type: none"> <li>1) Basic habitat requirements and preferences</li> <li>2) Population structure and social dynamics and how this may vary in different environments and/or landscapes</li> <li>3) Breeding season</li> <li>4) Seasonal behaviour</li> <li>5) Diet</li> <li>6) Sett types and status</li> <li>7) Approximate territory ranges/sizes and territorial interactions by social groups</li> <li>8) Typical dispersal distances and times of year for dispersal</li> <li>9) Typical life expectancy</li> <li>10) Changes in behaviour in relation to different environments, seasonality, foraging availability etc</li> </ol>
Distribution	Knowledge of UK distribution of badger.
Conservation status	Knowledge of conservation status with reference to constituent parts of UK and Europe as a whole. Understanding of the key factors influencing population and distribution, locally and nationally – significant mortality factors etc.
Legislation, Policy and Guidance	Knowledge of the main and any other legislation relevant to the species – offences etc Which activities are likely to be offences, and how to avoid them. Any national or local policy that is relevant to the species Sources and status of best practice guidance (e.g., In use/disused, disturbance), including where this is country-specific.
Field signs, survey methods and techniques	Field signs – prints, tracks, hair, latrines, faeces, scratch marks, snuffle holes, grubbing, other foraging etc Sett survey, activity and status – features of sett entrances, spoil, bedding, estimation of activity levels per entrance and sett as a whole, Activity surveys – camera traps, sand pits, sticks, soft blocking.

	<p>Territory surveys – bait-marking and territorial field signs, radio/GPS tracking</p> <p>Use and limitations of technology – e.g., Thermal imaging, GPR etc</p> <p>Difference between fox earth, otter holt and rabbit warren, and signs of use of setts by these and other species.</p>
Health and safety	<p>Knowledge and understanding of health and safety issues associated with surveys including identifying safe survey techniques</p> <p>Able to plan and undertake work in a safe manner</p> <p>Consideration of specific requirements in wooded and livestock areas.</p>
Biosecurity	<p>Aware of biosecurity measures to be applied when surveying.</p> <p>Undertake, as standard, appropriate biosecurity measures and personal hygiene and working with animals.</p> <p>Understanding of relationship between badgers and bTB, including sources of information regarding distribution of the disease.</p>

<b>Competency Standards</b>			
<b>Activity</b>	<b>Basic</b>	<b>Capable</b>	<b>Accomplished</b>
Legislation, Policy, Guidance and Licensing (P1)	<p>Awareness of key legislation (Protection of Badgers Act 1992) and level of protection afforded to species.</p> <p>Knowledge of the types and sources of best practice guidance available.</p> <p>Awareness of what activities would be unlawful in relation to their own actions and that of others.</p> <p>Awareness of licences available for badger.</p> <p>Works as an assistant under a licence.</p>	<p>Knowledge and understanding of legislation and offence triggers (kill, injure, take, and ‘interference’ – destruction, damage of setts, obstruction of access and disturbance of badgers when occupying setts).</p> <p>Has a sound knowledge of relevant guidance and demonstrates application of best practice.</p> <p>Knowledge of the differing types of licence available for the species, in which country and which is most appropriate to apply.</p> <p>Able to confidently interpret the legislation in relation to specific scenarios (e.g., site work) and able to provide accurate advice including measures to avoid impacts, reduce to a minimal level and not require licensed approaches.</p>	<p>Able to provide in-house guidance and training to others on policy, legislation and licensing in respect to badger.</p> <p>In-depth knowledge and experience of badger licences and capable of being a named licence holder, including for Class Licence.</p>

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		<p>Has awareness of the likely most effective licence route for a project where impacts are unavoidable.</p> <p>Capable of being an additional authorised person on a badger licence for activities in line with their level of experience.</p>	
Badger ecology and behaviour	Has a basic knowledge and a simple understanding of badger ecology and sett hierarchy and function.	Demonstrates a good understanding of badger ecology and behaviour.	<p>Able to display a detailed knowledge of badger ecology and behaviour, providing guidance and training to others.</p> <p>Able to interpret and provide rationale for any unorthodox behaviours recorded.</p>
Survey (S1.1)	<p>Awareness of sources of information on known occurrence and distribution of badgers (including local biological/environmental records and local contacts/badger group).</p> <p>Understands the sensitivity of badger sett location data.</p>	Experience of obtaining and correctly interpreting desk study information as part of standard, non-complex assessment.	
Survey (S1.2) – Field signs/evidence surveys	<p>Knowledge of when badger surveys can be carried out (seasonal restrictions and weather conditions etc.) and an understanding of geographical context.</p> <p>Knowledge of main survey methods.</p> <p>Has assisted on surveys under supervision.</p>	<p>Experience of leading badger surveys.</p> <p>Consistently demonstrates the correct identification of badger field signs.</p> <p>Able to determine activity status of entrances and setts and to accurately classify setts.</p>	Able to successfully design and coordinate surveys for major development projects or landscape-scale conservation projects.

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	<p>Under supervision can identify the features typical of a badger sett (entrance size/shape/spoil heaps/bedding) and field signs (footprints/latrines/hair/scratch marks)</p> <p>Awareness of potential issues with identification of badger setts and other commonly encountered species.</p> <p>Awareness of the need to record when uncertain and collect scale images of field signs when appropriate for verification later.</p>	<p>Ability to effectively design and coordinate any further surveys required to provide a specific outcome e.g., licence application.</p> <p>Awareness of limitations (e.g., adverse weather conditions washing away signs, access limitations) and the effect population dynamics have on visibility of field signs.</p> <p>Able to understand survey bias when setting out survey limitations etc.</p>	<p>Able to advise on identification of field signs and/or provide quality assurance for surveys.</p> <p>Able to interpret survey data on a larger scale and able to consider differences between environments and social group boundaries/interactions and the potential reasons for these.</p> <p>Able to provide training to others on undertaking badger surveys.</p>
Survey (S1.3) – Further survey methods	<p>Knowledge of further methods of surveying for badgers – sticks, hair traps, sand footprint traps, remote cameras and bait-marking.</p> <p>Assists with employing these techniques in the field and have knowledge of what methods are appropriate according to the need and circumstances.</p> <p>Be able to interpret results.</p>	<p>Can design targeted surveys to answer questions / inform certain scenarios, and provide the rationale for doing so.</p> <p>Able to lead field deployment of further survey methods.</p> <p>Co-ordinates bait marking surveys and interpret their findings.</p>	<p>Able to legally and effectively use more advanced survey techniques.</p> <p>Able to successfully design and coordinate surveys for major development projects or landscape scale conservation projects.</p> <p>Able to advise on identification of field signs and/or provide quality assurance for surveys.</p> <p>Able to interpret survey data on a larger scale and able to</p>

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			<p>consider differences between environments and social group boundaries/interactions and the potential reasons for these.</p> <p>Able to provide training to others on undertaking badger surveys.</p>
Impact assessment (A4)	<p>Must have achieved at least 'Capable' level in relation to 'Survey'.</p> <p>Display an awareness of what activities may destroy or damage badger setts or cause disturbance and how this may occur.</p> <p>Able to interpret survey results and identify likely impacts, with guidance from a supervisor, to form a sound judgement of potential impacts - whilst acknowledging limitations and uncertainties.</p>	<p>Able to accurately interpret survey results and identify likely impacts to form a sound judgement of potential impacts, including use and status - whilst acknowledging limitations and uncertainties.</p> <p>Able to accurately determine the type and magnitude of impacts and effects on setts themselves and the social group as a whole.</p> <p>Able to effectively consider the potential presence and effect on other local social groups as a result of any effect or action (e.g., location of artificial setts)</p> <p>Able to apply rational judgement regarding potential damage and disturbance in respect of the activities proposed and tailor this to site-specific circumstances (applying ecological judgement of baseline levels, not merely applying a set 10, 20, 30m distance approach). Includes consideration of impacts</p>	<p>Must have achieved at least 'Accomplished' in relation to 'Survey'.</p> <p>Able to accurately interpret surveys results relating to larger scale projects including impacting more than one badger social group, to form a sound judgement or hypothesis of badger use of the site(s) whilst acknowledging limitations and uncertainties.</p> <p>Demonstrates sound judgement in relation to assessment of perturbation effects.</p> <p>Able to advise and train others.</p>

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		<p>from very high-risk activities at greater distances (e.g., Piling at 100m)</p> <p>Able to consider potential perturbation effects.</p>	
Mitigation design (M2)	<p>Awareness of measures which may avoid or reduce potential impacts (e.g., Timing, topography, barriers, scopes of works etc)</p> <p>Awareness of standard mitigation techniques and when they could be used, including any potential limitations, challenges and when a licence may be required.</p>	<p>Able to confidently design and advise others on the use of avoidance/reduction measures.</p> <p>Able to design appropriate mitigation in non-complex situations, including timing of development works, protective fencing, sett closures and requirements for artificial setts.</p> <p>Ability to design appropriate mitigation for scheme design with regards to traffic collisions.</p> <p>Knowledge of the limitations and challenges involving sett closure, and able to select the appropriate option in different scenarios.</p> <p>Able to demonstrate a good understanding of what specification materials (fencing, ground meshing, one way gates) should be used, and why this is necessary.</p> <p>Able to demonstrate understanding of existing limitations on badger social group(s) and address these through mitigation.</p>	<p>Must have achieved at least 'Capable' level in relation to 'Implementing effective mitigation'.</p> <p>Champions the application of avoidance/reduction measures in the first instance.</p> <p>Able to design appropriate mitigation in complex situations.</p> <p>Able to advise and train others.</p>

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Activity	Basic	Capable	Accomplished
		<p>Demonstrate an awareness of potential conflicts arising from sett closures (perturbation, territoriality, displacement into areas of increased conflict – gardens/allotments etc)</p> <p>Able to clearly explain the licensing requirements of different mitigation options to others.</p>	
<p>Implementing effective mitigation (M3)</p> <p>Exclusion</p>	<p>Must have achieved at least 'Capable' level in relation to 'Survey'.</p> <p>Will have assisted with fitting of fencing and placing/fitting of ground meshing and exclusion gates.</p>	<p>Able to confidently fit, advise upon and oversee implementation of exclusion methods – fencing, fitting of one-way gates and ground meshing, including non-standard fitting and adapting to ground conditions.</p> <p>Knowledge of the monitoring requirements for setts under mitigation licence.</p> <p>Able to undertake monitoring of excluded setts and one-way gates independently.</p> <p>Able to successfully proof excluded setts against re-entry by badgers.</p> <p>Experience of supervising the destruction of vacant setts following licensed action.</p> <p>Able to advise and ensure that the correct specifications - heights and depths for fencing and strength of gauge for wire (2.5mm/10-gauge minimum) - are used.</p>	<p>Advises and trains others.</p> <p>Able to determine when alternatives to exclusion are possible (e.g., partial 'live dig', trenching etc) and has practical experience of one or more of these methods.</p>



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		Knows the sources of relevant guidance, including sector-specific, eg. DMRB.	
Implementing effective mitigation (M3)  Artificial sett construction	Must have achieved at least 'Capable' level in relation to 'Survey'.  Awareness of the purpose of an artificial sett and where their use should be considered.  To have assisted with artificial sett design and construction, under the guidance of a supervisor.	Able to confidently determine when an artificial sett will be required, its size and structure, location in relation to the excluded sett, local topography and landscape/screening/fencing requirements.  Be able to produce a material specification and design for the sett.  Able to demonstrate successful uptake of the artificial sett	Has designed and implemented artificial setts where required and able to advise others where they are not suitable or required.  Provides training to others.
Advising on habitat design and management (M1)	Has an awareness and understanding of the range of enhancement options suitable for the species  Demonstrates willingness to try and suggest suitable enhancement options for simple projects.	Able to apply good knowledge and understanding of a range of enhancement options, including those of benefit to multiple species.  Has provided suitable enhancement options on projects, demonstrating an understanding of existing habitats, wider ecological benefits and the importance of location.  Able to consider and research better/more effective ecological and environmental options.	Able to demonstrate extensive experience in determining and implementing successful habitat design.  Provides training to others.
Interpretation and evidence-based	Able to record the findings of a simple badger survey using proformas /additional	Competent at producing less complex survey and mitigation reports, including	Competent at undertaking technical review of licence

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reporting and/or licence application production.	notes/photographs and simple survey or constraints reports, with guidance from a supervisor.	<p>recommendations for further surveys or mitigation requirements. With guidance, able to produce more complex reports, including EcIA and EIA/ES chapters, results of badger bait-marking surveys with appropriate mapping.</p> <p>Able to draft simple method statements for licence applications for checking by Accomplished-level person.</p>	<p>applications and complex reports including EcIA and EIA/ES chapters. Able to confidently provide technical advice on mitigation licensing.</p> <p>Able to produce complex reports, such as EIA/ES badger chapters.</p> <p>Able to produce method statements for extensive, multiple or complex exclusions with appropriate mitigation.</p>