

Badger Survey

Mayflower Way, Angmering, West Sussex

Angmering Community Land Trust



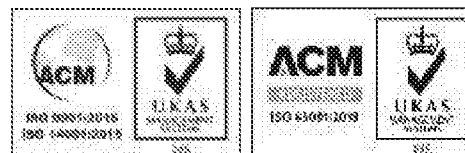
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1 Summary

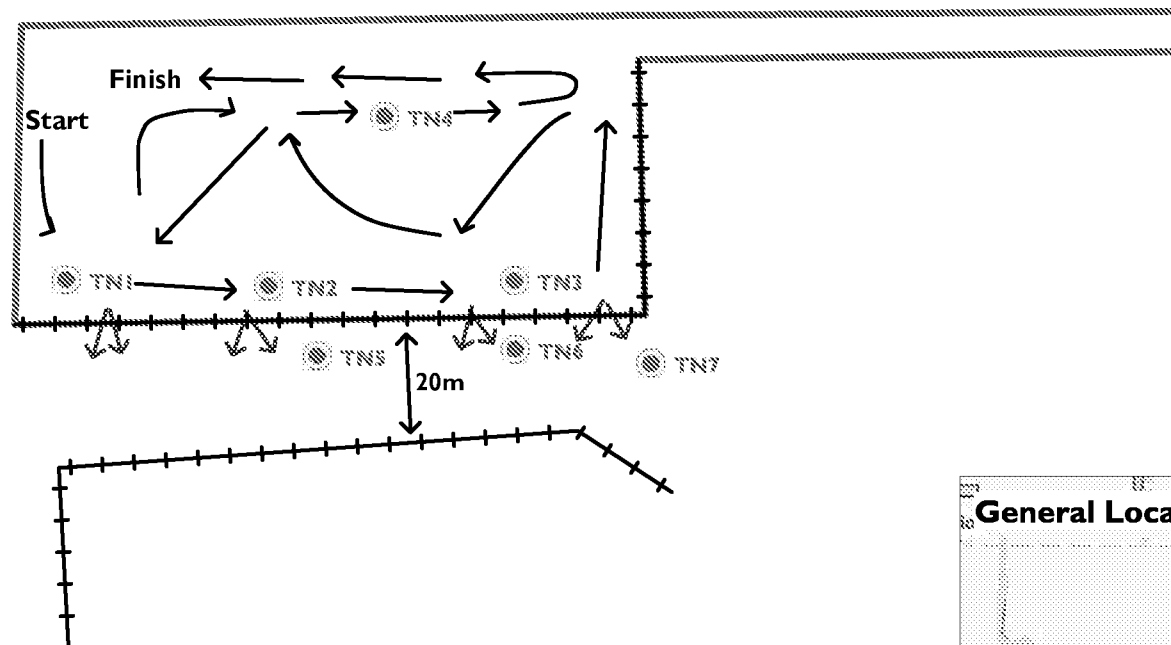
- 1.1.1** Surrey Wildlife Trust (SWT) Ecology Services was commissioned on 07 February 2020 by the Angmering Community Land Trust to undertake a Badger survey of a parcel of land along Mayflower Way, Angmering, West Sussex. As recommended in a previous Preliminary Ecological Appraisal (PEA) (SWT Ecology Services, 2018) a Badger survey is required to ascertain whether there are any signs of Badger within the survey area and surrounding habitat where accessible as planning permission is being sought for a development.
- 1.1.2** No setts or signs of Badger were found on site. There are no constraints to development relating to this species. It is however recommended that good construction practice should be adopted and that any open trenches should be covered at night or alternatively have boards or planks in them to act as an escape route for Badger or other animals that may fall in.
- 1.1.3** All other ecological recommendations given within previous ecological reports (see SWT Ecology Services, 2017) remain valid.
- 1.1.4** A summary of the recommendations is presented in Table 1.

Table 1: Summary of recommendations

Type of recommendation	Recommendation
Further surveys	No further badger surveys required.
Enhancements	Ecological enhancements detailed in Section 6 should be incorporated into the proposed development design.
Construction activities	It is recommended that the holes (TN2 and TN3) are checked again 24hrs prior to the start of any construction works in the survey area.
	As Badger may be in the surrounding area, we recommend that good building practice should be adopted and that any open trenches should be covered at night, or alternatively have boards or planks in them to act as an escape route for Badger or other animals that may fall in.
	In the event that a protected species is recorded during construction, works should cease immediately and an ecologist or Natural England be contacted.

Key

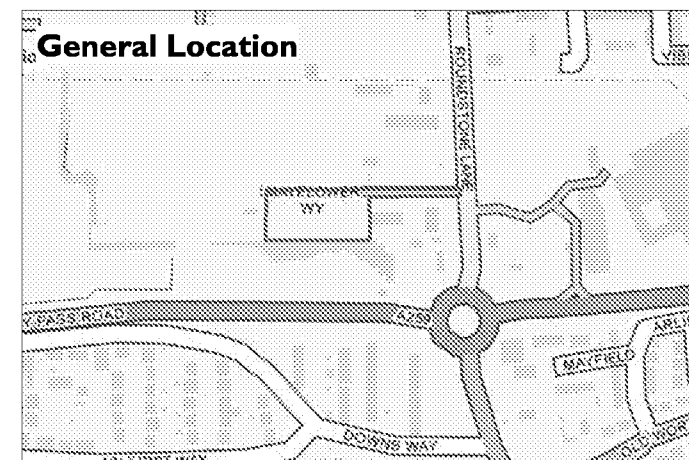
-  Survey Area
-  Survey Route
-  View
-  Fence
-  Target Notes (TN1-TN7)



Scale 1 : 1 250

Produced by: Surrey Wildlife Trust Ecology Services

Please note: locations are approximate



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3924-I, March 2020

Figure 1:
Mayflower Way, Angmering, West Sussex
Badger Survey Results



**Ecology
Services**

Figure 2: Site photographs

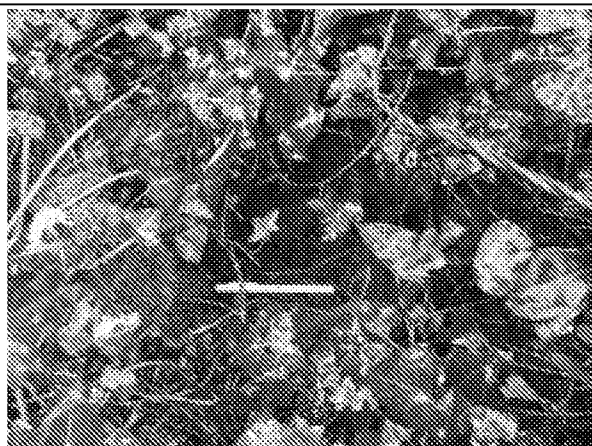
	
Photograph 1 Survey area from western edge.	Photograph 2 Western boundary with hedge and trees.
	
Photograph 3 Blocked hole (TN2).	Photograph 4 Grassland habitat and southern boundary.
	
Photograph 5 Blocked hole along southern boundary (TN3).	Photograph 6 Rabbit droppings.



Photograph 7
Land to the south with bike jumps (western view).



Photograph 8
Land to the south with bike jumps (western view).



Photograph 9
Small disused mammal hole (pen included for scale).



Photograph 10
Signs of rabbit activity around holes (TN7).



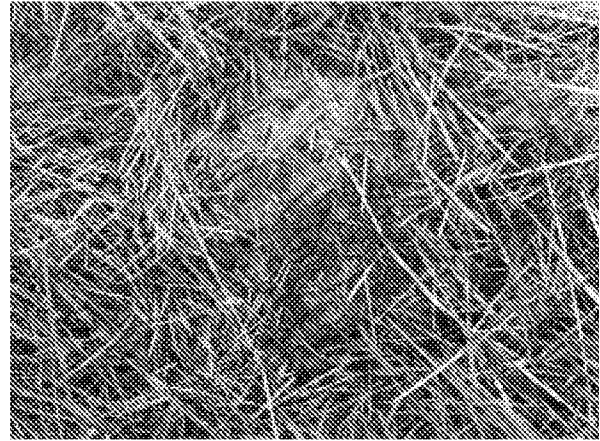
Photograph 11
Signs of rabbit activity (TN7).



Photograph 12
View to the fenceline (south of survey area).



Photograph 13
 Holes with signs of rabbit activity (southern boundary).



Photograph 14
 Signs of rabbit activity (southern boundary).



Photograph 15
 Blocked hole (southern boundary).



Photograph 16
 Nearby flooded amenity grassland (NW of survey area).

2 Introduction

- 2.1.1 Surrey Wildlife Trust (SWT) Ecology Services was commissioned on 07 February 2020 by the Angmering Community Land Trust to undertake a Badger survey of a parcel of land along Mayflower Way, Angmering, West Sussex. As recommended in a previous Preliminary Ecological Appraisal (PEA) (SWT Ecology Services, 2018) a Badger survey is required to ascertain whether there are any signs of Badger within the survey area and surrounding habitat where accessible as planning permission is being sought for a development.
- 2.1.2 A Preliminary Ecological Appraisal (PEA) of the same site was undertaken by SWT Ecology Services on 06 June 2017 (SWT Ecology Services, 2018 (amended)). It was recommended that a precautionary check for mammal holes within 30m of the site, with Badger in mind, be undertaken prior to any works on site. This report provides the results of the Badger survey.
- 2.1.3 The Protection of Badgers Act 1992 makes it illegal to:
- ✦ Interfere with or destroy a Badger sett or any part of it.
 - ✦ Disturb a Badger when it is occupying a sett.
 - ✦ Cruelly ill-treat a Badger.
 - ✦ Cause loss of feeding grounds or restrict access for Badger to these areas (this may be considered as cruel ill-treatment of Badger).
- 2.1.4 In some circumstances, a licence may be obtained from Natural England to permit development activities that may disturb Badger or interfere with setts.
- 2.1.5 A more detailed description of Badger and the law is contained in Appendix 1.

2.2 Scope of work

- 2.2.1 The aim of this report is to:
- ✦ Determine the extent of any Badger activity on site.
 - ✦ Determine how Badger may be affected by the proposed development.
 - ✦ Recommend measures to prevent and reduce any adverse impact and ensure compliance with the law.
- 2.2.2 More specifically, the scope of work includes:
- ✦ A badger survey
 - ✦ Details of any mitigation or licensing that may be required
 - ✦ Technical report for submission to the local planning authority.
- 2.2.3 The information and data provided have been prepared in accordance with current best-practice guidance (CIEEM 2017) and BS 42020:2013 (BSI 2013). Our ecologists are bound by CIEEM's 'Code of Conduct' (CIEEM 2019).

2.3 Survey area

- 2.3.1 The site, presented in Figure 1, is approximately 0.7 ha in size and located at OS Grid reference TQ07263 03277 off Mayflower Way, Angmering, West Sussex. The site is located immediately north of an over stood hedge which separates the site from a grassland area to the south. An area of disturbed land and an industrial estate is located to the north/north-west across Mayflower Way. Residential properties lie to

the east and there is a residential property and open amenity grassland areas to the west. The survey area is located in Arun District Council.

3 Methodology

- 3.1.1 The survey visit was undertaken on 05 March 2020 by Jamel Guenioui BSc (Hons) ACIEEM – Ecologist.
- 3.1.2 The site (shown in Figure 1) was walked systematically focusing on the margins of the grassland areas initially and assessing the habitats present for signs of badger such as territory markings (latrines) and Badger crossing points along this linear feature. The open area of the grassland was then crossed diagonally north to south and north again from east to west so that any field signs present across the open grassland were recorded and full ground coverage was achieved.
- 3.1.3 The hedgerow and trees along the southern boundary were inspected where accessible and the habitat south of the survey area, scattered trees and patches of dense scrub, were visually inspected from southern edge of the survey area from positions where this land could be visually assessed. This survey included an approximate 20m visual inspection south of the survey area.
- 3.1.4 During the survey signs of Badger activity were searched for. These signs include Badger setts and any paths, footprints, hairs, latrines, signs of fresh excavation/spoil heaps and feeding signs, which were noted to help determine any movements and feeding patterns of Badger.
- 3.1.5 The survey route is presented in Figure 1.

Setts

- 3.1.6 Any setts found were classified as follows Table 2 (from Harris *et al.* 1989).

Table 2: Badger sett classifications

Type of Sett	Description
Main	By counting all the main setts in an area, you can get a good idea of how many social groups of Badger are present. Main setts usually have several holes with large spoil heaps, and the setts appear well used. There will be well-worn paths to and from the sett as well as between sett entrances.
Annexe	These are often close to a main sett, normally less than 150 m away, and are connected to the main sett by one or more well-worn paths. Usually they have several holes but may not be in use all the time, even if the main sett is very active.
Subsidiary	These are usually at least 50 m from a main sett, and do not have an obvious path connecting with another sett. They are not in continuous use.
Outlier	These often have little spoil outside the holes, have no obvious path connecting them with another sett, and are only used occasionally. When not in use by Badger, they are often taken over by Fox or Rabbit.

- 3.1.7 Holes were classified in terms of usage as follows in Table 3 (Harris *et al.* 1989).

Table 3: Hole classifications

Type of Sett	Description
Well-used	These are open and clear and are obviously in regular use, and may have been excavated recently.
Partially-used	These are not in regular or daily use, and have some debris in the entrance. Moss or other vegetation may be growing on the spoil or in the entrance. They could easily be used again by Badger.
Disused	These have not been in use for some time, and are partially or completely blocked, showing no signs of entry or exit by Badger. A considerable amount of digging out would be required by Badger before re-using the hole.

4 Results

4.1 Site survey

- 4.1.1 Rabbit droppings were noted in the south west of the grassland (Figure 1, Target Note TN1).
- 4.1.2 No signs of Badger (see 3.1.5) were recorded across the survey area. Mammal holes were present across the main survey area, along the southern boundary and several areas were noted on the land south of the survey area from positions where the view across the habitat could be achieved.
- 4.1.3 Low lying barbed wire was present close to the Heras® fencing along the southern boundary bank. Badger guard hairs are often snagged on low lying wire like this where Badgers are active. No hairs were observed along the length of this barbed wire or around holes entrances inspected during the survey.
- 4.1.4 Three disused larger holes were noted over the grassland in the main survey area. These had been blocked by rubble, paving slabs, tyres and other building materials (see Photographs 3 and 5). Vegetation around these has been established and there was no signs of recent digging activity or other evidence of Badger.
- 4.1.5 The holes present in the bank along the southern boundary and beyond were all small narrow holes with clear signs of rabbit activity (mainly droppings and signs of digging activity). Also the tunnel diameter in these narrowed quickly making these unsuitable for badger access (see Photographs 9, 10, and 13).

5 Constraints

- 5.1.1 Recommendations provided relate to the plans/proposals and boundaries provided by the client. Any subsequent changes may alter those recommendations and any proposed mitigation or enhancement measures.
- 5.1.2 Badger surveys can be undertaken at any time of year, but surveying for badgers in the summer can provide more difficulty due to the barriers that the vegetation poses. Surveying in the autumn or spring is preferable due to the increased likelihood of detecting field signs and the increase in badger activity at these times of the year (Scottish Badgers, 2018). The survey here was undertaken in one of the more optimal periods.

- 5.1.3 The main site was fully accessed but visual access over the land to the south of the survey area was limited. Notes were taken from this area approximately 20m in from the edge. A post and wire section of deer fencing has been erected 20m to the south of the survey area's southern boundary. The area beyond this was not surveyed.
- 5.1.4 The disturbed land to the north of Mayflower Way and the survey site boundary, possibly a building site, was fenced off and not surveyed.
- 5.1.5 Private gardens are present immediately east and west of the survey area boundary. These habitats were not surveyed here.

6 Discussion and recommendations

- 6.1.1 No setts or signs of Badger were found on site. There are therefore no constraints to development relating to this species. As Badger may be in the surrounding area however, we recommend that good building practice should be adopted and that any open trenches should be covered at night, or alternatively have boards or planks in them to act as an escape route for Badger or other animals that may fall in.
- 6.1.2 It is recommended that the holes (TN2 and TN3) are checked again 24hrs prior to the start of any construction works in the survey area.
- 6.1.3 Historical records of West European Hedgehog were returned with the previous desk study 2017. Suitable habitat does occur within the survey area for this species. During the survey no evidence of this species was recorded. However, a lack of evidence here does not suggest that this species is absent.
- 6.1.4 All other ecological recommendations given within our previous ecological reports (SWT Ecology Services, 2018 (amended)) remain valid. These are summarised below.
- ✦ Planting for any proposed landscaping scheme as part of the development should comprise native species or species with a known benefit to wildlife;
 - ✦ Any non-native species discovered in the survey area should be controlled;
 - ✦ Additional habitats could be provided for birds and bats by installing boxes on trees;
 - ✦ Increase the dead wood habitat by stacking any wood from site works to create log piles in discrete corners of the survey area;
 - ✦ When solid board fencing is used leave a gap to allow hedgehogs to pass between gardens.

7 References and Bibliography

- 7.1.1 BSI (2013) BS 42020:2013. Biodiversity. Code of practice for planning and development. British Standard Institution, London.
- 7.1.2 CIEEM (2013) Competencies for Species Survey: Badger. *Technical Guidance Series*. Chartered Institute for Ecology and Environmental Management, Winchester.
- 7.1.3 CIEEM (2017) Guidelines for Ecological Report Writing (2nd Edition). Chartered Institute for Ecology and Environmental Management, Winchester.
- 7.1.4 CIEEM (2019) Code of Professional Conduct. Chartered Institute of Ecology and Environmental Management, Winchester.
- 7.1.5 Delahey R J, Brown J A, Mallinson P J, Spyvee P D, Handoll D, Rogers L M & Cheeseman C L (2000) The use of marked bait in studies of the territorial organisation of the European badger (*Meles meles*). *Mammal Review* **30**: 73-87.
- 7.1.6 Harris S, Cresswell P & Jefferies D (1989) Surveying Badgers. *Occasional Publication No. 9*. The Mammal Society, London.
- 7.1.7 MHCLG (2005) Biodiversity and geological conservation: circular 06/2005. Ministry of Housing, Communities and Local Government, London.
- 7.1.8 MHCLG (2019) National Planning Policy Framework. Ministry of Housing, Communities and Local Government, London.
- 7.1.9 Natural England (2011) Badgers and Development. A Guide to Best Practice and Licensing (Interim Guidance). Natural England, Peterborough.
- 7.1.10 Scottish Badgers (2018) *Surveying for Badgers Good Practice Guidelines*. Version 1.

Appendix 1: Badgers and the Law

1. Badgers are protected by the Badgers Act 1973, Badger Act 1991 and Protection of Badgers Act 1992, and the Conservation of Wild Creature and Wild Plants Act 1975.
2. The Ministry of Housing, Communities and Local Government (MHCLG) issued the National Planning Policy Framework (NPPF) to all local authorities, and this explains the role of planners in protecting wildlife and the requirements of wildlife legislation (NPPF 2019). There is also a Government Circular 06/2005 which provides administrative guidance on the application of the law relating to planning and nature conservation as it applies to England (MHCLG 2005).
3. Natural England, the government body in England, has issued guidelines for developments (English Nature 1996), and are responsible for issuing licences under section 10(1)(d) of the Protection of Badgers Act 1992 to permit interference with a Badger sett in the course of development (which includes building and construction work).
4. Any work that disturbs Badger is illegal without a licence.
5. Although a large amount of Badger law was drafted as a direct response to Badger-baiting, it is clear that the law, as it stands, is directly applicable to anyone who interferes with Badger or their setts, in whatever manner. The Badgers Act 1973 and its amendments to the 1981 and 1985 Acts refers to the animals themselves regarding taking, injuring and killing of Badger.
6. The Badgers Act 1992 gives Badger sett protection, and adds the following to the 1973 Act:
 - a. If any person shall interfere with a Badger sett by doing any of the following things, they shall be guilty of an offence, that is to say:
 - i. Damaging a Badger sett or any part thereof.
 - ii. Destroying a Badger sett.
 - iii. Obstructing access to or any entrance of a Badger sett.
 - iv. Causing a dog to enter a Badger sett.
 - v. Disturbing a Badger when it is occupying a Badger sett.
7. According to the Badgers Act 1973 with its amendments of 1981 and 1985, licenses can be issued to interfere with Badger and their setts for the following purposes:
 - a. The purpose of any development as defined in Section 55(1) of the Town and Country Planning Act 1990.
 - b. For any agricultural or forestry operation.
 - c. For the purposes of any operation (whether by virtue of the Land Drainage Act 1976 or otherwise).
 - d. For preservation or archaeological investigation under Section 1 of the Ancient Monuments and Archaeological Areas Act 1979.

Appendix 2: Badger-friendly Planting¹

Planting to encourage and support badgers

Grass

If at all possible, some areas should be mown regularly so that the grass is short enough for the Badger to find earthworms. Earthworms are their main food. The grass clippings should be kept on a nearby compost heap, to provide a useful supply of earthworms and invertebrates. In fact, ideally there should be planned areas of grass to keep short, created if necessary by planting meadow grasses and cutting them occasionally. There should also be areas of rank grass if possible to provide cover for possible prey such as short-tailed Field Vole and Wood Mouse.

Elder

Badger are said to enjoy elderberries, however the local badger group in Leicestershire says that their Badger do not touch them.

Bramble

Areas of Bramble should be retained, since Badger are very fond of blackberries.

Trees and Shrubs

Plantings around a Badger sett could include any of the following trees, most of which produce fruit of some kind. Any new tree planting should be of native fruit trees such as:

1. Blackberry (*Rubus fruticosus*)
2. Elder (*Sambucus nigra*)
3. Apple (*Pyrus malus*)
4. Pear (*Pyrus communis*)
5. Oak (*Quercus robur*) could also be planted (though not in great quantity – in the longer term, these would provide acorns which are said to provide a valuable source of autumn food for Bader in years when the acorn crop is good.
6. Blackthorn (*Prunus spinosa*)
7. Bird Cherry (*Prunus padus*)
8. Wild Cherry (*Prunus avium*)
9. Crabapple (*Malus sylvestris*)
10. Guelder-rose (*Viburnum opulus*)
11. Hazel (*Corylus avellana*)
12. Holly (*Ilex aquifolium*)
13. Rowan (*Sorbus acuparia*)
14. Myrobolan Plum (*Prunus cerasifera*)
15. Hawthorn (*Crataegus monogyna*)
16. Dog-rose (*Rosa canina*)
17. Other native Rose species
18. Wayfaring Tree (*Viburnum lantana*)

A choice of trees should also be planted with a lower level of cover plants. Hawthorn and Blackthorn can be planted around the sett to give Badger cover and privacy.

¹ Taken from advice letter provided by Badger Trust and West Surrey Badger Group.

Plant Bluebell (*Hyacinthoides non-scripta*) and Pignut (*Conopodium majus*) to provide edible bulbs and tubers, and in the case of Bluebell, fragrant bedding.

Herbicides should not be used when planting new trees (this is because voles often attack the roots of new trees, Badger prey on voles, and so the herbicide will go through the food chain and reach the Badger).

If there is a lack of water in the area, then a water source could be provided.

If creating or thinking of creating a wildlife pond, it is useful to know that Badger claws can damage the plastic or butyl liners. Flat stones or pebbles etc. can be used to protect the edges of the plastic and should extend under the shallower water.

The Badger Trust can give contact details of badger group volunteers who are willing to help with ideas over the phone or when possible help with a visit. Please contact the Badger Trust office on 08458 287878 or enquiries@badgertrust.org.uk

Suggestions from West Surrey Badger Group

"We have made plantings around artificial setts and have used indigenous fruiting trees like Hawthorn, Crab-apple, Rowan, Elder etc. Nuts can be used, especially Hazel nut which will give mid-height cover and can be coppiced if desired. It is also a good idea to under-plant with some low cover using low-growing shrubs and ferns, rather than Bracken, which may take over the area. If the site is right, and if access to the sett is not expected on a regular basis, then Blackberry and Holly can be used which will eventually afford some protection for the sett from uninvited guests. Both of these plants can be cut back to re-grow if desired. If the site is large enough, a large tree such as an Oak or Chestnut (which can also be coppiced if desired) could be included in the vicinity of the sett.

"We prefer to use indigenous and if possible wild varieties of these plants where the sett is in a 'natural or wild' site. Nevertheless, if there is not the desire or need to use only wild plants, any fruit tree would be appreciated by Badger who love all orchard fruits and of course any Raspberry canes or Currant bushes.

"The aim is to build up multi-level cover and at the same time provide the Badger with something to eat into the bargain.

"If you look at Badger dung in the summer or autumn, you will find the seeds of all the above fruit, so we can vouch for the suitability for Badger foraging.